National Capital Parks - East
District of Columbia

National Park Service
US Department of the Interior

Kingman Lake Restoration Environmental Assessment

December 2025

Prepared in partnership
with the District of Columbia

DEPARTMENT OF ENERGY & ENVIRONMENT
GOVERNMENT OF THE DISTRICT OF COLUMBIA

US DEPARTMENT OF THE INTERIOR, NATIONAL PARK SERVICE

National Capital Parks – East
Kingman Lake Restoration Project Environmental Assessment

The National Park Service is proposing to issue a permit to the District of Columbia Department of Energy and Environment for its project to restore the aquatic habitat in Kingman Lake. The proposed Kingman Lake Restoration Project is located in the Anacostia River in northeast and southeast Washington, District of Columbia. It would involve restoration of approximately 55 acres within Kingman Lake. The United States owns the bed of the Anacostia River, which includes Kingman Lake. Persons undertaking activities that may have an impact on the proprietary interests of the United States in the riverbed must have a permit from the National Park Service (NPS 1976). The District of Columbia owns the portion of Kingman Island located south of Benning Road, as well as Heritage Island, which is within Kingman Lake. National Capital Parks – East, on behalf of the National Park Service, administers the Langston Golf Course, which is on the western shore of Kingman Lake and the northern portion of Kingman Island.

This environmental assessment (EA) has been prepared in compliance with the National Environmental Policy Act (NEPA) of 1969, as amended (42 United States Code [USC] 4321 et seq.); the US Department of the Interior Handbook of National Environmental Policy Act Implementing Procedures; the Department of the Interior NEPA regulations (43 CFR Part 46); and NPS Director's Order 12: *Conservation Planning, Environmental Impact Analysis and Decision-making* and its accompanying NPS NEPA Handbook. This EA has been prepared to provide the decision-making framework that 1) analyzes a reasonable range of alternatives to meet the objectives of the proposal, 2) evaluates potential issues and impacts on the park's resources and values, and 3) identifies mitigation measures to lessen the degree or extent of these impacts.

How to Comment

We invite you to comment on this Kingman Lake Restoration Project EA during the public review period. The National Park Service is seeking public review and comments under NEPA. The preferred method of providing comments is through the NPS Planning, Environment, and Public Comment (PEPC) website for the project at: https://parkplanning.nps.gov/Kingman_Lake.

You may also submit written comments to:

National Capital Parks – East
Attn: Kingman Lake Restoration / NACE Superintendent
1900 Anacostia Drive SE
Washington, DC 20020

Please submit your written comments postmarked no later than January 23, 2026. Please be aware that your entire comment will become part of the public record. If you wish to remain anonymous, please clearly state that within your correspondence; however, the National Park Service cannot guarantee that personal information, such as email address, phone number, etc. will be withheld.

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Acronyms and Abbreviations

APE	Area of Potential Effect
ARSP	Anacostia River Sediment Project
AWS	Anacostia Watershed Society
BMP	Best Management Practice
CFR	Code of Federal Regulations
DC or the District	District of Columbia
DC SHPO	District of Columbia State Historic Preservation Office
DOEE	District of Columbia Department of Energy and Environment
DOH	DC Department of Health
DOI	Department of the Interior
EA	Environmental Assessment
EAA	Early Action Area
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
MHW	Mean High Water
MLW	Mean Low Water
NAVD88	North American Vertical Datum of 1988
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NPS	National Park Service
NRHP	National Register of Historic Places
NRIS	National Register Information System
PCB	Polychlorinated biphenyl
PEPC	Planning, Environment, and Public Comment
project	Kingman Lake Restoration Project
RAL	Remedial Action Level
RES	Resource Environmental Solutions
RFK	Robert F. Kennedy
SAV	Submerged Aquatic Vegetation
USACE	US Army Corps of Engineers
USC	United States Code
USFWS	US Fish and Wildlife Service

CHAPTER 1: PURPOSE AND NEED

Introduction

The National Park Service (NPS) is proposing to issue a permit to the District of Columbia Department of Energy and Environment (DOEE) for its project to restore the aquatic habitat in Kingman Lake. The proposed Kingman Lake Restoration Project (the project) is located in the Anacostia River in northeast and southeast Washington, District of Columbia (DC or the District) (figure 1). It would involve restoration of approximately 55 acres within the upper, central, and lower portions of Kingman Lake and a fringe marsh along the western shoreline of the Anacostia River. The United States owns the bed of the Anacostia River, which includes Kingman Lake. Persons undertaking activities that may have an impact on the proprietary interests of the United States in the riverbed must have a permit from the National Park Service (NPS 1976). The District owns and the DOEE manages the portion of Kingman Island located south of Benning Road, as well as Heritage Island, which is within Kingman Lake. National Capital Parks – East (Park), on behalf of the National Park Service, administers the Langston Golf Course, which is on the western shore of Kingman Lake and the northern portion of Kingman Island.

The National Park Service prepared this environmental assessment (EA) in compliance with the National Environmental Policy Act (NEPA) of 1969, as amended (42 United States Code [USC] 4321 et seq.); the US Department of the Interior (DOI) Handbook of National Environmental Policy Act Implementing Procedures, DOI NEPA regulations (43 Code of Federal Regulations [CFR] Part 46); and NPS Director's Order 12: *Conservation Planning, Environmental Impact Analysis and Decision-making* and its accompanying NPS NEPA Handbook (NPS 2015)[1].

Purpose of and Need for the Action or Plan

Kingman Lake is a semi-enclosed portion of the tidal Anacostia River, which is an urban estuary and tributary to the Potomac River in Washington, DC. The purpose of this project is to restore aquatic habitats and increase resiliency in Kingman Lake and the Anacostia River for species of concern. This would be accomplished through multiple types of restoration projects, such as tidal wetland restoration, native submerged aquatic vegetation (SAV) bed restoration, and invasive species management.

[1] Executive Order 14154, "Unleashing American Energy" (Jan. 20, 2025), and a Presidential Memorandum, "Ending Illegal Discrimination and Restoring Merit-Based Opportunity" (Jan. 21, 2025), require the DOI to strictly adhere to NEPA, 42 USC 4321 et seq. Further, such Order and Memorandum repeal Executive Orders 12898 (Feb. 11, 1994) and 14096 (Apr. 21, 2023). Because Executive Orders 12898 and 14096 have been repealed, complying with such Orders is a legal impossibility. The National Park Service verifies that it has complied with the requirements of NEPA, including the DOI's regulations and procedures implementing NEPA in the DOI's Handbook and 43 CFR Part 46, consistent with the President's January 2025 Order and Memorandum. The National Park Service has also voluntarily considered the Council on Environmental Quality's rescinded regulations implementing NEPA, previously found at 40 CFR Parts 1500–1508, as guidance to the extent appropriate and consistent with the requirements of NEPA and Executive Order 14154.

Figure 1. Project Area

The degraded condition of the Anacostia River, including Kingman Lake, has been the subject of work by the National Park Service, US Army Corps of Engineers (USACE), US Geological Survey, DOEE, Anacostia Watershed Society (AWS), and others for more than 20 years. Although progress has been made, this project is needed to continue efforts to address remaining degraded conditions, including low habitat quality, low species diversity, sedimentation, eutrophication, and the spread of invasive species.

History of the Anacostia River and Kingman Lake

Historically, the Anacostia River was used for the passage of trade vessels. By the 1850s, deforestation and agriculture led to large amounts of sediment being deposited in the river (DC Department of Health [DOH] 2003). To improve navigation and control flooding, the Anacostia River was dredged and straightened from the 1920s to the 1940s, and a seawall was constructed to contain the river. The remaining oxbow lake was named Kingman Lake (DOH 2003).

> *Under the auspices of the USACE, a seawall was constructed along the riverbanks, and materials dredged from the river bottom were placed behind the seawall to fill in the marshes. At that time the tidal marshes along both sides of the river were considered sources of "filth, stench, and disease." Their reclamation was intended to provide the dual function of eliminating a public health hazard while creating parkland for the enjoyment of the city's residents* (NPS 2014).

Kingman and Heritage Islands were also created as part of this effort (DOH 2003). These human-made features were intended to improve navigation, manage flood risks, and improve public health; however, rapid urbanization, industrial discharges, and untreated sewage severely polluted the Anacostia River, destroying much of what remained of its natural habitat, including wetlands, marshes, and SAV. These habitats provide the foundation for the ecological diversity of aquatic, terrestrial, and avian species.

Project Area Location and Description

Approximately 367 acres of land in Washington, DC drain directly into Kingman Lake, including Langston Golf Course, Robert F. Kennedy (RFK) Memorial stadium and parking lot, and adjacent residential areas (DOEE 2012) (see figure 1). Kingman Lake is connected to the Anacostia River at inlets on the north and south ends of the lake.

The industrialization of the Anacostia watershed has resulted in documented contamination of Anacostia River sediments. The Anacostia River Sediment Project (ARSP) is a DOEE initiative to address contamination in the 9-mile tidal portion of the Anacostia River, which includes Kingman Lake. DOEE published the Interim Record of Decision for the ARSP, which identifies early action areas (EAAs) or "hot spots" where polychlorinated biphenyl (PCB) contamination is highest and requires remediation, including sites within Kingman Lake. EAAs identified by the ARSP were avoided in selecting areas for restoration that involve ground disturbance. Even so, background levels of constituents may still be present in the Kingman Lake sediment. The

DOEE ARSP conducted sediment testing as part of the Remedial Investigation (DOEE 2019) for that project, and additional sediment testing was conducted in the summer of 2025 (DOEE 2025a), with results expected in January 2026. The results of this sampling will determine whether the ARSP EAA RAL is exceeded in the areas sampled. If sediment testing results exceed the ARSP EAA RAL, DOEE would consult with the National Park Service on next steps. DOEE will ensure coordination, collaboration, and data sharing between the ARSP and this project.

For the purposes of developing restoration design plans, the Kingman Lake project area has been separated into four sections of the lake and the lower Anacostia River — Upper Kingman Lake, Central Kingman Lake, Lower Kingman Lake, and the Anacostia River fringe marsh (figure 1). These sections are based on natural landmarks, as well as on differences in the conditions of each area, including existing riverine habitats. The following sections describe the conditions within the four sections of the project area, which helped determine the restoration techniques selected for the proposed project (described in detail in chapter 2). All elevations discussed in this document are relative to the North American Vertical Datum of 1988 (NAVD88); positive and negative elevations are relative to the established zero point for NAVD88.

Upper Kingman Lake

Upper Kingman Lake is located north of the Benning Road Bridge and extends to the wooden bridge crossing at the northern mouth of the lake with the Anacostia River. This area contains extensive mudflats and shallow water due to branching tidal flow patterns. Over the years, ongoing management efforts have been undertaken at Upper Kingman Lake to improve marsh conditions. The USACE reconstructed portions of Kingman Lake in 2000 to create emergent freshwater tidal wetlands (Hammerschlag et al. 2006). Dredged material from channels in the Anacostia River was pumped into a containment cell in the Upper Kingman Lake area of Kingman Marsh. After the sediments were dewatered and consolidated, the area was planted with six native species (Hammerschlag et al. 2006). This vegetation was initially protected from resident Canada geese (*Branta canadensis*), but after a year, the fencing and netting were removed because it was thought the vegetation would be resilient to geese browsing. However, subsequent years proved this theory incorrect, as geese foraging damaged the planted areas extensively, leaving only mud flats. In 2014, the National Park Service released the *Anacostia Park Wetlands and Resident Canada Goose Management Plan and Environmental Impact Statement,* which provided guidance on the long-term planning and management of wetlands and resident Canada geese. Under the selected alternative, the National Park Service managed the resident Canada goose population, removing them from Kingman Lake, allowing native species palatable to resident Canada geese to reestablish. However, common reed (*Phragmites australis*), an invasive species, also became established and has continued to expand in several locations throughout Upper Kingman Lake.

Central Kingman Lake

Central Kingman Lake is located south of the Benning Road Bridge and north of the East Capitol Street Bridge and encompasses the entirety of Heritage Island. This area averages 3 feet deep with areas of restored wetlands and a deeper channel between Heritage and Kingman Islands. Much of this area consisted of riverine open water until 2000, when USACE created emergent freshwater tidal wetlands by placing dredged material from the wooden bridge connecting Heritage Island to the west bank of the lake and extending to the southern tip of Heritage Island (Hammerschlag et al. 2006). In the winter of 2005 / 2006, this same area was blocked off again, a new wider and deeper pilot channel was dug central to the area, and additional dredged material was placed to reconstruct emergent wetland zones, primarily in three areas along the western bank of the lake and in an area east of the new channel that adjoins the west bank of Heritage Island (Krafft et al. 2009). Following settlement of the placed material, these areas were planted in the fall and winter of 2006. The primarily non-persistent emergent tidal wetlands that have developed in these areas are well-established, though remnant sections of goose exclusion fencing can be found in many areas. A patch of *Phragmites* is located at higher elevation areas of the marsh, ranging from 1 to 2 feet along the western edge of Heritage Island.

The area between Benning Road and the boardwalks connecting the northern end of Heritage Island to the west bank of the lake and Kingman Island does not appear to have been included in the previous dredged material placement and restoration efforts. The area east of Heritage Island, extending to the west bank of Kingman Island, as well as the area south of Heritage Island, extending to East Capitol Street, also appear to have been excluded from these initiatives. In these areas, SAV consisting primarily of non-native hydrilla (*Hydrilla* sp.) and non-native brittle waternymph (*Najas minor*) have been mapped in recent years.

There are two main flow path channels in this section of the lake. An approximately 50-foot-wide channel with depths ranging from -1 to -3 feet is located to the west of Heritage Island. This channel is the same as the one that appears to have been excavated in the winter of 2005 / 2006, as described above. An approximate 25-foot-wide channel with depths ranging from -4 to -7 feet is located east of Heritage Island, running along the western edge of Kingman Island. These two channels converge approximately 225 feet south of the Benning Road crossing of the lake, and water depths in this area deepen to -15 feet near the approach to the bridge crossing, which is much narrower than the crossing beneath the East Capitol Street Bridge. The Benning Road Bridge serves as a hydraulic constriction within the overall lake system.

Lower Kingman Lake

Lower Kingman Lake extends from south of the East Capitol Street Bridge to the southern mouth of the lake. Except during low tide periods, when several areas of mudflat are evident. This portion of the lake consists primarily of riverine open water habitat, deepwater habitat, and occasional SAV habitat in shallower areas. The southern mouth of the lake provides a hydraulic constriction similar to that described above for the Benning Road Bridge, which extends for a length of approximately 975 linear feet from the mouth towards the existing southern confluence

of the two main flow channels that traverse the lake. Bathymetric survey data indicate depths ranging from -18 feet near the mouth to -6 feet approximately 375 feet south of the confluence of the channels.

The areas directly north and south of the Benning Road Bridge culvert are affected by the flow constriction, causing higher shear stresses and resulting in deeper waters and tighter slopes. This area begins to flatten out towards the main flow path located along the west bank of Kingman Island, which is primarily at a depth of -5 feet, with some pockets of deeper water from -6 to -7 feet near where the channel is conveyed beneath the bridge. The main flow path is located along the west bank of the lake and ranges from -5 feet to -2 feet in depth, with shallower portions of the channel evident near where it approaches the bridge. Shallow water areas within this portion of the lake extend south of Heritage Island and towards the west bank of the lake, gradually sloping east towards the deeper main flow channel along the west bank of Kingman Island.

Anacostia River Fringe Marsh

The Anacostia River fringe marsh on the southeast side of Kingman Island was constructed by USACE in 2003 by installing sheet piles in the Anacostia River, filling with sediment, and planting marsh vegetation (Krafft et al. 2009). The initial intent of the project was to remove the sheet piling after the vegetation was established; however, that work was never completed.

Issues and Resource Topics Retained for Detailed Analysis

Identifying issues — potential problems, concerns, conflicts, obstacles, or benefits that would result from implementing an action — is an important part of the environmental review process. It is standard practice to organize issues by resource impact topics.

During the planning process, the National Park Service, DOEE, participating agencies, the public, and other stakeholders identified environmental issues and impact topics for detailed analysis during internal and external scoping. The following issues and impact topics identified during scoping warranted further consideration and are therefore retained for detailed analysis in this EA: floodplains and wetlands, SAV, and visitor experience.

- Floodplains, wetlands, and SAV are retained for analysis because they could be impacted by proposed construction activities. Construction activities required to enhance floodplains, wetlands, and SAV would include temporary and permanent placement of fill and disturbance of existing wetlands. Long-term, the proposed project would be expected to improve floodplains, wetlands, and SAV.
- Visitor experience is retained for analysis because visitor access and experience would be impacted during construction. Construction activities would cause temporary closures in areas of Kingman Lake and Kingman and Heritage islands, impacting recreation access during construction. For areas that can remain open during construction, recreation activities would be disrupted by noise and traffic associated with construction activities.

Issues and Resource Topics Not Retained for Detailed Analysis

This section presents an overview of resource topics that were considered for full analysis during the development of the EA but were ultimately dismissed from further consideration for the following reasons: potential environmental impacts associated with the issue are not central to the proposal or of critical importance, and / or a detailed analysis of environmental impacts related to the issue is not necessary to make a reasoned choice between alternatives. In cases where impacts on a resource are not anticipated or expected to be minimal, the impact topics were dismissed.

Wildlife and Wildlife Habitat – In the early 20th century, urban development led to a severe decline in water quality in the Anacostia River, reducing suitable habitat for many native species. In recent years, environmental regulations and improvements to sewage treatment have improved water quality and allowed wildlife to begin to return (Chesapeake Bay Program 2023). AWS has begun documenting wildlife in uplands and wetlands using trail cameras and has noted the return of species of greatest conservation need, such as the river otter (*Lontra canadensis*) (AWS 2022). Wetland systems within the Anacostia River provide unique habitat for wildlife. The wetland ecosystem in Kingman Lake supports a diverse community of wildlife, including a variety of birds, reptiles, amphibians, fish, invertebrates, and mammals.

DOEE developed and provides updates to the *District of Columbia Wildlife Action Plan*, which identifies current needs and priorities to protect more than 200 of the District's species of greatest conservation need and their habitats (DOEE 2015). Many of these species play important roles in both their ecosystem and the economy. Of the full list of species of greatest conservation need, 23 were identified as potentially occurring within the project area (table 1).

Table 1. Species of Greatest Conservation Need that Could Be Present in the Project Area

Taxa	Scientific Name	Common Name
Amphibian	*Pseudacris crucifer*	Spring peeper
Bird	*Anas rubripes*	American black duck
Bird	*Botaurus lentiginosus*	American bittern
Bird	*Cistothorus palustris*	Marsh wren
Bird	*Empidonax traillii*	Willow flycatcher
Bird	*Gallinago delicata*	Wilson's snipe
Bird	*Haliaeetus leucocephalus*	Bald eagle
Bird	*Nannopterum auritum*	Double-crested cormorant
Bird	*Nyctanassa violacea*	Yellow-crowned night-heron
Bird	*Nycticorax nycticorax*	Black-crowned night-heron
Bird	*Pandion haliaetus*	Osprey
Bird	*Porzana carolina*	Sora
Bird	*Rallus limicola*	Virginia rail
Fish	*Alosa aestivalis*	Blueback herring

Taxa	Scientific Name	Common Name
Fish	*Alosa pseudoharengus*	Alewife
Fish	*Morone saxatilis*	Striped bass
Mammal	*Castor canadensis*	Beaver
Mammal	*Lontra canadensis*	River otter
Mammal	*Ondatra zibethicus*	Muskrat
Mollusk	*Leptodea ochracea*	Tidewater mucket
Mollusk	*Sagittunio nasutus*	Eastern pondmussel
Mollusk	*Utterbackiana implicata*	Alewife floater
Reptile	*Chrysemys picta*	Painted turtle

The proposed project would expand and enhance wildlife habitat in the project area; however, actions could have short- or long-term impacts on wildlife. Overall, construction would have an impact on wildlife from the presence of workers, equipment, and noise, causing disturbance. Mobile species would be expected to avoid the area during construction activities and move to available adjacent habitats. This disturbance would last throughout construction, and mobile wildlife would likely return to the area afterward. Dredging for channel creation would adversely affect mussels and other benthic organisms. A mussel survey was conducted in 2023 (Resource Environmental Solutions [RES] 2023). Four species were identified within the project area — paper pondshell (*Utterbackia imbecillis*), eastern pondmussel (*Sagittunio nasuta*), alewife floater (*Utterbackiana implicata*), and tidewater mucket (*Atlanticoncha ochracea*). A survey would be conducted before dredging activities to determine if mussels are present within the areas to be dredged. If mussels are present, the National Park Service and DOEE would work with AWS to relocate the mussels. Removal of the river bottom sediments would cause mortality for non-mobile organisms living on or within the sediments; however, benthic communities typically recolonize quickly following dredging activities (Brooks et al. 2006). Placement of fill also has the potential to affect non-mobile species.

Placement of woody debris to enhance wildlife habitat would have a long-term beneficial impact on wildlife; however, this action could increase the rate of sediment accretion, creating conditions that are less suitable for native species, such as annual wild rice (*Zizania aquatica*), which prefers low marsh habitats. Wild rice benefits native bird species by providing food, nesting habitat, and cover (Snell 2024). To reduce impacts on wild rice, woody debris structures for fish habitat would be installed by hand in areas of wild rice, and larger habitat structures for amphibians and herpetofauna would be installed by heavy machinery outside of the wild rice areas.

As noted above, industrialization of the Anacostia watershed has led to the documented presence of contaminants in Kingman Lake sediments. The proposed action would disturb sediments and, if contaminated sediments are present, cause resuspension, which could impact wildlife in the lake and those feeding on vegetation. Proposed actions would occur outside the identified ARSP EAAs, but this would not eliminate the possibility of contaminants in the project area. DOEE would use existing sediment testing data collected through the ARSP to better understand

contaminant levels and refine the proposed action, if needed. Other protective measures would also be implemented to avoid and minimize impacts on wildlife if contaminants are in the sediment. Wildlife in Kingman Lake is currently exposed to similar conditions, and this would not represent a new impact but rather a continuation of ongoing impacts on wildlife from historical contamination of the watershed.

Ultimately, restoring wetlands in existing shallow-water habitats, creating habitat channels, installing woody debris, controlling *Phragmites*, and planting native species would create new habitat or enhance existing habitat. Providing a diversity of habitats would support greater biodiversity, making the ecosystem healthier, more resilient to changes (e.g., climate shifts, disease outbreaks), and better able to provide ecosystem services like clean water, pollination, and soil stabilization. Although construction activities would produce short-term adverse impacts, best management practices (BMPs), such as implementing standard sediment and erosion controls and using appropriately sized equipment for the work, would be employed to reduce the potential for impacts on wildlife and wildlife habitat. A full list of BMPs and other resource protection measures is provided in chapter 2. Therefore, issues related to wildlife and wildlife habitat have been dismissed from further analysis.

Rare, Threatened, and Endangered Species – The Endangered Species Act (ESA) of 1973 provides for the protection of rare, threatened, and endangered species and the habitats that are critical to their survival. Federally protected species can fall under the jurisdiction of the US Fish and Wildlife Service (USFWS) (terrestrial and freshwater species) or the National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NMFS) (marine and anadromous species). Section 7 of the ESA requires that federal agencies consult with the USFWS and NMFS on any action that may affect any federally protected or candidate species or that may result in adverse modification of critical habitat. The National Park Service reviewed information on the USFWS Information for Planning and Consultation system (USFWS 2025) and NOAA Fisheries Greater Atlantic Region ESA Section 7 Mapper (NMFS 2025) and compiled a list of five federally protected species that have the potential to occur in or near the project area. Federally listed species that could be present in the project area include three endangered species – shortnose sturgeon (*Acipenser brevirostrum*), Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*), northern long-eared bat (*Myotis septentrionalis*); one proposed endangered species – tricolored bat (*Perimyotis subflavus*); and one proposed threatened species – monarch butterfly (*Danaus plexippus*). No critical habitat is present in or near the project area.

The impacts on rare, threatened, and endangered species would be similar to those discussed above for wildlife — adverse impacts from construction activities and overall beneficial effects from habitat enhancements. In addition to the BMPs mentioned above and included in chapter 2, the project would incorporate time-of-year restrictions (e.g., those for in-water work or vegetation clearing, if required) identified through Section 7 consultation or other stipulations identified through the permitting process. For these reasons, issues related to rare, threatened, and endangered species have been dismissed from further analysis.

Cultural Resources – The area of potential effects (APE) for this undertaking was described in a February 6, 2025 letter from the National Park Service to the District of Columbia Historic Preservation Office (DC SHPO). The APE is defined as the project limits of disturbance, including any temporary or permanent easements associated with this project. This APE encompasses the upper, central, and lower portions of Kingman Lake and the western shoreline of the Anacostia River at one of the fringe wetlands. Due to the limited visual nature of the undertaking, the National Park Service does not believe that indirect effects extend beyond the APE defined above.

Numerous resources exist within the general area, although most are not within the defined APE. Notably, the Langston Golf Course Historic District (National Register Information System [NRIS] 91001525), is adjacent to the northwestern boundary of the APE. The Langston Golf Course is a circa-1939, 18-hole course situated on 145 acres west of the Anacostia River. It was listed in the National Register of Historic Places (NRHP) in 1991 under Criterion A, as it is significant for its symbolic association with the development and desegregation of public golfing and recreational facilities in the greater Washington, DC area.

The Kingman Park Historic District (NRIS 100006400), located in the eastern portion of the APE, was determined eligible for listing in the NRHP in 2018. Situated at the northeastern end of today's Capitol Hill, it was principally developed during the late 1920s through the 1940s as a residential neighborhood for African Americans and includes the National Links at Langston. It was listed under Criterion A for its association with events that have made a significant contribution to the broad patterns of our history, and Criterion C, as it represents a significant and distinguishable neighborhood that includes residential, commercial, and institutional facilities built to serve the African American community. It is worth noting that, although this district extends into the project area, the residential portion of this district is west of the current project.

There appear to be several unrecorded resources within the APE meeting the age criteria for listing in the NRHP. These include the East Capitol Street Bridge and the pedestrian bridges to Heritage and Kingman Islands. Additionally, the seawall around Kingman and Heritage Islands was recently evaluated for historical integrity (Applied Archaeology and History Associates 2024). The study determined that "the seawall retains a low degree of integrity, with over 81% assessed as having a low preservation priority" due to poor physical condition (Applied Archaeology and History Associates 2024).

In accordance with 36 CFR Part 800.5 the National Park Service has applied the criteria of effect to this undertaking. Because this undertaking is largely limited to the installation of SAV and the restoration of marshes, the National Park Service has determined that it does not have the potential to affect any historic properties present or potentially present within the project APE. As such, it is recommended that the Kingman Lake project will have *no adverse effect* on above-ground historic properties.

DOEE completed a Phase IA study that will be submitted to the DC SHPO for review. Based on the results of this study, the National Park Service has determined that this undertaking, as described above, does not have the potential to affect archeological resources within the APE. As such, the National Park Service recommends that the Kingman Lake project will have *no adverse effect* on archeological resources.

Consultation with DC SHPO for this project is ongoing. The results of the conclusion of consultation with the DC SHPO under Section 106 of the National Historic Preservation Act will be documented in the decision document for this project.

CHAPTER 2: ALTERNATIVES

This chapter describes two alternatives for the wetland restoration at Kingman Lake — the no-action alternative (alternative 1) and the proposed action (alternative 2). The description and evaluation of the no-action alternative provide a baseline to which action alternatives can be compared. Resource protection measures are considered part of the action alternative and are presented in this chapter. Impacts associated with the alternatives are described in "Chapter 3: Affected Environment and Environmental Consequences."

Alternative 1 – No-action Alternative

Under the no-action alternative, the National Park Service would not issue a permit allowing DOEE to conduct activities on the bed of the Anacostia River at Kingman Lake, and the project would not occur. Under the no-action alternative, degradation of Kingman Lake would continue to occur from sedimentation and contamination due to over 300 years of development, toxic contamination, eutrophication, and persistence of exotic species.

Alternative 2 – Preferred Alternative

Under alternative 2, the National Park Service would issue the permit to DOEE, and it would carry out the project. There are seven restoration techniques being proposed throughout Kingman Lake under alternative 2 — woody debris habitat enhancement, *Phragmites* management, habitat channel creation, riverine non-persistent emergent marsh, native SAV vegetation planting, mudflat habitat creation, and sheet pile modification.

Construction Elements

During construction, eight temporary berms would be placed at key locations throughout the project area (figure 2). The berms would maintain low water levels in the work area for safety and to reduce impacts outside the work area, as lower water levels would help reduce turbidity in the work zone and limit the flow of turbid waters out of the work zone. The temporary berms would be placed only as needed to minimize deployment time and would be removed when no longer needed.

Temporary access roads would be needed for construction vehicles to access the restoration areas (figure 2). Construction vehicle access would use existing pathways on Kingman Island and golf cart paths on the Langston Golf Course, to the extent possible. National Links Trust, the manager of Langston Golf Course, is planning upgrades to the golf course. DOEE would schedule construction for the Kingman Lake Restoration project to coincide with golf course enhancements, minimizing impacts on golf course visitors and the golf course itself. In areas without existing paths, construction access paths (approximately 12 to 15 feet wide) would be placed to minimize disturbance to existing native vegetation, especially trees. Construction mats, mulch, or similar materials would be used to reduce the impacts of the access paths on existing vegetation. Staging and stockpile areas would be located in existing open areas to minimize disturbance to existing vegetation (figure 2).

Figure 2. Temporary Berm and Limit of Disturbance

Restoration techniques that require fill would use material that meets the *NPS Clean Fill Protocol* (NPS 2024a) for upland placement or the *ARSP Beneficial Reuse Criteria for Aquatic Placement* (NPS 2024b) for in-water placement (e.g., wetlands). DOEE is planning to dredge select areas of the mainstem of the Anacostia River to improve boating access to the navigational channel. This would be a potential source of material, as would material dredged through the ARSP, provided the sediment meets NPS standards. Dredged material would be tested and used only if it meets NPS standards. The design documents would include specifications for the fill material, including sediment types, organic content, and other geotechnical specifications to ensure the material is suitable for habitat restoration in Kingman Lake. Approximately 40,000 cubic yards of material would be needed for this project.

Restoration techniques that require ground disturbance could resuspend contaminants if present. As noted above in Chapter 1, the DOEE ARSP conducted sediment testing in Kingman Lake as part of the Remedial Investigation (DOEE 2019), and additional sediment testing was conducted in the summer of 2025 (DOEE 2025a). The results of this sampling will determine whether the ARSP EAA RAL is exceeded in the areas sampled. If sediment testing results exceed the ARSP EAA RAL, DOEE would consult with the National Park Service on next steps. DOEE will ensure coordination, collaboration, and data sharing between the ARSP and this project.

Specific techniques that require ground disturbance are described later in chapter 2 and include woody debris habitat enhancement, *Phragmites* management, habitat channels, and sheet pile modification for the Anacostia fringe wetland. For techniques that include excavation (woody debris habitat enhancement, *Phragmites* management, and habitat channels), DOEE could over-excavate the area and cap the contaminated sediments in accordance with NPS requirements and the ARSP program before completing restoration efforts. For other techniques that include sediment disturbance but not excavation (mudflat habitat creation, riverine non-persistent emergent marsh restoration, and sheet pile modification), DOEE would evaluate the need to modify the proposed action to avoid or minimize potential impacts associated with disturbing contaminated sediments. For any areas that exceed the ARSP EAA RAL, DOEE would consider available measures to avoid or minimize potential impacts associated with disturbing contaminated sediments, including not implementing restoration measures in this area if impacts cannot be avoided. These decisions would be made in consultation with the National Park Service.

Restoration Techniques

The restoration techniques proposed for each section of the project area are described in the following sections. Restoration activities would be limited to the limits of disturbance shown in figure 2.

Upper Kingman Lake

For the Upper Kingman Lake area, alternative 2 would establish a highly functional riverine tidal non-persistent emergent wetland by improving habitats for target species of greatest conservation

need. Three restoration elements would be implemented — woody debris habitat enhancements, *Phragmites* management, and introduction of habitat channels. Distinct designs have been developed for each of these treatments, as described below and depicted in figure 3.

Woody Debris Habitat Enhancement. Adding woody debris within riverine tidal open waters and emergent marshes provides both habitat and protection from predators for a variety of aquatic and terrestrial species. Woody debris placed in open waters, including deep pools, enhances adult and juvenile fish habitat and should enhance native mussel reproduction and attachment sites within the lake (RES 2023). Woody debris placed within emergent wetlands and near tidal open water edges provides structures for basking turtles and cover for other herpetofauna species. It also provides perch and feeding sites for larger wading birds and shorebirds.

The existing riverine non-persistent emergent wetlands in Upper Kingman Lake are predominantly well-vegetated with a mix of native low to high marsh species. Adding woody debris in this area would provide structural diversity throughout these wetlands and the adjoining riverine tidal open waters, thereby supporting species of concern. Enhancements would include placement of either large woody debris or woody habitat structures. The large woody debris would provide habitat for birds, herpetofauna, and amphibians, and the woody aquatic habitat structures would provide habitat for fish, mussels, and other aquatic species. Photograph 1 was taken during a site visit to Kingman Lake in June 2025, and shows how woody debris traps sediment in small, localized areas, increasing species diversity and creating additional habitat for aquatic species.

Photograph 1. Example of naturally occurring woody debris.

Four areas have been defined for woody debris habitat enhancements in the Upper Kingman Lake area. Area W-1 consists of the large low to high marsh and mudflat areas located toward the interior of the lake that surround several islands of trees and patches of *Phragmites* and annual wild rice. These areas would require placement of aquatic habitat structures. Areas W-2, W-3, and W-4 are along the perimeter of the lake-adjoining shoreline areas of the Langston Golf Course. These areas could include a mix of large woody debris placement and woody aquatic habitat structures, with the large woody debris placed closer to shore to minimize impacts on existing vegetation and the woody aquatic habitat structures placed at depths at or below mean low water (MLW). The structures would be placed so as not to block established walking paths from the shore to NPS vegetation monitoring plots, which are located throughout the Upper Kingman Lake area.

Figure 3. Upper Kingman Lake Restoration Areas

***Phragmites* Management.** *Phragmites* is a tall, perennial grass that can grow up to 15 feet tall and is recognizable by its feathery, plume-like seed heads and dense stands of thick, hollow stems. *Phragmites* has become a major ecological threat to wetland environments by forming dense monocultures that outcompete native vegetation, reducing biodiversity; trapping sediment, raising ground levels, and altering hydrology; providing poor habitat for wildlife; and increasing fire risks. *Phragmites* spreads rapidly through seeds and underground rhizomes, making control difficult and requiring a combination of management techniques to prevent further ecological damage. Photograph 2 shows *Phragmites* beginning to overtake riparian habitat adjacent to other species, including wild rice and spatterdock (*Nuphar lutea* ssp. *advena*). Based on a June 2025 vegetation survey within the project area, areas with an elevation of 1.2 feet or higher become dominated by *Phragmites*, while lower areas have a larger mix of marsh vegetation, such as wild rice and spatterdock.

Photograph 2. Phragmites stand in Upper Kingman Lake.

Phragmites management focuses on a range of treatments and site modifications to control or eradicate *Phragmites* to allow for native riverine non-persistent emergent high marsh species to become established. *Phragmites* management in Upper Kingman Lake would include mechanical removal of the vegetation and some of the plants' rhizomes. To accomplish this, areas P-1 and P-2 would be lowered to under 1.2 feet elevation. This elevation has been adjusted to the current tidal elevations and would be fully submerged at mean high water (MHW). Excavation would not remove all *Phragmites* rhizomes; however, the lower elevation and frequent inundation would inhibit the *Phragmites* growth and allow native marsh vegetation to outcompete the *Phragmites*. In area P-1, reducing the bed depth and increasing inundation would be used to impede new *Phragmites* growth. The management areas would be monitored under a sustained Invasive Species Management Program (e.g., herbicides, hand-pulling) to be developed by DOEE and reviewed by the National Park Service prior to project implementation. DOEE would lead this program, which would include the use of targeted herbicides and hand-pulling of *Phragmites,* along with continued monitoring and treatment.

Habitat Channel Creation. Habitat channels consist of a single primary and multiple secondary channels that branch off main flow paths within the lake to improve hydrologic connectivity and habitat diversity within wetland areas. Habitat channels in Upper Kingman Lake have been proposed primarily to rewater one large stand of *Phragmites* (figure 3). These channels would also provide open water habitat for juvenile fish and native mussels.

The primary habitat channel extends into the *Phragmites* areas, starting at a channel that already exists on both sides / ends of the *Phragmites*. The new habitat channel would connect each of the existing channels by dredging them approximately 0.5 to 1 foot deeper. This would result in the channel elevations and their connecting pieces being at or below the MLW elevation of -0.67 feet, providing increased flow into the areas they feed. This would allow flooding and flushing of the smaller habitat channels, inhibiting *Phragmites* establishment and preventing sediment aggradation without hindering passage along the established walking paths for NPS monitoring activities. The secondary habitat channels do not currently exist and would need to be dredged from the primary habitat channels to proposed elevations between -0.67 and 0.5 feet. A thin layer of coarse sand or pea gravel would be placed in the beds of the habitat channels to promote SAV establishment, create fish-spawning gravel areas, and improve habitat for native mussels.

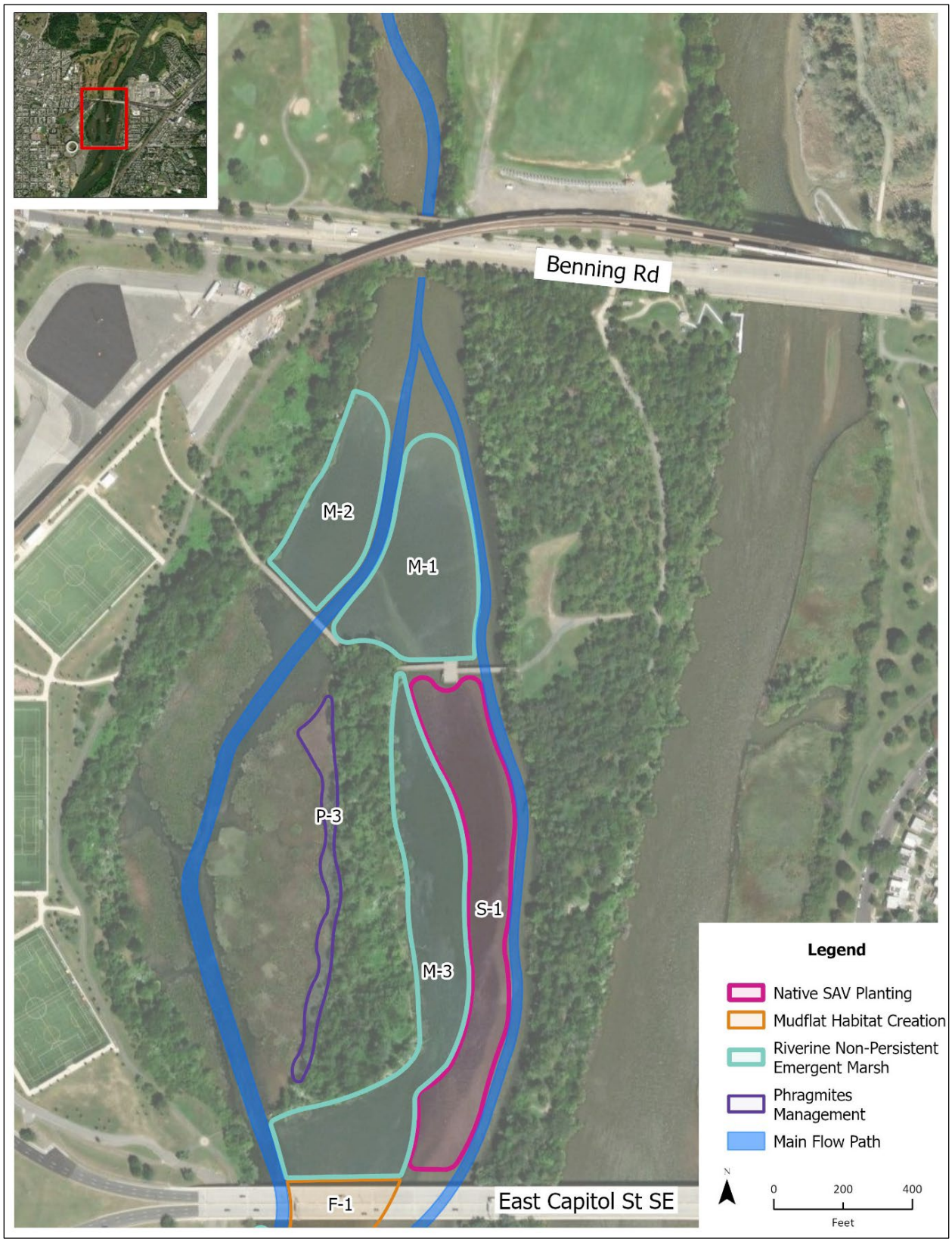
The channels would be dredged to flood *Phragmites* and help reduce this invasive species in Kingman Lake. The sediment dredged to create habitat channels would contain rhizomes, which would propagate new stands if the dredged material were returned to Kingman Lake or the Anacostia River. For this reason, the dredged material would be disposed of at an appropriate facility to avoid furthering the spread of *Phragmites*.

Action areas identified by the ARSP were avoided in selecting areas for habitat channels. Even so, background levels of constituents may be present in the sediment. Therefore, the disposal facility would be selected based on the results of sediment testing. Because of concerns with *Phragmites* and contaminants, DOEE would not use these dredged materials for restoration.

Central Kingman Lake

For the Central Kingman Lake area, alternative 2 would provide improved habitat for species of concern by providing a broader variety of riverine habitat types than currently exist in the area and improving conditions of existing riverine habitats, specifically the existing SAV areas dominated by non-native species. Three separate restoration activities have been developed for the Central Kingman Lake area — riverine non-persistent emergent marsh development, *Phragmites* management, and native SAV plantings. Distinct options have been developed for each of these treatments, as described below and depicted in figure 4.

Figure 4. Central Kingman Lake Restoration Areas



Riverine Non-Persistent Emergent Marsh Restoration. Existing riverine shallow water habitat areas, ranging in depth from MLW at -0.67 to -1.5 feet, are present in areas directly to the north and south of Heritage Island. Riverine non-persistent emergent wetlands occur within river or stream systems and are characterized by vegetation that emerges above the water but does not persist year-round. These wetlands play a crucial role in flood control, water filtration, and providing habitat for wildlife, but they are highly dynamic due to seasonal water level changes.

Riverine non-persistent emergent marsh would be restored in three areas within Central Kingman Lake (figure 4). Area M-1 is north and northeast of Heritage Island between the two main flow paths within this section of the lake; area M-2 is northwest of Heritage Island adjacent to the west bank of the lake and in-line with previously restored wetlands; and area M-3 is east of Heritage Island to the limits of the native SAV planting area S-1 (discussed below) and south of Heritage Island to the limits of the area shaded by the East Capitol Street Bridge. To improve habitat for species of greatest conservation need and support the establishment of wetlands within these zones, methods focus on restoring a broader variety of sloped riverine non-persistent emergent mid to low marsh zones that transition to mudflats along one edge and a narrow strip of high marsh along the bank.

In Area M-3, a submerged concrete and cobble aggregate structure runs along the southern and eastern edges of Heritage Island. This seawall is located approximately 40 to 50 feet from the forested shoreline to the south and southeast, then tapers to approximately 15 to 25 feet from the shoreline to the east and north of the island. Elevations in this area range from 1 to -1 feet, similar to emergent wetland areas along the island's west side; however, emergent vegetation and high-quality habitat are minimal throughout the zone. Fill would be placed adjacent to and, where the top of the concrete and cobble aggregate structure is below the water line, on top of the structure.

***Phragmites* Management.** Within Central Kingman Lake, approximately 1.1 acres are targeted for *Phragmites* management (area P-3; see figure 4). Thick stands of *Phragmites* occupy high marsh areas (1 to 2 feet elevation) along the western side of Heritage Island. These stands are surrounded by high-quality high to low marsh emergent habitats.

Area P-3, located west of Heritage Island, is within one of the ARSP EAAs; therefore, habitat channels would not be created, and mechanical removal would not be proposed to avoid encountering potentially contaminated sediments. Instead of mechanical removal and lowering of the ground surface, area P-3 in the Central Kingman Lake area would have a sustained Invasive Species Management Program implemented to control *Phragmites* and allow for the natural spread of native emergent vegetation into the area.

Native SAV Planting. One area in Central Kingman Lake is suitable for native SAV planting. Area S-1 (figure 4) is a broad, slightly sloping to relatively flat area in central Kingman Lake, east of Heritage Island. West of the main flow path along the western side of Kingman Island, from south of the bridge connecting the two islands, south to the East Capitol Street bridge, is an

area where SAV beds have been identified during multiple survey years. This area measures approximately 150 to 300 feet wide, with most of the area between -1 and -2 feet of elevation. SAV presence in Kingman Lake is inconsistent year to year. The most recent data from 2024 show that no SAV was present in Kingman Lake, and in 2023, DOEE provided data indicating SAV cover density of 70 to 100% throughout the lake, and that 100% of the species identified were non-native hydrilla (DOEE 2025b). Hydrilla is a fast-growing submerged aquatic plant native to Asia. This species can thrive in a wide range of conditions and spreads rapidly by fragments, tubers, and seeds. In many areas of the United States, it is considered a nonnative invasive species. Hydrilla can provide some ecological benefits (e.g., shelter for some fish), but its aggressive spread and disruption of native ecosystems make it a management concern outside of its native range. The restoration approach for this area focuses on planting native SAV species, such as wild celery (*Vallisneria americana*), redhead grass (*Potamogeton perfoliatus*), coontail (*Ceratophyllum demersum*), and pondweed (*Potamogeton* spp.), to enhance existing hydrilla-dominated areas. SAV seeds would be collected from a nearby seed source, either on the Anacostia, Potomac, or within the Chesapeake Bay, as needed.

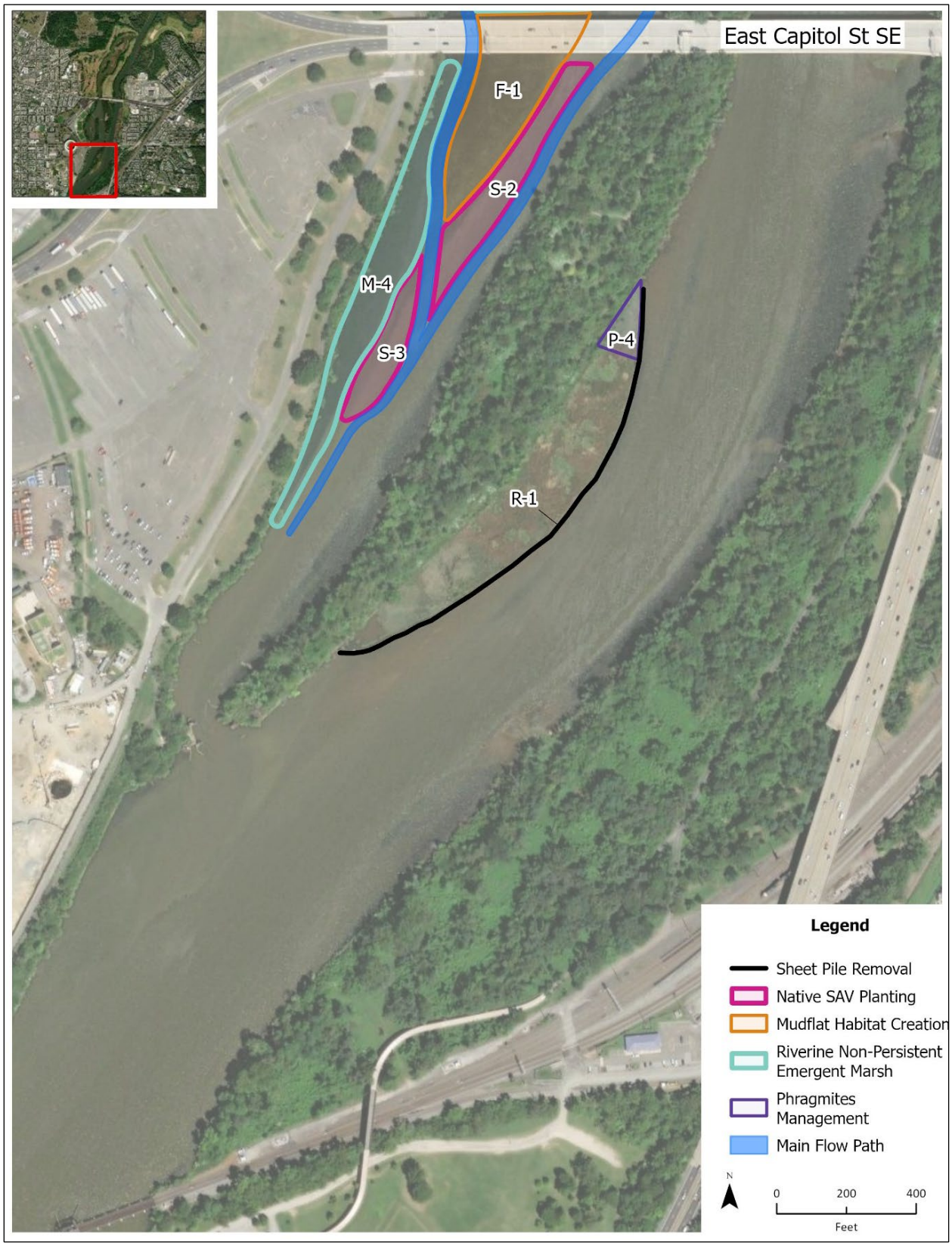
Lower Kingman Lake

Three separate restoration activities have been developed for the Lower Kingman Lake area to provide a broader diversity of riverine habitat types within the area and improve habitat for target species of greatest conservation need. These include riverine non-persistent emergent marsh development, mudflat habitat creation, and native SAV plantings. The extent of each treatment is described below and depicted in figure 5.

Riverine Non-Persistent Emergent Marsh. One area proposed for riverine non-persistent emergent marsh (area M-4) is approximately 2.46 acres. Currently, there are no significant areas of riverine non-persistent emergent vegetation that provide water quality filtering capacity and / or high-functioning habitat within Lower Kingman Lake. To enhance habitat diversity, support species of greatest conservation need, including native freshwater mussels, and improve water quality near stormwater outfalls along the lake's west bank, restoration options focus on restoring a broader variety of sloped riverine non-persistent emergent high mid to low marsh zones that transition to mudflats along the main flow path in this area.

Clean fill would be brought in, placed, and contained using natural materials, including coir fiber logs and coir fiber matting, to build up wetland elevations and restore multiple improved functional habitat types / zones (mid to low marsh zones and mudflat edges). The process for construction and marsh elevations is the same as used in Central Kingman Lake as previously described.

Figure 5. Lower Kingman Lake and Anacostia River Fringe Marsh Restoration Areas



Mudflat Habitat Creation. Many of the existing or proposed riverine non-persistent emergent marsh areas would also serve as mid- to high-tide mudflat areas suitable for migrating shorebird feeding habitat during periods when vegetation has gone dormant. Mudflats are transitional areas between open water and vegetated marshes. They are exposed at low tide, usually rich in nutrients and organic matter, and provide important foraging habitat for birds, fish, and invertebrates. Maintaining areas of low-tide mudflat within the lake would provide adequate shorebird feeding habitat during the growing season when vegetated areas are thick with emergent vegetation. Several of these mudflat areas already exist within the Upper and Central Kingman Lake areas. To mimic other established low-tide mudflats within the lake, the proposed elevations for the area would range from -1 to 0 feet, with mean low water or -0.67 feet being the optimal elevation. By creating mudflat areas at these target elevations, the proposed activities would provide a level of resilience to future sea level rise within the lake.

Within the Lower Kingman Lake area, there would be one mudflat habitat creation area (figure 5). Area F-1 extends southward from the proposed riverine non-persistent emergent marsh M-3 beneath the shaded areas of the East Capitol Street Bridge to the shallow main flow path along the western side of the lake. This area currently provides shallow water habitat in this portion of the lake, as it is mostly flat at or near elevation -2 feet, with a few high spots at elevation -1 foot closer to the bridge. Clean fill material or clean sand cap material would be placed and contained using natural materials, including coir fiber rolls and coir fiber matting, to build up mudflats to target elevations, including in shaded areas beneath the bridge.

Native SAV Planting. In Lower Kingman Lake, two areas are proposed for native SAV planting. Native SAV planting area S-2 (1.4 acres) extends south of the East Capitol Street Bridge and is contiguous with native SAV planting area S-1 (Central Kingman Lake), bounded by the bridge to the north, continuing south to where the two main flow paths confluence, and continuing along the eastern edge of the proposed mudflat habitat enhancement area S-1. Native SAV planting area S-3 (0.8 acre) extends south of the confluence and is contiguous with area S-2, extending south to where slopes increase in the lake, and is bounded by proposed riverine non-persistent emergent marsh area M-4 to the west. These areas are not as flat as S-1 to the north, with a range of elevations from -2 to -5 feet, and the areas measure from approximately 50 to 110 feet wide.

The 2023 DOEE SAV survey mapping indicates that the shallow portions of both areas S-2 and S-3 and adjoining areas, including areas immediately adjacent to the western edge of Kingman Island on the opposite side of the main flow path from area S-2, have an SAV cover density of 40 to 70%, 75 to 80% of the species identified were non-native hydrilla, and 20% of the species identified were non-native brittle waternymph (DOEE 2025b). The elevations in native SAV planting areas S-2 and S-3 appear to be appropriate for SAV establishment for the two non-native species identified, and deeper areas may be suitable for native SAV species as well, depending on the typical planting regime for these species.

Anacostia River Fringe Marsh

Three separate restoration activities have been developed for the Anacostia River fringe marsh area, including sheet pile modification and *Phragmites* management. The extent of each treatment is described below and depicted in figure 5.

Sheet Pile Modification. Approximately 1,500 linear feet of sheet pile were installed in 2003 to contain the fringe marsh, as shown in figure 5. Prior to construction of the fringe marsh, this inner meander bend of the Anacostia River appeared to be accreting sediment rather than degrading.

Sheet pile modification would be achieved by cutting the sheet pile at the mud line. Turbidity curtains would be employed to reduce sediment resuspension. Coir fiber logs would be strategically placed in the marsh to stabilize the edge while still allowing improved tidal and storm event flows. The coir fiber logs would be used to stabilize the excavated area until vegetation becomes established.

***Phragmites* Management.** The northern quarter of the fringe marsh (area P-4, see figure 5) is dominated by narrowleaf cattail (*Typha angustifolia*) and *Phragmites*, and due to the sheet pile, rewetting of these areas does not occur regularly. The *Phragmites* area within the fringe marsh is primarily located in high marsh areas where the elevation is approximately 2 feet. The proposed design for area P-4 includes removing *Phragmites* and the top layer of sediment that contains its rhizomes, then revegetating with native non-persistent emergent vegetation, including cattail, which is dominant in the middle of the fringe marsh, and seeding with additional low to mid marsh species. Because of the presence of rhizomes in the dredged sediment, the sediment would be disposed of at an appropriate facility to avoid furthering the spread of *Phragmites*. As noted above, dredged sediment would also be tested for contaminants, and the disposal facility selected would be based on those results.

Resource Protection Measures

To avoid, minimize, or mitigate impacts related to the action alternative, the National Park Service would require DOEE to implement mitigation measures and BMPs. Resource measures would include, but may not be limited to, those presented in table 2.

Table 2. Mitigation Measures and BMPs Associated with the Proposed Action

Resource Protection Measure	Authority
To minimize ground disturbance, staging and stockpiling areas would be located in previously disturbed areas, including the roadway and gravel pullouts, golf cart paths, or areas relatively free of vegetation. In non-developed areas, construction mats, mulch, or similar materials would be placed to reduce impacts, and staging and stockpiling areas would be restored to pre-construction conditions following construction.	NPS *Management Policies 2006*, Section 9.1.3.1
Construction activities would be limited to daytime hours to avoid impacts on wildlife.	NPS *Management Policies 2006*, Sections 4.9 and 4.10

Resource Protection Measure	Authority
To reduce air pollution and noise, construction equipment and vehicles would be appropriately sized for the task at hand, well-maintained, and properly functioning. Equipment idling would be limited to only what is necessary for safety and mechanical reasons. Equipment and vehicles would also be checked for leaks in oil and other fluids. No fuel storage would be allowed on park land. Refueling trucks would be allowed but would not be stored overnight on park land.	Clean Air Act NPS *Management Policies 2006*, Section 4.7.1
Standard sediment and erosion controls would be implemented, such as silt fencing, mountable berms, staging and stockpile areas, temporary berms, and turbidity curtains. Additionally, DOEE would implement turbidity monitoring during modification of the sheet pile.	Clean Water Act NPS *Management Policies 2006*, Section 4.6.3
A construction spill prevention, control, and countermeasures plan would be developed and implemented.	NPS *Management Policies 2006*, Section 9.1.6.2
Previous restoration efforts included fencing to exclude resident Canada geese and protect new plants. Remnant fencing from these efforts remains within the project area and is no longer needed. Remnant fencing would be removed during construction efforts for this project.	Executive Order 11990, "Protection of Wetlands" Director's Order 77-1: Wetland Protection NPS *Management Policies 2006*, Section 4.6.5
A mussel survey would be conducted before construction activities to determine if mussels are present within the areas to be dredged. If mussels are present, the National Park Service and DOEE would work with AWS to relocate the mussels.	NPS *Management Policies 2006*, Section 4.4.2
Time-of-year restrictions (e.g., those for in-water work or vegetation clearing, if required) identified through ESA Section 7 consultation or other stipulations identified through the permitting process would be implemented to protect rare, threatened, and endangered species.	Endangered Species Act NPS *Management Policies 2006*, Section 4.4.2.3
Fill used in upland restoration techniques would meet the NPS clean fill requirements, as provided in *Clean Fill Protocol for Contaminated Sites* (NPS 2024a); for in-river (e.g., wetlands) restoration, the *Anacostia River Sediment Project Beneficial Reuse Criteria for Aquatic Placement* (NPS 2024b) would apply.	Clean Fill Protocol for Contaminated Sites *Anacostia River Sediment Project Beneficial Reuse Criteria for Aquatic Placement*
Placement of woody debris would occur during the dormant season to minimize impacts on existing stands of non-persistent emergent vegetation.	Executive Order 11990, "Protection of Wetlands" Director's Order 77-1: Wetland Protection NPS *Management Policies 2006*, Section 4.6.5
Large woody debris would be placed and secured in areas closer to the shoreline to minimize disturbance to existing wetland vegetation. The debris would be placed from land, then adjusted using an excavator with a long arm and tree-moving attachment from the shoreline to minimize wetland impacts.	Executive Order 11990, "Protection of Wetlands" Director's Order 77-1: Wetland Protection NPS *Management Policies 2006*, Section 4.6.5
To avoid transport of nonnative species to the project area, all construction vehicles would be washed and inspected prior to use. DOEE will require contractors comply with the existing ARSP decontamination protocol.	Executive Order 13751, "Safeguarding the Nation from the Impacts of Invasive Species" NPS *Management Policies 2006*, Section 4.4.4

Resource Protection Measure	Authority
Material dredged to create habitat channels would be disposed of at an appropriate facility to avoid furthering the spread of *Phragmites* and comply with requirements based on the results of sediment testing, as appropriate.	Executive Order 13751, "Safeguarding the Nation from the Impacts of Invasive Species" NPS *Management Policies 2006*, Section 4.4.4 NPS *Management Policies 2006*, Section 4.8.2.4
The *Phragmites* management areas would be monitored under a sustained Invasive Species Management Program aimed at controlling *Phragmites* and allowing the natural spread of native emergent vegetation.	Executive Order 13751, "Safeguarding the Nation from the Impacts of Invasive Species"
Matting would be placed in wetland areas before heavy equipment is used to reduce impacts on wetlands and vegetation.	Executive Order 11990, "Protection of Wetlands" Director's Order 77-1: Wetland Protection NPS *Management Policies 2006*, Section 4.6.5
Currently, in Upper Kingman Lake, there is a healthy population of annual wild rice throughout the proposed work area. Habitat structures are proposed to be installed with minimal impact on wild rice, using only hand-placed structures within known areas of wild rice. Structures to be placed by heavy machinery would not be within known wild rice areas, and matting would be used to protect native vegetation during installation and while moving through the site.	NPS *Management Policies 2006*, Section 4.4.2

CHAPTER 3: AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

The affected environment description is followed by the environmental consequences analysis for each resource topic. The resource topics analyzed here correspond to the planning issues and concerns described in the "Purpose and Need" section of chapter 1.

The environmental consequences analysis includes the potential impacts of the proposed alternatives. The intensity of the impacts is assessed within the context of the National Park Service's mission and values and the management goals of National Capital Parks – East (NPS 2019), and any resource-specific context that may be applicable. 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.

Floodplains and Wetlands

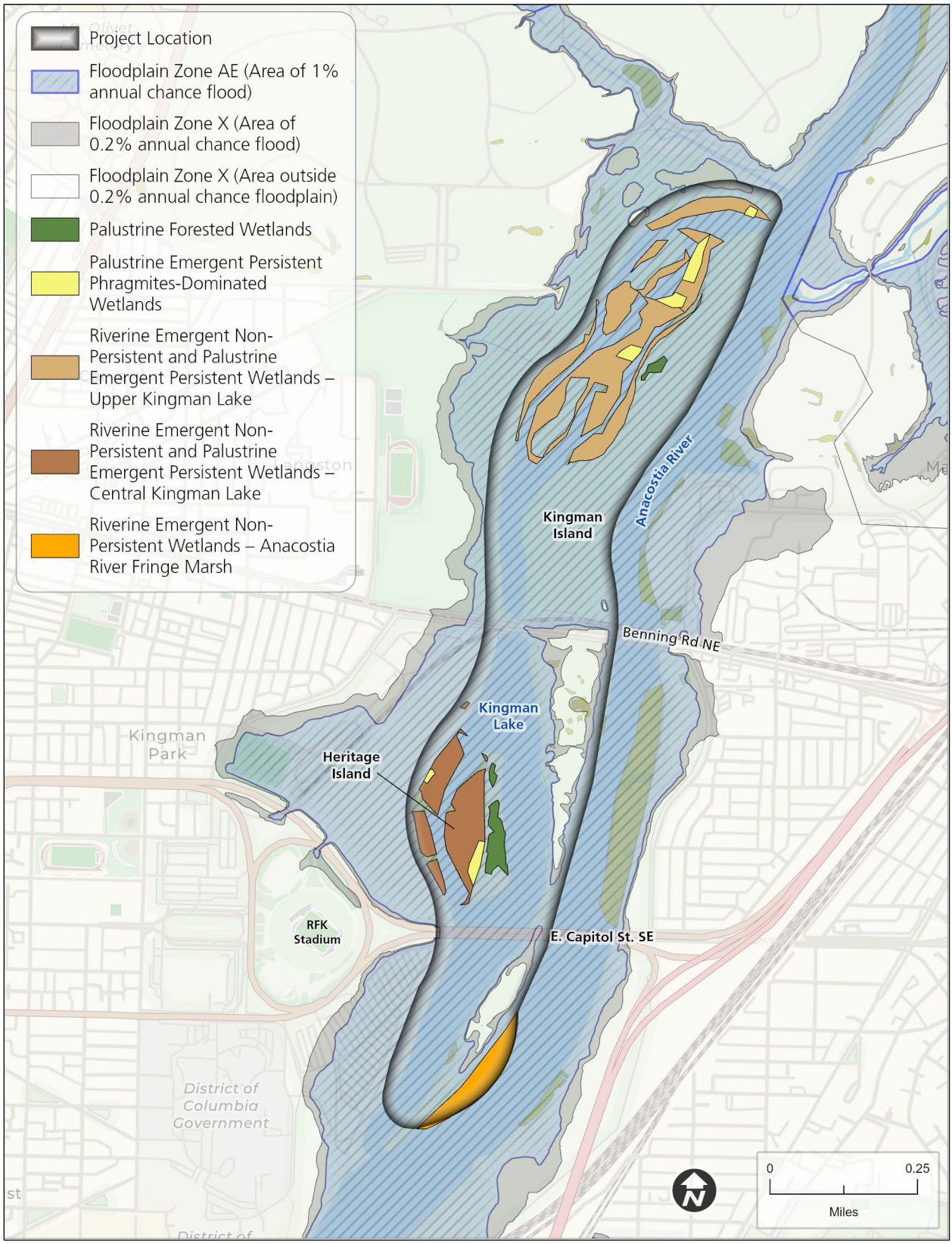
Affected Environment

Floodplains – The project area is mapped across three Federal Emergency Management Agency (FEMA) flood insurance rate maps — 1100010037C, 1100010038C, and 1100010039C (FEMA 2025). Flood insurance rate maps are official maps of a community that show special flood hazard areas, risk zones, base flood elevations, floodways, and community information. They are a critical tool for floodplain management and insurance purposes.

The project area is located in the FEMA AE flood zone (figure 6), which indicates that the project area is in the base floodplain at a heightened risk of flooding. Zone AE is accompanied by a base flood elevation, which demarks the height floodwaters may reach during a flooding event. The base flood elevations in the project area range from 13 to 14 feet.

Floodplains provide functions and values, such as flood storage, wetland habitat, sediment filtering, and nutrient transport. The floodplains in the Anacostia River have been historically altered to control flooding through the construction of seawalls and levees. Many of the floodplain functions and values south of the Benning Road Bridge have been lost, resulting in a fragmented habitat. However, the floodplains of Kingman Lake have remained relatively undisturbed since the USACE first created the lake in 1920 (Gutheim and Lee 2006). Despite human interference to control flooding, FEMA flood zone mapping indicates that the project area remains relatively susceptible to substantial flooding events (NPS 2017).

Figure 6. Floodplains and Wetlands in the Project Area



Wetlands – Kingman Lake contains a series of large wetland complexes with riverine and palustrine wetlands, SAV, and forested wetlands. The Anacostia River, which partially flows into Kingman Lake, is a freshwater tidal system. In DC, there are two high tides and two low tides that repeat in a cycle (tidal day). Though there is a tidal station in Kingman Lake (Station ID: 8593545), the nearest tidal station with established datums in feet relative to NAVD88 (Station ID: 8594900) is the Washington Channel, west of Kingman Lake, between the southern tip of the National Mall and the eastern shore of the Potomac River. The mean higher high water, or the average of the highest tides within each tidal day calculated over the 19-year National Tidal Datum Epoch, is 1.77 feet. The mean range of tide is 2.79 feet.

Site visits were conducted on April 11, 2023, May 11, 2023, and June 24, 2025, to assess the functions and values of wetlands at the site and to re-delineate the wetlands based on changes to existing wetland data in the Aquatic Resources Registry (DOEE 2025b). Wetland types observed during the survey include riverine, unconsolidated shore, aquatic bed, emergent non-persistent riverine wetlands, palustrine emergent persistent wetlands, palustrine scrub-shrub wetlands, and palustrine forested wetlands, based on the *Classification of Wetlands and Deepwater Habitats of the United States* (Federal Geographic Data Committee 2013). The wetlands identified within the project area are all associated with the Anacostia River and are either located within the riverbanks as riverine wetlands or the floodplain area as palustrine riparian wetlands. For the wetland functions and values assessment, the wetlands were grouped into the following five categories (figure 6).

- **Palustrine Forested Wetlands (PFO1A) –** This category includes non-tidal forested wetlands, which were found around Langston Golf Course (Upper Kingman Lake) and on Heritage Island (Central Kingman Lake). Common tree species observed include red maple (*Acer rubrum*), silver maple (*A. saccharinum*), American elm (*Ulmus americana*), and black willow (*Salix nigra*). There are approximately 2.5 acres of palustrine forested wetlands in the project area.
- **Palustrine Emergent Persistent *Phragmites*-Dominated Wetlands (PEM1A / PEM5A) –** These wetlands are palustrine persistent emergent wetlands formed by monotypic or nearly monotypic stands of *Phragmites australis*. Stands are present in marshes in Upper and Central Kingman Lake. Approximately 2.8 acres of palustrine emergent *Phragmites*-dominated wetlands are present in the project area.
- **Riverine Emergent Non-Persistent and Palustrine Emergent Persistent Wetlands (R1EM2 / PEM1A), Upper Kingman Lake –** Upper Kingman Lake contains a large wetland complex, which has unconsolidated shorelines / mudflats, aquatic beds, persistent and non-persistent emergent riverine wetlands, and palustrine emergent and scrub-shrub wetlands. Species observed in these wetlands include spatterdock, arrow arum (*Peltandra virginica*), broadleaf cattail (*Typha latifolia*), and narrowleaf cattail. Areas of annual wild rice are also present. Upper Kingman Lake contains approximately 22.5 acres of riverine and palustrine wetlands.

- **Riverine Emergent Non-Persistent and Palustrine Emergent Persistent Wetlands (R1EM2 / PEM1A), Central Kingman Lake –** The wetland complex in Central Kingman Lake has a similar mix of wetland types as are found in Upper Kingman Lake, but the complex is less extensive, with little to no palustrine shrub-scrub wetland. Central Kingman Lake contains approximately 10.1 acres of riverine and palustrine wetlands.
- **Riverine Emergent Non-Persistent Wetlands (R1EM2), Anacostia River Fringe Marsh –** The wetlands at the southeast corner of Kingman Island are divided into three sections, which total 4.4 acres. The southernmost section (1 acre) is dominated by spatterdock and pickerelweed (*Pontederia cordata*), the middle section (3.1 acres) is dominated by broadleaf and narrowleaf cattail, and the northernmost portion (0.3 acres) is dominated by *Phragmites*.

Wetland functions are physical, chemical, and biological processes or attributes of wetlands that are vital to the integrity of a wetland system, while wetland values are attributes not necessarily important to the integrity of a wetland system but perceived as valuable to society. The functions and values assessment was completed using the USACE *New England District Wetland Functions and Values: A Descriptive Approach* (USACE 1999). A brief description of the common functions and values assessed with this method is provided below:

- **Groundwater Recharge / Discharge –** The potential for the wetland to contribute water to an aquifer or potential for the wetland to serve as an area where groundwater can be discharged to the surface.
- **Floodflow Alteration (Storage and Desynchronization) –** Effectiveness of the wetland in reducing flood damage by attenuation of floodwaters for prolonged periods following precipitation events.
- **Fish and Shellfish Habitat –** Effectiveness of seasonal or permanent waterbodies associated with the wetland in question for fish and shellfish habitat.
- **Sediment / Toxicant / Pathogen Retention –** Prevents degradation of water quality relating to the effectiveness of the wetland as a trap for sediments, toxicants, or pathogens.
- **Nutrient Removal / Retention / Transformation –** Ability for the wetland to prevent adverse effects of excess nutrients entering aquifers or surface waters, such as ponds, lakes, streams, rivers, or estuaries.
- **Production Export (Nutrients) –** Wetland's ability to produce food or usable products for humans or other living organisms.
- **Sediment / Shoreline Stabilization –** Effectiveness of a wetland to stabilize stream banks and shorelines against erosion.
- **Wildlife Habitat –** The wetland's ability to provide habitat for various types and populations of animals typically associated with wetlands and the wetland edge. Both resident and / or migrating species must be considered.

- **Recreation (Consumptive and Non-Consumptive) –** Ability for the wetland and associated watercourses to provide recreational opportunities such as canoeing, boating, fishing, hunting, and other active or passive recreational activities. Consumptive activities consume or diminish the plants, animals, or other resources that are intrinsic to the wetland, whereas non-consumptive activities do not.
- **Educational / Scientific Value –** Value of the wetland as a site for an "outdoor classroom" or as a location for scientific study or research.
- **Uniqueness / Heritage –** Ability for the wetland or its associated waterbodies to produce certain special values. Special values may include archeological sites, unusual aesthetic quality, historical events, or unique plants, animals, or geologic features.
- **Visual Quality / Aesthetics –** The presence of visual and aesthetic qualities of the wetland for society.

All five of the grouped wetland types provide the principal function of floodflow alteration and, except for the forested wetlands, the principal function of providing fish and shellfish habitat. The summarized functions and values for each wetland group are provided in tables 3 and 4.

Table 3. Wetland Functions

Wetland Functions	PFO1A	PEM1A / PEM5A *Phragmites*-Dominated	R1EM2 / PEM1A Upper Kingman Lake	R1EM2 / PEM1A Central Kingman Lake	R1EM2 Anacostia River Fringe Marsh
Groundwater recharge / discharge	✓	✓	✓	✓	
Floodflow alteration	✓*	✓*	✓*	✓*	✓
Fish and shellfish habitat		✓*	✓*	✓*	✓*
Sediment / toxicant retention	✓	✓	✓	✓	✓
Nutrient removal	✓	✓	✓	✓	✓
Production export			✓	✓	✓*
Sediment / shoreline stabilization		✓	✓*	✓*	✓*

✓ Function Present

* Principal Function

Table 4. Wetland Values

Wetland Values	PFO1A	PEM1A / PEM5A *Phragmites*-Dominated	R1EM2 / PEM1A Upper Kingman Lake	R1EM2 / PEM1A Central Kingman Lake	R1EM2 Anacostia River Fringe Marsh
Wildlife habitat	✓*		✓*	✓*	✓
Recreation			✓	✓	
Educational value	✓		✓	✓*	
Uniqueness / heritage			✓	✓	✓
Visual quality / aesthetics			✓	✓	✓

✓ Value Present

* Principal Value

Impacts Assessment

Executive Order 11988, "Floodplain Management," directs all federal agencies to avoid, to the extent possible, both long- and short-term adverse impacts on floodplains. All federal agencies are required to avoid building permanent structures within the 1% annual chance floodplain unless no other practical alternative exists. In the absence of such alternatives, agencies must modify actions to preserve and enhance floodplain values and minimize degradation. NPS Director's Order 77-2: *Floodplain Management* implements Executive Order 11988 and establishes NPS policy to preserve floodplain values and minimize potentially hazardous conditions associated with flooding.

Executive Order 11990 "Protection of Wetlands" directs federal agencies to avoid, to the extent possible, both long- and short-term adverse impacts on wetlands. The evaluation of impacts on wetlands was based on a qualitative assessment of how the two alternatives would affect the functions and values. Impacts were determined based on changes to functions and values, including the ability to support vegetation and wildlife. Per Director's Order 77-1: *Wetland Protection*, areas classified as aquatic deepwater habitat under the Cowardin system are not considered wetlands and are not subject to these procedures.

The restoration alternative would occur directly within the existing floodplain and wetlands at Kingman Lake and would have temporary and permanent impacts on floodplains and wetlands.

Impacts of the No-action Alternative on Wetlands and Floodplains

Under the no-action alternative, the National Park Service would not issue the permit, and the project would not occur. Kingman Lake would continue to be impacted by sedimentation, eutrophication, and invasion of exotic species. Areas dominated by *Phragmites* would continue to outcompete native vegetation, leading to reduced biodiversity, increased sediment trapping, raised ground levels, and altered hydrology, which results in degraded wildlife habitat. As these changes to wetlands and the floodplain continue, their ability to provide ecological functions and

values, such as flood storage, fish and shellfish habitat, sediment/toxicant retention, nutrient removal, wildlife habitat, or floodflow alteration, would diminish.

Impacts of Alternative 2 on Wetlands and Floodplains

The restoration elements under alternative 2 would have short- and long-term impacts on wetlands and floodplains. Interventions to reduce invasive species and restore additional marsh areas would promote wetland species diversity. Restoring non-persistent emergent marsh areas to have a variety of elevations would promote species diversity and, in the event of sea level rise, allow marsh species to establish in higher elevation areas. This approach offers increased resilience against flooding and helps maintain floodplain functionality.

Impacts on floodplains and wetlands from construction activities would be temporary. Access paths, staging and stockpile areas, and temporary berms would cause temporary impacts on floodplain and wetlands resources. Temporary measures, including the use of construction mats, mulch, and other measures, would be implemented to reduce soil compaction and crushing of vegetation. Temporary berms, intended to lower water in the work zone, would also help to avoid impacts. The lower water level would help reduce turbidity in the work zone and limit the flow of turbid waters out of the work zone. Placement of the berms may cause short-term impacts on wetland vegetation (crushing), but the vegetation would be expected to rebound when the berms are removed.

Woody debris would be placed within emergent marshes to provide structural diversity. Large woody debris would be installed using construction matting and heavy equipment, including an excavator with a long arm and tree-moving attachment, operated from the shoreline to minimize disturbance. Placement of woody debris would occur during the dormant season to minimize impacts on existing stands of non-persistent emergent vegetation. Large woody debris would be placed and secured in areas closer to the shoreline to minimize disturbance to existing wetland vegetation. These actions would also result in short-term impacts on floodplain functions, such as disruption to water flow and adverse impacts on wetland vegetation. For placement of woody aquatic habitat structures, wetlands would primarily be accessed via Jon boats, canoes, or on foot. Short-term adverse impacts on wetland vegetation would be restricted to the construction phase with emergent vegetation anticipated to return during the following spring. Over the long term, woody debris would alter water flow within the project area, create structural diversity, improve habitat and biodiversity, and improve wetland resilience to sea level rise within the floodplain in the long-term.

Phragmites management would include excavation of sediment from the wetlands to lower the surface elevation below MHW, potential removal by hand, and a long-term monitoring and treatment program. Sediment would be removed using an excavator, resulting in sediment and soil compaction, as well as short-term adverse impacts on wetland vegetation and water quality. Excavation would disturb existing vegetation in and adjacent to the management areas, and sediment removal would increase turbidity in nearby open water. Adverse impacts would be restricted to the construction phase, with vegetation anticipated to return during the following

spring. The lower elevation and frequent inundation would inhibit *Phragmites* growth, allowing native vegetation to become established, thereby increasing biodiversity and improving marsh resiliency in the long term. The improved marsh would include several productive species already found in Kingman Lake, such as wild rice, pickerelweed, and arrow arum. Additional native species, such as American lotus (*Nelumbo lutea*) or river bulrush (*Bolboschoenus fluviatilis*) that are scarce or currently absent in Kingman Lake, would also be seeded or planted in areas of marsh restoration or *Phragmites* removal as needed to suppress the re-establishment of the *Phragmites*. The lower surface elevation would increase flood storage capacity in the long term. Excavation would require large equipment and placement of construction matting within the floodplain. The management areas would be monitored under a sustained Invasive Species Management Program, which would include the use of targeted herbicides and hand-pulling of vegetation to minimize the re-establishment of *Phragmites*.

Construction of habitat channels would require dredging and gravel placement within wetlands, resulting in short-term adverse impacts on wetland vegetation, increased turbidity in nearby open water, and adverse impacts on benthic organisms and vegetation rooted in the river bottom. The channel would be excavated with wetland mats placed on the surface to protect vegetation and wetlands from being crushed by the dredge equipment. The dredge equipment would be sized appropriately to access the necessary areas while minimizing impacts on high-quality emergent wetlands surrounding the *Phragmites* areas. Adverse impacts would be restricted to the construction phase, with vegetation anticipated to return during the following spring. Over the long term, the gravel would promote SAV establishment, provide fish spawning habitat, and improve habitat for mussels. Healthy vegetated wetlands have the potential to improve flood storage capacity. Construction of habitat channels would require dredging and gravel placement within floodplains, which would result in adverse short-term impacts on floodplain functions due to increased turbidity in nearby open water, and adverse impacts on vegetation rooted in the river bottom but would have long-term beneficial impacts, improving hydrologic connectivity, inhibiting *Phragmites* growth, and increasing habitat diversity, resulting in improved wetland biodiversity and resiliency.

For the non-persistent emergent marsh areas, fill material would be placed and contained using coir fiber logs and coir fiber matting in areas adjacent to existing wetlands in central Kingman Lake. Areas would primarily be accessed either by land or barge to secure coir logs and matting along the edges of the proposed marsh restoration area. Placement of fill, coir logs, and matting would smother benthic organisms in or on the river bottom, resulting in a permanent loss of those individuals and temporarily reducing the function of the wetland in providing benthic habitat. Vegetation rooted in the river bottom may also be lost. Placement activities would also temporarily increase turbidity in nearby open water. However, over the long term, fill material would raise existing mudflat elevations and restore functional wetland habitat types / zones, enhance wetland resilience to sea level rise, and improve shoreline protection against erosion and scour. Placement of coir logs and matting would provide stabilization and reduce sediment migration resulting from fill placement. Placement of coir logs and matting would also cause small changes in water flow patterns within the floodplain. Short-term adverse impacts on

wetlands and floodplains habitat, including benthic organisms and vegetation, and water quality, would be restricted to the construction phase.

SAV planting would result in short- and long-term impacts within the floodplain. Planting of SAV would introduce native SAV species, such as wild celery, redhead grass, and pondweed. SAV would reduce water flow rates, stabilize sediment, and improve water quality in the long term. Planting could involve installation of native seed in weighted burlap bags to affix the SAV seed to the bottom or casting the seed after it was mixed with sand to promote settlement to the river bottom. Planting areas would be accessed using canoes or small Jon boats to reduce impacts on floodplains. Turbidity impacts would be restricted to the planting period, and rooted vegetation is anticipated to return in the spring.

To build up mudflats to target elevations, clean fill material or clean sand cap material would be brought in, placed, and contained using natural materials, including coir fiber rolls and coir fiber matting. Areas would primarily be accessed via land or barge to secure coir logs and matting along the edges of the proposed habitat enhancement areas. Short-term impacts would result from the installation of coir logs and placement of fill material. These disturbances would result in a loss of benthic organisms and vegetation, limited to the footprint of the placement area, but these adverse impacts would be restricted to the construction period. Over the long term, placement of logs and matting would provide stabilization and reduce sediment migration resulting from fill placement, and overall enhancement efforts would improve existing mudflat conditions to increase habitat diversity and improve resilience to sea level rise.

Modification of the sheet pile would involve placement of construction matting for large equipment to reach the location. During construction, sheet piles would be cut at the mud line, and coir fiber logs would be installed to stabilize the marsh edge. Modification of the sheet pile would result in short-term adverse impacts on wetland vegetation and the floodplain, restricted to the construction period. Vegetation is anticipated to return the following spring. Modification of the sheet pile and installation of coir logs and matting would help to decrease shear stress on the Anacostia River fringe marsh in the long term.

Submerged Aquatic Vegetation

Affected Environment

SAV refers to rooted vascular plants that, except for seeds and flowers in certain species, grow completely underwater in shallow aquatic environments such as estuaries, rivers, lakes, and coastal waters. SAV are plants that reproduce through flowering, pollination, and seeds like many terrestrial vascular plants (Chesapeake Bay Trust 2021). SAV are an important natural resource that provide a variety of ecological functions, including nutrient cycling, stabilization of sediment, reduction of turbidity, minimization of wave energy, and provision of food sources and habitat for aquatic organisms. Kingman Lake provides habitat for a diverse array of SAV species.

DOEE conducts annual SAV monitoring in Kingman Lake and the surrounding areas. In recent years, observed species have included coontail, hydrilla, southern naiad (*Najas guadalupensis*), and brittle waternymph, with wild celery documented just south of Heritage Island (Spencer 2023). The locations of Heritage and Kingman Islands within Kingman Lake reduce the flow rate adjacent to the islands, increasing the potential for sedimentation when compared to the higher flows of the mainstem Anacostia River. The sediment characteristics around each island are ideal for the growth of wild celery. The SAV surveys in the vicinity of the project area between 2019 and 2024 vary significantly year to year (DOEE 2025b). In years when the SAV is present, the extents are roughly the same, totaling approximately 30 to 40 acres. Notably, in 2021, 2022, and 2024, no SAV was recorded in the project area, which could be due to factors such as high turbidity from heavy rainfall early in the growing season. Also, no SAV has been documented in the Upper Kingman Lake area. The Anacostia River has the highest SAV colonization rate among suitable habitats compared to other DC waterways (DOEE 2022a). DOEE restoration efforts in previous years have used wild celery with success in the lower Anacostia and Potomac Rivers (Spencer 2023).

Impacts Assessment

For the analysis, potential effects of the proposed alternatives on SAV and SAV habitat within the project area are assessed based on a qualitative assessment of how each proposed alternative would affect SAV growth and ecological functions. Construction activities could disturb SAV and SAV habitat. The analysis considers impacts that would alter habitat in the long- and short-term.

Impacts of the No-Action Alternative on SAV

SAV within Kingman Lake would continue to be adversely impacted by sedimentation, toxic contamination, eutrophication, and invasion of exotic species. SAV habitat would continue to degrade without intervention.

Impacts of Alternative 2 on SAV

Some of the proposed restoration actions under alternative 2 would impact SAV in the short and long term.

Construction activities for a number of the proposed actions described in chapter 2 would result in short-term adverse impacts on SAV, as discussed in the “Floodplains and Wetlands” section. Construction activities related to placement of woody debris, fill placement, installation of coir logs, grading, and channel excavation would temporarily increase turbidity in open water areas, preventing sunlight from reaching SAV and inhibiting growth. These impacts would be restricted to the construction phase, after which disturbance to open water would return to normal. Restoring non-persistent emergent marsh areas would change the depth in these locations, potentially preventing future SAV establishment in those areas. However, the placement of these marshes would also protect downstream SAV planting areas, allowing for better establishment and persistence of native SAV species.

Native SAV planting would positively impact SAV communities in the long term. Planting in appropriate locations for SAV establishment strengthens existing SAV communities and improves associated ecological functions, including nutrient cycling, stabilization of sediment, reduction of turbidity, minimization of wave energy, and provision of food sources and habitat for aquatic organisms. SAV seed would be collected from a nearby seed source, either on the Anacostia River, the Potomac River, or within the Chesapeake Bay.

Visitor Experience

Affected Environment

Due to its location in a primarily urban area, Kingman Lake is a popular location for outdoor recreation. A pedestrian bridge provides access to Kingman Island and Heritage Island, which offer recreational and outdoor learning opportunities. Kingman and Heritage Islands offer opportunities for biking, birding, hiking, fishing, boating, and picnicking (Kingman and Heritage Islands 2023). In recent years, open water recreation has become more popular; however, swimming in DC waters has been illegal since the 1970s due to poor water quality (DOEE 2022b). The most popular forms of recreation occurring on the Anacostia River and in Kingman Lake include kayaking, canoeing, fishing, rowing / sculling, and stand-up paddle boarding. In addition, the Kingman and Heritage Islands Conservation Area is managed in part by Living Classrooms of the National Capital Region, a nonprofit educational organization focused on experiential learning (Kingman and Heritage Islands 2023). Living Classrooms provides outdoor educational opportunities in the Kingman Lake area to disadvantaged residents by using the various habitat types to demonstrate ecological concepts to students. Langston Golf Course surrounds Upper Kingman Lake, including the northern area of Kingman Island.

Impacts Assessment

For the analysis, potential effects of the proposed project alternatives on visitors within the park are assessed based on the current description of visitor use and experience presented in the "Affected Environment" section. Resource-specific context for assessing impacts of alternatives on visitor use and experience is based on the fundamental recreational and educational goals of National Capital Parks – East (NPS 2019), including outdoor youth education, hiking, birding, fishing, boating, picnicking, kayaking, canoeing, fishing, rowing / sculling, and stand-up paddle boarding.

Impacts of the No-Action Alternative on Visitor Experience

Under the no-action alternative, the National Park Service would not issue the permit, and the project would not occur. Degradation in Kingman Lake would continue due to sedimentation, toxic contamination, eutrophication, and invasion of exotic species. Visitors' ability to enjoy aquatic activities would be diminished as wetlands and the aesthetic qualities continue to degrade. Birding opportunities for visitors would be impacted as bird habitat continues to degrade, and sightings would become less likely in the long term. Fishing opportunities would be

adversely impacted by habitat degradation. Hiking, biking, and outdoor education are likely to remain unimpacted, though aesthetic qualities of the project area would degrade.

Impacts of Alternative 2 on Visitor Experience

Construction activities related to the implementation of restoration alternatives would adversely impact the visitor experience in the short term. Visitors would be prevented from accessing the active construction areas within Kingman Lake, Kingman Island, and Heritage Island during this phase of the project. Additionally, short-term impacts on wetland vegetation would alter the aesthetic quality of the project area; however, visitor use is lower in winter, and vegetation is anticipated to return the following spring.

Some construction access routes and staging areas would be located on the Langston Golf Course. This analysis assumes that construction activities for this Kingman Lake Restoration project would be concurrent with planned renovations at Langston Golf Course. The planned golf course renovations would require the course to be closed; therefore, there would be no impacts on visitor experience at the golf course from its use for construction access paths and staging and stockpiling areas. Construction of the Upper Kingman Lake habitat improvements is dependent on the availability of the Langston Golf Course for access.

In the long term, the proposed restoration activities would improve wetland and wildlife habitat within Kingman Lake, resulting in improved visitor experience. More resilient wetlands would ensure visitors can enjoy the use of the project area in the long term. Visitor observations of wildlife have the potential to increase following habitat restoration efforts, therefore improving the visitor experience. Visitor experience related to aquatic activities would improve as wetlands and water quality would be enhanced following restoration activities. General aesthetic qualities of the project area would be improved, resulting in long-term positive impacts on the visitor experience. Additionally, successful restoration activities have the potential to provide educational benefits to visitors.

CHAPTER 4: CONSULTATION AND COORDINATION

This chapter summarizes the consultation and coordination process for the Kingman Lake Restoration Project.

Public Participation

Public Scoping. The National Park Service notified the public of its intent to develop this EA through a newsletter, which was posted on the NPS Planning, Environment, and Public Comment (PEPC) website on January 6, 2025, as well as a press release and social media posts. The newsletter included information on the background, project goals, and restoration alternatives. The newsletter and press release also provided information about the virtual public scoping meeting hosted by DOEE and the National Park Service, held on January 22, 2025. The meeting materials notified the public of the 30-day comment period, which ran through February 10, 2025. The public was encouraged to submit their comments electronically through the NPS PEPC website. The National Park Service also accepted public comments in writing (hard copy via mailing or hand delivery).

Comments and concerns included suggestions to avoid impacts on existing natural resources, further enhance natural resources in the project area, and avoid impacts on and enhance visitor experience. These comments were considered when developing the alternatives carried forward in this EA for full analysis.

Public Review. The EA will be on formal public and agency review. The National Park Service will notify the public of the availability of this EA through a press release, which will inform the public of the comment period, open through January 23, 2026. The public is encouraged to submit their comments electronically through the NPS PEPC website. The National Park Service will also accept public comments in writing (hard copy via mailing or hand delivery).

Agency Consultation

Section 106 of the National Historic Preservation Act. As required by Section 106 of the National Historic Preservation Act, the National Park Service initiated consultation with the DC SHPO, Federally Recognized Tribes, and State Recognized Tribes on February 6, 2025. The Federally Recognized Tribes, which include the Absentee Shawnee Tribe of Indians of Oklahoma, the Catawba Indian Nation, the Chickahominy Indian Tribe, the Chickahominy Tribe Eastern Division, the Delaware Nation, the Monacan Indian Nation, the Nansemond Indian Nation, the Pamunkey Indian Tribe, the Rappahannock Tribe, the Shawnee Tribe, and the Upper Mattaponi Indian Tribe. State Recognized Tribes consulted with include the Accohannock Indian Tribe, the Cedarville Band of Piscataway Indians, the Choptico Band of Piscataway, the Piscataway Conoy Tribe, and the Piscataway Indian Nation. As mentioned in chapter 1, the Phase IA study is nearing completion, and consultation with all parties is on-going.

Section 7 of the Endangered Species Act. As required by Section 7 of the ESA, the National Park Service consulted with the USFWS regarding the potential effects of the preferred

alternative on federally listed species. The National Park Service will complete consultation for this project with the USFWS with the issuance of this EA and throughout the project's duration prior to implementation.

Stakeholder Outreach

The following agencies, Tribal Nations, and organizations were contacted and invited to participate in the planning process.

Agencies

- US Fish and Wildlife Service
- US Army Corps of Engineers

Federally Recognized Tribes

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

State Recognized Tribes

- Accohannock Indian Tribe
- Cedarville Band of Piscataway Indians
- Choptico Band of Piscataway
- Piscataway Conoy Tribe
- Piscataway Indian Nation

District Government

- Executive Office of the Mayor of the District of Columbia
- DC Historic Preservation Office
- District of Columbia Chamber of Commerce

- District of Columbia Office of Planning
- District of Columbia Water
- DOEE, Water Resource Protection and Mitigation Branch
- DOEE, Fisheries and Wildlife Division, Wildlife Management Branch
- District Department of General Services
- District Department of Transportation
- District of Columbia Council

Community

- Anacostia Watershed Society
- Anacostia Riverkeeper
- Anacostia Watershed Community Advisory Committee
- Anacostia Watershed Urban Waters Partnership
- Anacostia Coordinating Council
- Audubon Naturalist Society
- DC Preservation League
- National Trust for Historic Preservation
- RISE Academy
- Sierra Club
- Smithsonian Anacostia Community Museum
- Trout Unlimited

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