

*Statement of Findings for
Floodplains and Wetlands*

*District of Columbia Water and Sewer Authority
Long Term Combined Sewer
Overflow Control Program
Anacostia River Projects*

**Anacostia Park
Washington, D.C.**

Recommended: _____
George Liffert, Acting Superintendent, Date
National Capital Parks - East (NPS)

Concurred: _____
Bill Jackson, Chief, Water Resources Division (NPS) Date

Approved: _____
Margaret O'Dell, Director, National Capital Region (NPS) Date

Introduction

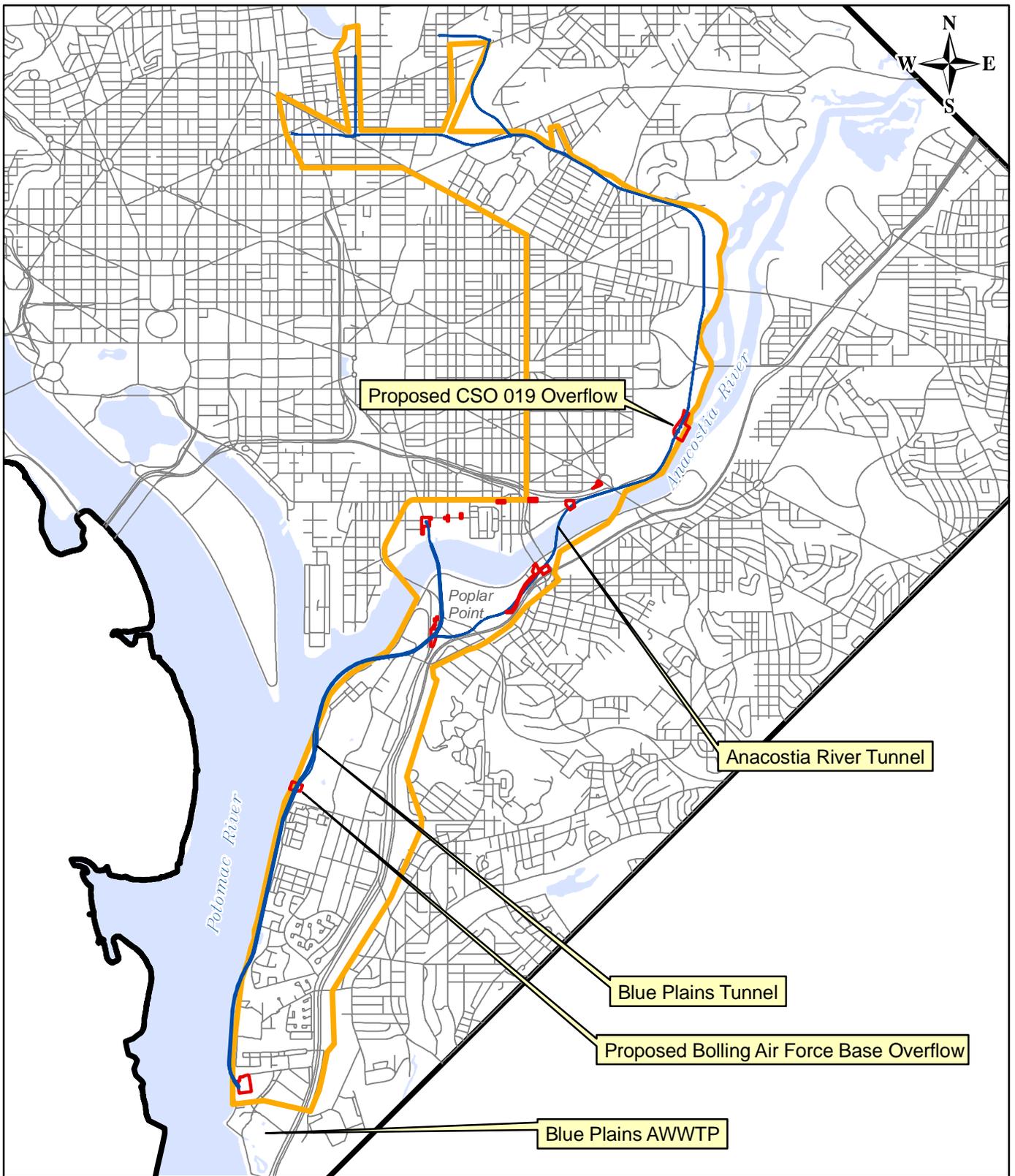
The District of Columbia Water and Sewer Authority (DC WASA) provides wastewater collection and treatment for the District of Columbia (District) and parts of Maryland and Virginia. Part of the District is served by a combined sewer system (CSS), and DC WASA is in the process of implementing a Long Term Control Plan (LTCP) for controlling combined sewer overflows (CSOs). The CSO control facilities comprise a tunnel system to capture and store CSOs for treatment at DC WASA's advanced wastewater treatment plant at Blue Plains. This review addresses the construction of the Blue Plains and Anacostia River Tunnels, including drop shafts, diversion structures, and tunnel overflow structures at CSO 019 (on the bank of the Anacostia River) and at Bolling Air Force Base (on the bank of the Potomac River). See Figure 1.

Executive Orders 11990 (Protection of Wetlands) and 11988 (Floodplain Management) require the National Park Service (NPS) and other federal agencies to evaluate the likely impacts of actions in floodplains and wetlands. NPS Director's Order #77-1: Wetland Protection and Procedural Manual #77-1 provide NPS policies and procedures for complying with E.O. 11990, and NPS Special Directive 93-4 (Floodplain Management Guideline) provides NPS procedures for complying with E.O. 11988. This Statement of Findings (SOF) documents compliance with these NPS wetland protection and floodplain management procedures.

Purpose of Proposed Action

The LTCP is being implemented under a federal court consent decree between the United States, the District, and DC WASA. The LTCP is intended to comply with the requirements of the CSO Policy of Section 102(q) of the Clean Water Act (CWA). This project provides for facilities to control CSOs to the Anacostia River and surface and basement flooding in the Northeast Boundary (NEB) area of the District.

CSOs contribute to the failure of the Anacostia and Potomac Rivers in achieving District Water Quality Standards (WQS) and the Rivers' non-attainment of designated uses. The District Department of the Environment (DDOE) and EPA have determined that the proposed project is necessary to ensure that CSO discharges to the Anacostia and Potomac Rivers will meet applicable WQs and designated uses. Construction of these facilities is expected to reduce CSO discharges to the Anacostia and Potomac Rivers by 98%. Reducing CSO discharges would decrease the loading of bacteria, total suspended solids, nutrients, and other pollutants associated with sanitary waste in the Anacostia and Potomac Rivers. The project would result in both short term and long term water quality improvements.



**Figure 1:
Study Area Map**

CSO Long-term Control Plan
Anacostia River Projects
Washington, D.C.

Wetland Statement of Findings



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Legend:

- Project Area
- Study Area
- Preferred Alignment
- Road
- District Boundary
- Water

Scale: 1 inch = 5,000 feet



Alternatives Considered

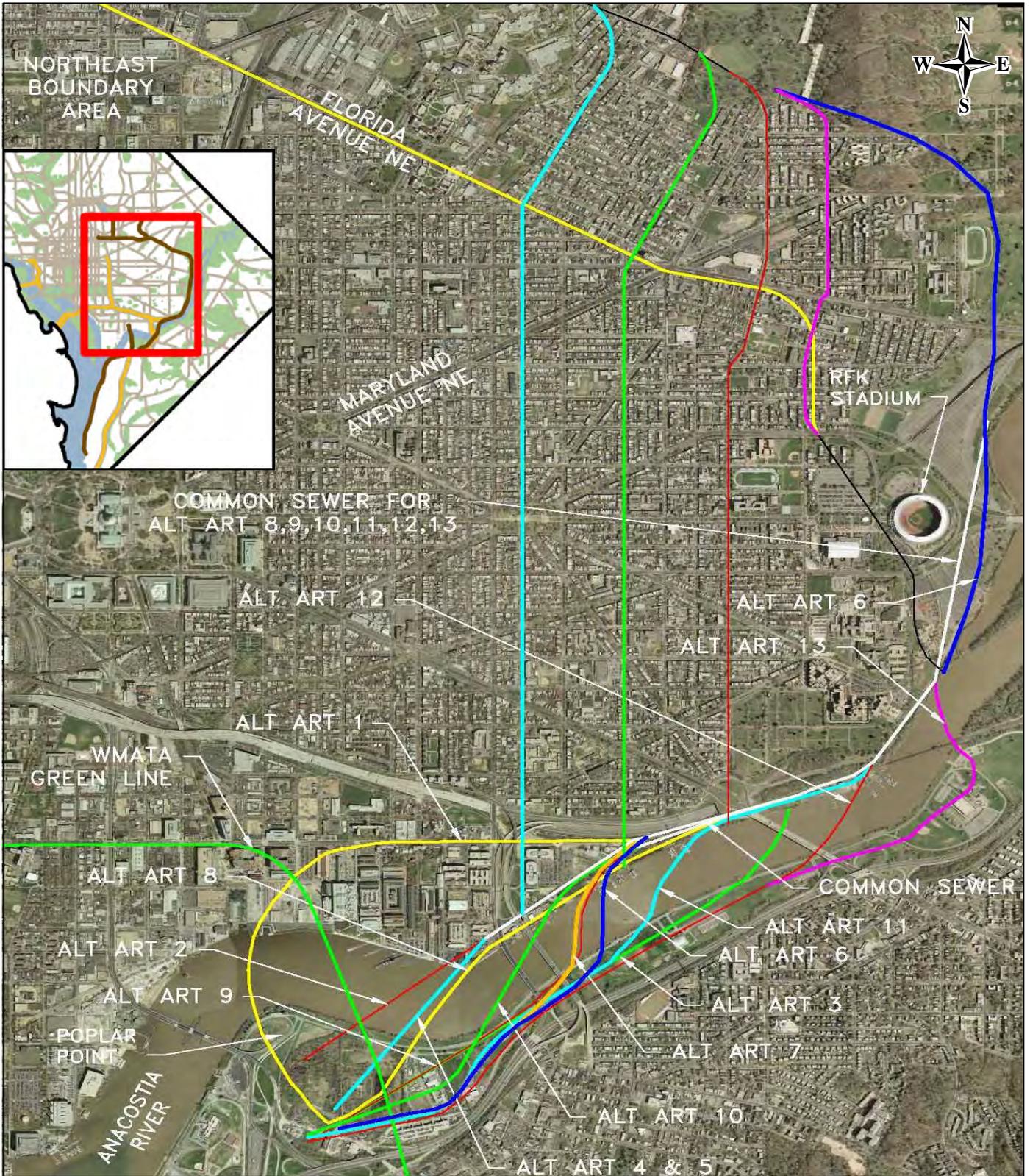
The original LTCP for the Anacostia River Projects (ARP) was based on the tunnel system originating on Poplar Point with an alignment that crossed the Anacostia River in the vicinity of DC WASA's Main Pumping Station, proceeding along M Street, continuing to CSO-019 near RFK Stadium, and then turning to follow Florida Avenue to connect to existing sewers at surface flooding locations. Subsequently, in order to effectively blend wet weather CSO control and nitrogen removal, the tunnel was extended south from Poplar Point to the Blue Plains Treatment Plant. This segment is the Blue Plains Tunnel. Studies of alternatives for the ARP tunnel system were conducted as two separate evaluations, as follows: thirteen alternatives were considered to select an alignment for the tunnel system between Poplar Point and the NEB Area (Anacostia River Tunnel, see Figure 2.1), and three alternatives were considered to select an alignment for the tunnel system between Poplar Point and Blue Plains (Blue Plains Tunnel, see Figure 2.2).

The alignment chosen for the Anacostia River Tunnel was Alternative ART-6, which was identified as best at avoiding and minimizing the following concerns: (1) crossing under Washington Metropolitan Area Transit Authority (WMATA) facilities where the subway is deep for the Anacostia River crossing of the Green line, (2) locations of substantial length in the relatively narrow north-south residential streets and Florida Avenue, (3) conflicts with existing and abandoned bridge piers, (4) crossing under existing buildings where there may be risk of settlement due to tunnel construction, and (5) construction impacts to surrounding communities.

Of the three alternatives for the Blue Plains Tunnel, Alternatives 1 and 2 included loss of existing primary clarification capacity at Blue Plains, complex construction at the I-295 – Malcolm X interchange, and conflicts with existing pile supported facilities on the Naval Annex. Alternative 1 also included the potential of impacting old growth forest on NPS property and bald eagle nesting habitat. Alternative 3 avoided the undesirable features and risks of the other two alternatives and is, therefore, the preferred alignment for the Blue Plains Tunnel.

Two proposed overflow facilities, one connected to the Anacostia River Tunnel and the other connected to the Blue Plains Tunnel, require wetland permitting due to unavoidable impacts to adjacent waterways. The locations of these facilities are fixed by function and must be located adjacent to the Anacostia and Potomac Rivers. Areas in which the facilities are proposed were chosen taking account of previous disturbances in the area. An existing overflow facility (CSO 019) is located at the proposed Anacostia River Tunnel overflow facility, and an existing sewer pipe is located beneath the Blue Plains overflow facility. The existing riverbanks at both proposed overflow facilities were previously disturbed. A deteriorating seawall extends from either side of the existing overflow facility along the Anacostia River bank, and riprap currently protects the Potomac River bank. Impacts were reduced by minimizing the number of overflow facilities, co-locating the remaining two proposed overflow facilities with drop shaft locations and performing the majority of work by tunneling beneath jurisdictional resources. Neither of the overflow facilities can be moved landward. The Anacostia River Tunnel overflow facility (CSO 019) is located within Anacostia Park and adjacent to the Anacostia River Trail. Landward excavation for the overflow facility would create greater impacts to park resources than placing it in the location of the current CSO facility. Because of the location of existing infrastructure and the need for the new overflow facility to tie into that system, moving the facility back would

require much more land disturbance as a result of reconfiguring the existing infrastructure and siting the new facility. This would require greater use of NPS property and greater impacts to NPS resources. The Blue Plains Tunnel overflow facility is located within Bolling Air Force Base; landward excavation in this location would impact Air Force operations.



**Figure 2.1:
Anacostia River Tunnel Alternatives**

CSO Long-term Control Plan
Anacostia River Projects
Washington, D.C.



Not to Scale

Source: D.C. Water and Sewer Authority. 2009. *Long Term CSO Control Plan. Anacostia River Projects. Document II-3-4-FI, Facility Plan.* Washington, D.C.

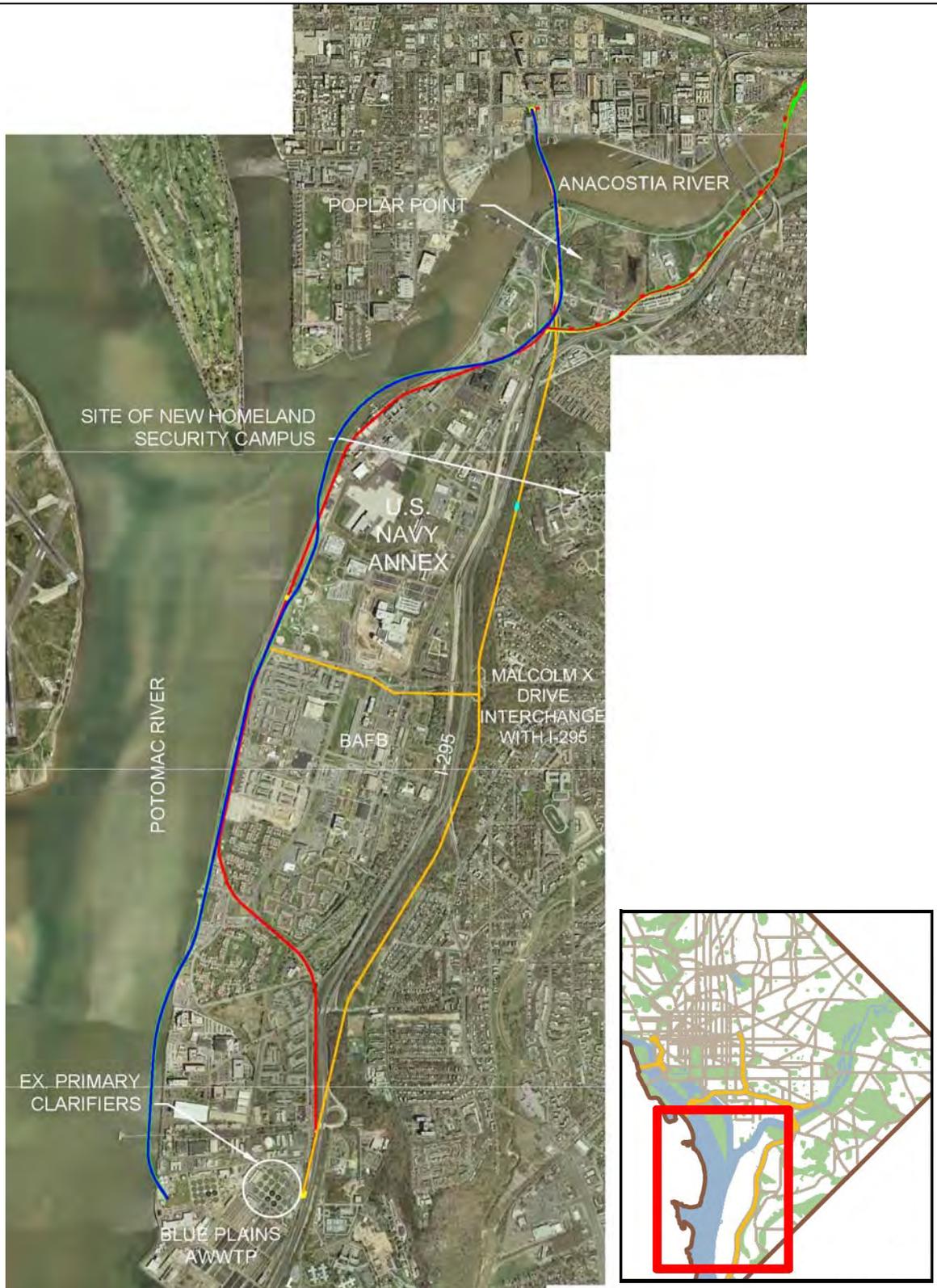


Figure 2.2:
Blue Plains Tunnel Alternatives

CSO Long-term Control Plan
Anacostia River Projects
Washington, D.C.



Not to Scale

Source: D.C. Water and Sewer Authority. 2009. *Long Term CSO Control Plan. Anacostia River Projects. Document II-3-4-FI, Facility Plan.* Washington, D.C.

The Project and the National Park Service Boundary

The riverbeds of the Potomac and Anacostia Rivers within the District fall under the jurisdiction of the NPS. The two overflow facilities discussed in the previous section are subject to NPS wetland management policies because of proposed impacts to tidal wetlands on NPS property.

The NPS *Management Policies* (NPS, DOI, 2001) state that the enjoyment of park resources and values by the people of the U.S. is part of the fundamental purpose of all parks and that the NPS is committed to providing appropriate, high-quality opportunities for visitors to enjoy the parks. The proposed project would not result in any negative long-term changes to park environments or visitor experiences. The only aboveground structure on NPS property would be a low wall on the shore of the Anacostia River containing an overflow outlet that would not affect visitor use or experiences. Once complete, the proposed project would have no adverse effect on visitor experiences.

Likewise, NPS must consider the potential effects of any proposed action within parkland on the operation and management of the park, including ensuring the continued health and integrity of the park environment and preserving the values of the park resource. The proposed project would not require modifications to existing park operations and would not contribute to the impairment or degradation of the park environment. Instead, the proposed project would help preserve and restore the existing natural environment by improving water quality in the Anacostia River, thereby potentially enhancing the long-term health of the park areas and the local ecosystem.

Site Conditions

Uplands, Wetlands, and Floodplains within the Project Area

A wetland delineation was conducted on November 3 and 23, and December 12, 2009, by Straughan Environmental Services, Inc, on behalf of DC WASA (DC WASA, 2009). The Anacostia and Potomac Rivers and their associated wetlands were identified within the project area. As stipulated in Procedural Manual #77-1: Wetland Protection (NPS, 2008), the NPS uses *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et al. 1979) as the standard for defining, classifying, and inventorying wetlands. Under the Cowardin definition, shallow areas of the Anacostia and Potomac Rivers adjacent to the shore are classified as riverine wetlands. These areas lack hydrophytes, but contain undrained hydric soils. The limit of riverine wetlands at each outfall facility extends from the mean high water line on the landward side out to a depth of two meters from the mean low water line. Any area deeper than two meters from the mean low water line is considered deepwater habitat.

CSO 019 Outfall Facility – Anacostia River

The CSO 019 Outfall Facility is located in Anacostia Park on the west side of the Anacostia River, south of Robert F. Kennedy Memorial Stadium. The *National Wetland Inventory* classifies this area as a riverine, tidal, open water, permanent-tidal (R1OWV) system. See Figure 3.1. Most of the study area in this location is classified as a tidal riverine wetland. An existing

outfall is located at the southern end of the study area, and periodic discharges have created a deep scour hole that currently forms deepwater habitat. Most of the shoreline in this location is modified by a deteriorating seawall. No vegetative communities are associated with this wetland.

The *Digital Flood Insurance Rate Map Database, District of Columbia* (FEMA, 2002) indicates that the 100-year floodplain intersects the study area at this location. See Figure 3.1.

Bolling Air Force Base Outfall Facility – Potomac River

The Bolling Air Force Base Outfall Facility is located on the eastern shoreline of the Potomac River, adjacent to recreational ball fields. The *National Wetland Inventory* classifies this area as a riverine, tidal, unconsolidated bottom, permanent-tidal (R1UBV) system. See Figure 3.2. The entire study area is classified as a tidal riverine wetland. The Potomac River shoreline within the study area is modified by riprap. No vegetative communities are associated with these wetlands.

The *Digital Flood Insurance Rate Map Database, District of Columbia* (FEMA, 2002) indicates that the 100-year floodplain intersects the study area at this location. See Figure 3.2.

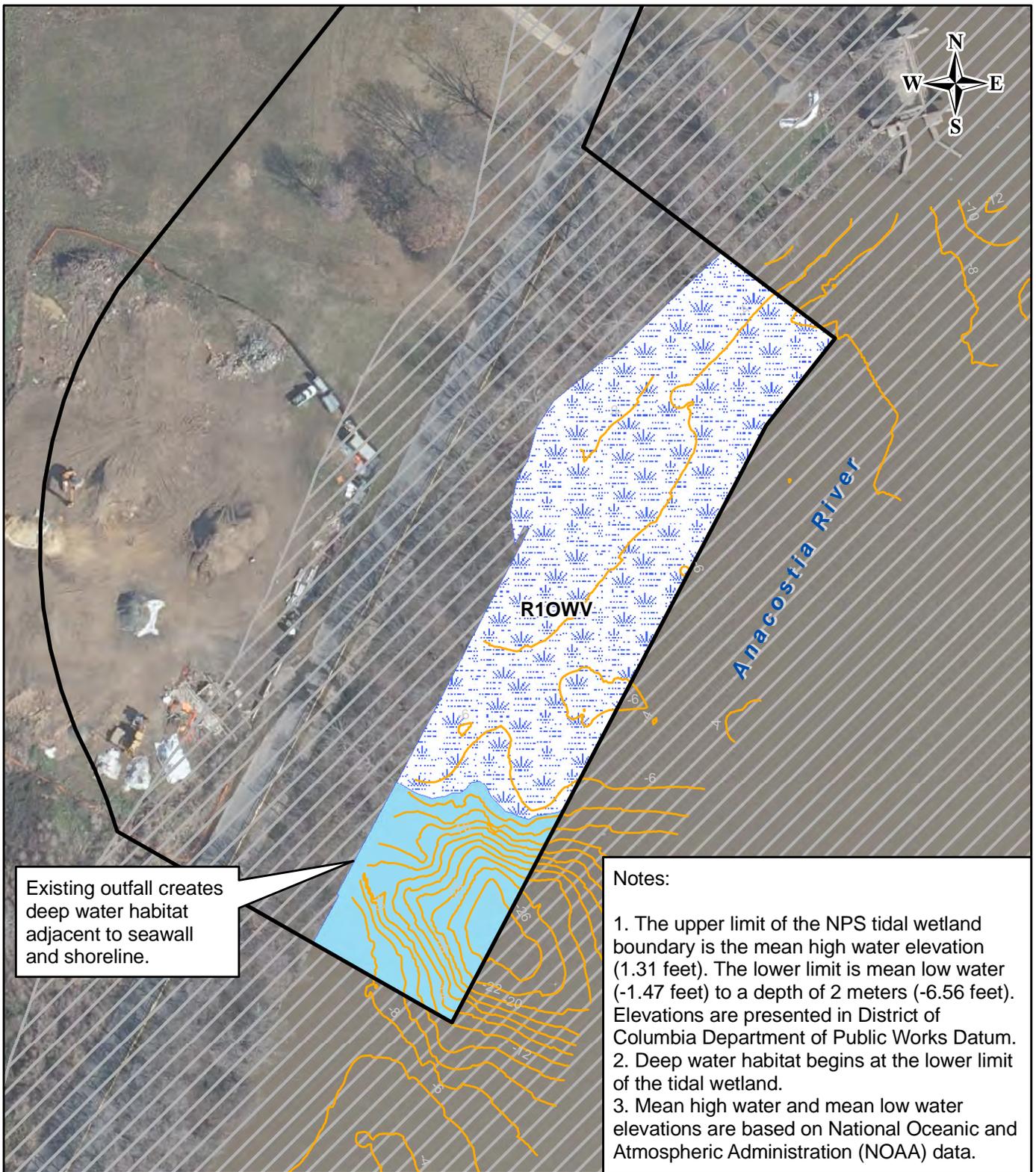
Functions Provided by Wetlands within the Project Area

The riverine and open water tidal wetlands within the project area primarily function to provide freshwater fish, shellfish, and other wildlife habitat; however, these functions are compromised by existing seawall and riprap modifications to the shorelines. As a result of these shoreline stabilization structures, these wetlands do not support native emergent vegetation communities which function to provide critical fish, shellfish, and wildlife habitat. Other important functions associated with intact riverine and open water tidal wetlands, such as flood attenuation and sediment retention, are not provided by the wetlands within the project area.

Federally Listed Threatened and Endangered Species

The Endangered Species Act of 1973, as amended, regulates rare, threatened, and endangered (RTE) species and is administered by the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS). The USFWS is responsible for terrestrial and freshwater species, while NMFS is responsible for marine and anadromous species.

DC WASA contacted USFWS, NMFS, and the District Department of Health (DOH) Fisheries and Wildlife Division to request information regarding District- or federally-listed RTE species documented within the project area. USFWS and DOH Fisheries and Wildlife Division indicated that no impacts to RTE species are anticipated as a result of this project. NMFS determined that the endangered shortnose sturgeon (*Acipenser brevirostrum*) has been documented as being present in the Potomac River and transient individual shortnose sturgeons have the potential to enter the Anacostia River. NMFS indicated that an independent Biological Assessment for the shortnose sturgeon would not be required for this project. DC WASA will continue to coordinate with applicable regulatory agencies and implement any necessary conservation measures during construction to protect the shortnose sturgeon. Therefore, the project would have no adverse impacts to RTE species.



Existing outfall creates deep water habitat adjacent to seawall and shoreline.

- Notes:**
1. The upper limit of the NPS tidal wetland boundary is the mean high water elevation (1.31 feet). The lower limit is mean low water (-1.47 feet) to a depth of 2 meters (-6.56 feet). Elevations are presented in District of Columbia Department of Public Works Datum.
 2. Deep water habitat begins at the lower limit of the tidal wetland.
 3. Mean high water and mean low water elevations are based on National Oceanic and Atmospheric Administration (NOAA) data.

**Figure 3.1:
Waters of the U.S.**

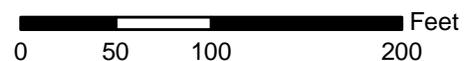
CSO 019 Overflow
and Diversion Structures
Washington, D.C.

Wetland Statement of Findings

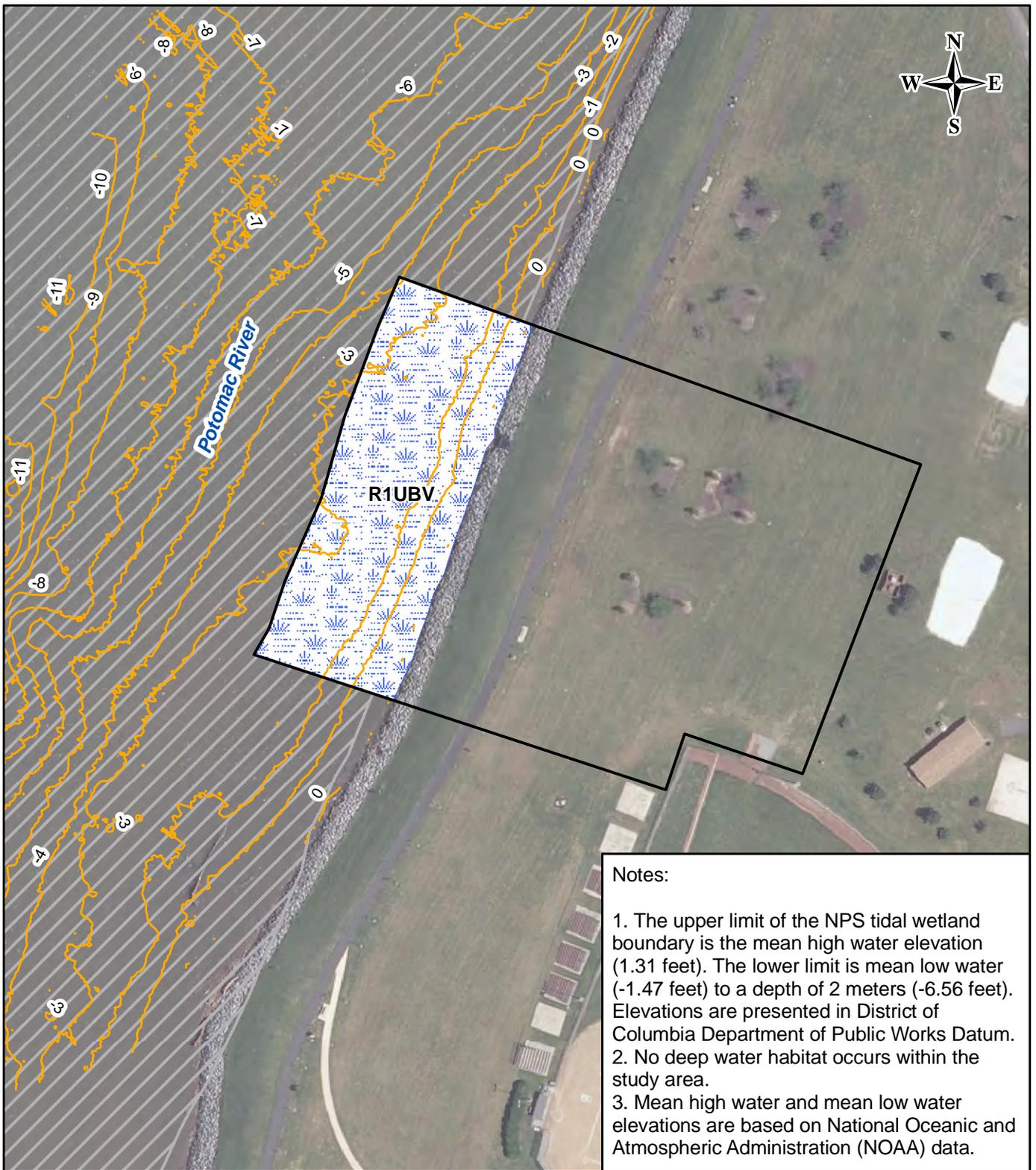


- Legend:**
- Study Area
 - Tidal Wetland
 - Deep Water Habitat
 - 100-Year Floodplain
 - 2-foot Contours

Scale: 1 inch = 100 feet



Source: FEMA. 2002. *Flood Insurance Rate Map for the District of Columbia*. Washington, D.C.
Office of the Chief Technology Officer. 2008. *Ortho - 2008 (Ortho2008)*. DC GIS. Washington, D.C.
USFWS. 1981-2002. *NWI Map for the District of Columbia*. St. Petersburg, FL.



- Notes:
1. The upper limit of the NPS tidal wetland boundary is the mean high water elevation (1.31 feet). The lower limit is mean low water (-1.47 feet) to a depth of 2 meters (-6.56 feet). Elevations are presented in District of Columbia Department of Public Works Datum.
 2. No deep water habitat occurs within the study area.
 3. Mean high water and mean low water elevations are based on National Oceanic and Atmospheric Administration (NOAA) data.

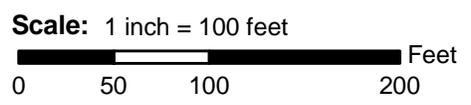
**Figure 3.2:
Waters of the U.S.**

Bolling Air Force Base
Overflow and Diversion Structures
Washington, D.C.

Wetland Statement of Findings



- Legend:**
- Study Area
 - Tidal Wetland
 - 100-Year Floodplain
 - 1-foot Contours



Source: FEMA. 2002. *Flood Insurance Rate Map for the District of Columbia*. Washington, D.C.
Office of the Chief Technology Officer. 2008. *Ortho - 2008 (Ortho2008)*. DC GIS. Washington, D.C.
USFWS. 1981-2002. *NWI Map for the District of Columbia*. St. Petersburg, FL.

Essential Fish Habitat

Coordination with the National Marine Fisheries Service revealed that the project area occurs upstream of designated essential fish habitat (EFH) and thus does not directly affect federally managed fish species of the lower Potomac River. An EFH assessment, therefore, is not required.

Wetland Impacts

Construction of the two overflow facilities associated with the Anacostia River and Blue Plains Tunnels is expected to reduce CSO discharges to the Anacostia and Potomac Rivers by 98%. The project would result in a total of 32,860 square feet (0.75 acres) of long-term and 62,453 square feet (1.43 acres) of short-term wetland impacts (See Figures 4.1 and 4.2). Long-term minor impacts are anticipated due to the placement of riprap on the riverbed for velocity dissipation at each outfall (See Figures 5.1 and 5.2). The riprap apron would alter the roughness of the riverbed, but other habitat conditions would remain largely unchanged. Initial hydraulics models indicated the need for 60 feet of riprap from the outfall facilities at the shoreline to protect the riverbed from scour. Short-term impacts are expected as a result of construction activities. See Table 1 for a detailed summary.

Wetland Location	Cowardin Wetland Classification[†]	Long-term Impact Area	Short-term Impact Area
CSO 019 Overflow Anacostia River	R1OWV	21,820 square feet (0.50 acres)	43,815 square feet (1.01 acres)
Bolling Air Force Base Overflow Potomac River	R1UBV	11,040 square feet (0.25 acres)	18,638 square feet (0.43 acres)

[†] Cowardin, et al., 1979

No practicable non-wetland alternative areas are available because these facilities must be located adjacent to the Potomac and Anacostia Rivers. Areas in which the facilities are proposed were chosen based on previous disturbances in the area, as described in Alternatives Considered.

CSO 019 is located within Anacostia Park which has been identified as a cultural landscape. The existing CSO 019 and its adjacent seawall are deteriorating. The proposed work at CSO 019 would require replacing the current CSO function by adding a new CSO control structure. The design of this proposed new structure and subsequent landscaping would be sympathetic to its current appearance and configuration. Therefore, local hydraulics and associated sediment transport processes would remain unchanged. Of the 330 feet of shoreline being permanently impacted at CSO 019, an existing seawall is located along 160 feet of the shoreline.

The Bolling Air Force Base outfall facility is located on a section of the Potomac River where the river bank is hardened with riprap. The proposed outfall structure would embed into the existing shoreline and riprap bank, maintaining the same shoreline profile. The design was intended to minimize adjustments to localized hydraulic and sediment transport processes. All 184 feet of the permanent shoreline impacts are hardened by riprap at this location.

Completion of the LTCP would greatly decrease the outfall flow velocities, volume, and frequency of stormwater discharges into the Anacostia and Potomac Rivers, reducing peak flow rates and the risk of flooding and erosion during the high flow conditions that occur during storm events. Flows at CSO 019 would decrease and the risk of erosion to the shoreline and riverbed would be reduced. The new BAFB Overflow Facility would introduce a new discharge point to the Potomac River, but 15 other discharge points would be eliminated and the total volume of CSO discharge to the river would be decreased by an average of 98%, resulting in a net beneficial impact.

Although riprap is considered an impact due to the placement of fill material, it would have many beneficial effects on the aquatic environment. The no-action alternative (i.e. eliminating riprap at outfalls) could create large scour holes in the riverbed and cause eddies or other flow disturbances. Benthic sediments in the Anacostia and Potomac Rivers have the potential to be contaminated with hazardous materials; the placement of riprap in the riverbed would help to secure and prevent the mobilization of potentially contaminated sediments. Riprap may also provide habitat for aquatic organisms, including juvenile fish.

Construction activities would result in short term impacts to the Anacostia and Potomac Rivers and their associated wetlands. These activities are required for control and containment of benthic sediments. Any disturbances to these resources would be restored prior to project completion.

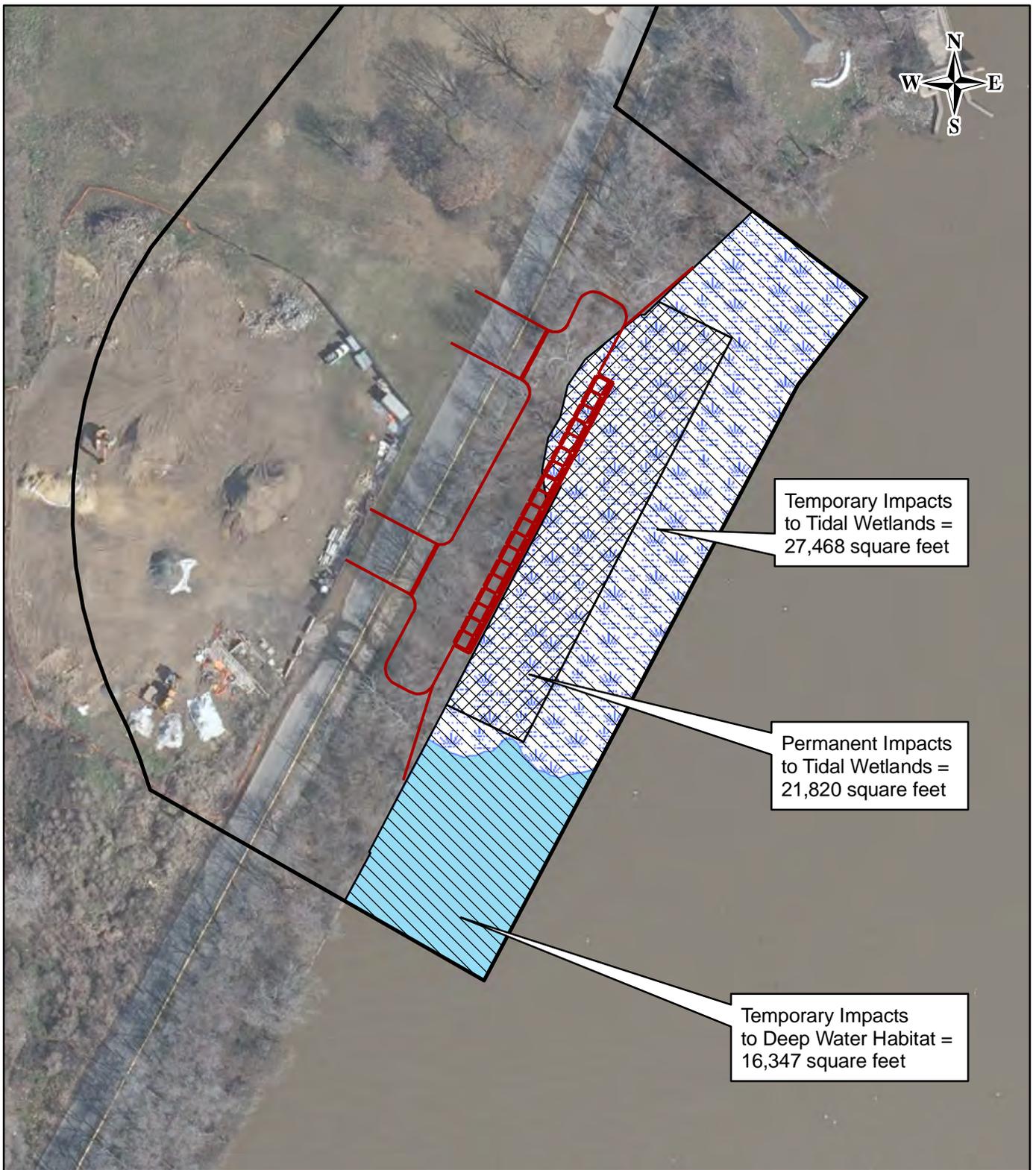
Littoral Drift

Littoral drift is a normal shoreline process that involves the movement of non-cohesive sediments (i.e. mainly sand) along the foreshore and the shoreline from the action of the breaking waves and the longshore current. If the amount of sediment brought into a section of shoreline by littoral drift exceeds outgoing sediment, sediments will begin to settle out and new beach could be created in front of the embankment, reducing the depth of water at its toe and the corresponding height of the waves attacking it. If the net littoral drift is negative, sediments are removed and shoreline erosion occurs. Due to the low velocity of water in the Anacostia and Potomac Rivers at the outfall facilities, existing littoral drift processes are expected to be minimal.

While riprap would be placed below water within the river bed, (refer to Figures 5.1 and 5.2), at the outfalls of both proposed CSO 019 and the Bolling Air Force Base overflow facilities, the amount of littoral drift is not expected to noticeably change. Currently both shorelines are hardened: CSO 019 with a seawall, and riprap at the Bolling Air Force Base Outfall Facility. After the new CSO facilities have been constructed, the overall profile of the shoreline would change only minimally, and the shorelines would continue to be hardened, and thus water flow and the movement of sediments along the shoreline would not noticeably change. The addition of riprap to the river bottom may alter flows at lower levels in the water column, however, based on the size of the area where riprap would be placed when compared to the volume and velocity of water being transported in both the Anacostia River and Potomac River, the degree that the riprap would affect littoral drift would not be noticeable.

Floodplain Impacts

The LTCP would increase the flood storage capacity of the man-made stormwater management system within the urban Anacostia River watershed. CSO control facilities would capture and store stormwater and sanitary waste in a tunnel system for treatment at the Blue Plains Advanced Wastewater Treatment Plant. Diverting CSO flows would decrease the volume and frequency of stormwater discharges to the Anacostia River, reducing the risk of flooding and erosion during high flow events. Therefore, no floodplain impacts are anticipated.



**Figure 4.1:
Wetland Location Map**

CSO 019 Overflow
and Diversion Structures
Washington, D.C.

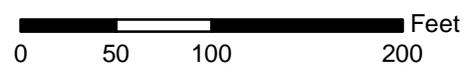
Wetland Statement of Findings



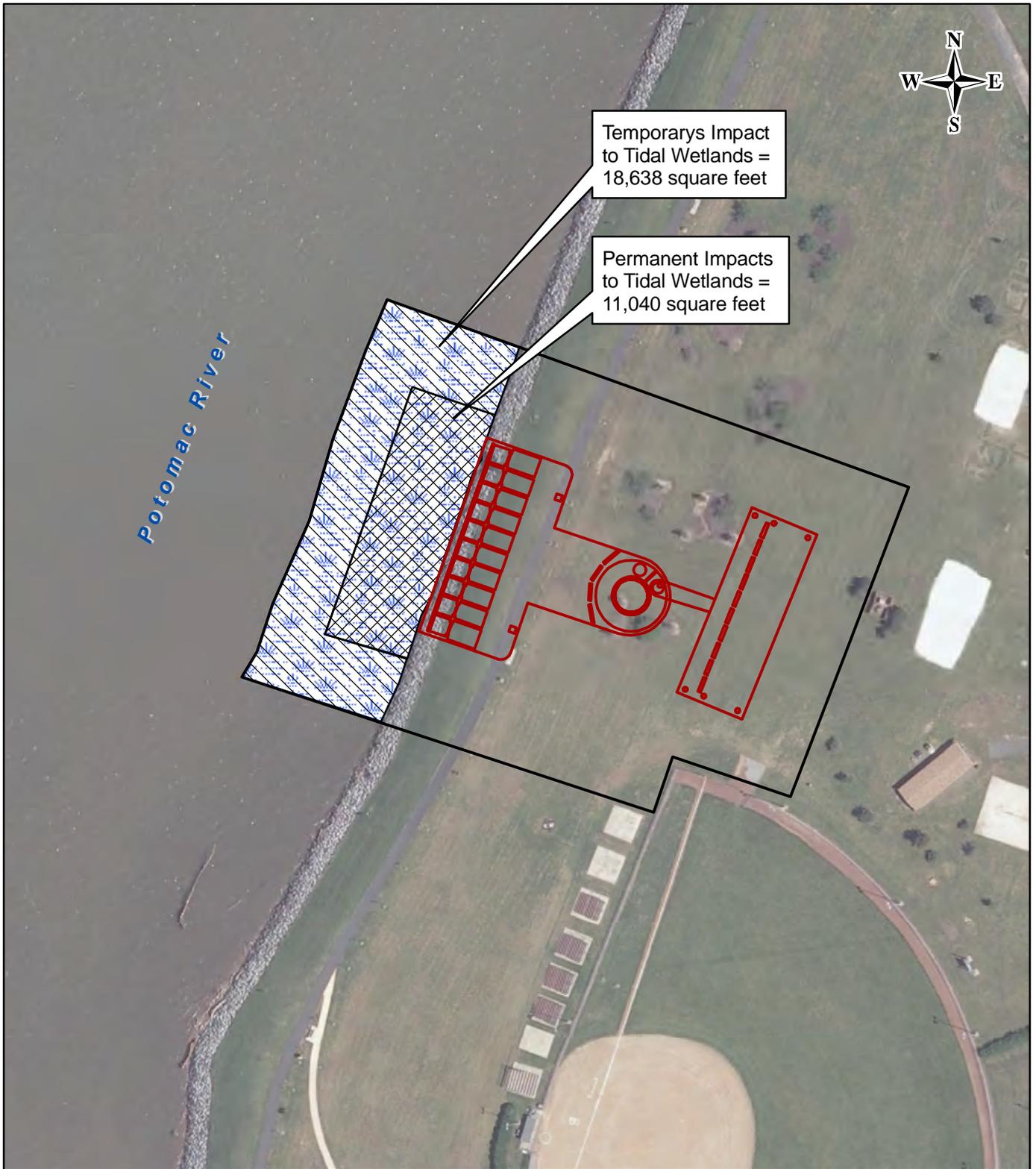
Legend:

- Study Area
- Tidal Wetland
- Deep Water Habitat
- Proposed Overflow Structure
- Long-term Impact
- Short-term Impact

Scale: 1 inch = 100 feet



Source: FEMA. 2002. *Flood Insurance Rate Map for the District of Columbia*. Washington, D.C.
Office of the Chief Technology Officer. 2008. *Ortho - 2008 (Ortho2008)*. DC GIS. Washington, D.C.
USFWS. 1981-2002. *NWI Map for the District of Columbia*. St. Petersburg, FL.



**Figure 4.2:
Wetland Location Map**

Bolling Air Force Base
Overflow and Diversion Structures
Washington, D.C.

Wetland Statement of Findings



- Legend:**
- Study Area
 - Tidal Wetland
 - Proposed Overflow Structure
 - Long-term Impact
 - Short-term Impact

Scale: 1 inch = 100 feet

Source: FEMA. 2002. *Flood Insurance Rate Map for the District of Columbia*. Washington, D.C.
Office of the Chief Technology Officer. 2008. *Ortho - 2008 (Ortho2008)*. DC GIS. Washington, D.C.
USFWS. 1981-2002. *NWI Map for the District of Columbia*. St. Petersburg, FL.

Figure 5.1: CSO 019 Overflow Facility Profile

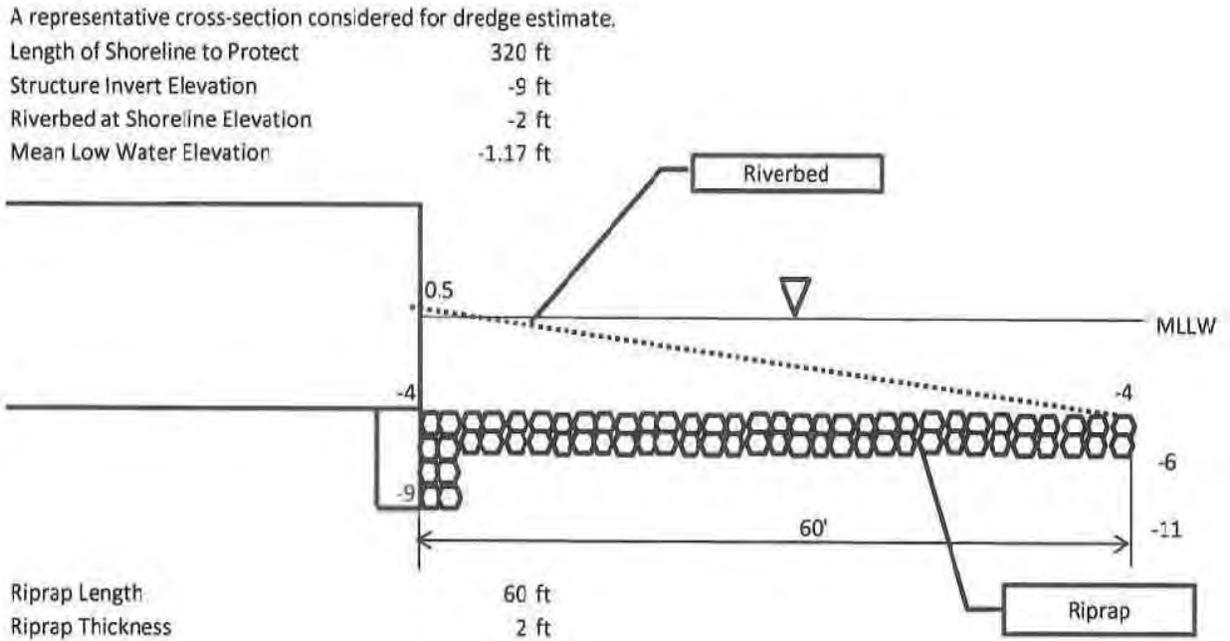
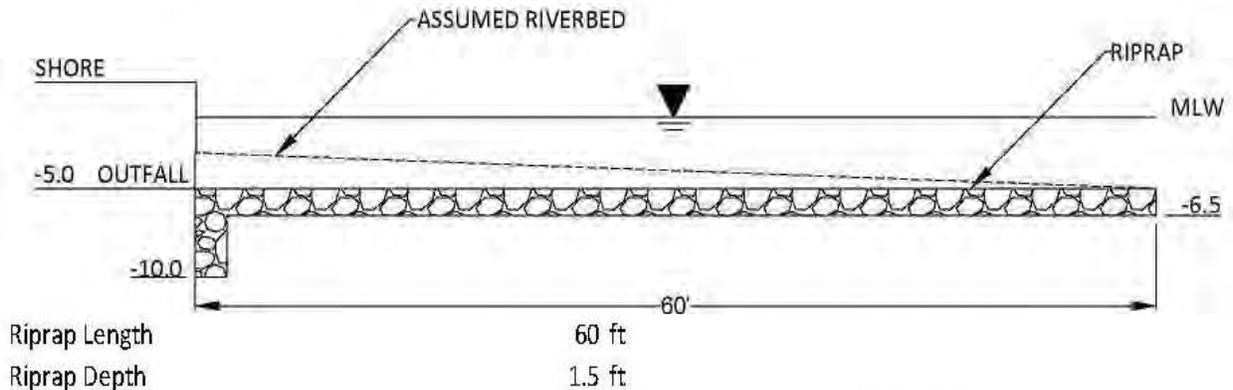


Figure 5.2: Bolling Air Force Base Overflow Facility Profile

184 ft of shoreline to protect at Bolling

Outfall invert Elevation -5ft
 Riverbed at shoreline Elevation -3ft based on existing outfalls near proposed outfalls.
 Mean Low Water Elevation -1.17ft

Conception Riprap Section (TYP)



Mitigation

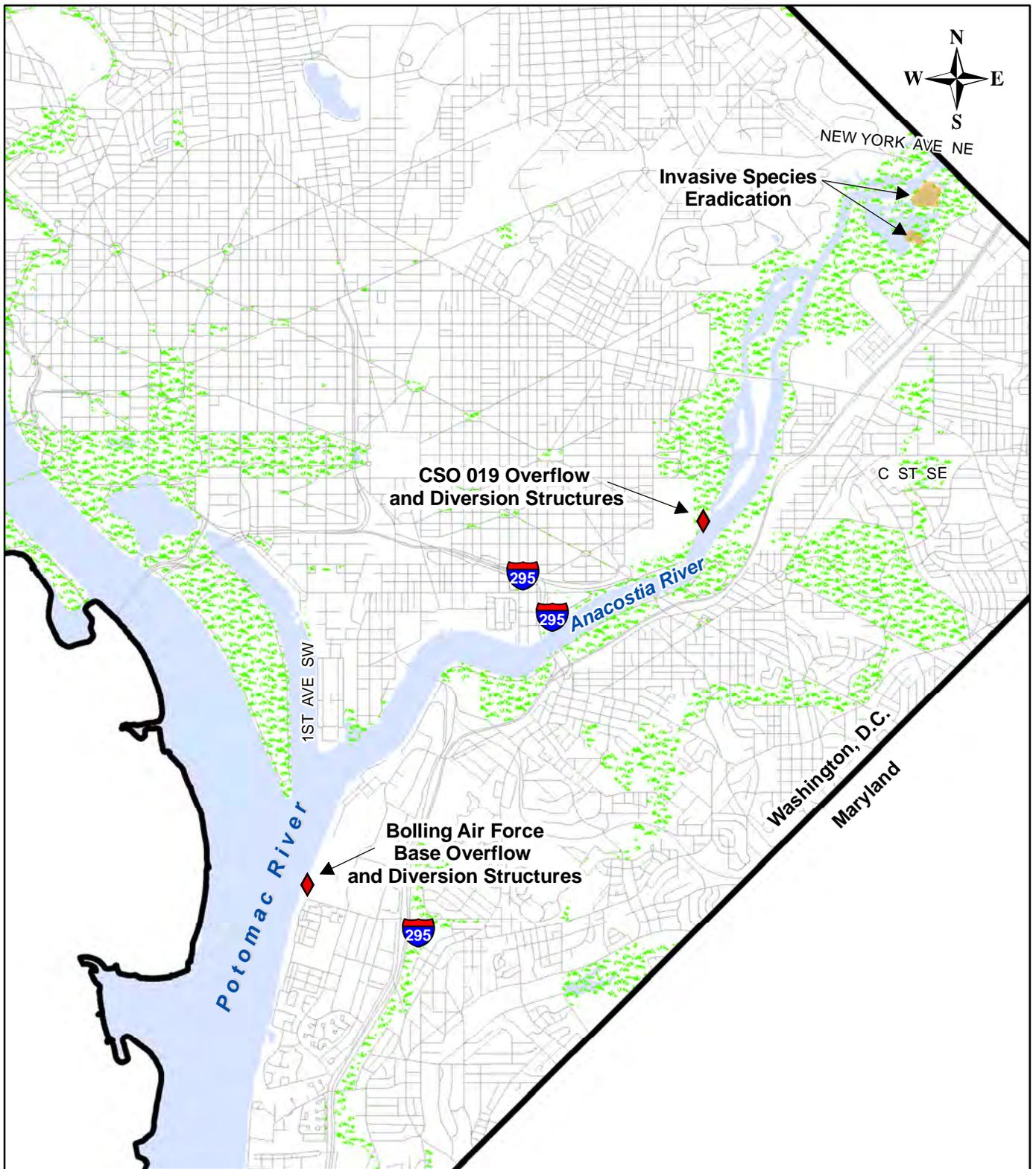
During the LTCP design process, impacts to wetlands and deepwater habitats were avoided and minimized to the maximum extent practicable. All unnecessary impacts were avoided by relocating surface disturbance areas that had the potential to impact non-tidal wetlands or streams. Unavoidable impacts were minimized by reducing the number of proposed overflow facilities, co-locating the remaining two proposed overflow facilities with drop shaft locations, and performing the majority of work by tunneling beneath jurisdictional resources. The two proposed overflow facilities would unavoidably impact wetlands, because their location is fixed by function and requires direct connection with Potomac and Anacostia Rivers. These facilities were located in areas that were previously disturbed and provide minimal value to aquatic resources and water quality.

Wetland Mitigation

The proposed activity would result in 32,860 square feet (0.75 acres) of unavoidable long-term impacts to two tidal wetlands along the Anacostia and Potomac Rivers. As Per D.O. #77-1, DC WASA would compensate for unavoidable impacts to wetlands through a mitigation project. Because the wetlands are classified as riverine and open water tidal wetlands, it is inherently difficult to restore the functions and values for these types of wetlands (i.e., open water, unconsolidated river bottom). The difficulty lies in the fact that to restore lost wetland functions on the bottom of the Anacostia and Potomac Rivers over a relatively small area when compared to the total area comprised of these types of wetland, and the fact that it's in a riverine system creates a situation where the potential for success is low.

As a result, it was determined that in lieu of a typical 1:1 mitigation ratio for the restoration of lost wetland functions and values, NPS would employ a 10:1 mitigation (7.5 acres) aimed at improving the overall functionality and values of near-by wetlands through the removal of invasive plant species. The wetlands where this mitigation would take place are located on restored wetlands in the Kenilworth Marsh located along the Anacostia River on lands administered by the NPS (See Figure 6.1 and 6.2 for details).

The invasive species removal would target primarily common reed (*Phragmites australis*) and purple loosestrife (*Lythrum salicaria*). This work would take place during the appropriate time of year to maximize the potential treatment of the invasive plant species, but no longer than within one year after the last CSO structure has been constructed and the required riprap on the river bottom has been installed. Any pesticides or other treatment types used would have to be approved in advance by NPS. Pesticide Use Log maintained for all applications would be required and submitted to NPS. Funding for this work would be provided by DC WASA. The details on how this work would be carried forward would be written as a condition in the permit that DC WASA would be required to have prior to any construction that takes place.



**Figure 6.1:
Wetland Mitigation
Site Location**

Kenilworth Marsh
Washington, D.C.

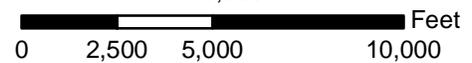
Wetland Statement of Findings



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- Legend:**
-  Overflow and Diversion Structures
 -  Invasive Species Eradication

Scale: 1 inch = 5,000 feet



Source: Office of the Chief Technology Officer. 2006. *Water Bodies*. DC GIS. Washington, D.C.
 Office of the Chief Technology Officer. 2009. *Street Centerline Segments*. DC GIS. Washington, D.C.
 Office of the Chief Technology Officer. 2002. *National Park Service, Parks*. DC GIS. Washington, D.C.



Figure 6.2:
Wetland Mitigation Areas

Kenilworth Marsh
Washington, D.C.

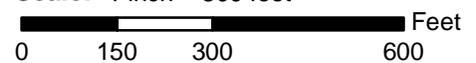
Wetland Statement of Findings



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Legend:  Invasive Species Eradication

Scale: 1 inch = 300 feet



Floodplain Mitigation

The proposed project would increase storage capacity, reducing the risk of flooding and erosion during high flow events. Therefore, no mitigation is needed.

Compliance

Clean Water Act Section 404

The proposed actions impact waters of the U.S., as defined by the Clean Water Act (CWA), and are therefore subject to review by the U.S. Army Corps of Engineers (COE). Section 404 of the CWA regulates the discharge of dredged or fill material into waters of the U.S.

CSO Policy of Section 102(q) of the Clean Water Act

Under this section of the CWA, communities such as the District are required to prepare LTCPs to bring all CSO discharges into compliance with the technology-based and water quality-based requirements of the CWA. The Authority prepared the LTCP for the CSS, and the plan was approved by the District Department of Health on August 23, 2003.

District Water Pollution Control Act of 1984

The water quality standards in the District, as developed under Section 401 of the CWA, are regulated and administered by the Water Quality Division of DDOE. Designated use categories for surface waters in the District include primary contact recreation; secondary contact recreation and aesthetic enjoyment; protection and propagation of fish, shellfish and wildlife; protection of human health related to consumption of fish and shellfish; and navigation.

The proposed actions are subject to the DDOE review process, which includes issuance of Water Quality Certification.

Rivers and Harbors Act Section 10

Section 10 of the Rivers and Harbors Act is also administered by the COE and regulates construction, filling, dredging, or excavation in navigable waters of the U.S.

National Environmental Policy Act

The Environmental Assessment, Section 106 Compliance Review, this Statement of Findings for E.O. 11990 and E.O. 11988, and the Findings of No Significant Impact would complete the requirements for the National Environmental Policy Act for this project.

Conclusion

The project would adversely impact approximately 0.75 acres of tidal wetlands; however, the project would ultimately enhance water quality by reducing CSO discharges into the Anacostia and Potomac Rivers by 98% and increasing flood storage capacity. To mitigate impacts to tidal wetlands, DC WASA will improve the overall functionality and values of 7.5 acres of wetlands (10:1 mitigation ratio) in the Kenilworth Marsh through the removal of invasive plant species.

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