NCPC File No. 6885

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WEST POTOMAC PARK LEVEE SYSTEM IMPROVEMENTS
17th Street NW and Constitution Avenue NW
Washington, D.C.

Finding of No Significant Impact

MAY 0 4 2009

I have evaluated the National Park Service's preliminary and final site development plans for improvements to the Potomac Park Levee System, including concrete flood walls and a post and panel system to provide a temporary closure of 17th Street NW during a flood event, as shown on NCPC Map File No. 1.42(03.40)42751. The project is also subject to Section 106 and 110 of the National Historic Preservation Act and has led to the execution of a Programmatic Agreement by the National Park Service, the District of Columbia State Historic Preservation Officer, the U.S. Army Corps of Engineers, the District of Columbia, the National Capital Planning Commission, and the Advisory Council on Historic Preservation.

Consequently, after review of the environmental assessment provided by the National Park Service, comments that the National Park Service received on the environmental assessment and their responses to all comments relative to proposed improvements to the Potomac Park Levee, I have determined pursuant to Section 102(2)(C) of the National Environmental Policy Act, the Council on Environmental Quality Regulations (40 CFR, Parts 1500-1508), and Section 10 of the Commission's Environmental and Historic Preservation Policies and Procedures, that the project with mitigation noted as follows is adequate to establish that the project would not significantly affect the human environment.

1. The actions necessary to mitigate potential adverse impacts to natural resources, vegetation and land cover that would otherwise be associated with the project are:
    a. Provide new/replacement planting wherever vegetation was removed for construction to the extent allowed by the limits on levee vegetation established by the U.S. Army Corps of Engineers. New/replacement planting must be installed during the phase in which it is removed. i.e., planting removed during Phase 1 must be replaced during Phase 1. Planting removed during Phase 2 must be replaced during Phase 2.
    b. Replace existing trees to be removed with similar species in compatibly designed locations and spacing. There shall be no net loss of trees on the National Mall. If the number of trees that need to be replaced cannot fit within the original project area due to spatial constraints or other concerns, the remaining trees shall be replanted in another appropriate area within the National Mall.
    c. Remove the poor soil that has contributed to the stunted growth of many of the existing trees and replace it with more appropriate soil so that the replacement trees can thrive.

2. The actions necessary to mitigate adverse impacts to visual resources are:
    a. Construct floodwalls so that views and vistas along the Virginia Avenue cart way north and west of Constitution Avenue in the direction of the Washington Monument grounds way shall not be obscured.
    b. Incorporate a treatment plan to define how potentially adverse visual impacts of the concrete flood walls will be mitigated through plant material, earthwork, and surface treatments such as stone cladding for the flood walls. In the event that stone cladding cannot be implemented immediately following the completion of the flood walls, the treatment plan shall include alternative surface treatments such as concrete stain that can be used until stone cladding can be installed.
    c. Incorporate a landscape plan that outlines measures that will be taken to restore the overall visual character and integrity of the original cultural landscape to the greatest extent possible.

3. The actions necessary to mitigate adverse impacts to cultural resources are:
    a. Provide interpretation and education appropriate to the historic context of the project and the site, including the historical development of the flood control system and associated themes.
    b. Include a plan for future stabilization of the historic Lock Keeper's House.
    c. Include the performance of a Phase 1 archaeological survey as part of construction mobilization for each phase of work.

Marcel C. Acosta
Executive Director

Background

The Potomac Park Levee provides protection against Potomac River flooding for portions of downtown Washington, D.C. including the Federal Triangle, museums along the north side of the Mall, and from the Capitol Reflecting Pool to Southwest D.C. along 3rd Street to Fort McNair. The existing levee structure extends from the vicinity of 23rd Street along the north side of the Lincoln Memorial Reflecting Pool in Constitution Gardens, and ends on the Washington Monument Grounds. Currently during a flood event, the National Park Service (NPS) must provide temporary closures at 23rd and 17th Streets NW. Because it is at a higher elevation, the closure at 23rd Street can be accomplished with sandbags. The closure at 17th Street requires a combination of sandbags, Jersey barriers and an earthen dike across the street to block the flow of water into downtown D.C. Based on new policies adopted after Hurricane Katrina, the U.S. Army Corps of Engineers (USACE) deemed the 17th Street closure unreliable and consequently gave the levee an unacceptable inspection rating. For this reason, the Federal Emergency Management Agency (FEMA) proposed a 100-year floodplain map for this area reflecting the extent of flooding that would occur in the area noted above if the 17th Street closure did not exist. This new mapping would place these areas within the 100-year flood insurance rate zone and require private property owners to purchase additional flood insurance. Federal government agencies would be required to make costly upgrades to comply with building standards for facilities within the floodplain.

FEMA has agreed to delay the final issuance of the new floodplain maps to allow the District and NPS to design and implement a solution that would, at a minimum, provide reliable protection against a 100-year flood event at 17th Street south of Constitution Avenue. This solution would remove the necessity for FEMA to map this area within the 100-year floodplain.

In 1936, Congress authorized USACE to design and construct a flood protection project to contain a flow of 700,000 cubic feet per second (cfs). This meets or exceeds the flow of a 185-year event. In 1999 Congress authorized USACE to design and construct improvements to the levee system that would improve the reliability of temporary closures required during a flood event. At this time, USACE has not received funds to complete this work. Nevertheless, since the original levee is a congressionally authorized project, it is necessary that any modifications are consistent with the original authorization. Therefore, current efforts to meet FEMA requirements for flood protection must be designed in a way that ensures that the congressionally authorized level of protection can be achieved once funding is appropriated.

During the completion of the Environmental Analysis (EA), it became apparent that considerable costs and time of construction, and therefore time of disturbance to the National Mall and to visitors, could be avoided if the levee at 17th Street were to be constructed to the higher level of protection at the first instance, pending the availability of funds. Therefore the alternatives considered in the EA were presented in a phased approach:

- Phase 1 is designed to satisfy the FEMA requirements for reliable protection against a 100-year river flooding event in the area of 17th Street south of Constitution Avenue, and may be built to the congressionally authorized level of protection if funding becomes available.
- Phase 2 addresses further improvements to the existing earthen levee north of the Reflecting Pool and to 23rd Street north of the Lincoln Memorial, and includes measures to enhance the visual character of the improvements at 17th Street consistent with its location on the National Mall.

Alternatives Considered

In the EA, NPS evaluated a range of alternatives, and six alternatives, including a no action alternative, were carried forward for further analysis. The five action alternatives are all presented in two phases as described above, and propose the same actions although in different configurations.

- Phase 1 would consist of a removable post and panel system and permanent concrete flood walls to provide flood protection at 17th Street. Each of the five action alternatives proposes a different configuration for these elements, and four of the five action alternatives would provide the congressionally authorized level of protection in Phase 1. In the sixth alternative, temporary flood walls built in Phase 1 would be designed to meet FEMA requirements. They would be replaced by permanent flood walls in Phase 2 that meet the congressionally authorized level of protection. No action is required under Phase 1 for improvements to the existing earthen levee and at 23rd Street since the existing condition in both locations currently meets the 100-year level of protection required by FEMA.
- Phase 2 would consist of re-grading at 23rd Street to raise the ground elevation by one to two feet, and filling in numerous low spots along the existing earthen levee to meet the congressionally authorized level of protection. In one of the action alternatives, temporary flood walls built in Phase 1 would be replaced with permanent walls in a different configuration.

The EA found that all action alternatives would cause approximately equal potential impacts relative to visitor use, floodplains, public health and safety, land use and socioeconomics, traffic and transportation, utilities and infrastructure, and to NPS park management and operations. However, the scale, size and location of the levee walls in the preferred alternative were determined to create far less potential adverse impacts to visual and cultural resources.

Proposed Action

The preferred alternative would utilize two symmetrical curved floodwalls flanking 17th Street NW approximately 253 feet south of the centerline of Constitution Avenue. The flood walls would require the re-grading of the northwest corner of the Monument Grounds and the eastern edge of Constitution Gardens between the Overlook Terrace and 17th Street. Each wall would be set back approximately 23 feet from 17th Street. The foundations necessary to support a post and panel system would be installed across 17th Street and extend to the ends of the concrete flood walls. Both floodwalls and post and panel would be built to the congressionally authorized level of protection as part of Phase 1. Phase 1 would also include the installation of new trees as mitigation for the loss of existing trees due to re-grading. Phase 2 would involve cladding the remaining visible sections of the levee wall in stone to match the character of adjacent cultural landscapes and historic resources. The cladding would enhance the aesthetic quality and character of the landscape to mitigate potential adverse impacts that would otherwise be associated with the concrete walls.

Potential Impacts

Effect on Natural Resources, Vegetation and Land Cover: Implementation of the selected alternative will result in long-term moderate adverse impacts on vegetation over an area of 5.24 acres due to the removal of approximately 98 trees and disruption of surface vegetation, mainly due to re-grading. Similar impacts could occur to vegetation outside of the structural footprint from construction activities and staging resulting in short-term moderate adverse impacts on vegetation. Many of the existing trees to be removed are stunted as a result of poor soil in the eastern end of Constitution Gardens. The actions necessary to

mitigate potential adverse impacts to natural resources, vegetation and land cover that would otherwise be associated with the project are:

a. Provide new/replacement planting wherever vegetation was removed for construction to the extent allowed by the limits on levee vegetation established by the U.S. Army Corps of Engineers. New/replacement planting must be installed during the phase in which it is removed. i.e., planting removed during Phase 1 must be replaced during Phase 1. Planting removed during Phase 2 must be replaced during Phase 2.
b. Replace existing trees to be removed with similar species in compatibly designed locations and spacing. There shall be no net loss of trees on the National Mall. If the number of trees that need to be replaced cannot fit within the original project area due to spatial constraints or other concerns, the remaining trees shall be replanted in another appropriate area within the National Mall.
c. Remove the poor soil that has contributed to the stunted growth of many of the existing trees and replace it with more appropriate soil so that the replacement trees can thrive.

Effect on Visual Resources: The closure at 17th Street will diminish the integrity of the landscape's original design intent, including views and vistas between the Washington Monument and Virginia Avenue, the cultural landscapes of the Washington Monument and Grounds and of Constitution Gardens. The actions necessary to mitigate potential adverse impacts to visual resources that would otherwise be associated with the project are:

a. Construct floodwalls so that views and vistas along the Virginia Avenue cart way north and west of Constitution Avenue in the direction of the Washington Monument grounds way shall not be obscured.
b. Incorporate a treatment plan to define how potentially adverse visual impacts of the concrete flood walls will be mitigated through plant material, earthwork, and surface treatments such as stone cladding for the flood walls. In the event that stone cladding cannot be implemented immediately following the completion of the flood walls, the treatment plan shall include alternative surface treatments such as concrete stain that can be used until stone cladding can be installed.
c. Incorporate a landscape plan that outlines measures that will be taken to restore the overall visual character and integrity of the original cultural landscape to the greatest extent possible.

Effect on Cultural Resources: It is possible that construction of the levee improvements will expose and/or disturb the remains of the 17th Street Wharf, a large earthen causeway built in 1807 that disappeared after the reclamation of Potomac Flats and the subsequent creation of parkland in the late nineteenth century. The project also is adjacent to major NRHP-listed properties including the Washington Monument and Grounds, the Lock Keeper's House, the West Potomac Park Historic District, the Northwest Rectangle Historic District, and the L'Enfant and McMillan plans for the City of Washington, although none of these resources will be physically impacted. The actions necessary to mitigate potential adverse impacts to cultural resources that would otherwise be associated with the project are:

a. Provide interpretation and education appropriate to the historic context of the project and the site, including the historical development of the flood control system and associated themes.
b. Include a plan for future stabilization of the historic Lock Keeper's House.
c. Include the performance of a Phase 1 archaeological survey as part of construction mobilization for each phase of work.