

# Levee *Fact Sheet*



## Goal:

To construct improvements to the National Mall levee to ensure that downtown Washington, DC is protected from Potomac River flooding.



## Issue: Potomac River Flooding

Following significant regional storm events, the Potomac River sometimes overflows its banks. As a result of several floods that extended all the way to Pennsylvania Avenue, Congress directed the construction of a levee system on the National Mall. The current levee, in place since the late 1930s, includes an earthen berm that runs parallel to the Lincoln Memorial Reflecting Pool. It requires construction of a temporary closure of sandbags, Jersey barriers, and an earthen dam across 17th Street when river flood conditions are imminent.

Post-Katrina federal standards require that a more reliable levee system be in place. Until levee improvements are completed, major federal and private sector offices, cultural institutions, and critical infrastructure in downtown Washington are at risk of river flooding. In addition, flood maps issued by the Federal Emergency Management Agency (FEMA) now show much of this area within the 100-year floodplain. This triggers new flood-related review requirements for federal and private development proposals, and as a result, private property owners are required to purchase flood insurance.

## Solution:

### Designing the Levee Improvements

The levee's location on the National Mall, one of the nation's most culturally and historically significant landscapes, triggered an extensive environmental, historic, and design review process. Recognizing the need to move quickly, while still successfully meeting engineering and design needs, numerous federal and local agencies collaborated over a two year period to develop a new approach for the 17th Street closure.

The improved levee will consist of a removable post-and-panel barrier connected to permanent masonry walls and earthen berms. The levee elements are designed to seamlessly blend with the setting of the National Mall. The curvilinear design and a reconfiguration of formerly diagonal walkways will better integrate the levee into the existing topography and better connect Constitution Gardens and the Washington Monument grounds, while minimizing encroachment into the 17th Street viewshed.

## Funding:

Funding from a variety of sources is enabling the project to move forward quickly and ensuring an aesthetically and technically sound design solution. The District of Columbia provided \$2.8 million to rapidly advance design work. The National Park Service (NPS) contributed \$700,000 to complete the NEPA and Section 106 work and to begin concept design. In September 2010 the U.S. Army Corps of Engineers (USACE), Baltimore District awarded a \$4.6 million contract for the construction of the levee improvements, using American Recovery and Reinvestment Act (ARRA) funding. The NPS also will provide an additional \$1.5 million to the USACE to provide the stone cladding for the retaining walls, sidewalk improvements, and landscaping.

## Timing:

Preliminary work is scheduled to begin during November 2010, with the bulk of on-site construction work occurring in March 2011. The project is expected to be completed in the summer of 2011. Once the levee improvements are certified by the USACE, the District government can request that FEMA formally amend the flood insurance maps to reflect the significant reduction of the 100-year flood plain in downtown Washington.

## Contributing Agencies

### U.S. Army Corps of Engineers (USACE)



The U.S. Army Corps of Engineers provided technical guidance and secured ARRA funding to complete the design and fund the construction of the project.

[www.usace.army.mil](http://www.usace.army.mil)

The mission of the U.S. Army Corps of Engineers is to provide vital public engineering services in peace and war to strengthen our nation's security, energize the economy, and reduce risks from disasters. The Corps' vision is to provide a great engineering force of highly disciplined people working with our partners through disciplined thought and action to deliver innovative and sustainable solutions to the nation's engineering challenges.

### National Park Service (NPS)



The National Park Service contributed funding to the NEPA and NHPA process, initiated the project design, and will provide \$1.5 million toward completion of the project. The NPS will be responsible for maintaining and erecting the 17th Street temporary closure, when needed.

[www.nps.gov](http://www.nps.gov)

The National Park Service preserves unimpaired the natural and cultural resources and values of the National Park System and its 393 National Park sites for the enjoyment, education, and inspiration of this and future generations. The National Park Service cooperates with partners to extend the benefits of natural and cultural resource conservation and outdoor recreation throughout this country and the world.

### National Capital Planning Commission (NCPC)



The National Capital Planning Commission took the lead in convening and coordinating the various agencies and reviewed and approved the levee's design.

[www.ncpc.gov](http://www.ncpc.gov)

The National Capital Planning Commission is the federal government's central planning agency in the District of Columbia and surrounding counties in Maryland and Virginia. NCPC provides overall planning guidance for federal land and buildings in the region. It reviews the design of federal projects and memorials, oversees long-range planning for future development, and monitors capital investment by federal agencies.

### District Department of the Environment (DDOE)



The DDOE revised the District of Columbia Flood Map and worked closely with FEMA to implement the new map that identifies properties at risk from a 100-year flood. DDOE also promulgated Flood Hazard Rules as required by FEMA that will regulate development in flood prone areas.

[www.ddoe.dc.gov](http://www.ddoe.dc.gov)

The District Department of the Environment (DDOE) is the local leading authority on energy and environmental issues impacting the District of Columbia. Our agency administers regulatory and educational programs, designed to protect and preserve the city's land, air, water, and natural resources. We seek to ensure a clean environment, promote safe and healthy neighborhoods, and foster smart and environmentally-responsible behavior within the District of Columbia.

### District Department of Transportation (DDOT)



DDOT managed the initial design process and provided the funding for the design phase of the project.

[www.ddot.dc.gov](http://www.ddot.dc.gov)

The mission of the District Department of Transportation is to develop and maintain a cohesive, sustainable transportation system that delivers safe, affordable, and convenient ways to move people and goods — while protecting and enhancing the natural, environmental, and cultural resources of the District.

### District Office of Planning (OP)



Using District funds, OP led the project through the federal and local entitlements process, and partnered with DDOT to secure additional District funding for the initial design phase. OP also worked with DDOE and FEMA on public outreach.

[www.planning.dc.gov](http://www.planning.dc.gov)

The mission of the Office of Planning (OP) is to guide development of the District of Columbia, including the preservation and revitalization of our distinctive neighborhoods, by informing decisions, advancing strategic goals, encouraging the highest quality development outcomes, and engaging all communities.



### Other agency involvement

The U.S. Commission of Fine Arts, the DC Historic Preservation Office, and FEMA provided technical guidance vital to the project's success.

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Sandbag closure on 17th Street, NW



Aerial photograph showing project site (in circle) and vicinity



Landscape Plan



Removable post-and-panel barrier connected to permanent masonry walls and earthen berms.