

Action Plan

Category 8 – Planning and Coordination

Action 8.3 – Finalize Plans for P Street Levee Closure



Overview and Implementation Strategy:

This action will ensure that there is a plan to erect a closure across 2nd Street SW, near the intersection of P Street SW, should forecasts predict a major riverine or coastal flood event in the District. Right now, there is no designated plan in place or specified agency responsible for ensuring the closure is in place. If not erected, large portions of Southwest DC could be flooded, including homes, public housing, and other critical facilities. This plan outlines three sets of actions.

Long Term

The USACE is currently working on a new risk assessment for the entire Potomac Levee System (including the Potomac Park Levee, and the Closures at 23rd St NW, 17th ST NW, and P Street SW). This assessment should be available in October 2023. The assessment may recommend a more permanent closure at P Street SW, and may recommend that the USACE build such a structure. The District government would likely need to provide some funding in this scenario. If the USACE risk assessment does not propose that the USACE itself construct a more permanent levee closure, the District should design a more permanent system (such as a post and panel closure system like the 17th Street Levee Closure), and construct it. This project may be eligible for FEMA funding, but if not, the Task Force recommends that such a project be prioritized for funding by District government. Whether the permanent closure is constructed by USACE or District contractor, it would need to be operated and maintained by a District Agency.

Medium Term

While a more permanent solution is being considered, District agencies recommend that the District contract out the services of constructing a flood proof barrier at P ST SW. This can be implemented more quickly than the alternative of procuring materials and hiring necessary staff to build and maintain equipment necessary for a levee closure. A commonly used solution in these scenarios is a sand bag closure, which is low-tech, and able to handle the subtle elevation changes of the street section (swales, curbs, road crest, bike lane protection). The District does not currently have a way to fill sandbags, or store its components (sand, bags, sand filling machine). The USACE recommends sandbags not be stored full as it reduces their effectiveness and useful life, which means that bags must be filled every time they are needed, requiring either specialized equipment or a significant number of staff. Giving this responsibility to a contractor will be a more efficient use of government resources.

Short Term

Should there be a riverine or coastal flood before a contract can be executed, the District will attempt to expedite the contracting process using emergency powers given by a Mayoral "state of emergency" declaration. If that is not feasible, the District will contact the USACE for help, who can provide unfilled sandbags, a bag filling machine, and technical expertise on site to direct the placement of the sandbags. USACE cannot provide sand or manpower. HSEMA may also call on Serve DC for manpower, and DDOT and DPW for assistance with heavy machinery, jersey barriers, and procurement of sand.

Additional Action Required by Fort McNair

The discussion above focuses on the closure that goes across District right of way on 2nd Street SW. However, in order for that closure to be effective, Fort McNair must seal the entry gate on



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P Street SW nearest 2nd ST SW. Fort McNair is solely responsible for this portion of the closure and appears to have plans that involve jersey barriers, sandbags, and machinery that can place them both. HSEMA will continue to coordinate with Fort McNair to ensure they have proper plans and materials.

Impacted City Ward/ANC:

- Ward 6 (Areas within the 500-year floodplain)
- Ward 2 (Areas within the 500-year floodplain)

Lead Agency:

- DMOI

Supporting Agencies, Roles/Commitments:

- DPW
- FEMS
- HSEMA
- DOEE
- DDOT
- DGS
- ServeDC
- USACE
- DOD – Fort McNair

Background:

Impact of this Effort on Task Force Goal:

Once complete, this action will ensure that District residents are protected from a 500-year coastal or riverine flood.

Historical Context:

- The District is vulnerable to three types of flooding: riverine, coastal, and interior. Riverine and coastal floods occur when water overflows the banks of the Potomac or Anacostia rivers due to heavy rains in the Potomac Watershed, or because of storm surge from tropical storms. Interior floods, also known as flash floods or stormwater floods, occur when heavy rainfall overwhelms the stormwater sewer system.
- Some, but not all, of the District's flood risk is mitigated by two primary levee systems: the Potomac Park Levee System (which includes the 17th Street Levee Closure and P Street SW closure) and the Anacostia River Levee System. These levee systems reduce risk from riverine and coastal flooding. They do not reduce the risk of interior flooding.

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- The P Street SW Levee Closure is part of the Potomac Park Levee System. While the 17th Street Levee Closure prevents water from flowing North from the Tidal Basin into the city, the P Street Levee Closure prevents water from flowing north from the Anacostia River, through Fort McNair, and entering the city.
- The P Street levee closure does not need to be constructed during a 100-year flood, as the elevation at P Street is high enough to prevent water from flowing past. However, it does need to be constructed if the District were to expect a 500-year flood or worse.
- Because the P Street Levee Closure would be installed on District owned property, it must be installed and maintained by a District Agency. The 17th Street Levee Closure is on NPS property, and thus the NPS operates and maintains it, even though it also offers protection to District residents.
- The P Street Levee Closure should be installed when the Wisconsin Avenue gauge is forecast to exceed a 23ft stage WMLW. This temporary emergency closure is approximately 90ft in length, is constructed to an elevation of 16.6ft (NAVD88) and requires no more than two feet of height. This closure insures the minimum required freeboard of two feet for the Congressionally-authorized level of protection for the levee system.

Equity

How does this action prioritize equity and residents who are most impacted?

- A large portion of the area that would be flooded if the P Street SW closure were not constructed includes low-income families, and public housing facilities – in other words a segment of the population who are least equipped to financially recover after a flood. This action will ensure that these residents are protected from major flood events.
- Current plans for the P Street Levee Closure call for a barrier to be erected across 2nd ST SW, just south of P Street SW. Permanent plans should consider moving the construction of the barrier further south to R Street SW, so that the barrier can protect additional housing and an electric substation.

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Timeline:

Fiscal Year	Responsible Agency	Action
2023	DOEE / DDOT	Draft a Scope of Work for a contractor to install the P Street Closure if necessary.
	DDOT	Release solicitation and award contract.
	USACE	Complete Potomac Park Levee System Risk Analysis
	HSEMA	Convene relevant agencies to decide on next course of action based on USACE analysis. Includes identifying funding for permanent solution, which agency will oversee its construction, and which agency will oversee its emergency installation when necessary.
	HSEMA	Work with Fort McNair to ensure their plans for their gate closure are up to date.
2023-2028	DDOT/HSEMA	Manage P Street Levee Closure contract, call contractor into action when necessary. Solicit a replacement contract in 2028 if a long-term solution is not yet in place.

Budget:

Total Estimated Cost: \$5 to \$30 million for TBD

Cost Breakdown by Phase / Action:

- \$150,000 from local emergency funds to pay a contractor each time the P Street Levee closure is constructed
- \$5 to \$30 million from local capital funds or federal grants to pay for a more permanent closure structure.

Long Term Budget Requirements:

- Medium Term – emergency funds will need to be available every year in case the closure needs to be constructed
- Long Term – A onetime payment of \$5-\$30 million would be required to install a more permanent closure. Once a more permanent system is constructed, the responsible District agency should perform yearly exercises to construct the closure and inspect materials. This only requires staff time.

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Fiscal Year	Responsible Agency	Funding Source	Amount to be Requested	Description
Every Year starting in 2023	HSEMA	Local Budget – Emergency Funds	~\$150,000	Funding to pay a contractor to install levee closure once a year
2026	DDOT	Local Capital Funds / Federal Grants	\$5 million to \$30 million	Funding to support a more permanent post and panel closure system

Public Outreach and Input:

Public outreach & engagement approach/actions:

Not applicable.

What were the Public Comments of relevance to this Action?

Not applicable.