



Levee System Summary

District of Columbia Levee System

Washington, D.C.

U.S. ARMY CORPS OF ENGINEERS

BUILDING STRONG®

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Summary of Risk Assessment: The levee is in good condition and is designed to hold back major Potomac River floods. However, extreme floods that cause water to come over the levee and cause levee failure could lead to loss of life, billions of dollars in damages and major disruptions regionally and to the national government. Due to these severe consequences, the levee has been assigned a risk classification of High.

Project Description: The District of Columbia Levee System (DCLS), also referred to as the Potomac Park Levee, is part of the Washington, D.C. Flood Risk Management Project. The project was constructed by the U.S. Army Corps of Engineers (USACE) in 1939. The DCLS consists of approximately 0.75 miles of earthen levee along the north side of the reflecting pool on the National Mall and 250 feet of concrete floodwall, which connects to one of three openings that require closure during high water. These openings are located at 23rd St. and Constitution Ave. NW (sandbag closure); 2nd and P St. SW (sandbag closure); and 17th St. (post and panel closure) between Constitution Ave. and Madison Dr.; and are implemented based on Potomac River forecast. The National Park Service (NPS)



is the levee sponsor responsible for operation and maintenance of the levee system, including installation of the closures, with the exception of the closure at 2nd and P St. in Southwest Washington, D.C. The levee system was designed to reduce the risk of flooding from the Potomac River (river flooding and tidal surge); however, the area is still susceptible to flooding from interior (stormwater) drainage from heavy local rainfall. The area behind the levee (leveed area) contains more than 40,000 people and \$14 billion in property including significant infrastructure that is critical to our nation.

Risk Characterization: The DCLS reduces flood risk for Potomac River flow rates up to 700,000 cubic feet per second. This is currently greater than a 0.2-percent annual chance flood¹ (500-year flood event). USACE recently completed a risk assessment and found that the DCLS is in good condition; however, in the remote event that water were to flow over the top of the levee from a strong storm (overtopping) or closures were not implemented properly and in time, the consequences could be catastrophic. Although water would be less than 6 feet deep in most of the area, if there is a break in the levee system when water is at the top of the levee, flood depths in downtown D.C. could be more than 15 feet in some places. Water levels this deep significantly increase the chances of property damage and loss of life. The leveed area contains a mixture of residential and commercial buildings; the metro system; and numerous structures, assets, and infrastructure of national importance, including congressional offices, national monuments, the Smithsonian, and the National Gallery of Art. There may be underground pathways (pipes, utilities, and tunnels) in the vicinity but not related to the levee system that could carry floodwaters into the leveed area. The effectiveness of current warning and evacuation procedures may be reduced/limited by the large number of visitors, general lack of flood threat awareness, and the complexities of coordinating among multiple government jurisdictions.

¹ A 0.2-percent annual chance flood (500-year flood event) is a flood that has a 0.2 percent chance of happening in any given year.

What is driving the risk?	What is being done about it?
Floodwaters overtopping the levee could erode the embankment and/or foundation and cause the levee to break. Any levee has the potential for water to flow over the top from a storm that is greater than the levee was designed to handle.	USACE is currently conducting a study to evaluate raising the height of the levee system. If the levee system is forecast to overtop, the DC Homeland Security and Emergency Management Agency (HSEMA) would follow emergency protocols to alert and evacuate affected people.
All closures must be implemented properly and in time for the system to function correctly.	NPS has plans on how to place sandbags at 23rd St. and Constitution Ave. NW and install the post and panel closure at 17 th St. The 17 th St. closure is tested annually. For the 2 nd and P St. SW closure, coordination is ongoing regarding the logistics for placing sandbags between NPS, USACE, HSEMA and DC Department of Public Works (DPW).

What Is Important to Know? *Levees help manage risk; they do not eliminate the risk.* Flood risk management is a shared responsibility. There are steps individuals can take to reduce their risk, such as purchasing flood insurance, moving valuables to higher levels, flood proofing homes or businesses, creating a flood emergency kit, and elevating utilities and mechanicals.

Latest Inspection and Rating:	USACE performed a routine inspection in Sept. 2016 and rated the DCLS as Minimally Acceptable. The Minimally Acceptable rating means that, while there are areas where the system can be improved, the levee is functional and should perform well during a flood. A Periodic Inspection is conducted every five years, and is more detailed than the annual Routine Inspections.
Rehabilitation Program Eligibility Status:	The system is operated and maintained by a federal agency, therefore it is not eligible under the Public Law (PL) 84-99 Rehabilitation Program.
National Flood Insurance Program Status:	<p>The DCLS is accredited on FEMA's Flood Insurance Rate Maps (FIRMs). To be accredited, FEMA requires that levees reduce risk of riverine flooding for the 1-percent annual chance flood levels (100-year flood event). Properties behind the levee may be required to purchase flood insurance by mortgage or lien holders due to interior (stormwater) drainage flooding. Levees can be overtopped or fail during floods, and all properties behind levees are encouraged to obtain flood insurance to lessen financial impacts if flooding occurs.</p> <p>The latest FEMA FIRMs and flood insurance studies were updated in Sept. 2010. A letter of map revision (LOMR) was completed in Sept. 2016. National Flood Insurance Program (NFIP) flood hazard mapping products, including FIRMs, are available at the FEMA Flood Map Service Center website: https://msc.fema.gov/ and on the National Flood Hazard Layer (NFHL): https://fema.maps.arcgis.com</p>

Ongoing Activities and Studies: The DC Silver Jackets Team is working with stakeholders to determine options for reducing interior drainage issues in the Federal Triangle area. NPS is exploring options for achieving an even higher level of flood risk management through temporary barriers and is also updating the Washington, D.C. Flood Emergency Manual.

Who Can I Contact? - For more information about the levee system, please contact the following entities:

Levee Sponsor	National Park Service (NPS). 1100 Ohio Dr. SW, Washington, DC 20024 Phone: (202) 619-6369
FEMA National Flood Insurance Program	For general questions contact the FEMA Map Information eXchange (FMIX): 1-877-336-2627 (toll-free), or email at: FEMAMapSpecialist@riskmapcds.com
National Levee Database	https://levees.sec.usace.army.mil/