National Mall Underground

presented by the National Mall Coalition before the Commission of Fine Arts

October 21, 2021
Federal Triangle area

IRS Building

June 25^{th}-26^{th}, 2006

Source: GSA
Pooling of stormwater

Visualization of 2006 flood

Source: Arthur Cotton Moore FAIA
Tidal Basin, 2008

Source: author
WASHINGiTON, D.C.

Federal
- U.S. Army Corps of Engineers (USACE), Baltimore District
- U.S. Federal Emergency Management Agency (FEMA), Region III
- National Park Service (NPS)
- National Oceanic and Atmospheric Administration’s National Weather Service (NOAA/NWS)
- U.S. Geological Survey (USGS)
- U.S. Army, Military District of Washington (MDW)
- U.S. Navy, Naval District Washington (NDW)
- U.S. Navy, Joint Base Anacostia/Bolling (JBAB)
- General Services Administration (GSA)
- U.S. Environmental Protection Agency (EPA)
- National Capital Planning Commission (NCPC)
- District of Columbia National Guard

District of Columbia
- Department of Energy and Environment (DOEE)
- DC Homeland Security and Emergency Management Agency (HSEMA)
- DC Office of Planning (OP)
- Deputy Mayor for Public Safety and Justice
- Department of Public Works (DPW)
- Department of Consumer and Regulatory Affairs (DCRA)
- District Department of Transportation (DDOT)
- Department of Insurance, Securities and Banking (DISB)

Regional
- DC Water and Sewer Authority (DC WATER)
- Washington Metropolitan Area Transit Authority (WMATA)
- Metropolitan Washington Council of Governments (MWCOG)

Academia

Source: DC Silver Jackets
National Mall Underground
Federal Agencies
- Architect of the Capitol
- Army Corps of Engineers
- Commission of Fine Arts
- Council on Environmental Quality
- EPA
- Federal Emergency Management Agency (FEMA)
- IRS
- National Archives
- National Capital Planning Commission
- National Gallery of Art
- National Park Service
- Smithsonian Institution
- USDA
- U.S. Dept. of Commerce
- U.S. Dept. of Homeland Security
- U.S. Park Police
- U.S. Secret Service
- DC Councilmembers (staff) Wells (sits on NCPC) and McDuffie (sits on COG)
- DC Department of Transportation
- DC Water (WASA)
- DC Department of Environment
- Office of the Mayor
- DC Office of Planning
- WMATA

District of Columbia

Architects, Civic Groups
- American Institute of Architects, DC Chapter
- American Bus Association
- Committee of 100 on the Federal City
- Destination DC
- DC Historic Preservation League
- Dutch Embassy
- Federal City Council
- Guild of Professional Tour Guides of Washington DC
- Louis Berger Group
- Newseum
- Penn Quarter Association
- SmithGroup
- Trust for Public Land
- Trust for the National Mall (NPS fundraising partner)
- Washington Post Editorial Board
$260 - $320 million
Federal Triangle Stormwater Drainage Study
July 2011

Members of the Stormwater Working Group:

• General Services Administration (GSA)
• District of Columbia Office of Planning (DCOP)
• DC Department of the Environment (DDOE)
• DC Homeland Security and Emergency Management Agency (DC HS&EMA)
• DC Water and Sewer Authority (DC Water)
• Federal Emergency Management Administration (FEMA)
• National Archives and Records Administration (NARA)
• National Capital Planning Commission (NCPC)
• National Gallery of Art (NGA)
• National Park Service (NPS)
• Smithsonian Institution (SI)
• U.S. Department of Justice (US DOJ)
• U.S. Environmental Protection Agency (US EPA)
• Washington Metropolitan Area Transit Authority (WMATA)
Federal Triangle Stormwater Drainage Study
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• U.S. Department of Justice (US DOJ)
• U.S. Environmental Protection Agency (US EPA)
• Washington Metropolitan Area Transit Authority (WMATA)
“Flood risk from a storm of the intensity that flooded the Federal Triangle area in 2006 could be reduced significantly during a flood event by implementation of the Underground.

... revenue potential from parking fees and water credits may offer self-financing opportunities that attract a public-private partnership.”
WASHINGTON, D.C.

Federal
- U.S. Army Corps of Engineers (USACE), Baltimore District
- U.S. Federal Emergency Management Agency (FEMA), Region III
- National Park Service (NPS)
- National Oceanic and Atmospheric Administration's National Weather Service (NOAA/NWS)

SILVER JACKETS

Many Partners, One Team
1. Aren’t there alternatives?
https://www.chesapeakebay.net/channel_files/25880/interior_flooding_for_epa_20180215.pdf
Three Types of Flooding

1. Riverine
2. Coastal
Three Types of Flooding

1. Riverine
2. Coastal
3. Interior
Federal Triangle – Interior Flooding

Source: General Services Administration
National Mall – Interior Flooding

Today
Report prepared by: District of Columbia Silver Jackets Team

FINAL REPORT
OCTOBER 2019
Morning Presentations

Federal Triangle Stormwater Drainage Study Alternatives - Brandon Flora, DC Water (Greeley and Hansen), presented the findings from the 2011 Federal Triangle Stormwater Drainage Study. He provided information on the following preliminary solutions: low impact development/green practices in the federal Triangle (not a viable standalone solution), storage under the National Mall (viable solution), pumping station serving the Mall (viable solution), and a tunnel to Main and O Pumping Stations (no longer viable due to recent construction projects).
Morning Presentations

Federal Triangle Stormwater Drainage Study Alternatives - Brandon Flora, DC Water (Greeley and Hansen), presented the findings from the 2011 Federal Triangle Stormwater Drainage Study. He provided information on the following pre-action solutions (not a viable standalone solution), storage under the National Mall (viable solution), using the GSA condensate line (not a viable solution), storage under the National Mall (viable solution), pumping station serving the Mall (viable solution), and a tunnel to Main and O Pumping Stations (no longer viable due to recent construction projects).

“storage under the National Mall”
2. Won’t the Underground increase traffic congestion?
Amsterdam’s Museumplein park
Washington National Cathedral
If you live in Washington, DC, the air you breathe needs your support.

The air you breathe needs your support.

Ozone: F

Particle Pollution 24-hour: B

Particle Pollution Annual: PASS

You can make a difference in the air that you breathe.
Regional Bus Staging, Layover, and Parking Location Study

final report

Metropolitan Washington Council of Governments
2015

prepared for
Metropolitan Washington Council of Governments
prepared by
Cambridge Systematics, Inc.

March 7, 2015
"... The proposed National Mall Underground would be the most dramatic improvement in bus parking capacity if constructed."
“Water storage beneath the Mall (with no parking)”
“Alternative A”: no cars, all buses
3. Who will pay for it?
Introduction

The National Mall Coalition (the “Coalition”) convened in 2014 a group of volunteers having varied expertise in the areas of architecture, engineering, construction, law, finance, real estate (the “Mall”) and flood storage. The Coalition’s purpose was to create a comprehensive, long-term vision for the National Mall that would accommodate 150 million or more visitors each year. The Coalition recognized the need to develop a sustainable, environmentally-friendly approach to addressing the challenges of climate change and urban development. The proposed solution would include a comprehensive flood water management system, as well as other innovative approaches to sustainability and resilience. The Coalition’s vision was to create a world-class park that would be a leader in sustainable design and practice.

The National Mall Underground Preliminary Financing Plan

Executive Summary

November 2019
“For federal and DC stakeholders, the National Mall Underground can achieve a stormwater mitigation solution at significant cost savings in comparison to the other alternatives thus far identified. Of equal value to these federal stakeholders is that the financing plan is expected to make use of existing federal contracting authorization programs to pay for the project over time, avoiding the need for a substantial upfront appropriation.”
4. Is the flooding danger really so great?
1791 L’Enfant Plan

- White House
- Tiber Creek
- Capitol
- Washington Monument
- Potomac River shoreline
Constitution Avenue
(old Tiber Creek)

Washington Monument

1901 McMillan Plan
Washington Monument
Constitution Avenue
(old Tiber Creek)

Federal Triangle

Lincoln Memorial

Washington Monument

Jefferson Memorial
Sea Level Rise and Storm Surge Projections 2018
Projected flooding in 2050 from a category 3 hurricane if greenhouse gas emissions keep rising. Based on calculations by the National Park Service.
Projected flooding in 2050 from a category 3 hurricane if greenhouse gas emissions keep rising. Based on calculations by the National Park Service.
Smithsonian Institution

Revitalization of the Historic Core (RoHC)
Underground Construction, Cooling Towers, Gardens and Grounds

Consulting Parties Meeting 2
27 May 2021
National Mall Coalition

Contact: jfeldman@nationalmallcoalition.org