

Action Plan

Category 7 – Mapping and Modeling

Action 7.3 – Update Watts Branch Flood Insurance Rate Maps



Overview and Implementation Strategy:

To better understand the flood risk in the Watts Branch study area, the U.S. Army Corps of Engineers and DC Silver Jackets team conducted modeling and mapping to capture the flow of water more accurately throughout the watershed. As a result of this effort, the District now has access to flood risk maps that are more accurate than the existing Flood Insurance Rate Maps (FIRMs) produced by FEMA. DOEE will apply to FEMA for a Letter of Map Revision (LOMR) to officially update the FEMA FIRMs for the area.

Impacted City Ward/ANC:

- Ward 7
- ANC 7C01, 7C02, 7C03, 7C04, 7C05, 7D02, 7D03, 7D06, 7D07

Lead Agency:

- DOEE

Supporting Agencies, Roles/Commitments:

- DOEE
- FEMA (review of LOMR application and revision of FIRMs)
- U.S. Army Corps of Engineers (potential revision of modeling to meet FEMA standards)

Background:

Impact of this Effort on Task Force Goal:

- This effort updates flood maps using more accurate modeling. It bolsters flood readiness by providing a more accurate depiction of areas most at risk for flooding. The updated maps will also reduce the financial impact of federal insurance requirements by reducing the number of properties in the floodplain. Updated and more accurate modeling does not always reduce the number of properties in a floodplain, but in this case, it does.

Historical Context:

- Hydrologic modeling was completed to estimate peak flows throughout the watershed, and hydraulic modeling was developed to depict the watershed response (where it floods) more accurately.
- This modeling was completed using the latest two-dimensional (“2D”) data and information gathered for the study; it therefore provides a more accurate representation of the flood risk in the study area than the 2010 FIS, which is based on a one-dimensional (“1D”) model. The 2010 FIS was used to create the FIRMs that map the current and effective FEMA 100-year floodplain.

Action Plan

Category 7 – Mapping and Modeling

Action 7.3 – Update Watts Branch Flood Insurance Rate Maps



Equity

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

- The underlying reason for this action is to provide the best and most accurate data to District residents.
- The action does have an equity impact as the area that needs to be updated is also an area with high social vulnerability on the Centers for Disease Control and Prevention (CDC) Social Vulnerability Index (SVI). Each of the Census tracts bordering the Watts Branch floodplain in Ward 7 and the Oxon Run floodplain in Ward 8 is ranked as having a high or moderate-to-high level of vulnerability to disasters by the CDC SVI. The median SVI Score of Census tracts in Wards 7 and 8 intersecting 100-year floodplains is 0.829, while the District as a whole has a median SVI of 0.5029. Scores closer to 1.0 indicate higher vulnerability.
- Through adoption of the updated mapping, the number of structures in the 100-year floodplain drops by 52% (from 481 to 232), and the number of structures in the combined 100-year and 500-year floodplains drops by 24% (from 557 to 424). The immediate result is that it will remove the federal flood insurance requirement from the homes that were removed from the 100-year floodplain, helping to make insurance more affordable.

Timeline:

Fiscal Year	Responsible Agency	Action
2022	DOEE	Conduct outreach via mailings and newspaper publication.
2022	DOEE	Submit Letter of Map Revision application (MT-2 Form) to FEMA.

Budget:

Total Estimated Cost: \$3,000

Cost Breakdown by Phase / Action:

- \$ 2,000 for mailing to property owners
- \$ 1,000 for newspaper publication

Long Term Budget Requirements: None

Action Plan

Category 7 – Mapping and Modeling

Action 7.3 – Update Watts Branch Flood Insurance Rate Maps



Public Outreach and Input:

Public outreach & engagement approach/actions:

- A public notice will be published in a newspaper in accordance with 44 CFR 65.12. The updated floodplain maps will be posted for public viewing using the DC Flood Risk Tool (<http://dcfloodrisk.org/>). Residents will also be able to contact DOEE staff via phone or email to request a copy of updated map layers at their property. DOEE will also use mailers to affected addresses as a strategy to raise awareness.
- “Flood Risk Near Watts Branch” flyer with mention of LOMR was distributed at:
 - Juneteenth Community Resilience Fair (4800 Nannie Helen Burroughs Ave NE; June 2021)
 - Ward 7 canvassing activities near Faunteroy Center (canvassing in vicinity of 4800 Nannie Helen Burroughs Ave NE; monthly starting in October 2021 – Present)
- In order for FEMA to adopt new floodplain maps for the District or any community in the United States, the new maps must be created according to standard methodologies. These standard methodologies only allow maps to be based on *historical* flood risk, and by law, are not able to account for the likely increases in flood risk due to climate change. DOEE and agency partners will need to be careful about how this map update is conveyed – as DOEE expects flood risk in this area to increase as a result of more frequent and severe rainstorms. This could be a potentially confusing message as the map updates will show a decrease in flood risk, which only reflects a decrease in the risk as historically calculated, and does not account for climate change induced risks.

What were the Public Comments of relevance to this Action?

Public Comments on this Action Plan from July/Aug 2022

- From the DC Commission on Climate Change and Resilience: We offer the Commission's support for proposed public outreach activity in the Oxon Run and Watts Branch mapping updates.
- From the Sierra Club: In Actions 7.3 & 7.4, Sierra Club questions how the U.S. Army Corps and the DC Silver Jackets team — those responsible for the updated maps — define “historical flooding;” and what year constitutes the cut off for historical? Also, for Watts Branch, how does more accurate modeling necessarily lead to a decrease in the number of properties in the floodplain? Can it not also conceivably result in an increase? Sierra Club understands a smaller number, if accurate, is desirable because it means that fewer houses will be burdened with costs associated with the federal flood insurance requirement or other floodproofing costs.