

To: Congresswoman Haley Stevens (MI-11)

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Policy Brief #2: Combating Flooding and Climate Change in Michigan's 11th District

Executive Summary

On June 26, 2021, the Governor of Michigan, Gretchen Whitmer, declared a state of emergency in response to “extraordinary flooding” in southeast Michigan. In Wayne and Washtenaw counties¹ it is estimated that around 40,000 businesses and homes were affected² including Livonia, an 11th District city based in Wayne County, where substantial flooding³ was also experienced. The National Weather Service (NWS) Detroit said that in a 24 hour period to 26 June, Garden City recorded 6.6 inches / 167.64 mm of rain while Grosse Pointe saw 6.5” / 165.1 mm, Ann Arbor 5.34” / 135.6 mm and Detroit 5” / 127 mm. Following President Biden’s disaster declaration⁴ on July 19, 2021 allowing individual assistance for both affected counties, it is important for you to ensure the most-affected residents in Livonia and other affected 11th District cities get assistance as they rebuild after the flooding. Additionally, you should also use your position as Chairwoman of the Research & Technology Subcommittee of the House Committee on Science, Space & Technology to ensure research on climate change and its imminent risk is discussed widely in Congress. You could also show a good example by strongly advocating for manufacturing companies within Michigan to adopt green and sustainable practices in their design and production processes.

Background

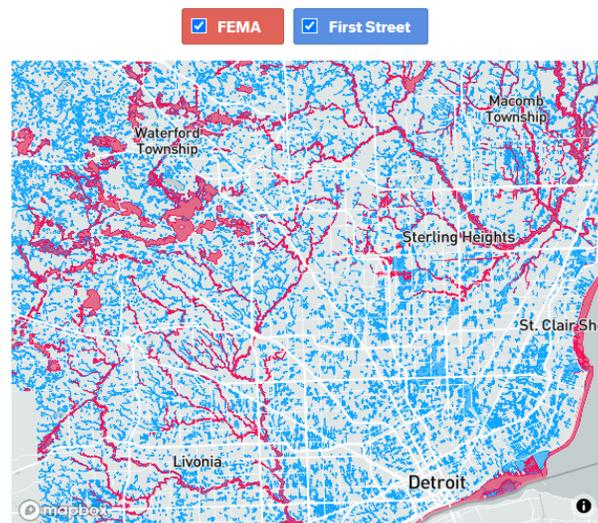


Fig 1: Screenshot shows areas in Michigan (incl. Livonia) with 1% annual likelihood of flooding, as identified by FEMA (red) and First Street Foundation (blue). Credit: Matt Daniels, The Pudding

In a report published in June 2020, First Street Foundation stated that it has reassessed the flood risk for every property in the United States — more than 142 million homes and properties across the contiguous U.S. — exposing a federal flood mapping system, administered by the

¹ Michigan Gov, <https://www.michigan.gov/whitmer/0,9309,7-387-90499-562972--,00.html>

² Floodlist, <https://floodlist.com/america/usa/floods-michigan-detroit-june-2021>

³ Click on Detroit, <https://livonia.gov/CivicAlerts.aspx?AID=192>

⁴ Livonia Gov, <https://livonia.gov/CivicAlerts.aspx?AID=192>

Federal Emergency Management Agency (FEMA), that is often either badly outdated or missing information altogether.

FEMA counts just over 124,000 properties across Michigan as in Special Flood Hazard Areas, meaning they have a 1% or greater chance of flooding every year. First Street's method finds 516,760 parcels at that level of flood risk, more than four times as many. This is a big potential liability for property owners and renters, as most buildings outside of FEMA flood zones are probably not covered by flood insurance, meaning their regular insurance wouldn't cover their losses if a flood occurred, forcing residents to pay out of pocket for hundreds or even thousands of dollars in damages⁵.

To better understand flood risk in southeast Michigan, the Southeast Michigan Council of Governments (SEMCOG) and Michigan Department of Transportation (MDOT) partnered to produce the Climate Resiliency and Flooding Mitigation Study⁶ in August 2020 to assess flooding risk for roads, bridges, culverts, and pump stations in the SEMCOG region. The study found that flooding risk information is an important input to challenging investment decisions and that data sharing between agencies is a key component of evaluating flooding risk to assets.

Proposed Recommendations

In a bid to combat the challenges posed by climate change and flooding in your district, I recommend a three-step approach:

1. **Support most-affected residents in getting assistance:** Many residents who might have suffered damage to their homes, loss of personal property, and faced unimaginable stress may not be aware of how to get assistance. An immediate step is for your caseworkers to ensure that those who need support are helped in the process of applying for assistance.
2. **Advocate for FEMA to reassess flood risk in 11th District:** Using reports published by First Street and SEMCOG as advocacy materials, you should advocate for FEMA to conduct a reassessment of flood zones in Michigan's 11th district, and the entire country at large, to ensure that everyone at risk is duly covered by insurance in the event of future flooding.
3. **Climate Change Advocacy:** I believe you are perfectly positioned as a member of the House Committee on Science, Space & Technology, to advance advocacy on climate change and sustainability in the country. One way to show example is by advocating for manufacturing companies within Michigan to adopt green and sustainable practices in their design and production processes. This could be done through wide publication of data on climate change and its imminent risk as well as engagement with Manufacturers' Associations to propose incentives for collective reduction in carbon emissions. If successful, your advocacy could lead to a framework which could be applied in the manufacturing industry across the country to reduce the United States' carbon footprint.

⁵ Detroit Free Press,

<https://www.freep.com/in-depth/news/local/michigan/2020/06/29/flood-risk-michigan-homes-map-first-street-flooding/3258043001/>

⁶ SEMCOG,

https://semcog.org/Portals/0/Documents/Plans-For-The-Region/Environment/SEMCOG%20Climate%20Resiliency%20and%20Flooding%20Mitigation%20Study_Report_August%202020.pdf