

Household Flooding in Detroit

Highlights from a report by Healthy Urban Waters & their partners*

How flooding happens

Flooding can be caused by excess rain, overflowing rivers, and shortcomings of wastewater infrastructure. Because Detroit has a combined sewer system (sanitary and storm water), overflows and flooding caused by excessive rain can contain untreated sewage.

The impacts of flooding

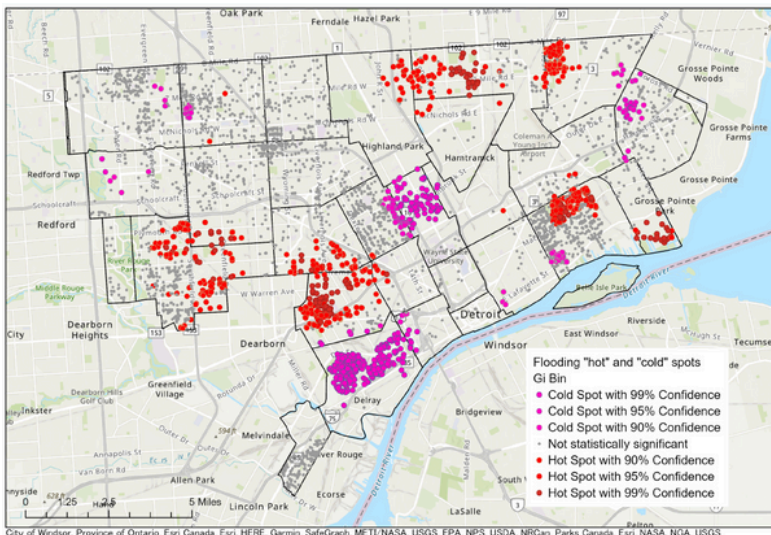
- Missed school & work
- Displacement
- Recovery costs (e.g., health care, home repair, trash removal, or mold removal)
- Injuries or death (e.g., from electrocution or drowning)
- Respiratory issues due to mold or other microbes
- Gastrointestinal issues
- Skin rashes
- Eye irritation
- Psychological distress

43% of 4,667 Detroit households surveyed between 2012-2020 reported household flooding.

Renters are 1.7 times more likely to report household flooding

...But it's much more than just money that's needed to mitigate the situation. It's just, what are you doing to prevent it? Because you can't pay me for the stress I feel every time I see a heavy rain happen. There's no paying for that.

- Detroit Resident



Flooding risk is not equal throughout Detroit:

Red dots represent clusters of homes that reported flooding
Purple dots represent clusters of homes that did not report flooding

Preparing for future flooding

Over the next 25 years, rain events in the Midwest are expected to become more frequent, more severe, and last longer than in previous years. As weather events make existing health disparities worse, we can expect increasing challenges to equal opportunities to health as our environment changes. Our most vulnerable neighbors are likely to be impacted the most by flooding. See the next page for recommendations to prevent flooding and protect communities.

How Can We Improve Preparation and Response to Flooding?

1. Major Infrastructure Updates

Government agencies and regional authorities should prioritize funding for new infrastructure to control rainwater and flooding.

2. Maintenance of Vacant Lots & Flood-prone Areas

Unmaintained lots can contribute to flooding if not properly cared for. The city should be responsible for taking care of vacant lots, especially lots which may be making flooding worse.

3. Improve Process for Flood Related Claims & Ensure Fairness in Settlements

Submitting a claim to Detroit Water and Sewerage Department for flood damage can be difficult to navigate. Work to make the process easier and distribute compensation quickly and fairly.

4. Address Remaining Research & Policy Questions

Encourage the city to invest in research to find the specific causes and effects of flooding in different neighborhoods: This will allow solutions to be put in place which are good for the community, long lasting, and fair. .

5. Hold Landlords Accountable for Flood Prevention & Response

Better protections for renters are needed; requiring landlords to be responsible for basic household maintenance and flooding prevention on their properties.

6. Develop Grants and Technical Assistance programs to support household flood related maintenance

Flood related maintenance can be costly and unaffordable for many people. Grants and assistance programs would make it easier to put these protections in place.

***Read the full report at https://huw.wayne.edu/learning-center/detroit_flood_report_2021.pdf**



Support for this collaboration was provided by R01ES022616 from the National Institute of Environmental Health Sciences, National Institutes of Health, and the Fred A. and Barbara M. Erb Family Foundation. Additional support was provided by grant P30ES017885.