NYC Emergency Management

New York City Department of Emergency Management
Committee on Fire and Emergency Management Hearing
January 29, 2025

Good morning Chairperson Ariola and members of the Committee on Fire and Emergency Management. I am Heather Roiter, Deputy Commissioner of Planning and Resiliency at New York City Emergency Management (NYCEM). I am joined today by Emergency Management's Deputy Commissioner of External Affairs David Schmid.

To understand how the City responds to flash flood emergencies, it's important to understand the science behind it and the challenges with respect to flash flood prediction. It is difficult to predict flash floods far in advance, as there is an inherent uncertainty with respect to heavy rainfall prediction. There is very little lead time, perhaps only an hour or so, to accurately identify the precise location and intensity of rainfall. This means the National Weather Service (NWS) might be able to identify a flash flood threat for the tri-state area, or for the city as a whole, with enough lead time to activate the Flash Flood Emergency Plan and warn the public, but predicting rainfall at smaller scales, such as by borough or neighborhood or street level, isn't possible until the storm is bearing down on the city.

The high variability on where rain falls means Flood Advisories and Flash Flood Warnings are issued only an hour or so in advance, or, in some cases, as a storm is on-going. This is compounded by the fact that small changes in the intensity, movement, and development of a storm can result in large changes to the forecast. A shift of only a few miles can be the difference between minimal and major, potentially catastrophic impact. No two storms will ever be the same. Each will leave its own unique impact on the city, even if the weather patterns between storms are similar. This is to say that future storms will produce flooding in areas that perhaps haven't seen significant flooding in the past.

When we consider these factors and layer them onto the vast and varied landscape of New York City, in addition to the forecast challenges and variability of heavy rainfall, you begin to understand all that we take into account as we plan and respond to these storms. The City first released its *Flash Flood Emergency Plan* in 2009, which is the most activated of all emergency plans. Throughout the years, Emergency Management has made improvements in our response strategies and addressing of flood risk, especially following the catastrophic events of Post-Tropical Cyclone Ida in 2021 and the September 2023 flash flood event. This includes an embedded meteorologist within the agency, the hiring of a third-party weather vendor to supplement our coordination with the National Weather Service, and the revamping of the *Flash Flood Emergency Plan* to have a risk-based and scaled approach.

The *Flash Flood Emergency Plan* has expanded its risk-based strategies by incorporating the City's stormwater resiliency maps for targeted catch basin cleaning, monitoring chronic flood locations, dewatering operations, disseminating public information and travel advisories, augmenting executive decision-making through City Leadership coordination calls, and utilizing and supporting the advancement of the City's flood sensor network, FloodNet, to give us real time flooding information. This risk-based approach allows the City to adjust its response to address common events that can cause nuisance flooding to scaling operations for more severe events.

Emergency Management has also enhanced public warning capabilities via Notify NYC, including the creation of new message types encouraging rain preparedness, such as a notification asking New Yorkers to help clear catch basins. In addition to these messages, we have also increased our focus on basement

apartment notifications and risk – including the development of a Notify NYC subscription group that offers targeted messaging regarding flooding in basement apartments. New Yorkers interested in this information can enroll in this group and, unlike other groups, will receive phone calls all times of day, including during overnight hours, to alert them of a risk for basement flooding. All of the enhancements to Notify NYC, including the new basement notifications, are offered in multiple languages. As always, we would appreciate support from the Council in getting the word out about these capabilities and encouraging enrollment in Notify NYC, especially for our basement alerts group, as increased enrollment will assist us in reaching even more vulnerable New Yorkers. Our approach to communication also leverages a multitude of other platforms as well, activated by both Emergency Management and our network of partners, to relay crucial information promptly and efficiently. These platforms range from social media outlets like Twitter and Instagram, and additional systems like the Advance Warning System, which disseminates information to people with disabilities, and other access and functional needs, to partners in the private and non-profit sectors and all elected officials throughout the city, ensuring a comprehensive and effective public response to address immediate life safety need.

We've also added flood alarms as a low-cost response tool – similar to smoke alarms and backed by our FEMA-led post-Ida mitigation study. City agencies, led by DEP and supplemented by Emergency Management, have distributed alarms to New Yorkers, which they can place in their basements to alert them when flooding is occurring in their residence, so they know when to move to higher ground and a space they pre-identify as part of their household's emergency plan.

In the aftermath of a large-scale flash flood event, we will transition into the recovery phase, rigorously working to ensure services are restored where needed and evaluating the full scope of the damage to infrastructure and buildings. We will concurrently activate other key operations such as sheltering, reception centers, damage assessment, or community outreach while tracking restorations. The Report Damage tool was newly launched last hurricane season along with a revamped 311 Severe Weather Question Tool, which links callers directly to service requests when reporting damage from the event. These tools collect information such as building damages that could be used to request state and federal recovery aid or 311 service requests related to the storm, such as sewer backups, structural damage to buildings, and heat/hot water complaints. Both tools can be activated in in anticipation of incoming weather and amplified through all our social media channels, Notify NYC, Strengthening Community networks, elected officials and community boards, and further amplified by City Hall and other agency partners.

The numbers received from this tool along with reports to the EOC aid in triggering recovery operations such as activation of the Damage Assessment Working Group, muck-out support, sheltering, or debris clean up. If impacts are severe enough, they can meet the threshold to have New York State request FEMA Individual Assistance for residents or a Small Business Administration (SBA) declaration that would provide low-interest loans to renters, homeowners, non-profits, and business owners for recovery, repair, or other losses. In both instances, state and federal representatives and/or SBA will then send representatives to assess damages to determine if the event meets the threshold for a declaration.

We have deep concerns regarding Introduction 807 related to scientific limitations as well as potential for a scope of danger to New Yorkers as currently written. All of the scientific and operational concerns we detailed throughout this testimony highlights the low predictability and highly localized, but not predictable and geotargeted nature of flash flooding. This underlines the impracticality of developing and opening flash flood shelters in New York City pre-flash flood. The concept of opening shelters before the flash flooding occurs is fraught with scientific and operational inefficiencies related to timing, location,

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and resource allocation. The entire city can be at flash flood risk. We cannot safely advise people to leave their homes and go to a pre-determined location that we cannot guarantee will have a safe path given the short notice of localized impacts which are almost in real time. That is not how flash floods work, as we have laid out in this testimony today in terms of forecasting capabilities for flash floods.

Additionally, piloting flash flood shelters in ten neighborhoods pre-emergency would consume resources to limited areas at the tradeoff of flexible response to serve the whole community. As the entire city can be at flash flood risk, and the impacts are only known as they are happening, this legislation will force the City to open pre-designated sites, as well as a distance from an impacted persons home, and their journey to that site could be significantly more dangerous than moving to higher ground or going to a known and safe location to them that they can see is not impacted. The power of water is tremendous and extremely dangerous.

Therefore, Emergency Management is adamantly opposed to the proposed legislation. We would like to continue discussions with the sponsors to further explain the nuances in emergency planning as well as work deeper on education and partnership in communities.

As discussed throughout this testimony, there is significant outreach and community engagement that is already being done and will continue to be strongly pushed out throughout all communities in the city. Through the Ready NY Program, we educate New Yorkers about the hazards they may face in New York City and prepare for all types of emergencies by writing an emergency plan, choosing a meeting place, gathering supplies for your home, and preparing a Go Bag in case they need to leave their home in a hurry. Emergency Management goes out to meet the communities in various locations every day of the year – schools, houses of worship, town halls, community meetings, and more – and always stress the necessity for everyone to have an emergency plan with two meetings places, one of which should be a 24/7 location of awareness and comfort to them. This is of especial importance for people who live in basement apartments or low-lying areas; in addition to being registered for Notify NYC, they should have a plan of where they will go to during flooding emergencies. Taking measures, such as understanding one's personal risk, investing in a flood alarm, and protecting your home or building can help with immediate safety during these events.

As we have seen with other aspects of severe weather, climate change and its impacts continue to pose new challenges to New York City, and City agencies are working to adjust our plans and outreach to New Yorkers to address this hazard. We continue to pursue giving New Yorkers the most up-to-date information on the potential dangers from flash flooding so they can make any adjustments to their activities as needed.

Thank you for this opportunity to testify today. We will now take your questions.

PUBLIC ADVOCATE FOR THE CITY OF NEW YORK

Jumaane D. Williams

STATEMENT OF PUBLIC ADVOCATE JUMAANE D. WILLIAMS
TO THE NEW YORK CITY COUNCIL
COMMITTEE ON FIRE AND EMERGENCY MANAGEMENT
JANUARY 29, 2025

Good Morning,

My name is Jumaane D. Williams, the Public Advocate for the City of New York. Thank you to Chair Ariola and committee members for holding today's hearing.

As climate change continues to impact our city in unpredictable ways, we have a responsibility to be informed, prepared, and protected from dangerous weather. As we saw in 2024, this weather is not confined to one specific challenge. In April, a 4.8 magnitude earthquake shook the city.[1] In August, a flash flood caused widespread flooding across the city, resulting in residents in need of rescue, abandoned vehicles, and power outages.[2][3] Two months later, the lack of expected rainfall resulted in the driest October in the city's recorded history, forcing New Yorkers to conserve daily water usage.[4] This drought also caused wildfires in and around the city, endangering residents and impacting our air quality with orange and polluted skies.[5] We know that these fires, which are magnified by drought conditions, are usually the result of accidental ignition. At the end of last year, I published a report on the danger of fires caused by lithium-ion batteries and will continue to call for safety measures that prevent these dangerous blazes.

Altogether, these occurrences are not an anomaly but a growing issue that demands our attention and preparedness. Flash floods present the most frequent and dangerous of these natural occurrences, greatly impacting communities with lower elevation levels in Southeastern Queens, South Brooklyn, and the Bronx.[6] These high risk areas are compounded by basement units which may not be properly secured against heavy rainfall. According to the Federal Reserve Bank of New York, there are more than 4,000 below ground units that are at risk of major flooding, events which are not only dangerous and costly but potentially life threatening.[7]

New solutions must also include neighborhoods that may not be coastal but are disproportionately impacted by flash flooding. Interior sections of Brooklyn and Queens, like Hollis, Queens, are in need of a thorough reassessment due to groundwater levels and predevelopment conditions. The flooding caused

[1] https://www.reuters.com/world/us/magnitude-55-earthquake-strikes-new-york-new-jersey-emsc-2024-04-05/
[2] https://nypost.com/2024/08/06/us-news/flash-flooding-traps-drivers-on-nyc-roads-after-storms-dump-4-of-rain-on-big-apple/
[3] https://www.nytimes.com/2024/08/07/weather/new-york-city-storm-flooding.html
[4] https://www.washingtonpost.com/nation/2024/11/02/nyc-drought-watch-october-mayor-adams/
[5] https://www.usatoday.com/story/news/nation/2024/11/14/new-york-city-wildfires-brush/76292335007/
[6] https://dcp.maps.arcgis.com/apps/webappviewer/index.html?id=1c37d271fba14163bbb520517153d6d5
[7] https://assets.bwbx.io/documents/users/iqjWHBFdfxIU/rujBlRi49.yc/v0

by Hurricane Ida in 2021 was so severe in Hollis that two people drowned.[8] To ensure that this does not happen again, our investments in stormwater infrastructure must be precise and focus on prevention. While I support any effort made to keep people safe from our changing climate, we should view shelters as a last resort and prevention as a duty.

As these natural disasters grow more frequent, it is essential that we preempt them with careful planning. This includes comprehensive emergency action plans for residents who may be forced to evacuate their homes, investments in safe housing and storm protection infrastructure, and the careful maintenance of our city's water and sewage systems. I look forward to working with city officials this year to address our current shortcomings and implement the necessary solutions.

Thank you.

8 https://www.nbcnewyork.com/investigations/why-some-queens-neighborhoods-clobbered-by-ida-may-not-be-prioritized-for-climate-funds/3849034/

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