

Executive Summary

Overview

On the evening of Wednesday, September 1, 2021, the remnants of Hurricane Ida reached New York. Although the storm had been reclassified as a post-tropical cyclone by that point, it smashed the City's record for the most single-hour rainfall, caused widespread flooding and hundreds of millions of dollars of damage, and took the lives of 13 people within New York City. On September 5, 2021, President Joseph R. Biden, Jr. issued a major disaster declaration for the State of New York ([4615-DR-NY](#)).

On March 22, 2022, the U.S. Department of Housing and Urban Development (HUD) announced that the City of New York ("the City") will receive \$187,973,000 in funding to support long-term recovery efforts following Hurricane Ida, which will be administered by the City's Office of Management and Budget. This allocation was announced in the *Allocations for Community Development Block Grant Disaster Recovery (CDBG-DR) and Implementation of the CDBG-DR Consolidated Waivers and Alternative Requirements* Federal Register Notice (Vol. 87, No. 100, 5/24/2022, [87 FR 31636](#), "the HUD Notice") with funds made available through the Disaster Relief Supplemental Appropriations Act, 2022 ([Public Law 117-43](#)).

Funds must be used for "disaster relief, long-term recovery, restoration of infrastructure and housing, economic revitalization, and mitigation, in the most impacted and distressed areas." This Action Plan identifies how the City will use its CDBG-DR allocation to support recovery and resiliency efforts, including criteria for eligibility, how the funds will address unmet needs, and how the City will comply with the requirements associated with the funding. The City is releasing this plan for a 30-day public comment period that will end on September 26, 2022. Additionally, the City will hold a public hearing on September 14, 2022 at 7:00PM EST to solicit further comments.

Disaster-Specific Overview

New Yorkers are, unfortunately, no strangers to severe weather. As a coastal city along the eastern seaboard, residents have long known New York City is susceptible to heatwaves, blizzards, and coastal flooding. In the summer of 2021, though, a series of severe storms made clear that another threat is officially upon us: extreme rainfall events leading to inland flooding. Beginning on July 8th with Tropical Storm Elsa and culminating on September 1st and 2nd with Post Tropical Cyclone (PTC) Ida, the city endured three storms that *each* produced rainfalls having only a one percent or less chance of occurring in a given year. Tropical Storm Henri, which hit on August 21st, broke the city's record for rainfall in a single hour, only to be surpassed by PTC Ida 10 days later.

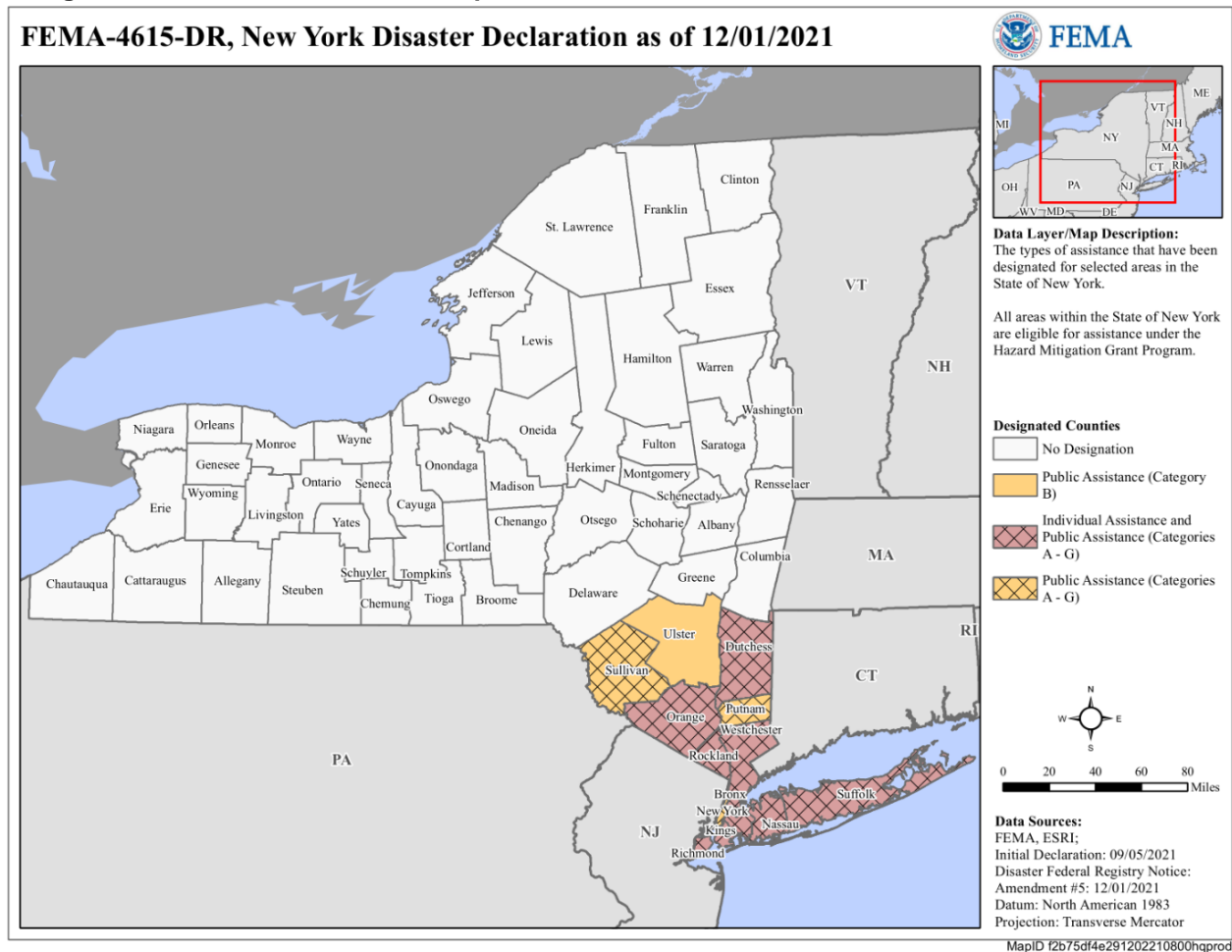
The City has been planning for extreme rainfall for several years - the City released a Stormwater Resiliency Plan in May of 2021 - however, the region had not yet before experienced a storm with the intensity and ferocity of PTC Ida. While the summer's earlier tropical storms brought heavy rainfall, those events took place over longer periods of time and did not see the consistent, intense rains wrought by Ida. For the first time ever, the National Weather Service issued a Flash Flood Emergency for New York City. In Staten Island, Ida produced over nine inches of rain in less than

12 hours, with a substantial portion falling in a three-hour period. In the western Bronx, over three inches of rain fell in one hour.

In addition to Ida's historic rainfall totals, the storm was also notable for where flooding occurred. The storm's sustained rainfall overwhelmed the City's sewer system, which typically has the capacity to handle 1.75 inches of rain per hour. As a result, water accumulated in streets and cascaded into the subway system, cellars, and basements particularly in inland areas outside of the 100-year floodplain. Based on the City's analysis of damaged properties, only 6.9% of Ida-impacted buildings are in the 100-year floodplain, and 13.7% are in the 500-year floodplain.

The City estimates approximately 33,500 buildings sustained damage, about 3.3% of all buildings in the city. While Ida's impact was felt throughout all five boroughs, the storm was particularly impactful in the outer boroughs. Of the damaged properties, 39.9% were in Queens, 26.7% were in Brooklyn, 18.7% were in the Bronx, and 12.7% were in Staten Island while only 2.0% were in Manhattan. As a result, the Presidential Disaster Declaration designated Bronx County, Kings County (Brooklyn), Queens County, and Richmond County (Staten Island) eligible for FEMA's Individual and Public Assistance programs, while New York County (Manhattan) is only eligible for FEMA Public Assistance. Additionally, HUD did not include Manhattan in the list of most impacted and distressed areas for which CDBG-DR funds should be prioritized.

Figure 1.1: Disaster Declaration Map for New York State



On a borough-basis, Queens and Brooklyn contained the largest numbers of damaged properties. However, when looking at the damage on a Community District Tabulation Area (CDTA) basis, damage was spread relatively evenly throughout the four most-impacted boroughs: no CDTA accounted for more than 7.1% of the damaged properties.

Figure 1.2: Heat Map of Damaged Properties

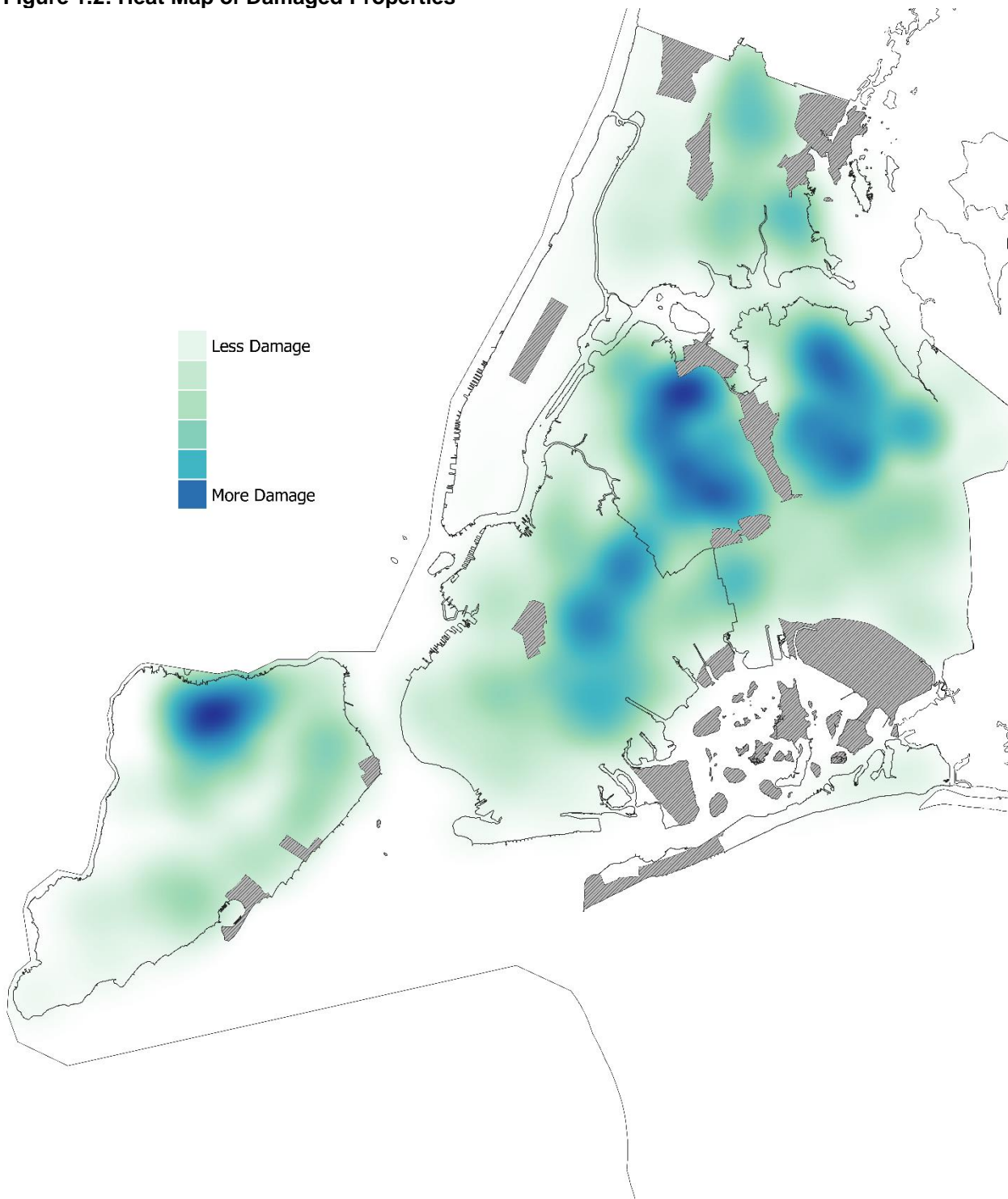


Figure 1.3: Damaged Properties by CDTA – By Number of Buildings Damaged

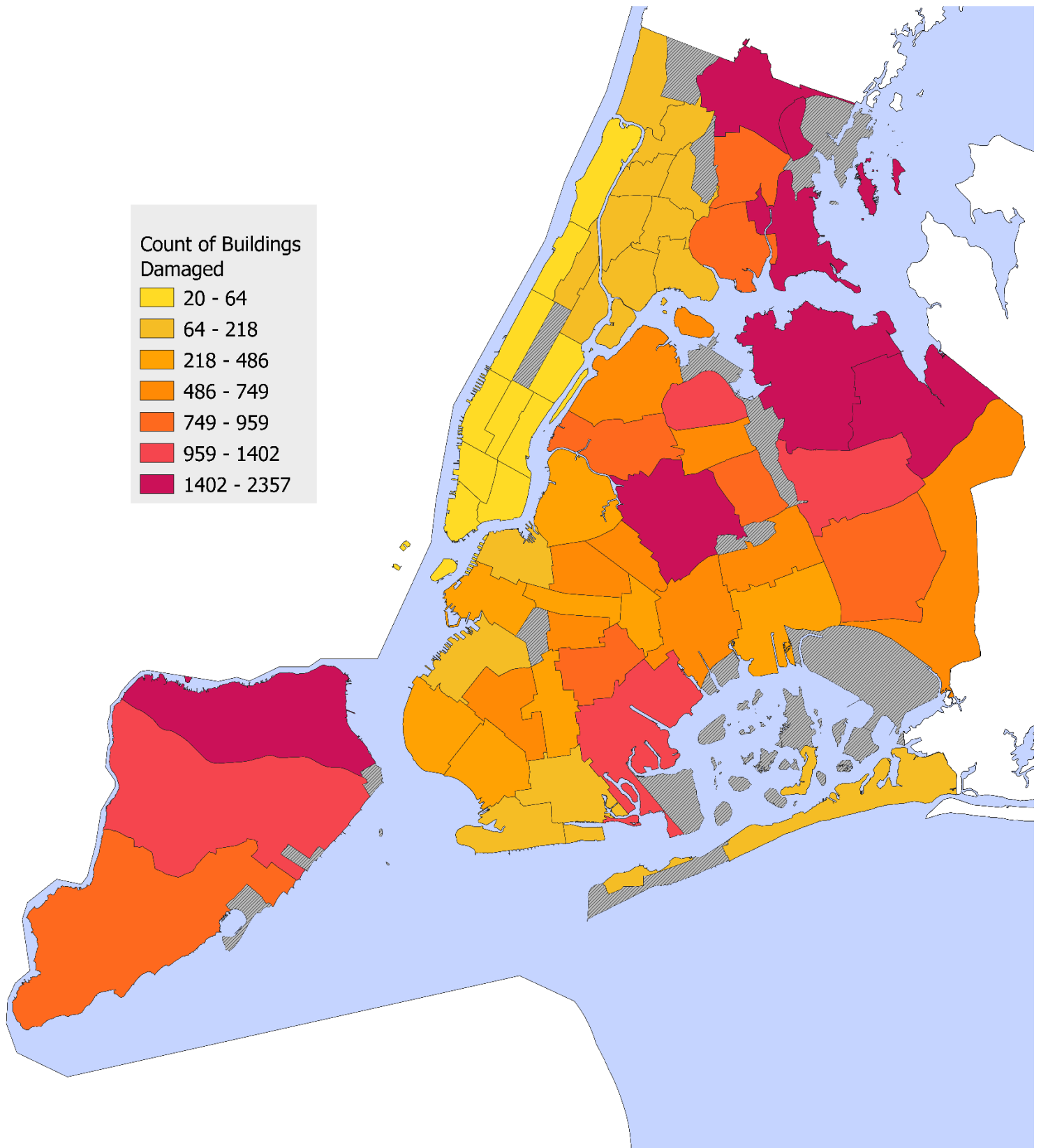
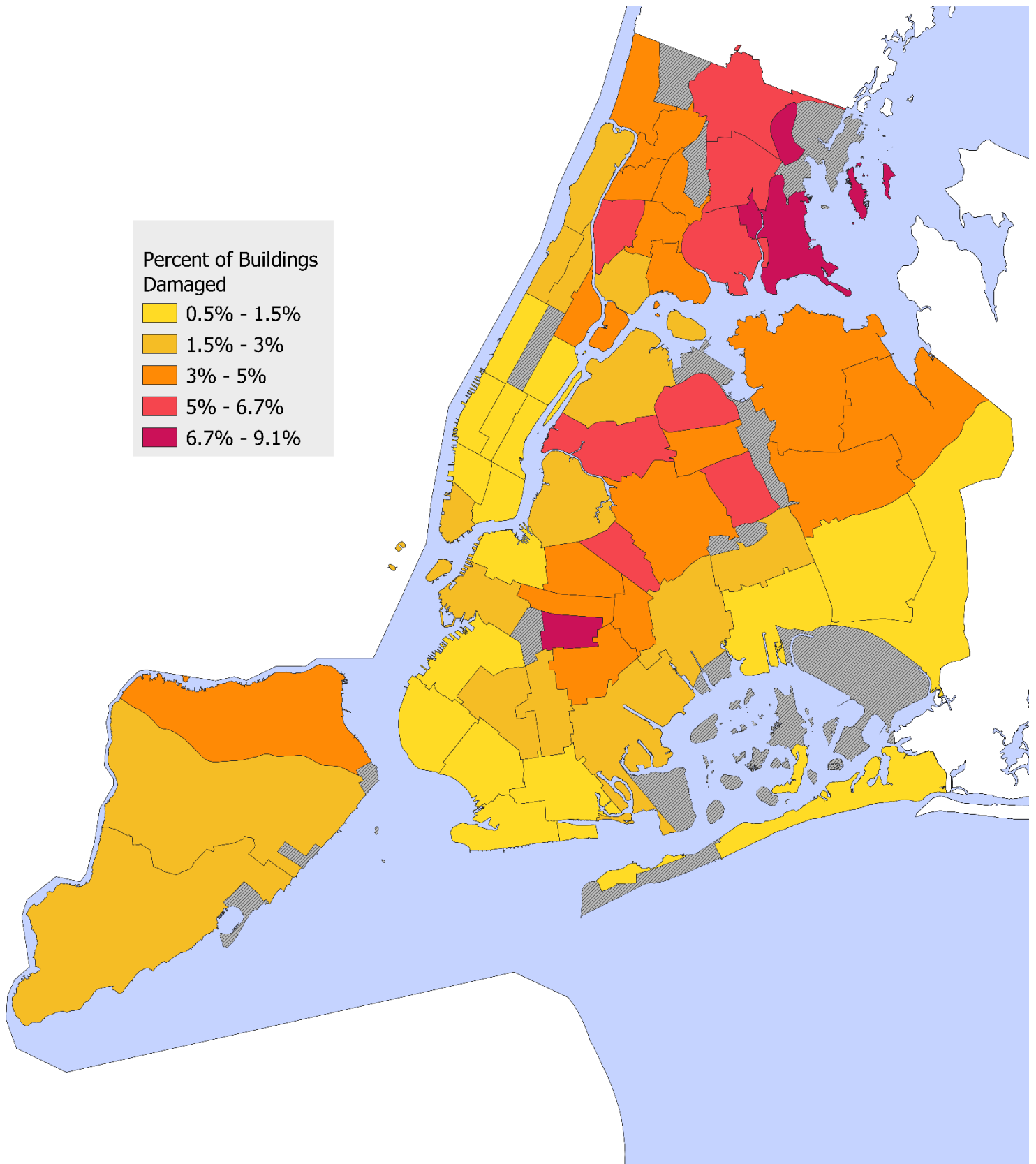


Figure 1.4: Damaged Properties by CDTA – By Percent of Buildings in CDTA Damaged



The storm also had a disproportionate impact on residential properties: over 92% of the damaged properties are residential structures despite residential properties representing less than 87% of all buildings citywide. Buildings with commercial space, including mixed-use buildings, account for 7.5% of buildings impacted. Approximately 800 damaged buildings were solely commercial, representing 2.4% of all impacted buildings. Damage to commercial properties was primarily related to losses of inventory and equipment rather than structural damage.

In the immediate aftermath of Ida, the City's Department of Buildings inspected thousands of buildings citywide and deemed 116 buildings structures unsafe to occupy in whole or in part. Further, FEMA inspections completed to date identified 10 residential buildings as having been destroyed, and 1,282 suffered major damage. While the severity of damage was lower than previous storms, such as Hurricane Sandy, the inland nature, the scale of the damage across the outer-boroughs, and the swiftness of the rainfall represent a dramatic shift in how the City responds to, and prepares for, severe weather events.

Based on the City's initial analysis, City needs for DR funding can be grouped into six main areas:

Single-Family Homes & Basement Apartments

Small residential buildings were disproportionately impacted: while one- and two-family homes account for 52% of buildings citywide, they comprised 75% of buildings impacted by Ida. These damaged properties are located across the city, though concentrated in Queens, Brooklyn, and the Bronx, with many in lower-income and immigrant communities with a high percentage of at-risk populations. Most damage in single-family homes (1-4 units) is from flooding in sub- or at-grade space (e.g., basements, ground floors).

Basement Apartments

Across the city, tens of thousands of New Yorkers occupy illegal subgrade apartments. These units often lack basic safety requirements, putting occupants at increased risk from floods, fires, and other safety hazards. However, these units are also a key source of affordable housing and critical opportunity for the City to meet its affordable housing goals. These units typically offer more modest rents and can be more accessible to low-income New Yorkers, including groups that are underserved in the housing market. Basement apartments also provide a secondary source of income to property owners, who are often small landlords that live on-site. Complex and outdated codes and regulations make it difficult to bring these units into safe and legal use. Improving safety for basement occupants, especially during flooding events, is a top priority for the City.

Sewer Backups

Damage arose from flood waters entering both through windows and doors, and from sewers backing up into homes through plumbing fixtures. Backwater valves reduce the likelihood of raw sewage backups into basements and are an inexpensive means to prevent tens of thousands of dollars in damage. The City is currently studying where the installation of backwater valves would be most effective for property owners.

Public Housing

The New York City Housing Authority (NYCHA) owns and operates over 170,000 units of public housing that nearly half a million low-income New Yorkers call home. Many of these households would be unable to find an affordable apartment in the City's increasingly expensive and

competitive housing market. Preserving this crucial segment of the affordable housing stock – both for NYCHA residents today and generations to come – is a top priority for the City.

Approximately 230 NYCHA buildings were impacted by Ida, with 12 developments across the Bronx, Brooklyn, and Queens suffering particularly significant damage. NYCHA currently estimates the cost of damage alone to be at least \$150 million. While a significant portion of this cost is expected to be covered by flood insurance, FEMA Public Assistance, and potentially assistance from New York State, NYCHA will bear some of the cost. Additionally, Ida-related restoration work also offers an opportunity to incorporate mitigation efforts to prevent significant damage, and significant costs, from future events.

Outreach and Other Public Services

Public Information

PTC Ida hit persons with limited English proficiency (LEP) particularly hard. Based on media reports, several of the Ida victims in New York City did not speak or had limited proficiency in English. While the City is able to release emergency alerts in multiple languages through its Notify NYC service, the National Weather Service is not. Additionally, users must sign up to receive Notify NYC alerts rather than receiving them more or less automatically, as is the case with location-based NWS alerts. As demonstrated by Ida, inequities in information can lead to drastic and disproportionate impacts on LEP communities and early *and accessible* notification is crucial to protecting and preserving lives.

Flood Insurance

The City is planning and implementing numerous projects to manage extreme rainfall, but it may take years or decades before the full impact of these efforts will be realized. Additionally, the City will never be able to prevent all flooding events. As extreme rainfall events become more frequent, the City will educate and encourage residents to protect themselves by purchasing flood insurance even in inland areas where it has not typically been required. The City recognizes and is working with its federal partners to address the rising costs of insurance policies. However, purchasing flood insurance is the best way to prevent financial devastation from a flood event. The City will also work with owners and renters to perform resiliency audits and retrofits to lower the cost of insurance.

Resiliency and Mitigation

The City has made transformative investments in stormwater management that will improve water quality and prepare for climate change. However, there is always a need to do more. The City has developed and will expand numerous approaches to make the city more resilient, including

- Green infrastructure systems that collect stormwater from streets, sidewalks, and other hard surfaces before it can enter the sewer system or cause local flooding;
- Bluebelts and wetlands that convey, store, and filter runoff precipitation or stormwater;
- Grey infrastructure improvements that would expand the capacity of the city's sewers, water treatment plants, pumping stations, etc.; and
- Incorporating mitigation and resiliency considerations into all City facilities (e.g., healthcare facilities, educational facilities, recreation areas and open space, utilities,

evacuation centers) and programs (e.g., assistance to small businesses, affordable housing, workforce development efforts).

Planning

Finally, Ida highlighted numerous areas where the City, its governmental partners, and other stakeholders could improve. These areas include, but are not limited to:

- Studying specific spatial areas for potential stormwater management improvements;
- Planning to better evacuate occupants from subgrade space in the event of a flash flood;
- Identifying where basement and cellar apartments are located and how they may be better protected from floods, fires, etc.;
- Improving methods for forecasting, monitoring, tracking, and evaluating the impacts of extreme weather events; and
- Evaluating innovative technologies and methods for reducing carbon emissions and increasing resiliency.

Summary

Guiding Principles

Prior to and during the development of this Action Plan, the City consulted with disaster-affected residents, local business owners, service providers, the State of New York, NYCHA, the federal government, and other stakeholders to ensure the City's planned uses of funds are responsive to identified needs and consistent with other recovery efforts. When selecting funding initiatives, the City has prioritized programs intended to benefit the City's most vulnerable populations, to mitigate loss of life and property in the future, and that fit within the eligibility criteria of the CDBG-DR grant. As described in the HUD Notice, at least \$150,378,400 of the City's allocation must be spent in the HUD-defined most impacted and distressed areas of the Bronx, Brooklyn, Queens, and Staten Island. Additionally, at least 70% of the grant must be used to benefit low- and moderate-income people and areas.

The programs proposed for funding include activities related to housing, infrastructure, economic revitalization, public services, planning, and administration of the grant. Funded activities include

- Financial counseling and flood insurance assistance for small homeowners and renters;
- Restoring public housing developments and creating more resilient properties;
- Subsidizing resiliency improvements in single-family housing;
- Adding resilient community spaces in affordable housing;
- Increasing local commercial districts' capacity to respond to disasters;
- Expanding the city's green infrastructure network;
- Performing outreach and increasing awareness of hazards in vulnerable communities; and
- Planning for recovery and resiliency.

While the City's Office of Management and Budget will be the main entity administering the grant, implementing these programs will be a coordinated effort among numerous City agencies. The City will continue citizen engagement efforts throughout the duration of this grant and will make adjustments as necessary.

Proposed Allocation Amounts

Table 1-1: CDBG-DR Program Allocations

Programs	Allocation	Expected Benefit to Low- and Moderate-Income Persons	Expected Benefit to MID Areas
<u>Housing</u>	123,200,000	110,460,000	117,495,239
Flood Insurance and Financial Counseling	1,000,000	510,000	800,000
Public Housing Restoration and Resiliency Program	88,200,000	88,200,000	87,695,239
Resiliency Improvements in Single-Family Housing	25,000,000	12,750,000	20,000,000
Resilient Community Spaces in Affordable Housing	9,000,000	9,000,000	9,000,000
<u>Infrastructure</u>			
Green Infrastructure Expansion	30,000,000	30,000,000	30,000,000
<u>Economic Recovery</u>			
Capacity Building for Emergency Response in Local Commercial Districts	450,000	229,500	360,000
<u>Public Services</u>			
Elevated Hazard Awareness and Community Outreach	6,716,000	3,814,850	4,862,000
<u>Planning</u>			
Planning for Recovery and Resiliency	20,369,000	N/A	5,348,812
<i>Total Non-Administrative Programs</i>	<i>180,735,000</i>	<i>144,504,350</i> 80%	<i>158,066,051</i> 87%
<u>Administration</u>			
CDBG-DR Administration	7,238,000	5,787,050	6,330,163
Total	187,973,000	150,291,400	164,396,214

Unmet Needs and Proposed Allocations

Based on the Unmet Needs Assessment in the next section of this plan, the City has estimated an unmet need of \$320,205,695. This estimate is based on the best data available to the City at the time, primarily information from FEMA, the U.S. Small Business Administration, and City analyses. However, the City will update the unmet needs section whenever new, significant data become available.

Table 1-2: Unmet Needs and Proposed Allocations

Category	Remaining Unmet Needs	% of Unmet Needs	Allocations	% of Program Allocation
Housing	\$188,600,000	58.9%	\$123,200,000	65.5%
Infrastructure	\$86,151,695	26.9%	\$30,000,000	16.0%
Economic Revitalization	\$0	0.0%	\$450,000	0.2%
Public Services	\$6,716,000	2.1%	\$6,716,000	3.6%
Planning	\$31,500,000	9.8%	\$20,369,000	10.8%
Administrative Costs	\$7,238,000	2.3%	\$7,238,000	3.9%
Total	\$320,205,695	100.0%	\$187,973,000	100.0%