

# EXECUTIVE SUMMARY

FOR

# THE REMNANTS OF HURRICANE IDA

Substantial Amendment 3

Public Comment Version  
December 16, 2024



Mayor's Office  
of Management  
and Budget



# 1. 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 NYC Mayor's Office of Management and Budget (OMB). This allocation was formally 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](#)) with funds made available through the Disaster Relief Supplemental Appropriations Act, 2022 ([Public Law 117-43](#)). The City released its initial CDBG-DR Hurricane Ida Action Plan for public comment on August 26, 2022. After a public comment period and public hearing, the City submitted its plan to HUD on October 19, 2022. HUD approved the plan on December 19, 2022.

On January 18, 2023, HUD announced via a second Federal Register Notice it was awarding an additional \$1.4 billion in CDBG-DR funds for disasters occurring in 2021 (Vol. 88, No. 11, 1/18/2023, [88 FR 3198](#)). (The two Federal Register notices are collectively referred to throughout this document as "the HUD Notices".) The additional awards were made possible through funds appropriated in the Continuing Appropriations Act, 2023 ([Public Law 117-180](#)), which was enacted on September 30, 2022. Through this allocation, the City will receive an additional \$122,844,000, bringing the City's total CDBG-DR allocation for Hurricane Ida to \$310,817,000.

CDBG-DR funds must be used to address unmet needs related to "disaster relief, long-term recovery, restoration of infrastructure and housing, economic revitalization, and mitigation, in the most impacted and distressed areas." Through this substantial amendment to its Action Plan, Action Plan Amendment (APA) 3, the City proposes to change the activity name and project scope for what was formerly known as Evacuation Modeling (within the Resiliency Planning program). The activity will now be known as All-Hazards Emergency Sheltering.

The original scope of this activity included a complete evacuation study. However, the U.S. Army Corps of Engineers (USACE) will launch a full Hurricane Evacuation Study in 2025, which negates the need for the original study and would lead to a duplication of benefit. The refocused program will conduct a survey to create a pool of accessible sheltering facilities that can be used for smaller scale, all-hazard emergencies. To better reflect the change in scope, the activity name has been changed to All-Hazards Emergency Sheltering.

The City is also adding a site to the NYCHA Significantly Damaged Developments for a total of 13 properties.

Finally, the City has identified the two properties benefitting from CDBG-DR funds under Resilient Community Spaces in Affordable Housing, which will benefit a total of 300 units.

APA 3 is subject to a 30-day public comment period that will end on January 15, 2024. Pursuant to the City's CDBG-DR Citizen Participation Plan for Hurricane Ida, a public hearing is not required for substantial amendments.

## Disaster-Specific Overview

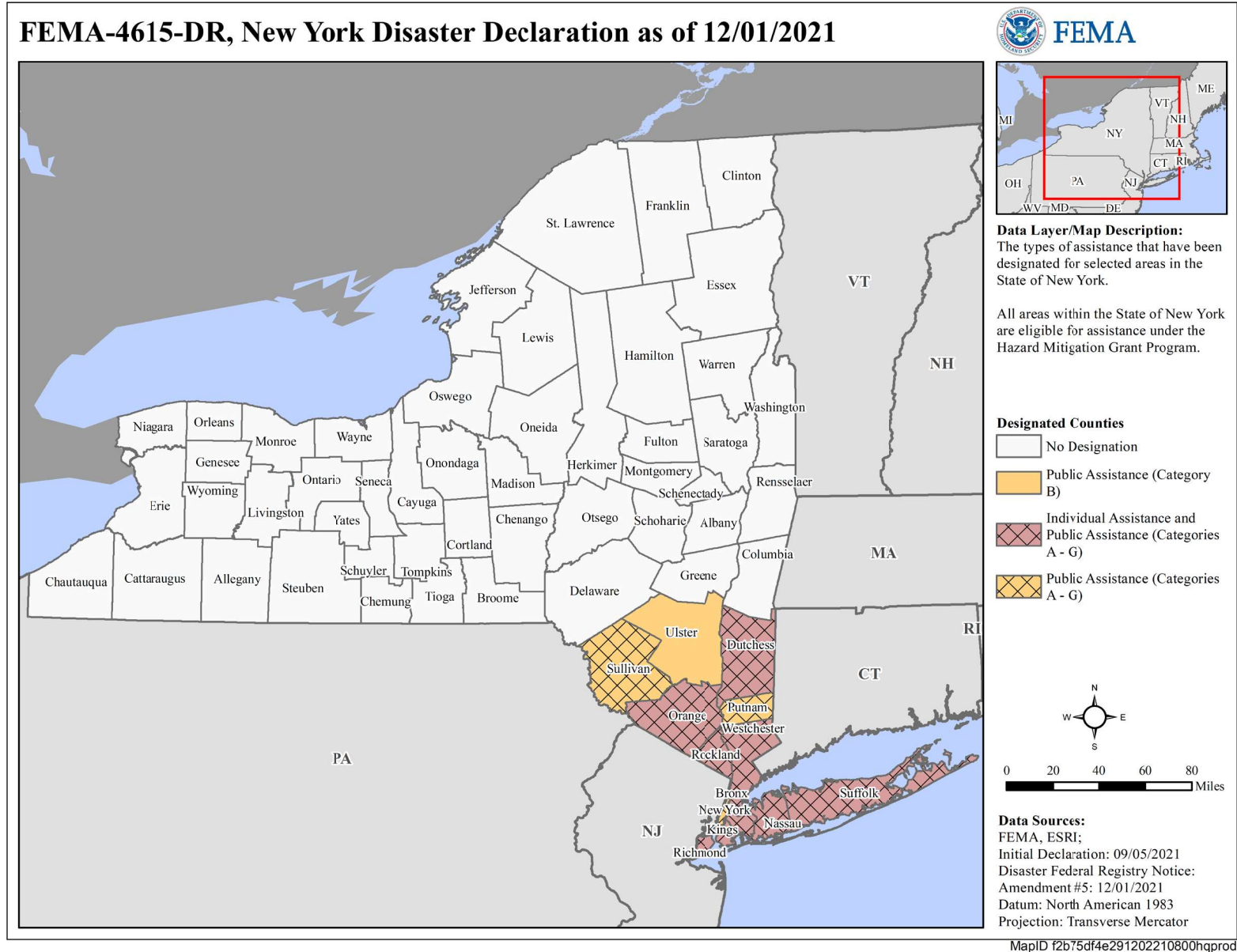
New Yorkers are, unfortunately, no strangers to severe weather. As a coastal city along the eastern seaboard, residents have long known New York City is susceptible to heatwaves, blizzards, and coastal flooding. In the summer of 2021, though, a series of severe storms made clear that another threat is officially upon us: extreme rainfall events leading to inland flooding. Beginning on July 8<sup>th</sup> with Tropical Storm Elsa and culminating on September 1<sup>st</sup> and 2<sup>nd</sup> 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 21<sup>st</sup>, 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.

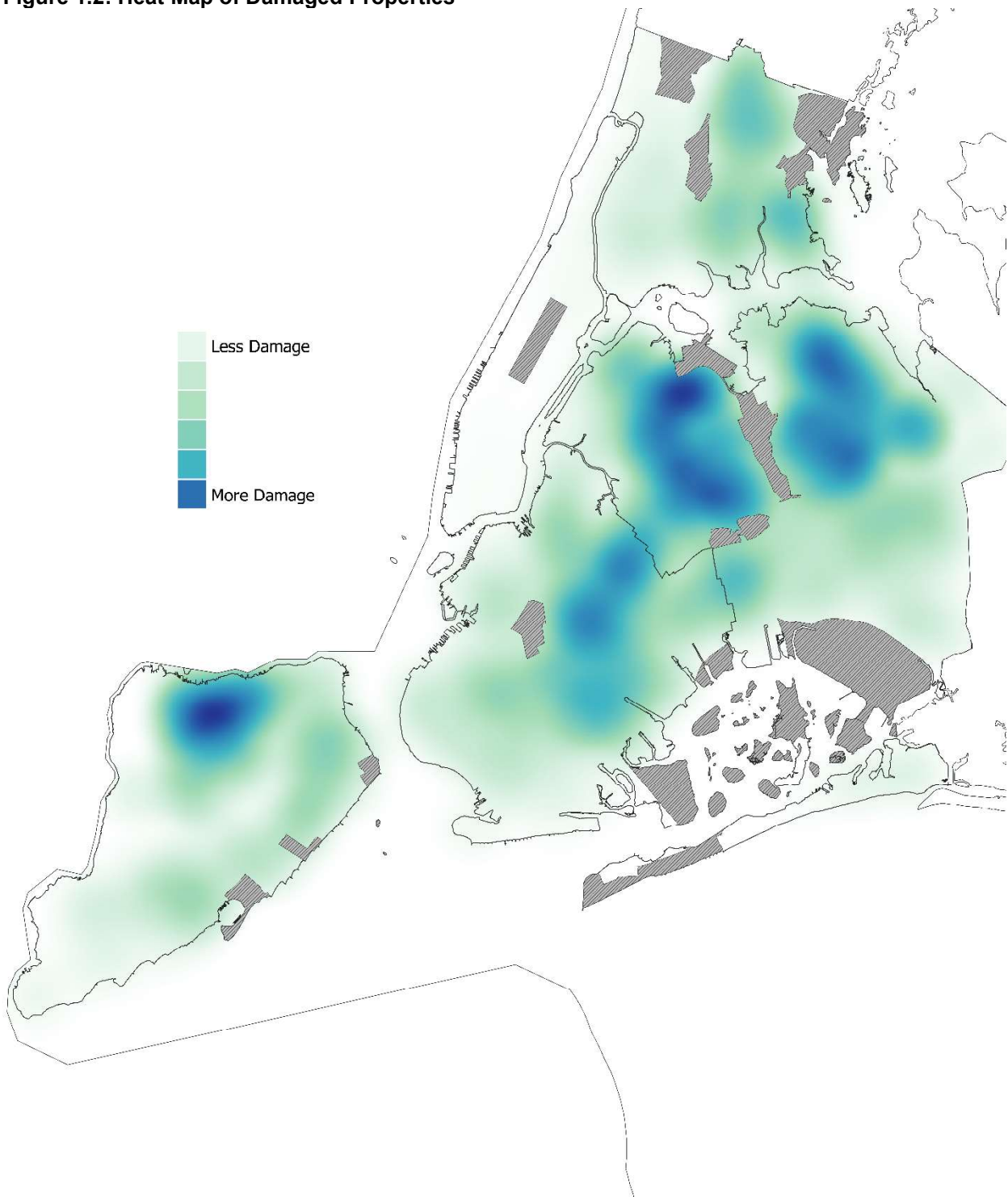
The City estimates approximately 33,500 buildings sustained damage, about 3.3% of all buildings in the city. While Ida's impact was felt throughout all five boroughs, the storm was particularly impactful in the outer boroughs. Of the damaged properties, 39.9% were in Queens, 26.7% were in Brooklyn, 18.7% 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

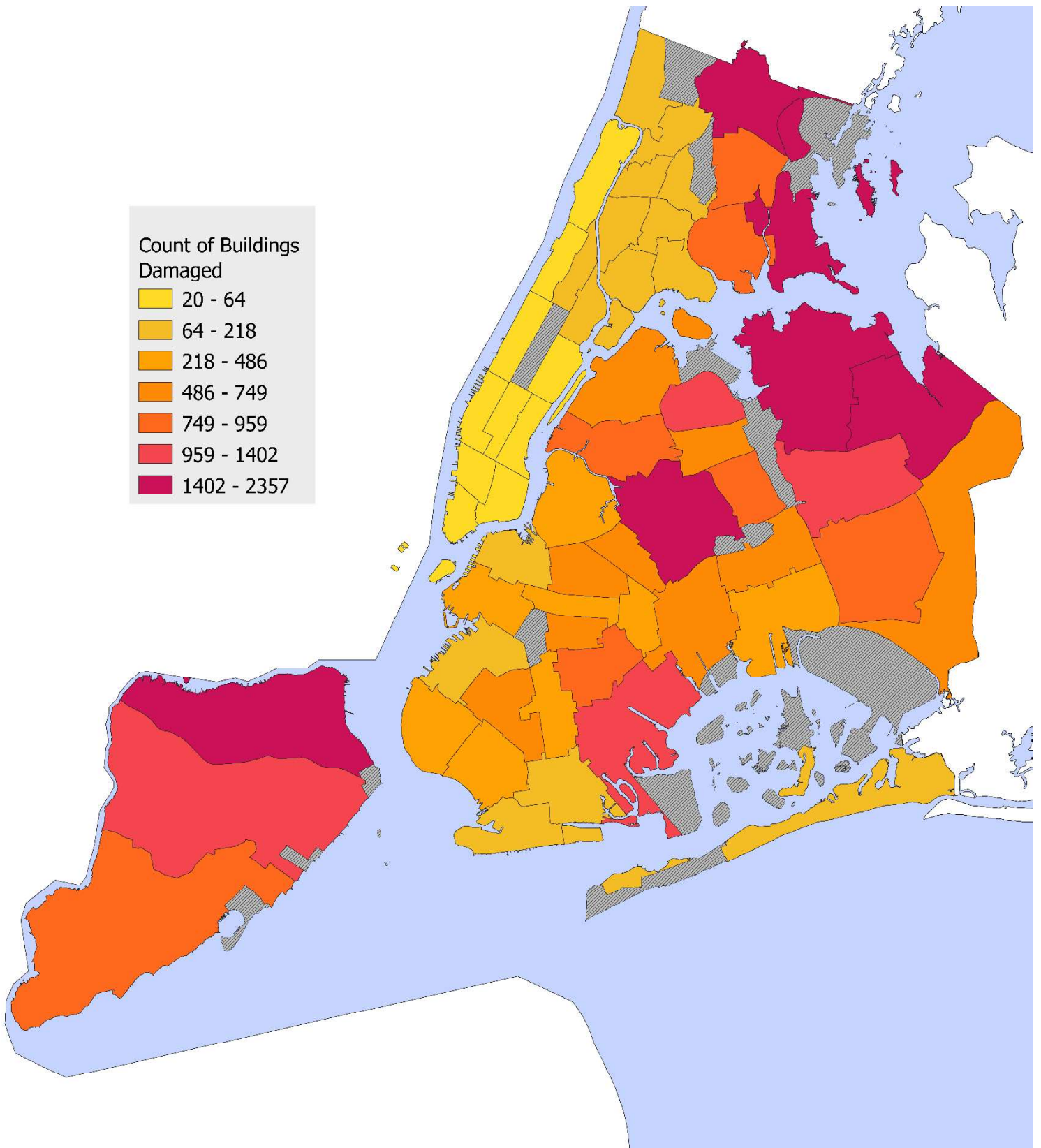


On a borough-basis, Queens and Brooklyn contained the largest numbers of damaged properties. However, when looking at the damage on a Community District Tabulation Area (CDTA) basis, damage was spread relatively evenly throughout the four most-impacted boroughs: no CDTA accounted for more than 7.1% of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

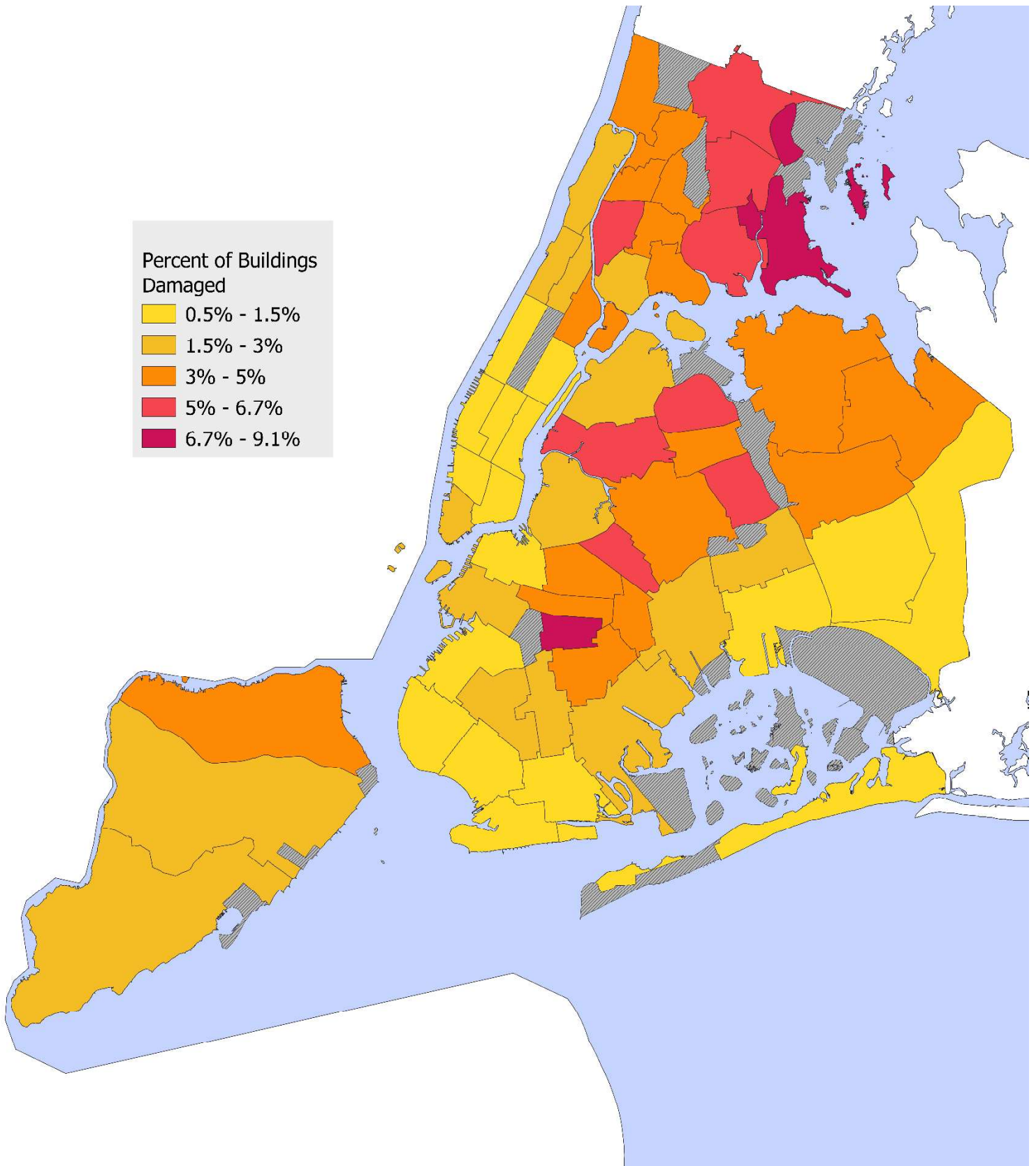
**Figure 1.2: Heat Map of Damaged Properties**



**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:

### **One- to Four-Unit 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 one- to four-unit properties 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.

### **Affordable & 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-owned properties were impacted by Ida, with 12 developments across the Bronx, Brooklyn, and Queens suffering particularly significant damage. NYCHA currently estimates the cost of damage at NYCHA-managed properties to be at least \$150 million. While a significant portion of this cost is expected to be covered by other sources, 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.

Following the release of the City's initial Hurricane Ida Action Plan, the City identified an additional \$51 million unmet need associated with two affordable housing developments in Brooklyn. Hope and Bushwick Gardens were damaged in Hurricane Ida and have flooded twice since. While over \$40 million in restoration work has been completed, additional mitigation work is necessary to prevent future flooding.

## **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, resiliency, and emergency preparedness 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 areas for potential resiliency and mitigation efforts;
- 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 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 80% 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;
- Subsidizing resiliency measures in one- to four-unit and multi-unit housing;
- Expanding the city's green infrastructure network;
- Performing outreach and increasing awareness of hazards in vulnerable communities;
- Planning for recovery and resiliency;
- Protecting critical infrastructure from flooding; and
- Strengthening communities through emergency preparedness training.

While OMB will be the main entity administering the grant, implementing these programs will be a coordinated effort between numerous City agencies, the New York City Housing Authority, and the Mayor's Office, particularly the Mayor's Office of Climate and Environmental Justice. The City will continue citizen engagement efforts throughout the duration of this grant and will adjust as necessary.

*Proposed Allocation Amounts*

**Table 1-1: CDBG-DR Program Allocations**

<b>Programs</b>	<b>"Round 1" Funding</b>	<b>"Round 2" Funding</b>	<b>Total Allocation</b>	<b>Expected Benefit to Low- and Moderate- Income Persons</b>	<b>Expected Benefit to MID Areas</b>
<u>Housing</u>	123,200,000	60,023,632	183,223,632	166,073,632	175,747,442
Flood Insurance and Financial Counseling	1,000,000	1,500,000	2,500,000	1,275,000	2,000,000
NYCHA Restoration and Resiliency	88,200,000	0	88,200,000	88,200,000	87,723,810
Resiliency Improvements: 1- to 4-Units	25,000,000	7,500,000	32,500,000	16,575,000	26,000,000
Resiliency Improvements: Multi-Unit	9,000,000	51,023,632	60,023,632	60,023,632	60,023,632
<u>Infrastructure</u>	30,000,000	33,590,547	63,590,547	56,340,547	63,590,547
Green Infrastructure Expansion	30,000,000	23,590,547	53,590,547	53,590,547	53,590,547
Red Hook Flood Protection	0	10,000,000	10,000,000	2,750,000	10,000,000
<u>Economic Recovery</u>					
Commercial District Emergency Preparedness	450,000	0	450,000	229,500	360,000
<u>Public Services</u>					
Hazard Awareness and Community Outreach	6,716,000	6,000,000	12,716,000	6,874,850	9,362,000
<u>Planning</u>					
Resiliency Planning	20,369,000	23,229,821	43,598,821	N/A	18,017,826
<i>Total Non-Administrative Programs</i>	180,735,000	122,844,000	303,579,000	229,518,529 75.6%	267,077,275 88.0%
<u>Administration</u>					
CDBG-DR Ida Administration	7,238,000	0	7,238,000	5,472,233	6,367,718
<b>Total</b>	<b>187,973,000</b>	<b>122,844,000</b>	<b>310,817,000</b>	<b>234,990,762</b>	<b>273,444,993</b>

*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 \$565,705,408. 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
<b>Housing</b>	\$325,752,617	57.6%	\$183,223,632	58.9%
<b>Infrastructure</b>	\$165,618,791	29.3%	\$63,590,547	20.5%
<b>Economic Revitalization</b>	\$450,000	0.1%	\$450,000	0.1%
<b>Public Services</b>	\$15,716,000	2.8%	\$12,716,000	4.1%
<b>Planning</b>	\$50,930,000	9.0%	\$43,598,821	14.0%
<b>Administrative Costs</b>	\$7,238,000	1.3%	\$7,238,000	2.3%
<b>Total</b>	<b>\$565,705,408</b>	<b>100.0%</b>	<b>\$310,817,000</b>	<b>100.0%</b>