The City of New York
COMMUNITY DEVELOPMENT BLOCK GRANT-
DISASTER RECOVERY
PARTIAL ACTION PLAN A

For CDBG-DR Funds
Disaster Relief Appropriations Act of 2013
(Public Law 113-2, January 29, 2013)

May 10, 2013
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I. EXECUTIVE SUMMARY

Hurricane Sandy hit New York City on October 29, 2012. Over the course of 48 hours, wind, rain, and water destroyed approximately 300 homes, left hundreds of thousands of New Yorkers without power, damaged critical public and private infrastructure, and left many New Yorkers vulnerable with limited access to food, drinking water, healthcare, and other critical lifesaving functions. The City of New York’s immediate preparation and response to Hurricane Sandy was one of the largest mobilizations of City services in the City’s history.

The months since Hurricane Sandy have demonstrated the dedication of the City’s workforce and the perseverance of New Yorkers to recover and rebuild. The Community Development Block Grant Disaster Recovery (CDBG-DR) program provides communities with resources to address a wide range of community development needs; the programs outlined in this Partial Action Plan describe how New York City will use its first allocation to support recovery from Hurricane Sandy and to build resilience to the challenges of climate change. The programs in this Partial Action Plan include programs to build and support housing, businesses, resiliency, and New York City infrastructure and other City services.

Table: Summary of programs and allocations in the New York City CDBG-DR Action Plan

<table>
<thead>
<tr>
<th>Program Name</th>
<th>CDBG-DR Allocations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Housing Programs</strong></td>
<td>$648,000,000</td>
</tr>
<tr>
<td>NYC Houses Rehabilitation and Reconstruction</td>
<td>$306,000,000</td>
</tr>
<tr>
<td>Rental Assistance</td>
<td>$9,000,000</td>
</tr>
<tr>
<td>Multi-Family Building Rehabilitation</td>
<td>$225,000,000</td>
</tr>
<tr>
<td>Public Housing Rehabilitation and Resilience</td>
<td>$108,000,000</td>
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<tr>
<td><strong>Business Programs</strong></td>
<td>$293,000,000</td>
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<tr>
<td>Business Loan and Grant Program</td>
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<td>Business Resiliency Investment Program</td>
<td>$90,000,000</td>
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<tr>
<td>Neighborhood Game Changer Investment Competition</td>
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</tr>
<tr>
<td>Infrastructure and Building Resiliency Technologies Competitions</td>
<td>$41,000,000</td>
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<tr>
<td><strong>Infrastructure and Other City Services</strong></td>
<td>$360,000,000</td>
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<td>Public Services</td>
<td>$322,000,000</td>
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<td>Emergency Demolition</td>
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<td>Debris Removal/Clearance</td>
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<td>Code Enforcement</td>
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<tr>
<td>Rehabilitation/Reconstruction of Public Facilities</td>
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<tr>
<td><strong>Resilience</strong></td>
<td>$294,000,000</td>
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<td>Resiliency Investments*</td>
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<td><strong>Citywide Administration and Planning</strong></td>
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<tr>
<td>Planning**</td>
<td>$89,820,000</td>
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<td>Administration**</td>
<td>$88,000,000</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>$1,772,820,000</td>
</tr>
</tbody>
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*The activities for Resiliency Investments will be identified in a future Partial Action Plan.

**These initial allocations are based on the best data currently available and reflect projections of need to support the programs. It can be anticipated there will be future adjustments based on actual experience once programs are implemented; however, neither planning nor administrative expenses will surpass their statutory caps.
On March 22, 2013, the City made the draft CDBG-DR Partial Action Plan A available to the public for a 14-day comment period. A dedicated recovery-related website (www.nyc.gov/recovery) was posted prominently on the City’s homepage (www.nyc.gov) along with a direct link to the Action Plan and commenting forms. The Plan, commenting forms, and all other information on the site were translated into Spanish, Russian, and Chinese (simplified). The online materials were also accessible for the visually impaired. Comments were accepted electronically via the website, by speaking to 311 operators, and in paper form via mail.

The comment period was announced by Mayor Bloomberg at a press event on the first day of the period and a corresponding press release was issued. New York City elected officials were notified of the comment period, as well as Community Boards and numerous community-based organizations through the Mayor’s Community Affairs Unit, Office of Immigrant Affairs, Office for People with Disabilities, and Governmental Affairs staff. Notices advertising the public comment period were placed in the following daily newspapers and weekly community newspapers on the first day of the period:

- Daily News
- NY Post
- Newsday Queens Edition
- Staten Island Advance
- El Diario
- Sing Tao Daily
- Russkaya Reklama
- Rockaway Wave

Printed copies of the draft Partial Action Plan, including in large print format (18pt font size), were made available in English, Chinese (simplified), Russian, and Spanish. Copies were available for pickup in the Department of City Planning’s Bookstore, at the NYC Office of Management and Budget’s front desk, and in all five boroughs at each Borough Hall.

The City received 377 unique comments during the comment period, including 25 made by callers to 311 and two (2) received through paper mail. Based on a thorough review of the comments, the City made changes to program narratives to further clarify Action Plan objectives. The City adopted a draft Partial Action Plan for approval by the U.S. Department of Housing and Urban Development on April 23, 2013. The responses to these comments have been incorporated into this proposed Partial Action Plan and are reviewed in Section XV.

Please note that the amounts in the allocation chart have been revised since the draft Partial Action Plan was released. In the previous version, the City did not break out specific amounts for Planning and Administration activities; instead, it noted that the cost of these activities would not surpass the HUD-defined CDBG-DR expenditure caps. During the comment period, HUD requested that the City establish specific allocations for these programs. As stated in the footnote to the chart, these allocations are based on the best currently available projections of need to support the programs. It is anticipated that there will be future adjustments based on actual experience once programs are implemented.

Please also note that, in response to public comments, the City has broken out the Rental Assistance program, which was previously part of the NYC Houses Rehabilitation and Reconstruction program, as a separate program. The City felt it was necessary to clarify the purpose of this program, which is intended to serve vulnerable populations impacted by Sandy, including low-income families and those that may be at risk of homelessness. Please see the “Housing” section of the Action Plan for further details on this program.
II. INTRODUCTION

With more than 520 miles of waterfront and 375,000 people in the highest risk areas for flooding, New York City is one of the cities most susceptible to hurricanes and coastal storms in the country. Hurricane Sandy, which hit New York City on October 29, 2012, was unlike any storm in the City’s long recorded history and followed a century in which sea levels have risen by more than one foot. The power and strength with which the storm hit and the destruction it left in its wake resulted from a worst-case scenario combination of weather patterns: Sandy’s arrival coincided with a full moon that gave rise to astronomical high tides approximately 5% higher than normal; a rare “leftward hook” that changed the course of the storm and put NYC in its northwest quadrant which had the strongest winds. These factors led to the massive storm surge that hit many waterfront neighborhoods – from the Rockaways, to Midland Beach and other communities on Staten Island’s East and South shores, to Coney Island, Hamilton Beach, Gerritsen Beach, Orchard Beach, and the South Street Seaport in Lower Manhattan. Water levels at the Battery reached an unprecedented 14 feet – a scenario that the Federal Emergency Management Agency (FEMA) estimated had a less than 1% chance of happening in any given year. Tragically, 43 New Yorkers lost their lives in the storm.

Starting several days before the storm, Mayor Bloomberg convened daily executive-level briefings at City Hall and New York City’s Office of Emergency Management (OEM) headquarters in Brooklyn to receive detailed information from City Commissioners and senior staff, the National Weather Service, and partners such as the Metropolitan Transportation Authority (MTA) and the New York State Department of Health (NYS DOH). These briefings, along with worsening weather forecasts, led OEM to activate the Emergency Operations Center (EOC), which became the nerve center for all decision-making and storm response management and centralized active preparations for the storm across City agencies and relevant partners. Based on the storm’s trajectory and strength, the City opened the Logistics Center (LC) to provide various supplies and equipment; the Healthcare Evacuation Center (HEC) to prepare for the possible evacuation of healthcare facilities; and deployed the Emergency Supply Stockpile (ESS) to ready the schools within the City’s shelter system. The decision with the most significant repercussions – whether to issue a mandatory evacuation – resulted from updated storm surge predictions from the National Weather Service (NWS) on the morning of October 28.

After the storm arrived, the New York City Police Department (NYPD) Special Operations division rescued more than 1,200 people, with likely many more unreported rescues by other divisions, and the Fire Department of New York (FDNY) rescued at least another 500 New Yorkers. Power outages beginning at approximately 8:00PM on Monday, October 29 disrupted other aspects of maintaining public safety. In response, the City sourced approximately 500 light towers to place in affected communities. The NYPD also provided traffic management and intersection control in some areas without signals. The City also deployed as many generators as it could source to meet a demand that exceeded the number of requests from any other incident. Prioritizing placement to locations that asked for generators to protect life and safety, the City worked with FEMA and the US Army Corps of Engineers (USACE) to deploy approximately 230 generators to hospitals, nursing homes, large multi-family buildings, and New York City Housing Authority (NYCHA) developments in the days following the storm. The City worked closely with Con Edison and the Long Island Power Authority (LIPA) to monitor power restoration, which was largely restored to Manhattan south of 39th Street by November 3, approximately five days after the storm.

To provide New Yorkers with a safe place to evacuate, the City opened the first tier of evacuation shelters – enough for up to 71,000 people – the morning of Sunday, October 28, with enough time to allow people to collect their belongings and travel inland while it was safe to do so, and before the MTA shut down the subway and bus system. The City also opened eight Special Medical Needs Shelters (SMNS) staffed with medical professionals and administration from the City’s Health and Hospitals Corporation (HHC), mental
health professionals from the City’s Department of Health and Mental Hygiene (DOHMH), medical volunteers from the City’s Medical Reserve Corps, and federal Disaster Medical Assistance Teams (DMATs) comprised of 25 doctors, nurses, mental health professionals, and clinical personnel. The City’s Medical Reserve Corps, a group of medical professional volunteers organized and managed by DOHMH also worked more than 18,000 hours over the course of the storm.

After the storm, New Yorkers’ ability to live and work in the City’s building stock was compromised in two ways: through immediate damage from storm surge and wind and through outages from damage to power, gas, and water networks. The restoration of homes and commercial buildings required City agencies, utility companies, and private property owners to work together to assess the needs of each property and sequence the work, which included dewatering, structural assessment, and generator installation, to ensure everyone’s safety and as efficient a use of resources as possible. Saltwater inundation of building systems was particularly destructive – NYCHA sourced temporary boilers from as far away as Texas in order to restore heat and hot water to all occupied buildings by November 18.

The City’s Department of Environmental Protection (DEP) and the Department of Transportation (DOT) pumped out many of their own facilities, including wastewater treatment plants, and worked closely with USACE and the Navy to pump out the Battery Park Underpass and the West Street Underpass. USACE also assisted in major tunnel and subway pumping operations for the MTA and Port Authority, and many of the critical parts of the City’s transportation network came back online in record time. The City’s and MTA’s extensive preparations leading up to the storm, including shutting down the subway system to move trains and equipment to higher ground and placing sandbags at vulnerable assets, allowed the City’s transportation and wastewater systems to endure the storm with far less damage than otherwise would have been the case.

On Wednesday, October 31, the City’s Department of Buildings (DOB) began conducting damage assessments of residential and commercial buildings in inundated areas. The first set of assessments – called windshield assessments – provided a rough overview of flooding damage and provided the baseline from which DOB made building-specific assessments, categorizing each as green (safe), yellow (use caution), or red (structurally unsound). DOB followed the windshield, or “rapid” assessments, with detailed assessments of all red- and yellow-tagged properties and conducted extensive outreach to homeowners, architects, and contractors. Many homes were reclassified from red or yellow to yellow or green as property owners made repairs. The Mayor’s Fund to Advance New York City1 sponsored local cleanup teams from the Doe Fund and the Center for Employment Opportunities, two local non-profits that provide training and employment to underemployed New Yorkers. Hurricane Sandy completely destroyed approximately 300 homes across Brooklyn, Queens, and Staten Island, and damaged thousands more, creating a need for many New Yorkers to seek temporary housing or immediate home repairs. For those evacuees who were unable to return to their homes and remained in emergency shelters, the City entered into agreements with hotels to provide alternative stable, short-term evacuation sheltering. The newly-created Office of Housing Recovery Operations (HRO) created the Hotel Operations Desk, staffed with personnel from the City’s Department of Housing Preservation and Development (HPD), Department of Homeless Services (DHS), and the Mayor’s Office to reserve hotel rooms and place families into them. DHS transitioned remaining evacuees from shelters to hotels beginning November 12, with additional incoming referrals from the National Guard’s door-to-door outreach program and from non-profit providers at public

1 The Mayor’s Fund to Advance New York City is a 501(c)(3) non-profit organization, which is supporting immediate needs as well as long-term restoration efforts in the wake of Hurricane Sandy.
evacuation shelters through November 19. DHS providers delivered on-site case management services at
the hotels to connect evacuees to City or Federal benefits and worked with households to develop a longer-
term plan for permanent housing.

On the principle that the best temporary housing is permanent housing, the City worked with FEMA to
develop and implement the federal Sheltering and Temporary Essential Power (STEP) program as NYC
Rapid Repairs, a free program to restore power, heat, and hot water to private homes. Rapid Repairs is the
first program of its kind in the country and will have repaired more than 11,700 homes representing more
than 20,000 units when it concludes by the beginning of April 2013. At the peak of the program in January,
Rapid Repairs completed work on more than 200 homes per day with labor from more than 2,300 skilled
workers in a single day working under 10 prime contractors.

After the demand for generators in the interest of life and safety was met, the next highest priority was the
restoration of NYCHA’s building systems: approximately 80,000 residents in over 400 buildings were
affected by loss of power, heat, or hot water. NYCHA staff worked to restore at least temporary services as
quickly as possible, though many buildings subjected to salt water and sand required a significant amount
of work to bring them even to this standard. The City also worked with the owners of large multi-family
buildings in the HPD portfolio and used contact information from tax records and water accounts to reach
out to building owners to work with them and to hold them responsible for restoring habitability.

Sandy triggered one of the most severe fuel shortages in the City’s history by damaging energy
infrastructure along the regional supply chain, including fuel terminals, pipelines, and gas stations. City
agencies had prepared for this possibility by fueling vehicles and generators before the storm, but the
enormous scale of the cleanup and recovery operation required more fuel than the maximum capacity of
the City’s fuel sites. Beginning Sunday November 4, the City worked with the National Guard to set up a
fueling operation at Floyd Bennett Field for City vehicles, para-transit vehicles, and other first responders
and critical recovery-related personnel. Along with two satellite locations at Fort Wadsworth in Staten
Island and Orchard Beach in the Bronx, more than 22,000 emergency and other essential vehicles filled up
through this partnership with the National Guard. First responders, including private ambulances, also had
the option to fuel at 10 NYPD-managed Hess locations throughout the City.

Sandy generated an estimated over 700,000 tons of storm debris, which included construction and
demolition debris, sand, concrete, and more than 27,000 tons of wood debris from nearly 20,000 downed
trees and limbs. Clearing this debris from the public right-of-way and from storm-damaged homes
removed obstacles and hazards from roads and allowed residents to safely and quickly dispose of wet and
damaged housing materials. The City activated its Debris Removal Task Force (DRTF) to coordinate the
collection and removal of debris from the City’s rights-of-way to seven NYS Department of Environmental
Conservation (DEC)-licensed Temporary Storage Sites, including Floyd Bennett Field and Jacob Riis Park,
both part of the National Parks Service’s Gateway National Recreation Area in Jamaica Bay. Five of the
Temporary Storage Sites closed by November 19 and two remained open longer to receive remaining
debris, including from Rapid Repairs. From the Temporary Storage Sites, the City’s Department of
Sanitation (DSNY) and contractors hired through USACE transported the debris out of the City for
permanent disposal. DEP monitored debris piles in the Rockaways and Staten Island for asbestos and all
samples met the clearance criteria established for asbestos abatements conducted indoors. Major damage
to waterfront and coastal infrastructure, including beaches, boardwalks, and waterfront structures will
require extensive repair. New York City’s beaches lost more than three million cubic yards of sand,
including 1.5 million cubic yards on the Rockaway Peninsula alone.

Widespread coastal flooding also damaged 10,000 recreational boats and 100,000 personal vehicles, many
of which were carried by floodwaters onto streets, sidewalks, and private properties. Although the City
regularly tows vehicles for parking violations, the scale of the post-Sandy tow operations outstripped the City’s towing capabilities. Within two weeks following the storm, the City executed a contract to tow and store damaged cars and boats, located paved storage areas tolerant of leaking fluids without leading to environmental contamination, and created a process for the public to locate and reclaim their property. In total, the City towed approximately 3,400 cars and 135 boats.

Sandy left thousands of New Yorkers without the ability to prepare hot food and closed supermarkets throughout entire communities. On Thursday, November 1, the City and the National Guard set up a major food and water distribution operation based at Floyd Bennett Field that served 17 community food distribution points on City-owned land that ultimately gave out more than 2.1 million Meals Ready to Eat (MREs), and more than 925,000 bottles of water. In addition to major distribution points in communities, the City, along with the National Guard and volunteers through NYC Service, worked with NYCH and human services agencies to identify homebound populations and deliver food, water, and other goods directly to residents in single- and multi-family homes, as well as high-density, multi-family dwellings. In addition to emergency food distribution, several City agencies provided relief by extending existing services. The City’s Department of Education (DOE) received approval from the U.S. Department of Agriculture (USDA) to provide free school lunches to all public school students during the months of November and December, for menu flexibility, and to provide free lunches in Sandy-impacted districts through March. New York City’s Human Resources Administration (HRA) obtained a federal waiver to replace 50% of the October Supplemental Nutrition Assistance Program (SNAP) grant for 311,000 households in 82 zip codes at an average benefit of $140, totaling more than $43 million, and processed applications manually where there were no working computers or internet connection. More than 107,000 households received these replacement benefits, totaling more than $23 million (average benefit $219). HRA also increased its support of Emergency Food Assistance Providers, delivering about 535,000 pounds of food to food pantries that served affected neighborhoods.

The City opened Disaster Assistance Service Centers (DASCs) in the hardest hit areas of the City – Coney Island, the Rockaways, Staten Island, and Breezy Point – on Friday, November 2, just four days after the storm. As client needs became clearer, on November 13, Mayor Bloomberg opened the first of seven Restoration Centers, one-stop-shops for City, State, and Federal resources for those most impacted by the storm. Restoration Centers served more than 30,000 clients from opening on November 13th to the closing of the last three centers in Coney Island, Arverne, and Staten Island on February 23. Restoration Centers served personal households and businesses with a focus on financial assistance, housing, and reconstruction. In the financial assistance category, HRA registered new clients for SNAP, the City’s Department of Consumer Affairs (DCA) scheduled appointments at its Financial Empowerment Centers, and the City’s Department of Small Business Services (SBS) helped with applications to the Hurricane Sandy Relief Fund and referred clients to the Workforce1 Career Centers and business owners to its Business Solutions Centers. Housing resources included short-, medium-, and long-term solutions that ranged from hotel placements and emergency transfer vouchers for Section 8 residents to registration with the HPD Housing Recovery Portal, which connects households that need shelter to available rental units in the HPD portfolio. Homeowners accessed information about building cleanup, demolition, debris removal, and reconstruction, as well as guidance on mold removal and how to hire reputable and licensed contractors. Rapid Repairs, the City’s free program to restore temporary heat, hot water, and power to homes, was one of the most requested services and enrolled more than 17,000 homeowners across all methods of registration, although the number of requests for each service varied across Restoration Centers based on neighborhood characteristics.

Distribution sites and Restoration Centers met the needs of many New Yorkers, including those with disabilities, but for people who were unable to leave their homes, the City launched a door-to-door outreach program on November 9; from November 9th through November 15 the U.S. Department of Health
and Human Services (HHS), FEMA, and the National Guard knocked on doors in high-rise buildings in the Rockaways and on Coney Island. Along with a NYCHA program to provide medical care in Red Hook, the teams canvassed more than 42,000 people and provided food and water to 1,700 residents, prescriptions for 335 people, and evacuated 44 for medical reasons. A second major wave of door-to-door outreach began on November 26 to visit residents of severely damaged single-family homes and multiple-unit dwellings with six or fewer stories in affected areas of Brooklyn, Queens, and Staten Island. On December 8, the outreach operation expanded to include all single-family homes and buildings with fewer than six stories in affected neighborhoods, or approximately 140,000 households, in order to check on overall resident wellness, distribute supplies, provide information about available resources and Restoration Centers, make client referrals to medical teams, and identify homes for Rapid Repairs. To provide basic primary care in affected communities, the City brought temporary mobile healthcare services to areas with extensive power outages and incorporated health referrals in door-to-door outreach. Eleven mobile medical vans offered basic primary care and prescriptions to adults and children in rotating areas in the Rockaways, Brooklyn, and Staten Island based on community needs. These vans performed, on average, more than 40 visits each day. By January 14, more than 600 people had received medical care from the National Guard at their homes and another 1,100 received follow-up care from the Visiting Nurse Service. In addition to providing a safe home for New Yorkers to return to, food and water, convenient enrollment for City services, and medical care, the City launched a suite of programs, including financial assistance and the coordination of in-kind donations, to help businesses recover from both physical damage and losses from extended closures. To focus resources and identify neighborhood-specific needs, Mayor Bloomberg announced the creation of five Business Recovery Zones (BRZs) on December 5 with designated leaders to organize City resources and provide a central point of contact for businesses and agencies. In total, there are approximately 13,200 businesses with more than 143,000 employees in the Business Recovery Zones. Mayor Bloomberg also announced the creation of the Recovery Business Acceleration Team, modeled after the City’s New Business Acceleration Team, to streamline and expedite City agency processes to re-open at the same time. SBS’s Business Outreach Team’s Emergency Response Unit also visited severely impacted areas in order to assess damages and work with individual business owners to expedite re-inspections, applications, and permit processes necessary to re-open; replace lost or damaged City permits and/or paperwork; work with the New York State Insurance Department to resolve issues; and connect businesses to free legal services and tax abatements for reconstruction, utility rebates, and other incentives. In the form of financial assistance, the City’s Emergency Loan Fund and matching grant program provided businesses that experienced direct damage through flooding or power outages with up to $25,000 through a low-interest loan (interest and payment free for the first six months) and up to $10,000 in a matching grant to cover working capital, repairs, and equipment replacement. The $25.5 million loan and grant fund included contributions from the New York City Economic Development Corporation (NYCEDC), Goldman Sachs, the New York Bankers Association, the Mayor’s Fund to Advance New York City, and the Partnership for New York City. The City, through the New York City Industrial Development Authority (IDA), also issued emergency sales tax letters to waive up to $100,000 in New York City and New York State sales taxes for up to 250 businesses on materials purchased for recovery efforts. NYC Business Solutions, a division of SBS, offers technical assistance to accessing federal loan applications as a part of their normal expertise. For displaced businesses that could not return to their previous office space, NYCEDC secured more than 300,000 square feet of temporary office space across the five boroughs, as well as donated services. The Community Development Block Grant Disaster Recovery (CDBG-DR) program provides communities impacted by disasters with resources to address a wide range of disaster-related needs. CDBG-DR allocations provide funding to develop viable communities, particularly for low- and moderate-income
persons, through decent housing, a suitable living environment, and opportunities to expand economic opportunities. The programs outlined in this Partial Action Plan and those in the design phase for future CDBG-DR allocations will support New York City’s recovery.

On October 28, 2013, President Obama signed an emergency declaration for the States of New York and New Jersey. The declaration meant that state and local governments could receive Federal assistance for the costs of evacuation, sheltering, and other measures. On January 29, 2013, President Obama signed into law the “Disaster Relief Appropriations Act, 2013” (Public Law 113-2), which included $16 billion in CDBG-DR funds “for necessary expenses related to disaster relief, long-term recovery, restoration of infrastructure and housing, and economic revitalization in the most impacted and distressed areas resulting from...Hurricane Sandy and other eligible events in calendar years 2011, 2012, and 2013”. The U.S. Department of Housing and Urban Development (HUD), which administers CDBG-DR funds, was ordered to disburse at least 33% within the 60 days following the law's enactment with the remainder to be released at a later date. The Act also requires grantees to submit a plan to the HUD Secretary “detailing the proposed use of all funds, including criteria for eligibility and how the use of these funds will address long-term recovery and restoration of infrastructure and housing and economic revitalization in the most impacted and distressed areas.”

The City’s initial allocation of CDBG-DR funds is $1,772,820,000. The City’s Partial Action Plans detail how the City intends to use the first allocation to fulfill unmet funding needs, which exceed the initial allocation. As a result, this allocation will not allow the City to assist every homeowner or business that was affected by Sandy; it is instead the City’s intention to design and implement programs that will address the greatest needs in each of the programmatic areas outlined within the Plan. The City’s Partial Action Plans will also describe how it will leverage other funding sources to address areas of unmet need.

Consultation with Stakeholders and Other Governments

The programs in the City’s Partial Action Plans are the product of significant stakeholder outreach, which was conducted to ensure that programs meet the City’s most crucial needs and reflect the characteristics of neighborhoods and businesses throughout the five boroughs.

In addition to working with local elected officials, the City’s Housing agencies – the New York City Housing Authority (NYCHA), the Department of Housing Preservation and Development (HPD), the Housing Development Corporation (HDC), the Department of Environmental Protection (DEP), and the Mayor’s Office of Housing Recovery Operations (HRO), which was created by Mayor Bloomberg through an Executive Order to address Sandy-related housing needs – partnered on a comprehensive outreach plan to gather feedback from affected communities and elected officials and leverage existing community connections. The housing team consulted and partnered extensively with NYCHA.

The outreach efforts included:

- Touring affected neighborhoods with local residents;
- Engaging in small group conversations with elected officials, community stakeholders, and constituents;
- Hosting housing forums in each impacted area of the City to provide information to residents about the rebuilding process, zoning ordinances, FEMA assistance, financial resources, and to capture resident feedback, needs, and concerns;
- Presenting to community board and civic association meetings;
• Collaborating with housing non-profit partners to distribute information and administer tenant needs assessment surveys; and
• Convening a working group with banks and other housing and financial industry partners.

The Special Initiative on Rebuilding and Resiliency (SIRR), responsible for developing a plan to make New York City more resilient to the impacts of climate change, has also undertaken a massive effort to increase the resiliency of the hardest hit areas. Scheduled to present recommendations to Mayor Bloomberg in May 2013, SIRR has held more than two dozen group and one-on-one briefings for more than 60 elected officials, met with more than 100 community-based organizations, and hosted 10 public meetings in impacted areas to solicit input on resiliency priorities.

Additionally, through the New York-Connecticut (NY-CT) Sustainable Communities Consortium, the City has discussed flood zone management, climate resilience, and long-term planning with its partners in New York State, Connecticut, and also New Jersey. The NY-CT Sustainable Communities Consortium will advance both on-the-ground implementation strategies to create more livable, economically vibrant places, and regional strategies to integrate and enhance housing, transportation, and economic and environmental plans and programs. The initiative will work to reduce congestion, improve the environment, and create a strategy to build resilience to the effects of climate change in New York City, with applications for other parts of the region.

The NY-CT Sustainable Communities Consortium includes the following entities:

• City of New York (Department of City Planning);
• City of Mount Vernon (NY);
• City of New Rochelle (NY);
• City of White Plains (NY);
• City of Yonkers (NY);
• New York Metropolitan Transportation Council (NYMTC);
• Long Island Regional Planning Council (LIRPC) (NY);
• Nassau County (NY);
• Suffolk County (NY);
• City of Bridgeport (CT);
• City of New Haven (CT);
• City of Norwalk (CT);
• City of Stamford (CT);
• South Western Regional Metropolitan Planning Organization (SWRMPO) (CT);
• Greater Bridgeport/Valley Metropolitan Planning Organization (GBVMPO) (CT);
• South Central Regional Council of Governments (SCRCOG) (CT); and
• Regional Plan Association (RPA).

The Consortium’s Advisory Board consists of eleven state agencies and non-profit organizations, including:

• Connecticut Department of Economic and Community Development;
• Connecticut Housing Finance Agency;
• Empire State Development Corporation;
• International Council for Local Environmental Initiatives;
• Local Initiatives Support Corporation;
• New York State Department of State;
• New York State Homes & Community Renewal;
• North Jersey Transportation Planning Authority
• One Region Funders Group;
• Urban Land Institute; and
• WE ACT for Environmental Justice.
Following Hurricane Sandy, the Consortium, in cooperation with partners in the North Jersey Sustainable Communities consortium, has convened a Joint Climate Resilience Committee. Participants in the joint committee, including the cities of Jersey City and Hoboken, face many similar challenges to those confronting New York City. The joint committee’s goals include coordinating among local, state, and federal initiatives, and sharing key information resources and best practices within the region, as well as integrating climate resilience within the consortia’s activities.

For the City’s infrastructure programs, the City has coordinated and will continue to coordinate with its State and Federal partners, such as USACE, FEMA, the New York State Department of Environmental Conservation, and the New York State Division of Homeland Security and Emergency Services. The City will continue to perform such outreach to all relevant and/or impacted parties for all future CDBG-DR projects.

Finally, regarding the Action Plan’s development, the City remained in contact with its local partners through the Lower New York State CDBG Grantee Jurisdiction Roundtable, which includes representatives from nearly 15 CDBG entitlement communities within the State of New York.
III. Overall Storm Impact and Response

The Hurricane Sandy Operational Inundation Area, which consists of areas in New York City that the Federal Emergency Management Agency (FEMA) determined were inundated with flood waters, encompassed areas well beyond the pre-storm flood zones identified by FEMA. The disparity was particularly pronounced in the areas in the southern half of New York City subject to Atlantic Ocean wave action. The Inundation Area includes the full range of land uses in the City, from homes to commercial office towers. This section contains maps showing the Inundation Area for each borough and a description of the Inundation Area on a citywide basis, as well as an assessment of conditions by borough. Each borough map depicts the Operational Inundation Area with its 2010 census tracts indicated.

The “Selected Housing Characteristics,” “Land Use,” and “Demographics and Housing Profile” charts that follow the maps are based on the Operational Inundation Area on a citywide basis. For charts depicting this information on a borough basis, please see Appendix C. This information has been and will continue to be used to inform planning decisions for the City’s long-term recovery.

Citywide Inundation Area

Hurricane Sandy impacted a broad cross-section of New Yorkers. According to 2010 Census data, approximately 10.3% of New York City’s population (846,056 persons) resided in the Inundation Area. The impact varied across geography. In terms of absolute population, Brooklyn had the highest number of persons impacted (310,227), followed by Manhattan (230,742), Queens (188,444), Staten Island (75,651), and the Bronx (40,992).

In terms of percentage within a specific borough, Staten Island, which has the smallest portion of the City’s overall population, had the highest percentage of its residents impacted (approximately 16.0%). Manhattan had 14.5% of its residents impacted, Brooklyn 12.4%, Queens 8.4%, and the Bronx 3.0%, respectively.

In New York City, no one racial group comprises more than half the total population. New York City’s population is 33.3% White non-Hispanic, 22.8% Black non-Hispanic, 28.6% Hispanic origin, and 12.6% Asian non-Hispanic. In addition, approximately 2% of New York City’s population is multi-racial non-Hispanic. Within the Inundation Area, approximately 45.5% are White non-Hispanic, 22.3% Black non-Hispanic, 20.6% Hispanic, and 9.4% Asian non-Hispanic, respectively. Slightly more than 1.5% are multi-racial non-Hispanic.

The mean household size in the Inundation Area is 2.41, slightly less than the mean household size citywide (2.57).

With respect to age, 25.9% of the persons within the Inundation Area are young adults (ages 18-34), the highest percentage of all age intervals. The elderly (age 65 and over) comprised 14.5% of the population within the Inundation Area, 2.4 percentage points higher than the City’s elderly population overall.

People with disabilities were also impacted by Hurricane Sandy. The U.S. Census Bureau’s 2009-2011 American Community Survey (ACS) data indicates that 11.4% of the population within the Inundation Area is comprised of persons with a disability living in a non-institutional setting. This is nearly 1.0 percentage point higher than the City’s total population of people with disabilities living in non-institutional settings.

In terms of poverty, 2006-2010 ACS data indicate that 19.1% of New Yorkers are below the poverty line, and 5.1% are considered near poor. Within the Inundation Area, poverty is slightly less pronounced than
New York City as a whole, but nonetheless significant: 17.3% of persons within the areas are below the poverty line, and 4.7% are considered near poor.

According to 2006-2010 ACS data, the total number of housing units (vacant and occupied) in New York City is 3,371,062. The total number of occupied units is 3,109,784. Approximately 335,300 (10.7%) of these occupied units are within the Inundation Area.

In terms of tenure, owner-occupied units constitute 34.4% of all occupied units within the Inundation Area (115,195 units). This is 3.4 percentage points higher than the percentage of owner-occupied units within New York City overall.

Of the 3,371,062 housing units in the City, the majority of units are within multi-family buildings (three or more units within the structure)\(^2\). Approximately 1,080,400 units are in multi-family elevator buildings, and approximately 828,700 units are located in multi-family walk-up buildings, respectively. These two types of structures contain 32.0% and 24.6% of the housing units within the City, respectively. One- and two-family buildings, which constitute the majority of owner-occupied housing, contain 24.4% of the housing units citywide (822,717). Mixed-use residential/commercial buildings accounted for 18.0% of the housing units (606,838 units).

Within the Inundation Area, 36.4% of the housing units are in multi-family elevator buildings, which is 4.4 percentage points higher than for the City overall. One- and two-family buildings contain a higher percentage of housing units impacted than their percentage of the City's total housing stock (29.0% versus 24.4%, respectively).

The vast majority of the City's stock (87.2%) was built prior to the 1980 census, which was the last decennial census before the Building Code was amended in 1983 to include flood-resistant construction. Of the housing stock within the Inundation Area, 80.1% was constructed prior to 1980.

Among renter-occupied units within the Inundation Area, 10.2% of renters have a cost burden between 30.0 and 34.9% of their household income. Another 37.4% of renters have a cost burden greater than 35.0% of their household income.

**Bronx**

The Inundation Area in the Bronx includes portions of major industrial areas, including Port Morris and Hunts Point along the East River, Zerega along Westchester Creek, and Eastchester along the Hutchinson River. It also includes low-density residential communities in the Soundview, Throgs Neck, and Country Club neighborhoods.

Of the approximately 1,385,100 persons who reside in the Bronx, just 3.0% were located within the Inundation Area (approximately 41,000 persons).

A majority of the Bronx's residents are Hispanic (53.5%). Black non-Hispanics make up 30.1% of the population and 10.9% are White non-Hispanic. Within the borough’s Inundation Area, no one racial group comprises more than half of the impacted population. Hispanics account for 34.4%, White non-Hispanics 34.7%, and Black non-Hispanic 26.8%.

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\(^2\) Please note that this definition of a multi-unit building differs from the Federal definition of a multi-unit building, which is five or more units.
The mean household size within the Bronx’s Inundation Area is 2.45, slightly less than the borough’s mean household size of 2.77.

With respect to age, 31.4% of the persons within the Bronx’s Inundation Area are young adults (ages 18-34), the highest percentage of all age intervals. The elderly (age 65 and over) comprised 13.7% of the population within the borough’s Inundation Area which is 3.2 percentage points higher than the borough’s overall elderly population.

Persons with disabilities living in a non-institutional setting make up 13.7% of the Bronx’s population. Within the borough’s Inundation Area, people with disabilities constitute 14.8% of its impacted population.

In terms of poverty, 2006-2010 ACS data indicate that 28.4% of Bronx residents are below the poverty line. Within the borough’s Inundation Area, the percentage of persons below the poverty line is 18.7%. The percentage of persons considered near poor in its Inundation Area is also lower than for the borough as a whole (4.9% versus 6.7%, respectively).

According to 2006-2010 ACS data the total number of housing units (vacant and occupied) in the Bronx is approximately 511,900. The total number of occupied units is approximately 483,450. Approximately 11,400 (2.4%) of these occupied units are within the borough’s Inundation Area.

In terms of tenure, owner-occupied units constitute 19.3% of the housing units within the borough overall. However, in the Bronx’s Inundation Area, 45.7% of the housing units are owner-occupied.

Of the approximately 511,900 housing units in the Bronx, approximately two-thirds are within multi-family buildings, 17.8% are in mixed-use residential/commercial buildings, and 14.7% are in one- and two-family buildings.

Within the Bronx's Inundation Area, 44.1% of the housing units are in one- and two-family buildings, 20.5% are in mixed-use residential/commercial buildings, and 35.3% are in multi-family buildings.

A significant percentage of the borough’s housing stock is pre-1980 construction (90.1%). Of the housing stock within its Inundation Area, 78.2% of the units were constructed prior to 1980.

Among households within the Bronx’s Inundation Area that rent, 7.5% of renters who reported that they pay rent have a cost burden between 30.0% and 34.9% of their household income and 44.8% have a cost burden greater than 35.0% of their household income.

**Brooklyn**

Beginning with Community District 1 in Greenpoint/Williamsburg, the Inundation Area encompasses largely industrial areas along the south side of Newtown Creek and the English Kills, a Federally-designated Superfund site, as well as the East River waterfront, largely rezoned in the past decade to permit mid- to high-rise residential redevelopment. Moving south along the East River, the Inundation Area includes the Brooklyn Navy Yard industrial and business park and the mixed residential and commercial DUMBO area, dominated by converted industrial loft buildings. Beyond Brooklyn Heights, the Inundation Area includes the Red Hook container port and the mixed-use neighborhood of Red Hook, including older residential buildings, converted industrial lofts, the Red Hook public housing development, and commercial and industrial businesses. It also includes the mixed-use areas along the Gowanus Canal, a Federally-designated Superfund site. South of the Gowanus Canal, the Inundation Area includes portions of the Sunset Park industrial area.
Due to changes in topography, the Inundation Area is limited in extent until it reaches the low-lying areas of southern Brooklyn. There, it includes all of the beachfront neighborhoods of Coney Island, Brighton Beach, and Manhattan Beach. These include the low-density Seagate neighborhood to the west; the Coney Island neighborhood dominated by high-rise public housing as well as other publicly-assisted housing, with the beach, New York Aquarium, minor league baseball stadium and amusements to the south; and the medium-density Brighton Beach neighborhood and the mainly low-density Manhattan Beach neighborhood, including Kingsborough Community College, to the east. Also inundated were portions of the Gravesend and Sheepshead Bay neighborhoods, including commercial and low- to mid-density residential areas, the Coney Island subway yards, and Coney Island Hospital.

Moving east from Sheepshead Bay, the Brooklyn shoreline is dominated by finger inlets adjacent to low-density residential communities that were inundated. These include Gerritsen Beach, Mill Island, Bergen Beach, Paerdegat Basin, and portions of Canarsie.

The borough of Brooklyn had the highest total number of residents impacted by the storm (310,227 persons). This represents 12.4% of the borough's total population.

Similar to New York City as a whole, no one racial group comprises more than half of the borough's total population. Brooklyn's population is 35.7% White non-Hispanic, 31.9% Black non-Hispanic, 19.8% Hispanic origin, and 10.4% Asian non-Hispanic. In addition, 16% of the borough's population is multi-racial non-Hispanic. Within the borough's Inundation Area, White non-Hispanic represented the majority of persons impacted with 53.6%. As a result, the percentage of Black non-Hispanic and Hispanic persons within impacted areas (20.7% and 13.6%, respectively) is less than the borough's overall population in the Inundated Area. The percentage of Asian non-Hispanic within the borough's Inundation Area is the same as the percentage of the borough's overall population (10.4%).

The mean household size within the Inundation Area is 2.48, slightly less than the borough's mean household size (2.69).

With respect to age, 23.4% of the persons within Brooklyn's Inundation Area are young adults (ages 18-34), the highest percentage of all age intervals. The elderly (age 65 and over) comprised 16.4% of the population within the borough's Inundation Area. This is 4.9 percentage points higher than the borough's elderly population and 1.9 percentage points higher than the elderly population within the Inundation Area citywide.

Hurricane Sandy also impacted people with disabilities. The 2009-2011 ACS data indicates that 12.8% of the population within the borough’s Inundation Area is comprised of persons with a disability living in a non-institutional setting. This is 3.3 percentage points higher than Brooklyn's total population of people with disabilities living in non-institutional settings.

In terms of poverty, 2006-2010 ACS data indicate that 28.4% of Brooklyn residents are below the poverty line, and 6.7% are considered near poor. Within the Inundation Area, the percentage of persons below the poverty line is significantly less (18.7%). The percentage of persons considered near poor is 4.9%.

According to 2006-2010 ACS data, the total number of housing units (vacant and occupied) in Brooklyn is 1,000,293. The total number of occupied units is 916,856. Approximately 122,600 (13.4%) of these occupied units are within the borough’s Inundation Area.

In terms of tenure, owner-occupied units constitute 37.5% of all occupied units within the Inundation Area (45,992 units). This is 9.8 percentage points higher than the percentage of owner-occupied units within the borough (27.7%).
Of the 1,000,293 housing units in Brooklyn, the majority of units are within multi-family buildings (three or more units within the structure). Approximately 282,000 units are in multi-family elevator buildings, and approximately 336,300 units are located in multi-family walk-up buildings. These two types of structures contain approximately 28.2% and 33.6% of the housing units within the borough, respectively. One- and two-family buildings contain 25.5% of the borough’s housing units (254,672). Units in mixed-use residential/commercial buildings accounted for 11.9% of the housing units (118,940 units).

Within its Inundation Area, 37.5% of the housing units are in multi-family elevator buildings, which is 9.3 percentage points higher than for the borough. One- and two-family buildings represented a higher percentage of housing units impacted than its percentage of Brooklyn’s total housing stock (32.6% versus 25.5%, respectively).

In terms of year the structures were built, a significant percentage of Brooklyn’s housing stock is pre-1980 construction (89.2%). Of the housing stock within its Inundation Area, 88.9% were constructed prior to 1980.

Among households within the borough’s Inundation Area that rent, 10.5% of renters who reported that they pay rent have a cost burden between 30.0 and 34.9% of their household income, and 40.7% of renters have a cost burden greater than 35.0% of their household income.

**Manhattan**

In Community District 1 in Lower Manhattan, the Inundation Area includes the Water Street corridor, an important high-rise office district, as well as upland areas that include a mix of commercial office and residential uses and the South Street Seaport Historic District. On the west side of Lower Manhattan, the Inundation Area runs along the Route 9A corridor and includes mixed-use areas including portions of TriBeCa, the West Village, and Chelsea. Along the East Side, the Inundation Area includes residential portions of the East Village, Con Edison facilities, and north of 14th Street, the mid-rise residential developments of Stuyvesant Town and Peter Cooper Village. North of 23rd Street, the Inundation Area includes the important medical corridor that contains the Veterans Administration, Bellevue, and NYU Langone hospitals. To the north, the Inundation Area includes residential portions of East Harlem and areas of northern Manhattan including the Dyckman Houses public housing development and the 207th Street subway yards.

According to 2010 Census data, there are 1,585,873 persons living in Manhattan. Of those, 14.5% reside in the Inundation Area (230,742 persons).

Within the borough the impact of the storm varied by race and ethnicity. Approximately 30.8% of persons residing in Manhattan’s Inundation Area are Hispanic, approximately 5 percentage points higher than the percentage of Hispanics living within the borough. In addition, Black non-Hispanic persons constituted 17.4% of the persons residing in its Inundation Area, 4.5 percentage points higher than the percentage of Black non-Hispanics within the borough. Asian non-Hispanic persons are 12.7% of the impacted population, slightly higher than its borough percentage (11.2%). In contrast, 36.6% of persons within the Inundation Area are White non-Hispanic, approximately 12 percentage points lower than the percentage of White non-Hispanics within Manhattan.

The mean household size within Manhattan’s Inundation Area is approximately two persons per household (2.09 persons), which is similar to the borough’s small household size (1.99 persons).

With respect to age, 31.4% of the persons within Manhattan’s Inundation Area are young adults (ages 18-34), the highest percentage of all age intervals. The elderly (age 65 and over) comprised 13.5% of the
population within the borough’s Inundation Area. This is the same percentage of elderly persons within the borough overall.

According to 2009-2011 ACS data, persons with a disability living in a non-institutional setting represented 10.1% of the population within the borough's Inundation Area.

For Manhattan residents for whom poverty status was determined, a greater percentage of persons living below the poverty line lived within the borough’s Inundation Area (21.8%) than within the borough overall (17.8%), based on 2006-2010 ACS data. The percentage of persons considered near poor is also higher in the Inundation Area (5.4% versus 4.3%, respectively).

According to 2006-2010 ACS data, the total number of housing units (vacant and occupied) in Manhattan is 847,090. The total number of occupied units is 763,846. Approximately 105,800 (13.9%) of the occupied units are within the borough’s Inundation Area.

In terms of tenure, renter-occupied units constitute 84.7% of all occupied units within its Inundation Area (89,632 units).

A majority of Manhattan is zoned for higher density. Of its 847,090 housing units, the majority of units are within multi-family buildings (approximately 506,100 units). Units in multi-family elevator buildings accounted for 42.4% of Manhattan housing units, while units in mixed-use residential/commercial buildings accounted for approximately 321,900 housing units, or 38.0% of the borough’s housing stock.

The borough’s Inundation Area contains 13.9% of Manhattan’s occupied housing units, with 50.6% of these units in multi-family elevator buildings (53,555 units). Approximately 48,800 housing units (46.1%) are in mixed-use residential/commercial buildings.

A significant percentage of Manhattan’s housing stock is pre-1980 construction (84.6%). However, of the housing stock within its Inundation Area, the percentage constructed prior to 1980 is 74.9%.

Among households within the borough’s Inundation Area that rent, 10.0% of renters who reported that they pay rent have a cost burden between 30.0 and 34.9% of their household income and 32.9% of impacted renters have a cost burden greater than 35.0% of their household income.

Queens
The Queens Inundation Area has two distinct components: a northern area along the East River and a southern area bordering Jamaica Bay and the Atlantic Ocean. Beginning at Community District 2 in the north, the Inundation Area includes the industrial northern shore of Newtown Creek and areas bordering the Dutch Kills in Maspeth and Long Island City. Moving north along the East River, the Inundation Area includes the Queens West development in Long Island City and the peninsula that includes the Astoria Houses public housing development.

Moving east of the Robert F. Kennedy Bridge, the Inundation Area includes the northern Astoria waterfront dominated by power generating facilities and LaGuardia Airport. It also includes much of Flushing Meadows-Corona Park, Citi Field, two subway yards, and the Willets Point industrial area. Farther to the east, it includes much of the College Point industrial park and shoreline areas of low-density residential communities including College Point, Whitestone, Bay Terrace, Bayside, Douglaston, and Little Neck.

In the south, the Inundation Area includes most of the Rockaway peninsula, lying between the Atlantic Ocean and Jamaica Bay. Beginning in the west, the peninsula includes the Breezy Point cooperative,
comprised of individual homes with private streets. To the east are the low-density communities of Neponsit and Belle Harbor. Moving farther east, the peninsula is served by the subway and is more developed. Rockaway Park and Rockaway Beach have commercial areas oriented towards local residents and summer visitors. Residential areas are a mix of single-family homes and multi-family housing. The eastern portion of the peninsula includes several public housing developments and other high-rise publicly-assisted housing.

As in Brooklyn, the Queens perimeter of Jamaica Bay is low-density. It includes the Howard Beach residential communities of Old Howard Beach, New Howard Beach, and Hamilton Beach, Ramblersville, and Lindenwood. To the east are John F. Kennedy International Airport and the communities of Brookville and Rosedale, bordering Nassau County. Within Jamaica Bay is the low-density residential community of Broad Channel.

Of the 2,230,722 persons who reside in Queens, approximately 188,400 reside in its Inundation Area.

The borough’s racial and ethnic composition is diverse. White non-Hispanic and Hispanic are 27.6% and 27.5% of the Queens population, respectively. Black non-Hispanic persons constitute 17.7% of its population. Queens’ Asian non-Hispanic population (22.8%) is the largest Asian non-Hispanic population of any of the five boroughs in terms of both persons and percentage.

Within the borough’s Inundation Area, White non-Hispanics and Black non-Hispanics were disproportionally impacted: 73.0% of the population within the Queens Inundation Area is either White non-Hispanic or Black non-Hispanic (36.7% and 36.3%, respectively). In contrast, only 6.6% of the population within the borough’s Inundation Area is Asian non-Hispanic. Hispanics constitute 17.7% of the population within these areas.

The mean household size for Queens is 2.82 persons per household, which is the highest average for all of the five boroughs. Within its Inundation Area, the mean household size is 2.64 persons.

With respect to age, 23.5% of the persons within Queens’ Inundation Area are young adults (ages 18-34), the highest percentage of all age intervals. The elderly (age 65 and over) comprised 13.8% of the population within the borough’s Inundation Area, which is 1.0 percentage point higher than the borough’s overall elderly population.

According to data based on the 2009-2011 ACS, 10.6% of the population within Queens’ impacted areas is comprised of persons with a disability, 1.1 percentage points higher than the borough’s total population of people with disabilities living in non-institutional settings.

In terms of poverty, 2006-2010 ACS data indicate that 13.0% of Queens’ residents are below the poverty line. Within the borough’s Inundation Area, the percentage of persons below the poverty line is higher at 15.3%. The percentage of people considered near poor within the Inundation Area is relatively the same as the percentage for the borough as a whole (4.1% and 4.7%, respectively).

According to 2006-2010 ACS data, the total number of housing units (vacant and occupied) in Queens is 835,127. The total number of occupied units is 780,117. Approximately 68,850 (8.8%) of these occupied units are within the borough’s Inundation Area.

In terms of tenure, renter-occupied units comprise 57.0% and owner-occupied units comprise 43.0% of all occupied units within the borough. Within Queens’ Inundation Area, the percentages are 55.3% and 44.7%, respectively.
Of the 835,127 housing units in Queens, 49.1% are within multi-family buildings. Approximately 209,900 units are in multi-family elevator buildings, and approximately 200,200 units are located in multi-family walk-up buildings.

One- and two-family buildings, which constitute the majority of owner-occupied housing, contain 41.9% of the borough’s housing units (349,800). Units in mixed-use residential/commercial buildings account for 8.5% of Queens’ housing units (approximately 71,000 units).

Within Queens’ Inundation Area, 33.2% of the housing units are in multi-family elevator buildings, which is 8.1 percentage points lower than for the borough overall. Additionally, 13.2% of impacted units are located within multi-family walk-up buildings, which is 10.8 percentage points lower than for the borough overall.

In contrast, units within one- and two-family buildings represent a higher percentage of housing units impacted relative to its percentage of Queens’ total housing stock (45.7% versus 41.9%, respectively).

A significant percentage of Queens’ housing stock is pre-1980 construction (89.8%). Of the housing stock within its Inundation Area, 80.2% was constructed prior to 1980.

Among households within the borough’s Inundation Area that rent, 10.4% of renters who reported that they pay rent have a cost burden between 30.0 and 34.9% of their household income. In addition, the percentage of Queens renters within the Inundation Area who have a cost burden greater than 35.0% of their household income is 38.7%.

**Staten Island**

Beginning at the St. George Ferry Terminal and moving south, the Inundation Area includes the Bay Street Landing mid-rise residential development and the vacant former Navy base on the Stapleton waterfront. South of the Verrazano-Narrows Bridge, the Inundation Area encompasses large areas of one- and two-family homes in the communities of South Beach, Midland Beach, New Dorp Beach, and Oakwood Beach. Farther south, it includes Great Kills harbor, an area dominated by marinas, and portions of the waterfront developed with single-family homes.

On the West Shore of Staten Island, the Inundation Area includes vacant land, natural areas, and parks, as well as some industrial businesses and the New York Container Terminal at Howland Hook. On the North Shore, the Inundation Area includes the waterfront, which is largely industrial or vacant, as well as portions of upland low-density residential communities.

Staten Island’s population is 468,730 based on the 2010 Census. The total number of Staten Islanders within the borough’s Inundation Area is 75,651, or 16.1% of its total population. As stated previously, this represents the highest percentage of people impacted relative to the borough’s overall population.

The majority of Staten Island residents are White non-Hispanic (64.0%). Hispanics constitute 17.3% of the borough’s population. Black non-Hispanic and Asian non-Hispanic are 9.5% and 7.4%, respectively. Similarly, within the borough’s Inundation Area, 67.6% of those impacted are White non-Hispanic and 17.6% are Hispanic. The percentage of Black non-Hispanic persons within the Inundation Area is 6.6%.

The mean household size within Staten Island’s Inundation Area and for the borough overall is 2.78.

With respect to age, 22.7% of the persons within the borough’s Inundation Area are young adults (ages 18-34), the highest percentage of all age intervals. The elderly (age 65 and over) comprised 11.8% of the population within Staten Island’s Inundation Area.
According to 2009-2011 ASC data, persons with a disability living in a non-institutional setting represented 9.9% of the population within the borough’s Inundation Area. This is slightly higher than the percentage of Staten Island’s total population of people with disabilities living in non-institutional settings (9.6%).

In terms of poverty, 2006-2010 ACS data indicate that 10.3% of Staten Island residents are below the poverty line. Within the borough’s Inundation Area, the percentage of persons below the poverty line is lower at 9.0%. However, the percentage of persons considered near poor is higher in its Inundation Area than for the borough as a whole (4.5% versus 3.4%, respectively).

According to 2006-2010 ACS data the total number of housing units on Staten Island is 176,656 (vacant and occupied). The total number of occupied units is approximately 165,500. Approximately 26,600 (16.1%) of these occupied units are within the borough’s Inundation Area.

In terms of tenure, approximately two-thirds of Staten Island’s occupied units are owner-occupied. Within its Inundation Area, owner-occupied units were 63.8% of the units impacted.

A majority of Staten Island is zoned for low-density. Of its 176,656 housing units, the majority of units are one- and two-family buildings (137,610 units or 77.9%). Approximately 14,800 units are in multi-family elevator buildings, and approximately 19,700 units are located in multi-family walk-up buildings (8.4% and 11.1%, respectively).

Regarding the units located in the borough’s Inundation Area, the percentage of units within a particular type of structure reflected Staten Island’s overall housing profile. Slightly more than 78% of the impacted units are in one- and two-family buildings (22,375 units). Multi-family elevator buildings accounted for 9.6% (2,732 units) and multi-family walk-up buildings 8.8% (2,516) of the units.

Approximately 63% of Staten Island’s housing stock was constructed prior to 1980. Within its Inundation Area, the percentage is 56.7%.

Among households within the borough’s Inundation Area that rent, 10.0% of renters who reported that they pay rent have a cost burden between 30.0 and 34.9% of their household income and 44.0% report that they pay more than 35.0% of their household income towards rent.
Demographic and Housing Profile
Hurricane Sandy Operational Inundation Area*
New York City, 2010 Census

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</tr>
<tr>
<td>Under 5 years</td>
<td>48,062</td>
<td>5.7</td>
</tr>
<tr>
<td>5 to 17 years</td>
<td>120,952</td>
<td>14.3</td>
</tr>
<tr>
<td>18 to 34 years</td>
<td>219,249</td>
<td>25.9</td>
</tr>
<tr>
<td>35 to 44 years</td>
<td>115,599</td>
<td>13.7</td>
</tr>
<tr>
<td>45 to 54 years</td>
<td>117,511</td>
<td>13.9</td>
</tr>
<tr>
<td>55 to 64 years</td>
<td>102,051</td>
<td>12.1</td>
</tr>
<tr>
<td>65 years and over</td>
<td>122,632</td>
<td>14.5</td>
</tr>
<tr>
<td>In Households</td>
<td>809,249</td>
<td>95.6</td>
</tr>
<tr>
<td>In Group Quarters</td>
<td>36,807</td>
<td>4.4</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>New York City</th>
<th>Inundation Area</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>Institutionalized</td>
<td>23,914</td>
<td>65.0</td>
</tr>
<tr>
<td>Correctional Facilities for Adults</td>
<td>12,888</td>
<td>35.0</td>
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<tr>
<td>Juvenile Facilities</td>
<td>84</td>
<td>0.2</td>
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<td>Nursing Facilities</td>
<td>9,481</td>
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</tr>
<tr>
<td>Other Institutionalized</td>
<td>1,461</td>
<td>4.0</td>
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<tr>
<td>Non-Institutionalized</td>
<td>12,893</td>
<td>35.0</td>
</tr>
<tr>
<td>College/University Housing</td>
<td>3,624</td>
<td>9.8</td>
</tr>
<tr>
<td>Military Quarters</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Other Non-Institutionalized</td>
<td>9,269</td>
<td>25.2</td>
</tr>
</tbody>
</table>

| Housing Units | 369,907         | 100.0   | 3,371,062       | 100.0   |
| Occupied Housing Units | 335,327 | 90.7   | 3,109,784       | 92.2    |

| Occupied Housing Units | 335,327         | 100.0   | 3,109,784       | 100.0   |
| Renter-Occupied | 220,135         | 65.6    | 2,146,892       | 69.0    |
| Owner-Occupied | 115,192         | 34.4    | 962,892         | 31.0    |

Average Household Size | 2.41   | 2.57   |

*The Operational Inundation Area consists of areas in New York City that FEMA determined were inundated with flood waters.
Civilian Non-Institutionalized Population with a Disability
Census 2010 Summary Files and American Community Survey 2009-2011 Estimates
Hurricane Operational Inundation Area in New York City*

<table>
<thead>
<tr>
<th>Borough</th>
<th>Inundation Area</th>
<th>Total</th>
<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
<td>Percent</td>
<td></td>
</tr>
<tr>
<td>New York City</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total civilian non-institutionalized population</td>
<td>836,990</td>
<td>100.0</td>
<td>8,106,684</td>
<td>100.0</td>
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<tr>
<td>With a disability</td>
<td>95,541</td>
<td>11.4</td>
<td>830,972</td>
<td>10.3</td>
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<tr>
<td>Bronx</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total civilian non-institutionalized population</td>
<td>39,727</td>
<td>100.0</td>
<td>1,360,310</td>
<td>100.0</td>
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<tr>
<td>With a disability</td>
<td>5,865</td>
<td>14.8</td>
<td>185,967</td>
<td>13.7</td>
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</tr>
<tr>
<td>Brooklyn</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total civilian non-institutionalized population</td>
<td>308,785</td>
<td>100.0</td>
<td>2,492,534</td>
<td>100.0</td>
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<tr>
<td>With a disability</td>
<td>39,536</td>
<td>12.8</td>
<td>236,290</td>
<td>9.5</td>
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</tr>
<tr>
<td>Manhattan</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total civilian non-institutionalized population</td>
<td>228,945</td>
<td>100.0</td>
<td>1,574,487</td>
<td>100.0</td>
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</tr>
<tr>
<td>With a disability</td>
<td>23,198</td>
<td>10.1</td>
<td>153,877</td>
<td>9.8</td>
<td></td>
</tr>
<tr>
<td>Queens</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total civilian non-institutionalized population</td>
<td>184,864</td>
<td>100.0</td>
<td>2,215,874</td>
<td>100.0</td>
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<tr>
<td>With a disability</td>
<td>19,536</td>
<td>10.6</td>
<td>210,192</td>
<td>9.5</td>
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<tr>
<td>Staten Island</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total civilian non-institutionalized population</td>
<td>74,668</td>
<td>100.0</td>
<td>463,479</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>With a disability</td>
<td>7,406</td>
<td>9.9</td>
<td>44,646</td>
<td>9.6</td>
<td></td>
</tr>
</tbody>
</table>

Note: While population data were available for the Hurricane Operational Inundation Area, disability data were only available for a larger area that included all Public Use Microdata Areas (PUMAs) intersecting the Hurricane Operational Inundation Area. The percent distributions for the disability data were applied to the total civilian non-institutionalized population in the Operational Inundation Area for each respective PUMA to produce a set of estimates. PUMA estimates were summed up to the borough level. These borough estimates were then summed to produce a set of citywide values. It should also be noted that the civilian non-institutionalized population for each borough was determined by taking the ratio of the civilian non-institutionalized population to the overall population, according to the 2009-2011 American Community Survey, and applying it to the overall population according to the 2010 Census. For consistency of comparison, the same process was used to produce overall City and borough estimates.
### Ratio of Income to Poverty Level in the Past 12 Months for Persons for Whom Poverty Status is Determined

Census 2010 Summary Files and American Community Survey 2006-2010 Estimates

Hurricane Operational Inundation Area in New York City*

<table>
<thead>
<tr>
<th>Persons for Whom Poverty Status is Determined</th>
<th>Inundation Area</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimate</td>
<td>Percent</td>
</tr>
<tr>
<td>Under 1.00 (Below poverty threshold)</td>
<td>144,035</td>
<td>17.3</td>
</tr>
<tr>
<td>Under .50 (Extreme poverty)</td>
<td>61,069</td>
<td>7.3</td>
</tr>
<tr>
<td>.50 to .99</td>
<td>82,966</td>
<td>10.0</td>
</tr>
<tr>
<td>1.00 to 1.24 (Near poor)</td>
<td>39,276</td>
<td>4.7</td>
</tr>
<tr>
<td>1.25 to 1.49</td>
<td>39,357</td>
<td>4.7</td>
</tr>
<tr>
<td>1.50 to 1.84</td>
<td>46,730</td>
<td>5.6</td>
</tr>
<tr>
<td>1.85 to 1.99</td>
<td>19,652</td>
<td>2.4</td>
</tr>
<tr>
<td>2.00 and over</td>
<td>543,685</td>
<td>65.3</td>
</tr>
</tbody>
</table>

*The Operational Inundation Area consists of areas in New York City that FEMA determined were inundated with flood waters.

Note: While population data were available for the Hurricane Operational Inundation Area, poverty data were only available for a larger area that included all census tracts intersecting the Hurricane Operational Inundation Area. The percent distributions for the poverty data were applied to the population for whom poverty was determined (the poverty universe) in the Operational Inundation Area for each respective census tract to produce a set of estimates. Census tract estimates were summed up to the borough level. These borough estimates were then summed to produce a set of citywide values. It should also be noted that the poverty universe for each borough was determined by taking the ratio of the poverty universe to the overall population, according to the 2006-2010 American Community Survey, and applying it to the overall population according to the 2010 Census. For consistency of comparison, the same process was used to produce overall City and borough estimates.
### New York City Inundation Area

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Total Lots (BBL) Number</th>
<th>Total Building Area (sq. ft.) Number</th>
<th>Total Residential Area (sq. ft.) Number</th>
<th>Total Residential Units Number</th>
<th>Total Residential Buildings Number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percent</td>
<td>Percent</td>
<td>Percent</td>
<td>Percent</td>
<td>Percent</td>
</tr>
<tr>
<td>Land Use</td>
<td>858,968</td>
<td>812,894,840</td>
<td>410,606,050</td>
<td>401,440</td>
<td>100,994</td>
</tr>
<tr>
<td>One &amp; Two Family Buildings</td>
<td>102,790</td>
<td>133,031,679</td>
<td>133,022,220</td>
<td>101,969</td>
<td>82,264</td>
</tr>
<tr>
<td>Multi-Family Walk-Up Buildings</td>
<td>69,281</td>
<td>46,270,792</td>
<td>45,936,551</td>
<td>52,525</td>
<td>12,550</td>
</tr>
<tr>
<td>Multi-Family Elevator Buildings</td>
<td>8,925</td>
<td>150,764,892</td>
<td>146,680,453</td>
<td>154,316</td>
<td>1,650</td>
</tr>
<tr>
<td>Mixed Residential and Commercial Buildings</td>
<td>3,089</td>
<td>92,463,298</td>
<td>78,594,913</td>
<td>89,369</td>
<td>4,065</td>
</tr>
<tr>
<td>Commercial and Office Buildings</td>
<td>2,709</td>
<td>110,608,568</td>
<td>204,184</td>
<td>293</td>
<td>100</td>
</tr>
<tr>
<td>Industrial and Manufacturing</td>
<td>2,685</td>
<td>87,220,805</td>
<td>537,758</td>
<td>707</td>
<td>213</td>
</tr>
<tr>
<td>Transportation and Utility</td>
<td>1,587</td>
<td>54,624,859</td>
<td>52,067</td>
<td>31</td>
<td>42</td>
</tr>
<tr>
<td>Public Facilities and Institutions</td>
<td>1,046</td>
<td>99,174,877</td>
<td>5,504,647</td>
<td>1,914</td>
<td>83</td>
</tr>
<tr>
<td>Open Space and Outdoor Recreation</td>
<td>1,553</td>
<td>26,977,620</td>
<td>47,930</td>
<td>17</td>
<td>17</td>
</tr>
<tr>
<td>Parking Facilities</td>
<td>1,775</td>
<td>7,462,622</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Vacant Land</td>
<td>8,049</td>
<td>13,107</td>
<td>4,587</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>No Data</td>
<td>1,298</td>
<td>4,281,721</td>
<td>12,740</td>
<td>199</td>
<td>10</td>
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</table>

### New York City

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Total Lots (BBL) Number</th>
<th>Total Building Area (sq. ft.) Number</th>
<th>Total Residential Area (sq. ft.) Number</th>
<th>Total Residential Units Number</th>
<th>Total Residential Buildings Number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percent</td>
<td>Percent</td>
<td>Percent</td>
<td>Percent</td>
<td>Percent</td>
</tr>
<tr>
<td>Land Use</td>
<td>563,788</td>
<td>1,107,942,751</td>
<td>1,107,886,836</td>
<td>814,770</td>
<td>677,317</td>
</tr>
<tr>
<td>One &amp; Two Family Buildings</td>
<td>56,587</td>
<td>1,33,701,745</td>
<td>1,33,022,220</td>
<td>101,969</td>
<td>82,264</td>
</tr>
<tr>
<td>Multi-Family Walk-Up Buildings</td>
<td>129,807</td>
<td>733,071,747</td>
<td>728,670,636</td>
<td>838,882</td>
<td>164,141</td>
</tr>
<tr>
<td>Multi-Family Elevator Buildings</td>
<td>11,658</td>
<td>1,085,937,630</td>
<td>1,042,155,082</td>
<td>1,109,550</td>
<td>15,383</td>
</tr>
<tr>
<td>Mixed Residential and Commercial Buildings</td>
<td>48,479</td>
<td>716,367,625</td>
<td>563,365,287</td>
<td>628,303</td>
<td>56,549</td>
</tr>
<tr>
<td>Commercial and Office Buildings</td>
<td>24,338</td>
<td>763,448,885</td>
<td>5,095,359</td>
<td>7,122</td>
<td>2,199</td>
</tr>
<tr>
<td>Industrial and Manufacturing</td>
<td>22,135</td>
<td>263,088,198</td>
<td>2,139,665</td>
<td>2,129</td>
<td>720</td>
</tr>
<tr>
<td>Transportation and Utility</td>
<td>6,617</td>
<td>75,442,694</td>
<td>252,679</td>
<td>203</td>
<td>222</td>
</tr>
<tr>
<td>Public Facilities and Institutions</td>
<td>11,959</td>
<td>559,598,872</td>
<td>20,183,750</td>
<td>23,503</td>
<td>1,312</td>
</tr>
<tr>
<td>Open Space and Outdoor Recreation</td>
<td>4,997</td>
<td>30,097,145</td>
<td>935,964</td>
<td>41</td>
<td>32</td>
</tr>
<tr>
<td>Parking Facilities</td>
<td>11,499</td>
<td>35,373,545</td>
<td>68,467</td>
<td>94</td>
<td>14</td>
</tr>
<tr>
<td>Vacant Land</td>
<td>29,628</td>
<td>364,374</td>
<td>121,599</td>
<td>14</td>
<td>0</td>
</tr>
<tr>
<td>No Data</td>
<td>4,145</td>
<td>5,421,373</td>
<td>58,041</td>
<td>225</td>
<td>27</td>
</tr>
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</table>
### Selected Housing Characteristics

Census 2010 Summary Files and American Community Survey 2006-2010 Estimates

Hurricane Operational Impact Area in New York City*

#### UNITS IN STRUCTURE (PLUTO distribution applied to 2010 Census control)

<table>
<thead>
<tr>
<th></th>
<th>Inundation Area</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimate</td>
<td>Percent</td>
</tr>
<tr>
<td>Total housing units</td>
<td>369,907</td>
<td>100.0</td>
</tr>
<tr>
<td>One &amp; Two Family Buildings</td>
<td>107,133</td>
<td>29.0</td>
</tr>
<tr>
<td>Multi-Family Elevator Buildings</td>
<td>134,683</td>
<td>36.4</td>
</tr>
<tr>
<td>Mixed Residential and Commercial Buildings</td>
<td>72,197</td>
<td>19.5</td>
</tr>
<tr>
<td>Other</td>
<td>2,822</td>
<td>0.8</td>
</tr>
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</table>

#### YEAR STRUCTURE BUILT (PLUTO distribution applied to 2010 Census control)

<table>
<thead>
<tr>
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<th>Inundation Area</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimate</td>
<td>Percent</td>
</tr>
<tr>
<td>Total housing units</td>
<td>369,907</td>
<td>100.0</td>
</tr>
<tr>
<td>Built 2000 or later</td>
<td>39,715</td>
<td>10.7</td>
</tr>
<tr>
<td>Built 1990 to 1999</td>
<td>12,789</td>
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</tr>
<tr>
<td>Built 1980 to 1989</td>
<td>21,190</td>
<td>5.7</td>
</tr>
<tr>
<td>Built 1970 to 1979</td>
<td>31,367</td>
<td>8.5</td>
</tr>
<tr>
<td>Built 1960 to 1969</td>
<td>77,869</td>
<td>21.1</td>
</tr>
<tr>
<td>Built 1950 to 1959</td>
<td>55,544</td>
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</tr>
<tr>
<td>Built 1940 to 1949</td>
<td>24,823</td>
<td>6.7</td>
</tr>
<tr>
<td>Built 1930 to 1939</td>
<td>39,107</td>
<td>10.6</td>
</tr>
<tr>
<td>Built 1920 to 1929</td>
<td>37,118</td>
<td>10.0</td>
</tr>
<tr>
<td>Built 1910 to 1919</td>
<td>11,823</td>
<td>3.2</td>
</tr>
<tr>
<td>Built 1900 to 1909</td>
<td>12,457</td>
<td>3.4</td>
</tr>
<tr>
<td>Built Before 1900</td>
<td>3,234</td>
<td>0.9</td>
</tr>
<tr>
<td>Unknown</td>
<td>2,871</td>
<td>0.8</td>
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</table>

#### ROOMS (ACS distribution applied to 2010 Census control)

<table>
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<th>Inundation Area</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimate</td>
<td>Percent</td>
</tr>
<tr>
<td>Total housing units</td>
<td>369,907</td>
<td>100.0</td>
</tr>
<tr>
<td>1 room</td>
<td>22,632</td>
<td>6.1</td>
</tr>
<tr>
<td>2 rooms</td>
<td>29,785</td>
<td>8.1</td>
</tr>
<tr>
<td>3 rooms</td>
<td>84,072</td>
<td>22.7</td>
</tr>
<tr>
<td>4 rooms</td>
<td>96,792</td>
<td>26.2</td>
</tr>
<tr>
<td>5 rooms</td>
<td>61,961</td>
<td>16.8</td>
</tr>
<tr>
<td>6 rooms</td>
<td>35,165</td>
<td>9.5</td>
</tr>
<tr>
<td>7 rooms</td>
<td>15,959</td>
<td>4.3</td>
</tr>
<tr>
<td>8 rooms</td>
<td>9,309</td>
<td>2.5</td>
</tr>
<tr>
<td>9 rooms or more</td>
<td>14,230</td>
<td>3.8</td>
</tr>
</tbody>
</table>

#### VEHICLES AVAILABLE (ACS distribution applied to 2010 Census control)

Occupied housing units: 335,327

<table>
<thead>
<tr>
<th></th>
<th>Inundation Area</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimate</td>
<td>Percent</td>
</tr>
<tr>
<td>No vehicles available</td>
<td>170,701</td>
<td>50.9</td>
</tr>
<tr>
<td>1 vehicle available</td>
<td>109,404</td>
<td>32.6</td>
</tr>
<tr>
<td>2 vehicles available</td>
<td>42,535</td>
<td>12.7</td>
</tr>
<tr>
<td>3 or more vehicles available</td>
<td>12,687</td>
<td>3.8</td>
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</table>

#### TELEPHONE SERVICE (ACS distribution applied to 2010 Census control)

<table>
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<th></th>
<th>Inundation Area</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimate</td>
<td>Percent</td>
</tr>
<tr>
<td>No telephone service available (excluding cell phones)</td>
<td>15,584</td>
<td>4.6</td>
</tr>
</tbody>
</table>
HOUSE HEATING FUEL (ACS distribution applied to 2010 Census control)

<table>
<thead>
<tr>
<th>Occupied housing units</th>
<th>Estimate</th>
<th>Percent</th>
<th>Estimate</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utility gas</td>
<td>201,646</td>
<td>60.1</td>
<td>1,683,818</td>
<td>54.1</td>
</tr>
<tr>
<td>Bottled, tank, or LP gas</td>
<td>4,231</td>
<td>1.3</td>
<td>44,974</td>
<td>1.4</td>
</tr>
<tr>
<td>Electricity</td>
<td>39,691</td>
<td>11.8</td>
<td>258,890</td>
<td>8.3</td>
</tr>
<tr>
<td>Fuel oil, kerosene, etc.</td>
<td>78,650</td>
<td>23.5</td>
<td>1,048,618</td>
<td>33.7</td>
</tr>
<tr>
<td>Coal or coke</td>
<td>282</td>
<td>0.1</td>
<td>2,630</td>
<td>0.1</td>
</tr>
<tr>
<td>Wood</td>
<td>238</td>
<td>0.1</td>
<td>1,821</td>
<td>0.1</td>
</tr>
<tr>
<td>Solar energy</td>
<td>302</td>
<td>0.1</td>
<td>790</td>
<td>0.0</td>
</tr>
<tr>
<td>Other fuel</td>
<td>5,419</td>
<td>1.6</td>
<td>36,993</td>
<td>1.2</td>
</tr>
<tr>
<td>No fuel used</td>
<td>4,866</td>
<td>1.5</td>
<td>31,250</td>
<td>1.0</td>
</tr>
</tbody>
</table>

VALUE (ACS distribution applied to 2010 Census control)

<table>
<thead>
<tr>
<th>Owner-occupied units</th>
<th>Estimate</th>
<th>Percent</th>
<th>Estimate</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $50,000</td>
<td>3,763</td>
<td>3.3</td>
<td>23,593</td>
<td>2.5</td>
</tr>
<tr>
<td>$50,000 to $99,999</td>
<td>2,034</td>
<td>1.8</td>
<td>22,852</td>
<td>2.4</td>
</tr>
<tr>
<td>$100,000 to $149,999</td>
<td>2,541</td>
<td>2.2</td>
<td>22,185</td>
<td>2.3</td>
</tr>
<tr>
<td>$150,000 to $199,999</td>
<td>4,219</td>
<td>3.7</td>
<td>33,125</td>
<td>3.4</td>
</tr>
<tr>
<td>$200,000 to $299,999</td>
<td>9,615</td>
<td>8.3</td>
<td>77,914</td>
<td>8.1</td>
</tr>
<tr>
<td>$300,000 to $499,999</td>
<td>35,323</td>
<td>30.7</td>
<td>282,048</td>
<td>29.3</td>
</tr>
<tr>
<td>$500,000 to $999,999</td>
<td>47,414</td>
<td>41.2</td>
<td>393,911</td>
<td>40.9</td>
</tr>
<tr>
<td>$1,000,000 or more</td>
<td>10,282</td>
<td>8.9</td>
<td>107,264</td>
<td>11.1</td>
</tr>
</tbody>
</table>

GROSS RENT (ACS distribution applied to 2010 Census control)

<table>
<thead>
<tr>
<th>Occupied units paying rent</th>
<th>Estimate</th>
<th>Percent</th>
<th>Estimate</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $200</td>
<td>5,821</td>
<td>2.7</td>
<td>39,111</td>
<td>1.9</td>
</tr>
<tr>
<td>$200 to $299</td>
<td>16,076</td>
<td>7.5</td>
<td>98,747</td>
<td>4.7</td>
</tr>
<tr>
<td>$300 to $499</td>
<td>18,786</td>
<td>8.7</td>
<td>132,189</td>
<td>6.3</td>
</tr>
<tr>
<td>$500 to $749</td>
<td>32,986</td>
<td>15.4</td>
<td>260,664</td>
<td>12.4</td>
</tr>
<tr>
<td>$750 to $999</td>
<td>33,769</td>
<td>15.7</td>
<td>398,756</td>
<td>19.1</td>
</tr>
<tr>
<td>$1,000 to $1,499</td>
<td>52,184</td>
<td>24.3</td>
<td>674,842</td>
<td>32.3</td>
</tr>
<tr>
<td>$1,500 or more</td>
<td>55,120</td>
<td>25.7</td>
<td>487,465</td>
<td>23.3</td>
</tr>
<tr>
<td>No rent paid</td>
<td>5,394</td>
<td>2.7</td>
<td>55,717</td>
<td>2.7</td>
</tr>
</tbody>
</table>

GROSS RENT AS A PERCENTAGE OF HOUSEHOLD INCOME (GRAPI) (ACS distribution applied to 2010 Census control)

<table>
<thead>
<tr>
<th>Occupied units paying rent (excluding units where GRAPI cannot be computed)</th>
<th>Estimate</th>
<th>Percent</th>
<th>Estimate</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 15.0 percent</td>
<td>34,768</td>
<td>16.5</td>
<td>294,824</td>
<td>14.4</td>
</tr>
<tr>
<td>15.0 to 19.9 percent</td>
<td>25,135</td>
<td>11.9</td>
<td>237,920</td>
<td>11.6</td>
</tr>
<tr>
<td>20.0 to 24.9 percent</td>
<td>25,042</td>
<td>11.9</td>
<td>238,490</td>
<td>11.6</td>
</tr>
<tr>
<td>25.0 to 29.9 percent</td>
<td>25,319</td>
<td>12.0</td>
<td>225,497</td>
<td>11.0</td>
</tr>
<tr>
<td>30.0 to 34.9 percent</td>
<td>21,416</td>
<td>10.2</td>
<td>184,014</td>
<td>9.0</td>
</tr>
<tr>
<td>35.0 percent or more</td>
<td>78,823</td>
<td>37.4</td>
<td>868,208</td>
<td>42.4</td>
</tr>
<tr>
<td>Not computed</td>
<td>9,631</td>
<td>4.2</td>
<td>97,940</td>
<td>4.9</td>
</tr>
</tbody>
</table>

*The Operational Inundation Area consists of areas in New York City that FEMA determined were inundated with flood waters.

Note: While general housing data were available for the Hurricane Operational Inundation Area, more detailed housing data were only available for a larger area that included all census tracts intersecting the Hurricane Operational Inundation Area. The percent distributions for the detailed housing data were applied to the general housing data (housing units, occupied housing units, owner occupied housing units, and renter occupied housing units) in the Operational Inundation Area for each respective census tract to produce a set of estimates. Census tract estimates were summed up to the borough level. These borough estimates were then summed to produce a set of citywide values. For consistency of comparison, the same process was used to produce overall City and borough estimates.
IV. FUNDING JUSTIFICATIONS

New York City plans to spend its initial allocation of $1.77 billion of CDBG-DR funds to address the most urgent housing, business, and infrastructure needs in the neighborhoods hardest hit by Hurricane Sandy through several new programs, which fall into three categories of immediate need (housing recovery, business recovery, and infrastructure and other City costs) and one program under development (long-term resilience). Funds will also be used for administration of the programs and for long-term planning. The City's programs are described below.

**Housing Recovery – $648 Million**

Of the $648 million allocated for housing assistance, the City allocated $531 million to fund a permanent housing recovery program that will address a significant portion of the $1.4 billion identified as the unmet need for single-family and multi-family homeowners and landlords. Within this program, the City has further broken down funding into allocations for different types of assistance to address the distinct needs of homes, multi-family buildings, and public housing as follows:

- $306 million to provide for the rehabilitation and reconstruction of NYC houses, which includes single-family homes (one to two units) that are either occupied by the homeowner or year-round tenants, or three- to four-unit buildings that are owner-occupied; and
- $225 million to provide for the rehabilitation of multi-family buildings (five or more units) and three- to four-unit properties that are not owner-occupied.

This breakdown is proportional to the overall gross need breakdown (60% vs. 40%) when grouped as NYC houses and multi-family buildings.

The City also allocated $108 million to NYCHA for targeted efforts to strengthen resilience to future floods. This allocation provides for an immediate need to ensure NYCHA can move forward with a program for these critical resilience efforts. All of NYCHA’s damaged properties are eligible for FEMA Public Assistance that covers all rehabilitations and a significant portion of resilience costs. However, to complete additional rehabilitation work and provide resiliency to the more at-risk non-damaged properties, NYCHA is required to directly pay for costs that are not paid by FEMA or insurance.

Finally, the City has allocated an initial amount of $9 million for a rental subsidy program to serve low-income households displaced by Hurricane Sandy.

The Action Plan’s “Housing” section provides descriptions of how the City’s programs and related paths for assistance will use the allocated funds. The City also identifies how future funding allocations will potentially be used, including the articulation of potential housing programs not funded by the first round of NYC’s CDBG-DR funding allocation.

**Business Recovery/Infrastructure Resilience – $293 Million**

**Loans and Grants:** $72 million to provide loans and grants to as many as 750 businesses impacted by Hurricane Sandy. This program will provide expedited low-interest loans of up to $150,000 on similar terms to the City’s existing emergency loan program; provide expedited grants of up to $60,000 to affected businesses; and select Community Development Finance Institutions to administer additional loan and grant programs. The City may, at its discretion, provide loans of up to $1 million and grants of up to
$100,000 to businesses that can demonstrate significant additional damage. Businesses that can demonstrate extreme hardship may be eligible to receive, at the City's discretion, a grant without receiving a loan.

**Business Resiliency Investments**: $90 million to provide grants to companies for physical investments to improve resiliency to severe weather. The program is anticipated to fund between 50-75%, up to $2 million, of the cost of specified physical improvements that will improve an estimated 13 million square feet of commercial space.

**Neighborhood Game-Changer Investment Competition**: $90 million to jump-start economic activity in the five Business Recovery Zones by allocating, through “Race-to-the-Top”-style competitions, grants to the most innovative and effective investment ideas for spurring long-term economic growth. Possible ideas could include attraction of growing companies and/or companies of significant size; attraction of companies that serve the needs of underserved populations, including those with disabilities; or other transformative investments in key corridors.

**Infrastructure and Building Resiliency Technologies Competitions**: $41 million to allocate, through “Race-to-the-Top”-style competitions, grants to the most innovative and cost-effective measures to improve building and infrastructure resiliency. Grants will be allocated a two-track program to identify technologies and measures that improve the resiliency of (1) critical infrastructure networks and (2) building systems.

**Infrastructure and Other City Services - $360 Million**

In this Partial Action Plan, the City is dedicating to direct City agency costs an allocation of $360 million, nearly one-third of the total unmet need for these costs. Of this, $322 million has been allocated for other City costs including public service activities that assisted the public during and after the storm, $3 million has been allocated for emergency demolition, $21 million has been allocated for debris removal and clearance, and $1 million has been allocated for code enforcement. Further, $13 million has been allocated for the rehabilitation and reconstruction of public facilities. The City plans to use CDBG-DR funds to leverage the non-federal share of FEMA Public Assistance disaster grants. The City is prioritizing its funds to address its public hospitals and schools and for the restoration of its beaches. These facilities, and the additional programs identified, have been prioritized both for the speed with which funds can be expended as well as for their benefit to low- and moderate-income persons. This will enable the City to expend funds within two years, which is a requirement of the appropriation.

The City expects to employ a range of mitigation measures as it restores and rehabilitates structures. These measures include raising boilers and electrical systems above the Advisory Base Flood Elevation levels. Additional mitigation needs will be determined on a site-specific basis.

**Resilience - $294 Million**

The Special Initiative on Rebuilding and Resiliency (SIRR) is responsible for developing a plan to make New York City more resilient to the impacts of climate change. SIRR's recommendations, which are expected to be presented in May 2013, will identify a variety of specific unmet resiliency needs related to Hurricane Sandy that will be eligible for and dependent upon Federal and other funding sources, including CDBG-DR funds. The City's proposed plans for such CDBG-DR funds, which will be the subject of a future Partial Action Plan, will likely include the costs of further studies, pilot programs, and implementation activities associated with planning and development on the part of involved agencies including, but not limited to,
the Department of City Planning, the New York City Economic Development Corporation, and the Mayor's Office of Long-Term Planning and Sustainability.

**Planning and Administration - $178 Million**

The City will use CDBG-DR funds for long-term community planning and rebuilding efforts, such as the planning and implementation of neighborhood recovery strategies; citywide zoning changes; urban design; geographic, demographic and legal support; environmental review of zoning and land use changes; integration of coastal protections into local land use and waterfront planning; and increasing resilience of enclosed industrial facilities.

Additionally, the City must provide administrative and support services necessary to formulate, implement, and evaluate the City's CDBG-DR programs. Such activities include preparation of and amending the CDBG-DR Action Plan; ensuring the public is aware of and understands the Plan; developing program policies and procedures; monitoring program expenditures; ensuring compliance with all requirements, etc.

Please note that the Planning and Administration allocations are based on the best data currently available. It can be anticipated that, as programs are implemented and actual needs are determined, these allocations and those of the programs listed above will be adjusted accordingly. However, neither planning nor administrative expenses will surpass their statutory caps of 15% and 5%, respectively.

**Proportionality of CDBG-DR Allocation to Unmet Needs**

The following table demonstrates the proportionate allocation of resources relative to areas and categories of unmet need. These figures are based upon best available data and projections for unmet need as defined in the individual unmet need sections. For more information on these amounts, please see the analyses of unmet need in each Action Plan section.

<table>
<thead>
<tr>
<th>Category</th>
<th>Allocation by Category</th>
<th>% of Total Allocation</th>
<th>Unmet Need by Category*</th>
<th>% of Total Unmet Need*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing</td>
<td>$648</td>
<td>41%</td>
<td>$6,610</td>
<td>42%</td>
</tr>
<tr>
<td>Business</td>
<td>$293</td>
<td>18%</td>
<td>$2,400</td>
<td>15%</td>
</tr>
<tr>
<td>Infrastructure &amp; City Costs</td>
<td>$360</td>
<td>23%</td>
<td>$4,300</td>
<td>27%</td>
</tr>
<tr>
<td>Resilience</td>
<td>$294</td>
<td>18%</td>
<td>$2,400</td>
<td>15%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$1,595</strong></td>
<td></td>
<td><strong>$15,710</strong></td>
<td></td>
</tr>
</tbody>
</table>

*Note: These figures are estimates based upon the best available data. Numbers may be adjusted as more accurate data is identified.*
V. SOURCES OF FUNDING TO BE LEVERAGED

The CDBG-DR allocation of $1.77 billion will be leveraged by numerous other sources of Federal, State, City, and private funding. The allocation of these combined funds will result in a more comprehensive and effective recovery effort by: 1) ensuring that a wide and diverse range of recovery needs are met; 2) assuring flexibility to address short-term and long-term recovery needs; 3) enabling communities to meet needs that would not likely be addressed by other funding sources; and 4) assisting communities to better position themselves to meet their post-disaster recovery needs.

The CDBG-DR Housing allocation will be leveraged against numerous other sources of Federal, State, City, and private funding, including proceeds from FEMA (Individual Assistance, Hazard Mitigation Grant Program, and Public Assistance), SBA Disaster Loans, National Flood Insurance Program payouts, private insurance payouts, and other Disaster Relief Appropriation funds. In compliance with program guidelines and regulations, CDBG-DR Housing funding has been allocated toward recovery efforts in the most impacted and distressed areas of the City to support unmet needs not funded by these sources.

In addition to Federal sources and private insurance payouts, the private sector – both philanthropic and for-profit – has a role in providing financial resources to New Yorkers impacted by Hurricane Sandy. Since the storm, the Mayor’s Fund to Advance New York City has been a critical support in the relief and recovery efforts. The goal of these privately-funded programs is to leverage flexible capital to begin to address immediate unmet housing needs while the CDBG-DR programs are put in place. A few of the housing-related programs are as follows:

- **Neighborhood Recovery Fund and Counseling**: The Center for New York City Neighborhoods, through support from the Mayor’s Fund and Goldman Sachs Gives, deployed $1.4 million in new funding to help affected homeowners. The Mayor’s Fund funded a network of housing counselors and legal services professionals to help homeowners secure resources and relief from FEMA, insurance providers, and other public and private programs. Goldman Sachs supported a complementary Neighborhood Recovery Fund, an emergency grant program that provides direct assistance with unmet needs to homeowners impacted by the storm and is already oversubscribed.

- **Mold Removal and Safe Practices Training**: The mold program is supported by more than $13 million in private funds from the Mayor’s Fund, the American Red Cross, and the Robin Hood Foundation. The goal of the program is to remove mold in approximately 2,000 homes in the hardest hit areas. The work is administered by Neighborhood Revitalization NYC, an affiliate of the Local Initiatives Support Corporation (LISC), a community development non-profit corporation with 30 years of experience working in New York City. In addition to the direct mold treatment program, the Mayor’s Fund is sponsoring awareness and safe practices workshops on mold led by a consortium of university partners, which include free supplies. The workshops are scheduled in targeted locations, including NYCHA campuses, with the help of City and community partners.

- **Non-Profit Rebuilding Consortium**: The City is working to leverage private resources and harness the work of voluntary agencies to begin making rehabilitations to homes in advance of the formal launch of the CDBG-DR program. The Mayor’s Fund to Advance New York City, in partnership with HRO and other agencies, has created the NYC Home Repairs Consortium (the Consortium) that will select, fund, and oversee a set of non-profits to scale their rehabilitation work and serve more homes; coordinate their efforts to ensure rehabilitations to a targeted group of homes; streamline interaction between organizations; leverage City programs; and use private dollars to rehabilitate homes in advance of the launch of the CDBG-DR program.
The Department of Housing Preservation and Development’s (HPD) loan programs almost always seek to leverage private investment to combine with subsidy. The City will continue this practice with CDBG-DR recovery loans, beginning with programs launched immediately after the storm:

- **Emergency Loan Program:** Neighborhood Housing Services (NHS), through its Emergency Loan Program, provides owner-occupants of one- to four-unit homes with loans and grants to repair water mains, boilers, sewer lines, sidewalk violations, roofs, plumbing, and electrical problems, and to eliminate conditions dangerous to health and safety. The maximum loan amount is $10,000, with low-interest rates and a maximum term of five years. NHS also operates the Landlord One emergency loan program for small property owners, corporations, non-profit owners, investors, and owner-occupants of 5- to 20-unit residential and mixed-use buildings in the five boroughs. The maximum loan amount is $25,000, which is available in increments of $10,000, $15,000, $20,000, and $25,000. The funds can be used to replace building-wide systems, eliminate code violations, upgrade vacant apartments, eliminate dangerous health and safety conditions, and make other essential rehabilitations.

- **Storm Recovery Loan Program:** HPD, in partnership with the Community Preservation Corporation (CPC) and Citi Community Capital, created the Storm Recovery Loan Program to provide loans to rehabilitate multi-family buildings (five or more units) damaged by Sandy. HPD provides City Capital or Federal funds at 1% interest. Combined with CPC conventional financing, the blended financing cost is significantly below market. The funds may be used for moderate or substantial rehabilitation of multiple dwellings damaged by the storm. Uses include refinancing existing debt, repairing damage, and/or mitigating future storm impacts.

Through CDBG-DR-funded recovery loans, HPD will be serving a diverse universe of building types, heavily concentrated in specific geographic areas, which limits its ability to extrapolate leverage projections based on past lending history. At this point, HPD tentatively projects that it will generate about $25 in private investment for every $100 of subsidy invested. That leverage estimate is subject to change, but HPD remains committed to a lending model that blends private capital with subsidy.

NYC Service is a City agency that leads targeted volunteer opportunities and initiatives. Since the storm, NYC Service, the FEMA Volunteerism staff, and the housing agencies have leveraged support and work from the volunteer community and served as an interface for coordination with the City’s recovery efforts.

NYCEDC will leverage other funding sources in a number of ways. The existing loan and grant program leverages funds from private investors with funds from Goldman Sachs and 23 additional banks. In the Business Loan and Grant Program, which may seek additional administrators, one of the selection criteria will be the administrator’s ability to leverage other funding sources. Based on its experience with the Cap Access loan guaranty program, NYCEDC estimates that it may be able to leverage funds up to five times. In addition, one of the selection criteria for choosing proposals in the Neighborhood Game Changers program will be the ability of the respondent to leverage private investment.

The CDBG-DR allocation for Infrastructure and Other City Services will be leveraged against supplemental sources of federal funds allocated toward recovery, including FEMA (Public Assistance Grant Program and Hazard Mitigation Grant Program), the U.S. Army Corps of Engineers, Federal Highway Administration, SBA Disaster Loans, and National Flood Insurance Program payouts.
The CDBG-DR allocation for Resilience will be leveraged against and dependent upon a variety of other funding sources. The Special Initiative for Rebuilding and Resiliency ("SIRR") report is expected to be delivered in May 2013. It is anticipated that this report will identify specific needs and additional funding sources.
VI. **CDBG-DR Program Allocations**

Funding levels are reflected in millions.

<table>
<thead>
<tr>
<th>Program</th>
<th>CDBG-DR Allocations</th>
<th>% of Funds Expected to Benefit Low/Mod Persons</th>
<th>Total Funds Expected to Benefit Low/Mod Persons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing Programs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NYC Houses Rehabilitation and Reconstruction</td>
<td>$306</td>
<td>55%</td>
<td>$168</td>
</tr>
<tr>
<td>Rental Assistance</td>
<td>$9</td>
<td>100%</td>
<td>$9</td>
</tr>
<tr>
<td>Multi-Family Building Rehabilitation</td>
<td>$225</td>
<td>67%</td>
<td>$151</td>
</tr>
<tr>
<td>Public Housing Rehabilitation and Resilience</td>
<td>$108</td>
<td>100%</td>
<td>$108</td>
</tr>
<tr>
<td>Business Programs</td>
<td>$293</td>
<td></td>
<td>$81</td>
</tr>
<tr>
<td>Business Loan and Grant Program</td>
<td>$72</td>
<td>50%</td>
<td>$36</td>
</tr>
<tr>
<td>Business Resiliency Investment Program</td>
<td>$90</td>
<td>50%</td>
<td>$45</td>
</tr>
<tr>
<td>Neighborhood Game Changer Investment Competition</td>
<td>$90</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>Infrastructure and Business Resiliency Technologies Competition</td>
<td>$41</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>Infrastructure and Other City Costs</td>
<td>$360</td>
<td></td>
<td>$172</td>
</tr>
<tr>
<td>Public Services</td>
<td>$322</td>
<td>43%</td>
<td>$139</td>
</tr>
<tr>
<td>Emergency Demolition</td>
<td>$3</td>
<td>0%</td>
<td>$0</td>
</tr>
<tr>
<td>Debris Removal/Clearance</td>
<td>$21</td>
<td>100%</td>
<td>$21</td>
</tr>
<tr>
<td>Code Enforcement</td>
<td>$1</td>
<td>0%</td>
<td>$0</td>
</tr>
<tr>
<td>Rehabilitation/Reconstruction of Public Facilities</td>
<td>$13</td>
<td>90%</td>
<td>$12</td>
</tr>
<tr>
<td>Resilience</td>
<td>$294</td>
<td></td>
<td>$150</td>
</tr>
<tr>
<td>Resiliency Investments*</td>
<td>$294</td>
<td>51%</td>
<td>$150</td>
</tr>
<tr>
<td>Citywide Administration and Planning</td>
<td>$178</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Planning**</td>
<td>$90</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Administration**</td>
<td>$88</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$1,773</strong></td>
<td><strong>52.6%</strong></td>
<td><strong>$839</strong></td>
</tr>
</tbody>
</table>

*The activities for Resiliency Investments will be identified in a future Partial Action Plan.

**These initial allocations are based on the best data currently available and reflect projections of need to support the programs. It can be anticipated there will be future adjustments based on actual experience once programs are implemented; however, neither planning nor administrative expenses will surpass their statutory caps of 15% and 5%, respectively.
Please note that, although New York City has identified the programs to which it will commit its first Hurricane Sandy CDBG-DR allocation, the City intends to pursue incremental obligations, as agreed to in consultation with HUD, in order to control the expenditure and delivery of these funds in the most efficient and effective manner. Funding for the City’s Resiliency Investments will be requested in a future Partial Action Plan amendment. Under this initial incremental obligation, New York City is requesting 29% of the remaining funds, which is broken out as follows:

- $25 million for its Housing Programs,
- $50 million for its Business Programs,
- $300 million for its Infrastructure and Other City Costs, and
- $50 million for Citywide Planning and Administration.

This initial obligation is based on a preliminary assessment of the City’s immediate expenditure needs, which includes costs already incurred and program start-up costs. As additional funds are needed based on the rate of actual demand, expanded delivery capacity, and program ready implementation, the City will request from HUD the obligation of further funds against the full allocations.

Please note that the amounts in the allocation chart have been revised since the draft Partial Action Plan was released. In the previous version, the City did not break out specific amounts for Planning and Administration activities; instead, it noted that the cost of these activities would not surpass the HUD-defined CDBG-DR expenditure caps. During the comment period, HUD requested that the City establish specific allocations for these programs. As stated in the footnote to the chart, these allocations are based on the best currently available projections of need to support the programs. It is anticipated that there will be future adjustments based on actual experience once programs are implemented.

Please also note that, in response to public comments, the City has broken out the Rental Assistance program, which was previously part of the NYC Houses Rehabilitation and Reconstruction program, as a separate program. The City felt it was necessary to clarify the purpose of this program, which is intended to serve vulnerable populations impacted by Sandy, including low-income families and those that may be at risk of homelessness. Please see the “Housing” section of the Action Plan for further details on this program.
VII. HOUSING

Needs Assessment

Impact to the City’s Housing Stock

To understand the significant damage Hurricane Sandy caused to New York City’s housing stock and the need for temporary and permanent housing, the City analyzed field inspections and a variety of data sources to estimate the number and severity of damaged buildings across the five boroughs. These data sources include Department of Buildings (DOB) and Department of Housing Preservation and Development (HPD) inspections, FEMA building inspections, inundation assessments, utility outages, and registrations for the Rapid Repairs program. The City also worked in close partnership and consultation with the New York City Housing Authority (NYCHA) to quantify the storm’s impact on its buildings.

Public Housing

While no NYCHA buildings sustained permanent structural damage due to the storm, many buildings’ systems – essential for supporting the living conditions for tens of thousands of New Yorkers served by NYCHA – were significantly impacted.

- Over 400 buildings in Brooklyn, Queens, and Manhattan, with 35,000 residential units housing roughly 80,000 residents, were affected significantly by Sandy. Of the over 400 buildings, 402 lost power and, with it, elevator and compactor service. 386 buildings lost heat and hot water.
  - In Coney Island, 42 buildings – home to 8,882 residents – were impacted.
  - In the Rockaways, 60 buildings – home to 10,100 residents – were impacted.
  - In Red Hook, 32 buildings – home to 6,173 residents – were impacted.
  - In Manhattan, 176 buildings – home to 41,513 residents – were impacted.
- NYCHA developments in Coney Island were especially impacted due to substantial sand and saltwater infiltration. The systems damage in other developments was due mostly to flooding.
- An additional 356 NYCHA buildings at 97 developments in all five boroughs sustained moderate damage, mostly due to wind damage to roofs and façades.

Housing (excluding public housing)

Based on the analyses conducted, the City estimates that more than 63,000 residential units have been impacted by physical damage as a result of Hurricane Sandy. In addition, many thousands of New Yorkers were temporarily displaced from their homes due to power outages or other service interruptions. The housing team is continuously coordinating with and gathering information from the Department of Homeless Services (DHS) and its social service providers supporting the New Yorkers who are sheltering in hotels run by FEMA and the City. The New York City Housing Recovery Portal website (www.nyc.gov/housingrecovery) is a resource that allows residents impacted by the storm to register with the City and be referred to vacant affordable housing or, depending on eligibility, a NYCHA unit. The Portal provides the City with further information about impacted residents with housing needs, including accessible housing for people with disabilities. However, given the dynamic nature of post-disaster housing, there is no accurate way to definitively quantify the number of families displaced at any given time.
The City’s analysis shows that there are three main categories of housing damage, excluding the NYCHA housing stock described previously:

- **Severe damage (Reconstruction required):** More than 800 buildings (more than 900 units) were destroyed or became structurally unsound. More than 95% of these buildings are one- or two-family homes.

- **Major damage:** Approximately 1,700 buildings (more than 20,000 units) suffered major damage, of which approximately 1,400 are one- or two-family homes. Major damage typically corresponds to flooding of basements and ground floor living spaces.

- **Moderate damage:** Approximately 16,000 buildings (more than 42,000 units) suffered moderate damage, of which approximately 15,000 are one- or two-family homes. Moderate damage typically corresponds to basement flooding with little or no impact to ground floor living spaces.

**New York City’s Response to Impact to the Housing Stock**

**Department of Environmental Protection (DEP): NYC Rapid Repairs**

Typically after a disaster of Hurricane Sandy's magnitude, families are forced to re-locate for extended periods of time to shelters and other forms of temporary housing, which delays the real recovery that begins when families return to their homes. Founded on the premise that the best temporary shelter is permanent shelter, the City implemented the Rapid Repairs program, which restores the basic services that families need to return home. Rapid Repairs is New York City’s implementation of FEMA’s Sheltering and Temporary Essential Power (STEP) program, created to address the unique housing challenges created by Hurricane Sandy. STEP funds emergency and necessary residential repairs such as restoration of temporary electricity, heat, and hot water so that residents can remain in their homes while permanent repair work continues.

DEP administers the Rapid Repairs program, which was first announced on November 9, 2012. Through Rapid Repairs – the first program of its kind – the City has deployed dozens of contractors and thousands of skilled construction workers to make emergency repairs, free of charge, on residential properties affected by Hurricane Sandy. The assistance provided through Rapid Repairs does not impact the assistance that families are eligible to receive through FEMA’s Individual Assistance program. All work is supervised by the City and compliant with the relevant safety and building codes.

As of March 17, 2013, repair work in 11,774 buildings has been completed; work in 20,257 residential units has been completed; with less than 10 homes to repair, the program is essentially complete.

Rapid Repairs has also provided significant construction opportunities for the City’s Minority- and Women-Owned Business Enterprises (MWBEs). Rapid Repairs employs 10 prime contractors and approximately 185 subcontractors, including 37 MWBEs.

Rapid Repairs also provided priority assistance to people with disabilities by installing ramps so people could gain access into their homes.
Department of Housing Preservation and Development (HPD)

HPD, in conjunction with the Housing Development Corporation (HDC) and other key partners, has designed and implemented a number of housing and neighborhood relief and recovery programs to help stabilize those whose housing was impacted by Sandy. HPD specifically led the following key work streams to address immediate relief and response efforts:

Field Operations

HPD staff immediately started working in the affected neighborhoods, bringing relief to residents whose homes and buildings required services.

- Inspections, Emergency Repairs, and Demolitions: HPD attempted more than 9,100 inspections at approximately 6,000 properties affected by Sandy and notices were mailed to the owners of these properties. HPD has also assisted agency partners and private owners with finding resources to restore essential services. HPD is responsible for the demolition of approximately 400 affected structures, and is conducting emergency repair work in affected multi-unit properties where owners are not participating in Rapid Repairs. In addition, HPD has conducted community outreach in several affected areas. Approximately 900 survey visits to buildings were conducted and approximately 1,150 calls and 5,000 robo-calls were made to owners. A special e-mail address (HPDSandyIssues@hpd.nyc.gov) was created for owners who have property damage resulting from Sandy that would result in a Housing Code violation under normal circumstances.

- As of January 25, 2013, approximately 200 HPD staff members had been working overtime on critical Sandy-related recovery efforts in partnership with FEMA and other City agencies. HPD staff members were assigned to the three areas below:
  - Housing Recovery Link Desk/Hotel Operations: perform intake, data management, and technical assistance; assist 311 callers with registering online and addresses caller issues; liaise with FEMA, HPD's Code Enforcement Division, and other City agencies.
  - Restoration Centers: assist residents with registration for the Rapid Repairs program, conduct follow-ups, and coordinate services with contractors; help residents connect to City services including interim housing; and assist homeowners with HPD mortgages or liens who need insurance/FEMA checks endorsed.
  - Rapid Repairs: assist contractors in assessing properties for repairs.

Financial Sector

HPD convened banks and other housing and financial industry partners to develop new loan and grant programs. These proposals build on existing expertise and programs in both the private and public sector and on lessons learned from past disasters. The working group’s discussions both drive immediate storm response and shape plans for use of CDBG-DR funds.

- **Storm Recovery Loan Program:** HPD and the Community Preservation Corporation (CPC) provide loans to rehabilitate multi-family buildings (five or more units) damaged by Hurricane Sandy. HPD provides City Capital or Federal funds at 1% interest. Combined with CPC conventional financing, the blended financing cost is significantly below market rate. The funds may be used for moderate
or substantial rehabilitation of multiple dwellings damaged by the storm. Uses include refinancing existing debt, repairing damage, and/or mitigating future storm impacts.

- **Emergency Loan Program:** Neighborhood Housing Services (NHS) provides loans and grants to owner-occupants of one- to four-unit homes for the repair of water mains, boilers, sewer lines, sidewalk violations, roofs, plumbing, and electrical problems and to eliminate conditions dangerous to health and safety. The maximum loan amount is $10,000, with low-interest rates and a maximum term of five years.

- **Landlord One:** NHS operates an emergency loan program for small property owners, corporations, non-profit owners, investors, and owner-occupants of five- to twenty-unit residential and mixed-use buildings. The maximum loan amount is $25,000, which is available in increments of $10,000, $15,000, $20,000, and $25,000. The funds can be used to replace building-wide systems, eliminate code violations, upgrade vacant apartments, eliminate dangerous health and safety conditions, and make other essential repairs.

**Developer Coordination and Housing Match Program**

HPD, in conjunction with HDC, the U.S. Department of Housing and Urban Development (HUD), and the New York State Department of Housing and Community Renewal (DHCR), worked with development partners at the NYS Association for Affordable Housing, the Real Estate Board of New York, and the Rent Stabilization Association to identify vacant apartments at different levels of affordability and make them available to affected New Yorkers.

The New York City Housing Recovery Portal website was launched in December 2012 for NYC residents displaced by Hurricane Sandy. Households could register with HPD, which sought to identify alternative housing options for that household. As of March 2013, 1,831 accounts had been created and 1,687 registrations had been completed. Income-eligible New Yorkers may also have been referred to public housing vacancies within NYCHA.

In addition to the Portal, HPD explored other housing options including a Section 8 Housing Choice Voucher pilot program. The pilot program would provide approximately 150 Housing Choice Vouchers to displaced New Yorkers affected by Hurricane Sandy who meet eligibility requirements.

**Non-Profit Coordination**

HPD, in partnership with the Citizens Housing and Planning Council (CHPC), collaborated with established non-profit organizations to assist affected residents and rehabilitate damaged housing.

- **Canvassing:** HPD convened non-profits including CHPC, Local Initiatives Support Corporation (LISC), Mutual Housing Association of New York (MHANY), Center for NYC Neighborhoods (CNYCN), and others to develop and administer tenant needs assessment surveys. Staff developed and distributed fact sheets on humanitarian resources (Restoration Centers, warming centers, food distribution, Rapid Repairs, FEMA registration, etc.).

- **Proposal development:** HPD reviewed, developed, and aligned multiple recovery initiatives proposed to the Mayor’s Fund by groups such as Enterprise Community Partners, LISC, Habitat, Restored Homes, and CNYCN.

- **Communications:** HPD sent periodic e-mail blasts to non-profit partners providing updates on City initiatives and resources and coordinated briefings and structured feedback between non-profits and City agencies (HPD, Mayor’s Office of Housing Recovery Operations [HRO], and HDC).
Department of Homeless Services (DHS)

DHS played a major role in the evacuation process and continues to provide services to those impacted by Hurricane Sandy through the programs listed below. (For an analysis of how Hurricane Sandy affected the City's existing homeless population, please see the “Impact to the City's Homeless Population” section.)

Emergency Shelter

DHS provided managerial oversight of the emergency storm sheltering operations via the Unified Operations and Resource Center (UORC). UORC uses a unified command structure where multiple agencies work to coordinate and assist shelter staff on a tactical level. Sixteen key agencies provided staff to the UORC; DHS employees made up the largest percentage of workers. At the same time that DHS staffed the UORC, closed evacuation sites, and opened new ones, the agency prepared to close its homeless shelters located in Evacuation Zone A to protect shelter residents. The closing and opening of shelters was manageable because of immense preparation and planning for such an emergency. Notwithstanding the magnitude and devastation of Hurricane Sandy, DHS continued to meet its mandate to shelter all eligible New Yorkers and manage a homeless shelter program totaling approximately 48,000 individuals (single adults and families).

DHS deployed staff to various sites, resulting in overtime costs in three main areas of service to the public: sheltering families and single adults (who were no longer able to stay in their homes) in evacuation centers; setting up and staffing evacuation centers and providing equipment, volunteers, supplies, etc.; and setting up and staffing the UORC, which supports tactical management of shelter operations by filling resource requests and resolving problems at individual shelter system facilities.

City Hotel Program

The provision of services in the City Hotel Program was originally administered through the American Red Cross. Later, DHS began to work with local, community-based experts to provide services to evacuees in hotels. BASICS, BRC, Project Hospitality, Samaritan Village, Inc., and SCO Family Services continue to provide services to approximately 970 displaced households across 50 different locations as of March, 2013. Organizations are providing case management services and connecting evacuees to any City or Federal benefits for which they may be eligible and are also helping with housing plans including collaborating with FEMA to ensure that all eligible evacuees have registered with the appropriate programs.

Homebase

The role of Homebase at the Restoration Centers was to provide information on temporary housing options and, when available, immediate hotel/apartment placement. Individuals displaced by the storm were counseled by Homebase staff at Restoration Centers beginning on November 15, 2012. Providers included the Archdiocese of New York, BronxWorks, CAMBA, Catholic Charities of Queens, HELP USA, and Palladian. By November 29, 2012, Homebase sites were making hotel placements with the Hotel Operations Desk.

In addition to making emergency shelter placements, Homebase assisted consumers with navigating the array of benefits and assistance available to them. Of those served, 33% were referred to FEMA; 24% were referred to HRA; 36% were assisted with the HPD Housing Recovery Portal; and 16% were referred to NYCHA. (Please note that individuals may have been referred to more than one organization.)
**Relocation Services**

DHS and the Mayor’s Fund to Advance New York City were responsible for moving furniture donated to affected residents who relocated into permanent housing in NYCHA apartments.

**Providing Adequate Housing for All Income Groups**

NYCHA, HPD, HDC, HRO, and the Department of Environmental Protection (DEP), which administers the Rapid Repairs program, are active partners in developing the housing element of the Action Plan. To identify and address the needs of housing across all income groups and housing types impacted by Hurricane Sandy, the team has actively engaged community stakeholders to gather input on how to serve the range of household types affected by the storm. These agencies have worked collaboratively to address housing needs in developing programs to be leveraged with CDBG-DR funds. As demonstrated in the Unmet Needs section of the Action Plan, there are substantially greater needs than there are resources to address them.

City leadership established a foundation for recovery that focuses on resiliency. They have made the difficult decision to enforce the requirement for Hurricane Sandy-impacted New Yorkers to reconstruct to a higher standard than was in place before the storm. As evidenced by the impacts on properties that were built after floodplain management requirements became law, buildings with materials and methods targeted to be disaster resistant were measurably less impacted than those built prior to the requirements. The Mayor’s Special Initiative for Rebuilding and Resiliency (SIRR) was formed specifically to focus on making New York more resilient to the risks of climate change.

Disaster-resistant measures have been incorporated into all housing programs. Different activities will emphasize the needs of different income groups.

**Low-Income Population**

Based on Census data for the most impacted zip codes, more than 50% of the households in the impacted areas are likely to have incomes at or below 80% of the area median. The City has been very focused on serving their needs. Low-income households disproportionately are in need of immediate relocation assistance; the housing team is working with approximately 1,300 displaced families who are at or below 50% of Area Median Income. To the extent possible, these households will be placed in NYCHA public housing units or provided HPD Section 8 vouchers, but the City anticipates that approximately 600 households will not be served by these options. These families would typically access Disaster Housing Assistance Program (DHAP) vouchers, but the program is not fully established for residents affected by Hurricane Sandy. Through the Rental Assistance program in this Plan, HPD will deliver assistance with the goal of preventing homelessness among this population.

Going forward, NYCHA rehabilitation, reconstruction, and new construction activities will serve low-income households. HPD and HDC anticipate that the bulk of the multi-family lending will benefit persons of low-income, particularly those living in previously assisted housing, including Supportive Housing.

**Moderate- and Middle-Income Population**

Particularly in a high-cost city like New York, and in the wake of a devastating natural disaster like Hurricane Sandy, moderate- and middle-income households are also in need of assistance. The NYC Houses Rehabilitation and Reconstruction program is designed to focus on the homes most in need of rehabilitation, although owner incomes may be as high as 165% of area median. Multi-family buildings
with higher-income tenants will also be eligible for assistance if owners can demonstrate that other resources such as insurance and Small Business Administration (SBA) loans were insufficient to meet needs.

**Impact to the City's Homeless Population**

**Single Adults and Childless Families**

To date, Hurricane Sandy does not appear to have had a significant lasting effect on the demand for traditional shelter services for single adults or adult families. The average daily single adult census in September before the storm was 9,281. In November, the average daily census was 9,365. For childless families, the September and November average daily censuses were 1,680 and 1,689, respectively.

However, during and immediately after the storm, services were impacted and the Department of Homeless Services took all steps necessary to preserve the continuity of services to the City's homeless. Five single adult shelters located in low-lying areas were evacuated, which required the relocation of approximately 1,350 clients, along with the City’s intake operations for single men and childless families (families with no minor children). Clients were moved into reserved emergency beds, a new shelter facility that had not yet opened, or absorbed into existing vacancies in the system. Shelter staff accompanied clients to these locations and made every effort to minimize the disruption of services.

The City’s intake operations for single men and childless families were relocated to sites designated for back-up intake operations according to the agency's Continuity of Operations Plan. Single men were redirected to Brooklyn and childless families to Queens. The public was notified of the relocations through 311 and the Department continued to accept applications and place clients in accordance with all applicable laws and regulations.

With respect to the street homeless population, the City's outreach teams ramped up their operations to offer services to at-risk street homeless individuals during and after the storm. Many of them, some displaced by the storm, ended up in evacuation centers where they were engaged by shelter and outreach staff and, where possible, connected with appropriate shelter and outreach services.

The relocated shelters and their capacities are as follows:

1. McGuiness: 200
2. Huntington: 18
3. Borden: 240
4. Turning Point: 37
5. 30th Street: 850

The evacuees from these shelters returned within the following few weeks. Borden Avenue Shelter in Queens required significant capital work – including hazmat sewage abatement, floor replacement, and wall replacement – that was completed by the end of November. Additionally, the Pamoja House men’s shelter in Brooklyn required a partial restoration of its roof, which was damaged in the storm. Furthermore, the drill floor of the Park Slope Armory was damaged as a result of using the facility for evacuees with medical needs. The roof at the Schwartz Shelter at Wards Island had to be repaired due to a fallen tree and the generator had to be repaired at the George Daly House.
Families with Children

The storm did not appear to have a significant lasting effect on the demand for traditional Family with Children shelter services. The average daily census for Families with Children in September before the storm was 9,616. In November, the average daily census was 9,845 (2% increase).

Since the hurricane, DHS identified over 420 families with children who either reported issues related to the hurricane as their primary reason for seeking shelter (112 families) or whose last residence prior to shelter was in an area that may have been affected by the hurricane (311 families during the time period covering the hurricane through January). DHS made efforts to engage all of these families at intake or in shelter and link them to FEMA and City services to help victims of the hurricane. Some were then referred to hotels and received services at those hotels. Only ten families who reported the hurricane as their primary reason for seeking shelter were subsequently found eligible for DHS shelter.

In preparation for the storm, four family shelters located in low-lying areas were evacuated. Clients were given passes to make their own arrangements or transported to one of the City’s evacuation shelters. Four shelters also lost power during the storm or immediately after the storm. These shelters were Helen’s House, Nazareth, Children’s Rescue Fund East, and LaGuardia. Meals and blankets were delivered to those sites.

The relocated shelters and their capacities were as follows:

1. LIFE: 93
2. Huntington House: 18
3. Henry Street Settlement Urban Family Center: 82
4. Bay Family Center: 99

The evacuees from LIFE, Huntington House, and the Urban Family Center returned to their shelters by the end of October. The majority of the households from Bay Family were also returned by the end of October. Final repairs were made to the last 38 units at the Bay Family Center in January and all families were able to return by February 1st.

Several family shelters also required significant capital work as a result of the storm. A boiler replacement is required at Urban Family Center (Manhattan) and a replacement generator is needed at Life Family Residence (Manhattan). Other repairs, such as roof and a sidewalk shed, were needed at Auburn Family Residence in Brooklyn and Regent Family Residence in Manhattan.

Homeless Population Needs Assessment

Pre-Storm Homeless

As described above, shelter counts taken one month prior to the storm and approximately one month after the storm did not show any significant increase in the homeless population, therefore indicating that there was not a new, quantifiable unmet need for this population. Accordingly, the pre-Sandy homeless population will continue to be served through the City’s existing homeless programs. New York City has the largest and most robust shelter system of any municipality in the nation to meet the needs of the homeless. The City is unique in that it is mandated to shelter the homeless, stemming from the 1981 Callahan v. Carey lawsuit, which established the right to shelter for all homeless men and set standards for
shelter conditions, capacity, and staffing ratios. Two years later, the right was extended to single women and families (Eldredge v. Koch and McCain v. Koch). Even under the City's considerable financial constraint and the diminution of State assistance toward the costs of sheltering the growing homeless population, the City has maintained its commitment to meeting the needs of the homeless and helping shelter clients move toward self-sufficiency and stable housing in the community. Below is the Department of Homeless Services’ budget for City Fiscal Year 2013.

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<th>DHS Division</th>
<th>Total (in millions)</th>
<th>City Tax Levy</th>
<th>New York State</th>
<th>CDBG</th>
<th>Other Federal</th>
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DHS primarily funds family shelters with a mix of federal Temporary Assistance for Needy Family (TANF) funds, CDBG entitlement funds, NYS State Safety Net funds, and City resources. Single adult shelters are primarily funded with a capped grant from the State (the Adult Shelter Cap) and City resources. Those households that have already entered the shelter system as a result of Sandy are being provided with services funded with these resources.

DHS only utilizes a small amount of McKinney-Vento funding to operate their shelters. DHS receives two grants under the McKinney Program – the Emergency Solutions Grant (ESG) and the Supportive Housing Program. About $3 million of ESG helps fund ten different single adult shelters, while the rest goes to supporting programs (such as homeless prevention and street homeless outreach). The latter is used for a Homeless Management Information System (HMIS).

DHS plans to claim all directly Sandy-related expenses under FEMA’s Public Assistance Grant Program as either Category B (emergency work) or Category E (permanent work). Additionally, DHS is investigating what can be done to be better prepared for a future event. These efforts are part of the Special Initiative for Rebuilding and Resiliency (SIRR) and include moving sensitive equipment to higher ground at facilities that are vulnerable to flooding, and possibly relocating facilities that are in flood zones.

Finally, HPD plans to spend at least $10 million of the CDBG-DR allocation to rehabilitate and build supportive housing projects that will serve chronically homeless individuals with a variety of special needs, such as mental illness or addictions. On-site supportive services would be provided through a variety of City- and State-funded contracts to ensure that these individuals remain stably housed. Investment in these projects will add to the supply of permanent housing for pre-storm homeless. In addition, the City will actively seek opportunities to convert damaged nursing homes, rooming houses, and other appropriate facilities to supportive housing. The City will continue to monitor this population and if unmet needs are identified, will consider including a further set-aside as part of its next CDBG-DR allocation.
Post-Storm Homeless
Some households have reported being made homeless as a result of Sandy. Additionally, it is not yet clear whether some of the households currently in transitional housing created for Sandy evacuees may eventually end up homeless. As of the end of March, there were about 850 households in City-managed hotels or transitional shelter facilities. DHS is providing these households with case management services with the goal of relocating these evacuees home or to other permanent housing as quickly as possible through referrals to the myriad of services being provided by City agencies. It is anticipated that some of these households will return home after necessary repair work, while others will be relocated to Section 8 or NYCHA public housing units. However, in the absence of continued FEMA funding of these transitional arrangements, some may need to be served by other programs.

For those households that have been and may potentially be made homeless by Sandy, the Department of Housing Preservation and Development (HPD) has recently implemented a 25% marketing preference for households displaced by Sandy in new development projects. HPD will also use CDBG-DR funds to operate a rental assistance program for displaced, low-income households. (Please see the Rental Assistance program description for further information.) Additionally, HPD will administer Federal Disaster Housing Assistance Program funds that provide temporary rental payments to help families displaced by the storm. Finally, DHS will provide households with the same services that more traditionally homeless household receive, including assistance relocating to permanent housing.

Remaining Unmet Housing Needs

Assessing the Demand
To structure a program that addresses the unmet needs of NYCHA, single-family, and multi-family properties, the housing team coupled outreach efforts with a detailed assessment of damage at the building level. This allowed the City to understand the demand for housing repairs in monetary terms and related support to families. To estimate the demand for housing rehabilitation, the City defined the full cost to complete the work to rehabilitate or rebuild in a more resilient and sustainable way. The City focused on the “cost to complete” rather than any measure of the “market value” of a property. This anchored the City’s approach around an end goal of completing rehabilitations to buildings, rather than on estimating need based on the value of the property or other figures, an approach that risks an inability to secure funding to complete rehabilitations. NYCHA employed a rational methodology that pulled from numerous existing data sources and involved several sets of experts and interviews with individuals working on the ground. NYCHA performed additional analyses to estimate the cost to comply with sustainability and green building standards and for construction methods to address increased resiliency to future storms. NYCHA continues to refine large-scale assessments of its infrastructure to determine the full cost of the storm and to inform decisions about how NYCHA can more strategically procure, locate, and protect important equipment.

Mandatory Rehabilitation - Cost to Reconstruct or Rehabilitate Damaged Buildings

Public Housing
To date, the storm has resulted in approximately $130 million of expenditures related to NYCHA’s immediate response efforts including: dewatering efforts, mobile boilers, emergency electrical restorations, debris removal, clean up, and operating expenses such as emergency overtime.
Beyond those immediate costs, more than $410 million is needed for permanent rehabilitations and resiliency measures associated with replacement of damaged infrastructure, including replacement of mechanical and electrical systems.

In addition, NYCHA will need $35 million to deliver disaster programs through CDBG-DR and FEMA funding. This will include technical expertise, project management, accounting, information technology, and audit support.

**Housing (excluding public housing)**

By matching estimates for the distribution of types of damage with estimates for the cost to reconstruct or rehabilitate, we have concluded that the likely overall cost to reconstruct or rehabilitate destroyed, major, or moderately damaged buildings is estimated at $2.7 billion.

- Approximately $400 million is needed to reconstruct destroyed or structurally unsound units. The cost to reconstruct is estimated at $470,000 per single-family home (one to two units) and $1.6 million per multi-family building (three or more units).
- Approximately $1 billion is needed to rehabilitate buildings with major damage, based on an estimated rehabilitation cost of approximately $135,000 per single-family home (one to two units) and up to $3 million, on average, per multi-family building (three or more units). Rehabilitation will include fixing boilers not addressed with permanent fixes by the Rapid Repairs program, cooling systems, electrical systems, basements and ground floor living spaces, as well as resiliency requirements in order to meet building codes. This cost includes resilience measures of approximately $400 million to protect homes from future flood damage. The resilience cost estimates are based on preliminary high-level measures that may vary for each building.
- $1.3 billion is needed to rehabilitate buildings with less severe damage. The estimated cost is approximately $55,000 per single-family home (one to two units) and up to $2.5 million, on average, per multi-family building (three or more units).

The total cost is approximately $1.7 billion to reconstruct single-family homes (one to two units) and approximately $1 billion for multi-family buildings (three or more units).

**Resilience and Rehabilitation of Damaged Buildings**

**Public Housing**

In addition to the initial resiliency measures described above, NYCHA will proactively seek measures to further strengthen all of its impacted properties. These measures are intended to minimize the damage caused by future storms or minimize the direct impact to thousands of residents. These measures will include:

- $250 million to improve resiliency by adding permanent emergency generators at critical NYCHA buildings. Improving the resiliency of the electrical systems is one of the most critical places to begin resiliency work, as these systems are necessary for many other critical services. Permanent emergency generators do not currently exist at any NYCHA residential property. If added, these generators could provide backup power to critical systems such as elevators, boilers, emergency lighting, and critical life support systems.
• $120 million to enhance 60 Community Centers in damaged buildings located in Evacuation Zone A to enable them to serve as warming centers, information distribution sites, local command centers, phone charging stations, or emergency shelters in future storms.

• $50 million to increase the resilience of NYCHA’s Emergency Operations Center (EOC) since the current EOC, which is currently in Evacuation Zone A, experienced flooding and suffered damage during Sandy.

**Housing (excluding public housing)**

Resiliency measures for buildings with moderate damage would require an additional approximately $2.5 billion to mitigate the future risk of flood damage. These resiliency measures are assumed not to be required by code as rehabilitation for moderate damage is unlikely to trigger the mandatory resilience measures required when addressing substantial damage (i.e., the law requires that resilience measures be incorporated when undertaking rehabilitation that will cost greater than 50% of a building’s pre-storm market value). “Substantial Damage” is defined as when the cost of restoring the structure to its before-damaged condition would equal or exceed 50% of the market value of the structure before the damage occurred. This is the threshold at which rehabilitation work includes mandatory mitigation. Nevertheless, if rehabilitation is undertaken for a building, it is responsible policy to consider the inclusion of mitigation measures that will better protect properties from future damage.

• Approximately $2 billion of these costs are attributed to single-family homes (one to two units) with moderate damage and approximately $500 million are for multi-family building (three or more units), based on preliminary estimates for likely standard resilience measures.

• Without implementing these resilience measures, homeowners and landlords will likely face significant increases in flood insurance premiums, and neighborhoods will likely suffer declines in property values and risks of abandonment and blight.

• Note that resiliency measures for homes requiring reconstruction or major rehabilitation is included in the estimates of the costs to rehabilitate, as these will likely trigger the substantial damage threshold which requires reconstructing to code for flood mitigation (i.e., elevating the home or undertaking other measures).

In addition, New York City has a relatively old housing stock, and we anticipate that many of the buildings with storm damage will also have other rehabilitation needs unrelated to the storm. Addressing the building needs holistically ensures that these properties will function as high quality, accessible, and affordable housing stock to meet post-disaster needs and population demands.

**Resilience for Non-Damaged Buildings**

**Public Housing**

While several hundred NYCHA buildings lost critical services, in part because of direct damage to its facilities, families in hundreds of additional NYCHA buildings that suffered no direct storm damage but were in vulnerable areas of the City were significantly impacted when utility service to those buildings was disrupted for long periods of time. Because of the facilities’ reliance on outside utilities, NYCHA’s residents were left with no heat, hot water, lights, water, or elevator service and many have expressed a feeling of being trapped in their apartments. There was very little NYCHA could do in these cases to support the residents.
Accordingly, NYCHA will look beyond the infrastructure that was directly damaged by the storm and proactively seek measures to further strengthen all of its properties. The revised preliminary FEMA Advisory Base Flood Elevation (ABFE) Maps have nearly doubled the number of NYC buildings located in the 100-year flood zone, placing twice as many NYCHA buildings in Flood Zone A as there were pre-storm. Providing resiliency and mitigation measures in these buildings would ensure some 21,000 additional families would not lose critical services during future storm events. Applying similar resiliency and mitigation improvements to the Community Centers in these vulnerable developments would provide additional opportunity to ensure families and the critical services that they rely on, especially during emergencies, could remain readily available. Subject to funding availability, these additional measures would include:

- $620 million to implement basic resiliency and mitigation measures (i.e. raised boilers and electrical switch gear) to all buildings in the new flood zone as new ABFE Maps have nearly doubled the overall number of NYCHA buildings in Evacuation Zone A.
- $60 million to enhance 30 Community Centers in non-damaged buildings located in Zone A to enable them to be able to serve as warming centers, information distribution sites, local command centers, phone charging stations, or emergency shelters in future storms.

**Housing (excluding public housing)**

Another approximately $9 billion will address resilience measures for undamaged buildings located in the flood zones (Flood A or V zone) designated by the National Flood Insurance Program’s Flood Insurance Rate Maps. These buildings will otherwise face an increase in flood insurance costs.

**Determining Unmet Housing Needs**

To understand the unmet need to be addressed by City programs, the City built upon the above estimates of the demand (or required funding) for Sandy-related reconstruction, rehabilitation, and mitigation by estimating the “supply” of funding already available to meet these needs. Many City, State, and Federal programs have funded some of the need for homeowners and landlords to undertake rebuilding and rehabilitation measures. The City will use CDBG-DR funding to complement and build upon such sources. For unmet need, the City subtracted the estimated funds authorized or received thus far from these programs, as well as privately-funded programs, from demand estimates. While the calculation of unmet needs is similar, the City has addressed Public Housing separately because NYCHA buildings are owned and managed by the government and therefore qualify for a different type of assistance from FEMA, but the calculation of unmet need is similar.

**Public Housing Unmet Need**

As publicly-owned properties, NYCHA facilities are eligible for FEMA’s Public Assistance Grant Program. Mandatory rehabilitation, and a significant portion of the resilience improvement measures necessary for damaged buildings, should be covered by a combination of the National Flood Insurance Program (NFIP), existing commercial policies, and FEMA’s Public Assistance Program, less the non-Federal cost share.

- NYCHA could receive approximately $440 million in insurance proceeds via both NFIP and commercial insurance policies.
- FEMA Public Assistance funds will cover between 75% and 90% of the remaining costs associated with rehabilitations, replacements, and mitigation.
Funding has not yet been allocated towards the Hazard Mitigation Grant Program, a FEMA program that awards grants for resilience measures that can meet a cost-benefit hurdle, as New York State has not yet released guidelines. NYCHA will aggressively pursue that funding upon release of the guidelines; however, at this time it cannot assume any revenue from this source for the calculation of unmet need.

Potential available funding to address NYCHA’s needs is approximately $515 million to $530 million (depending on the local cost share percentage). There is a gap in funding some of the mandatory rehabilitation, essentially driven by the local cost share portion of FEMA, which is estimated at 25% of the FEMA Public Assistance. NYCHA is also left with a significant gap in resilience and rehabilitation efforts for damaged buildings. Finally, no funding has been identified for the resiliency efforts in undamaged, but vulnerable buildings.

**Housing (excluding public housing) Unmet Need**

Of the $2.7 billion required to rebuild and rehabilitate non-NYCHA buildings, approximately $1.3 billion is anticipated to be funded by existing or identified programs and financial resources, leaving $1.4 billion in unmet need for rehabilitation and reconstruction costs.

Existing or identified funding resources include:

- $250 million portion of Rapid Repairs completed and planned that is deemed “permanent”.
- $450 million of expected insurance payouts (preliminary, top-down estimate). While the estimate includes the projected payout for all open claims, the number is subject to change as the data is updated over time.
- Approximately $250 million of FEMA funds disbursed for permanent housing assistance to individuals. Estimates exclude any rental assistance given or projected to be disbursed from the overall housing assistance.
- Approximately $300 million from SBA loans authorized for building rehabilitation and reconstruction.
- Approximately $25 million from the NYS Homeownership Repair and Rebuilding Fund/Empire State Fund.
- More than $13 million of private funding, provided by the Mayor’s Fund to Advance New York City, the American Red Cross, and the Robin Food Foundation, was allocated to the mold remediation program.
- Other private assistance resources are being identified based on need.

**Housing Goals**

The City’s housing recovery programs are designed to meet the unmet needs described above and help people affected by Hurricane Sandy – including homeowners and tenants of rental properties – achieve permanent, sustainable housing solutions that allow them to remain in New York City and, where possible, return to their neighborhoods.

The objectives of the programs include:
1. Helping people affected by Sandy directly by replacing and rehabilitating housing units, including identifying opportunities for mitigation enhancement measures;

2. Helping people affected by Sandy by improving the resilience of their housing units while restoring their buildings/residences;

3. Supporting resilience improvements to reduce risk and strengthen neighborhoods in flood zones; and

4. Leveraging philanthropic investments to address immediate gaps with flexible capital and maximize CDBG-DR dollars at scale.

To pursue these objectives, the City has built a program that incorporates lessons from past disasters; builds upon stakeholder input from agencies and relevant organizations across the City, State, and Federal levels; and leverages the experience of locally-based organizations to ensure the diverse needs and particular contexts of NYC's affected residents are addressed.

Current economic challenges have been taken into account and the City aims to leverage private sector and other funding where possible. The City's focus is to provide assistance to affected New Yorkers quickly while ensuring accountability and proper use of funds. We have also accounted for the complexities faced by affected residents working through the assistance process and therefore embedded quality customer service and counseling options to help people understand their options and the impacts (financial and otherwise) of their decisions.

The City's strategy will balance speedy response with adequate planning and support equity, and take into account the distinct needs of different communities and abilities of those community members. For program operations, the City will maximize private and non-profit sector expertise and the deep experience of the housing infrastructure in NYC while putting appropriate accountability and oversight mechanisms in place.
**Housing Programs**

**Overview**
Based on lessons learned from past disasters, the City will have a single program with several permanent housing recovery paths that maximize coordination across agencies. In this way, the City's program will leverage scale, where possible, while providing solutions tailored for the different needs of homeowners or landlords in need of assistance (e.g., by geography, building type, and size). Specifically, the City will have the following core paths to provide assistance to those who suffered damage from Sandy:

- **NYC Houses Rehabilitation and Reconstruction:** Grants or forgivable loans for reconstruction or rehabilitation of single-family homes that have been destroyed or damaged by Sandy. Assistance will incorporate resilience measures for homes that are destroyed or have substantial damage, as defined by the Department of Buildings.

- **Multi-Family Building Rehabilitation:** Grants or forgivable loans for reconstruction or rehabilitation of multi-family homes that have been destroyed or damaged by Sandy. Assistance will incorporate resilience measures for homes that are destroyed or have substantial damage, as defined by the Department of Buildings.

Definitions, eligibility requirements, and other specifics for each of these paths are described below. The City will prioritize core program paths, provide additional program paths as rehabilitation and redevelopment options – such as a buyout for single-family homes through the State and, funds permitting, acquisition for redevelopment – and will consider further program activities described in this Action Plan to enhance investment in impacted areas listed, subject to sufficient funds. Additional funding may be used to support resilience measures for homes or multi-family buildings that suffered less severe damage and for undamaged properties within the FEMA Special Flood Hazard Areas (Zones A and V). More detail on these other types of assistance is provided in later sections.

Temporary relocation assistance for tenants is a standard component of existing HPD rehabilitation programs. Tenants have the right to return and tenants will be provided relocation assistance where applicable in compliance with the HUD Uniform Relocation Assistance and Real Property Acquisition Policies Act (URA) final rule (49 CFR Part 24). If tenants will be temporarily relocated (or temporarily displaced) for more than 12 months, they will be given “permanent” relocation assistance in accordance with HUD and URA requirements. Please note that homeowners who voluntarily apply for assistance are not required by URA to be assisted with relocation funds.

**Summary of Program Priorities**
The initial funding will allow the City to serve a segment of its targeted population, as follows:

- **NYC Houses:** With the initial $306 million for houses, the City will prioritize assistance for those with the most severe damage and the highest level of financial need. Accordingly, the City's first priority will be to assist up to 1,000 units of low-, moderate- and middle-income homeowners whose primary residences or rental properties with year-round tenants were destroyed and low- and moderate-income homeowners whose primary residences or rental properties with year-round tenants experienced major damage. The City will also prioritize assistance for up to 8,300 low- and moderate-income households whose primary residences experienced moderate damage.
• **Multi-Family buildings**: The City will invest an initial $225 million in its multi-family housing stock – both affordable and market rate – capitalizing on the strong HPD and HDC institutional infrastructure. Through this first round of funding, the City will rehabilitate and enhance the resiliency of approximately 13,000 units of housing for low-, moderate-, and middle-income New Yorkers.

These priorities will be addressed through the various paths described below. These program paths will share unified program elements:

- Coordinated outreach and branding;
- Common intake and processing staff and procedures;
- Geographic areas to be served; and
- Coordinated program administration.

**Coordinated outreach and branding**

The City's housing recovery program will have a common outreach strategy, executed by the various participating City Housing agencies through a coordinated approach. This outreach will be supported by the Mayor's Office and other relevant City agencies and initiatives and will coordinate with the State outreach activities whenever appropriate. The City will also leverage the broad network of community service and volunteer organizations with well-established ties to our communities.

The program will have a single branding that will be leveraged in all its communication and outreach activities.

**Common intake and processing staff and procedures**

A single City program management entity will oversee intake and processing of all applications before applicants are connected directly with a specific program path and oversight agency. Program path decisions will be based on building type and an assessment of damage and financial need that will take place as part of the intake process. Existing affordable housing developments that have been previously assisted by HPD and/or HDC may be routed through separate intake procedures.

**Coordinated program administration**

For non-public housing, the City's permanent housing recovery program will be led by the City agencies that are responsible for housing preservation, rehabilitation and development, capital construction, and environmental protection for all building types (except public housing). These agencies include the Mayor's Office of Housing Recovery Operations (HRO), HPD, HDC, and DEP.

The City will structure the program to distribute work among these agencies along operational lines. Each agency will augment its capacity with contracted support as necessary.

- A combination of agencies including HRO, HPD, HDC, and DEP will lead the NYC Houses Rehabilitation and Reconstruction, with a dedicated team of City staff responsible for overall program administration.
- HPD will be the lead agency for administering multi-family rehabilitation assistance.
To support completion of the work in an efficient and effective manner, the team will use the City's procurement procedures (consistent with HUD procurement requirements at 24 CFR Part 85.36) to leverage the expertise and capabilities of private non-profits, community-based organizations, Community Development Financial Institutions, and contractor and consultant support. Please note that the City will enforce and monitor compliance with Davis-Bacon Labor Standards and Section 3 requirements wherever applicable.

**Geographic area to be served**

The program will cover areas in all of the five boroughs of New York City that were affected by Hurricane Sandy.

In the following charts, the City utilized Census and American Community Survey data to estimate the demographic makeup (including race, income, and homeownership rates) of the impacted housing units by the housing type and associated level of necessary rehabilitation or reconstruction. As all programmatic framework is based on damage and unmet needs, and owners of residential buildings that serve as a primary residences or have year-long tenants will be eligible to apply for assistance, subject to additional eligibility criteria and program priorities, these projections represent a reasonable assessment of beneficiaries of programs. However, it is impossible to forecast who will apply for assistance, and their level of unmet need, thus the demographic makeup of the actual recipients may be significantly different. The City's outreach plan will include considerations of this data.
Demographic and Housing Profile
Hurricane Sandy Estimated Units in Damaged Buildings
New York City

### Proportion of Units in Damaged Buildings

<table>
<thead>
<tr>
<th></th>
<th>Single-family (SF)</th>
<th>Multi-family (MF)</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Reconstruction</td>
<td>Rehabilitation</td>
<td>All SF Damaged Units</td>
</tr>
<tr>
<td>Overall</td>
<td>1.0%</td>
<td>48.2%</td>
<td>49.2%</td>
</tr>
<tr>
<td>Race of householder</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>White</td>
<td>89.5%</td>
<td>63.8%</td>
<td>64.4%</td>
</tr>
<tr>
<td>Black / Af. Amer.</td>
<td>5.8%</td>
<td>27.7%</td>
<td>27.2%</td>
</tr>
<tr>
<td>Asian</td>
<td>2.1%</td>
<td>3.6%</td>
<td>3.6%</td>
</tr>
<tr>
<td>Other</td>
<td>2.6%</td>
<td>4.9%</td>
<td>4.8%</td>
</tr>
<tr>
<td>Household Income</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>&lt;$25k</td>
<td>17.8%</td>
<td>24.9%</td>
<td>24.7%</td>
</tr>
<tr>
<td>$25-50k</td>
<td>16.5%</td>
<td>20.6%</td>
<td>20.5%</td>
</tr>
<tr>
<td>$50-75k</td>
<td>13.7%</td>
<td>15.7%</td>
<td>15.6%</td>
</tr>
<tr>
<td>$75-100k</td>
<td>16.3%</td>
<td>12.7%</td>
<td>12.7%</td>
</tr>
<tr>
<td>$100-150k</td>
<td>19.8%</td>
<td>15.2%</td>
<td>15.3%</td>
</tr>
<tr>
<td>$150k or more</td>
<td>15.8%</td>
<td>11.0%</td>
<td>11.1%</td>
</tr>
<tr>
<td>Homeownership</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Owner-Occupied</td>
<td>75.8%</td>
<td>51.9%</td>
<td>52.4%</td>
</tr>
<tr>
<td>Renter-Occupied</td>
<td>24.2%</td>
<td>48.1%</td>
<td>47.6%</td>
</tr>
<tr>
<td>Age of householder</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>65 years and over</td>
<td>30.1%</td>
<td>24.6%</td>
<td>24.7%</td>
</tr>
<tr>
<td>75 years and over</td>
<td>16.2%</td>
<td>12.2%</td>
<td>12.2%</td>
</tr>
<tr>
<td>85 years and over</td>
<td>4.8%</td>
<td>3.2%</td>
<td>3.2%</td>
</tr>
</tbody>
</table>

### Methodology
Demographic information (race, household income, and homeownership) was collected at the zip code-level for all zip codes in which one or more building was damaged by Hurricane Sandy. The overall demographic makeup of each zip code was assumed to apply in the same proportion to all units within damaged buildings in that zip code. Individual zip code-level results were then aggregated into a citywide demographic profile of units within damaged buildings.

### Data sources
U.S. Census, 2007-2011 5-year American Community Survey
NYC HRO Demand Assessment Model

1. 1- and 2-unit buildings
2. Buildings with 3 or more units
3. Note that % are of each column sub-section and are summed vertically, not horizontally.
### Demographic and Housing Profile

Hurricane Sandy Demographics of Most-Impacted Neighborhoods

New York City

<table>
<thead>
<tr>
<th>Top 10 neighborhoods by damage</th>
<th>Race of householder</th>
<th>Household income in the past 12 months</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>White</td>
<td>Black</td>
</tr>
<tr>
<td>Arverne</td>
<td>18.9%</td>
<td>72.9%</td>
</tr>
<tr>
<td>Bay Terrace, Staten Island</td>
<td>95.3%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Belle Harbor / Rockaway Park</td>
<td>88.4%</td>
<td>7.7%</td>
</tr>
<tr>
<td>Breezy Point</td>
<td>99.4%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Broad Channel</td>
<td>59.3%</td>
<td>33.2%</td>
</tr>
<tr>
<td>Canarsie</td>
<td>9.8%</td>
<td>83.0%</td>
</tr>
<tr>
<td>Coney Island / Seagate</td>
<td>68.8%</td>
<td>21.0%</td>
</tr>
<tr>
<td>Dongan Hills / New Dorp Beach</td>
<td>89.9%</td>
<td>3.1%</td>
</tr>
<tr>
<td>Manhattan Beach / Sheepshead</td>
<td>87.2%</td>
<td>2.5%</td>
</tr>
<tr>
<td>Bay / Brighton Beach</td>
<td>80.6%</td>
<td>5.1%</td>
</tr>
</tbody>
</table>

### Methodology

Proportion of units within damaged buildings represents the proportion of total damage, by damage type, across New York City. Demographic information is zip code-level Census information.

**Data sources**

- U.S. Census, 2007-2011 5-year American Community Survey
- HRO Demand Assessment Model

1. 1- and 2-unit buildings
2. Buildings with 3 or more units
3. Note that %’s are of each column sub-section and are summed vertically, not horizontally.
4. Selected neighborhoods are top ten zip codes by number of buildings requiring reconstruction or major rehabilitation.
5. In 2011 inflation-adjusted dollars
NYC Houses Rehabilitation and Reconstruction (Core Paths)

Program Objective and Description: Under this program, the City will offer three core paths to provide different assistance types for owners of homes that fall into one of the following three categories:

- **Reconstruction**: Residential property that has been destroyed or is more expensive to rehabilitate than to reconstruct;
- **Major Rehabilitation**: Residential property that is not destroyed but has substantial damage as assessed by the Department of Buildings; and
- **Rehabilitation**: Residential property that was damaged by Sandy, but is not destroyed and does not have substantial damage as determined by the Department of Buildings.

For these purposes, the City defines homes as single-family homes with one to two units that are either owner-occupied or occupied by a year-round tenant. This category also includes three- and four-unit buildings occupied by the owner. Note that under the specific Federal requirements for this disaster, CDBG-DR funds can only be used for primary residences, not second or vacation homes.

The program may also provide assistance for homeowners that have completed Sandy-related rehabilitation work with personal resources, subject to restrictions in line with applicable laws, regulations, and the program requirements (e.g., eligibility criteria, grant restrictions). In compliance with HUD guidance, only owners whose damage is considered less than substantial may be eligible for reimbursement. For those homeowners eligible for such reimbursement, the City may also provide the alternative of assistance for other eligible Sandy-related resilience measures, where consistent with Duplication of Benefits requirements. In general, priorities for reimbursement will be based upon financial need. Furthermore, applicants seeking reimbursements may, in general, be given lower initial priority for processing than applicants who are requesting funds for essential rehabilitation or reconstruction of their homes.

In the NYC Houses Rehabilitation and Reconstruction program, the property owner will receive access to a restricted grant/forgivable loan upon signing an assistance agreement. A restricted grant is funding to specifically support rehabilitation efforts as described above and that will impose requirements on the property in order to meet program priorities and prevent fraud, waste, and abuse. This program design is intended to help ensure compliance with program priorities; prevent fraud, waste, and abuse; and allow for scale. Restrictions on grants and direct payment procedures are based on lessons learned from previous disaster recovery programs.

Requirements associated with the restricted grant/forgivable loan may include the following conditions:

1. **Maintained Ownership**: The property owner must maintain ownership of the home for a period of up to five years, starting at the date of construction completion. The restricted period will decrease in cases where the estimated cost to rehabilitation is limited.

2. **Flood Insurance**: The property owner must maintain flood insurance in the amount and duration prescribed by FEMA’s National Flood Insurance Program (typically the cost of the project). Program policies and procedures will enumerate the distinct CDBG-DR flood insurance requirements for grants and loans.
The City will consider various mechanisms to enforce the assistance agreement. The dollar amount associated with the restriction will be prorated based on the years met within the restricted period.

The City’s residential programs will require that all rehabilitation, reconstruction, and new construction work adhere to the guidelines specified in the HUD CPD Green Building Checklist. Where feasible, new construction work will adhere to the Enterprise Green Communities Standard. Design and construction will comply with the accessibility requirements of all applicable federal, state, and local laws (as amended) including but not limited to: the American with Disabilities Act, the Fair Housing Act, Section 504 of the Rehabilitation Act of 1973, the Architectural Barriers Act, and Chapter 11 of the New York City Building Code.

For rehabilitation, homeowners may utilize a City-selected, qualified contractor or elect the option to select their own licensed contractor. For reconstruction, homeowners may work with qualified development teams including contractors, engineers, architects, and other professional service providers that will be selected by the City. Homeowners may also elect the option to select their own development team. Specific policies and procedures for this process will be distinct for homeowners in the rehabilitation and reconstruction program. In cases where homeowners select their own contractors, the same eligibility criteria and processes of the NYC Houses program will apply. In addition to the program requirements and parameters for CDBG-DR assistance, specific additional requirements and program controls for the homeowner and their selected contractor may include, but are not limited to, the following:

- The homeowner must make a commitment to achieve reconstruction within a reasonable timeframe that, at minimum, meets the CDBG-DR program requirement of expending funds within two years of obligation.
- The City will conduct a damage assessment, compliance review, environmental review in accordance with HUD and NEPA guidelines, and the homeowner and contractor must adhere to standards determined by the City, and agree to City construction supervision and inspections to ensure timeliness and quality.
- The contractor must be licensed and provide the City with a Performance Bond equal to or in excess of the cost of the work to be performed as assessed by the City.
- The Contractor must adhere to the unit pricing determined by the City through a competitive process.
- The homeowner and contractor must adhere to financial controls put in place by the City to ensure sound financial and project management including direct payments to the contractor based on City-conducted construction quality audits.

**Unmet Need**

For all program paths, the support will be limited to needs unmet by other disaster recovery assistance. For purposes of program calculations, the unmet need is defined as the estimated cost to rehabilitate less any other assistance received or available for the same purpose (e.g., insurance, SBA loans, other federal assistance). Criteria for determining unmet need include an analysis of the following:

- Funds received and spent on rehabilitation or reconstruction efforts in line with program parameters should reduce the unmet need;
• Funds received and not yet spent on rehabilitation or reconstruction efforts will be pooled with the assistance provided through the program and disbursed to support the rehabilitation or reconstruction efforts in line with the program parameters; and

• In instances where any funds already received and earmarked for housing rehabilitation or replacement have not been used for their intended purpose, the City will not replace that amount with grant/loan funding. However, recognizing that the homeowner may thus require more funding to complete rehabilitation, the City may offer assistance such as non-Federally-funded loans, with restrictions placed on the property, to meet objectives in a manner consistent with Duplication of Benefits requirements.

**Eligibility Criteria:** Owners of single-family homes (one to two units) in New York City who are eligible for CDBG-DR assistance and had their home impacted by Hurricane Sandy. This program category will also include three- to four-unit buildings that are owner-occupied. Landlord-owned buildings that are three to four units will be addressed by multi-family building rehabilitation assistance described below. There is no income limitation regarding eligibility; however, assistance will be prioritized based on income and level of damage. The program will prioritize those with lower incomes and more significant damage. Priorities are addressed below in "Program Priorities".

All residential buildings that act as a primary residence (whether owner-occupied or renter-occupied year-round) and were impacted by damage from Hurricane Sandy will be eligible. Second homes as defined by IRS Publication 936 are not eligible for assistance.

Homes that have suffered substantial damage will also qualify for assistance to mitigate against future losses and to comply with local building and zoning codes as adjusted to address future flood risk. Based on recent federal guidance (Federal Register Notice 78 FR 23578, published on April 19, 2013), the City will require that buildings elevated with CDBG-DR dollars adopt standards using the best available flood elevation data plus freeboard, a factor of safety specified in the Building Code. The City's intention is to utilize Preliminary Flood Insurance Rate Maps (P-FIRMs) when they are issued and to require that projects funded with CDBG-DR meet P-FIRM elevation plus freeboard, a factor of safety specified in the Building Code.

Homes with less severe damage may be eligible for assistance for resilience measures, funds permitting. The City is considering the viability of a more generally available mitigation program through funding mechanisms such as the Hazard Mitigation Grant Program, pending policy guidelines that will be put out by New York State. However, preliminary estimates suggest that available funding sources are far from adequate to support mitigation for homes beyond those that were the most severely impacted, with levels of damage requiring mitigation. As described below, the City will consider funding "discretionary resilience" for this category of properties if sufficient funding is made available. Some private associations may find that rehabilitation of their infrastructure is essential to the rebuilding of housing. In these cases, the infrastructure rehabilitation may be eligible for assistance.

**Program Priorities:** In order to address the greatest need with the limited amount of funding available, program priorities have been established. These priorities allow the program to assist New Yorkers with the greatest need based on level of damage and Area Median Income (AMI). Pending final information from HUD and FEMA on the Disaster Housing Assistance Program (DHAP), the program will prioritize DHAP recipients for rehabilitation and reconstruction.
Eligible applications will be reviewed to establish priority groups. The priority groups are divided into a relationship of highest level of damage coupled with the AMI of the primary household(s). For the purposes of determining priority in the case of a single-family home (one to two units) the income category of the entire building will be determined by the household with the lowest income.

- **Priority 1:** All eligible applications where owners/tenants are at or below 80% of AMI, and all eligible applications where owners/tenants are at or below 165% of AMI and properties were destroyed or severely damaged;
- **Priority 2:** All remaining eligible applications where owners/tenants are at or below 165% AMI (i.e. whose properties suffered major-moderate damage from Sandy); and
- **Priority 3:** All eligible applications where owners/tenants have an income of more than 165% of AMI.

**Grant/Loan Size Limit:** For each path, the level of the support will be limited based on rehabilitation standards as predetermined by the program administration team. The maximum scope of work, with associated maximum unit pricing, will be defined during intake through the program and its administrative entities. Payments in the amount of the grant/forgivable loan will go directly to the contractors. The City may consider placing limits on assistance for higher-income applicants and landlords, such as replacing grants with low interest loans or other limits, pending availability of future funds.

The scope of work will be defined as follows:

- **Reconstruction:** Assistance may consist of a choice among a set of pre-designed homes whose size and features are determined based on a combination of the household size and the pre-storm square footage. Pre-designed model homes may be utilized to boost the speed of construction and contain costs. The program will seek to offer designs appropriate to the neighborhood character to meet the needs and preferences of households and designs will be adaptable for accessibility requirements in compliance with Section 504 of the Rehabilitation Act of 1973.
- **Major Rehabilitation:** The level of assistance will be based on the cost to rehabilitate the property according to preset maximum unit pricing, using standard specifications for materials and level of quality as determined by private architects, engineers, and building contractors working with the Housing Recovery program. It will NOT be based on “in-kind” replacement. The property owner will also receive assistance based on the cost to add required resilience measures according to preset unit pricing.
- **Moderate Rehabilitation:** The level of assistance will be based on the cost to rehabilitate the property according to preset maximum unit pricing, using standard specifications for materials and level of quality as determined by private architects, engineers, and building contractors working with the Housing Recovery program. It will NOT be based on “in-kind” replacement.

**NYC Houses Rehabilitation and Reconstruction (Additional Paths)**

For owners, these programs will be second priority options for this funding allocation.

**Buyouts**

The City believes that buyouts can be an important component of an overall housing mitigation and resilience strategy in selected areas, alongside the resilience measures outlined elsewhere in this proposed
Action Plan. The City has developed a set of risk-based criteria that would make areas eligible for buyouts in New York City, and will work closely with New York State on advancing the program included in their Action Plan in targeted areas that meet these criteria. As a result, the City does not currently need to allocate any of its CDBG-DR funding for buyouts. Applicants interested in pursuing this option and who own property in the targeted areas will be referred to the State program through the City’s intake process. These applicants would be required to demonstrate that they will achieve a sustainable permanent housing solution (i.e., have options and financial ability to sustain themselves in a permanent housing solution).

Other Additional Paths

In addition to the core paths (rehabilitation and reconstruction assistance) described thus far, the City will provide other paths for assistance to owners of NYC Houses. These paths will be for limited assistance and targeted for specific areas to address clustered areas of damage with redevelopment that strengthens these communities against future risks or, in very limited cases, for owners seeking to undertake further resiliency measures but face a significant cost burden.

- **Acquisition for Redevelopment:** Under the NYC Houses Rehabilitation and Reconstruction program, the City will provide a program path to acquire properties for the rehabilitation or reconstruction of a home or cluster of homes in ways that mitigate future risks in limited and targeted cases. For example, the City could acquire homes or empty lots in an area where other homeowners have damaged properties but want to stay and support a broader reconstruction effort there. Different from buyouts, these acquisitions would be made at prices based on post-Sandy fair market values in compliance with HUD guidance. Such potential “smart” redevelopment would likely be limited to areas specifically targeted for this purpose by the City and community. Please note that the City will not use eminent domain for this activity.

All applicants to this program path will participate on a voluntary basis. Similar to buyouts, households that voluntarily take advantage of this path would be required to demonstrate that they will achieve a sustainable permanent housing solution. As part of the acquisition path, the City will provide interim relocation assistance toward such a permanent housing solution as part of an overall plan for “smart redevelopment”. The City will identify the types of assistance and eligibility criteria in an Optional Relocation Plan that is developed in conformance with HUD requirements.

- **Strategic Reconstruction:** In targeted areas, the City also intends to support reconstruction strategies for units or areas in which participating property owners request and envision a new density, structural, or design model, and organize around a specific solution. In these cases, there is not necessarily a change in landownership and all owners must voluntarily participate in the program. Please note that the City will not use eminent domain for this activity.

- **Additional Cost Assistance:** In extremely limited cases, where owners can justify and document the level of property damages directly related to Hurricane Sandy, and show that federal resources have otherwise been leveraged and that prior personal funds have been expended to rehabilitate these eligible property damages, the City will consider supplemental emergency payments for specific future activities to be undertaken related to the property, such as resilience measures or improvements to the structure. These cases would be limited to households that have a high level of financial need and would be means tested. In cases where new program-funded rehabilitation and resilience measures are performed, payments will be provided to offset additional cost burdens such as flood insurance and, in extremely limited and time-specific instances, mortgage assistance.
For example, interim assistance payments, if initiated, may be made in conjunction with a rehabilitation or reconstruction program during which a property is uninhabitable as described in 78 FR 14329, p. 14345. These payments are subject to availability of funding and will not be considered until after higher priority needs, as described in this Plan, have been addressed.

Subject to availability of additional CDBG-DR funds to meet the highest priorities for recovery, the City may also choose to undertake further recovery-related activities to address the remaining highest-priority unmet needs and fund efforts for post-Sandy resilience and redevelopment of damaged areas. Such activities would include, but are not limited to:

- **Discretionary Resilience Measures**: Funding for homeowners in areas at risk of future damage, but who did not suffer enough damage from Hurricane Sandy to require resilience measures in their reconstruction/rehabilitation. Potential funds used for this purpose would extend to homes which were not damaged, but are now facing higher insurance premiums due to the new ABFE’s and flood maps.

- **Investment Incentives**: Funding for incentives to enhance investment in impacted neighborhoods. This potential funding would be used to encourage homeowners in these neighborhoods to purchase nearby lots, and encourage residents from other neighborhoods to purchase homes in an impacted neighborhood. It would also be used for targeted redevelopment of severely impacted neighborhoods. Such investment incentives might take various forms, such as down-payment or closing cost assistance.

- **Essential Infrastructure**: Funding for infrastructure, which is owned by private associations, yet is essential to the rehabilitation or reconstruction of housing stock in a neighborhood.

**HUD Eligibility Category**: Rehabilitation/Reconstruction of Residential Structures, Construction of New Replacement Housing, Construction of New Housing, Acquisition (Buyout of Residential Properties), Acquisition of Property for Replacement Housing

**National Objective**: The program will serve populations that meet two National Objectives: those with an urgent need and those who are low- to moderate-income. All beneficiaries demonstrate an urgent need, as they live within a Presidentially-declared disaster zone. We expect that approximately 55% of funding for NYC Houses Rehabilitation and Reconstruction will be directed to low- and moderate-income households. This calculation is based on the self-reported income of damaged households who registered for FEMA assistance. It is expected that 22% of funding will be directed to extremely low-income households (less than 30% AMI), and another 33% of funding will be directed to low- to moderate-income households (above 30% AMI but below 80% AMI). Further, within the pools of homeowners needing reconstruction, major rehabilitation, and moderate rehabilitation, each is expected to see greater than 50% of funding directed to low- and moderate-income households.

**Projected Accomplishments**: Through this initial funding for NYC Houses Rehabilitation and Reconstruction, the City plans to serve a total of up to 1,000 units of low-, moderate-, and/or middle-income homeowners whose primary residences or rental properties with year-round tenants were destroyed or had major damage. In addition, the City plans to provide assistance to up to 8,300 low-, moderate-, and middle-income households whose primary residences experienced moderate damage. Given subsequent additional funding, this assistance would serve up to an additional 13,000 units of this type of housing.
**PERFORMANCE SCHEDULE:** The City will begin preliminary outreach to homeowners during the Action Plan review process and anticipates that intake and processing will begin in the spring of 2013. However, each situation will need to be individually scoped and addressed, which means that the rehabilitation work will likely start in the summer of 2013.

Examples of performance benchmarks may include:

- Number of applications received (% of target);
- Number of applications processed (% of received);
- Number of applications approved (% of processed);
- Value of grants awarded (% of total available);
- Average value of grants awarded;
- Percent spent on low/mod buildings and housing units;
- Number of households assisted;
- Number of buildings and housing units assisted; and
- Number of buildings and housing units with resilience assistance.

**Typical Flow for NYC Houses Rehabilitation and Reconstruction**

**Homeowner Intake and Case Management**

Upon approval of this program, the City intends to undertake a broad three-pronged outreach strategy, building on efforts to date, which may include the following:

- An internet and media campaign to describe program parameters, announce program intake and provide guidance on how to apply;
- Community outreach in neighborhoods that sustained damage, including communication with public officials, non-profits, and local community groups; and
- Direct community-based meetings, discussions, and forums to provide further guidance and capture feedback from impacted neighborhoods.

Owners of properties damaged by Sandy are expected to register either online, via phone, or by coming to any of the program-designated locations. Once registered, applicants would be assigned a Housing Recovery Specialist who will accompany the homeowner throughout the process.

The homeowner would then provide all required documentation to the Housing Recovery Specialist to answer questions. The Housing Recovery Specialist may also recommend partners that can provide an applicant technical counseling (legal, home finance, etc.).

The Housing Recovery Specialist will also assign an assessment expert to visit the homeowner’s property to assess the cost to complete rehabilitation. This expert will make an appointment with the homeowner to visit the property after registration is complete. The expert will document the required scope of work, type of damage, property size, and calculate estimated costs for use by the program in determining the amount and type of assistance required.
Financial and Eligibility Review

The homeowner documentation will be thoroughly reviewed by a dedicated team that will perform the following reviews:

- Validate homeowner and property eligibility and determine their priority;
- Conduct all compliance and duplication of benefit reviews and analyses; and
- Determine all activities required to finalize financial review (for example, determining follow-up required with SBA, Mortgage Servicer, etc.).

Examples of criteria for which documentation may be required include:

- Ownership (e.g., deed, mortgage documents);
- Residence of owner/tenant (where applicable) (e.g., utility bills);
- Level of available assistance, incremental to the City’s Housing Recovery Program (e.g., letters from insurance providers, FEMA grant documentation, SBA loan documentation); and
- Income (e.g., affidavits, tax forms).

The financial and eligibility review team will share the review results with the Housing Recovery Specialist.

Determination of Unmet Need and Rehabilitation/Reconstruction Path

The Housing Recovery Specialist will receive the cost to complete estimate from the assessment expert as well as the financial review file, documenting all resources and assistance already received by the homeowner. Based on these two inputs, the Housing Recovery Specialist will determine the unmet need and will work with the homeowner to determine the most appropriate path for the property. For example, it might be determined by the Housing Recovery Specialist, with approval from program management, that reconstructing a property that requires major rehabilitation is more cost effective that rehabilitating it and increasing its resilience.

The Housing Recovery Specialist will meet in person with the homeowner to describe the options and next steps. The Housing Recovery Specialist will then transition the homeowner to the appropriate path and ensure a first contact has been made with the customer service representative associated with that path.

Ongoing Homeowner Point of Contact

Each path will provide specific “customer service” and housing counseling to the homeowner throughout the rehabilitation/reconstruction process. However, the initial Housing Recovery Specialist will remain an available homeowner point of contact throughout the entire process, allowing for continuity of service.

Examples of Expected Typical Scenarios

The four following examples illustrate how single-family homeowners might receive assistance via the NYC Houses Rehabilitation and Reconstruction path. Please note that the examples are for illustrative purposes only, and do not limit or define the range of all the options that may be offered to applicants. The priority focus of these programs will be to accommodate applicants and to adjust and adapt within HUD guidelines to meet their specific needs. Actual program implementation may look different for each homeowner depending upon the homeowner’s contractor selection pathway.
• **Example 1:** A property needing reconstruction, for which funding (e.g., insurance) has already been received and set aside for its intended purpose.

• **Example 2:** A property needing major rehabilitation for which no additional resources have been identified.

• **Example 3:** A property needing moderate rehabilitation, for which enough additional resources have been identified that the unmet need is relatively small.

• **Example 4:** A property needing reconstruction, where the homeowner has significant SBA loan funding available.

**Example 1: Rebuild, with insurance and other funding already received**

Mrs. Smith's 1,800-square-foot, 2-bedroom, 2-bathroom home was destroyed by Hurricane Sandy. Her insurance company provided her $150,000 in funding, of which $110,000 was provided for the purpose of rebuilding her home.

After hearing about the City's assistance options at a neighborhood information session, Mrs. Smith registers for NYC Houses Rehabilitation and Reconstruction assistance. She is immediately assigned a Housing Recovery Specialist and an assessment expert. She meets with the Housing Recovery Specialist to submit the documents that she needs to provide. After making an appointment, the assessment expert visits her home to estimate the required scope of work and potential costs.

The documents Mrs. Smith provides demonstrate that she fulfills the eligibility requirements to receive assistance under the program. She has received $31,900 from FEMA – $20,000 of this was intended for the rebuild of her home (the remaining $11,900 was intended for rental assistance). She also received $20,000 from a New York State philanthropic fund. She has not used any of this money, nor the $110,000 she received from her flood insurance company for rebuilding.

The site visit results in an assessment confirming that the home was destroyed, and indicating that there are no special considerations resulting from the land or parcel conditions of the property. Based on the size of Mrs. Smith’s household and the pre-storm square footage of her home, the assessment expert estimates that it would cost approximately $200,000 to build a pre-designed model home for Mrs. Smith at the program's elevation requirements based on best available data plus freeboard, a factor of safety specified in the Building Code.

The assessment and Mrs. Smith’s documents form a complete application package, which is then reviewed by the financial review and eligibility team. The team determines that Mrs. Smith will receive a restricted grant of up to $50,000 to fill her unmet need (based on the total $200,000 construction costs minus $150,000 in combined funding already received for the purpose of rebuilding her home). The Housing Recovery Specialist then meets with Mrs. Smith again, describes to her the details of her assistance offer, including the size of the grant along with associated restrictions. The Housing Recovery Specialist also explains any alternative options available (e.g., buyout from New York State).

The Housing Recovery Specialist may also preview a sample of potential designs for model homes that Mrs. Smith may choose from. If Mrs. Smith is not comfortable with deciding on her assistance path, the Housing Recovery Specialist can refer her to outside counseling for financial or legal guidance (e.g., financial analysis of each option, including the possible costs of relocating and the fair market value of similar homes in her area).
Mrs. Smith decides to rebuild, utilizing the restricted grant program. Her $150,000 in received funding is combined with the City's grant funding for use in the rebuild. The Housing Recovery Specialist refers her file to the rebuild path for assistance and arranges a first meeting with the designated general contractor (GC).

Mrs. Smith and the designated contractor would then finalize the agreement for assistance and select an appropriate model home, including some options for customization (e.g., paint color, window design). Over the course of construction, construction supervisors will help ensure work is being done on time and to quality standards. The City will make direct payments to the contractor. The Housing Recovery Specialist will continue to check in with Mrs. Smith as the construction continues to ensure that she is satisfied with the assistance she has received.

**Example 2: Major Rehabilitation, with insurance, but no other prior funding received**

Mr. Jones’ 2-bedroom, 1,200-square-foot bungalow-style home sustained substantial damage from flood waters during Hurricane Sandy. Mr. Jones, who has a mortgage on his home, has flood insurance.

After hearing about the City’s options for assistance on the radio, Mr. Jones registers for NYC Houses Rehabilitation and Reconstruction assistance. He is immediately assigned a Housing Recovery Specialist and an assessment expert. He meets with the Housing Recovery Specialist to submit the documents that he needs to provide. After making an appointment, the assessment expert visits his home to estimate the required scope of work and potential costs.

The documents Mr. Jones provides demonstrate that he is eligible for assistance under the program. He has received $10,000 from FEMA, all of which was intended for the rehabilitation of his home, and none of which has been spent. He has also received $5,000 from philanthropic organizations, but it was for heating oil, not for rehabilitation. His insurance company has decided to award him $70,000, though only $40,000 of this award was intended for rehabilitation of his home. Finally, NYC’s Rapid Repairs program completed $15,000 worth of work on his home.

The site visit results in an assessment estimating that it would cost $75,000 to rehabilitate Mr. Jones’ home, which is more than half of the estimated $130,000 market value of the structure, thereby confirming that the home is "substantially damaged". Though the expert determines the scope of work does not require complex rehabilitation, this level of damage requires the home to be rehabilitated in compliance with current building codes and elevated above the floodplain. The assessment expert estimates that to do so would cost an additional $50,000, for a total rehabilitation cost of $125,000. The assessor also estimates that it would cost more than $125,000 to demolish the existing structure and build a new home in its stead, thereby ruling out the option for assistance to rebuild instead of rehabilitate Mr. Jones’ home.

Together, the assessment and Mr. Jones’ documents form a complete application package, which is then reviewed by the financial review and eligibility team. The team determines that Mr. Jones will receive a restricted grant of up to $75,000 to fill his unmet need (based on the total $125,000 construction costs minus the $50,000 already received for the purpose of rehabilitating his home). The Housing Recovery Specialist then meets with Mr. Jones again, and describes to him the details of his assistance offer, including the size of the grant along with associated restrictions. The Housing Recovery Specialist also explains any alternative options available (e.g., buyout from New York State).
If Mr. Jones is not comfortable with deciding on his assistance path, the Housing Recovery Specialist can refer him to outside counseling for financial or legal guidance (e.g., financial analysis of each option, including the possible costs of relocating and the fair market value of similar homes in his area).

Mr. Jones decides to accept rehabilitation assistance using the restricted grant program. His $50,000 in received funding is combined with the City’s $75,000 grant for use in the rebuild. Given that the assessment has determined the rehabilitation effort required is not complex (compared to a rebuild), the Housing Recovery Specialist refers Mr. Jones’ file to the moderate rehabilitation path for assistance, rather than the major rehabilitation path. The coordinator arranges a first meeting with the designated general contractor (the team managing the moderate rehabilitation path assigns the GC).

Mr. Jones and the designated contractor then finalize the agreement on the rehabilitation and resilience strategies and options, including any available options for customization (e.g., cabinet design), and the rehabilitation and resilience begin. Over the course of construction, construction supervisors will help ensure work is being done on time and to quality standards. The City will make direct payments to the contractor. The Housing Recovery Specialist will continue to check in with Mr. Jones as the construction continues to ensure that he is satisfied with the assistance he has received.

**Example 3: Moderate Rehabilitation, relatively low amount of unmet need**

Ms. Garcia’s attached home sustained some water damage and flooding during Hurricane Sandy. Though the property was not previously in a flood hazard zone, Ms. Garcia did have flood insurance, and received an award in the amount of $20,000. She also received FEMA IA in the amount of $5,000. Ms. Garcia did not sign up for NYC’s Rapid Repairs program as her home was considered livable.

After reading about the City’s assistance options on the internet, Ms. Garcia registers for NYC Houses Rehabilitation and Reconstruction assistance. She is immediately assigned a Housing Recovery Specialist and an assessment expert. She meets with the Housing Recovery Specialist to submit the documents that she needs to provide. After making an appointment, the assessment expert visits her home to estimate the required scope of work and potential costs.

The documents Ms. Garcia provides demonstrate that she is eligible for assistance under the program. She has received $5,000 from FEMA, all of which was intended for the rehabilitation of her home, and none of which has been spent. She expects to receive $20,000 from her insurance company, but only $10,000 of this money is intended for rehabilitation purposes.

The site visit results in an assessment estimating that it would cost $18,000 to repair Ms. Garcia’s home. Given that this is not greater than 50% of the value of the structure, Ms. Garcia is not required to elevate her home above the new Advisory Base Flood Elevation. The Housing Recovery Specialist tells Mrs. Garcia that the City is considering the viability of other programs intended to support resilience measures such as elevation and that the State may be obtaining funding for a program that could support mitigation; however preliminary estimates indicate that there is not sufficient funding sources available at this time to elevate homes that are not considered “substantially damaged”.

Together, the assessment and Ms. Garcia’s documents form a complete application package, which is then reviewed by the financial review and eligibility team. The team determines that Ms. Garcia will receive a restricted grant of up to $3,000 to fill her unmet need (based on the total $18,000 construction costs minus $15,000 already received for the same purpose). The Housing Recovery Specialist then meets with Ms. Garcia again, and describes to her the details of her assistance offer. These include the size of the grant...
along with associated restrictions, the list of pre-selected contractors she may choose from, and any alternative options that are available. If Ms. Garcia is not comfortable with making the choice, the Housing Recovery Specialist can refer her to outside counseling for financial or legal guidance.

Ms. Garcia decides to accept rehabilitation using the restricted grant program. The Housing Recovery Specialist refers her file for assistance via the moderate rehabilitation path and arranges to have a construction supervisor assigned to her case. The Housing Recovery Specialist also provides Ms. Garcia with information on how to submit her invoice for payment once the work has been completed.

After the work is complete, Ms. Garcia submits her invoice for payment. The construction supervisor will be responsible for visiting Ms. Garcia's home once to confirm that the work that the contractor invoiced has been completed, and then authorizes payment to that contractor.

The Housing Recovery Specialist will remain available as a point of contact for Ms. Garcia to ensure that she is satisfied with the assistance she has received.

Example 4: Rebuild, with significant SBA loan funding available

Mr. Lee's 4-bedroom, 2,500-square-foot home was destroyed by Hurricane Sandy. Mr. Lee had recently paid off his mortgage, and he had let his flood insurance lapse. He has received some assistance from FEMA IA and New York State. He also applied for a Small Business Administration (SBA) Disaster Loan.

After reading about the City's assistance options in the newspaper, Mr. Lee registers for NYC Houses Rehabilitation and Reconstruction assistance. He is immediately assigned a Housing Recovery Specialist and an assessment expert. He meets with the Housing Recovery Specialist to submit the documents which he needs to provide, and the assessment expert visits his home.

The documents Mr. Lee provides demonstrate that he is eligible for assistance under the program. He has received $31,900 from FEMA, with $20,000 of this intended for the rebuild of his home. He also received $20,000 from New York State philanthropic funds. Finally, he has been approved for the maximum $200,000 from SBA for a low-interest disaster loan. He has not yet used any of the money available to him.

The site visit results in an assessment confirming that the home was destroyed, and indicating that there are no special considerations resulting from the land or parcel conditions of the property. Based on the size of Mr. Lee's household and the pre-storm square footage of his home, the assessment expert estimates that it would cost $300,000 to build a pre-designed model home for Mr. Lee at the new Advisory Base Flood Elevation and incorporating the most current building codes.

Together, the assessment and Mr. Lee's documents form a complete application package, which is then reviewed by the financial review and eligibility team. The team determines that Mr. Lee is eligible to receive a restricted grant of up to $60,000 to fill his unmet need (based on the total $300,000 construction costs minus $240,000 funding already received for the same purpose). They refer the case to SBA for an increase in the loan size. SBA agrees with the assessment of the size of the unmet need, but declines to increase the size of the loan. At this point, the financial and eligibility review team confirm that Mr. Lee will receive an offer for a restricted grant of up to $60,000.

The Housing Recovery Specialist then meets with Mr. Lee again, and describes to him the details of his assistance offer. These include the size of the grant along with associated restrictions, some potential designs for modular homes he may choose, and any alternative options that are available (e.g., buyout from
New York State, custom design, etc.). Due to his particular situation, the Housing Recovery Specialist may also present Mr. Lee with the option of choosing not to use the predesigned model homes, and instead supervising his own custom rebuild with either his designated contractor or a contractor of his choosing. If Mr. Lee is not comfortable with making any of these choices, the Housing Recovery Specialist can refer him to outside counseling for financial or legal assistance (i.e., financial analysis of each option, including the possible costs of relocating and the fair market value of similar homes in his area).

Mr. Lee decides to rebuild utilizing the restricted grant program, and selects the designated contractor. His $240,000 in received funding is combined with the grant for use in the rebuild. The Housing Recovery Specialist refers his file to the rebuild path for assistance and arranges a first meeting with the designated general contractor (the team managing the rebuild assistance path assigns the GC).

Mr. Lee and the designated contractor would then finalize the agreement for assistance and select an appropriate model home, including some options for customization (e.g., paint color, window design). Over the course of construction, construction supervisors will help ensure work is being done on time and to quality standards. The City will make direct payments to the contractor and the Housing Recovery Specialist will continue to check in with Mr. Lee as the construction continues to ensure that he is satisfied with the assistance he has received.

**Rental Assistance**

Please note that this activity was originally reflected under the NYC Houses Rehabilitation and Reconstruction program in the draft CDBG-DR Action Plan A. However, the City received a significant number of public comments questioning whether applicants must be participating in the NYC Houses Rehabilitation and Reconstruction program in order to be eligible for assistance, which is not the case. In order to clarify this, the City has broken out this activity, as already described, as a separate program.

**Program Objective and Description:** The City will use CDBG-DR funds to create a rental subsidy program to serve households displaced by Hurricane Sandy for up to 24 months. The City will assist households in finding apartments in the existing affordable housing portfolio, or participants may identify their own apartment. Clients will sign leases directly with the property owners, and will be responsible for paying up to 30% of income in rent. The City will use CDBG-DR to cover the gap between the contract rent and tenant share and to cover the first and last months’ rent to facilitate lease up as smoothly as possible. To the extent practical, the program will be modeled to follow the regulations and procedures of Section 8 (units must pass Housing Quality Standards, etc.). The NYC Department of Housing Preservation and Development (HPD), which will oversee the program, successfully created a rental subsidy program from HOME funding to meet emergency rental assistance needs in the past, which was also based on the Section 8 model. All applicants must provide a pre-storm address and an explanation as to why they cannot return to their pre-storm residence.

The City recognizes that a CDBG-DR rental subsidy is only a bridge to permanent housing. During the two year subsidy period, the City will work with families to ensure they remain stably housed. The City anticipates some flow of Public Housing and potentially Section 8 units available. The City will transition participants to any vacancies that open during the 24 month period on a flow basis (i.e. households need not have exhausted their two years of rental assistance to qualify for a vacancy). HPD will also outreach to owners and managers of various properties with project-based subsidies that will have vacancies over time, to create another pipeline of permanent housing options.
In addition, HPD has recently implemented a 25% marketing preference for households displaced by Sandy in new development projects. All recipients of rental assistance will qualify for this preference. New units will not be the answer for every household, since even affordable housing programs have income floors, but this will be a helpful option for a portion of participants.

Finally, the City will seek ways to boost household income, so that participants are better able to afford suitable housing after program expiration. For example, the City will attempt to link households to income support payments for which they are eligible, but not currently enrolled. Outreach to participants will be ongoing during the two year subsidy period to try to avoid emergency situations at the end of the subsidy window. Households may also be linked to financial counseling.

In order to implement this rent subsidy program, the City asked HUD to waive the rule that limits income support payments to 90 days. The City received waiver approval from HUD, and HPD anticipates launching the rental subsidy program shortly. Once CDBG-DR funds are available, the City will reimburse costs retroactively.

**Eligibility Criteria:** Eligibility for the Rental Assistance program will be limited to displaced households at or below 50% of Area Median Income. Households that have already rejected a Public Housing or Section 8 placement offered through the HPD Housing Portal will not be eligible.

**Program Priorities:** To prevent homelessness among low-income households that were displaced by Hurricane Sandy and face significant barriers to relocation. Priority will be given to households that meet at least one of the following criteria:

1. Households residing in transitional housing placements (hotels, shelters) due to the storm;
2. Households with non-conventional pre-storm housing (e.g. illegal units, doubled-up, rooming houses, etc.);
3. Households with expiring FEMA rental assistance; and/or
4. Households that registered through the HPD Housing Portal and were not offered placements.

**Grant/Loan Size Limit:** Households may lease apartments with rents up to 110% of New York City Fair Market Rent. Subsidies will last up to two years, and may include first and last months’ rent. Actual subsidy per household will vary by household income and size, rent, and duration of subsidy.

**HUD Eligibility Category:** Public Services

**National Objective:** Low- and Moderate-Income Housing

**CDBG-DR Allocation:** $9,000,000; the City anticipates adding additional funding when the Action Plan is amended.

**Projected Accomplishments:** 600 households

**Performance Schedule:** Rent subsidies will be limited to 24 months.
Other Funding Sources: This program would operate in conjunction with the Federal Disaster Housing Assistance Program (DHAP).

Although CDBG-DR funded rental assistance may bridge to DHAP or other rental subsidies, tenants may not receive more than one rental subsidy simultaneously.

Multi-Family Building Rehabilitation

Program Objective and Description: The City has allocated $225 million for rehabilitation loans for multi-family (five units or more) housing. This category will also include three- to four-unit, non-owner-occupied buildings.

Funds will be used throughout the City, and will serve a wide range of housing types, including market-rate properties, HUD-assisted properties, permanent housing for the homeless, and private market units receiving project-based assistance or with tenants that participate in the Section 8 Housing Choice Voucher Program.

As mentioned previously, HPD plans to spend at least $10 million of these funds to rehabilitate and build supportive housing projects that will serve chronically homeless individuals with a variety of special needs, such as mental illness or addictions. On-site supportive services would be provided through a variety of City- and State-funded contracts to ensure that these individuals remain stably housed. Investment in these projects will add to the supply of permanent housing for pre-storm homeless. In addition, the City will actively seek opportunities to convert damaged nursing homes, rooming houses, and other appropriate facilities to supportive housing. However, because these properties are privately-owned, the pipeline and therefore the funding allocation for these projects are uncertain.

HPD also plans to spend at least $75 million of the program’s funds to rehabilitate and retrofit existing affordable housing developments. The portfolio of existing affordable housing includes HUD-assisted housing such as Section 202 senior housing, projects that received Low Income Housing Tax Credits, and developments created through the State Mitchell-Lama program (many of which have or had Federal mortgage subsidies). In addition, HPD will work with HUD to identify any HUD-assisted projects that are not yet in the City's identified pipeline, but which are in need of CDBG-DR funds to recover from Sandy.

The CDBG-DR funds will be conveyed as low- or no-interest loans, which may be forgiven depending on property specific circumstances, or as restricted grants.

CDBG-DR funds can be used to reconstruct/rehabilitate property damaged by Hurricane Sandy, and to implement resiliency measures. On a case by case basis, the City will also consider scopes of work that include non-storm-related elements. Non-storm-related scope items will be approved only when the work is necessary to maintain the property as a viable housing resource in a storm-impacted community. All work must meet Enterprise Green Communities standards for environmentally sustainable construction.

Lending Options

The City will employ three different mechanisms for making CDBG-DR-funded rehabilitation loans.
1. **Direct lending:** The City will lend funds directly to owners of impacted buildings. The City will use CDBG-DR to expand three extremely successful, existing loan programs – the Article 8A loan program, the Participation Loan Program (PLP), and the Supportive Housing Loan Program – to meet the needs of buildings damaged during Sandy. Article 8A loans are public money only, and will serve buildings without capacity to absorb additional debt, while PLP loans blend private and public money to serve properties that can support debt service payments. The Supportive Housing Loan Program finances housing for special needs populations that includes on-site social services. In most cases, these programs will be used to serve buildings with more than 100 units, and which are not currently subject to affordability requirements.

2. **Partner lending:** The City anticipates entering into a sub-recipient agreement with one or more Community Development Financial Institutions (CDFIs) to administer rehabilitation loans to buildings with fewer than 100 units. The CDFI, under HPD oversight, will be responsible for outreach to owners, underwriting of loans, and servicing of funds. HPD will participate in the CDFI review of loans for viability, monitor the CDFI implementation of CDBG-DR requirements such as duplication of benefits and income certification, and have lead responsibility for NEPA review and Davis-Bacon monitoring.

3. In addition, HPD will work closely with the Housing Development Corporation (HDC), a New York State public benefit corporation that finances multi-family affordable housing in New York City. HPD and HDC will collaborate on outreach to and underwriting of loans for impacted affordable housing developments in the HPD and HDC asset management portfolios. All asset management properties should meet the low- and moderate-income threshold. HDC will service loans and asset manage the properties.

The share of funds channeled through each lending mechanism will vary depending on the level of interest and need seen in different segments of the housing market.

In some cases, building owners may have self-funded emergency stabilization needs in the immediate aftermath of the storm. If the owner can document that building conditions represented an urgent threat to health and safety, meets all CDBG-DR eligibility requirements, and that he/she received no other financial assistance (FEMA, SBA, insurance, charitable gifts) to pay for this work, CDBG-DR funds may be used to cover these costs. It is expected that very few buildings will qualify for this assistance.

In other instances, owners have self-funded rehabilitation work to address immediate needs after the storm that were critical to restoring habitability, but which do not meet the definition of emergency stabilization described above. In limited cases, where this has created financial hardships that jeopardize the owner’s ability to make mortgage payments, HPD may use CDBG-DR funds to make loan payments for up to 12 months. Mortgage assistance will only be available to owners who are also receiving CDBG-DR funds to do additional rehab work to address unmet needs.

In addition to the funding mechanisms described above, the City will consider funding to acquire properties for the redevelopment of a building or cluster of buildings in ways that mitigate future risks. For example, the City could acquire buildings or empty lots in an area where other owners have damaged properties but want to stay, and then support a broader redevelopment effort. These voluntary acquisitions would be made at prices based on post-Sandy fair market values. Such potential "smart" redevelopment would likely be limited to areas specifically targeted for this purpose by the City and community, and will include funding for relocation of tenants as necessary in accordance with HUD and URA requirements (e.g., moving costs and temporary or permanent housing assistance). This program will not use eminent domain.
**Regulatory Compliance**

The originating lender (the City or CDFI) will be responsible for ensuring compliance with the following:

- Income certification: collecting an affidavit from each household documenting size and income; and
- Accessibility: All projects are subject to Section 504 of the Rehabilitation Act of 1973, as amended.

The City will be responsible for ensuring compliance with the following:

- Environmental review: All projects must go through National Environmental Policy Act (NEPA) review; and
- Davis-Bacon: Where applicable, contractors will have to submit payroll records to HPD for review. Any contractor not paying the applicable prevailing wage rates will have funds withheld, will be required to reimburse workers, and will potentially be subject to additional penalties.

This program will also include funding for City staff working on loan programs. Eligible titles include, but are not limited to, project managers to review loan underwriting, environmental review experts, labor monitors, construction/engineering staff, and attorneys.

**Eligibility Criteria:**

- Owners of rental properties, co-ops, and condos with five units or more.
- Owners of three- to four-unit buildings that are not owner occupied.

All owners of multi-family buildings, rentals, cooperatives, or condominiums that are located in the five boroughs of New York City and that have suffered damage from Hurricane Sandy will qualify for assistance to rebuild, rehabilitate, and, in the case of buildings with substantial damage, mitigate against future losses to comply with local building and zoning codes as adjusted to address future flood risk. Also, some private associations may find that rehabilitation of their infrastructure is essential to the rebuilding of housing. In these cases, the infrastructure rehabilitation may be eligible for assistance.

**Program Priorities:**

- Properties requiring loans to restore basic habitability;
- Significantly damaged buildings with basic services restored but in need of major rehabilitation; and
- Buildings serving the most at-risk demographic populations.

**Grant/Loan Size Limit:** Loans will be capped at $200,000 on a unit basis, including both rehabilitation and resiliency scope items. Exceptions may be granted as determined by the City program management. However, the City anticipates that the average loan will be substantially smaller, approximately $20,000 per unit.

**HUD Eligibility Category:** Rehabilitation/Reconstruction of Residential Structures, Acquisition of Property for Replacement Housing
**NATIONAL OBJECTIVE:** The Multi-Family Building Rehabilitation program will primarily meet the Low- and Moderate-Income Housing national objective. HPD, HDC, and CDFIs will attempt to collect income certifications from all tenants in buildings receiving CDBG-DR-funded loans, but the City also anticipates that some buildings with largely higher-income tenants will require assistance. In the aggregate, the City anticipates that approximately 67% of the 13,000 units will serve low- and moderate-income households.

If a property requires rehabilitation financing, but cannot meet the Low- and Moderate-Income Housing national objective, it will qualify as Urgent Need.

**CDBG-DR ALLOCATION:** $225,000,000

**PROJECTED ACCOMPLISHMENTS:** Approximately 13,000 units, including market-rate properties, HUD-assisted properties such as developments with 202 or 236 contracts, permanent housing for the homeless, and private market units receiving project-based assistance, or with tenants that participate in the Section 8 Housing Choice Voucher Program.

**PERFORMANCE SCHEDULE:** New York City agencies will begin preliminary outreach to property owners during the Action Plan review process and anticipates that lending will begin in the summer of 2013. However, each project will need to be individually scoped and designed and will require permits and, in some cases, zoning review. As a result, rehabilitation work will likely start in the fall of 2013. In HPD’s experience, large scale rehabilitation projects require an 18- to 24-month construction period (after the pre-development phase just described). In the course of construction, HPD typically holds back a portion of loan funds, as well as after construction is substantially complete as a tool to ensure that compliance requirements, such as filing of all Davis-Bacon paperwork, Fair Housing requirements, etc. are met.

As a result, expenditures may lag construction. While the City will make every effort to ensure a speedy and effective program delivery, it is likely that the City may need to seek an extension of the 24-month expenditure period.

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**Public Housing Rehabilitation and Resilience**

**PROGRAM OBJECTIVE AND DESCRIPTION:** Under this program, improvements will be made to the City's public housing infrastructure. These improvements are intended to perform direct rehabilitation, replace critical systems and building infrastructure, and install new measures that will restore buildings systems and services to pre-storm conditions, strengthening the buildings by making the new systems more resilient, and further promoting the preservation of the public housing asset with the implementation of sustainable designs. The program elements have been designed to address the diverse building infrastructure in NYCHA’s current portfolio.

The City will allocate $108 million to design and construct improvements to public housing directly impacted by Hurricane Sandy. The first phase of this program will include the installation of permanent emergency generators or alternate measures to enhance power resiliency at NYCHA’s most vulnerable buildings that were impacted. Accordingly, a portion of this allocation will be used as the non-federal share for FEMA Public Assistance projects.
Improving resiliency by activities such as adding permanent emergency generators at the remaining critical NYCHA buildings in Zone A will cost an additional $130 million and may be funded from future CDBG-DR tranches. NYCHA is considering the most cost effective and sustainable options to address this issue at the most vulnerable buildings and developments.

In addition, NYCHA is considering other efforts that include:

- Strengthening emergency response and preparedness for future floods with initiatives such as a new Emergency Operations Center, a standard Incident Command Structure-based system, and rehabilitating a total of 90 Community Centers located in Zone A.
- Increasing the resilience to mitigate future flood risk at NYCHA developments by implementing basic resiliency and mitigation measures (i.e. raised boilers and electrical switch gear) to all buildings in the new Zone A.

As previously described, many NYCHA developments sustained direct and substantial damage as a result of Sandy. However, a number of developments were also impacted through the loss of critical utility service, such as electricity and/or steam, when Hurricane Sandy impacted the infrastructure of those utility providers. In some cases, impacts were abated when service was restored. In other cases, minor flooding occurred due to the loss of pumps and other circumstances. Those minor issues were typically abated shortly after restoration of the utility with more routine maintenance measures. Despite the minor physical impacts in some developments, due to the facilities’ reliance on outside utilities, NYCHA’s residents were left with no heat, hot water, lights, water, or elevator service and many have expressed a feeling of being trapped in their apartments. There was very little NYCHA could do in these cases to support the residents.

Accordingly, under this program, NYCHA will consider all locations that were impacted, whether substantially or indirectly through utility loss, to implement improvements that will allow these facilities to be more resilient and better serve their residents. Efforts will be aimed at ensuring that the building infrastructure, and its occupants, are not impacted at all and see no loss of service when outside utilities are lost.

**Eligibility Criteria:** With a wide variety of building types in all five boroughs and a program with multiple priorities, the threshold and other criteria for determining eligible properties may vary slightly. However, all NYCHA buildings that have been impacted by damage from Hurricane Sandy, are located within the flood zone, or are otherwise vulnerable to future storms may be eligible.

**Program Priorities:** Each eligible property will be carefully assessed according to the program priorities. Criteria that will be considered for selection of properties include: level of building damage; number of residents; resident population (e.g. seniors, vulnerable populations); whether or not it is a high rise building; services potentially impacted; and location of critical equipment. Priority would be given to the most vulnerable of NYCHA’s residences such as senior buildings, 504 apartments, buildings with life sustaining equipment, and community/senior centers, etc.

**HUD Eligibility Category:** Rehabilitation/Reconstruction of Residential Structures

**National Objective:** Funding for restoration and resiliency will provide direct and long lasting benefits to all residents of a building. For example, permanent emergency backup generators to power critical...
building systems will provide residents safe egress via elevators, enhance resident safety by providing emergency lighting, and allow for sheltering in place by ensuring domestic water, heat, and hot water can continue to be delivered.

**CDBG-DR Allocation:** $108,000,000

**Projected Accomplishments:** The program as a whole could have an impact on 300,000 NYCHA residents in nearly 180,000 units; benefits will be realized by approximately 80,000 residents who were significantly impacted by the storm. The first phase of this program is focused on 100 buildings with a population of approximately 20,000 residents.

**Performance Schedule:** NYCHA is currently preparing proposed design documents to address the rehabilitation and resiliency needs at each of the impacted NYCHA developments. It is anticipated that most resiliency measures will be implemented together with required rehabilitation work, with construction at some developments projected to begin as early as spring 2013. Construction developments with more complex improvements could take more than a year to complete.
VIII. BUSINESS

Needs Assessment

Impact to the City’s Economy

Hurricane Sandy's impairment of the City's economy falls into two categories. The first is the economic activity that was interrupted or irreversibly lost due to the storm. This includes activities such as cancelled tourist visits, business loss due to shuttered offices, and wages not paid to workers who could not commute into the affected region. The second is the outright damage to residential housing, buildings, businesses, and public infrastructure, which can be viewed as a reduction in the City's wealth and stock of productive resources.

Disruption of City’s Economy

In NYC, record-breaking storm surges hit Lower Manhattan and the coastal areas of Staten Island, Queens, and Brooklyn, damaging transportation, energy distribution, and telecommunications infrastructure, which led to sustained disruptions to businesses and their employees. The primary economic indicator of Sandy’s impact is the weekly initial jobless claims data for New York State. Jobless claims jumped by about 44,000 claims in the week following the storm. Moody's Analytics estimates that in November, about 20,000 jobs were lost in the five boroughs of NYC, primarily in leisure and hospitality, local government, and education and healthcare.

Soon after Sandy moved out of the area, Moody's Analytics published initial estimates of lost output for the affected region, which stretched from Washington, D.C. to Bridgeport, CT. The estimates were derived from Moody's regional economic models and assumptions regarding the scope and duration of the disruption. Furthermore, their analysis took into account historical patterns noted in previous disasters; while most sectors are harmed, activity in others – such as the construction and manufacturing sectors – is actually enhanced. Moody’s provided net estimates of base losses which account for both of these effects. From these base estimates, Moody’s then scaled their values by the IMPLAN sector multipliers to include the additional impacts that losses would inflict on other parts of the economy. Their total net loss figure was $19.9 billion for the impacted region.

These aggregate estimates by sector were shared down to the five boroughs of New York City by NYC OMB using Moody's Analytics’ county-level GDP estimates and then allocated to wage and business losses. Using this methodology, total losses in NYC economic activity is estimated to be $5.7 billion. Of this $5.7 billion, $2.4 billion is in the form of lost wage earnings, while $2.0 billion is due to lost business activity. The remaining losses were allocated to “All Other”. Additional details are shown in the following table titled, “Sectoral Table of Economic Losses”.

NYC OMB had to make certain assumptions to distribute the losses between wages and business surplus. The wage portion (49%) was estimated from OMB's economic model of the City and represents the total wage earnings in NYC in 2011 as a share of Gross City Product. The business share (40%) was derived from the 2010 Gross Operating Surplus for NY State as a share of NY GDP.

In January 2013, Moody's published an update to their original estimates. These new results increased the total net economic losses to the affected region to $25 billion. They also provided a breakdown of losses by region, and ascribe $10.3 billion of this loss to New York City alone, significantly higher than the original
$5.7 billion estimate produced by OMB. However, the data that will best measure Sandy’s toll on area payrolls is the Quarterly Census of Employment and Wages (QCEW) published by the U.S. Bureau of Labor. The QCEW is the most comprehensive labor survey data and covers about 98% of all jobs. Because it is only available after a six month lag, the fourth quarter 2012 data is unavailable at this time.

**Table 1: Sectoral Breakdown of Economic Losses**

<table>
<thead>
<tr>
<th>Sector</th>
<th>Net Losses for Region</th>
<th>NYC Share of Losses</th>
<th>Wage Income Losses</th>
<th>Business Losses</th>
<th>All Other Losses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finance &amp; Insurance</td>
<td>7.00</td>
<td>1.99</td>
<td>0.98</td>
<td>0.78</td>
<td>0.22</td>
</tr>
<tr>
<td>Prof. &amp; Business Services</td>
<td>4.60</td>
<td>1.31</td>
<td>0.64</td>
<td>0.52</td>
<td>0.14</td>
</tr>
<tr>
<td>Leisure &amp; Hospitality</td>
<td>0.90</td>
<td>0.26</td>
<td>0.13</td>
<td>0.10</td>
<td>0.03</td>
</tr>
<tr>
<td>Information</td>
<td>1.80</td>
<td>0.51</td>
<td>0.25</td>
<td>0.20</td>
<td>0.06</td>
</tr>
<tr>
<td>Retail Trade</td>
<td>0.20</td>
<td>0.06</td>
<td>0.03</td>
<td>0.02</td>
<td>0.01</td>
</tr>
<tr>
<td>Other Services</td>
<td>0.50</td>
<td>0.14</td>
<td>0.07</td>
<td>0.06</td>
<td>0.02</td>
</tr>
<tr>
<td>Transportation &amp; Utilities</td>
<td>0.70</td>
<td>0.20</td>
<td>0.10</td>
<td>0.08</td>
<td>0.02</td>
</tr>
<tr>
<td>Health</td>
<td>0.85</td>
<td>0.24</td>
<td>0.12</td>
<td>0.10</td>
<td>0.03</td>
</tr>
<tr>
<td>Education</td>
<td>0.85</td>
<td>0.24</td>
<td>0.12</td>
<td>0.10</td>
<td>0.03</td>
</tr>
<tr>
<td>Private Total</td>
<td>17.4</td>
<td>4.95</td>
<td>2.4</td>
<td>2.0</td>
<td>0.5</td>
</tr>
<tr>
<td>Government</td>
<td>2.6</td>
<td>0.74</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>20.00</td>
<td>5.69</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The economic losses initially estimated by NYC OMB derived from Moody’s analysis resulted in a preliminary estimate that tax revenue would decline by approximately $250 million. However, recent tax collections data suggest that this estimate should be revised downward to approximately $160 million as there is little evidence that sales and hotel tax revenue were negatively impacted by the storm.

**Damage to City Businesses**

In addition to lost output, the City experienced significant outright damage to its wealth and stock of productive resources, including billions of dollars’ worth of damages to businesses. Hurricane Sandy imposed significant commercial damages to neighborhoods across all five boroughs. Approximately 23,400 businesses and an associated 245,000 employees were located in flood-impacted areas and faced extensive damages from loss of inventory, ruined equipment, and damage to the interiors of their space and/or structural and extensive damage to their building systems. Approximately 65% of these flood-impacted businesses were located in five neighborhoods: Lower Manhattan, the Brooklyn-Queens Waterfront, Southern Brooklyn, South Queens, and Staten Island. According to a survey done by the Department of Small Business Services, as of March 2013, nearly 20% of impacted businesses remained closed.

Impacts varied by neighborhood. Lower Manhattan, which is the fourth largest business district in the country and saw its residential population double to 45,000 residents between 2000 and 2010, experienced significant damage to large utilities and flooding in high-rise commercial and residential buildings. Along the Brooklyn-Queens Waterfront, large-scale industrial businesses including port facilities and warehouses were heavily impacted, whereas Southern Brooklyn’s small businesses and nearby destination/tourist attractions experienced severe damage. In South Queens and Staten Island, most of the impacted businesses serve the local population and seasonal visitors in low-density neighborhoods.
Map: Neighborhood Economic Impacts from Hurricane Sandy

Note: Based on Hoover's data for businesses located in areas with any level of inundation.

However, key similarities exist across these neighborhoods: nearly 95% of impacted businesses were small- and medium-enterprises (SMEs), employing 50 people or less, and the businesses were primarily concentrated in the retail and service sectors. For these SMEs, storm damage was significant; survey reports suggest retail stores experienced thousands of dollars in lost sales for each day they remained closed and experienced equipment and inventory damage losses in the hundreds of dollars per square foot. For a small 1,000 square foot retail business that remained closed for two weeks, this would mean damages of at least $100,000, before accounting for the impact of a reduced customer base in some residential neighborhoods.

In total, across all industries, the City's initial estimate of private commercial direct losses was $3.4 billion. This figure was calculated using New York City's share of the upper range of overall insured losses from Sandy as estimated by multiple insurance and risk management companies based on data from prior storms, together with industry ratios of insured-to-uninsured and commercial-to-residential losses. Based on these ratios, the City estimated that between $1.9 billion to $2.4 billion of commercial losses were uninsured.

While SME commercial impacts were far reaching, the City's industrial sector, much of which is concentrated along the Brooklyn-Queens Waterfront, suffered some of the largest direct losses from the
storm, primarily from the destruction of high-value equipment and inventory. Nearly 7,000 industrial businesses were impacted and reports from wholesale/retail trade, transportation, utilities, construction, and manufacturing firms place direct damages in the tens to hundreds of millions of dollars. Additional losses have accrued from supply chain disruptions and delivery delays.

Table 2: Summary of Business Impacts by Industry

<table>
<thead>
<tr>
<th>INDUSTRY</th>
<th># of Businesses</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>SERVICES</td>
<td>14,163</td>
<td>60%</td>
</tr>
<tr>
<td>Information (51)</td>
<td>886</td>
<td></td>
</tr>
<tr>
<td>Professional, Scientific, and Technical Services (54)</td>
<td>3,932</td>
<td></td>
</tr>
<tr>
<td>Management of Companies and Enterprises (55)</td>
<td>79</td>
<td></td>
</tr>
<tr>
<td>Administrative and Support and Waste Management and Remediation Services (56)</td>
<td>2,781</td>
<td></td>
</tr>
<tr>
<td>Educational Services (61)</td>
<td>447</td>
<td></td>
</tr>
<tr>
<td>Health Care and Social Assistance (62)</td>
<td>2,202</td>
<td></td>
</tr>
<tr>
<td>Arts, Entertainment, and Recreation (71)</td>
<td>621</td>
<td></td>
</tr>
<tr>
<td>Accommodation and Food Services (72)</td>
<td>1,084</td>
<td></td>
</tr>
<tr>
<td>Other Services (except Public Administration) (81)</td>
<td>2,131</td>
<td></td>
</tr>
<tr>
<td>FIRE</td>
<td>2,315</td>
<td>10%</td>
</tr>
<tr>
<td>Finance and Insurance (52)</td>
<td>1,196</td>
<td></td>
</tr>
<tr>
<td>Real Estate and Rental and Leasing (53)</td>
<td>1,119</td>
<td></td>
</tr>
<tr>
<td>TRADE</td>
<td>3,672</td>
<td>16%</td>
</tr>
<tr>
<td>Retail Trade (44-45)</td>
<td>2,339</td>
<td></td>
</tr>
<tr>
<td>Wholesale Trade (42)</td>
<td>1,333</td>
<td></td>
</tr>
<tr>
<td>MANUFACTURING (31-33)</td>
<td>796</td>
<td>3%</td>
</tr>
<tr>
<td>TRANSPORTATION &amp; UTILITIES (48-49, 22)</td>
<td>1,066</td>
<td>5%</td>
</tr>
<tr>
<td>CONSTRUCTION (23)</td>
<td>1,417</td>
<td>6%</td>
</tr>
<tr>
<td>TOTAL PRIVATE</td>
<td>23,429</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Hoovers Listing Data for flood-impacted businesses. Impacted businesses based on Hoover’s business data for businesses that were located in areas with any level of inundation, Mayors Analytics Team.

New York City’s Response to Economic Impact

In recognition of Sandy’s severe impact on small businesses, Mayor Bloomberg announced the creation of Business Recovery Zones (BRZs) on December 5, 2012. The Zones include Lower Manhattan/South Street Seaport; Brooklyn Harbor Waterfront/Newtown Creek (DUMBO, Greenpoint/Newtown Creek, Red Hook, Gowanus, Sunset Park); South Brooklyn (Coney Island, Brighton Beach, Manhattan Beach, Sheepshead Bay, Gerritsen Beach); South Queens (Howard Beach and the Rockaways); and the South Shore of Staten Island. Business Recovery Zone leaders were assigned to each area to identify neighborhood-specific needs; coordinate action plans and follow-up; organize City resources; and provide a central point of contact for businesses and agencies. Captains of each area convened local steering committees of elected officials, community organizations, non-profit organizations, Local Development Corporations, Business Improvement Districts, small business owners, and other community representatives, to help find and implement solutions in each impacted Zone. The Mayor also announced the creation of the Recovery
Business Acceleration Team: modeled after the City's New Business Acceleration Team, which helps businesses open faster by streamlining and expediting City agency processes, a Restoration Business Acceleration Team was tasked with helping to expedite inspections and allow businesses to re-open their doors faster.

NYC Department of Small Business Services (SBS)

After the storm, with the help of community-based organizations, SBS was able to determine the extent of the damage and quickly distribute information on available City and Federal recovery resources. SBS’ Business Outreach Emergency Response Unit worked closely with NYC’s Office of Emergency Management to respond to immediate business issues including power restoration and large debris removal. In partnership with City Hall and the NYC Economic Development Corporation, SBS quickly set up five informational meetings – one in each borough – to speak about available services and to distribute emergency loan applications. Dozens of other outreach events took place across the City. Materials on recovery programs were made available in English, Spanish, Mandarin, and Russian, and were also available both online and in print. Between October 29, 2012 and February 28, 2013, SBS handled 1,037 storm-related phone inquiries transferred from 311.

SBS’ seven NYC Business Solution Centers and eight Industrial Service Providers informed impacted businesses about available recovery resources and packaged emergency loan applications. As of February 28, these centers helped 2,356 clients with storm-related issues. SBS has worked closely with SBA, which co-located two of its Disaster Recovery Centers with the NYC Business Solutions Centers in Brooklyn and Lower Manhattan.

Displaced Worker Assistance

In November, New York State received a grant for $27.7 million in Federal National Emergency Grant (NEG) funds to assist with recovery. The grant provided resources to hire temporary workers to clean up communities impacted by the storm and to provide information and services to impacted individuals and businesses to help them get back on their feet. The grant is aimed at employing individuals who lost their jobs as a direct result of Sandy or who are long-term unemployed.

New York City received $11.3 million to administer the program. SBS managed several large events where hundreds of candidates were interviewed and hired. SBS worked with the NYC Department of Parks and Recreation (DPR) to hire nearly 800 workers to clean up beaches and repair playgrounds in the Rockaways, Coney Island, Red Hook, and Staten Island. SBS is now working with DPR on a second project to hire 200 young adults (18-24) to help restore a variety of parks and beaches around Jamaica Bay. SBS also worked with NYCHA to hire more than 400 NYCHA residents to clean up public housing developments and to collect information from impacted tenants about their needs. SBS has also worked with DSNY to hire additional Job Training Participants (JTPs). SBS has also hired several employees to assist in outreach efforts. In total, more than 1,100 individuals have been hired to date.

Support NYC Small Business Campaign

Even where businesses are reopening in impacted areas, pedestrian traffic is much lower than normal. SBS is combating this drop-off in foot traffic with marketing campaigns to attract visitors back to the hardest-hit areas. The campaigns highlight individual businesses and appeal to New Yorkers’ sense of solidarity with owners who have fought to stay in their communities.
In partnership with the City Council, the Mayor’s Office of Media and Entertainment, and NYC & Company, SBS launched an ad campaign called Support NYC Small Business. The campaign highlights open businesses and their recovery stories and features them on radio, in bus shelters, and in print. These ads have been featured in major publications like the New York Daily News and the New York Post. The campaign also includes a Support NYC Small Business website with an interactive map that currently features over 1,300 businesses that have reopened after the storm. New Yorkers have consulted the website more than 20,000 times. SBS has also worked with 1010 WINS to highlight businesses in an “Open for Business” campaign – a daily segment on a reopened business. Segments have been done on businesses across all impacted areas.

Small Business Assistance Grants
In late January, as part of the City’s effort to rebuild neighborhoods, SBS began providing Small Business Assistance Grants to businesses that have reopened but need help repairing or replacing items necessary for full recovery. SBS partnered with Barclays, Citi, and UBS to create a $1 million fund for these grants. Businesses can apply for grants of up to $5,000 for structural repairs, equipment repairs, or to purchase replacement equipment. As of March 4, 645 businesses have applied for a Small Business Assistance Grant and 51 have been approved.

Insurance Assistance
Through a partnership with the New York State Department of Financial Services (DFS), SBS is helping businesses receive assistance with insurance issues, including denial of coverage or unsatisfactory service. In the immediate aftermath of the storm, SBS referred more than 41 businesses to the State. SBS’ outreach partnership with the State continues. Insurance workshops will take place in each impacted zone for companies still dealing with insurance issues and will include specialists to assist businesses looking to negotiate with their insurance providers.

NYC Economic Development Corporation (NYCEDC)

Neighborhood Canvassing
NYCEDC worked quickly to assess the damage done to the commercial corridors in New York City, immediately deploying neighborhood captains and beginning the process of formulating short- and long-term recovery plans. Neighborhood captains evaluated conditions, gathered economic data, documented damage, assisted impacted businesses, and coordinated with local business and non-profit organizations. The captains led teams that collected business surveys and helped organize business information sessions in the impacted areas. This work focused on commercial corridors in eight neighborhoods and resulted in the November 2012 joint NYCEDC/SBS report Hurricane Sandy: An Assessment of Impacted Commercial Corridors and Recommendations for Revitalization. The communities covered in the report were later organized as the five BRZs. This collective work was instrumental in identifying challenges and opportunities that informed the BRZs and the Special Initiative for Rebuilding and Resiliency (SIRR) efforts that followed.

Loan and Grant Program
NYCEDC launched a loan and grant fund to address the immediate business needs of SMEs in the days following the storm. A $20 million loan fund was created with funds provided by NYCEDC, Goldman Sachs, and 23 other commercial banks. The Mayor's Fund to Advance New York City and the Partnership for NYC also provided $5.5 million for a matching grant program. The program offered maximum loans of $25,000
with matching grants of up to $10,000. Thus far, approximately 550 businesses have been assisted with loans and/or grants. The average loan size is $22,803, and 85% of loans received have been for the maximum amount. Based on the current rate of applications and approvals, the loan fund is expected to be exhausted early in the second quarter of 2013.

**Hurricane Emergency Sales Tax Exemption Program**

The New York City Industrial Development Agency (IDA) provided emergency assistance to SMEs by establishing the Hurricane Emergency Sales Tax Exemption Program (“HESTEP”), to provide sales tax exemptions in an amount not to exceed $100,000 for each affected company on purchases of building, construction, and renovation materials; machinery and equipment; and other items of personal property and related services to such businesses. The program is limited to 250 applicants and the deadline to apply for the assistance was April 1, 2013. As of March 2013, approximately 79 businesses had been approved to obtain the necessary paperwork to obtain the sales tax exemptions.

**Space Matching**

NYCEDC partnered with the commercial real estate and development community to make temporary office and industrial space available at no rent to businesses displaced by Hurricane Sandy. Within three days after the storm, NYCEDC began advertising donated space on the NYCEDC website, detailing all necessary information about donated space in an easily accessible online location. As of February 2013, NYCEDC had secured more than 300,000 square feet of space for displaced businesses. Through this program, more than 45 companies with 680 employees, including those with disabilities, were able to move into temporary space and get back to work.

**Remaining Unmet Economic Needs**

According to the revised Moody's figures, the region suffered total net economic losses of $25 billion, which included direct private losses. Using a combination of insured loss estimates from multiple insurance and risk management companies and estimates of past storm ratios of insured-to-uninsured losses, initial cost estimates following Hurricane Sandy placed private direct losses, both commercial and residential, at $8.6 billion, $3.8 billion of which was insured and $4.8 billion of which was uninsured. Internal analysis based on industry sources estimated the commercial share of private uninsured losses to range from 40 to 50% or from $1.9 to $2.4 billion. While NYCEDC and SBS acted quickly to make capital available to impacted businesses immediately following the storm, it is clear that there is a significant unmet commercial need, especially amongst the significant amount of business owners, SMEs, and industrial companies that lacked business continuity or flood insurance to help weather the storm.

Additionally, approximately 23,400 businesses were located in Inundation Areas, many outside FEMA's 100-year flood zone. The revised preliminary FEMA Advisory Base Flood Elevation (ABFE) Maps have nearly doubled the number of NYC buildings located in the 100-year flood zone, suggesting that approximately 71,000 buildings could be at risk for wave action or flooding in future storms. Sea level rise will further expand vulnerable areas, and unchecked storm surges in the future could cause damage equal to or greater than Hurricane Sandy.

Based on the determination of applying the unmet needs formula and the available data to date, the City of New York had incurred $10.3 billion in business and economic losses. After subtracting the insured losses of $4.1 billion and the SBA loans of $478.8 million, the City of New York is left with an unmet business and economic need of $5.7 billion. Of the 22,042 applications received by SBA as of early March 2013, 8,218
have been approved. The City anticipates that this unmet need will continue to grow as additional details and data is available and updated insurance, SBA, and other subsidy data becomes available.

Table 3: Small Business Administration Disaster Loan Applications (as of March 2013)

<table>
<thead>
<tr>
<th>County</th>
<th>Applications Received</th>
<th>Applications Approved</th>
<th>Amount Approved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bronx</td>
<td>272</td>
<td>71</td>
<td>$1,837,700</td>
</tr>
<tr>
<td>Kings</td>
<td>6,974</td>
<td>2,285</td>
<td>$106,257,900</td>
</tr>
<tr>
<td>New York</td>
<td>880</td>
<td>137</td>
<td>$4,084,000</td>
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<tr>
<td>Queens</td>
<td>9,424</td>
<td>3,680</td>
<td>$239,093,200</td>
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<tr>
<td>Richmond</td>
<td>4,492</td>
<td>2,045</td>
<td>$127,549,200</td>
</tr>
<tr>
<td>Total</td>
<td>22,042</td>
<td>8,218</td>
<td>$478,822,000</td>
</tr>
</tbody>
</table>

Economic Goals

Job creation is one of the most important catalysts to establishing a sustainable long-term recovery. To that end, the City is placing specific emphasis on assisting and helping small businesses recover quickly and efficiently. The City is focusing its efforts on getting businesses reopened and allowing businesses to be able to sustain current employment levels as well as hire new staff. The City will employ additional strategies to sustain, attract, and recruit new businesses and capital to areas most impacted by the storm. In addition, the City will create an environment to foster new technologies to encourage both existing and new businesses to deploy mitigation measures to minimize the impact of future disasters and catastrophes. As a direct result of Hurricane Sandy, businesses located in the floodplain – regardless of whether or not they experienced damage or power outages – are evaluating whether to expand or even continue operations in these vulnerable areas. There is therefore a significant risk that the impacts of Sandy will continue to be felt in the 100-year floodplain and across the City as companies consider taking valuable employment out of vulnerable areas, many of which are low- and moderate-income areas. Investment in resiliency measures will address these concerns and reduce the direct, long-term effects of Hurricane Sandy.

Economic objectives include:

1. Helping SMEs recover and rebuild resiliently, while minimizing their reliance on high-interest debt;
2. Anchoring new or existing industry clusters and catalyzing significant long-term economic growth in the five BRZ’s and adjacent impacted areas;
3. Protecting businesses in vulnerable floodplain areas of the City by incentivizing proactive investments in resiliency measures; and
4. Improving building and infrastructure resiliency through competitions that identify and deploy the most promising and cost-effective technologies.

Private capital is best leveraged with public investment to create public-private partnerships in order to foster economic and social economic empowerment within low- and moderate-income communities. The CDBG-DR program will provide resources to further the long-term recovery effort in neighborhoods throughout the communities whose businesses and overall quality of life have been negatively impacted. Also, stabilization of businesses and their employee base will lessen the relocation of residents seeking job opportunities in other parts of the City.
Business Programs

Business Loan and Grant Program

PROGRAM OBJECTIVE AND DESCRIPTION: Nearly 95% of impacted businesses were small-and-medium enterprises (SMEs), employing 50 people or less, and were primarily concentrated in retail and service sectors. For these SMEs, storm damage was significant; survey reports suggest retail stores experienced thousands of dollars of lost sales for each day closed and estimated equipment and inventory damage losses in the hundreds of dollars per square foot. In response, the New York City Economic Development Corporation (NYCEDC) launched a loan and grant fund to address immediate business needs in the days following the storm. A $20 million loan fund was created with funds provided by NYCEDC and Goldman Sachs as well as 23 other commercial banks. The Mayor’s Fund to Advance New York City and the Partnership for NYC also provided $5.5 million for a matching grant program. The program offered maximum loans of $25,000 with matching grants of up to $10,000. From data collected through on-the-ground canvassing and surveying of applicants, it is clear that the need far surpasses the funds that are currently available. While this program was able to quickly respond to the immediate needs of businesses, it was always anticipated that this program would be insufficient given the vast extent of damage and losses incurred by small businesses. Based on the current rates of application and approval, the funds will be exhausted in early 2013. The significant damage sustained by these SMEs, many of which did not carry flood insurance, as well as the strong response to the existing program, demonstrates the overwhelming need for a significantly larger and more generous loan and grant program to directly assist businesses with working capital requirements, incurred losses, and other recovery and rebuilding efforts.

Experience with the existing program indicates that, while it has provided an important service to affected small businesses, additional funding is needed to both increase the number of businesses that can be served by the program and increase the size of the loans and grants that are provided. These programs will impact businesses that are currently in need of low- or no-interest, direct investment.

The program would have two components that would A) contribute to expanding the current program, which may undergo minor changes if necessary, and B) seek one or more additional administrators and creative solutions to strengthen the small business loan and grant offerings in order to more effectively reach markets and communities that may be underserved by the current program. Businesses that can demonstrate extreme hardship may be eligible to receive, at the City’s discretion, a grant without receiving a loan.

Please note that, where loans and grants are used for certain physical restoration and resiliency activities, the City will enforce and monitor compliance with Davis-Bacon Labor Standards and Section 3 requirements wherever applicable. Eminent Domain will not be used in this program.

HUD ELIGIBILITY CATEGORY: Special Economic Development Activities (aka Economic Development or Recovery Activity that Creates/Retains Jobs)

NATIONAL OBJECTIVE: Urgent Need; Low- and Moderate-Income Job Creation/Retention; and Low- and Moderate-Income Area

CDBG-DR ALLOCATION: $72,000,000

PROJECTED ACCOMPLISHMENTS: At least 750 businesses assisted and approximately 7,500 jobs retained
**Program Administration:** This program may be administered by the City’s Department of Small Business Services (SBS). NYC Business Solutions Centers are managed by SBS and may conduct activities related to this program such as application intake and packaging. Staff are available to assist applicants in multiple languages. The operator of the current program, New York Business Development Corporation, may continue to operate the program as a subrecipient, but a Community Development Financial Institution (CDFI) or other allowable entity may be chosen to operate the program as well.

**Eligible Applicants/Properties:** Borrowers shall be credit-worthy small businesses, (as defined by the Small Business Administration) that experienced business loss, damage, or interruption as a result of the storm and demonstrate an ability to repay the loan.

**Eligibility Criteria:** Businesses must demonstrate loss or damage as a result of the storm, be located within an impacted area, and exhibit ability to repay loans. It is anticipated that this program will provide funds to eligible borrowers on a first-come, first-served basis. (Please note that the Hurricane Sandy CDBG-DR appropriation contained a prohibition on assistance to businesses other than those that meet the SBA small business definition. In the event that NYCEDC finds evidence of a compelling need to assist businesses larger than the SBA definitions, NYCEDC may apply for a waiver of this requirement.)

**Grant/Loan Size Limit:** Much of the current program will likely remain consistent, but loans of up to $150,000 would be made available to borrowers, with matching grants of up to $60,000. Existing borrowers would have the opportunity to increase loan size within the parameters of eligibility as well.

Applicants that demonstrate significant need exceeding the resources described above may, on a discretionary basis as determined by NYCEDC and the City, be eligible for loans up to $1,000,000 and grants up to $100,000.

**Program Priorities:** It is anticipated that this program will provide funds to eligible borrowers that demonstrate need on a first-come, first-served basis.

**Geographic Area to be Served:** Areas impacted by flooding or power outages throughout the five boroughs would be eligible.

**Program Start and End Dates:** Funds will initially be disbursed in the summer of 2013 and the program will expire when funds are exhausted.

**Other Funding Sources:** It is expected that funds will be leveraged by SBA Disaster Loans, private funds and contributions, insurance proceeds, etc. Please note that, in accordance with Federal duplication of benefits requirements, other assistance awarded to businesses for the purpose of providing compensation for economic losses arising from Hurricane Sandy will be deducted from grants provided through this program. If the application period for an SBA Disaster Loan is open, businesses will be required to apply for an SBA Loan before receiving CDBG-DR assistance.

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**Business Resiliency Investment Program**

**Program Objective and Description:** During the recent storm, approximately 23,400 businesses were located in the Inundation Area, many in areas that were outside FEMA’s 100-year flood zone. The revised preliminary FEMA Advisory Base Flood Elevation (ABFE) Maps have nearly doubled the number of NYC
buildings located in the 100-year flood zone, suggesting approximately 71,000 buildings could be at risk for wave action or flooding in future storms. Sea level rise will further expand vulnerable areas, and unchecked storm surges in the future could cause damage equal to or greater than Hurricane Sandy.

While the storm resulted in direct physical impacts in certain areas, it also affected the commercial viability of business districts within all vulnerable areas. For example, businesses located in the 100-year floodplain may now consider moving out of the floodplain, and businesses that previously considered locating in the floodplain may no longer be willing to do so. As such, citywide resiliency investments made as a result of this program will help to preserve the commercial viability of these districts, many of which employ low-income workers.

CDBG-DR funds will be used to provide funds to companies for physical investments to improve resiliency to severe weather. By helping businesses make long-term, strategic improvements to property, buildings, infrastructure, the City will reduce the future cost and impact of severe weather.

Post-storm analysis has identified several strategies that can dramatically reduce the impact of future storms, such as:

- Elevation of critical building systems;
- Dry flood-proofing of ground floor; and/or
- Wet flood-proofing of certain uses.

This program will incentivize businesses to make these investments now by reimbursing a portion of the costs. The program is anticipated to fund between 50-75%, up to $2 million, of the cost of specified physical improvements that increase the resiliency of buildings or businesses to future storms. Above that amount, reimbursements or additional grants will be at NYCEDC’s discretion.

Please note that the City will enforce and monitor compliance with Davis-Bacon Labor Standards and Section 3 requirements wherever applicable. Eminent Domain will not be used in this program.

**HUD Eligibility Category:** Special Economic Development Activities (aka Economic Development or Recovery Activity that Creates/Retains Jobs)

**National Objective:** Urgent Need; Low- and Moderate-Income Job Creation/Retention; and Low- and Moderate-Income Area

**CDBG-DR Allocation:** $90,000,000

**Projected Accomplishments:** Up to 13 million square feet of commercial space that was impacted by Sandy or is otherwise currently at risk will be made significantly more resilient.

**Program Administration:** This program may be administered by NYCEDC or other subrecipient of the City’s Department of Small Business Services. An additional allowable entity may be chosen to operate the program.

**Eligible Applicants/Properties:** It is currently anticipated that, in order to be eligible for this program, businesses must:
• Meet the SBA definition of a small business;
• Undertake one or more of the prescribed resiliency measures;
• Occupy a commercial space that is not worth more than a threshold amount per square foot;
• Demonstrate either:
  - Direct physical impact of Sandy (inundation or power loss); or
  - Impact of Sandy on the commercial viability of the business as a result of its location in FEMA's advisory 100-year floodplain;
• Be located within FEMA's advisory 100-year floodplain; and
• Demonstrate maximum impact to low- and moderate-income communities or employees.

(Please note that the Hurricane Sandy CDBG-DR appropriation contained a prohibition on assistance to businesses other than those that meet the SBA small business definition. In the event that NYCEDC finds evidence of a compelling need to assist businesses larger than the SBA definitions, NYCEDC may apply for a waiver of this requirement.)

**Eligibility Criteria:** Only commercial space within FEMA’s advisory 100-year floodplain will be eligible. Resiliency measures will be pre-approved, with the ability to approve additional measures at NYCEDC’s discretion. It is anticipated that priority will be given to businesses that were directly impacted by Sandy and that can demonstrate maximum impact to low- and moderate-income communities or employees.

**Program Priorities:** Although it is anticipated that funds would be disbursed on a first-come, first-served basis, NYCEDC reserves the right to prioritize if demand exceeds the program size, and to ensure that a mix of eligible businesses types are served (including resiliency investments that seek to protect adjacent communities from hazardous materials that might otherwise be subject to flooding). Investment in resiliency measures are needed to reduce the long-term loss of jobs resulting from Hurricane Sandy in vulnerable communities, as previously described.

**Geographic Area to be Served:** Businesses within FEMA’s advisory 100-year floodplain.

**Program Start and End Dates:** Program will launch in the summer of 2013 and last until all funds are disbursed.

**Other Funding Sources:** It is expected that funds will be leveraged by SBA Disaster Loans, private funds and contributions, insurance proceeds, etc. Please note that, in accordance with Federal duplication of benefits requirements, other assistance awarded to businesses for the same purpose will be deducted from grants provided through this program. If the application period for an SBA Disaster Loan is open, businesses will be required to apply for an SBA Loan before receiving CDBG-DR assistance.

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**Neighborhood Game Changer Investment Competition**

**Program Objective and Description:** As a result of Hurricane Sandy, entire neighborhoods experienced widespread damage, closure of businesses, and loss of jobs. The neighborhoods most severely impacted are the East Shore/South Shore of Staten Island, Lower Manhattan, Southern Brooklyn, the Brooklyn-Queens Waterfront, and South Queens. Businesses within these neighborhoods employ more than 143,000
individuals, and many experienced damage from flooding, high winds, and/or fire that forced them to close on a temporary or permanent basis. Unfortunately, many of these neighborhoods already faced economic challenges, and the sudden increase of vacancies and decreased demand for services due to nearby residential displacement could severely hamper future growth and potentially reverse the revitalization that has occurred in recent years without immediate and meaningful investment in revitalization.

The goal of this competition is to identify and fund projects or programs that will anchor new or existing industry clusters and catalyze significant long-term economic growth in each of the targeted neighborhoods. Recipients would demonstrate an ability to generate full-time jobs and bring permanent investment to target areas, leverage public funds to attract private investment, and develop hard and soft infrastructure to increase resiliency. Please note that the City will enforce and monitor compliance with Davis-Bacon Labor Standards and Section 3 requirements wherever applicable. Eminent Domain will not be used in this program.

Through a Request for Proposals, NYCEDC will harness the best ideas from public and private organizations and individuals to restore neighborhood vitality and economic strength. It is anticipated that because each neighborhood faces specific challenges, the winning idea(s) for each neighborhood will be tailored to those needs. The scope and content requirement in the Request for Proposals will specify that proposals must provide detailed and specific information demonstrating that the proposed activities and outcomes will not have adverse impacts on protected classes. The targeted neighborhoods are:

**East Shore/South Shore of Staten Island**

The East and South Shores of Staten Island include multiple residential neighborhoods, totaling nearly 70,000 residents. Out of the approximately 58 million developed square feet in the areas, approximately 75% of that space is residential. One- to two-family homes make up 95% of the East and South Shore housing stock and 84% of the East and South Shore housing units. In both of these areas, as in Staten Island as a whole, the percentage of homeowners is higher than the City average (53%).

While most businesses in the area have fewer than five employees (78%), more than half of the area’s employees work for relatively larger businesses (> 100 employees) such as the Staten Island University Hospital. The retail and service sectors (which include healthcare) are both major employers. Public beaches, the 2.5-mile FDR boardwalk, and portions of the Gateway National Recreation Area serve as attractions to the area, especially during the summer months. With the exception of Hylan Boulevard, the area is comprised of small business commercial corridors primarily serving the local residential population and additional Staten Island residents during warm weather months. Hylan Boulevard is an auto-oriented retail strip that serves as the primary commercial corridor.

Though both areas have densities well below City averages, the East and South Shores were each growing steadily prior to Sandy. From 2000-2010, the total population of these areas grew by 11%.

Development in the East and South Shores has occurred within and adjacent to historic marshlands and wetlands, creating risks. During Sandy, the combination of increased population and inherent vulnerability proved particularly potent. With only 13% of all buildings in the City’s Inundation Area, the East and South Shores accounted for 52% of all NYC tagged buildings, 31% of all NYC red-tagged buildings, and 40% of all recommended NYC post-storm demolitions. A majority of the City’s storm-related deaths occurred on Staten Island.
More than 25,000 housing units were located in areas that experienced inundation, with impacted businesses employing more than 9,400 people. One- and two-family homes, many not built for year-round occupancy, sustained the heaviest damage. The damage is especially concentrated near the beaches, resulting in significant harm to retail and commercial structures and public infrastructure. Local retail corridors serving and relying on residents experienced damage and market loss, with many businesses still closed (e.g., Midland Avenue, with 51 of 72 retailers closed as of February 2013). Businesses experienced significant loss of equipment as well as damage to interiors and to building systems. Lack of customer base going forward (due to widespread residential destruction) will become the greatest concern as the hardest hit businesses are dependent on local residents who themselves are displaced or have restricted funds and mobility.

**Lower Manhattan**

Lower Manhattan, roughly the area south of Chambers Street, includes the historic Financial District, City Hall and City government offices, Battery Park City, and numerous tourist attractions. The area is the nation’s fourth-largest central business district. Of the 132 million built square feet in Lower Manhattan, about 90 million square feet is commercial. Over the past decade, Lower Manhattan has also grown as a residential neighborhood with more than 45,000 residents in 2010.

In the fall of 2012, Lower Manhattan had 312,000 workers and an office vacancy rate of 9.3%. The local economy includes a strong governmental presence, but has been diversifying over the past decade from a heavy dependence on finance, insurance, and real estate to include other areas such as technology, media, legal services, and architecture.

Lower Manhattan includes regional attractions like the National September 11 Memorial & Museum, the Statue of Liberty, the New York Stock Exchange, the Brooklyn Bridge, and the South Street Seaport. Over the past decade, tourism has expanded with an increase in the number of hotel rooms. Lower Manhattan saw more than 11.5 million visitors in 2012.

In the years prior to Sandy, Lower Manhattan had experienced two major economic shocks (9/11 and the Great Recession (2008/2009)). After 9/11, vacancy rates increased and asking rents decreased in the area. These rents began recovering just as the Great Recession occurred, causing a similar trend. While the World Trade Center and immediate blocks surrounding it will represent new construction, most of the commercial office stock in Lower Manhattan is significantly older with the largest percentage of buildings built prior to 1950 in the U.S.

As Lower Manhattan recovered from its second major setback in a decade, Sandy created one more challenge. Sandy caused inundation in Lower Manhattan that affected nearly 35% of the office space, 30% of retail businesses, and 20% of the residential units. While no buildings were destroyed in Lower Manhattan, inundation caused significant damage to building systems in the area.

**Southern Brooklyn**

Southern Brooklyn consists of seven neighborhoods including Sea Gate, Coney Island, Brighton Beach, Manhattan Beach, Gravesend, Sheepshead Bay, and Gerritsen Beach. Much of the area is built on barrier islands, on historic marshland, or over-urbanized natural creeks and inlets. The area is home to approximately 200,000 residents and hosts a diverse mix of incomes, ethnic enclaves, varying housing stock, and disparate socioeconomics. The area is largely residential, with some key neighborhood commercial corridors, key destination attractions, and large institutional presences. Density is
concentrated in Brighton Beach, Sheepshead Bay, Coney Island, and Gravesend, with the remaining neighborhoods of much lower density and mostly single-family homes. The area features a concentration of vulnerable populations and building stock, including more than 18,000 residents in public housing, more than 8,200 units of Mitchell-Lama housing, and more than 500 nursing home beds. The area features an oceanfront coastline and a three-mile boardwalk as well as inlets and bays including Coney Island Creek, Sheepshead Bay, and Gerritsen Inlet.

There are more than 5,000 businesses in Southern Brooklyn, the majority of which are small, with fewer than five employees. Nevertheless, of the approximately 26,000 employees in the area, one-third work at one of 30 businesses that employ more than 100 employees. The most significant sectors in the local economy are in services – particularly healthcare and business services – and in retail including amusement attractions and other entertainment. The largest employer in the area is Coney Island Hospital, a NYC Health and Hospitals Corporation facility with more than 3,000 employees.

Southern Brooklyn emerged in the early 20th century as a bustling waterfront escape from the City, featuring unique attractions, a wide variety of leisure activities, and a beautiful south-facing beach. Mirroring citywide trends during the period, the area experienced decline beginning primarily in the 1960s, including the severe contraction of the amusement area, shifting demographics including population decrease, and an uptick in crime and social ills. Since the 1990s, Southern Brooklyn has witnessed a renaissance in some neighborhoods, such as in Brighton Beach where a fast-growing immigrant population has turned the area into a bustling enclave. In Coney Island, recent major investments by the City, including the development of new amusement parks and a comprehensive rezoning, have ushered in increased visitation at the historic amusement area and have set a road-map for future neighborhood growth and economic recovery.

Hurricane Sandy had a dramatic impact on Southern Brooklyn, inundating more than 3,800 acres of inland property, wreaking havoc along the oceanfront, and flooding neighborhoods through inlets, bays, and creeks. At the peak of the storm, the ocean met the bay in many locations, and as much as 350,000 tons of sand was displaced from the Coney Island/Brighton Beach coastline, which itself was raised in the ‘90s by the Army Corps of Engineers to provide wave attenuation protection and was largely successful during the storm. Nevertheless, in areas where coastal protections were inadequate, some structures suffered direct wave impacts, and generally all buildings experienced debilitating flooding that impacted building systems and ground floor uses. In the days and weeks following the storm, utility outages plagued both single-family buildings and multi-family high rises, with significant temporary displacement of local residents. Nearly all ground floor spaces in the area experienced flood damage of three to eight feet of water, and as of five months after the storm as many as 30% of businesses in some neighborhoods were still closed. The amusement area and attractions were greatly impacted, with significant damage to the New York Aquarium, the amusement parks, and the Brooklyn Cyclones stadium, but all are currently working towards full restoration of their facilities and each plan to move forward with pre-storm expansion and enhancement plans.

The Brooklyn/Queens Waterfront
The Brooklyn/Queens Waterfront, which stretches from Sunset Park to Long Island City and along the Gowanus Canal and Newtown Creek, is a compilation of eight distinct and diverse neighborhoods. In total, the Waterfront is home to nearly 100,000 residents. The waterfront is characterized by diversity: of people, buildings, and commerce. Neighborhoods range from some of the City’s most low-income, such as Red Hook with a 32% unemployment rate, to the City’s wealthiest, such as DUMBO with only an 8%
unemployment rate. Every type of housing is present, including multi-family elevator buildings, mixed-use buildings, and one- to two-family homes, but 48% of residential units are multi-family walk-ups. Nearly half of all businesses on the waterfront are industrial businesses.

Hurricane Sandy resulted in significant damage to the waterfront. The damage was primarily caused by still-water flooding, not waves, which resulted in basement and ground floor flooding and loss of power, but not completely destroyed buildings. Key highlights include: significant losses to industrial businesses, which often keep their valuable equipment on the ground floor, and major impacts to the residents of NYCHA’s Red Hook Houses, who were without power, heat, and running water for up to three weeks following the storm. On a positive note, new waterfront residential developments fared quite well.

There have been numerous significant investments along the Waterfront in the past several years, including a rezoning of Long Island City, Williamsburg, and Greenpoint. These efforts will continue with the full confidence of the City. New developments include Hunters Point South in Long Island City and Greenpoint Landing in Greenpoint.

**South Queens**

South Queens encompasses 17 neighborhoods spanning Howard Beach, Hamilton Beach, Broad Channel, and the Rockaway Peninsula. The area is mostly residential, made up of older, one- to two-family homes. Density is concentrated in Rockaway and Far Rockaway although all neighborhoods are less densely populated than average for New York City. The area includes the wetland estuary of Jamaica Bay and miles of beaches on the Peninsula.

There are around 1,300 businesses in South Queens, the majority of which are small, with fewer than five employees. Larger businesses typically provide healthcare services and include nursing homes, St. John’s hospital, or adult care facilities.

Sandy inundated the entire area of South Queens, with the exception of the center portion of Far Rockaway. In addition to extensive flooding, parts of the area were exposed to direct wave action which caused severe damage and destruction to many communities. A few areas were also hit by fires, most severely in Breezy Point where 126 homes burned down and another 22 were seriously damaged. For the entire area, all damaged buildings (destroyed or tagged yellow or red by DOB), 68% were destroyed or deemed unsafe to enter (red). Around 2,275 businesses were impacted. On the Peninsula, a commercial strip along Beach 129th Street was destroyed, more than 50 businesses experienced severe loss from fire and flooding on Rockaway Beach Boulevard from Beach 116th to Beach 100th Streets and more than 40 businesses on Beach 116th Street were seriously flooded. Several businesses were destroyed in Breezy Point and all were affected in Broad Channel. About 100 businesses along Cross Bay Boulevard in Howard Beach were also impacted. Far Rockaway’s main commercial corridor on Mott Avenue experienced less impactful physical damage, but like the rest of the Peninsula the long-term power outages led to economic loss. Several months following Sandy, businesses remain closed and of those open, many are struggling to rebuild.

**HUD Eligibility Category:** Special Economic Development Activities (aka Economic Development or Recovery Activity that Creates/Retains Jobs)

**National Objective:** Urgent Need; Low- and Moderate-Income Job Creation/Retention; and Low- and Moderate-Income Area. Because this program focuses on neighborhoods with the highest levels of damage, and that have experienced the greatest difficulty in recovering from Hurricane Sandy, investments that do
not meet a Low/Mod Area or Low/Mod Jobs National Objective will still help to create significant new employment and will thus meet an urgent need in these areas.

**CDBG-DR ALLOCATION:** $90,000,000

**PROJECTED ACCOMPLISHMENTS:** Identification and implementation of significant new investments intended to accelerate economic recovery in the five most impacted areas of New York City.

**PROGRAM ADMINISTRATION:** NYCEDC, which will be a subrecipient of the City’s Department of Small Business Services, will administer the RFP release and selection process, with administration of winning proposals to be determined.

**ELIGIBLE APPLICANTS/PROPERTIES:** Those proposals able to demonstrate the above mentioned impact on at least one of the impacted neighborhoods. (Please note that the Hurricane Sandy CDBG-DR appropriation contained a prohibition on assistance to businesses other than those that meet the SBA small business definition. In the event that NYCEDC finds evidence of a compelling need to assist businesses that do not meet this definition, NYCEDC may apply for a waiver of this requirement.)

**ELIGIBILITY CRITERIA:** Ability to demonstrate the above mentioned impact on at least one of the impacted neighborhoods. Proposals should include a plan to create new jobs, demonstrate significant investment on the part of the respondent, be permanent in nature, and primarily impact a neighborhood that experienced severe damage as a result of Hurricane Sandy. The winning ventures should generate meaningful economic growth both directly, through new job creation, and indirectly, by anchoring new or existing industry clusters and catalyzing significant secondary benefits to the local economy.

**GRANT/LOAN SIZE LIMIT:** Up to $20 million

**PROGRAM PRIORITIES:** Priority will be given to those proposals best able to demonstrate an ability to meet the stated program goals and feasibility.

**GEOGRAPHIC AREA TO BE SERVED:** The five neighborhoods that experienced significant storm damage, as described above.

**PROGRAM START AND END DATES:** March 2013 through December 2013 for RFP process; TBD for program administration

**OTHER FUNDING SOURCES:** TBD

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**Infrastructure and Building Resiliency Technologies Competitions**

**PROGRAM OBJECTIVE AND DESCRIPTION:** Sandy exposed significant vulnerabilities to critical infrastructure networks and building systems. Affected NYC infrastructure included, but was not limited to:

- Electric power (more than 800,000 customers lost power due to transmission substation failure, overhead line damage, and customer equipment flooding);
- Liquid fuels (supply chains disrupted on multiple levels, resulting in a three-week citywide gas shortage); and
• Telecommunications networks (power outages and flooding resulted in outages leaving thousands without landline, cable, and mobile service).

The revised preliminary FEMA Advisory Base Flood Elevation (ABFE) Maps have nearly doubled the number of buildings located in the 100-year flood zone, suggesting approximately 71,000 buildings could be at risk for wave action or flooding in future storms. Sea level rise will further expand vulnerable areas, and unchecked storm surges in the future could cause damage equal to or greater than Hurricane Sandy.

CDBG-DR funds will be used to improve building and infrastructure resiliency through competitions that identify and deploy the most promising and cost-effective technologies. Addressing these vulnerabilities will require investment in technologies to prepare critical networks and building systems for future risks. Post-storm analysis identified priority areas to prepare for the future, but sourcing specific, cost-effective, innovative technologies remains difficult. The goal of this competition is to competitively allocate funds to identify and deploy the most promising technologies that improve the resiliency of NYC’s buildings and critical networks.

Proposals submitted under the competitions will be selected via a competitive process. NYCEDC – in coordination with the Mayor’s Office of Long-Term Planning and Sustainability – may convene a technical advisory panel of industry experts and key stakeholders to evaluate proposals submitted under the competition tracks. The proposal evaluation process may take the form of several rounds to ultimately select and award grants to the most potentially impactful and cost-effective solutions.

The scope and content requirement in the Request for Proposal will specify that proposals provide detailed and specific information demonstrating that the proposed activities and outcomes will not have adverse impacts on protected classes. If the winning submission is a utility then NYCEDC may apply for a waiver of the prohibition on assistance to utilities. Please note that the City will enforce and monitor compliance with Davis-Bacon Labor Standards and Section 3 requirements wherever applicable. Eminent Domain will not be used in this program.

**HUD Eligibility Category:** Special Economic Development Activities (aka Economic Development or Recovery Activity that Creates/Retains Jobs)

**National Objective:** Urgent Need; Low- and Moderate-Income Job Creation/Retention; and Low- and Moderate-Income Area. In the absence of identified ways to secure infrastructure from future events, impacted areas, many of which are low- and moderate-income areas, are at risk of seeing a significant outflow of commercial enterprises, thereby extending and exacerbating the impact of Hurricane Sandy. Investment that decreases the vulnerability of infrastructure and buildings through resiliency measures address the urgent need that exists in these areas.

**CDBG-DR Allocation:** $41,000,000

**Projected Accomplishments:** Innovative, impactful, and cost-effective solutions will be identified and implemented in order to aid impacted and at-risk businesses and networks.

**Program Administration:** NYCEDC will be a subrecipient of the City’s Department of Small Business Services. NYCEDC – in coordination with the Mayor’s Office of Long-Term Planning and Sustainability – will procure a partner with sufficient technical expertise to advise on the design and implementation of a
two-track program that includes competitions to identify technologies and measures that improve the resiliency of (1) critical infrastructure networks and (2) building systems. The competitions will outline current solutions, challenging industry to provide better and/or cheaper alternatives. Program tracks include:

1. Critical Infrastructure Resiliency Competition: grants for measures that increase resiliency of critical infrastructure networks, including power, liquid fuel, other energy (steam and natural gas) and telecommunications.
2. Building Resiliency Technologies Competition: grants for technologies that buildings can adopt to make their building systems more resilient.

NYCEDC and the Mayor’s Office may convene a technical advisory panel of industry experts and key stakeholders to evaluate proposals submitted under the competition tracks and may award grants to the most potentially impactful and cost-effective solutions.

**Eligible Applicants/Properties:** Entities that demonstrate the ability to successfully implement proposed projects using impactful and cost-effective resiliency measures. (Please note that the Hurricane Sandy CDBG-DR appropriation contained a prohibition on assistance to businesses other than those that meet the SBA small business definition. In the event that NYCEDC finds evidence of a compelling need to assist businesses that do not meet this definition, NYCEDC may apply for a waiver of this requirement.)

**Eligibility Criteria:** TBD

**Grant/Loan Size Limit:** While NYCEDC intends to competitively award the $41 million grant to multiple proposals under each competition track, award amounts will be based upon the proposal-specific proven financial need.

**Program Priorities:** Proposals may be judged by a combination of NYCEDC and Mayor’s Office employees and a technical advisory panel of industry experts to evaluate proposals, prioritizing based on technical potential and cost-effectiveness.

**Geographic Area(s) to be Served:** Citywide

**Program Start and End Dates:** Key program milestones and timing may include:

- Release solicitation and procure a technical consultant (Q2 2013);
- Launch program and solicit proposals under two competition tracks, anticipated shortly after HUD approval; and
- Select proposals and award grants (Q3/Q4 2013).

**Other Funding Sources:** TBD
IX. **Infrastructure and Other City Services**

**Needs Assessment**

**City Services: Storm Preparation and Emergency Response**

The City undertook a massive preparation effort several days before Hurricane Sandy made landfall. The City's Office of Emergency Management (OEM) began tracking the storm that would eventually develop into Hurricane Sandy on Saturday, October 20, 2012. On October 25, as the forecast showed that Sandy might hit the Northeast, OEM activated the City's Coastal Storm Plan (CSP), which is a series of plans that guide the City's response to and recovery from the hazards that hurricanes bring. These plans included storm tracking and decision-making, evacuation, sheltering, logistics, public information, and recovery, outlining a coordinated citywide response to any coastal storm event. On October 26, the City activated OEM's Emergency Operation Center (EOC), which was the hub of the City's storm preparations and immediate response efforts.

**Storm Preparation**

Once the CSP and EOC were activated, City agencies began transitioning to emergency operations, which included testing and fueling generators; taking inventory of critical supplies; and securing and relocating vehicles and other equipment out of flood zones. Additionally, each of the eleven hospitals within the City's Health and Hospitals Corporation (HHC) and the HHC central offices activated command centers that were fully staffed until several days after the storm.

Also on October 26, OEM activated the City's Advanced Warning System (AWS), which pushes targeted emergency information to warn the most vulnerable populations, such as the elderly and people with disabilities, 24 to 48 hours in advance of an impending emergency. OEM sent 16 AWS messages before, during, and after the storm.

The City's Department of Environmental Protection (DEP) activated all applicable emergency storm preparedness procedures several days in advance of Sandy’s landfall. This included inspecting and cleaning catch basins in flood-prone areas to ensure optimal drainage during the storm. DEP created comprehensive staffing plans to ensure effective and continuous operations both during and after Hurricane Sandy. Where possible, staff and equipment located in low-lying Zone A areas were moved to designated alternate operating facilities to minimize disruption in operations. This included relocating DEP’s Emergency Communication Center, a critical operation during emergency events. DEP Distribution Operations personnel checked all critical structures and appurtenances to ensure uninterrupted operation of the water distribution system. Facilities personnel also undertook significant measures to minimize damage and disruptions to operations by securing items that could become compromised due to heavy winds, topping off chemical and fuel supplies, inspecting critical equipment for operational purposes, and rescheduling deliveries before the storm. DEP sandbagged wastewater treatment plants and pumping stations; fueled emergency generators; tied down loose equipment and suspended construction activities; scheduled staff for double shifts; pre-positioned mobile pumping equipment; made arrangements with contractors to provide as-needed services; and performed training drills on power-down, evacuation, and sheltering procedures in the event that a facility flooded. Throughout the storm, all wastewater treatment plants were fully staffed with personnel working 24/7.
As part of the Coastal Storm Plan, the City activated its Unified Operations Resource Center (UORC) on October 27, which coordinates operations of the City’s emergency shelters. The UORC is staffed by 16 different City agencies, but is primarily made up of employees from the Department of Homeless Services (DHS). City employees who are designated as evacuation shelter staff reported to their respective shelters at 8:00 A.M. on Saturday, October 27. These shelters and evacuation centers were located in Department of Education (DOE) and City University of New York (CUNY) public school buildings. DOE provided custodial staffing, food supplies, and food service workers to run the shelters. Eight of the shelters were special medical need shelters that would serve residents with certain medical conditions. In conjunction, OEM began mobilizing the City’s emergency shelter supply stockpile, which consists of more than 5,700 pallets of medical supplies, personal care items, cots, blankets, food, water, and baby and pet supplies.

The shelters began accepting voluntary evacuees on Sunday, October 28. However, as weather models showed that the City would likely sustain a more direct impact than previously predicted, the Mayor ordered a mandatory evacuation order for Zone A at 11:00 A.M. Residents were ordered to evacuate to shelters by 7:00 P.M., at which time MTA bus and subway service was suspended. The City utilized 200 DOE school buses to evacuate New York City Housing Authority (NYCHA) residents prior to NYCHA powering down elevators in its developments. By 9:00 P.M. Sunday, October 28, MTA bus and subway service was essentially shut down.

Throughout this event, the City focused on ensuring that the public had the most up-to-date information. The Office of the Mayor coordinated efforts to inform the public, which included press conferences that were carried by major television and radio networks and were streamed on www.nyc.gov YouTube, and other social media platforms; alerts sent through the City’s NotifyNYC system; and through the Commercial Mobile Alert System (CMAS), which sent a text message to all City cellular phones notifying them of the evacuation order.

As the storm approached, the City’s uniformed services drastically increased staffing levels. The NYPD switched its tours to 12-hour shifts and pre-positioned flat-bottom boats in the most vulnerable neighborhoods. Officers canvassed Zone A areas with bullhorns from marked NYPD vehicles flashing their lights and alerting residents about the mandatory evacuation order. NYPD officers drove MTA buses and provided transport to anyone who still had not evacuated. These operations continued until it was no longer safe for first responders or anyone to be on the roads. The NYPD also relocated the City’s homeless individuals to shelters that were out of harm’s way.

The FDNY also increased its operations in Zone A, adding a fifth firefighter to forty engine companies and placing five additional chiefs in service. The Department activated their Incident Management Team (IMT); pre-positioned marine skiffs (hurricane boats) in the Rockaways, the Bronx, and Staten Island; deployed all seven brush-fire units to assist EMS response in Zone A; and deployed eight inflatable swift-water rescue boats with teams throughout the City. EMS operations had 100% staffing in all five divisions, including more than 100 additional ambulances. In total, the FDNY had more than 600 additional personnel, both firefighters and EMS, working during the height of the storm.

In addition to being fully staffed and working significant overtime, the City’s Emergency 911 and informational 311 systems brought on additional, temporary call takers in anticipation of unprecedented call volume. The staffing levels proved to be invaluable, as call volume increased sharply. During the storm the 911 system reached its highest hourly call-volume ever, which peaked at 20,000 calls per hour. On October 29, 911 received over 100,000 calls – more than September 11, 2001 and the 2003 blackout. For 311, which is administered by the City’s Department of Information Technology and Telecommunications
(DoITT), call volumes increased prior to the storm as residents inquired about evacuation zone lookups and Sandy-related transit information. During and following the storm, call volume reached more than 274,000 calls per day, four times greater than the 2012 daily average.

Additionally, City agency staff took measures to protect City-owned property and equipment, which included, but were not limited to, securing windows; sandbagging buildings; removing loose items from facility exteriors; fueling generators; moving generators to higher ground, etc. Certain agencies required more extreme measures. For example, HHC safely discharged patients where possible, and one hospital in a primary flood zone transferred ventilator-dependent patients to other facilities. The City’s Department of Transportation (DOT) took measures to protect the Staten Island Ferry fleet by either moving boats to dry docks or fully staffing the vessels throughout the storm to prevent damage.

**Emergency Response**

The unprecedented storm surge generated by Hurricane Sandy caused catastrophic damage to the City’s coastal neighborhoods and substantial damage across a wide area of the interior, from Staten Island to the Rockaways, to the Bronx. Uniformed services switched to search and rescue operations as the NYPD, FDNY and EMS rescued stranded civilians who did not evacuate flood zones. Firefighters used the pre-positioned swift-water boats to rescue more than 500 individuals trapped by rising waters across Brooklyn, Queens, and Staten Island. There were a total of 94 fires the night of Hurricane Sandy, with the most devastating in Breezy Point destroying 126 homes and damaging 22 more. Additionally, all of the agencies worked with the Department of Buildings (DOB) and OEM to secure a collapsed crane on West 57th Street in Manhattan and evacuate the surrounding area.

The storm surge also required the evacuation of Coney Island Hospital on Tuesday, October 30, 2012 and Bellevue Hospital on Wednesday, October 31, 2012. Several hundred patients, including many who were critically ill and more than 15 neo-natal intensive care babies, were delivered safely and without incident to caregivers at HHC facilities and other hospitals. EMS also assisted with the evacuation of NYU Langone Medical Center.

Following the storm, FDNY operations set up command posts in each of the hardest hit areas of Brooklyn, Queens, and Staten Island as bases from which to coordinate with other agencies and muster additional resources. The NYPD set up more than 500 light towers throughout the City and provided increased deployments to all five boroughs of the City, with larger deployments concentrated in Lower Manhattan, where power was out below 34th Street, and the hardest hit shore areas of Brooklyn, Staten Island, and Queens. Officers assisted with the distribution of necessities such as food and water to New Yorkers who lost their homes; enforcement activities including residential and commercial anti-looting patrols, focusing on key neighborhoods around the City that were without power; and performing neighborhood patrols and door-to-door checks on residents in the public housing facilities that lost water and electricity. Housing officers distributed food, water, and blankets and transported vulnerable residents to medical care, particularly senior citizens.

Many agencies, primarily DEP and DOT, began water removal operations from their facilities as soon as it was safe to do so. Agencies worked closely with the U.S. Army Corps of Engineers (USACE) and the Navy to pump out the Battery Park underpass and West Street underpass. DEP provided assistance with removing flood water citywide by lending out crews and industrial pumps. Of the City’s 14 wastewater treatment plants, 13 came back online in record time and were treating 99% of the City’s wastewater within days of the storm. The Rockaway Wastewater Treatment Plant came back online about a week later.
During the massive loss of power across the five boroughs, NYPD Traffic Enforcement Agents and DSNY employees directed traffic at hundreds of intersections. Additionally, throughout the citywide gasoline shortage, officers were posted at open gas stations throughout the City.

The Department of Citywide Administrative Services (DCAS), partnering with OEM, FEMA, and USACE, helped acquire many different types of supplies, including light towers, generators, portable toilets, pharmaceuticals, and bottled water to support emergency operations citywide. Generators and boilers were deployed to critical facilities such as nursing homes, hospitals, multi-unit housing, NYCHA developments, etc. Additionally, DCAS’ Fleet Services coordinated the delivery of fuel to City entities and emergency fueling operations for City, State, and essential emergency response vehicles at Floyd Bennett Field in Brooklyn, Fort Wadsworth in Staten Island, and Orchard Beach in the Bronx.

The Department of Buildings (DOB) began conducting assessments of damaged properties on October 31. Buildings were tagged as red (seriously damaged and unsafe to enter or occupy), yellow (damaged with specific entry and restricted use), or green (no apparent structural hazards and no restrictions on use).

**Restoration of Services**

Nearly every City agency participated in recovery efforts. For example, during and immediately after the storm, Correction Officers provided security at relief stations, transported relief workers, and delivered food provisions and other emergency relief supplies. Correctional facility inmates also laundered clothes for thousands of New York City families temporarily residing in shelters after the storm.

In the immediate aftermath of Sandy, many of the City’s recreational facilities were transformed into recovery centers. The East 54th Street Recreation Center in Turtle Bay provided recreation and shower facilities to children under the care of the Administration for Children Services (ACS) from the Lower East Side. The Sunset Park Recreation Center offered shower facilities to displaced New Yorkers from Red Hook. In Crown Heights, the St. John’s Recreation Center was able to offer recreational opportunities and shower facilities for children and their families being sheltered at P.S. 249. The Asser Levy Recreation Center in Kips Bay served as an alternative location for New Yorkers to cast their votes on Election Day.

DoITT required employees to work overtime to ensure adequate on-site coverage for technology and telecommunications problems. DoITT also procured emergency mobile equipment and devices, including pictometry for surveying damage.

Many City agencies’ offices were damaged in the storm. In order to ensure that City government entities could return to serving the needs of the citizens as quickly as possible, the Department of Citywide Administrative Services (DCAS) identified alternative temporary space to relocate City staff from damaged offices. DoITT secured equipment, such as routers and computers, to replace items lost in the storm and provided desktop support, mobile communications services, and data analytics.

Limited critical care services were opened at Bellevue Hospital in the middle of December and at Coney Island Hospital in the beginning of January. Coney Island Hospital began to accept inpatients in the middle of January and began offering limited ambulance-related emergency services in late February. However, the hospital will not be able to fully restore all services until late May. Bellevue fully re-opened on February 7 and resumed its Level I Trauma Center status.

DEP’s Bureau of Water and Sewer Operations immediately responded to water and sewer complaints following the storm. Within a few days, DEP inspected approximately 1,000 catch basins and cleaned more
than one-third of those. Through the month of November, staff continued to inspect and clean catch basins citywide. More than 6,100 were inspected and more than 3,600 were cleaned as part of response operations. DEP crews conducted detailed visual surveys of all DEP assets in the Rockaways and along the coastline of Queens. Because of these surveys, DEP was able to repair approximately 900 hydrants citywide.

Throughout New York City, DEP flushed more than 37 miles of sewers. Contractor crews inspected approximately 51 miles of sewers in the Rockaways and cleaned more than eight miles of sewers in Brooklyn, Queens, and Staten Island. Approximately 450 cubic yards of debris was removed, nearly 85% of which was removed from Queens. DEP conducted a major cleanup effort to restore the natural drainage at Jefferson Creek in Staten Island. Two weeks after the storm, flusher trucks had cleaned nearly 10,000 linear feet of sewer lines and crews had removed almost 1,000 cubic yards of debris from Jefferson Creek.

**Emergency Supply Distribution**

Immediately following the storm, the City opened food, water, and emergency supply distribution sites in the hardest hit areas in order to protect the health and safety of the population in the hardest hit communities. The sites were staffed by City employees, volunteers, the Salvation Army, and the National Guard. From Thursday, November 1st through Monday, November 26, a wide assortment of urgently needed supplies was provided, including more than 2 million meals, water and other beverages, infant care items, garments, batteries, and cleaning and personal hygiene supplies.

As part of the Support to Residents in Their Homes operation, the Fire Department Incident Management Team, working with the Office of Emergency Management and the Department of Health and Mental Hygiene, sent teams of National Guard troops, FEMA personnel, and AmeriCorps volunteers door-to-door in affected areas of the City to check on the health and well-being of residents in buildings without heat and/or power.

**Restoration Centers**

In order to assist the hardest hit communities to begin recovery efforts, between November 13, 2012 and February 23, 2013, the City operated NYC Restore, a comprehensive effort to connect residents and businesses impacted by Hurricane Sandy with financial, health, environmental, nutritional, and residential services, as well as FEMA reimbursement processing. The initiative consisted of seven NYC Restoration Centers, wheelchair-accessible offices located in the communities that were hardest hit to provide long-term assistance to New Yorkers, and brought together information and referrals for all of the City government services available in the aftermath of the storm.

**Food Distribution**

In the weeks immediately following the disaster, the Human Resources Administration (HRA) provided funding of approximately $4.8 million to distribute more than 720,000 prepared meals at eight sites in the most heavily damaged neighborhoods during November of 2012. HRA’s Emergency Food Assistance Program (EFAP) partnered with the Food Bank for New York City to provide an increase in emergency food deliveries to residents in storm affected areas.
Debris Removal

The strong winds, heavy rains, and storm surge also resulted in the accumulation of debris on streets, sidewalks, and other public properties. The debris was composed of woody material, sand, stones, street and building/household wreckage, and other objects deposited by the storm surge and wind. Hurricane Sandy generated more than 700,000 tons of debris in New York City. To tackle the massive amount of debris, the Office of the Mayor immediately stood up the Debris Removal Task Force (DRTF) to coordinate debris removal in order to ensure safe passage for emergency vehicles, open traffic flow, and to create a safe and clean environment to allow for rebuilding. The DRTF was comprised of over 25 City, State and Federal agencies, including the Office of Emergency Management, Department of Sanitation, Department of Parks and Recreation, New York State Department of Environmental Conservation, Federal Emergency Management Agency, U.S. Army Corps of Engineers, and the Environmental Protection Agency.

Most of the clearance work was done by the Department of Sanitation (DSNY), whose employees worked constantly 24 hours a day, 7 days a week, in 12-hour shifts that lasted from the end of Hurricane Sandy through the beginning of December. Tree debris was so prevalent that the Office of Emergency Management (OEM) convened a special multi-agency task force, which responded to more than 20,000 street tree-related emergencies received through 311 and the Department of Parks and Recreation. DEP personnel conducted asbestos air monitoring and hazardous materials inspections in order to ensure the proper disposal of all debris. Also, sand needed to be collected and sifted to remove debris before it could be returned to beaches.

City Response for Special Needs Populations

The City made every effort to inform special needs populations of the potential dangers of Hurricane Sandy. The Advanced Warning System (AWS) warned vulnerable populations of Sandy's threat several days before the storm made landfall. OEM sent Sandy-related AWS messages before, during, and after the storm. The City used American Sign Language interpreters at every press conference and encouraged television networks to provide closed captioning during mayoral briefings.

Department for the Aging (DFTA)

The Department for the Aging (DFTA) was in constant contact with all senior service providers that had communication capability before, during, and after the storm to field questions, provide information on resources, direct requests for emergency services/assistance, disseminate information on the City's restoration efforts, coordinate donations, and respond to all storm-related needs. Daily updates were provided to the Mayor's Office and uploaded to the City's website for several weeks after the storm.

The Case Management Agencies contacted their clients in preparation for the storm, as well as during and following the storm. There were 14,995 contacts made between Friday, October 26 and Friday, November 2. Clients were referred for emergency care as needed. DFTA staff at the OEM Emergency Operations Center also helped coordinate evacuations, requests for supplies from senior housing residences, and search for missing seniors.

DFTA also coordinated canvassing efforts with the National Guard and provided home-delivered meals and other services when they were requested. In partnership with Citymeals-on-Wheels (CMOW), all 23 home delivered meal programs delivered meals to their clients. Between October 26, 2012 and November 17, 2012, DFTA and CMOW's home-delivered meals program delivered 363,945 meals, serving more than
15,000 clients. More than 15,000 meals were delivered daily. Providers mobilized volunteers to continue deliveries of meals and emergency food packs, often using creative solutions to fuel their delivery vehicles.

All 13 home care agencies stayed in touch with 2,575 clients when aides could not make visits.

During the first week after the storm, 201 senior centers were able to re-open by November 2; the rest followed as power was restored in the boroughs. More than 250 DFTA senior centers provided needed meals, support services, and operated as warming centers, some for extended hours and on weekends, in the months following the storm. A few remain closed due to more severe facility damage.

DFTA also provided additional miscellaneous assistance such as disseminating information on the FEMA reimbursement process for non-profit organizations; working with OEM and utility companies to restore power in senior residential buildings sponsored by a DFTA-contracted service provider in Far Rockaway and Brooklyn; coordinating delivery of 1,500 space heaters donated by National Grid for older residents who had power but no heat; staffing shelters and DFTA programs that were under-staffed; and volunteering at the FEMA Disaster Assistance Centers.

**Human Resources Administration (HRA)**

**Home Care Services Program**

Prior to Hurricane Sandy, Home Care ("CASA") offices contacted all 2,967 clients in Zone A. CASA case managers informed clients of the evacuation order, provided them with information regarding the evacuation shelters, and discussed other options with them.

On November 3-4, 2012, CASA staff and first responders visited 51 previously unaccounted for clients in Far Rockaway. Home Care assisted in the evacuation of one client and provided food, water, and blankets to those who refused to evacuate. Home Care also provided food, water, and blankets to other (non-HRA Home Care clients) Far Rockaway residents who were in the immediate vicinity of the clients. Home Care contacted 1,515 clients who were high risk (i.e., 56 hours and higher of Home Care service) following the storm to check on their status.

**Adult Protective Services**

Adult Protective Services (APS) staff made nearly 5,000 phone calls and more than 500 visits to clients in Flood Zone A, Coney Island, and the Rockaways both before and immediately after the storm. Before the storm, APS focused on assisting clients in evacuating to shelters and hospitals. APS used EMS and HRA staff psychiatrists for assessments in cases where it was unclear if clients had the mental capacity to make appropriate decisions regarding evacuation.

**HIV/AIDS Services Administration**

In the aftermath of the storm, the HIV/AIDS Services Administration (HASA) worked to confirm the well-being of 393 clients residing in Zone A who were considered at-risk due to medical limitations. HASA staff members, along with HRA police, also made home visits in Far Rockaway to check on clients whom they were unable to contact via telephone and those who had been contacted but were particularly frail. In November 2012, HASA staff, alone or partnering with other agencies including FEMA and the NYPD, successfully contacted all 393 clients and made more than 350 home visits.
Immediately following the storm, HASA clients’ requests for emergency housing increased approximately 60% because clients were displaced by the storm. During the first two weeks following the hurricane, HASA placed 354 clients who were temporarily or permanently made homeless by the storm into emergency housing programs.

**Supplemental Nutrition Assistance Program (SNAP)**

After the hurricane, HRA was able to issue special SNAP benefits to assist existing SNAP recipients and other low-income New Yorkers with the purchase of food. Along with New York State, HRA secured a waiver to provide certain benefits and to permit SNAP recipients to use their benefits to purchase hot/prepared foods through November 30, 2012. The following combination of special SNAP programs provided additional benefits totaling more than $72 million to households that were impacted by the storm:

- In the first week of November, 311,445 households residing in 82 of the most highly impacted zip codes received an automatic replacement benefit of 50% of their October SNAP grant, under a special USDA waiver.
- More than 107,000 households applied in person through the beginning of November 2012 and also received SNAP replacement benefits. Some of these were people who did not get the automatic replacement and some were those who had already received the replacement but were eligible for additional benefits.
- Under the USDA’s Disaster Supplemental Nutrition Assistance Program (D-SNAP), more than 31,000 households in 10 of the most highly affected areas received a special allotment of SNAP benefits equal to the maximum grant for households of that size.

**Medicaid**

HRA Medicaid offices were open in all five boroughs and the Medicaid Help Line was also operational immediately after the storm. The Medicaid Program relocated staff from flood-damaged offices to other locations so that operations could proceed normally. In addition, the Medicaid Program worked with the NYS Department of Health to implement program-easing measures to avoid case closings and lapses in coverage, including:

- A two month extension of Medicaid coverage for cases due to expire in November or December;
- Cancellation of closings in process;
- Suspension of closing transactions for failure to renew or failure to respond to a request for additional information;
- A seven day increase in the amount of time allowed to respond to a request for information at new application;
- A thirty day extension of current authorization for personal care services, including CD PAP services, for those due to expire during the state of emergency; and
- An extension of the period of acceptance of physician orders for personal care services authorizations from thirty days to sixty days from the date of examination.
**Mayor’s Office for People with Disabilities (MOPD)**

People with disabilities faced unique difficulties as a result of Hurricane Sandy, particularly if they lived within Zone A and faced mandatory evacuation. Those who lost power in other zones faced their own challenges, including being trapped in their apartments with no elevator access; being unable to power life-sustaining equipment; and dealing with shortages of food, durable medical equipment, and medication. In particular, those in need of dialysis found it very difficult to get treatment because sites were closed and transportation was not available.

MOPD undertook several initiatives to assist such populations, which included:

- Visiting shelters and evacuation centers to determine accessibility and informing shelter staff how to work with people with disabilities;
- Helping to coordinate effective Mayoral press conference communication for those who are Deaf and Hard-of-Hearing through the use of a real-time American Sign Language interpreter;
- Having staff on-site at the OEM Emergency Operations Center taking calls and participating in meetings;
- Forwarding constituent calls directly to the cell phones of staff to ensure calls would be answered;
- Coordination of food delivery to those in need by working directly with Citymeals-on-Wheels;
- Working directly with City agencies, including the FDNY, to help remove those trapped in their apartments;
- Providing up-to-date information about the storm on its website on a 24/7 basis;
- Keeping a direct line of communication open with members of the disabled community to address specific and general problems;
- Taking part in daily meetings with representatives of groups that represent people with disabilities, OEM, and FEMA to address needs and concerns;
- Working directly with DCAS so that Access-a-Ride vehicles were given priority to fuel their vehicles;
- Working with local non-profits to supply mobility devices to those whose equipment was destroyed by the storm;
- Working with local non-profits to set up temporary clothing distribution centers that employed people with disabilities;
- Working with FEMA to identify the percentage of accessible temporary housing for people with disabilities; and
- Visiting NYC Restoration Centers to ensure that they were accessible and that staff were aware of the needs of people with disabilities.

The direct impact of Hurricane Sandy on the City extends beyond the immediate storm preparation and emergency response. As explained above, the City provided a tremendous amount of recovery and restoration services. In addition, the City's infrastructure, which includes buildings, roads and streets, water and sewer systems, parks and recreational facilities, etc., suffered extensive damage. An unmet needs analysis for the total cost of the storm response, recovery, and damaged City infrastructure is addressed in the next section.
Impact to the City’s Infrastructure

As discussed in the Needs Assessment section, Hurricane Sandy caused damage to City infrastructure and facilities. Damaged facilities that provide essential services, such as police stations, fire stations, sanitation garages, and educational facilities, were among those hardest hit. Despite efforts to protect City-owned infrastructure, facilities, and other assets, damage to such property was extensive. The estimated impact to City facilities is $3.1 billion.

The NYC Heath and Hospitals Corporation (HHC) had ten large hospitals damaged, including extensive damage to Bellevue Hospital Center, Coney Island Hospital, and Coler-Goldwater Memorial Hospital. HHC also experienced damage to five smaller healthcare facilities as well as to one of its administrative office spaces. Two hospitals and one community clinic were evacuated and displaced. Temporary administrative offices also had to be leased, built-out, and supplied with computers and telephones.

The New York City Police Department (NYPD) sustained storm-related damage to more than 20 of their facilities including station houses, warehouse/storage facilities, boat docks, tow pounds, an aircraft hangar, and the Department's firing range and bomb squad training buildings.

Seventy-one school buildings sustained damage from Hurricane Sandy. Damages to these school buildings included severe salt-water flooding, destroyed boilers and oil tanks, damaged electrical and computer/phone cabling and equipment, oil spills and the resulting contamination, sink holes, roof leaks, and ruined gym and auditorium flooring. Extensive upgrades, including the replacement of temporary boilers with permanent systems, are required to bring buildings back to their pre-storm condition.

The City had damage to approximately 400 Parks sites, in addition to the displacement of more than 3 million cubic yards of sand from the City's beaches.

Twenty-nine Fire Department facilities were damaged due to the storm; this includes 16 Firehouses, 6 EMS stations, 5 Marine facilities and 2 support facilities (Paidge Avenue and Fort Totten). There was widespread damage to apparatus doors (after being hit by a high quantity of seawater), basements (which filled to the top with water), electrical and heating systems (including pipes), and various structural aspects. Marine facilities suffered damage to piers, piles, electrical systems and transformers, as well as the wave attenuator at Marine 9, which is intended to reduce wave height in order to provide safe berthing for vessels. FDNY also suffered losses of information technology equipment, communications networks and infrastructure, fire apparatus, and ambulances.

The Department of Sanitation (DSNY) sustained damage at 61 of its facilities throughout the City, and needed to evacuate 14 of its facilities; it also suffered damage to its vehicle fleet including 9 light/medium duty vehicles and 34 heavy duty vehicles that require repairs after being damaged by salt water. DSNY also manages the former Fresh Kills landfill which sustained damage to its pollution control infrastructure.

The Department of Correction (DOC) sustained damage along the northern shoreline of Rikers Island, losing an estimated four acres of land. All trailers located along the eroded north shore will need to be replaced and relocated. One facility's roof was significantly damaged. The electrical substation for the City's only jail barge, located in the Hunts Point section of the Bronx, will now need to be raised to meet FEMA's floodplain standards.

The Department of Transportation (DOT) determined that hundreds of lane miles of streets will require resurfacing and/or full reconstruction due to storm damage. Street lights, traffic signals, and underground
wiring were damaged by floodwaters, and in some cases, backed up sewage. High wind speeds further caused extensive damage to the existing street fixtures and traffic equipment. Floodwaters severely damaged the Battery Park and West Street underpasses in Lower Manhattan, and repairs are also necessary for 20 moveable bridges. The mechanical and electrical systems at the Whitehall (Manhattan) and St. George (Staten Island) Ferry Terminals incurred significant damages. In addition, ferry piers and other ferry facilities suffered damage. Finally, the Department’s administrative offices were flooded and contents, including technological equipment, were irreparably lost.

Ten of the City’s 14 Wastewater Treatment Plants were adversely affected by Hurricane Sandy. Rockaway, the smallest wastewater facility by capacity, was the most severely affected. Most of the damage was to electrical systems including substations, motors, control panels, junction boxes, and instrumentation. Power outages required many DEP facilities to operate on their emergency generators for up to two weeks. Of the 96 DEP pumping stations, 42 were impacted by the storm.

The New York City Department of Environmental Protection ensured that the City's drinking water remained safe during and after the storm despite the fact that all of the City’s water pollution control plants (WPCPs) experienced some degree of damage as a result of Hurricane Sandy. Power was lost at many facilities that compose the City's drinking water supply system, including a dam and several reservoir control stations. Power was lost at a number of water supply shafts, and fencing and security equipment was lost at several facilities. In addition, a water tunnel replacement project between Brooklyn and Staten Island has been delayed due to damage caused by the storm, and critical equipment at several landfills was damaged.

The City also suffered damage to its extensive array of public cultural institutions including museums, the New York Aquarium, the City's public library systems, the Brooklyn Navy Yard (a critical small business industrial park), historic buildings on Governor's Island, and new public space facilities along the Brooklyn waterfront.

**New York City’s Response to Infrastructure Impact**

The City’s survey of the damage inflicted on infrastructure and the restoration thereof is ongoing and involves virtually every City agency. In conjunction with FEMA’s Public Assistance Grant Program, the City is identifying and assessing damaged sites to develop cost estimates that quantify the scope of work and financial commitment required for the necessary capital infrastructure projects. A few of the most urgent issues that agencies must address are discussed below.

**Health and Hospitals Corporation (HHC)**

The unanticipated, record-level storm surge produced by Hurricane Sandy required the evacuation of Coney Island Hospital on Tuesday, October 30, 2012 and Bellevue Hospital on Wednesday, October 31, 2012. Additionally, the Coler campus of the Coler-Goldwater Specialty Hospital and Nursing Facility on Roosevelt Island was severely flooded, lost electricity and steam, and was forced to rely on generators as well as temporary boilers. Though Bellevue Hospital has fully reopened and Coney Island Hospital has reopened with limited services, HHC will further develop damage descriptions and scopes of work and conduct extensive repairs over the next several months in order to fully restore the medical and health facilities listed prior.
Department of Education (DOE)/School Construction Authority (SCA)
The School Construction Authority returned 48 schools in more than 30 buildings to operation by removing debris, installing temporary boilers, performing environmental remediation, pumping out millions of gallons of water and making other necessary repairs. The schools that were closed displaced 75,000 students who could not attend their assigned school after the storm. These students had to attend schools far from their homes and were taught in overcrowded public assembly spaces such as gyms, auditoriums, and cafeterias in undamaged buildings that had to be shared with the students who regularly attended those school buildings. Additional repair and restoration efforts are on-going and necessary to return all school facilities to their pre-disaster capacity and function.

Department of Parks and Recreation (DPR)
After the storm, DPR staff went to work inspecting almost 2,000 parks and playgrounds to assess damage, clean and remove debris, and quickly re-open as many sites as possible. The Department’s assessments of parks, playgrounds, recreational centers, and other facilities citywide after Hurricane Sandy revealed significant storm-related damage. Significant efforts are being made to restore the recreational facilities, beaches, and coastline areas.

Department of Transportation (DOT)
DOT’s personnel quickly mobilized on numerous fronts to address damage from Hurricane Sandy. DOT bridge engineers inspected, cleared, and reopened the four East River bridges by 10:00 AM the day after the storm. With assistance from the Army Corps of Engineers and DEP, DOT reopened all City-managed tunnels, with some 15 million gallons of water pumped from the Battery Park Underpass alone. DOT reopened long sections of the FDR Drive within 24 hours, restoring this vital north-south link. The crews of the Staten Island Ferry prevented damage to six ferryboats by manning them during the storm with 90 ship-board crew and another 60 on the docks to prevent the boats from striking slips and each other. DOT restored Staten Island Ferry service within 72 hours of the end of the storm. On New York’s streets, DOT’s crews assisted the Department of Sanitation to remove approximately 157,000 tons of debris. Crews inspected all storm-damaged streets and 2,525 acres of highway roadsides, removing more than 9,503 tons of downed trees and limbs, inspected 23,205 complaints of sidewalk damage, and repaired more than 6,000 traffic signals and signs damaged during the storm. Data pertaining to damaged streets was incorporated into a map portal to facilitate communication with other City and State agencies, Federal funding partners, as well as the general public.

Analysis of Unmet City Infrastructure and City Services Needs
Early estimates of the City’s emergency response public services, debris removal expenses, and costs to repair and rebuild damaged City Infrastructure are more than $4.5 billion. This early estimate is comprised of $1.4 billion for the costs of emergency response (protecting health and safety and assistance to special needs populations), debris removal, and more than $3.1 billion in estimated costs for repairing and rebuilding damaged City infrastructure. The City will use CDBG-DR funding to leverage other funding sources, such as FEMA Public Assistance, Federal Highway Administration funds, and assistance from the Army Corps of Engineers, to cover these costs. However, after accounting for other federal sources and mitigation activities, the City estimates a remaining unmet need for the City’s emergency response public services, debris removal, and costs to repair and rebuild damaged City infrastructure at more than $1.2 billion. In this first allocation of CDBG-DR funds, the City is dedicating $360 million, roughly one-third of its total unmet need.
**Infrastructure Goals**

The severe destruction and flooding brought on by Hurricane Sandy caused significant damage to the infrastructure systems and key public facilities within New York City. Roads, bridges, drainage systems, public utility infrastructure, schools, hospitals, and park sites throughout the City sustained damage, causing the loss of critical services to homes and businesses and the creation of severe hardships, inefficiencies, and decreased performance and operating capacities. New York City is committed to addressing these needs and securing the health and stability of local communities and economies by helping to provide these essential services needed to attract and retain businesses as well as residents.

Infrastructure objectives include:

1. Rebuilding, repairing, and replacing health and hospital facilities damaged in the impacted areas enabling the affected communities access to medical attention;
2. Removing and disposing of all storm-related debris that impacted a community’s public health, safety, and threaten life and property;
3. Repairing and upgrading existing City water, storm-water, and sewer systems for impacted residents returning to their neighborhoods, including addressing all storm-related damage to roads and streets in order to restore public use expeditiously in those areas most impacted;
4. Ensuring that school facilities and other public facilities such as fire, police, and other critical infrastructure damaged in the impacted areas are restored; and
5. Restoring parks and recreational facilities in order for impacted communities to resume recreational activities.

As part of its restoration projects for Sandy-damaged infrastructure, the City will evaluate project design elements, such as elevating building systems equipment, and will incorporate these design elements, as applicable, to enhance preparedness for potential future disasters.
Infrastructure and Other City Services Programs

Public Services

**Program Objective and Description:** The City mobilized its vast workforce to provide various public services before, during, and following Hurricane Sandy to protect communities and to provide for the health, safety, and welfare of City residents. Detailed below are the services for which CDBG-DR funds will be used to leverage other federal funding sources, primarily FEMA Public Assistance.

These costs were incurred prior to the preparation of this Action Plan. Although the City incurred significant costs to prepare for the storm, the City will only use CDBG-DR funds to reimburse costs incurred from the date of the storm in accordance with the CDBG-DR rules.

Emergency Services

To provide for the immediate protection of health and safety for communities endangered by the storm surge, high winds, damaged infrastructure, and debris-clogged transportation systems, emergency services included, but were not limited to, activities from the following City agencies:

**Office of Emergency Management (OEM):** As the coordinating agency in the City’s emergency response, OEM played a key role throughout preparations, during the storm itself and in the immediate aftermath. The agency incurred expenses related to supporting central operations at the Emergency Operations Center (EOC), logistics support citywide, and evacuation support (including the provision of buses and ambulances). OEM also played a major role in the implementation of the City’s Emergency Shelter System and incurred significant expenses in the deployment of the emergency shelter supply stockpile, along with their role as shelter support while the shelter system was activated. OEM assisted on a citywide level with the provision of trailers, janitorial services, portable toilet facilities, and with Logistics Staging Area operations at Citifield. Other storm-related work done by OEM included wellness checks, provision of pumps and sandbags for the dewatering effort, debris management, and GIS mapping support.

**Department of Education (DOE):** City schools re-opened on Monday, November 5, 2012, but 48 schools in more than 30 buildings were not able to open due to storm damage. Several other buildings did not re-open because they had been used as shelters during the previous week and the citizens housed there on an emergency basis could not be re-located to their homes in a timely fashion. Approximately 75,000 students and thousands of school staff were displaced. Students were forced to attend schools far from their homes and were taught in overcrowded public assembly spaces such as gyms, auditoriums, and cafeterias in undamaged buildings that had to be shared with other schools. As an example, one school’s students and staff had to travel 17 miles via shuttle buses to attend classes in another building. The Department of Education arranged for students at damaged schools to attend classes at alternate locations and provided transportation assistance to affected families and staff. Assistance included shuttle buses, MetroCards, and reimbursement for car service.

**Department of Information Technology and Telecommunications (DoITT):** The City’s public information hotline provides the public with quick, easy access to all New York City government services and information while maintaining the highest possible level of customer service. This telephone, text, and web service is essential during emergencies, as it absorbs the important, yet non-emergency, calls that would otherwise overwhelm 911. DoITT retained additional call-taking services for 311 in anticipation of a spike in call volume during and after the storm. Call volume did indeed increase steeply; at the post-Sandy peak,
daily call volume reached 274,000 calls, four times greater than the 2012 daily average. Storm-related 311 calls immediately before and during the storm tended to be inquiries on such topics as evacuation zone lookups and Sandy-related transit information. Post-storm, 311 calls concentrated on damages, such as requests for removal of large branches or trees; reports of power outages and sewer backups; and other hazardous location or situation reports; as well as information requests related to the storm and transit.

DoITT also required employees to work overtime to ensure adequate on-site coverage for technology and telecommunications problems, and procured emergency mobile equipment and devices, pictometry for surveying damage, and other equipment, such as routers and computers, to replace items lost in the storm. Since the storm passed, DoITT has also provided desktop support, mobile communications services, and data analytics for the City's Office of Housing Recovery Operations (HRO).

Department of Citywide Administrative Services (DCAS): During and after the storm, DCAS provided critical support for recovery efforts citywide. Its purchasing staff, partnering with OEM, helped acquire many different types of supplies, including light towers, generators, portable toilets, pharmaceuticals, and bottled water to support emergency operations citywide. Additionally, its Fleet Services coordinated delivery of fuel to City entities and the fueling operations at Floyd Bennett Field, which provided fuel to City, State and essential emergency response vehicles. DCAS also identified alternative temporary space or relocated City staff from offices damaged by the storm in order to ensure that City government entities could return to serving the needs of NYC residents. Additionally, hotel rooms for temporary shelter of displaced persons were procured through DCAS, although this program was coordinated by HRO.

New York City Police Department (NYPD): The NYPD’s citywide uniform and civilian deployment levels significantly increased by extending daily tours of duty from eight to twelve hours per day. The NYPD provided increased deployments to all five boroughs of New York City with larger deployments concentrated in Lower Manhattan and the shore areas of Brooklyn, Staten Island, and Queens.

Uniform and civilian personnel coordinated and performed all types of rescue and security operations in areas that were affected to save lives and property prior to, during, and after the storm. Emergency response activities included but are not limited to the following examples:

- Preparation measures such as testing and fueling generators and relocating and securing Department assets such as aircraft, boats, and vehicles;
- Evacuation of citizens who reside in Zone A;
- Search and rescue of stranded civilians who did not evacuate flood zones;
- Assisting in relocating the City's homeless to shelters;
- Distribution of life-saving equipment and food and water to residents who lost their homes and personal property;
- Enforcement activities including residential and commercial anti-looting patrols, focusing on key neighborhoods around the City that were without power;
- Assisting in debris removal by moving fallen trees and pumping water from flooded tunnels and other flooded areas;
- Regulating traffic, and monitoring citywide gas distribution;
- During the citywide gas shortage officers were posted at open gas stations throughout the City;
- Neighborhood patrols and door-to-door checks on residents in the public housing facilities that lost water and electricity;
- Housing officers distributed food, water, blankets and transported residents, particularly senior citizens, to medical care;
- Police Communication Technicians worked significant overtime to ensure adequate coverage for the City's Emergency 911 system, handling unprecedented call volume; and
- Traffic Enforcement Agents worked overtime to direct traffic in the neighborhoods without power throughout the duration of the power loss.

Fire Department of New York (FDNY including EMS): The Fire Department doubled staffing levels for FDNY and EMS at the 911 Dispatch Center to handle the surge in 911 calls, as well as the Department's Operations Center. EMS staffed all operational ambulances and EMS conditions cars (used by EMS officers), which, in addition to responding to emergencies, assisted with the evacuation of NYU Langone Medical Center.

During the storm, fire companies added a fifth Firefighter to 40 engine companies in Zone A, activated the Fire Incident Management Team, deployed all seven brush-fire units to assist EMS response in Zone A, and deployed eight swift-water rescue boat teams throughout the City. Despite deploying an additional 500 firefighters, the number of units available to respond to emergencies dropped from the average level of 90% to 9%. There was a total of 94 fires the night of Hurricane Sandy; the most devastating in Breezy Point destroyed 126 homes and damaged 22 more.

Department of Environmental Protection (DEP): Hurricane Sandy had an enormous impact on the City's water and sewer infrastructure. DEP staff pumped approximately 50 million gallons of water and removed thousands of trees as a part of their response efforts. In addition, DEP performed air quality monitoring, hazardous material inspections, and fire hydrant repair across the City to ensure public safety.

Health and Hospitals Corporation (HHC): Each of the HHC hospitals and the Corporation's central offices staffed and maintained command centers through the storm and until after the subsequent nor'easter. Moreover, HHC provided staff and supplies to New York City's Special Medical Needs Shelters.

As mentioned earlier, the damage, flooding, and power disruptions resulting from Hurricane Sandy forced the evacuation and temporarily closure of two of the City's public hospital facilities, Bellevue Hospital (a crucial Level I Trauma Center) and Coney Island Hospital, and the diversion of patients from the Coler-Goldwater Specialty Hospital and Nursing Facility. These closures, as well as damage to other HHC facilities, forced the displacement of hospital medical and support staff.

After the evacuations, Coney Island Hospital and Bellevue worked to reopen rapidly, and there was a four-month process to fully restore services at Bellevue and partially restore services at Coney Island Hospital. During that period, inpatient (and most of the outpatient) services were not being provided at these hospitals. Medical employees were redeployed throughout HHC in order to avoid staff attrition, which would have delayed the eventual reopening. In addition, non-medical staff was maintained to assist with the response and recovery of the closed facilities. Further, other expenses, such as contract payments to affiliated medical schools that provide physicians services such as New York University Medical School and Mount Sinai, continued. Most of these costs were not supported by additional revenue in the facilities to which they were redeployed, since patients were largely redirected to non-HHC facilities such as Beth Israel. Therefore the closed hospitals were cut off from Medicaid, Medicare, and commercial insurance.
Storm Recovery Services

The recovery efforts of several City agencies were centralized at the City's Restoration Centers. Recovery assistance mobilization included personnel; security; translation and sign language services; and set-up and lighting costs.

Restoration Centers: In order to assist the hardest hit communities to begin recovery efforts, between November 13, 2012 and February 23, 2013, the City operated NYC Restore, a comprehensive effort to connect residents and businesses impacted by Hurricane Sandy with financial, health, environmental, nutritional, and residential services, as well as FEMA processing. The initiative consisted of seven NYC Restoration Centers, accessible, neighborhood offices located in the communities that were hardest hit to provide long-term assistance to New Yorkers. The Centers were located in Breezy Point and Far Rockaway in Queens; Coney Island, Gravesend, and Red Hook in Brooklyn; Dongan Hills in Staten Island, and Throgs Neck-Pelham Bay in the Bronx. The Restoration Centers brought together information and referrals for all of the City government services available in the aftermath of the storm. FEMA staff was onsite to perform benefits intake as well as provide ongoing management and updates of applicants’ FEMA cases. NYC Restore also partnered with non-profit, community-based organizations including SCO Family of Services, Metropolitan Council on Jewish Poverty, Catholic Charities of Brooklyn & Queens, Jewish Board of Children & Family Services, Catholic Charities Community Services – Staten Island, FEGS, Good Shepherd Services, Red Hook Initiative, Shorefront Y, and BronxWorks to provide wrap-around support services.

Each Center coordinated local resources to accommodate the specific needs of the communities where they were located. Staff from the Human Resources Administration (HRA) connected impacted New Yorkers with benefit information such as Medicaid, Supplemental Nutrition Assistance Program (SNAP), and temporary cash assistance. Additionally, the Centers made available information regarding financial and rebuilding assistance to residents whose homes were destroyed or severely damaged. The Department of Small Business Services also provided information and assistance on loans and reimbursements to small business owners. Other on-site New York City agencies included the New York City Department of Health and Mental Hygiene, Administration for Children’s Services, Department of Consumer Affairs, Department of Housing Preservation and Development, and Department for the Aging.

While operational, Restoration Centers received more than 34,000 visits from people impacted by Sandy. More than 7,400 visits were for information and assistance related to the Medicaid and Supplemental Nutrition Assistance (SNAP) programs administered by HRA.

Public Information Services: Prior to the storm, the City increased the capacity of its 311 information system to handle the increased volume of calls. The City also took measures to ensure that 311 would be operational throughout and after the storm. The costs associated with the increased services include increased personnel and generators.

Staten Island Fast Ferry Service: Between November 26, 2012 and January 21, 2013, the NYC Department of Transportation operated a temporary fast ferry service in conjunction with New York Water Taxi. The service was provided to ease the commute of Staten Island’s South Shore residents, whose travel times to work increased drastically due to damage to the Staten Island Rapid Transit (SIRT) system and the Hugh L. Carey (Brooklyn Battery) Tunnel.

Department of Homeless Services (DHS): DHS played a major role in the evacuation process and continues to provide services to those impacted by Hurricane Sandy through the programs listed below:
DHS provided managerial oversight of the emergency storm sheltering operations via the Unified Operations and Resource Center (UORC). UORC uses a unified command structure where multiple agencies work to coordinate and assist shelter staff on a tactical level. Sixteen key agencies provide staff to the UORC; DHS employees made up the largest percentage of workers in the UORC. At the same time that DHS staffed the UORC, closed evacuation sites and opened new ones, the agency prepared to close its homeless shelters located in Zone A to protect shelter residents.

DHS deployed staff to various sites, resulting in overtime costs in three main areas of service to the public: sheltering in evacuation centers families and single adults who were no longer able to stay in their homes; setting up and staffing Evacuation Centers, which included providing equipment, volunteers, supplies, etc.; and setting up and staffing the Unified Operations and Resource Center (UORC), which supports tactical management of shelter operations by filling resource requests and resolving problems at individual shelter system facilities.

- **City Hotel Program:** The provision of services in the City Hotel Program was originally administered through the Red Cross. Later, DHS began to work with local, community-based experts to provide services to evacuees in hotels. BASICS, BRC, Project Hospitality, Samaritan Village, Inc., and SCO Family of Services continue to provide services to approximately 970 displaced households across 50 different locations. Organizations are providing case management services and connecting evacuees to any City or Federal benefits for which they may be eligible and helping with housing plans including collaborating with FEMA to ensure that all eligible evacuees have registered with appropriate programs.

- **Homebase:** Those displaced by the storm were counseled by Homebase staff at Restoration Centers beginning on November 15, 2012. The role of Homebase at the Restoration Centers was to provide information on temporary housing options and, when available, immediate hotel/apartment placement. Providers included the Archdiocese of New York, BronxWorks, CAMBA, Catholic Charities of Queens, HELP USA, and Palladian. By November 29th, Homebase sites were making hotel placements with the Hotel Operations Desk.

Homebase assisted consumers with navigating the array of benefits and assistance available to them. Among the most common service partner referrals given to evacuees, 33% were referred to FEMA, 24% were referred to HRA, 36% were referred to HPD, and 16% were referred to NYCHA. Individuals may have been referred to more than one organization.

- **Relocation Services:** DHS was given the role of managing the moving of furniture donated to affected residents who are relocating into permanent housing in NYCHA apartments. The cost of these moves is currently being paid by DHS as other funding sources are being researched.

**HUD Eligibility Category:** Public Services

**National Objective:** Urgent Need; Low- and Moderate-Income Area; and Low- and Moderate-Income Persons

**CDBG-DR Allocation:** $322,000,000

**Projected Accomplishments:** 8.2 Million Persons Served
**Program Administration:** Office of Emergency Management, Office of the Mayor, Department of Education, Department of Information Technology and Telecommunications, Department of Citywide Administrative Services, New York City Police Department, Fire Department (including EMS), Department of Sanitation, Department of Environmental Protection, Health and Hospitals Corporation, Department of Correction, the Board of Elections, Department for the Aging, Human Resources Administration, Department of Homeless Services, and Department of Transportation.

**Eligible Applicants/Properties:** All members of the public impacted by Hurricane Sandy.

**Eligibility Criteria:** N/A

**Grant/Loan Size Limit:** N/A

**Program Priorities:** To provide for the health, safety, and welfare of City residents.

**Geographic Area to be Served:** Citywide

**Program Start and End Dates:** October 27, 2012 – June 30, 2015

**Other Funding Sources:** FEMA Public Assistance

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**Emergency Demolition**

**Program Objective and Description:** Nearly 400 structures throughout the City were so severely damaged by the storm that they posed a threat to the health and safety of the surrounding communities. The Department of Housing Preservation and Development demolished those sites for which the Department of Buildings issued an Emergency Declaration (order to demolish). The City will use CDBG-DR funds as the part of the non-Federal share for all demolition activities utilizing FEMA Public Assistance. Accordingly, the City will be adopting FEMA’s environmental reviews for all such projects. Some of these costs were incurred prior to the preparation of this Action Plan.

**HUD Eligibility Category:** Clearance and Demolition

**National Objective:** Slum and Blight Spot

**CDBG-DR Allocation:** $3,000,000

**Projected Accomplishments:** 400 Demolitions

**Program Administration:** Department of Housing Preservation and Development

**Eligible Applicants/Properties:** Properties for which the NYC Department of Buildings issued an Emergency Declaration, which indicates that the building is an imminent threat to the public’s health and safety and must be demolished.

**Eligibility Criteria:** N/A
Grant/Loan Size Limit: N/A

Program Priorities: Properties were assessed for structural integrity.

Geographic Area to be Served: Staten Island, Brooklyn, and Queens

Program Start and End Dates: January-April, 2013

Other Funding Sources: U.S. Army Corps of Engineers, FEMA Public Assistance

Debris Removal/Clearance

Program Objective and Description: Leverage FEMA funding for CDBG-DR-eligible debris removal and clearance activities to protect the health and safety of residents; allow for open, safe traffic flow; and provide for economic activity. The City's debris removal costs, which were incurred prior to the preparation of this Action Plan, included the following activities:

Storm Debris: The strong winds, heavy rains, and storm surge resulted in the accumulation of debris on streets, sidewalks, and other public properties. The debris was composed of woody material, sand, stones, street and building/household wreckage, and other objects. It hampered vehicular rights-of-way and posed an immediate threat to the public's health and safety. The Department of Sanitation (DSNY), in coordination with the Department of Parks and Recreation (DPR), the Department of Transportation (DOT), and the Department of Environmental Protection (DEP), has led the City's efforts to clear the streets in all five boroughs of storm-related debris to ensure safe passage for emergency vehicles, open traffic flow, and create a safe and clean environment to allow for rebuilding. As of late February, DSNY had collected more than 420,000 tons of Hurricane Sandy debris and more than 27,000 tons of woody debris throughout the City. This represented a substantial increase in tonnage over typical levels; last year, the Department disposed of 3.269 million tons. Given that the City no longer operates a landfill (the Fresh Kills landfill was closed in 2001), all refuse is exported, resulting in significant additional costs.

DSNY's debris removal operations were coordinated by a temporary, intensive Emergency Response Division (ERD) Operation. The ERD operated citywide, but focused on debris removal in the hardest hit areas, including, but not limited to, Breezy Point and Howard Beach in Queens; Coney Island, Gerritsen Beach, and Red Hook in Brooklyn; Midland Beach, New Dorp Beach, and Tottenville in Staten Island; and Battery Park in Manhattan.

DSNY employees worked constantly 24 hours a day, 7 days a week with Sanitation Workers assigned to 12-hour shifts that lasted from the end of Hurricane Sandy through the beginning of December in the City's impacted communities to ensure that all storm-related debris was picked up expeditiously. The Department utilized collection trucks, front end loaders, and dump trucks to facilitate the removal of storm debris. In addition, DSNY equipment from other districts was temporarily re-assigned to the impacted areas to expedite the removal of the storm debris. DSNY also coordinated with DOT, DEP, and several branches of the military for assistance with debris removal. Extra collection service was provided to New York City Housing Authority sites that had their containerized systems damaged, and DSNY also provided collection service to special needs sites that were distributing important supplies and operating as feeding centers. Additionally, public use containers were placed out by the Department in the impacted areas to allow residents in those areas to discard storm-damaged materials. At the height of the storm clean-up, the
Department placed out more than 100 containers, with roughly 30 containers remaining on-site in early March.

The enormity of the amount of debris, coupled with the City’s desire to remove such debris as quickly as possible, led the City to open seven temporary debris storage and reduction sites for non-wood storm debris. Five of these sites were cleared and closed by November 19. All subsequent loads of storm debris were delivered to the temporary sites at Riis Park (Brooklyn and Queens) and Father Capodanno Boulevard (Staten Island). As of early March, these sites were still needed for storm debris collection operations. The NYS Department of Environmental Conservation issued a general permit for operating these temporary sites. The sites were staffed and managed by DSNY up until November 9 at which point the sites were taken over by a contractor for the United States Army Corp of Engineers.

In addition to establishing the temporary waste sites, the City entered into several emergency contracts for transfer station capacity of construction & demolition (C&D) material. The Department also utilized an existing contract with a C&D transfer station operator for disposal capacity. These contracts were used to deliver storm debris directly from street operations as well as from temporary debris storage sites. The Department also entered into three emergency contracts with operators of putrescible waste transfer stations. These contracts were necessary due to the impact of the storm on the City’s export network, including rail disruptions, transfer trailers having difficulty getting fuel, and the temporary loss of the Covanta waste-to-energy plant, located in New Jersey, which serves Sanitation Districts in Manhattan and Brooklyn. The Department also contracted for piling and hauling equipment/operators through the use of an emergency contract for piling and hauling debris from the affected areas as well as piling and hauling at the temporary debris storage and reduction sites.

**Sand Debris**: In the area surrounding Rockaway Beach in Queens, DPR, working with DSNY and the NYC Economic Development Corporation, gathered sand that was pushed into the streets, much of it mixed with debris, and brought it to Jacob Riis Park, where the U.S. Army Corps of Engineers used a sifting machine to separate more than 150,000 cubic yards of sand from debris. This cleaned sand is now being returned to the beach. The City’s agencies also worked to remove sand and other debris from public waterfront properties. A portion of this work had to be done by hand, especially in areas like playgrounds, where heavy equipment would have damaged benches, fences, and play equipment.

**Tree Removal**: Sandy was by far the biggest storm in terms of tree damage the City has ever experienced. DPR is responsible for tree emergencies on a daily basis, but in major storm events like Sandy, the Office of Emergency Management convenes the Downed Tree Taskforce, consisting of DPR, NYPD, FDNY, DoITT, DSNY, DOT, and representatives from the major utility companies. Following the storm, the Taskforce responded to more than 20,000 street tree emergencies received through 311. Approximately 13,000 street trees and 7,000 trees in parks and natural areas were destroyed. The trees, hanging limbs, and woody debris that accumulated on City streets and right-of-ways impeded vehicular traffic and posed an immediate threat to public health and safety. Additional public safety work included removing trees that had fallen on buildings or had become tangled in electrical wires.

During storms of this magnitude, nearly all of DPR is mobilized to respond. The response is led by trained in-house staff, the Climbers & Pruners in the borough Forestry units, supported by a network of Park Supervisors, Associate Park Service Workers, City Park Workers, and other staff including gardeners, construction engineers, Parks Enforcement Patrol Officers, and Urban Park Rangers. Central Forestry, Horticulture, and Natural Resources also played a key role in organizing contract support, information flow and inspections. In addition to the tireless work of DPR staff, the City had, at peak, 115 additional forestry
contract crews working in all five boroughs. The City was also supported by mutual aid crews from NYS DOT, NYS DEC, NYC DEP, the Delaware County Department of Public Works, the National Forest Service, and the National Guard.

**HUD Eligibility Category:** Debris Removal

**National Objective:** Low- and Moderate-Income Area

**CDBG-DR Allocation:** $21,000,000

**Projected Accomplishments:** 8.2 Million Persons Served

**Program Administration:** Department of Sanitation; Department of Transportation; Office of Emergency Management; Department of Parks and Recreation; New York City Police Department; New York Fire Department; Department of Environmental Protection

**Eligible Applicants/Properties:** N/A

**Eligibility Criteria:** N/A

**Grant/Loan Size Limit:** N/A

**Program Priorities:** To clear the streets in all five boroughs of storm-related debris to ensure safe passage for emergency vehicles, open traffic flow, and create a safe and clean environment to allow for rebuilding.

**Geographic Area to be Served:** Citywide

**Program Start and End Dates:** October 31, 2012 – June 30, 2013

**Other Funding Sources:** United States Army Corps of Engineers (USACE) debris teams have worked with the Department of Sanitation, operating temporary debris storage locations and disposing of waste. USACE costs associated with the debris mission assignment are estimated at near $200 million. Additionally, SBS has worked with DPR to hire temporary workers to assist with clean-up efforts, using Federal National Emergency Grant funds.

**Code Enforcement**

**Program Objective and Description:** In response to the damage caused by Hurricane Sandy to privately-owned buildings, the Department of Buildings sent inspectors into the impacted areas to protect the health and safety of the population by assessing the structural integrity of residential and commercial buildings. The Department placed inspection stickers on inspected properties as follows:

- **GREEN:** No restriction. No apparent structural hazard was observed; occupants were not restricted from entering and re-occupying their building.
• **YELLOW:** Restricted use. Property is damaged; entry limitations were specified on each posting. Conditions exist at the building that required the owner to make repairs and may have restricted the use of the building.

• **RED:** Unsafe. Property was seriously damaged and is/was unsafe to enter or occupy; however, a red sticker did not represent an order to demolish.

These costs were incurred prior to the preparation of this Action Plan.

**HUD Eligibility Category:** Code Enforcement

**National Objective:** Urgent Need

**CDBG-DR Allocation:** $1,000,000

**Projected Accomplishments:** 80,000 buildings were inspected

**Program Administration:** Department of Buildings

**Eligible Applicants/Properties:** N/A

**Eligibility Criteria:** N/A

**Grant/Loan Size Limit:** N/A

**Program Priorities:** Assess building conditions to ensure the health and safety of the public.

**Geographic Area to be Served:** Citywide

**Program Start and End Dates:** October 31, 2012 – June 30, 2015

**Other Funding Sources:** Code Enforcement activities will be primarily reimbursed by FEMA’s Public Assistance grant. However, the City will use CDBG-DR funds as the non-Federal share for these costs.

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**Rehabilitation/Reconstruction of Public Facilities**

**Program Objective and Description:** Hurricane Sandy impacted a variety of City facilities that are operated by many City agencies. The initial estimated impact to City infrastructure and public facilities was $3.1 billion (including costs for damage to water and sewer infrastructure, streets and roads, as well as other non-residential structures). The City will use CDBG-DR funds to leverage other federal funding sources to rehabilitate and reconstruct public facilities. The other federal funding sources CDBG-DR funding will leverage include FEMA Public Assistance grants as well as Army Corps of Engineers and Federal Highway Administration funds. Accordingly, the City will be adopting FEMA’s environmental reviews (and, where possible, other federal agencies) for all such projects. For a list of sites that were damaged, please see Appendix A and the narratives below. Please note that the City is prioritizing its funds to address its public hospitals and damaged schools as well as for the restoration of its beaches. However,
the extremely large additional City infrastructure unmet needs are expected to be addressed pending funding availability in future allocations.

**Health and Hospitals Corporation (HHC)**

HHC had ten large hospitals damaged, including extensive damage to three facilities. HHC also experienced damages to five smaller healthcare facilities as well as to one administrative office space. Two hospitals and one community clinic were evacuated and displaced. HHC patients who were impacted had to seek services elsewhere or delay services until HHC's facilities were fully operational.

- **Bellevue Hospital Center**: Bellevue’s basement housed the electrical systems, mechanical systems, medical gases, domestic water, pumps, and elevator motors, in addition to other critical services such as labs and a mortuary. Accordingly, when the basement flooded, all these systems failed and were heavily damaged. In addition, medical equipment, supplies, and other valuable contents were destroyed.

- **Coney Island Hospital**: Flood waters washed through the entire first floor of Coney Island Hospital, requiring the removal of saturated sheetrock around the entire perimeter of the first floor and destroying a great deal of equipment. The Emergency Department, imaging, pediatrics, and laboratory services were shut down. Moreover, Coney Island suffered severe damage to its below grade electrical systems, which disabled the rest of the hospital. Ida G. Israel, an offsite ambulatory clinic of Coney Island Hospital, had its building flooded and is irrecoverable.

- **Coler-Goldwater Memorial Hospital**: The flooding that occurred on the Coler campus damaged all of the facility's electrical switchgear and severed it from Con Ed power – the facility continues to operate on generator power. The steam tunnel supplying heat to the facility was also damaged, requiring the use of a temporary boiler until January. Additionally, the flooding in the facility's basement necessitated that major asbestos and mold abatement measures be taken.

**Department of Education (DOE)/School Construction Authority (SCA)**

Seventy-one school buildings sustained damage during Hurricane Sandy. Damages to these school buildings included severe salt-water flooding; destroyed boilers and oil tanks; damaged electrical and computer/phone cabling and equipment; oil spills and resulting contamination; the creation of new sink holes; roof leaks; and destroyed gym and auditorium flooring. Extensive long-term repairs are required to bring buildings back to their pre-storm conditions, including the replacement of temporary boilers with permanent HVAC systems.

**Department of Parks and Recreation (DPR)**

The Department identified damage to approximately 400 park sites, in addition to the displacement of more than 3 million cubic yards of sand from the City’s beaches. DPR properties in the Rockaways, Coney Island, and the eastern shore of Staten Island suffered the most severe impacts from Hurricane Sandy. In Rockaway Beach, Queens, 37 blocks or nearly 3 miles of boardwalk experienced severe damage. On Staten Island, more than 60 derelict boats washed up on DPR properties and required removal. In Coney Island, Steeplechase Pier sustained considerable damage.

The Department is working to restore sections of the beach and supporting infrastructure across Queens, Brooklyn, and Staten Island, including the replacement of lifeguard stations, accessible comfort stations,
installation of wheelchair-accessible beach mobi-mats and ADA access ramps by the start of the 2013 beach season (May 24, 2013).

Some examples of planned restoration include new railings, replacement of trees, landscaping, safety surfacing, accessible play equipment, handball/basketball courts, fencing, planting, and general site work to replace the damaged or destroyed elements. DPR is also working to restore and replenish the sand on beaches along the shorelines in Queens, Brooklyn, and Staten Island to their pre-storm conditions. In the short-term, the Department will work with the U.S. Army Corps of Engineers (USACE) to dredge and replenish more than 3 million cubic yards of sand in Queens and Brooklyn. In addition to the Army Corps work, the Department will create dunes and other protective sand structures in Rockaway Beach, Queens to protect the community from future storm events. In Staten Island, the Parks Department will be working with FEMA to restore 75,000 cubic yards of sand (USACE does not have jurisdiction in Staten Island for short-term sand replenishment work). In the medium/long term, the Department will work with USACE to develop and implement a more robust defense against future weather events, including the construction of sea walls and dunes.

**The New York City Police Department (NYPD)**

The New York City Police Department (NYPD) sustained storm-related damage at more than 20 of their 240 facilities. Damaged facilities included station houses, warehouse/storage facilities, boat docks, tow pounds, an aircraft hangar and the Department’s firing range and bomb squad training building.

Facilities were damaged at a variety of locations throughout the five boroughs including Randall’s Island, Lower Manhattan, Floyd Bennett Field, Red Hook, Brighton Beach and the Brooklyn Navy Yard in South Brooklyn; College Point and Rockaway Beach in Queens; Rodman’s Neck in the Bronx; and Port Richmond in Staten Island. In many cases damaged facilities required significant de-watering and debris removal before emergency and permanent repairs could begin.

**New York Fire Department (FDNY)**

Fire Department facilities were also damaged due to the storm, including 16 Firehouses, 6 EMS stations, 5 Marine facilities and 2 support facilities (Paidge Avenue and Fort Totten). The damaged Firehouses, EMS stations, and Fort Totten facilities experienced storm surges ranging from one to seven feet. There was widespread damage to apparatus doors (after being hit by a high quantity of seawater), basements (which filled to the top with water), electrical and heating systems (including pipes), and various structural aspects. Marine facilities suffered damage to piers, piles, electrical systems, and transformers, as well as the wave attenuator at Marine 9, which is intended to reduce wave height in order to provide safe berthing for vessels.

The Department also suffered losses of information technology equipment, communications networks and infrastructure, firefighting equipment, and ambulances. Communications damages include the loss of 391 street alarm boxes located throughout Staten Island and Queens, as well as damage to the underground cable plant that supports the alarm box network and other Departmental communications networks. Alarm boxes are two-way communication devices that allow the public to contact emergency services (Fire, Police, and EMS) from street corners. Vehicles determined to be a total loss included seven ambulances, eight pumpers, six ladders, five brush fire units, a HazMat truck, and a foam truck, as well as many support vehicles.
Department of Sanitation (DSNY)

DSNY documented damage at 61 of its facilities throughout the City. The Department evacuated 14 of its facilities on or before October 29, 2012 and has since returned to all facilities except the Manhattan Community District 1 Garage. The Garage, located directly across the street from the Hudson River, was damaged beyond repair. Operations have been relocated to other facilities pending the completion of construction of the new Manhattan Community Districts 1, 2, and 5 Garage. Severe damage to the electrical cabling at the Brooklyn Community Districts 1 and 4 Garage, as a result of salt water immersion, has forced the facility to resume only limited operations under temporary generator power pending the completion of electrical repair work currently underway. Operations at Department offices located at 44 Beaver Street in Manhattan were displaced for four months following a complete loss of power to the building. Water entered elevator shafts, air conditioning and ventilation units, and electrical switches and transformers and also disabled domestic water pumps, the fire safety system, and air compressors. The Department has recently begun the process of resuming operations at 44 Beaver Street.

The Department suffered damage to its vehicle fleet including 9 light/medium duty vehicles and 34 heavy duty vehicles that require repairs after being damaged by salt water. In addition, 22 light/medium duty vehicles and 10 heavy duty vehicles were damaged beyond repair.

The Bureau of Cleaning and Collection Warehouse was flooded, causing damage and destruction of DSNY supplies. Other DSNY facilities sustained damage to their contents and equipment including generators, air compressors, truck lifts, trash pumps, IT and communications equipment, appliances, and furniture.

The Department manages the former Fresh Kills landfill, which sustained damage to its leachate collection wells, storm water basins, and outfall pipes; this infrastructure is critical to maintaining environmentally prudent operations at the site. Leachate, water that passes through landfill material, requires treatment before it can be discharged, and this equipment facilitates the required treatment and discharge. The site also sustained damage at its Muldoon Avenue entrance.

Department of Correction (DOC)

Rikers Island, located at the intersection of the East River and Flushing Bay, is home to nine of the City's twelve open correctional facilities, excluding two hospital prison wards managed by HHC. The facilities on Rikers Island are located at elevations of 15 feet or more and therefore were protected from the storm surge and flooding. One Rikers Island based facility, the Anna M. Kross Center, sustained serious roof damage caused by high winds. The storm surge and flooding did significantly impact the north shoreline of the Island eroding an estimated four acres of land. Dozens of permanent trailer complexes used as offices for both civilian and uniform staff members are located along the eroded north shore of the Island. Four trailers were immediately decommissioned and the balance of the trailer complexes will need to be permanently evacuated before the next hurricane season. Off the Island, the Vernon C. Bain Center, the City's jail barge located in the East River in the Hunts Point section of the Bronx, sustained significant flooding, which damaged the land-based electrical substation, access road, and parking lot.

Department of Transportation (DOT)

- Ferries: The Staten Island Ferry system carries more than 20 million passengers per year and is the only direct connection between Staten Island and the economic center of Lower Manhattan. The mechanical and electrical systems at the Whitehall (Manhattan) and St. George (Staten Island) Ferry Terminals incurred significant damages. This includes the slip motor controllers, relays, contacts,
and breakers. Passenger elevators, escalators, freight elevators, shops, and office spaces were flooded. In addition, ferry piers and other ferry facilities suffered millions of dollars in damage, including piers and ferry racks at the St. George Terminal, the Ferry Maintenance Facility on Staten Island, and smaller piers at Wall Street and 34th Street, which are used by privately-operated ferries, and on City Island, which serves a small ferry that transports the indigent dead to Hart Island.

- Equipment: The Department’s headquarters at 55 Water Street in Lower Manhattan suffered heavy flooding and was closed for several weeks in the aftermath of the storm. While 55 Water Street has since reopened, there was extensive equipment damage, which will require full replacement.

**Department of Information Technology and Telecommunications (DoITT)**

As a result of the storm, DoITT had to repair damage at 11 MetroTech’s rooftop, as well as damage to the NYC Wireless Network (NYCWiN), a government-dedicated broadband wireless infrastructure created to support public safety and other essential City operations. Also, storm-damaged telephone infrastructure will be replaced with voice over internet protocol (VOIP) systems.

**Department of Citywide Administrative Services (DCAS)**

DCAS is the Capital budgeting agency for several different City entities, as well as its own portfolio. DCAS has requested funding for two Capital projects in relation to Sandy. First, the agency will purchase a replacement surveillance van on behalf of the Manhattan District Attorney, whose previous van was destroyed by the storm. The other project is to restore a damaged elevator pit and controls at the Red Hook Community Justice Center in Brooklyn.

**Brooklyn, New York, and Queens Public Library Systems**

The Brooklyn, New York, and Queens Public Library systems are operated by non-profit organizations whose infrastructure is either owned by the City or the City is legally responsible for repairing. Hurricane Sandy caused damage to six branches of the Queens Borough Public Library System (Arverne, Broad Channel, Peninsula, Seaside, Howard Beach, and Far Rockaway), six branches of the Brooklyn Public Library (Brighton Beach, Coney Island, Gerritsen Beach, Gravesend, Red Hook, and Sheepshead Bay), and one branch of the New York Public Library (Stapleton in Staten Island). The three systems require significant renovation and reconstruction of the affected branches.

**Cultural Organizations Funded Through Department of Cultural Affairs (DCLA)**

There are a number of cultural institutions operated by non-profit organizations whose infrastructure is either owned by the City or the City is legally responsible for repairing. A number of these cultural institutions were significantly damaged by Hurricane Sandy, including the New York Aquarium (which is run by the Wildlife Conservation Society), the Police Museum, the Snug Harbor Cultural Center, and the Staten Island Historical Society. City-owned equipment leased and operated by Coney Island USA, Eyebeam Atelier, and Smack Mellon was also damaged.

Two cultural groups that sustained the most significant damage are:

1. The New York Aquarium experienced flooding that filled the lower levels of the facility and damaged the electrical and mechanical equipment that is critical to the life support systems and
operations of the facility. In addition, the facility requires extensive repair and reconstruction in order to fully reopen to the public.

2. The New York City Police Museum experienced roof damage due to wind and flooding in its basement and first floor galleries that destroyed the electrical and mechanical equipment as well as exhibition spaces. The landmarked building will require extensive repair, including remediation of mold and other potential contaminants, and will fully reopen to the public.

**HUD Eligibility Category:** Rehabilitation/Reconstruction of Public Facilities

**National Objective:** Low- and Moderate-Income Persons; Low- and Moderate-Income Area; Urgent Need

**CDBG-DR Allocation:** $13,000,000; it is anticipated that additional funds will be allocated for this purpose from a future CDBG-DR allocation.

**Projected Accomplishments:** 96 Public Facilities (14 beaches; 71 schools; and 11 hospitals/health clinics)

**Program Administration:** As the City will be prioritizing rehabilitating its public hospitals, schools, and beaches, this program will be administered by the Health and Hospitals Corporation, Department of Education, School Construction Authority, and Department of Parks and Recreation.

**Eligible Applicants/Properties:** N/A

**Eligibility Criteria:** N/A

**Grant/Loan Size Limit:** N/A

**Program Priorities:** The public hospitals, schools, and facilities have been prioritized both for the speed with which funds can be expended as well as for their direct benefit to low- and moderate-income persons.

**Geographic Area to be Served:** Citywide; exact locations will be noted in the City's Quarterly Performance Reports.

**Program Start and End Dates:** October 31, 2013 – June 30, 2015

**Other Funding Sources:** FEMA Public Assistance, USACE (some beach replenishment), Federal Transit Administration

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**Construction/Reconstruction of Water/Sewer Lines or Systems**

**Program Objective and Description:** The Department of Environmental Protection (DEP) protects public health and the environment by supplying clean drinking water and collecting and treating wastewater. Throughout the storm, New York City drinking water remained safe despite Hurricane Sandy's significant impact on drinking water reservoirs, water mains, Water Pollution Control Plants (WPCPs), wastewater pumping stations, sewers, landfills, and associated facilities. CDBG-DR funds may be used as the part of the non-Federal share to repair storm damage and possibly mitigate against future
disasters, which will also be funded with FEMA Public Assistance funds. Accordingly, the City will be adopting FEMA's environmental reviews (and possibly other federal agencies) for all such projects. Please note that some of these costs were incurred prior to the preparation of this Action Plan.

DEP's Bureau of Water and Sewer Operations immediately responded to water and sewer complaints following the storm. Within a few days of the storm, DEP inspected approximately 1,000 catch basins, and cleaned more than one third of those. Through the month of November, staff continued to inspect and clean catch basins citywide. More than 6,100 were inspected and more than 3,600 were cleaned as part of response operations. DEP crews conducted detailed visual surveys of all DEP assets in the Rockaways and along the coastline of Queens. Because of these surveys, DEP was able to repair approximately 900 hydrants citywide.

Throughout New York City, DEP flushed more than 37 miles of sewers. Contractor crews inspected approximately 51 miles of sewers in the Rockaways and cleaned more than eight miles of sewers in Brooklyn, Queens, and Staten Island. Approximately 450 cubic yards of debris was removed, nearly 85% of which was removed from Queens. DEP conducted a major cleanup effort at Jefferson Creek in Staten Island to restore the natural drainage. Two weeks after the storm, flusher trucks had cleaned nearly 10,000 linear feet of sewer lines and crews had removed almost 1,000 cubic yards of debris from Jefferson Creek.

Of the 14 wastewater treatment plants, 10 were adversely affected by Hurricane Sandy. Most of the damage to wastewater facilities was to electrical systems: substations, motors, control panels, junction boxes and instrumentation. Due to utility power outages, many DEP facilities operated on their emergency generators for up to two weeks. Of the 96 DEP pumping stations, 42 were affected during the storm. Approximately half of the pumping stations failed due to damage from floodwaters, and half due to loss of power supply. The large unmet need to reconstruct and rehabilitate the City’s damaged water and wastewater systems is expected to be funded out of future allocations.

**HUD Eligibility Category:** Construction/Reconstruction of Water/Sewer Lines or Systems

**National Objective:** Low- and Moderate-Income Area & Urgent Need

**CDBG-DR Allocation:** TBD – This will be funded in a future CDBG-DR allocation.

**Projected Accomplishments:** 8.2 Million Persons

**Program Administration:** NYC Department of Environmental Protection

**Eligible Applicants/Properties:** N/A

**Eligibility Criteria:** N/A

**Grant/Loan Size Limit:** N/A

**Program Priorities:** To protect public health and the environment by supplying clean drinking water and collecting and treating wastewater.

**Geographic Area to be Served:** Citywide

OTHER FUNDING SOURCES: FEMA Public Assistance

Construction/Reconstruction of Streets

PROGRAM OBJECTIVE AND DESCRIPTION: The City will use CDBG-DR funds to leverage other federal funding sources to rehabilitate and reconstruct public facilities. The other federal funding sources CDBG-DR will leverage include FEMA Public Assistance funds and Federal Highway Administration grants. Accordingly, the City will be adopting FEMA’s environmental reviews (and, where possible, other federal agencies) for all such projects. Please note that some of these costs were incurred prior to the preparation of this Action Plan.

Department of Transportation (DOT)

City transportation infrastructure sustained considerable damage as a result of Hurricane Sandy. DOT is responsible for the reconstruction or replacement of critical street and bridge infrastructure and the replacement of street lights, signals, and other traffic equipment.

DOT assessed conditions on all storm-damaged streets in New York City and determined that hundreds of lane miles of streets will require resurfacing and/or full reconstruction. Underground wiring beneath intersections was permeated by saltwater, damaging nearly 4,000 streetlights and 700 traffic signals, primarily in the Rockaways. In some cases, high winds damaged street light poles, bracket assemblies, and wiring. Flooding by saltwater corroded electrical components, requiring DOT to replace lights, signals, and traffic control devices throughout the impacted parts of the City.

Floodwaters also severely damaged the Battery Park and West Street underpasses in Lower Manhattan. While temporary measures have been taken to ensure these throughways are currently open to the public, the electrical systems and other repairs will need to be addressed through permanent repair work. Repairs are also necessary for 15 moveable bridges, primarily on the Harlem River (connecting Manhattan and the Bronx), the Gowanus Canal in Brooklyn, and along Newtown Creek (connecting Brooklyn and Queens). Rising waters destroyed electrical equipment, bridge operator consoles, and some mechanical components. Some bridges sustained damages to warning gates and navigation lights. Other damaged bridges include those along the Belt Parkway (which links southern Brooklyn and Queens with John F. Kennedy Airport), and the FDR Drive (the only highway serving eastern Manhattan’s central business districts).

Department of Design and Construction (DDC)

As mentioned earlier, Sandy’s high winds downed thousands of trees across the City and the storm surge destroyed sidewalks in the Inundation Area. DDC will be managing the replacement of sidewalks and street trees, which also includes the removal of damaged sidewalks, tree removal, and stump grinding.

HUD ELIGIBILITY CATEGORY: Construction/Reconstruction of Streets

NATIONAL OBJECTIVE: Urgent Need

CDBG-DR ALLOCATION: TBD – This will be funded in a future CDBG-DR allocation.
**PROJECTED ACCOMPLISHMENTS:** Damaged lane miles will be resurfaced/reconstructed; damaged/destroyed sidewalks will be restored and replaced; and trees will be replanted in the impacted areas.

**PROGRAM ADMINISTRATION:** NYC Department of Transportation; NYC Department of Design and Construction

**ELIGIBLE APPLICANTS/PROPERTIES:** N/A

**GRANT/LOAN SIZE LIMIT:** N/A

**PROGRAM PRIORITIES:** To restore critical City transportation infrastructure to ensure safe passage for the public and emergency vehicles.

**GEOGRAPHIC AREA TO BE SERVED:** Citywide

**PROGRAM START AND END DATES:** October 30, 2012 – June 30, 2015

**OTHER FUNDING SOURCES:** Federal Highway Administration (FHWA); Federal Transit Administration (FTA); FEMA Public Assistance

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**Rehabilitation/Reconstruction of Other Non-Residential Structures**

**PROGRAM OBJECTIVE AND DESCRIPTION:** The City will use CDBG-DR funds to leverage other federal funding sources to rehabilitate and reconstruct the City's other non-residential structures. These facilities include City-owned infrastructure managed by non-profit public entities such as the NYC Economic Development Corporation, the Brooklyn Navy Yard Development Corporation, the Trust for Governor's Island, and Brooklyn Bridge Park.

**New York City Economic Development Corporation (NYCEDC)**

NYCEDC is the City’s primary agent for economic development. Acting under annual contracts with the City, NYCEDC is a City-controlled public entity (local development corporation) that serves as the catalyst for promoting economic development and business growth. Its principal mandate is to engage in the public purpose of encouraging investment and attracting, retaining, and creating jobs in New York City. Part of the way that NYCEDC fulfills its mission is through the management of City-owned property and the management of City Capital construction projects. Several of NYCEDC’s assets were damaged during the storm.

Emergency and Permanent work is categorized into the following groups:

- Group 1 – Maritime and Aviation Assets (includes repairs needed to the Skyport Marina, Downtown Manhattan Heliport, and cruise terminals);
- Group 2 – Homeport in Staten Island (Includes debris removal, pier improvements, shoreline stabilization); and
- Group 3 – EDC-Managed NYC Assets (includes debris removal, roof repairs, and restoration of building systems).
Brooklyn Navy Yard Development Corporation (BNYDC)
The Brooklyn Navy Yard spans nearly 300 acres that contain more than 40 buildings, 3 fully functioning dry docks, 4 active piers, and approximately 4 million square feet of leasable space. The Navy Yard is administered by the non-profit Brooklyn Navy Yard Development Corporation (BNYDC) under a contract with New York City. BNYDC serves as the City’s representative in connection with all industrial, commercial, waterfront, maritime, and other development projects at the Brooklyn Navy Yard. The Navy Yard has more than 250 tenants who cumulatively provide nearly 6,000 jobs, many of which benefit local residents from the neighboring community.

Situated directly on the East River and Wallabout Bay waterfronts, the Navy Yard falls within Zone A. High winds and heavy flooding damaged buildings, electrical substations, elevators, roads, and waterfront infrastructure, in addition to the Yard’s security, sprinkler, and steam systems.

CDBG-DR funds will be used for the rehabilitation and repair of the Brooklyn Navy Yard so that the Yard and its tenants may operate at full capacity and, in turn, effectively serve as an engine of economic growth and development in the City.

Trust for Governor’s Island (TGI)
The City of New York is responsible for Governors Island and created the Trust for Governors Island (TGI), the organization charged with the operations, planning, and redevelopment of the Island. TGI owns 150 acres of land on Governors Island, which is located 800 yards from Lower Manhattan. The Island is a cultural historic destination and also houses a New York City public school.

There was substantial flooding on the Island, which resulted in damages to numerous facilities and to the electrical systems and seawall. TGI and the New York Harbor School are both operational but without phone service. Additional assessments of the Island’s electrical infrastructure are still ongoing. Necessary work includes removal of debris from the island, repairs to the Island’s perimeter fencing and seawall; repairs to the electrical infrastructure; stabilization of historic buildings, repairs to sinkholes, as well as the repair or purchase of major equipment. Repairs are also required to some of TGI’s transportation facilities including the Battery Maritime Building, Soissons Dock and some of TGI’s lift bridges. It is anticipated that there may be an additional $4 million in necessary replacement to electrical equipment.

CDBG-DR funds will be used for rehabilitation and repair of Governor’s Island sites to return it to full functionality.

Brooklyn Bridge Park
Brooklyn Bridge Park sustained damages to electrical equipment and playground surfaces. Areas where electrical equipment was housed flooded and damaged transformers, switchgears, and other equipment, leaving the Park without lighting. Playground surfaces in two of the Park’s four playgrounds buckled from flooding and need to be replaced.

HUD Eligibility Category: Rehabilitation/Reconstruction of Other Non-Residential Structures

National Objective: Urgent Need

CDBG-DR Allocation: TBD – This will be funded in a future CDBG-DR allocation.
**Projected Accomplishments:** The damaged facilities will be repaired and rehabilitated to enable the continued occupancy and operation of the critical cultural organizations impacted by the storm.

**Program Administration:** New York City Economic Development Corporation; Brooklyn Navy Yard Development Corporation; the Trust for Governor’s Island; and Brooklyn Bridge Park.

**Eligible Applicants/Properties:** Properties owned or managed by the New York City Economic Development Corporation, Brooklyn Navy Yard Development Corporation, Trust for Governor’s Island, and Brooklyn Bridge Park.

**Eligibility Criteria:** N/A

**Grant/Loan Size Limit:** N/A

**Program Priorities:** N/A

**Geographic Area to be Served:** Citywide

**Program Start and End Dates:** October 30, 2012 – June 30, 2015
X. **Resilience**

The destructive impact of Hurricane Sandy serves as a reminder of New York City’s vulnerability to coastal storms – a vulnerability that has existed since the City’s creation along the waterfront. Throughout its history, New York has suffered from the impact of hurricanes and other coastal storms including, but not limited to, significant storms in 1821, 1938, and 1960. This vulnerability was reflected in the 1983 Flood Insurance Rate Maps (FIRMs) issued by FEMA, which indicate that the 100-year floodplain includes approximately 190,000 jobs, 36,000 buildings, and 374 million square feet of built floor area. However, Sandy demonstrated that these 1983 FIRMs dramatically understated the level of New York’s vulnerability, as approximately one-third of all red- and yellow-tagged buildings and more than one-half of all impacted buildings were outside the 100-year floodplain. FEMA’s revised view of New York City’s vulnerability to coastal storms is reflected in the recently-issued Advisory Base Flood Elevation (ABFE) maps, which indicate that the 100-year floodplain now includes approximately 341,000 jobs (up 79% from the 1983 FIRMs), 71,000 buildings (up 97%), and 589 million square feet of floor area (up 57%). Moreover, these ABFEs and the revised FIRMs that will replace them in 2015 reflect current sea levels, and do not take into account future sea level rise that is widely projected by scientists. For example, in 2009, the New York City Panel on Climate Change (NPCC) – a body made up of leading climate scientists – released a report projecting an estimated increase in New York-area sea levels of 2-5 inches by the mid-2020s and 7-12 inches by the mid-2050s. The NPCC report also included projections associated with a so-called “Rapid Ice Melt” scenario, which takes into account the potential for a substantial increase in the rate of melting of the Greenland and West Antarctic ice sheets. This scenario envisions sea level rise of 5-10 inches by the mid-2020s and 19-29 inches by the mid-2050s. The City is currently working with the NPCC to update these projections on an emergency basis in order to inform resiliency planning. It is clear, however, that New York City's vulnerability to sea level rise, coastal storms, and other climate change-related impacts (e.g., heat waves, high winds, and increased precipitation) will grow over time, with an associated increase in the vulnerability of New York’s people, buildings, and infrastructure.

**Efforts to Increase Resiliency**

In 2007 the City launched PlaNYC, a comprehensive effort to make New York a more sustainable city, under the direction of the newly-created Mayor’s Office of Long-Term Planning and Sustainability (OLTPS). While PlaNYC and OLTPS seek to reduce New York’s contribution to global warming, the effort also has included climate resilience activities. For example, prior to Sandy, the City already required a climate risk assessment for major developments in vulnerable areas. As a result, new buildings and infrastructure located in the Sandy Inundation Area survived with minimal damage, including new high-rise buildings in the Greenpoint-Williamsburg area and low-rise developments such as Arverne-by-the-Sea in the Rockaways. In addition, the City's $2.4 billion green infrastructure plan uses natural methods to capture rainwater before it can flood communities and overwhelm sewage systems. This plan and how it will inform future resiliency measures will be explained in a future Partial Action Plan after SIRR has issued its final report.

**Resiliency Programs**

The City intends to dedicate $294 million of this initial allocation of CDBG-DR funds to Resiliency Investments intended to strengthen the City's infrastructure and built environment to make them more resilient to the impact of climate change, including extreme events such as coastal storms and heat waves, and chronic conditions such as rising sea levels. The City's request for any such CDBG-DR funds will be the subject of a future Partial Action Plan. This request is anticipated to include the costs of further studies,
pilot programs, and implementation activities associated with planning and development on the part of involved agencies, including but not limited to the Department of City Planning, the NYC Economic Development Corporation, and the Mayor’s Office of Long-Term Planning and Sustainability. As described separately, in December 2012 the Mayor launched the Special Initiative for Rebuilding and Resiliency (SIRR) to identify a series of specific strategies intended to strengthen the City’s resilience in such areas as transportation, utilities, liquid fuels, water and wastewater, food supply, telecommunications and more. Such investments will be targeted at areas that suffered directly from the impacts of Sandy, as well as other vulnerable neighborhoods (e.g., located in the 100-year floodplain pursuant to FEMA’s latest maps) that have suffered from the increased perception of risk on the part of current and prospective residents and business owners.
XI. CITYWIDE ADMINISTRATION AND PLANNING

Planning

PROGRAM OBJECTIVE AND DESCRIPTION: Immediately following Hurricane Sandy, the Department of City Planning (DCP) staff worked overtime to perform data and GIS work for the Office of Emergency Management (OEM) and the Office of Housing Recovery Operations. The nature of this work was focused on mitigating the immediate threat and risk to health, life, and safety citywide, with a greater emphasis on the communities most severely impacted by the storm. DCP will use CDBG-DR funds for long-term community planning and rebuilding efforts. These funds are intended for use in the following categories: planning, community outreach and implementation of neighborhood recovery strategies; citywide zoning changes; urban design; geographic, demographic and legal support; environmental review of zoning and land use changes; integration of coastal protections into local land use and waterfront planning; and increasing resilience of enclosed industrial facilities. The Mayor’s Office of Long-Term Planning and Sustainability played a critical role immediately following the storm, working closely with utilities and private customers in assisting with energy system restoration efforts (power, gas, steam, and liquid fuel networks), and working on climate analysis and mapping as part of the SIRR-related long-term resilience efforts. In addition, the NYC Economic Development Corporation (NYCEDC) has supported and expects to continue to support the work of the Special Initiative for Rebuilding and Resiliency, as described elsewhere herein. NYCEDC will use CDBG-DR funds for SIRR-related and other long-term community planning and rebuilding efforts working closely with DCP and other agencies.

HUD ELIGIBILITY CATEGORY: Planning

NATIONAL OBJECTIVE: There is no HUD national objective for Planning activities.

CDBG-DR ALLOCATION: $89,820,000; this allocation is based on the best currently available data and will likely be adjusted during a future amendment to the Action Plan.

PROJECTED ACCOMPLISHMENTS: N/A

PROGRAM ADMINISTRATION: Department of City Planning; Department of Housing Preservation and Development; Mayor’s Office of Housing Recovery Operations; NYC Economic Development Corporation; Mayor’s Office of Long-Term Planning and Sustainability; and the New York City Housing Authority.

ELIGIBLE APPLICANTS/PROPERTIES: N/A

ELIGIBILITY CRITERIA: N/A

GRANT/LOAN SIZE LIMIT: N/A

PROGRAM PRIORITIES: N/A

GEOGRAPHIC AREA TO BE SERVED: Citywide, with a particular emphasis on storm-impacted areas.

PROGRAM START AND END DATES: Duration of the CDBG-DR grant

OTHER FUNDING SOURCES: TBD
Administration

Program Objective and Description: This function provides administrative and support services for the management and citizen participation necessary to formulate, implement, and evaluate the City's CDBG-DR Program. These activities have already included and will include in the future:

- Preparation of CDBG-DR Action Plans;
- Ensuring citizen participation (including publication of public notices);
- Preparation of the required CDBG-DR quarterly reports;
- Maintenance of the CDBG-DR website;
- Preparation and oversight of Environmental Reviews;
- Monitoring of the expenditures for CDBG-DR programs;
- Delineation of population groups served by CDBG-DR programs;
- Liaison function with HUD, FEMA, and other federal departments; and
- Certification and maintenance of the necessary records that demonstrate that federal requirements for environmental review, fair housing, relocation, labor standards, equal opportunity, and citizen participation are met.

HUD Eligibility Category: Administration

National Objective: There is no HUD national objective for Administration activities.

CDBG-DR Allocation: $88,000,000; this allocation is based on the best currently available data and will likely be adjusted during a future amendment to the Action Plan.

Projected Accomplishments: N/A

Program Administration: Office of Management and Budget; Department of City Planning; Mayor's Office of Housing Recovery Operations; New York City Economic Development Corporation; and the New York City Housing Authority; and the Mayor's Office.

Eligible Applicants/Properties: N/A

Eligibility Criteria: N/A

Grant/Loan Size Limit: N/A

Program Priorities: N/A

Geographic Area to be Served: N/A

Program Start and End Dates: Duration of the CDBG-DR grant

Other Funding Sources: TBD
XII. LONG-TERM RECOVERY PLANNING

Sound, Sustainable Long-Term Recovery Planning
The HUD regulations for the CDBG-DR funds requires New York City to describe how it will promote sound, sustainable, long-term planning that is informed by a post-disaster evaluation of hazard risk, especially land-use decisions that reflect responsible floodplain management and take into account possible sea level rise.

New York City is coordinating with other local and regional planning efforts to address long-term recovery. The City of New York solicited feedback from governmental entities, individuals, and groups through meetings held across the affected areas. All feedback was considered during the preparation of this Action Plan.

The objective for long-term recovery planning is to conduct damage assessments, review hazard mitigation plans, prioritize revitalization strategies, create mitigation strategies, encourage revitalization of disaster-resistance communities and infrastructure, and strengthen the capacity to support business and economic stability.

Principles of Sustainability
New York City’s programs and activities will make every attempt to protect people and property from harm and will encourage construction methods that emphasize high quality, durable, energy efficient, and water- and mold-resistant materials. The City will use code enforcement and hazard mitigation measures to accomplish its long-term recovery goals.

Hurricane Sandy highlighted the extent to which New York City's large, dense, and older building stock was not designed to account for the climate hazards the City faces today and into the future.

Prior to the storm, under PlaNYC, New York City's long-term sustainability plan, the City had identified the need to update flood hazard maps and construction standards in the flood zone. Following Hurricane Sandy, the City has worked with FEMA to release updated Advisory Base Flood Elevation maps for New York City, used emergency powers to expedite the enactment of code and zoning standards to promote construction that is resilient to coastal flooding, and is continuing to take action to implement regulations that enable the construction and retrofitting of flood-resilient buildings on an as-of-right basis. The City has also initiated extensive planning and analysis to identify and pursue further regulatory and programmatic measures to address the unique and unprecedented demands of adapting New York City's built environment to increasing coastal flood hazards.

FEMA recently released Advisory Base Flood Elevation maps (ABFEs) for New York City, which contain the best currently available information about coastal flood risk and provide guidance on how to rebuild safely. A total of 71,000 homes and commercial buildings, containing almost 600 million square feet of floor area, are now located within the City's flood zone and could be at risk in future storms. This vulnerability will increase as sea levels rise and coastal storms become more intense as a result of climate change.

The City will be in compliance with the provisions of Federal Register Notice FR 23578. The intent of this notice is to minimize harm related to actions within special flood hazard areas. It includes the requirement that, "In order to better ensure a sustainable long-term recovery, grantees must elevate (or may, for certain non-residential structures, floodproof), new construction and substantially improved structures one foot
higher than the latest Federal Emergency Management Agency (FEMA) issued base flood elevation. Instead of elevating non-residential structures that are not critical actions as defined at 24 CFR 55.2(b)(2), grantees may design and construct the project such that below the flood level, the structure is floodproofed using the best available flood data plus one foot”.

As part of PlaNYC, New York City is pursuing numerous initiatives to support sustainable development, including land use strategies that promote transit-oriented development and substantial reductions in the City’s greenhouse gas emissions. In addition, as part of the New York-Connecticut Sustainable Communities consortium, funded through a HUD Sustainable Communities Regional Planning grant, New York City has been leading research on coastal adaptation options for dense urban environments, which pose unique and novel challenges for adaptation. Because much of the transit network serving the City and region is located in or near the coastal area, strategies to support the resilience of existing communities and new transit-oriented development are critical to the City's and the region's economic future. By advancing strategies to make existing and new buildings more resilient in these dense, urban environments, the City will be supporting key regional planning priorities. Action Plan activities to rehabilitate and improve the resilience of housing, support businesses, and improve transportation and other infrastructure serve the six livability principles of the Partnership for Sustainable Communities. The Department of City Planning’s research on coastal resilience strategies, initiated prior to the storm under the HUD grant, has guided rebuilding and long-term resilience activities by providing information on measures that can be undertaken at the scale of individual buildings, sites, neighborhoods, and coastal reaches. Action Plan activities are further developing this research to inform program design and investments. The Sustainable Communities research is also serving as a critical tool for shaping the resiliency strategies that will be a subject of a future amendment to the Action Plan.

There is ample evidence showing that the coastal flood zones and elevations are not static and will continue to shift. Therefore, the City will implement a program to revise flood elevation standards based on observations of and updated projections for sea level rise, and on consideration of how elevation standards can be achieved within the City’s characteristic building types while maintaining the vitality of neighborhoods.

In order to better inform efforts to address future coastal flood risks, the City is developing maps for planning purposes that reflect future coastal flood risks due to coastal surge and sea level rise. Maps will be developed that illustrate the future 100-year and 500-year floodplains for the 2020s and 2050s. These products will be used to inform planning and develop appropriate resilience standards for various categories of buildings and critical infrastructure, such as power and liquid fuels infrastructure.

**Department of City Planning**

Prior to Hurricane Sandy, the Department of City Planning had initiated a climate resilience work program to identify resilience strategies at scales both large and small that can be effectively applied within New York City’s dense, built-out environment. Following the storm, these activities are being expedited, expanded, and integrated within the City’s coordinated recovery efforts, to address the challenges of rebuilding and retrofitting to standards that will make the City more resilient to current and future climate hazards.

- **Citywide planning:** The construction of new flood-resilient building and the adaptation of existing buildings to increase their flood resilience require changes to zoning regulations within areas that will be subject to coastal flooding. Approximately 71,000 buildings are situated within FEMA's
Advisory 1% chance flood zone, an increase of 100% over the number of buildings within the 1% flood zone on the currently effective Flood Insurance Rate Maps. Emergency Executive Order 230 of 2013 (see “Construction Methods”) relaxed certain zoning restrictions effective immediately, in order to enable the required elevation of buildings above Advisory Base Flood Elevations and the reconstruction of damaged or destroyed buildings provided they comply with the applicable requirements. In spring 2013, DCP will introduce amendments to the City's Zoning Resolution to make these and other critical near-term citywide changes to facilitate flood-resilient construction and adaptation of existing structures. Further subsequent zoning changes are also anticipated to address more complex regulatory issues with respect to flood protection, and to complement updates to the Building Code. These regulatory changes will incorporate urban design analysis to ensure that building-scale resilience measures and coastal protections are suited to New York City's dense, urban fabric and support continued economic vitality and quality of life.

- **Community planning:** In neighborhoods affected by the storm and by shifts in coastal flood hazards, which necessitate changes to the form of buildings, local planning studies and community outreach will be required to identify and implement land use and zoning changes to facilitate rebuilding and increased resilience. With more than 6,000 City blocks in the Operational Inundation Area, and more than 4,300 blocks within the five areas characterized as experiencing the most severe damage, planning studies will need to be conducted in multiple distinct neighborhoods within these geographies as well as in other vulnerable neighborhoods. Neighborhood studies will take into account current and projected future flood hazards, land use, housing, access to shopping, services, jobs, and transportation, built form and quality of the public realm, economic challenges of rebuilding and flood insurance costs, and other factors.

- **Planning and technical support:** DCP provides data analysis and technical support for land use and zoning studies as well as housing recovery and retrofitting initiatives, business assistance and economic recovery efforts. These support activities include mapping and GIS analysis and data support, updates to population estimates for affected areas, and legal, procedural, and other technical support for land use actions.

Enactment of land use and zoning changes will require analysis of the effects of these changes on the environment under the City's Environmental Quality Review procedures.

**Other City Activities**

The SIRR report to be delivered in May is expected to identify a variety of specific unmet resiliency needs that will be eligible for and dependent upon federal funding sources, including CDBG-DR funds. The City's request for any such CDBG-DR funds will be the subject of a future Action Plan.

**Construction Methods**

Since 1983, New York City's Building Code has contained flood-proofing requirements for buildings in FEMA-designated flood hazard areas. A key provision of these requirements is that new or substantially altered buildings must elevate their lowest finished floor, or flood-proof up to the ‘Base Flood Elevation’ indicated on the FEMA flood maps. During the storm, buildings constructed to meet code standards fared significantly better than buildings that were built before the standards were in place, demonstrating the importance of these standards to protect property and other assets from flood risk. Still, Hurricane Sandy brought unprecedented flooding that was several feet higher – and extended over a larger area – than the base flood elevations estimated by FEMA prior to the storm.
On January 31, 2013, Mayor Bloomberg issued an emergency executive order (230) to suspend height and other restrictions to allow home and property owners rebuilding after Hurricane Sandy to meet updated flood standards without violating current zoning standards. The City also adopted a new rule to increase the required minimum flood-proofing elevation under the Building Code so that substantially damaged buildings and other new construction are built to withstand greater flood risk. The measures also should help New Yorkers limit the cost of future Federal flood insurance premiums by better protecting properties in flood-prone areas from risk and damage. The measures followed quickly upon the release of FEMA’s Advisory Base Flood Elevation maps, which contain the best currently available information about coastal flood risk and provide guidance on how to rebuild safely. The Mayor first announced the City’s intention to adjust construction requirements upon the availability of new flood data in an address in December.

FEMA’s Advisory Base Flood Elevation (ABFEs) Maps represent the best currently available information on flood hazards and the elevation buildings should meet to be protected from damage. When FEMA releases Preliminary Flood Insurance Rate Map data in mid-May and late June it will replace the ABFEs as best available data and will be referenced in the Executive Order. Without the executive order, a number of existing and new buildings would not have been able to be built or elevated to comply with the FEMA-recommended elevations without creating conflicts with current zoning height limits and other requirements. The executive order suspends those limits so that those who need to build now can meet the new advisory elevations. The executive order also enables existing buildings to be reconstructed or retrofitted to meet the new advisory elevations, and new buildings can be built to adhere to these standards as well. The executive order also allows the reconstruction of many destroyed or severely damaged buildings that could not otherwise be rebuilt as they existed before the storm because of inconsistencies with current zoning requirements, provided that these buildings are flood-proofed to the new FEMA advisory elevations. This simultaneously promotes higher flood protection standards and swifter rebuilding and recovery in affected neighborhoods. The emergency suspension is necessary for property owners who need to make immediate rebuilding decisions, because the process of changing zoning limits takes many months. The City will proceed to introduce zoning text amendments through the land use review process in the coming months to extend these changes beyond the duration of the emergency period. By allowing large numbers of buildings to be elevated beyond ordinary zoning allowances on an as-of-right basis without the need for case-by-case review, the executive order and upcoming zoning text amendments represent an exceptionally progressive zoning approach to promoting coastal adaptation.

The emergency rule also promotes construction to better flood protection standards by increasing the minimum elevation requirements for buildings located in at-risk areas. New construction or buildings with substantial damage in need of repair must protect the structures by building at least one or two feet above the flood elevation previously required in the building code. The added elevation will provide a further margin of safety from potential flood damage, serve to enhance life safety, and reduce property loss.

These measures will also help New Yorkers prepare for and potentially reduce Federal flood insurance premiums. This is particularly important for New Yorkers, because, following the July 2012 Congressional reauthorization of the National Flood Insurance Program, FEMA will be phasing out subsidized premiums, meaning that premiums going forward will be more reflective of the actual risks faced by insured buildings. Therefore, premiums will be lower for buildings that comply with recommended FEMA standards than for buildings that do not.

Over the course of the coming months, the City, working with the federal government and others, will be seeking to put in-place programs that may assist property owners with compliance with the new
recommended elevations. While the order enables property owners who wish to rebuild now to do so, owners who elect to build at a later date may be able to utilize these additional resources.

A copy of the Mayor's executive order and rule are available on www.nyc.gov.

There are many planning efforts going on in the City in response to the impacts of Hurricane Sandy. These include:

- **The Building Resiliency Task Force** convened in December by the Mayor and City Council Speaker Christine Quinn, charged to review current building codes and operational practices, and to make recommendations on how they could be amended to improve building resiliency and to facilitate recovery. The Task Force is scheduled to release its recommendations by summer 2013;

- **The Office of Housing Recovery Operations** will conduct analyses of impacted buildings, scale of housing demand, characteristics of clients, and available supply for re-housing and promote best practices for retrofitting and rebuilding; and

- **NYC Construction Code Revision**: Every three years, the New York City Construction Codes must be updated by the Department of Buildings, based upon the latest version of the International Code Council Codes (I-Codes). The City is in the process of amending the NYC Construction Codes utilizing the 2009 I-Codes. It is anticipated that the Local Law of Construction Code revisions will be submitted to the City Council in the first half of 2013.

The Department of Buildings’ website also contains a page devoted to relevant information related to post-Sandy information, especially the *Guide to Rebuilding After Hurricane Sandy*, which outlines procedures and requirements for reconstruction and repair work.

All new building construction and alteration and/or repairs of existing buildings in NYC are regulated by the 2008 NYC Construction Codes (which include the Administrative, Building, Fuel Gas, Mechanical, and Plumbing Codes) or the 1968 Building Code, which emphasize high quality and durability of materials. The NYC Energy Conservation Code ensures that all new construction and alteration and repairs to existing buildings meet prescribed energy efficiency standards.

Construction activities on buildings located within Special Flood Hazard Areas are required to comply with the special provisions of Appendix G of the NYC Building Code (Appendix G). Construction on buildings located in the areas that have been substantially damaged or totally destroyed (as defined in Appendix G) by Hurricane Sandy must comply with Appendix G as if a new building. Repairs or alterations of existing buildings located in the Special Flood Hazard Areas but not substantially damaged are not required to retrofit and make the building comply fully with the requirements of Appendix G; however, such repairs or alterations may not increase the degree of non-compliance.

Appendix G requires that the lowest floor of a building be elevated above the Design Flood Elevation. Additionally all utilities and attended equipment must be elevated above the Design Flood Elevation. Pursuant to the emergency rule by the Commissioner of Buildings, the Design Flood Elevation has been increased to two feet above the Base Flood Elevation for one- and two-family dwellings and one foot for most other buildings. Spaces below the lowest floor are required to be constructed of flood resistant materials. These materials by definition can be submerged in water for limited duration without contributing to or promoting the growth of mold.
Future property damage will be minimized by mandatory elevation of structures that are substantially or totally damaged. The Department of Buildings strongly encourages applicants to design buildings to a higher standard than required. Besides decreasing the risk of damage in future storms, owners will also have significant savings on flood insurance premiums for each foot of freeboard (elevation height above the required Base Flood Elevation, or “BFE”). As mentioned previously, FEMA has already issued advisory maps with new, increased BFEs; it is anticipated that the new final Flood Insurance Rate Maps (FIRMS) with higher BFEs will be released in the next year.

Additionally, new building construction is required to completely comply with the New York City Energy Conservation Code (NYCECC) resulting in a new building stock that is energy efficient. It should be noted that alterations, additions, and renovations to an existing building, building system(s), or portion thereof must conform to the NYCECC as they relate to new construction without requiring the unaltered portion of the existing building or building system(s) to comply.

In accordance with the standard practice at the Department of Housing Preservation and Development, the City's residential programs will require that all rehabilitation, reconstruction, and new construction work adhere to the Enterprise Green Communities Standard. For rehabilitation work that cannot meet the Enterprise Green Communities Standard, the City will follow the guidelines specified in the HUD CPD Green Building Checklist.
XIII. OTHER PROGRAM CRITERIA

Compliance
Prior to CDBG-DR grant expenditures, New York City agencies and subrecipients that will operate programs detailed in this and future Action Plans, together with the City agencies that oversee them ("CDBG-DR Agencies"), will be required to prepare (for new programs) or update (for expansions of existing programs) program-specific written procedures manuals ("Compliance Manuals") detailing procedures they will use to ensure compliance with programmatic and financial requirements of CDBG-DR. These will be reviewed for completeness by the CDBG-DR Unit within the New York City Office of Management and Budget ("OMB CDBG-DR") and, as appropriate, OMB will approve the manuals or require modifications.

CDBG-DR agencies may propose alternate compliance methodologies for approval by the OMB CDBG-DR Unit, where such alternate procedures are expected to be at least equally effective in a more efficient manner.

The steps for CDBG-DR agencies to use in developing Compliance Manuals for individual programs are:

1. Identify eligibility criteria and the point of initial evaluation or intake for each program.
2. Develop checklists/procedures for use in eligibility evaluation or intake, listing all criteria and documentation/certifications necessary to evidence compliance.
3. Determine and develop checklists/procedures for appropriate periodic monitoring procedures (certified status reports, site inspections, beneficiary eligibility recertification, measures to ensure the terms of affordability are being met, etc.).
4. Determine and develop checklists/procedures for appropriate close-out procedures.
5. Identify required record retention policies including what must be maintained (checklists, originals or copies of certifications and other documents, periodic reports), in what form (paper files, electronic files, etc.), short- and long-term storage location and the City’s five year minimum record retention period for CDBG-DR funding.
6. Prepare written program Compliance Manuals, including required use of intake, periodic monitoring, and close-out checklists/procedures and record retention, for prior approval by OMB CDBG-DR, and for use in training and as reference materials for program staff.

The compliance checklists and manuals are an integral part of the City’s monitoring process, as discussed below. Checklists/procedures allow for consistency, completeness, and documentation for monitoring activities.

Aggregated monitoring and reporting
The City will otherwise be responsible for ensuring compliance with the following regulations:

- Duplication of benefits: following the established City procedure for checking insurance, FEMA, SBA and other sources, and documenting that no duplication of benefits has occurred.
- Income certification: collecting an affidavit from each household attesting to household size and income.
• Environmental review: all projects must go through “reviews required by NEPA and related laws and authorities”.
• Davis-Bacon Labor Standards and the Related Acts as well as other applicable federal regulations.
• Section 3 of the Housing and Urban Development Act of 1968, 24 CFR 135, for all covered projects and activities as described within this Action Plan.

Monitoring
After the appropriation of CDBG-DR funds, as a means to continually mitigate and manage risk associated with using CDBG-DR funds, the City will utilize monitoring procedures following the mandates of the Managing CDBG Guidebook for Grantees and Subrecipients and in accordance with the CPD Monitoring Handbook 6509.2 REV-6. The goal is to ensure compliance with City, State, and Federal regulations and provide for a centralized review and accountability of the CDBG-DR funds.

The City's grant monitoring will use a risk-based approach that will take into consideration the complexity of projects, staff changes, past performances, the level of experience of program managers and administrators, a review of progress reports, and in some cases will be tied to the dollar thresholds.

The monitoring system will operate on four levels, which together will substantially mitigate the risk of non-compliance including the risks of fraud, waste, or abuse in CDBG-DR programs and grant expenditures.

1. CDBG-DR Agency-Based Monitoring:
As formulated to encompass all compliance requirements and specified in the program's Compliance Manual, CDBG-DR Agencies will utilize the checklists/procedures as an integral part of the monitoring process. Checklists/procedures will be used to carry out and document the existence of these procedures as well as adherence to and fulfillment of the program requirements regarding:

   1. Initial eligibility assessments/intake procedures;
   2. Periodic monitoring procedures; and

Additionally, CDBG-DR Agencies will provide programmatic and financial reports to OMB CDBG-DR.

2. OMB CDBG-DR Monitoring:
Centralized programmatic and financial monitoring of all CDBG-DR programs will be carried out by the OMB CDBG-DR unit. This Unit will, for a particular grant or grantee, decide the nature and frequency of the activities using a risk-based approach.

The OMB CDBG-DR Unit will establish periodic reporting requirements for CDBG-DR Agencies, and perform desk reviews of submissions. A desk review of documents submitted will be used to identify omissions, anomalies, questionable activities and costs, including those cases where expenditures may not be necessary and reasonable. [24 CFR Part 225 states that “A cost is reasonable if, in its nature and amount, it does not exceed that which would be incurred by a prudent person under the circumstances prevailing at the time the decision was made.”] The OMB CDBG-DR Unit will follow-up on any issues noted in the desk review to obtain adequate explanations and documentation from the CDBG-DR Agency, and where appropriate, may refer a specific program to Internal Audit (discussed below).
OMB CDBG-DR will also ensure that the City, State, and Federal program-related timelines and benchmarks are being achieved as projected.

Additionally, the OMB CDBG-DR Unit will prepare and submit all reports required by HUD on CDBG-DR programs such as the Quarterly Performance Reports, and/or coordinate with and review such reports prepared by CDBG-DR Agencies.

3. Internal Audit:
A Director of Disaster Recovery Grant Internal Audit ("IA Director") will be appointed and will report directly to the City’s Director of Management and Budget, who serves as the Chief Executive Officer for the purpose of CDBG-DR. The IA Director will be responsible for the development and execution of an internal audit program including desk and field audits of CDBG-DR-funded programs in all CDBG-DR Agencies, on a rotating basis. The internal audit program and all audit work will be conducted in accordance with accepted internal audit practices. Some or all of the staffing of internal audit may be contracted to one or more outside certified public accounting (CPA) firms with appropriate expertise and experience.

A desk audit is a review of documents requested of and submitted by the CDBG-DR Agency, similar to but more complete than, the desk review. All programs will be subjected to at least one desk audit each year as part of the audit plan.

A field audit involves auditors working at program locations and interviewing CDBG-DR Agency staff and reviewing documents for the purpose of documenting and testing internal controls, and for the examination of documentation supporting expenditures for eligibility, allowable expenditures, and compliance with Federal and City laws and regulations applicable to CDBG-DR-funded expenditures generally and the specific program. As part of this, auditors will judge if costs are necessary and reasonable. Programs will be selected on a rotating basis for field audit based on general risk assessments, results of desk audits, and other factors as appropriate.

4. External Financial Reporting and Independent Audit:
New York City's budgeting and its annual external financial reporting are both done in accordance with generally accepted accounting principles applicable to U.S. state and local governments ("GAAP"), meaning that the City meets the highest standards of financial reporting and an extremely high – and rare – standard for budgeting.

The City’s GAAP financial statements are audited by an independent CPA firm each year, and an annual Federal Funds Single Audit of all Federal grant expenditures is also conducted by that firm in accordance with Federal OMB Circular A-133 (including sub-recipient monitoring). Based on its size, the CDBG-DR grants are virtually certain to qualify as a “Major Program” within the Single Audit, meaning that they will be subject to extensive compliance and internal control testing by the independent auditors and that the auditors will report deficiencies noted, if any, in these programs.

Duplication of Benefits
The City of New York is creating several disaster recovery programs and must consider whether one program will duplicate assistance provided by another program. The following Framework provides structure for departments or other organizations implementing disaster recovery programs in determining the amount of CDBG-DR assistance that will not duplicate assistance from other resources. For purposes of
this plan, the term “City” refers to the City of New York and its agencies responsible for delivering CDBG-DR assistance.

A. Assessment of need prior to assistance.
B. Total assistance available to the person or entity.
C. Non-duplicative assistance excluded from final benefit calculation.
   1. Funds for a different purpose.
   2. Funds for same purpose, different eligible use.
   3. Funds not available to the applicant.
   4. Private loans.
   5. Other assets or lines of credit.
D. Calculate CDBG-DR award.
E. Unmet need.
F. Use of CDBG-DR Funds
   1. Use of funds for explicit and eligible purposes.
   2. Treatment of SBA Loans.
G. Collecting a Duplication of Benefit.

**Administrative Procedures for Identifying the Duplication of Benefits**

1. For each CDBG-DR-funded program, the City will identify potential assistance from insurance, Federal and State government, City agencies, and private or non-profit charity organizations (covered assistance) that it reasonably expects to be in a project or to otherwise be received by a beneficiary of CDBG-DR assistance.
2. All applicants for assistance from the City’s CDBG-DR allocation will be required to identify their other sources and amounts of covered assistance (sources and uses), and to certify that the CDBG-DR assistance requested does not duplicate other covered assistance that has been received or is reasonably expected to be received.
3. In any application for CDBG-DR assistance, the City will require beneficiaries to agree to repay any assistance later received for the same purpose as the CDBG-DR funds.
4. In conjunction with its actions to prevent fraud, waste, and abuse, the City will employ data systems and data sharing and data matching to identify duplication of benefits. The City will enter into data-sharing agreements with relevant Federal and State agencies, and other entities, as appropriate.
5. The City will include duplication of benefits among its review criteria in monitoring for compliance with applicable laws, regulations, and other authorities.

**Applicable Laws and HUD Guidance**

- Public Law 113-2: Disaster Relief Appropriations Act, 2013 (at HR152-34) Signed January 29, 2013
- Section 312 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5155), as amended
- 44 CFR 206.191 Duplication of Benefit
- HUD Federal Register Notice, at 76 FR 71060, published November 16, 2011
Examples of Housing Duplication of Benefit Analysis
The Owner/Applicant will provide the program information related to funds received and spent as a result of Hurricane Sandy impacts.

The City will review all the funds received by the owner and determine which funds are for the same purpose as the assistance the owner is requesting. This is the amount for duplication of benefits calculation.

The owner will provide receipts and sign a statement of how the funds were spent. The statement of how the funds were spent will be divided into categories of 1) Rehabilitation/Reconstruction, 2) Allowed Activities, and 3) Not duplication of benefit expenditures. The statement of funds spent from category 1 is called the Certification of Work Already Completed. The statement of funds spent from category 2 is called the Allowed Activities. Category 3 is not subject to duplication of benefit calculation.

This information will be provided to the team conducting Home Evaluations for verification. The Home Evaluator will verify that the repair work documented by the owner is reasonable and completed; at the same time the Home Evaluator will estimate the cost of the work that needs to be completed in order to meet current code.

**DOB Example, Not Displaced:** Property owner is applying for home rehabilitation assistance from the NYC Houses program. The owner was able to live in the home while repairing the impacts from Hurricane Sandy.

<table>
<thead>
<tr>
<th>Initial Cost estimate:</th>
<th>$180,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funds received from FEMA, SBA, insurance &amp; others for same purpose:</td>
<td>$150,000</td>
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<tr>
<td>City’s verification of Owner Certification of Work Already Completed:</td>
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<tr>
<td>Funds that the owner will provide to complete work:</td>
<td>$50,000</td>
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<tr>
<td>CDBG-DR NYC Houses Program Unmet Need, eligible for assistance</td>
<td>$30,000</td>
</tr>
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</table>

**DOB Example, Interim Housing:** Property owner is applying for home rehabilitation assistance from the NYC Houses program. The owner was not able live in the home for a couple months while repairing the impacts from Hurricane Sandy, but has since moved in the completed area.

<table>
<thead>
<tr>
<th>Initial Cost estimate:</th>
<th>$180,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funds received from FEMA, SBA, insurance &amp; others for same purpose:</td>
<td>$150,000</td>
</tr>
<tr>
<td>City’s verification: Owner Certification of Work Already Completed:</td>
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<td>City’s verification: Owner Certification of Allowed Activities:</td>
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<td>Funds that the owner will provide to complete work:</td>
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<td>CDBG-DR NYC Houses Program Unmet Need, eligible for assistance</td>
<td>$40,000</td>
</tr>
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</table>
**DOB Example, Spent personal funds:** Property owner is applying for home rehabilitation assistance from the NYC Houses program. The owner was not able to live in the home for a couple months while repairing the impacts from Hurricane Sandy, but has since moved in the completed area. The owner spent more than what they received from FEMA, SBA, insurance and others for repair work.

Initial Cost estimate: $230,000
Funds received from FEMA, SBA, insurance & others for same purpose: $150,000
City's verification: Owner Certification of Work Already Completed: -$160,000
City's verification: Owner Certification of Eligible Costs for Interim Housing: -$10,000
Funds that the owner will provide to complete work: $0
CDBG-DR NYC Houses Program Unmet Need, eligible for assistance $70,000

**DOB Example, Received Additional funds after signing assistance agreement:** Property owner is applying for home rehabilitation assistance from the NYC Houses program. The owner was not able to live in the home for a couple months while repairing the impacts from Hurricane Sandy, but has since moved in the completed area. The owner spent more than what they received from FEMA, SBA, insurance and others for repair work. After signing the assistance agreement, the owner receives an adjusted insurance settlement that must be provided back to the program as reimbursement of assistance, not to exceed the amount of received by CDBG-DR.

Initial Cost estimate: $280,000
Funds received from FEMA, SBA, insurance & others for same purpose: $150,000
City's verification: Owner Certification of Work Already Completed: -$200,000
City's verification: Owner Certification of Eligible Costs for Interim Housing: -$10,000
Funds that the owner will provide to complete work: $0
CDBG-DR NYC Houses Program Unmet Need, eligible for assistance $80,000
CDBG-DR Spent to complete work on home $80,000
Owner receives an additional insurance settlement of $100,000, repays CDBG-DR $80,000

**Program Income**
It is expected that certain CDBG-DR-funded programs will generate income. Any program income earned as a result of CDBG-DR-funded activities will be subject to the rules outlined in Federal Register notice 78 FR 14329. In the Notice, HUD provides grantees the option of transferring program income to their annual CDBG-DR entitlement grant (if applicable) or to be used as CDBG-DR funds until grant closeout. The City has opted to return program income received to the CDBG-DR program in order to further fund disaster-related activities. Accordingly, program income received before closeout of the CDBG-DR grant will be subject to CDBG-DR requirements and must be used in accordance with the City’s CDBG-DR Action Plan. To the maximum extent feasible, HUD requires that program income shall be used or distributed before additional withdrawals from the U.S. Treasury are made.
Sub-Recipient Agreements

New York City may enter into sub-recipient agreements with community-based non-profit organizations to facilitate loan and/or grant making, particularly to homeowners. The City will create monitoring procedures to ensure compliance with state and federal regulations.

Sub-recipient agreements will outline all reporting requirements. These will include, but not be limited to Quarterly Performance Reports that include Performance Measures and Outcomes; annual audit reports; contractual obligations and Minority- and Women-Owned Business Enterprise reports; Section 3 reporting requirements; and Labor Standards.

Each sub-recipient will be reviewed at least once annually. Sub-recipients may be subject to more frequent monitoring based on complexity of projects, staff changes, past performance, level of experience of the program managers and administrators, the level of expenditures, a review of progress reports, and in some cases, the dollar threshold.

Sub-recipients will be responsible for ensuring that loans and/or grants made with CDBG-DR funds do not duplicate other benefits. In order to do so, sub-recipients must:

- Assess the full scope of the recovery need for each beneficiary.
- Calculate all benefits already received, including FEMA and SBA aid, other local, state, or federal assistance, and charitable grants.
- Calculate all benefits likely to be received in the future.
- Collect a signed agreement to repay any assistance later received for the same purpose as the CDBG-DR funds. This agreement shall cover a period of three years, and the sub-grantee is responsible for monitoring beneficiaries during that period.
- Create a system to collect and maintain documentation from beneficiaries documenting use of benefits received, such as receipts for interim rental payments.

Sub-recipient monitoring, including oversight of the duplication of benefits rules, will be conducted by agency program staff, working in conjunction with agency audit liaisons, and the Mayor’s Office of Management and Budget.

Capacity Building

The New York City Office of Management and Budget (OMB) as well as the various agencies that are administering CDBG-DR programs are prepared to provide technical and management assistance to other intergovernmental agencies, sub-grantees, and sub-recipients when necessary. The assistance will be provided in the form of training sessions and/or individual meetings specific to the CDBG-DR requirements. Guidance for general requirements will also be covered for those individuals and entities that have no CDBG-DR experience.

OMB staff has extensive experience in successfully managing the CDBG Entitlement program. The City has been administering the CDBG Entitlement Program for 39 years and the OMB CD Unit collectively has 214 years of experience doing so. Given the depth of experience of the existing staff and the systems in place to track and measure CDBG-DR performance outcomes and compliance requirements, the City of New York staff can adequately ensure that the CDBG-DR program will be managed appropriately. In those areas where the City finds itself to be deficient, it will hire additional staff, seek the assistance of HUD’s Technical
Assistance Program, and may work with outside professional consultants and other capacity building organizations.

The City of New York will also use its monitoring program to assist grant recipients and provide additional technical assistance and capacity building around specific programmatic functions and activities. This will further strengthen the program and assure that guidelines are adhered to, program objectives are met, and overall community capacity is increased and sustained throughout the long term recovery process.

Agencies, in conjunction with the New York City Office of Management and Budget, will hold trainings for subrecipients and, as appropriate, other entities participating in loan/grant programs to ensure that they have the capacity to administer CDBG-DR. Agency staff will be available on an ongoing basis to answer questions and provide support to subrecipients. For example, the Department of Housing Preservation and Development will train all subrecipient groups on key CDBG-DR regulations, including, but not limited to:

- Determination of low- and moderate-income eligibility;
- Calculations of duplication of benefit;
- Identification of properties in the 100-year floodplain;
- Purchase and maintenance of flood insurance;
- Compliance with lead-based paint requirements;
- Mold remediation; and
- Historic preservation review.

Citizen Participation Plan

a. Background
The City of New York is the recipient of a Community Development Block Grant-Disaster Recovery Grant (CDBG-DR) in accordance with the Disaster Relief Appropriations Act, 2013 (Public Law 113-2). These funds are being made available to assist disaster recovery efforts in response to Hurricane Sandy. A requirement of this program is the adoption of a Citizen Participation Plan. The Federal Register at 78 FR 14329 contains a list of waivers which permits changes to the City of New York’s Consolidated Plan Citizen Participation Plan. The following section describes the citizen participation process in conformance with the regulations.

b. Public Hearing
Unlike the Citizen Participation Plan for the Consolidated Plan process, there is no requirement for a public hearing relative to the CDBG-DR Action Plan.

c. Public Notice and Comment Period
In accordance with CDBG-DR requirements, the City of New York has developed and will maintain a comprehensive website regarding all disaster recovery activities assisted with these funds. The City will post all Action Plans and amendments on the City’s CDBG-DR website (www.nyc.gov/cdbg) to give citizens an opportunity to read the plan and to submit comment(s). This website is featured prominently on, and is easily navigable from, the City’s homepage (www.nyc.gov).
Paper copies of the Action Plan will be available in both English (including large, 18pt type) and the languages listed in the “Individuals with Limited English Proficiency (LEP)” section at the following address:

Office of Management and Budget
255 Greenwich Street, 8th Floor
New York, New York 10007

A comment period of at least seven (7) days, as required by HUD, shall be provided for citizens, affected local governments, and other interested parties an opportunity to comment on substantial amendments to the Action Plan. Notices advertising the public comment period will be placed in daily newspapers, non-English newspapers, and weekly community newspapers. Comments may be submitted as follows:

- Electronically on the City's CDBG-DR website at www.nyc.gov/cdbg.
- Written comments may be mailed to:
  Mayor's Office of Operations
  253 Broadway, 10th Floor
  New York, NY 10007
- By telephone by contacting 311, New York City's main source of government information and non-emergency services. Dial 311 within New York City or (212)-NEW-YORK (212-639-9675) from outside New York City.

At the end of the comment period, all comments shall be reviewed and a City response will be incorporated into the document. A summary of the comments and the City’s responses will be submitted to HUD with the Action Plan. A revised Action Plan including the public comments and responses will be posted on the City's CDBG-DR website.

d. Individuals with Limited English Proficiency (LEP)

Based on LEP data within the impacted areas collected by the City, both the instructions for commenting on, and access to, the Plan will be translated into Spanish, Russian, and Chinese (simplified). Comments will be accepted through the online commenting form in English and the three previously mentioned languages. The City will make every possible effort to translate and consider comments submitted in any other language within the timeframe.

e. Persons with Disabilities

As noted above, hard copies of Action Plans will be available in large print format (18pt font size) at the location listed above. The online materials will also be accessible for the visually impaired. For more information on how people with disabilities can access and comment on the Action Plan, dial 311 or, using a TTY or Text Telephone, (212) 504-4115.

f. The Final HUD-Approved Action Plan

Following HUD approval of the Action Plan, it will be posted on the City's CDBG-DR website. Copies of the Final Action Plan will also be made available upon request.
h. Response to Citizen Complaints
The City of New York shall provide a written response to every complaint relative to the CDBG-DR grant within fifteen (15) working days of receipt if practicable.

i. Performance Review
The requirements for submission of a Performance Evaluation Report (PER) are waived for the CDBG-DR program. As an alternative, the City's Action Plan must be entered into HUD's Disaster Recovery Grant Reporting (DRGR) system. The City must submit a performance report in a form to be prescribed by HUD no later than thirty days following the end of each quarter, beginning after the first full calendar quarter after grants award and continuing until all funds have been expended. The quarterly reports shall use the DRGR system and be posted on the City's website within three days of submission.

Action Plan Amendments
In the case of amendments, the City of New York will follow two alternative citizen participation processes. In the cases of a substantial amendment, the procedures detailed above will be followed. A substantial amendment shall be defined as: a change in program benefit, beneficiary or eligibility criteria, the allocation or re-allocation of more than $1 million, or the addition or deletion of an activity. For amendments considered to be non-substantial, the City shall notify HUD, but public comment is not required. Every amendment, substantial or not, shall be numbered sequentially and posted on the website.
XIV. APPENDICES

Appendix A: Damaged City-Owned and -Leased Facilities

Public Schools and DOE Facilities

Bronx
- Bronx Leadership Academy II High School - 730 Concourse Village West
- Herbert H. Lehman High School - 3000 East Tremont Avenue
- I.S. 117 - 1865 Morris Avenue
- I.S. 241 - 1595 Bathgate Avenue
- Morris Academy for Collaborative Studies - 1110 Boston Road
- P.S. 6 - 1000 East Tremont Avenue
- P.S. 31 – 425 Grand Concourse
- P.S. 56 - 341 East 207th Street
- P.S. 75 - 984 Faile Street
- P.S. 86 - 2756 Reservoir Avenue
- Peace & Diversity Academy - 3441 Steenwick Avenue

Brooklyn
- Abraham Lincoln High School - 2800 Ocean Parkway
- I.S. 98 - 1401 Emmons Avenue
- I.S. 211 - 1001 East 100th Street
- I.S. 239 - 2401 Neptune Avenue
- I.S. 303 - 501 West Avenue
- International High School - 2630 Benson Avenue
- John Dewey High School - 50 Avenue X
- Liberation Diploma Plus High School - 2865 West 19th Street
- P.S. 15 - 71 Sullivan Street
- P.S. 90 - 2840 West 12th Street
- P.S. 134 - 4001 18th Avenue
- P.S. 188 - 3314 Neptune Avenue
- P.S. 195 - 131 Irwin Street
- P.S. 253 - 601 Oceanview Avenue
- P.S. 254 - 1801 Avenue Y
- P.S. 276 - 1070 East 83rd Street
- P.S. 279 - 1070 East 104th Street
- P.S. 288 - 2950 West 25th Street
• P.S. 329 - 2929 West 30th Street
• William E. Grady Vocational High School - 25 Brighton 4th Road

**Manhattan**
• Bard High School Early College - 525 East Houston Street
• P.S. 61 - 610 East 12th Street
• P.S. 112 - 535 East 119th Street

**Queens**
• Academy of Medical Technology - 8-21 Bay 25th Street
• Beach Channel High School - 100-00 Beach Channel Drive
• Forest Hills High School - 67-01 110th Street
• Frederick Douglass Academy VI - 8-21 Bay 25th Street
• I.S. 53 - 10-45 Nameoke Street
• J.H.S. 180 - 320 Beach 104th Street
• Math, Science, Research & Technical High School - 207-01 116th Avenue
• P.S. 40 - 109-20 Union Hall Street
• P.S. 42 - 488 Beach 66th Street
• P.S. 43 - 160 Beach 29th Street/12 Marvin Street
• P.S. 47 - 9 Power Road
• P.S. 78 - 48-09 Center Boulevard
• P.S. 104 - 26-01 Mott Avenue
• P.S. 105 - 420 Beach 51st Street
• P.S. 106 - 180 Beach 35th Street
• P.S. 114 - 134-01 Cronston Avenue
• P.S. 146 - 98-01 159th Avenue
• P.S. 153 - 60-02 60th Lane
• P.S. 171 - 14-14 29th Avenue
• P.S. 182 - 153-27 88th Avenue
• P.S. 183 - 2-45 Beach 79th Street
• P.S. 195 - 253-50 149th Avenue
• P.S. 197 - 825 Hicksville Road
• P.S. 207 - 159-15 88th Street
• P.S. 215 - 535 Briar Place
• P.S. 253 - 1307 Central Avenue
• P.S. 317 - 190 Beach 110th Street
• P.S. 333 - 3-65 Beach 56th Street
• P.S. Q256 Special Education - 445 Beach 135th Street
• Queens Vocational High School - 37-02 47th Avenue
• Bureau of Supplies - 44-36 Vernon Boulevard
• DOE Division of School Buildings - 28-11 Queens Plaza North

**Staten Island**
• P.S. 38 - 421 Lincoln Avenue
• Curtis High School - 105 Hamilton Avenue
• I.S. 2 - 333 Midland Avenue
• P.S. 52 - 450 Buel Avenue

**Water, Wastewater, and Other DEP Facilities**

**Bronx**
• 233rd Street Pumping Station – Southbound Bronx River Parkway
• City Water Tunnel #1 – Shaft 7
• Conner Street Pumping Station – Foot of Conner Street at Eastchester Creek
• Hillview Reservoir
• Hunts Point Wastewater Treatment Plant - 1270 Ryawa Avenue
• Kensico Reservoir
• Orchard Beach Pumping Station
• Pelham Bay Landfill - 301 Shore Road
• Zerega Avenue Pumping Station – Zerega Avenue and Castle Hill Avenue

**Brooklyn**
• 26th Ward Wastewater Treatment Plant - 122-26 Flatlands Avenue
• 49th Street Pumping Station - 49th Street & 57th Avenue
• Bush Terminal Pumping Station - West of 2nd Avenue between 28th & 29th Street
• Coney Island Wastewater Treatment Plant - 2591 Knapp Street
• Fountain Avenue Landfill - 950 Fountain Avenue
• Gowanus Pumping Station - 201 Douglass Street
• Nevins Street Pumping Station - Nevins Street between Sackett & Degraw Street
• Newtown Creek Wastewater Treatment Plant - 329 Greenpoint Avenue
• Owls Head Wastewater Treatment Plant - 6700 Shore Road
• Pennsylvania Avenue Landfill - 1750 Pennsylvania Avenue
• Red Hook Wastewater Treatment Plant - 63 Flushing Avenue
• Second Avenue Pumping Station - Second Avenue & 5th Street
• Van Brunt Pumping Station - Foot of Van Brunt Street near Read Street

**Manhattan**
• City Water Tunnel #1 - Shaft 18
• City Water Tunnel #1 - Shaft 21
• Manhattan Pumping Station - 184 Avenue D
• Marble Hill Pumping Station – 58 West 225th Street
• North River Wastewater Treatment Plant - 725 West 135th Street
• Roosevelt Island North Pumping Station – Near Coler-Goldwater Hospital
• Roosevelt Island South Pumping Station – Near Coler-Goldwater Hospital
• Wards Island Wastewater Treatment Plant - 7 Wards Island

Queens
• 49th Street Pumping Station – Corner of 57th Avenue and 49th Street
• Bayswater Pumping Station - Norton Basin
• Bowery Bay Wastewater Treatment Plant - 43-01 Berrian Boulevard
• Broad Channel Pumping Station – 20th Avenue between 98th Street & Crossbay Boulevard
• Doug Bay Pumping Station - 41st Avenue & 233rd Street
• Howard Beach Pumping Station – Southeast Corner of 155th Avenue & 100th Street
• Jamaica Wastewater Treatment Plant - 150-20 134th Street
• Little Neck Pump Station – 40th Avenue west of 248th Street
• Nameoke Avenue Pumping Station – Southeast Corner of Nameoke & Central Avenue
• New Douglaston Pumping Station – Alley Pond Park – North of Long Island Expressway
• St. Albans Pumping Station – Intersection of 177th Street & 112th Avenue
• Rockaway Wastewater Treatment Plant - 106-21 Beach Channel Drive
• Roosevelt Island South Pumping Station - Near Goldwater Hospital, Roosevelt Island
• Rosedale Pumping Station - 149th Street & Brookville Boulevard
• Seagirt Pumping Station - Seagirt Avenue & 9th Street
• Tallman Island Wastewater Treatment Plant - 127-01 Powell Cove Boulevard
• Warnerville Pumping Station – Brookville Boulevard & Broadway

Staten Island
• Cannon Pumping Station - Cannon Avenue between Prices Lane & Glen Street
• Mason Avenue Pumping Station – South of Slater Boulevard
• Melvin Avenue Pumping Station – Brookville Boulevard & Broadway
• Nautilus Court Pumping Station - Cliff Street & Nautilus Court
• Oakwood Beach Wastewater Treatment Plant - 751 Mill Road
• Port Richmond Wastewater Treatment Plant - 1801 Richmond Terrace
• Richmond Chlorination Water Reservoir
• South Beach Pumping Station - Father Capodanno & South of Sand Lane

City-Owned Day Care Centers
• Blanche Day Care Center - 44-22 Beach Channel Drive, Queens
City-Owned Senior Centers

Bronx
- BronxWorks East Concourse Senior Center - 236 East Tremont Avenue

Manhattan
- Chinese-American Planning Council Project Open Door Senior Citizens Center - 168 Grand Street

Queens
- Catholic Charities Diocese of Brooklyn & Queens CCNS Bayside Senior Center - 211-15 Horace Harding Expressway

Staten Island
- Friendship/New Dorp - 128 Cedar Grove Avenue

City-Leased Senior Centers

Brooklyn
- JCC of Greater Coney Island, Surf Solomon Service Center – 3001 West 37th Street

City University of New York Facilities

Bronx
- Hostos Community College – 475 Grand Concourse
- Bronx Community College – West 181st Street and University Avenue

Brooklyn
- Kingsborough Community College – 2001 Oriental Boulevard

Manhattan
- Borough of Manhattan Community College – 199 Chambers Street
- New Community College – 50 West 40th Street

Queens
- LaGuardia Community College – 31-10 Thompson Avenue

Department of Parks and Recreation - Parks and Playgrounds

Bronx
- Barretto Point Park
- Bicentennial Veterans Park
- Bronx Park
- Burns Playground
• Cedar Playground
• Classon Point Park
• Crotona Park: Hylan Park
• Devoe Park
• Flynn Playground
• Fort 4 Playground
• Franz Sigel Park
• Hunts Point Riverside Park
• Jerome Park
• Mullaly Park North
• Old Fort Four Park: Washington's Walk
• Pelham Bay Park
• Poe Park
• Riverdale Park
• Rosewood Playground
• Saint James Park
• Saint Mary's Park
• Seton Park
• Soundview Park
• Star and Stripes Playground
• Strong Street Playground
• Van Cortlandt Park
• Waring Playground
• Williamsbridge Oval

Brooklyn
• Asser Levy Playground
• Avenue J Playground
• Bensonhurst Park
• Brighton 2nd Playground
• Carroll Park
• Coffey Park
• Commodore Barry Field
• Coney Island Creek (Six Diamonds)
• Cypress Hills Playground
• Dyker Park
• Fresh Creek
• Gerritsen Creek Ball Fields
- Kaiser Park
- Luna Park
- Marine Park
- McCarren Park
- McGuire Fields
- Nautilus Playground
- Nehemiah Playground
- North Fifth Street Pier
- Pat Perlatto Playground
- Poseidon Playground
- Prospect Park
- Remsen Playground
- Shore Parkway
- Surf Playground
- Taaffe Playground

**Manhattan**
- Albert Capsuoto Park
- Baruch Playground
- Battery Park
- Carl Schurz Playground
- Colonel Charles Young Playground
- Corlears Hook Park
- Dry Dock Playground
- East River Esplanade
- East River Park
- Fort Tryon Park
- Fort Washington Park
- Frederick Douglass Playground
- Happy Warrior Playground
- Harlem Lane Playground
- High Bridge Park
- Inwood Hill Park
- Isham Park
- Jackie Robinson Park
- James J. Walker Park
- John Jay Park
- Lillian Wald Playground
- M258 East River Playground
- Manhattan Park
- Marcus Garvey Park
- Martin Tanahey Playground
- Murphy's Brother's Playground
- P.S. 156 Holcombe Rucker Playground
- Playground 103
- Riverside Park
- Saint Nicholas Park
- Sakura Park
- Sherman Creek Park
- Stanley Isaacs Park
- Sunken Playground
- Theodore Roosevelt Park
- Union Square Park
- Washington Square Park

Queens
- 587 Memorial Park
- Alley Pond Park
- Almeda Playground
- American Ballfields
- Annadale Playground
- Arverne Playground
- Astoria Heights Playground
- Astoria Park
- Baisley Pond Park
- Bayswater Park/Playground
- Bowne Park
- Brant Point Wildlife Sanctuary
- Breininger Park
- Broad Channel American Park
- Brookville Park
- Buz O'Rourke Playground
- Conch Playground
- Crocheron Park: Joe Michael's Mile
- Cunningham Park
- Dubois Point Wildlife Sanctuary
• Evergreen Park
• Father Francis McGee Playground
• Flushing Meadows Corona Park
• Forest Park
• Fort Totten Park
• Gene Gray Playground
• Grassmere Playground
• Grover Cleveland Park
• Hallet’s Cove Playground
• Hallet’s Point Park
• Hammel Playground
• Hellgate Field
• Highland Park
• Hinton Park
• Hoover-Manton Playground
• Idlewild Park
• John Andrews Playground
• Judge Moses Weinstein Playground
• Juniper Valley Park
• Kissena Corridor Park
• Kissena Park
• LaGuardia Landing Lights
• Lefferts Playground
• Louis Armstrong Playground
• Macneil Park
• Martins Field Playground
• McLaughlin Playground
• Montbellier Park
• One Room School House Park
• Overlook Park
• P.S. 94 Admiral Playground
• P.S. 214 Colden Playground Patricia Barkley Park
• Patricia Brackley Park
• Phil Rizzuto Park
• Powell’s Cove Park
• Ralph DeMarco Park
• Real Good Park
• Redfern Playground
- Rockaway Park
- Rosemary Playground
- Roy Wilkins Park
- Sandpiper Playground
- Socrates Sculpture Park
- Springfield Park
- Sunrise Playground
- Sy Seplowe Playground
- Tribute Park
- Upper Highland Park
- Wayanda Park
- Whitey Ford Field
- Windmuller Park

**Staten Island**
- Alice Austin House
- Arrochar Playground
- Bayview Terrace Park
- Blissenbach Marina
- Buono Beach
- Cedar Grove Park
- Clove Lakes Park
- Conference House Park
- Davis Playground
- DeMatti Playground
- Dongan Playground
- Faber Park and Pool
- Franklin D. Roosevelt South Beach
- Great Kills Park
- Last Chance Pond Park
- Lemon Creek Park
- Lyons Pool
- Mahoney Playground
- McDonald Playground
- Midland Field
- Midland Playground
- New Dorp Playground
- Ocean Breeze Park
• Seaside Wildlife Nature Park
• Schmul Park
• Silver Lake Park
• Tappen Park
• Tottenville Shore Park
• Veterans Park
• Walker Park
• Willowbrook Park
• Wolfe’s Pond Park

**Department of Parks and Recreation – Facilities**

**Bronx**

• Aqueduct Walk – 183rd Street and Kingsbridge Road
• Hammond Cove Marina – 140 Reynolds Avenue
• Mosholu Parkway

**Brooklyn**

• Abe Stark Recreation Center – Coney Island Boardwalk and West 19th Street
• Coney Island Steeplechase Plaza
• Diamond Point Yacht Club
• Fresh Creek Preserve
• Greenpoint Kent Street Pier
• Hudson River Yacht Club
• Midget Squadron Marina
• Ocean Parkway Malls
• Paerdegat Athletic Center – 1510 Paerdegat Avenue North
• Paerdegat Squadron – 1350 Paerdegat Avenue North
• Red Hook Recreation Center – 155 Bay Street
• Sebago Canoe Club
• Sheepshead Bay Piers – 2010 Emmons Avenue

**Manhattan**

• 79th Street Boat Basin
• Al Smith Recreation Center – 80 Catherine Street
• Asser Levy Recreation Center – East 23rd Street and FDR Drive
• Inwood Hill Park: Nature Center
• Pier 42
• Stuyvesant Square
• The High Line
• Tony Dapolito Recreation Center – 3 Clarkson Street
• Veterans Plaza

Queens
• Bayside Marina – 28-05 Cross Island Parkway
• Clearview Golf Course – 202-12 Willets Point Boulevard
• McKenna Triangle
• Nassau Mall South
• Olmsted Center
• Queens Boulevard Mall
• Southside Burial Ground
• World’s Fair Marina – 125-00 Northern Boulevard

Staten Island
• George M. Cromwell Recreation Center
• Greenbelt Nature Center – 700 Rockland Avenue
• Lemon Creek Fishing Pier: Parking Lot
• Lemon Creek Marina
• Lyons Pool
• New Springville Storehouse
• Stapleton Esplanade and Bikeway

Department of Parks and Recreation – Beaches

Brooklyn
• Coney Island Beach
• Manhattan Beach
• Shore Front Parkway Beach

Queens
• Howard Beach
• Rockaway Beach

Staten Island
• Buono Beach
• Cedar Grove Beach
• Crescent Beach
• Franklin D. Roosevelt South Beach
• New Dorp Beach
- Oakwood Beach
- Midland Beach
- South Beach

**New York City Department of Sanitation Facilities**

**Bronx**
- Bronx Borough Office – 800 East 176th Street
- Sanitation District Garage – 850 Zerega Avenue
- Sanitation District Garage – 1635 East 233rd Street

**Brooklyn**
- Greenpoint Warehouse – 447 North Henry Street
- Kent Avenue Salt Dome – 652 Kent Avenue
- Sanitation District Garage – 5602 19th Avenue
- Sanitation District Garage – 10502 Avenue D
- Sanitation District Garage – 5100 First Avenue
- Sanitation District Garage – 922 Georgia Avenue
- Sanitation District Garage – 465 Hamilton Avenue
- Sanitation District Garage – 525 Johnson Avenue
- Sanitation District Garage – 2501 Knapp Street
- Sanitation District Garage – 750 Milford Street
- Sanitation District Garage – 2012 Neptune Avenue
- Sanitation District Garage – 1755 Pacific Street
- Sanitation District Garage – 127 Second Avenue
- Sanitation District Garage – 1824 Shore Parkway
- Sanitation District Garage – 93 Van Brunt Street
- Sanitation District Garage – 161 Varick Avenue
- Sanitation Lot Cleaning Garage – 803 Forbell Street
- Sanitation Marine Transfer Station – 550 Hamilton Avenue

**Manhattan**
- 26th Street Borough Shop – 640 West 26th Street
- 44 Beaver – 44 Beaver Street
- Sanitation District Garage – 297 West Street
- Sanitation District Garage – 2 Bloomfield Street
- Sanitation District Garage – Pier 36, South Street
- Sanitation District Garage – 606 West 30th Street
- Sanitation District Garage – 343 East 99th Street
- Sanitation District Garage – 680 East 132nd Street
- Sanitation District Garage – 110 East 131st Street
- Sanitation District Garage – 301 West 215th Street
- Sanitation Marine Transfer Station – Pier 99, West 59th Street

**Queens**
- Queens Borough Repair Shop – 52-07 58th Street
- Salt Dome – 80-45 Winchester Boulevard
- Sanitation Vehicle Repair Shop – 52-35 58th Street
- Sanitation Marine Transfer Station – 120-15 31st Avenue
- Sanitation District Garage – 34-28 21st Street
- Sanitation District Garage – 48-01 58th Road
- Sanitation District Garage – 130-23 150th Avenue
- Sanitation District Garage – 51-10 Almeda Avenue
- Sanitation District Garage – 30-19 122nd Street
- Sanitation District Garage – 132-05 Atlantic Avenue
- Sanitation District Garage – 75-05 Douglaston Parkway
- Sanitation District Garage – 153-67 146th Avenue
- Sanitation District Garage – 58-73 53rd Avenue

**Staten Island**
- Fresh Kills Plant 1 – 2 Muldoon Avenue
- Sanitation District Garage – 2500 Richmond Avenue

**New York City Fire Department Facilities**

**Brooklyn**
- EMS Station 32 – 347 Bond Street
- EMS Station 43 – 2601 Ocean Parkway
- Engine Company 201 – 5113 Fourth Avenue
- Engine Company 202 – 31 Richards Street
- Engine Company 206 – 1201 Grand Street
- Engine Company 245 – 2929 West 8th Street
- Engine Company 246 – 2732 East 11th Street
- Engine Company 279 – 252 Lorraine Street
- Engine Company 309 – 1851 East 48th Street
- Engine Company 318 – 2510 Neptune Avenue
- Fleet Spare Rigs Firehouse – 57 Paidge Avenue
• Marine Company 3 – 2001 Oriental Avenue
• Marine Company 6

**Manhattan**
• EMS Station 4 – Pier 36
• EMS Station 7 – 512 West 23rd Street
• EMS Station 8 – 435 East 26th Street
• EMS Station 10 – 1918 First Avenue
• Engine Company 4 – 42 South Street
• Governors Island Firehouse – Governors Island
• Marine Company 1 – West 13th Street Pier

**Queens**
• Engine Company 265 – 48-06 Rockaway Beach Boulevard
• Engine Company 266 – 92-20 Rockaway Beach Boulevard
• Engine Company 268 – 257 Beach 116th Street
• Engine Company 329 – 402 Beach 169th Street
• Engine Company 331 – 158-57 Cross Bay Boulevard
• Fort Totten Firehouse

**Staten Island**
• Engine Company 153 – 74 Broad Street
• Marine Company 8 – 180 Mansion Avenue
• Marine Company 9 – 487 Front Street

**New York City Police Department Facilities**

**Bronx**
• Rodman’s Neck Bomb Squad and Outdoor Range – 1 Rodman’s Neck Road

**Brooklyn**
• 60th Precinct Stationhouse – 2951 West 8th Street
• Brooklyn North Tow Pound at the Brooklyn Navy Yard
• Coast Guard Hangar at Floyd Bennett Field
• Erie Basin Auto Pound – 700 Columbia Street
• Front Street Property Clerk Warehouse – 11 Front Street
• Harbor Charlie Boat Dock – 140 58th Street Pier 1
• Kingsland Property Clerk Warehouse – 540 Kingsland Avenue
• Mounted Troop E Stationhouse – 2815 Brighton 3rd Street
• Police Service Area 1 Stationhouse – 2860 West 23rd Street
• Transit District 34 Stationhouse – 2869 Stillwell Avenue

Manhattan
• 130 Cedar Street Stationhouse – 130 Cedar Street
• Harbor Launch Repair Shop – Randall’s Island
• Police Service Area 4 Stationhouse – 130 Avenue C
• One Police Plaza Headquarters – 1 Police Plaza
• Pier 36 Manhattan South Command Stationhouse
• Pier 76 Mounted Unit Stationhouse/Tow Pound/Service Shop 8 – West 38th Street and 12th Avenue

Queens
• 100th Precinct Stationhouse – 92-24 Rockaway Beach Boulevard
• Harbor George Boat Dock – 14th Avenue
• Pearson Place Property Clerk – 47-15 Pearson Place
• Transit District 23 Stationhouse – 222 Beach 116th Street

Staten Island
• Traffic Division Facility Stationhouse – 1893 Richmond Terrace

Buildings for the General Conduct of Government

Bronx
• Bronx Family/Criminal Courthouse – 215 East 161st Street
• Bronx County Courthouse – 851 Grand Concourse
• Bronx Hall of Justice – 265 East 161st Street
• Housing Courthouse – 1118 Grand Concourse

Brooklyn
• Brooklyn Appellate Courthouse – 45 Monroe Place
• Brooklyn Borough Hall – 209 Joralemon Street
• Brooklyn Municipal Building – 210 Joralemon Street
• Brooklyn Supreme Courthouse – 360 Adams Street
• Building 50 – 334 Furman Street
• Bush Terminal Administration Building – 1 43rd Street
• DCAS Repair Shop – 390 Kent Avenue
• DEP Building – 99 Plymouth Street

Manhattan
• City Hall – City Hall Park
• City Planning – 22 Reade Street
• Civil Courthouse – 111 Centre Street
• Court Square Building – 2 Lafayette Street
• Criminal Courthouse – 100 Centre Street
• DOT Administrative Office – 55 Water Street
• HHC Corporate Offices – 160 Water Street
• Manhattan Municipal Building – 1 Centre Street
• Youth Court – 88 Visitation Place

Queens
• DCAS Central Storehouse – 66-26 Metropolitan Avenue
• Long Island City Courthouse – 25-10 Court Street
• Queens Borough Hall – 120-55 Queens Boulevard
• Queens Civil Courthouse – 89-17 Sutphin Avenue
• Queens Criminal Courthouse – 125-01 Queens Boulevard
• Queens Supreme Courthouse – 88-11 Sutphin Boulevard

Staten Island
• Staten Island Borough Hall – 10 Richmond Terrace
• Staten Island Family Court – 100 Richmond Terrace

Public Facilities

Bronx
• 1918 Arthur Avenue
• 355 Food Center Drive – 355 Food Center Drive
• 600 Food Center Drive – 600 Hunts Point Avenue
• Concourse Plaza – 198 East 161st Street
• Fulton Fish Market – 800 Food Center Drive
• Hunts Point Food Distribution Center – 410 Halleck Street
• Kingsbridge Armory – 27 West Kingsbridge Road
• Locusts Point Civil Association – 3300 Tierney Place
• New York City Terminal Market – 37 Terminal Market Street
• St. Francis de Chantal Shelter – 190 Hollywood Avenue
• Yankee Stadium Ferry Landing

Brooklyn
• 345 Adams Street
• Brooklyn Cruise Terminal – 2 Atlantic Basin
• Bush Terminal Building C – 102 41st Avenue
• Bush Terminal Building G – 5102 First Avenue
- Bush Terminal Building 39 – 5102 First Avenue
- Bush Terminal Building 45 – 5102 First Avenue
- Bush Terminal Building 57 – 5102 First Avenue
- Bush Terminal Building 58 – 5102 First Avenue
- Coney Island Amusement Park
- Ferry Landing – 9 Water Street
- Lowes King Theater – 1027 Flatbush Avenue
- Mill Basin Waterfront Marine Facility
- Moore McCormick Building – 740 3rd Avenue
- South Brooklyn Marine Terminal
- Theater for a New Audience – 19 Lafayette Avenue

**Manhattan**

- 109 South Street
- 110 Williams Street
- Battery Maritime Building
- Clock Tower Building – 346 Broadway
- Downtown Manhattan Heliport
- East 34th Street Ferry Landing
- East 34th Street Heliport – 499 East 34th Street
- East 90th Street Ferry Landing – 97 East End Avenue
- East River Ferry Landing – 2850 East River Drive
- Essex Street Building C – 116 Delancey Street
- Excelsior Building – 137 Centre Street
- Harlem Community Justice Center – 170 East 121st Street
- Health Building – 125 Worth Street
- Highline – 820 Washington Street
- Home Life Building – 253 Broadway
- Manhattan Cruise Terminal
- New Market Building – 95 Marginal Street
- New York City Police Museum – 100 Old Slip
- Pier 11 Ferry Landing – Pier 11 South Street
- Pier 15 East River
- Pier 16 Museum
- Pier 35 East River Park and Marine Facility – 270 South Street
- Pier 42 East River
- Pier 79 Ferry Landing
- Sky Port Marine Terminal and Airport – 2430 FDR Drive East Service Road
• Stuyvesant Cove Park
• Sun Building – 280 Broadway
• Tin Building – 16 Fulton Street
• Water Club Restaurant – 2850 East River Drive

**Staten Island**
• 130 Stuyvesant Place
• Homeport Building 2 and Pier – 455 Front Street
• Pier 1 at Lighthouse Plaza – 15 Bay Street
• Staten Island Cultural Center Building 11 – 5 Bay Street
• Staten Island Minor League Stadium – 75 Richmond Terrace
• Staten Island September 11th Memorial – 75 Richmond Terrace

**Homeless Shelters**

**Bronx**
• Powers Residence – 346 Powers Avenue
• Prevention Assistance and Temporary Housing – 151 East 151st Street

**Brooklyn**
• Auburn Residence – 39 Auburn Place
• Barbra Kleiman Residence – 300 Skillman Avenue
• Kingsboro Homeless Shelter – 681 Clarkson Avenue
• Pamoja House – 357 Marcus Garvey Boulevard

**Manhattan**
• Bellevue Shelter – 500 First Avenue
• George Daly House – 269 East 4th Street
• LIFE Family Residence – 78 Catherine Street
• Regent Family Residence – 2720 Broadway
• Shwartz Residence – 1 Wards Island
• Urban Family Center – 130 Baruch Place

**Queens**
• Borden Avenue Veterans Residence – 2110 Borden Avenue
• Flatlands Homeless Shelter – 108-75 Avenue D
• Jamaica Family Residence – 175-10 88th Avenue
**Department of Correction Facilities**

**Bronx**
- Vernon C. Bain Center, 1 Halleck Street

**Queens**
- Anna M. Kross Center – 1818 Hazen Street
- Rikers Island, north shoreline

**Industrial Sites**

**Brooklyn**
- Brooklyn Army Terminal
- Brooklyn Navy Yard

**Health and Hospitals Facilities**

**Bronx**
- Jacobi Medical Center – 1401 Pelham Parkway South

**Brooklyn**
- Coney Island Hospital – 2602 Ocean Parkway
- Ida G. Israel Community Health Center – 2201 Neptune Avenue
- Kings County Hospital – 451 Clarkson Avenue

**Manhattan**
- Bellevue Hospital – 464 First Avenue
- Coler Hospital – 901 Main Street
- Gouverneur Roberto Clemente Center – 540 East 13th Street
- Harlem Hospital – 506 Lenox Avenue
- Metropolitan Hospital – 1902 First Avenue

**Queens**
- Elmhurst Hospital – 209 Beach 125th Street
- Queens Hospital – 82-68 164th Street

**Department of Transportation Facilities**

**Bronx**
- 3200 Conner Street
Brooklyn
- Asphalt Plant – 448 Hamilton Avenue
- Pulaski Yard – 130 Clay Street
- Warehouse – 75 South Street
- Workshop – 352 Kent Avenue
- Workshop – 372 Kent Avenue
- 140 58th Street
- 75 20th Street

Manhattan
- Sherman Yard – 301 West 203rd Street
- Whitehall Ferry Terminal – 4 South Street
- Workshop – 300 West 206th Street
- Workshop and Yard – 301 West 205th Street

Queens
- Depot North – 32-11 Harper Street

Staten Island
- St. George Ferry Terminal – 1 Bay Street
- Warehouse – 34 Wave Street
- 3551 Richmond Terrace

Department of Transportation - Bridges

Bronx
- Eastern Boulevard Bridge
- Hutchinson River Bridge
- Pelham Bay Bridge
- Third Avenue Bridge
- Unionport Bridge
- Willis Avenue Bridge

Brooklyn
- Belt Parkway Bridge
- Carroll Street Bridge
- Grand Street Bridge
- Greenpoint Avenue Bridge
- Metropolitan Avenue Bridge
- Ninth Street Bridge
• Third Street Bridge
• Union Street Bridge

**Manhattan**
• 145th Street Bridge
• 207th Street Bridge
• Battery and West Street Underpass
• Broadway Bridge
• Macombs Dam Bridge
• Madison Avenue Bridge

**Queens**
• Pulaski Bridge

**Cultural Facilities**

**Brooklyn**
• Coney Island USA - 1208 Surf Avenue
• New York Aquarium - 602 Surf Avenue
• Smack Mellon - 92 Plymouth Street

**Manhattan**
• Eyebeam Atelier - 540 West 21st Street
• New York City Police Museum - 100 Old Slip

**Staten Island**
• Snug Harbor Cultural Center and Botanical Gardens - 914 Richmond Terrace
• Staten Island Historical Society - 441 Clarke Avenue

**Libraries**

**Brooklyn Public Library**
• Brighton Beach - 16 Brighton First Road
• Coney Island - 1901 Mermaid Avenue
• Gerritsen Beach - 2808 Gerritsen Avenue
• Gravesend - 303 Avenue X
• Red Hook - 7 Wolcott Street
• Sheepshead Bay - 2636 East 14th Street

**New York Public Library:**
• Stapleton - 132 Canal Street, Staten Island
Queens Public Library
- Arverne - 312 Beach 54th Street
- Broad Channel - 16-26 Cross Bay Boulevard
- Far Rockaway - 1637 Central Avenue
- Howard Beach - 92-06 156th Avenue
- Peninsula - 92-25 Rockaway Beach Boulevard
- Seaside - 116-15 Rockaway Beach Boulevard

Streets and Sidewalks
Please note that the list of damaged streets and sidewalks consists of several hundred sites and is too long to include in this document. The City will provide the locations of any and street and sidewalk work performed with CDBG-DR funds in its Quarterly Performance Reports.
Appendix B: Damaged New York City Housing Authority (NYCHA) Properties

New York City Housing Authority Developments

Brooklyn
- Carey Gardens – 2946 West 23rd Street
- Coney Island – 3025 West 32nd Street
- Gowanus – 175 Hoyt Street
- Gravesend – 3225 Neptune Avenue
- Haber – 3058 West 24th Street
- Ingersoll – 102 Monument Walk
- Marlboro – 29 Avenue W
- Nostrand – 2241 Batchelder Street
- O'Dwyer Gardens – 2975 West 33rd Street
- Red Hook East – 604 Clinton Street
- Red Hook West – 6 Wolcott Street
- Surfside Gardens – 2960 West 31st Street

Manhattan
- 335 East 111th Street
- Baruch – 605 Franklin D. Roosevelt Drive
- Campos Plaza I – 635 East 12th Street
- Campos Plaza II – 643 East 13th Street
- Clinton – 1505 Park Avenue
- Dyckman – 177 Nagel Avenue
- East 120th Street
- East River – 410 East 105th Street
- Elliott – 288 10th Avenue
- Harlem River – 225 West 152nd Street
- Harlem River II – 2850 Frederick Douglass Boulevard
- Holmes Towers – 405 East 92nd Street
- Isaacs – 419 East 93rd Street
- Jefferson – 310 East 115th Street
- La Guardia – 45 Rutgers Street
- Lavanburg Homes – 126 Baruch Place
- Lincoln – 60 East 135th Street
- Lower East Side I – 175 Eldridge Street
- Lower East Side II – 637 East 5th Street
- Lower East Side III – 373 East 8th Street
• Metro North Plaza – 307 East 101st Street
• Polo Grounds Towers – 2931 Frederick Douglass Boulevard
• Rangel – 159-14 Harlem River Drive
• Riis – 152 Avenue D
• Riis II – 765 Franklin D. Roosevelt Drive
• Smith – 20 Catherine Slip
• Two Bridges – 286 South Street
• Wagner – 90 Paladino Avenue
• Wald – 10 Avenue D
• Washington – 1761 Third Avenue
• White – 2029 Second Avenue
• Wilson – 405 East 105th Street

Queens

• Astoria – 4-21 Astoria Boulevard
• Beach 41st Street – 40-20 Beach Channel Drive
• Carleton Manor – 71-15 Beach Channel Drive
• Hammel – 85-02 Rockaway Beach Boulevard
• Ocean Bay Apartments (Bayside) – 54-81 Almeda Avenue
• Ocean Bay Apartments (Oceanside) – 306 Beach 56th Street
• Queensbridge South – 41-01 12th Street
• Redfern – 14-60 Beach Channel Drive

Staten Island

• New Lane Area – 70 New Lane

New York City Housing Authority Single- and Multi-Family Houses

Bronx

• 444 Torry Avenue

Queens

• 143-03 105th Avenue
• 109-40 176th Street
• 104-06 Farmers Boulevard
• 187-24 Keeseville Avenue
• 202-06 116th Avenue
• 213-24 Nashville Boulevard
• 150-36 116th Road
• 118-03 204th Street
• 137-22 Westgate Street
• 100-40 202nd Street
• 104-33 203rd Street
• 110-26 216th Street
• 114-69 145th Street
• 148-13 Sutter Avenue
• 133-17 149th Street
• 132-33 218th Street
• 132-19 Bennett Court
• 194-17 114th Drive
• 115-21 200th Street
• 114-11 130th Street
• 138-11 Linden Boulevard
• 114-18 Inwood Street
• 130-34 147th Street
• 114-22 166th Street
• 117-22 133rd Street
• 218-34 119th Avenue
• 178-14 Baisley Boulevard
• 1502 Beach 12th Street
• 1504 Beach 12th Street
• 126-01 116th Avenue
• 110-16 207th Street
• 133-11 148th Street
• 105-11 171st Place
• 111-33 207th Street
• 113-14 196th Street
• 215-32 112th Avenue
• 171-28 111th Avenue
• 114-42 139th Street
• 223-20 Francis Lewis Boulevard
• 129-04 142nd Street
• 174-16 111th Avenue
• 217-09 110th Avenue
• 111-37 144th Street
• 119-55 177th Street
• 188-56 120th Road
• 121-28 Benton Street
• 191-18 120th Avenue
• 104-10 212th Street
• 112-22 198th Street
• 214-15 Hollis Avenue
• 131-27 135th Place
• 114-54 Inwood Street
• 114-34 146th Street
• 111-46 156th Street
• 117-17 204th Street
• 136-15 221st Street
• 145-12 229th Street
• 231 Fernside Place
• 142-21 129th Avenue
• 94-29 211th Street
• 193-10 Woodhull Avenue
• 109-16 210th Street
• 110-05 – 225th Street
• 239 Fernside Place
• 138-20 102nd Avenue
• 111-27 207th Street
• 153 Beach 59th Street
**Appendix C: Borough Inundation Area Charts**

Demographic and Housing Profile  
Hurricane Sandy Operational Inundation Area*  
Bronx, 2010 Census

<table>
<thead>
<tr>
<th>Bronx</th>
<th>Inundation Area</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>Population</td>
<td>40,992</td>
<td>100.0</td>
</tr>
<tr>
<td>Under 5 years</td>
<td>1,783</td>
<td>4.3</td>
</tr>
<tr>
<td>5 to 17 years</td>
<td>5,059</td>
<td>12.3</td>
</tr>
<tr>
<td>18 to 34 years</td>
<td>12,855</td>
<td>31.4</td>
</tr>
<tr>
<td>35 to 44 years</td>
<td>5,862</td>
<td>14.3</td>
</tr>
<tr>
<td>45 to 54 years</td>
<td>5,788</td>
<td>14.1</td>
</tr>
<tr>
<td>55 to 64 years</td>
<td>4,035</td>
<td>9.8</td>
</tr>
<tr>
<td>65 years and over</td>
<td>5,610</td>
<td>13.7</td>
</tr>
<tr>
<td>In Households</td>
<td>27,912</td>
<td>68.1</td>
</tr>
<tr>
<td>In Group Quarters</td>
<td>13,080</td>
<td>31.9</td>
</tr>
<tr>
<td>Institutionalized</td>
<td>11,190</td>
<td>85.6</td>
</tr>
<tr>
<td>Correctional Facilities for Adults</td>
<td>9,482</td>
<td>72.5</td>
</tr>
<tr>
<td>Juvenile Facilities</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Nursing Facilities</td>
<td>1,038</td>
<td>7.9</td>
</tr>
<tr>
<td>Other Institutionalized</td>
<td>670</td>
<td>5.1</td>
</tr>
<tr>
<td>Non-institutionalized</td>
<td>1,890</td>
<td>14.4</td>
</tr>
<tr>
<td>College/University Housing</td>
<td>1,221</td>
<td>9.3</td>
</tr>
<tr>
<td>Military Quarters</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Other Non-institutionalized</td>
<td>669</td>
<td>5.1</td>
</tr>
<tr>
<td>Housing Units</td>
<td>12,460</td>
<td>100.0</td>
</tr>
<tr>
<td>Occupied Housing Units</td>
<td>11,398</td>
<td>91.5</td>
</tr>
<tr>
<td>Occupied Housing Units</td>
<td>11,398</td>
<td>100.0</td>
</tr>
<tr>
<td>Renter Occupied</td>
<td>6,194</td>
<td>54.3</td>
</tr>
<tr>
<td>Owner Occupied</td>
<td>5,204</td>
<td>45.7</td>
</tr>
<tr>
<td>Average Household Size</td>
<td>2.45</td>
<td>2.77</td>
</tr>
</tbody>
</table>

*The Operational Inundation Area consists of areas in New York City that FEMA determined were inundated with flood waters.*
Ratio of Income to Poverty Level in the Past 12 Months for Persons for Whom Poverty Status is Determined
Census 2010 Summary Files and American Community Survey 2006-2010 Estimates
Hurricane Operational Inundation Area in Bronx*

<table>
<thead>
<tr>
<th>Persons for whom poverty status is determined</th>
<th>Estimate</th>
<th>Percent</th>
<th>Estimate</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 1.00 (Below poverty threshold)</td>
<td>39,530</td>
<td>100.0</td>
<td>1,346,239</td>
<td>100.0</td>
</tr>
<tr>
<td>Under .50 (Extreme poverty)</td>
<td>7,382</td>
<td>18.7</td>
<td>382,026</td>
<td>28.4</td>
</tr>
<tr>
<td>.50 to .99</td>
<td>3,784</td>
<td>9.6</td>
<td>170,169</td>
<td>12.6</td>
</tr>
<tr>
<td>1.00 to 1.24 (Near poor)</td>
<td>1,938</td>
<td>4.9</td>
<td>90,285</td>
<td>6.7</td>
</tr>
<tr>
<td>1.25 to 1.49</td>
<td>1,818</td>
<td>4.6</td>
<td>81,624</td>
<td>6.1</td>
</tr>
<tr>
<td>1.50 to 1.84</td>
<td>2,263</td>
<td>5.7</td>
<td>102,725</td>
<td>7.6</td>
</tr>
<tr>
<td>1.85 to 1.99</td>
<td>751</td>
<td>1.9</td>
<td>40,287</td>
<td>3.0</td>
</tr>
<tr>
<td>2.00 and over</td>
<td>25,379</td>
<td>64.2</td>
<td>649,292</td>
<td>48.2</td>
</tr>
</tbody>
</table>

*The Operational Inundation Area consists of areas in New York City that FEMA determined were inundated with flood waters.

Note: While population data were available for the Hurricane Operational Inundation Area, poverty data were only available for a larger area that included all census tracts intersecting the Hurricane Operational Inundation Area. The percent distributions for the poverty data were applied to the population for whom poverty was determined (the poverty universe) in the Operational Inundation Area for each respective census tract to produce a set of estimates. Census tract estimates were summed up to the borough level. These borough estimates were then summed to produce a set of citywide values. It should also be noted that the poverty universe for each borough was determined by taking the ratio of the poverty universe to the overall population, according to the 2006-2010 American Community Survey, and applying it to the overall population according to the 2010 Census. For consistency of comparison, the same process was used to produce overall city and borough estimates.
### Bronx Inundation Area

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Total Lots (BBL)</th>
<th>Total Building Area (sq. ft.)</th>
<th>Total Residential Area (sq. ft.)</th>
<th>Total Residential Units</th>
<th>Total Residential Buildings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>One &amp; Two Family Buildings</td>
<td>3325</td>
<td>6,440,675</td>
<td>11.3%</td>
<td>6,440,675</td>
<td>34.1%</td>
</tr>
<tr>
<td>Multi - Family Walk-Up Buildings</td>
<td>338</td>
<td>2,117,207</td>
<td>3.7%</td>
<td>2,110,217</td>
<td>11.2%</td>
</tr>
<tr>
<td>Multi - Family Elevator Buildings</td>
<td>18</td>
<td>8,035,615</td>
<td>14.1%</td>
<td>7,872,262</td>
<td>41.7%</td>
</tr>
<tr>
<td>Mixed Residential and Commercial Buildings</td>
<td>98</td>
<td>2,866,530</td>
<td>5.0%</td>
<td>2,419,966</td>
<td>12.8%</td>
</tr>
<tr>
<td>Commercial and Office Buildings</td>
<td>139</td>
<td>6,061,173</td>
<td>10.7%</td>
<td>1,430</td>
<td>0.0%</td>
</tr>
<tr>
<td>Industrial and Manufacturing</td>
<td>313</td>
<td>12,306,165</td>
<td>21.7%</td>
<td>4,427</td>
<td>0.0%</td>
</tr>
<tr>
<td>Transportation and Utility</td>
<td>191</td>
<td>2,041,868</td>
<td>3.6%</td>
<td>4,750</td>
<td>0.0%</td>
</tr>
<tr>
<td>Public Facilities and Institutions</td>
<td>67</td>
<td>12,275,301</td>
<td>21.6%</td>
<td>29,719</td>
<td>0.2%</td>
</tr>
<tr>
<td>Open Space and Outdoor Recreation</td>
<td>176</td>
<td>1,370,426</td>
<td>2.4%</td>
<td>4,580</td>
<td>0.0%</td>
</tr>
<tr>
<td>Parking Facilities</td>
<td>137</td>
<td>1,312,886</td>
<td>2.3%</td>
<td>-</td>
<td>0.0%</td>
</tr>
<tr>
<td>Vacant Land</td>
<td>473</td>
<td>-</td>
<td>0.0%</td>
<td>-</td>
<td>0.0%</td>
</tr>
<tr>
<td>No Data</td>
<td>188</td>
<td>1,974,113</td>
<td>3.5%</td>
<td>-</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

### Bronx Borough

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Total Lots (BBL)</th>
<th>Total Building Area (sq. ft.)</th>
<th>Total Residential Area (sq. ft.)</th>
<th>Total Residential Units</th>
<th>Total Residential Buildings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>One &amp; Two Family Buildings</td>
<td>51,556</td>
<td>108,598,531</td>
<td>15.4%</td>
<td>108,597,123</td>
<td>21.2%</td>
</tr>
<tr>
<td>Multi - Family Walk-Up Buildings</td>
<td>17,399</td>
<td>126,294,280</td>
<td>17.9%</td>
<td>126,066,279</td>
<td>24.6%</td>
</tr>
<tr>
<td>Multi - Family Elevator Buildings</td>
<td>2,023</td>
<td>200,495,364</td>
<td>28.5%</td>
<td>197,293,123</td>
<td>38.5%</td>
</tr>
<tr>
<td>Mixed Residential and Commercial Buildings</td>
<td>3,720</td>
<td>89,650,340</td>
<td>12.7%</td>
<td>78,618,788</td>
<td>15.3%</td>
</tr>
<tr>
<td>Commercial and Office Buildings</td>
<td>3,093</td>
<td>38,863,971</td>
<td>5.5%</td>
<td>212,688</td>
<td>0.0%</td>
</tr>
<tr>
<td>Industrial and Manufacturing</td>
<td>1,593</td>
<td>30,108,827</td>
<td>4.3%</td>
<td>28,434</td>
<td>0.0%</td>
</tr>
<tr>
<td>Transportation and Utility</td>
<td>1,093</td>
<td>5,867,880</td>
<td>0.8%</td>
<td>26,704</td>
<td>0.0%</td>
</tr>
<tr>
<td>Public Facilities and Institutions</td>
<td>1,860</td>
<td>87,681,225</td>
<td>12.5%</td>
<td>1,356,280</td>
<td>0.3%</td>
</tr>
<tr>
<td>Open Space and Outdoor Recreation</td>
<td>678</td>
<td>5,800,423</td>
<td>0.8%</td>
<td>208,130</td>
<td>0.0%</td>
</tr>
<tr>
<td>Parking Facilities</td>
<td>2,207</td>
<td>8,383,945</td>
<td>1.2%</td>
<td>41,302</td>
<td>0.0%</td>
</tr>
<tr>
<td>Vacant Land</td>
<td>4,153</td>
<td>11,019</td>
<td>0.0%</td>
<td>11,019</td>
<td>0.0%</td>
</tr>
<tr>
<td>No Data</td>
<td>633</td>
<td>2,161,963</td>
<td>0.3%</td>
<td>4,616</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

*Inundation areas are derived from a surge hindcast created by FEMA MOTF using surge modeling and observed data. The hindcast uses a 3 ft. elevation model.

For this analysis, a lot is included if any part of the lot is in the inundation area, except for Total Residential Buildings. For Total Residential Buildings, all lots that were wholly in the Operational Inundation Area, or had the majority of their housing in the Operational Inundation Area, were included.
Selected Housing Characteristics  
Census 2010 Summary Files and American Community Survey 2006-2010 Estimates  
Hurricane Operational Impact Area in Bronx*

<table>
<thead>
<tr>
<th>UNITS IN STRUCTURE (PLUTO distribution applied to 2010 Census control)</th>
<th>Bronx</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total housing units</td>
<td>12,460</td>
</tr>
<tr>
<td>One &amp; Two Family Buildings</td>
<td>5,493</td>
</tr>
<tr>
<td>Multi - Family Walk-Up Buildings</td>
<td>2,023</td>
</tr>
<tr>
<td>Multi - Family Elevator Buildings</td>
<td>2,381</td>
</tr>
<tr>
<td>Mixed Residential and Commercial Buildings</td>
<td>2,555</td>
</tr>
<tr>
<td>Other</td>
<td>8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>YEAR STRUCTURE BUILT (PLUTO distribution applied to 2010 Census control)</th>
<th>Bronx</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total housing units</td>
<td>12,460</td>
</tr>
<tr>
<td>Built 2000 or later</td>
<td>1,419</td>
</tr>
<tr>
<td>Built 1990 to 1999</td>
<td>547</td>
</tr>
<tr>
<td>Built 1980 to 1989</td>
<td>743</td>
</tr>
<tr>
<td>Built 1970 to 1979</td>
<td>2,151</td>
</tr>
<tr>
<td>Built 1960 to 1969</td>
<td>2,223</td>
</tr>
<tr>
<td>Built 1950 to 1959</td>
<td>1,076</td>
</tr>
<tr>
<td>Built 1940 to 1949</td>
<td>460</td>
</tr>
<tr>
<td>Built 1930 to 1939</td>
<td>747</td>
</tr>
<tr>
<td>Built 1920 to 1929</td>
<td>2,342</td>
</tr>
<tr>
<td>Built 1910 to 1919</td>
<td>343</td>
</tr>
<tr>
<td>Built 1900 to 1909</td>
<td>227</td>
</tr>
<tr>
<td>Built Before 1900</td>
<td>79</td>
</tr>
<tr>
<td>Unknown</td>
<td>103</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ROOMS (ACS distribution applied to 2010 Census control)</th>
<th>Bronx</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total housing units</td>
<td>12,460</td>
</tr>
<tr>
<td>1 room</td>
<td>423</td>
</tr>
<tr>
<td>2 rooms</td>
<td>463</td>
</tr>
<tr>
<td>3 rooms</td>
<td>2,333</td>
</tr>
<tr>
<td>4 rooms</td>
<td>3,074</td>
</tr>
<tr>
<td>5 rooms</td>
<td>2,691</td>
</tr>
<tr>
<td>6 rooms</td>
<td>1,774</td>
</tr>
<tr>
<td>7 rooms</td>
<td>835</td>
</tr>
<tr>
<td>8 rooms</td>
<td>302</td>
</tr>
<tr>
<td>9 rooms or more</td>
<td>565</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>VEHICLES AVAILABLE (ACS distribution applied to 2010 Census control)</th>
<th>Bronx</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupied housing units</td>
<td>11,398</td>
</tr>
<tr>
<td>No vehicles available</td>
<td>3,776</td>
</tr>
<tr>
<td>1 vehicle available</td>
<td>4,497</td>
</tr>
<tr>
<td>2 vehicles available</td>
<td>2,356</td>
</tr>
<tr>
<td>3 or more vehicles available</td>
<td>769</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TELEPHONE SERVICE (ACS distribution applied to 2010 Census control)</th>
<th>Bronx</th>
</tr>
</thead>
<tbody>
<tr>
<td>No telephone service available (excluding cell phones)</td>
<td>304</td>
</tr>
</tbody>
</table>
### HOUSE HEATING FUEL (ACS distribution applied to 2010 Census control)

<table>
<thead>
<tr>
<th>Occupied housing units</th>
<th>Estimate</th>
<th>Percent</th>
<th>Total</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utility gas</td>
<td>6,424</td>
<td>56.4</td>
<td>149,133</td>
<td>30.8</td>
</tr>
<tr>
<td>Bottled, tank, or LP gas</td>
<td>201</td>
<td>1.8</td>
<td>5,574</td>
<td>1.2</td>
</tr>
<tr>
<td>Electricity</td>
<td>1,107</td>
<td>9.7</td>
<td>35,634</td>
<td>7.4</td>
</tr>
<tr>
<td>Coal or coke</td>
<td>1</td>
<td>0.0</td>
<td>652</td>
<td>0.1</td>
</tr>
<tr>
<td>Wood</td>
<td>37</td>
<td>0.3</td>
<td>235</td>
<td>0.0</td>
</tr>
<tr>
<td>Solar energy</td>
<td>2</td>
<td>0.0</td>
<td>101</td>
<td>0.0</td>
</tr>
<tr>
<td>Other fuel</td>
<td>49</td>
<td>0.4</td>
<td>4,619</td>
<td>1.0</td>
</tr>
<tr>
<td>No fuel used</td>
<td>36</td>
<td>0.3</td>
<td>4,461</td>
<td>0.9</td>
</tr>
</tbody>
</table>

### VALUE (ACS distribution applied to 2010 Census control)

<table>
<thead>
<tr>
<th>Owner-occupied units</th>
<th>Estimate</th>
<th>Percent</th>
<th>Total</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $50,000</td>
<td>111</td>
<td>2.1</td>
<td>7,038</td>
<td>7.6</td>
</tr>
<tr>
<td>$50,000 to $99,999</td>
<td>129</td>
<td>2.5</td>
<td>5,952</td>
<td>6.4</td>
</tr>
<tr>
<td>$100,000 to $149,999</td>
<td>150</td>
<td>2.9</td>
<td>4,982</td>
<td>5.4</td>
</tr>
<tr>
<td>$150,000 to $199,999</td>
<td>114</td>
<td>2.2</td>
<td>4,314</td>
<td>4.6</td>
</tr>
<tr>
<td>$200,000 to $299,999</td>
<td>554</td>
<td>10.6</td>
<td>9,212</td>
<td>9.9</td>
</tr>
<tr>
<td>$300,000 to $499,999</td>
<td>2,145</td>
<td>41.2</td>
<td>38,592</td>
<td>41.5</td>
</tr>
<tr>
<td>$500,000 to $999,999</td>
<td>1,782</td>
<td>34.2</td>
<td>21,445</td>
<td>23.0</td>
</tr>
<tr>
<td>$1,000,000 or more</td>
<td>220</td>
<td>4.2</td>
<td>1,566</td>
<td>1.7</td>
</tr>
</tbody>
</table>

### GROSS RENT (ACS distribution applied to 2010 Census control)

<table>
<thead>
<tr>
<th>Occupied units paying rent</th>
<th>Estimate</th>
<th>Percent</th>
<th>Total</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $200</td>
<td>140</td>
<td>2.3</td>
<td>10,329</td>
<td>2.7</td>
</tr>
<tr>
<td>$200 to $299</td>
<td>285</td>
<td>4.7</td>
<td>25,990</td>
<td>6.8</td>
</tr>
<tr>
<td>$300 to $499</td>
<td>546</td>
<td>9.0</td>
<td>32,142</td>
<td>8.4</td>
</tr>
<tr>
<td>$500 to $749</td>
<td>778</td>
<td>12.9</td>
<td>55,576</td>
<td>14.5</td>
</tr>
<tr>
<td>$750 to $999</td>
<td>1,081</td>
<td>17.9</td>
<td>101,213</td>
<td>26.5</td>
</tr>
<tr>
<td>$1,000 to $1,499</td>
<td>2,029</td>
<td>33.6</td>
<td>124,125</td>
<td>32.5</td>
</tr>
<tr>
<td>$1,500 or more</td>
<td>1,188</td>
<td>19.7</td>
<td>32,760</td>
<td>8.6</td>
</tr>
<tr>
<td>No rent paid</td>
<td>147</td>
<td></td>
<td>8,213</td>
<td></td>
</tr>
</tbody>
</table>

### GROSS RENT AS A PERCENTAGE OF HOUSEHOLD INCOME (GRAP) (ACS distribution applied to 2010 Census control)

<table>
<thead>
<tr>
<th>Occupied units paying rent (excluding units where GRAP cannot be computed)</th>
<th>Estimate</th>
<th>Percent</th>
<th>Total</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 15.0 percent</td>
<td>873</td>
<td>14.6</td>
<td>42,594</td>
<td>11.3</td>
</tr>
<tr>
<td>15.0 to 19.9 percent</td>
<td>595</td>
<td>10.0</td>
<td>40,297</td>
<td>10.7</td>
</tr>
<tr>
<td>20.0 to 24.9 percent</td>
<td>752</td>
<td>12.6</td>
<td>42,898</td>
<td>11.4</td>
</tr>
<tr>
<td>25.0 to 29.9 percent</td>
<td>623</td>
<td>10.5</td>
<td>42,403</td>
<td>11.3</td>
</tr>
<tr>
<td>30.0 to 34.9 percent</td>
<td>444</td>
<td>7.5</td>
<td>33,009</td>
<td>8.8</td>
</tr>
<tr>
<td>35.0 percent or more</td>
<td>2,673</td>
<td>44.8</td>
<td>174,081</td>
<td>46.4</td>
</tr>
<tr>
<td>Not computed</td>
<td>233</td>
<td></td>
<td>15,066</td>
<td></td>
</tr>
</tbody>
</table>

*The Operational Inundation Area consists of areas in New York City that FEMA determined were inundated with flood waters. Note: While general housing data were available for the Hurricane Operational Inundation Area, more detailed housing data were only available for a larger area that included all census tracts intersecting the Hurricane Operational Inundation Area. The percent distributions for the detailed housing data were applied to the general housing data (housing units, occupied housing units, owner occupied housing units, and renter occupied housing units) in the Operational Inundation Area for each respective census tract to produce a set of estimates. Census tract estimates were summed up to the borough level. These borough estimates were then summed to produce a set of citywide values. For consistency of comparison, the same process was used to produce overall city and borough estimates.*
Demographic and Housing Profile
Hurricane Sandy Operational Inundation Area*
Brooklyn, 2010 Census

<table>
<thead>
<tr>
<th>Population</th>
<th>Brooklyn Inundation Area</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>Under 5 years</td>
<td>17,305</td>
<td>5.6</td>
</tr>
<tr>
<td>5 to 17 years</td>
<td>44,654</td>
<td>14.4</td>
</tr>
<tr>
<td>18 to 34 years</td>
<td>72,525</td>
<td>23.4</td>
</tr>
<tr>
<td>35 to 44 years</td>
<td>40,077</td>
<td>12.9</td>
</tr>
<tr>
<td>45 to 54 years</td>
<td>43,230</td>
<td>13.9</td>
</tr>
<tr>
<td>55 to 64 years</td>
<td>41,512</td>
<td>13.4</td>
</tr>
<tr>
<td>65 years and over</td>
<td>50,924</td>
<td>16.4</td>
</tr>
<tr>
<td>In Households</td>
<td>304,209</td>
<td>98.1</td>
</tr>
<tr>
<td>In Group Quarters</td>
<td>6,018</td>
<td>1.9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>In Group Quarters</th>
<th>Number</th>
<th>Percent</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institutionalized</td>
<td>4,720</td>
<td>78.4</td>
<td>13,297</td>
<td>37.3</td>
</tr>
<tr>
<td>Correctional Facilities for Adults</td>
<td>2,089</td>
<td>34.7</td>
<td>2,353</td>
<td>6.6</td>
</tr>
<tr>
<td>Juvenile Facilities</td>
<td>12</td>
<td>0.2</td>
<td>372</td>
<td>1.0</td>
</tr>
<tr>
<td>Nursing Facilities</td>
<td>2,611</td>
<td>43.4</td>
<td>9,461</td>
<td>26.6</td>
</tr>
<tr>
<td>Other Institutionalized</td>
<td>8</td>
<td>0.1</td>
<td>1,111</td>
<td>3.1</td>
</tr>
<tr>
<td>Non-institutionalized</td>
<td>1,298</td>
<td>21.6</td>
<td>22,312</td>
<td>62.7</td>
</tr>
<tr>
<td>College/University Housing</td>
<td>0</td>
<td>0.0</td>
<td>4,527</td>
<td>12.7</td>
</tr>
<tr>
<td>Military Quarters</td>
<td>0</td>
<td>0.0</td>
<td>13</td>
<td>0.0</td>
</tr>
<tr>
<td>Other Non-institutionalized</td>
<td>1,298</td>
<td>21.6</td>
<td>17,772</td>
<td>49.9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Housing Units</th>
<th>Number</th>
<th>Percent</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupied Housing Units</td>
<td>122,587</td>
<td>91.3</td>
<td>916,856</td>
<td>91.7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Occupied Housing Units</th>
<th>Number</th>
<th>Percent</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Renter Occupied</td>
<td>76,595</td>
<td>62.5</td>
<td>662,615</td>
<td>72.3</td>
</tr>
<tr>
<td>Owner Occupied</td>
<td>45,992</td>
<td>37.5</td>
<td>254,241</td>
<td>27.7</td>
</tr>
<tr>
<td>Average Household Size</td>
<td>2.48</td>
<td></td>
<td>2.69</td>
<td></td>
</tr>
</tbody>
</table>

*The Operational Inundation Area consists of areas in New York City that FEMA determined were inundated with flood waters.*
Ratio of Income to Poverty Level in the Past 12 Months for Persons for Whom Poverty Status is Determined
Census 2010 Summary Files and American Community Survey 2006-2010 Estimates
Hurricane Operational Inundation Area in Brooklyn*

<table>
<thead>
<tr>
<th>Persons for whom poverty status is determined</th>
<th>Brooklyn Inundation Area</th>
<th>Brooklyn Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimate</td>
<td>Percent</td>
</tr>
<tr>
<td>Under 1.00 (Below poverty threshold)</td>
<td>52,913</td>
<td>17.1</td>
</tr>
<tr>
<td>Under .50 (Extreme poverty)</td>
<td>20,329</td>
<td>6.6</td>
</tr>
<tr>
<td>.50 to .99</td>
<td>32,585</td>
<td>10.6</td>
</tr>
<tr>
<td>1.00 to 1.24 (Near poor)</td>
<td>14,223</td>
<td>4.6</td>
</tr>
<tr>
<td>1.25 to 1.49</td>
<td>16,189</td>
<td>5.2</td>
</tr>
<tr>
<td>1.50 to 1.84</td>
<td>19,088</td>
<td>6.2</td>
</tr>
<tr>
<td>1.85 to 1.99</td>
<td>8,441</td>
<td>2.7</td>
</tr>
<tr>
<td>2.00 and over</td>
<td>197,867</td>
<td>64.1</td>
</tr>
</tbody>
</table>

*The Operational Inundation Area consists of areas in New York City that FEMA determined were inundated with flood waters.

Note: While population data were available for the Hurricane Operational Inundation Area, poverty data were only available for a larger area that included all census tracts intersecting the Hurricane Operational Inundation Area. The percent distributions for the poverty data were applied to the population for whom poverty was determined (the poverty universe) in the Operational Inundation Area for each respective census tract to produce a set of estimates. Census tract estimates were summed up to the borough level. These borough estimates were then summed to produce a set of citywide values. It should also be noted that the poverty universe for each borough was determined by taking the ratio of the poverty universe to the overall population, according to the 2006-2010 American Community Survey, and applying it to the overall population according to the 2010 Census. For consistency of comparison, the same process was used to produce overall city and borough estimates.
### Brooklyn Inundation Area

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Total Lots (BBL) Number</th>
<th>Total Building Area (sq. ft.) Number</th>
<th>Total Residential Area (sq. ft.) Number</th>
<th>Total Residential Units Number</th>
<th>Total Residential Buildings Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>One &amp; Two Family Buildings</td>
<td>39,440</td>
<td>254,545,914</td>
<td>136,607,108</td>
<td>129,930</td>
<td>38,123</td>
</tr>
<tr>
<td>Multi - Family Walk- Up Buildings</td>
<td>5,321</td>
<td>22,050,471</td>
<td>14,544,184</td>
<td>13,203</td>
<td>6,517</td>
</tr>
<tr>
<td>Multi - Family Elevator Buildings</td>
<td>342</td>
<td>49,316,923</td>
<td>29,502,042</td>
<td>28,907</td>
<td>608</td>
</tr>
<tr>
<td>Mixed Residential and Commercial Buildings</td>
<td>1,466</td>
<td>17,286,653</td>
<td>13,560,971</td>
<td>13,828</td>
<td>1,859</td>
</tr>
<tr>
<td>Commercial and Office Buildings</td>
<td>970</td>
<td>13,409,847</td>
<td>219,991</td>
<td>420</td>
<td>85</td>
</tr>
<tr>
<td>Industrial and Manufacturing</td>
<td>1,103</td>
<td>32,424,462</td>
<td>48,000</td>
<td>128</td>
<td>37</td>
</tr>
<tr>
<td>Transportation and Utility</td>
<td>392</td>
<td>23,338,307</td>
<td>27,999</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Public Facilities and Institutions</td>
<td>379</td>
<td>39,629,874</td>
<td>368,336</td>
<td>330</td>
<td>10</td>
</tr>
<tr>
<td>Open Space and Outdoor Recreation</td>
<td>276</td>
<td>3,045,129</td>
<td>-</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>Parking Facilities</td>
<td>713</td>
<td>1,621,173</td>
<td>-</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Vacant Land</td>
<td>1,805</td>
<td>8,520</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>No Data</td>
<td>444</td>
<td>905,079</td>
<td>5,000</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

### Brooklyn Borough

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Total Lots (BBL) Number</th>
<th>Total Building Area (sq. ft.) Number</th>
<th>Total Residential Area (sq. ft.) Number</th>
<th>Total Residential Units Number</th>
<th>Total Residential Buildings Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>One &amp; Two Family Buildings</td>
<td>277,998</td>
<td>1,417,804,978</td>
<td>1,018,023,744</td>
<td>992,121</td>
<td>291,706</td>
</tr>
<tr>
<td>Multi - Family Walk- Up Buildings</td>
<td>63,714</td>
<td>309,220,223</td>
<td>242,098,225</td>
<td>206,151</td>
<td>72,913</td>
</tr>
<tr>
<td>Multi - Family Elevator Buildings</td>
<td>2,952</td>
<td>255,779,519</td>
<td>185,516,387</td>
<td>155,379</td>
<td>4,010</td>
</tr>
<tr>
<td>Mixed Residential and Commercial Buildings</td>
<td>21,909</td>
<td>148,097,043</td>
<td>129,259,931</td>
<td>121,348</td>
<td>24,911</td>
</tr>
<tr>
<td>Commercial and Office Buildings</td>
<td>6,927</td>
<td>77,379,417</td>
<td>66,539</td>
<td>616</td>
<td>615</td>
</tr>
<tr>
<td>Industrial and Manufacturing</td>
<td>5,075</td>
<td>89,693,717</td>
<td>66,659</td>
<td>616</td>
<td>189</td>
</tr>
<tr>
<td>Transportation and Utility</td>
<td>2,009</td>
<td>30,105,011</td>
<td>112,915</td>
<td>112</td>
<td>64</td>
</tr>
<tr>
<td>Public Facilities and Institutions</td>
<td>4,167</td>
<td>150,675,569</td>
<td>58,245</td>
<td>58,245</td>
<td>372</td>
</tr>
<tr>
<td>Open Space and Outdoor Recreation</td>
<td>863</td>
<td>5,369,289</td>
<td>569,541</td>
<td>569</td>
<td>189</td>
</tr>
<tr>
<td>Parking Facilities</td>
<td>4,054</td>
<td>8,559,711</td>
<td>17,528</td>
<td>17</td>
<td>2</td>
</tr>
<tr>
<td>Vacant Land</td>
<td>7,828</td>
<td>122,316</td>
<td>73,743</td>
<td>73</td>
<td>2</td>
</tr>
<tr>
<td>No Data</td>
<td>1,711</td>
<td>1,257,720</td>
<td>32,361</td>
<td>32</td>
<td>2</td>
</tr>
</tbody>
</table>

*Inundation areas are derived from a surge hindcast created by FEMA MOTF using surge modeling and observed data. The hindcast uses a 3 ft. elevation model.*

For this analysis, a lot is included if any part of the lot is in the inundation area, except for Total Residential Buildings. For Total Residential Buildings, all lots that were wholly in the Operational Inundation Area, or had the majority of their housing in the Operational Inundation Area, were included.*
Selected Housing Characteristics
Census 2010 Summary Files and American Community Survey 2006-2010 Estimates
Hurricane Operational Impact Area in Brooklyn*

### UNITS IN STRUCTURE (PLUTO distribution applied to 2010 Census control)

<table>
<thead>
<tr>
<th></th>
<th>Brooklyn Inundation Area</th>
<th>Brooklyn Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimate</td>
<td>Percent</td>
</tr>
<tr>
<td>Total housing units</td>
<td>134,267</td>
<td>100.0</td>
</tr>
<tr>
<td>One &amp; Two Family Buildings</td>
<td>43,740</td>
<td>32.6</td>
</tr>
<tr>
<td>Multi - Family Walk-Up Buildings</td>
<td>24,998</td>
<td>18.6</td>
</tr>
<tr>
<td>Multi - Family Elevator Buildings</td>
<td>50,373</td>
<td>37.5</td>
</tr>
<tr>
<td>Mixed Residential and Commercial Buildings</td>
<td>14,318</td>
<td>10.7</td>
</tr>
<tr>
<td>Other</td>
<td>839</td>
<td>0.6</td>
</tr>
</tbody>
</table>

### YEAR STRUCTURE BUILT (PLUTO distribution applied to 2010 Census control)

<table>
<thead>
<tr>
<th></th>
<th>Brooklyn Inundation Area</th>
<th>Brooklyn Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimate</td>
<td>Percent</td>
</tr>
<tr>
<td>Total housing units</td>
<td>134,267</td>
<td>100.0</td>
</tr>
<tr>
<td>Built 2000 or later</td>
<td>9,155</td>
<td>6.8</td>
</tr>
<tr>
<td>Built 1990 to 1999</td>
<td>1,414</td>
<td>1.1</td>
</tr>
<tr>
<td>Built 1980 to 1989</td>
<td>3,482</td>
<td>2.6</td>
</tr>
<tr>
<td>Built 1970 to 1979</td>
<td>6,635</td>
<td>4.9</td>
</tr>
<tr>
<td>Built 1960 to 1969</td>
<td>38,465</td>
<td>28.6</td>
</tr>
<tr>
<td>Built 1950 to 1959</td>
<td>23,762</td>
<td>17.7</td>
</tr>
<tr>
<td>Built 1940 to 1949</td>
<td>8,041</td>
<td>6.0</td>
</tr>
<tr>
<td>Built 1930 to 1939</td>
<td>19,716</td>
<td>14.7</td>
</tr>
<tr>
<td>Built 1920 to 1929</td>
<td>16,628</td>
<td>12.4</td>
</tr>
<tr>
<td>Built 1910 to 1919</td>
<td>2,199</td>
<td>1.6</td>
</tr>
<tr>
<td>Built 1900 to 1909</td>
<td>2,078</td>
<td>1.5</td>
</tr>
<tr>
<td>Built Before 1900</td>
<td>1,782</td>
<td>1.3</td>
</tr>
<tr>
<td>Unknown</td>
<td>910</td>
<td>0.7</td>
</tr>
</tbody>
</table>

### ROOMS (ACS distribution applied to 2010 Census control)

<table>
<thead>
<tr>
<th></th>
<th>Brooklyn Inundation Area</th>
<th>Brooklyn Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total housing units</td>
<td>134,267</td>
</tr>
<tr>
<td></td>
<td>Estimate</td>
<td>1 room</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 rooms</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 rooms</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4 rooms</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 rooms</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6 rooms</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7 rooms</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8 rooms</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9 rooms or more</td>
</tr>
</tbody>
</table>

### VEHICLES AVAILABLE (ACS distribution applied to 2010 Census control)

<table>
<thead>
<tr>
<th></th>
<th>Brooklyn Inundation Area</th>
<th>Brooklyn Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Occupied housing units</td>
<td>122,587</td>
</tr>
<tr>
<td></td>
<td>No vehicles available</td>
<td>58,256</td>
</tr>
<tr>
<td></td>
<td>1 vehicle available</td>
<td>46,252</td>
</tr>
<tr>
<td></td>
<td>2 vehicles available</td>
<td>14,416</td>
</tr>
<tr>
<td></td>
<td>3 or more vehicles available</td>
<td>3,664</td>
</tr>
</tbody>
</table>

### TELEPHONE SERVICE (ACS distribution applied to 2010 Census control)

<table>
<thead>
<tr>
<th></th>
<th>Brooklyn Inundation Area</th>
<th>Brooklyn Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No telephone service available (excluding cell phones)</td>
<td>4,268</td>
</tr>
</tbody>
</table>
### HOUSE HEATING FUEL (ACS distribution applied to 2010 Census control)

<table>
<thead>
<tr>
<th>Occupied housing units</th>
<th>Estimate</th>
<th>Percent</th>
<th>Brooklyn Estimate</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utility gas</td>
<td>90,297</td>
<td>73.7</td>
<td>643,878</td>
<td>70.2</td>
</tr>
<tr>
<td>Bottled, tank, or LP gas</td>
<td>1,717</td>
<td>1.4</td>
<td>15,249</td>
<td>1.7</td>
</tr>
<tr>
<td>Electricity</td>
<td>6,868</td>
<td>5.6</td>
<td>44,580</td>
<td>4.9</td>
</tr>
<tr>
<td>Fuel oil, kerosene, etc.</td>
<td>21,290</td>
<td>17.4</td>
<td>198,511</td>
<td>21.7</td>
</tr>
<tr>
<td>Coal or coke</td>
<td>83</td>
<td>0.1</td>
<td>649</td>
<td>0.1</td>
</tr>
<tr>
<td>Wood</td>
<td>89</td>
<td>0.1</td>
<td>789</td>
<td>0.1</td>
</tr>
<tr>
<td>Solar energy</td>
<td>97</td>
<td>0.1</td>
<td>305</td>
<td>0.0</td>
</tr>
<tr>
<td>Other fuel</td>
<td>1,163</td>
<td>0.9</td>
<td>6,601</td>
<td>0.7</td>
</tr>
<tr>
<td>No fuel used</td>
<td>982</td>
<td>0.8</td>
<td>6,294</td>
<td>0.7</td>
</tr>
</tbody>
</table>

### VALUE (ACS distribution applied to 2010 Census control)

<table>
<thead>
<tr>
<th>Owner-occupied units</th>
<th>Estimate</th>
<th>Percent</th>
<th>Brooklyn Estimate</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $50,000</td>
<td>1,221</td>
<td>2.7</td>
<td>4,322</td>
<td>1.7</td>
</tr>
<tr>
<td>$50,000 to $99,999</td>
<td>805</td>
<td>1.8</td>
<td>5,819</td>
<td>2.3</td>
</tr>
<tr>
<td>$100,000 to $149,999</td>
<td>1,431</td>
<td>3.1</td>
<td>4,711</td>
<td>1.9</td>
</tr>
<tr>
<td>$150,000 to $199,999</td>
<td>2,243</td>
<td>4.9</td>
<td>7,169</td>
<td>2.8</td>
</tr>
<tr>
<td>$200,000 to $299,999</td>
<td>4,351</td>
<td>9.5</td>
<td>17,569</td>
<td>6.9</td>
</tr>
<tr>
<td>$300,000 to $499,999</td>
<td>12,471</td>
<td>27.1</td>
<td>64,688</td>
<td>25.4</td>
</tr>
<tr>
<td>$500,000 to $999,999</td>
<td>20,896</td>
<td>45.4</td>
<td>126,331</td>
<td>49.7</td>
</tr>
<tr>
<td>$1,000,000 or more</td>
<td>2,574</td>
<td>5.6</td>
<td>23,632</td>
<td>9.3</td>
</tr>
</tbody>
</table>

### GROSS RENT (ACS distribution applied to 2010 Census control)

<table>
<thead>
<tr>
<th>Occupied units paying rent</th>
<th>Estimate</th>
<th>Percent</th>
<th>Brooklyn Estimate</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $200</td>
<td>1,934</td>
<td>2.6</td>
<td>12,978</td>
<td>2.0</td>
</tr>
<tr>
<td>$200 to $299</td>
<td>5,290</td>
<td>7.1</td>
<td>31,805</td>
<td>4.9</td>
</tr>
<tr>
<td>$300 to $499</td>
<td>6,877</td>
<td>9.3</td>
<td>43,692</td>
<td>6.8</td>
</tr>
<tr>
<td>$500 to $749</td>
<td>12,836</td>
<td>17.3</td>
<td>85,629</td>
<td>13.3</td>
</tr>
<tr>
<td>$750 to $999</td>
<td>13,756</td>
<td>18.5</td>
<td>136,442</td>
<td>21.2</td>
</tr>
<tr>
<td>$1,000 to $1,499</td>
<td>23,710</td>
<td>31.9</td>
<td>228,861</td>
<td>35.5</td>
</tr>
<tr>
<td>$1,500 or more</td>
<td>9,888</td>
<td>13.3</td>
<td>105,568</td>
<td>16.4</td>
</tr>
<tr>
<td>No rent paid</td>
<td>2,303</td>
<td></td>
<td>17,641</td>
<td></td>
</tr>
</tbody>
</table>

### GROSS RENT AS A PERCENTAGE OF HOUSEHOLD INCOME (GRAPI) (ACS distribution applied to 2010 Census control)

<table>
<thead>
<tr>
<th>Occupied units paying rent (excluding units where GRAPI cannot be computed)</th>
<th>Estimate</th>
<th>Percent</th>
<th>Brooklyn Estimate</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 15.0 percent</td>
<td>10,330</td>
<td>14.2</td>
<td>81,481</td>
<td>12.9</td>
</tr>
<tr>
<td>15.0 to 19.9 percent</td>
<td>7,900</td>
<td>10.9</td>
<td>70,405</td>
<td>11.2</td>
</tr>
<tr>
<td>20.0 to 24.9 percent</td>
<td>8,651</td>
<td>11.9</td>
<td>71,319</td>
<td>11.3</td>
</tr>
<tr>
<td>25.0 to 29.9 percent</td>
<td>8,559</td>
<td>11.8</td>
<td>68,884</td>
<td>10.9</td>
</tr>
<tr>
<td>30.0 to 34.9 percent</td>
<td>7,623</td>
<td>10.5</td>
<td>58,670</td>
<td>9.3</td>
</tr>
<tr>
<td>35.0 percent or more</td>
<td>29,596</td>
<td>40.7</td>
<td>278,494</td>
<td>44.3</td>
</tr>
<tr>
<td>Not computed</td>
<td>3,936</td>
<td></td>
<td>33,363</td>
<td></td>
</tr>
</tbody>
</table>

*The Operational Inundation Area consists of areas in New York City that FEMA determined were inundated with flood waters.

Note: While general housing data were available for the Hurricane Operational Inundation Area, more detailed housing data were only available for a larger area that included all census tracts intersecting the Hurricane Operational Inundation Area. The percent distributions for the detailed housing data were applied to the general housing data (housing units, occupied housing units, owner occupied housing units, and renter occupied housing units) in the Operational Inundation Area for each respective census tract to produce a set of estimates. Census tract estimates were summed up to the borough level. These borough estimates were then summed to produce a set of citywide values. For consistency of comparison, the same process was used to produce overall city and borough estimates.*
### Demographic and Housing Profile

**Hurricane Sandy Operational Inundation Area***

**Manhattan, 2010 Census**

<table>
<thead>
<tr>
<th>Population</th>
<th>Inundation Area</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>Under 5 years</td>
<td>11,924</td>
<td>5.2</td>
</tr>
<tr>
<td>5 to 17 years</td>
<td>26,868</td>
<td>11.6</td>
</tr>
<tr>
<td>18 to 34 years</td>
<td>72,397</td>
<td>31.4</td>
</tr>
<tr>
<td>35 to 44 years</td>
<td>33,229</td>
<td>14.4</td>
</tr>
<tr>
<td>45 to 54 years</td>
<td>29,787</td>
<td>12.9</td>
</tr>
<tr>
<td>55 to 64 years</td>
<td>25,451</td>
<td>11.0</td>
</tr>
<tr>
<td>65 years and over</td>
<td>31,086</td>
<td>13.5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Manhattan</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>In Households</td>
<td>220,977</td>
<td>95.8</td>
</tr>
<tr>
<td>In Group Quarters</td>
<td>9,765</td>
<td>4.2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>In Group Quarters</th>
<th>Manhattan</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Institutionalized</td>
<td>3,213</td>
<td>32.9</td>
</tr>
<tr>
<td>Correctional Facilities for Adults</td>
<td>165</td>
<td>1.7</td>
</tr>
<tr>
<td>Juvenile Facilities</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Nursing Facilities</td>
<td>2,265</td>
<td>23.2</td>
</tr>
<tr>
<td>Other Institutionalized</td>
<td>783</td>
<td>8.0</td>
</tr>
<tr>
<td>Non-institutionalized</td>
<td>6,552</td>
<td>67.1</td>
</tr>
<tr>
<td>College/University Housing</td>
<td>2,264</td>
<td>23.2</td>
</tr>
<tr>
<td>Military Quarters</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Other Non-institutionalized</td>
<td>4,288</td>
<td>43.9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Housing Units</th>
<th>Manhattan</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupied Housing Units</td>
<td>105,877</td>
<td>90.1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Occupied Housing Units</th>
<th>Manhattan</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Renter Occupied</td>
<td>89,632</td>
<td>84.7</td>
</tr>
<tr>
<td>Owner Occupied</td>
<td>16,245</td>
<td>15.3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Average Household Size</th>
<th>Manhattan</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2.09</td>
<td>1.99</td>
</tr>
</tbody>
</table>

*The Operational Inundation Area consists of areas in New York City that FEMA determined were inundated with flood waters.*
Ratio of Income to Poverty Level in the Past 12 Months for Persons for Whom Poverty Status is Determined
Census 2010 Summary Files and American Community Survey 2006-2010 Estimates
Hurricane Operational Inundation Area in Manhattan*

<table>
<thead>
<tr>
<th>Persons for whom poverty status is determined</th>
<th>Manhattan Inundation Area</th>
<th>Manhattan Total</th>
<th>Total Inundation Area</th>
<th>Total Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimate</td>
<td>Percent</td>
<td>Estimate</td>
<td>Percent</td>
</tr>
<tr>
<td>Under 1.00 (Below poverty threshold)</td>
<td>226,087</td>
<td>100.0</td>
<td>1,543,736</td>
<td>100.0</td>
</tr>
<tr>
<td>Under .50 (Extreme poverty)</td>
<td>48,878</td>
<td>21.6</td>
<td>274,138</td>
<td>17.8</td>
</tr>
<tr>
<td>.50 to .99</td>
<td>20,027</td>
<td>8.9</td>
<td>119,711</td>
<td>7.8</td>
</tr>
<tr>
<td>1.00 to 1.24 (Near poor)</td>
<td>28,851</td>
<td>12.8</td>
<td>154,427</td>
<td>10.0</td>
</tr>
<tr>
<td>1.25 to 1.49</td>
<td>12,196</td>
<td>5.4</td>
<td>65,922</td>
<td>4.3</td>
</tr>
<tr>
<td>1.50 to 1.84</td>
<td>11,992</td>
<td>5.3</td>
<td>63,186</td>
<td>4.1</td>
</tr>
<tr>
<td>1.85 to 1.99</td>
<td>12,168</td>
<td>5.4</td>
<td>74,220</td>
<td>4.8</td>
</tr>
<tr>
<td>2.00 and over</td>
<td>4,752</td>
<td>2.1</td>
<td>31,331</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>136,101</td>
<td>60.2</td>
<td>1,034,939</td>
<td>67.0</td>
</tr>
</tbody>
</table>

*The Operational Inundation Area consists of areas in New York City that FEMA determined were inundated with flood waters.

Note: While population data were available for the Hurricane Operational Inundation Area, poverty data were only available for a larger area that included all census tracts intersecting the Hurricane Operational Inundation Area. The percent distributions for the poverty data were applied to the population for whom poverty was determined (the poverty universe) in the Operational Inundation Area for each respective census tract to produce a set of estimates. Census tract estimates were summed up to the borough level. These borough estimates were then summed to produce a set of citywide values. It should also be noted that the poverty universe for each borough was determined by taking the ratio of the poverty universe to the overall population, according to the 2006-2010 American Community Survey, and applying it to the overall population according to the 2010 Census. For consistency of comparison, the same process was used to produce overall city and borough estimates.
Inundation

For New York City CDBG this analysis, data were used from the City’s inventory of vacant open public and multi-use areas, family and manufacturing buildings, and open space and outdoor recreation facilities. The flood areas were developed with the Inundation model using data that were wholly included or had the majority of their housing included in the Operational Inundation Area. The City’s GIS inventory of properties was overlaid with the FEMA flood hazard data to determine inundation areas.

### Manhattan Inundation Area

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Total Lots (BBL)</th>
<th>Total Building Area (sq. ft.)</th>
<th>Total Residential Area (sq. ft.)</th>
<th>Total Residential Units</th>
<th>Total Residential Buildings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Number</td>
<td>Number</td>
<td>Number</td>
<td>Number</td>
</tr>
<tr>
<td></td>
<td>Percent</td>
<td>Percent</td>
<td>Percent</td>
<td>Percent</td>
<td>Percent</td>
</tr>
<tr>
<td>One &amp; Two Family Buildings</td>
<td>4,285</td>
<td>100.0%</td>
<td>287,250,620</td>
<td>100.0%</td>
<td>134,830,038</td>
</tr>
<tr>
<td>Multi - Family Walk- Up Buildings</td>
<td>945</td>
<td>22.1%</td>
<td>10,225,747</td>
<td>3.7%</td>
<td>10,045,189</td>
</tr>
<tr>
<td>Multi - Family Elevator Buildings</td>
<td>386</td>
<td>9.0%</td>
<td>65,316,993</td>
<td>23.5%</td>
<td>62,482,493</td>
</tr>
<tr>
<td>Mixed Residential and Commercial Buildings</td>
<td>839</td>
<td>19.6%</td>
<td>65,162,300</td>
<td>23.4%</td>
<td>57,068,994</td>
</tr>
<tr>
<td>Commercial and Office Buildings</td>
<td>562</td>
<td>13.1%</td>
<td>76,546,086</td>
<td>27.5%</td>
<td>183,728</td>
</tr>
<tr>
<td>Industrial and Manufacturing</td>
<td>237</td>
<td>5.5%</td>
<td>13,692,518</td>
<td>4.9%</td>
<td>114,907</td>
</tr>
<tr>
<td>Transportation and Utility</td>
<td>231</td>
<td>5.4%</td>
<td>8,428,150</td>
<td>3.0%</td>
<td>-</td>
</tr>
<tr>
<td>Public Facilities and Institutions</td>
<td>238</td>
<td>5.6%</td>
<td>33,094,264</td>
<td>11.9%</td>
<td>4,322,137</td>
</tr>
<tr>
<td>Open Space and Outdoor Recreation</td>
<td>138</td>
<td>3.2%</td>
<td>1,623,910</td>
<td>0.6%</td>
<td>16,490</td>
</tr>
<tr>
<td>Parking Facilities</td>
<td>178</td>
<td>4.2%</td>
<td>2,595,163</td>
<td>0.9%</td>
<td>-</td>
</tr>
<tr>
<td>Vacant Land</td>
<td>284</td>
<td>6.6%</td>
<td>-</td>
<td>0.0%</td>
<td>-</td>
</tr>
<tr>
<td>No Data</td>
<td>81</td>
<td>1.9%</td>
<td>969,389</td>
<td>0.3%</td>
<td>-</td>
</tr>
</tbody>
</table>

### Manhattan Borough

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Total Lots (BBL)</th>
<th>Total Building Area (sq. ft.)</th>
<th>Total Residential Area (sq. ft.)</th>
<th>Total Residential Units</th>
<th>Total Residential Buildings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Number</td>
<td>Number</td>
<td>Number</td>
<td>Number</td>
</tr>
<tr>
<td></td>
<td>Percent</td>
<td>Percent</td>
<td>Percent</td>
<td>Percent</td>
<td>Percent</td>
</tr>
<tr>
<td>One &amp; Two Family Buildings</td>
<td>43,252</td>
<td>100.0%</td>
<td>1,743,435,572</td>
<td>100.0%</td>
<td>850,862,144</td>
</tr>
<tr>
<td>Multi - Family Walk- Up Buildings</td>
<td>12,154</td>
<td>281.8%</td>
<td>109,780,098</td>
<td>6.3%</td>
<td>107,760,502</td>
</tr>
<tr>
<td>Multi - Family Elevator Buildings</td>
<td>4,872</td>
<td>11.3%</td>
<td>420,865,146</td>
<td>24.1%</td>
<td>399,271,221</td>
</tr>
<tr>
<td>Mixed Residential and Commercial Buildings</td>
<td>10,172</td>
<td>23.5%</td>
<td>393,478,570</td>
<td>22.6%</td>
<td>314,238,648</td>
</tr>
<tr>
<td>Commercial and Office Buildings</td>
<td>5,226</td>
<td>12.1%</td>
<td>542,371,041</td>
<td>31.1%</td>
<td>2,042,682</td>
</tr>
<tr>
<td>Industrial and Manufacturing</td>
<td>1,480</td>
<td>34.0%</td>
<td>59,835,402</td>
<td>3.4%</td>
<td>1,159,897</td>
</tr>
<tr>
<td>Transportation and Utility</td>
<td>457</td>
<td>11.0%</td>
<td>12,221,379</td>
<td>0.7%</td>
<td>-</td>
</tr>
<tr>
<td>Public Facilities and Institutions</td>
<td>2,478</td>
<td>5.7%</td>
<td>175,678,085</td>
<td>10.1%</td>
<td>10,620,978</td>
</tr>
<tr>
<td>Open Space and Outdoor Recreation</td>
<td>375</td>
<td>0.9%</td>
<td>2,537,365</td>
<td>0.1%</td>
<td>16,490</td>
</tr>
<tr>
<td>Parking Facilities</td>
<td>775</td>
<td>1.8%</td>
<td>9,569,813</td>
<td>0.5%</td>
<td>1,875</td>
</tr>
<tr>
<td>Vacant Land</td>
<td>1,291</td>
<td>3.0%</td>
<td>32,903</td>
<td>0.0%</td>
<td>7,420</td>
</tr>
<tr>
<td>No Data</td>
<td>231</td>
<td>0.5%</td>
<td>1,324,362</td>
<td>0.1%</td>
<td>7,434</td>
</tr>
</tbody>
</table>

*Inundation areas are derived from a surge hindcast created by FEMA MOTF using surge modeling and observed data. The hindcast uses a 3 ft. elevation model.

For this analysis, a lot is included if any part of the lot is in the inundation area, except for Total Residential Buildings. For Total Residential Buildings, all lots that were wholly in the Operational Inundation Area, or had the majority of their housing in the Operational Inundation Area, were included.
### Selected Housing Characteristics
Census 2010 Summary Files and American Community Survey 2006-2010 Estimates
Hurricane Operational Impact Area in Manhattan*

<table>
<thead>
<tr>
<th>UNITS IN STRUCTURE (PLUTO distribution applied to 2010 Census control)</th>
<th>Manhattan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total housing units</td>
<td>117,455</td>
</tr>
<tr>
<td>One &amp; Two Family Buildings</td>
<td>254</td>
</tr>
<tr>
<td>Multi - Family Walk-Up Buildings</td>
<td>13,346</td>
</tr>
<tr>
<td>Multi - Family Elevator Buildings</td>
<td>53,555</td>
</tr>
<tr>
<td>Mixed Residential and Commercial Buildings</td>
<td>48,759</td>
</tr>
<tr>
<td>Other</td>
<td>1,541</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>YEAR STRUCTURE BUILT (PLUTO distribution applied to 2010 Census control)</th>
<th>Manhattan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total housing units</td>
<td>117,455</td>
</tr>
<tr>
<td>Built 2000 or later</td>
<td>14,178</td>
</tr>
<tr>
<td>Built 1990 to 1999</td>
<td>5,845</td>
</tr>
<tr>
<td>Built 1980 to 1989</td>
<td>9,430</td>
</tr>
<tr>
<td>Built 1970 to 1979</td>
<td>12,154</td>
</tr>
<tr>
<td>Built 1960 to 1969</td>
<td>14,770</td>
</tr>
<tr>
<td>Built 1950 to 1959</td>
<td>15,945</td>
</tr>
<tr>
<td>Built 1940 to 1949</td>
<td>12,436</td>
</tr>
<tr>
<td>Built 1930 to 1939</td>
<td>7,287</td>
</tr>
<tr>
<td>Built 1920 to 1929</td>
<td>9,306</td>
</tr>
<tr>
<td>Built 1910 to 1919</td>
<td>6,270</td>
</tr>
<tr>
<td>Built 1900 to 1909</td>
<td>8,586</td>
</tr>
<tr>
<td>Built Before 1900</td>
<td>608</td>
</tr>
<tr>
<td>Unknown</td>
<td>641</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ROOMS (ACS distribution applied to 2010 Census control)</th>
<th>Manhattan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total housing units</td>
<td>117,455</td>
</tr>
<tr>
<td>1 room</td>
<td>12,492</td>
</tr>
<tr>
<td>2 rooms</td>
<td>13,920</td>
</tr>
<tr>
<td>3 rooms</td>
<td>37,050</td>
</tr>
<tr>
<td>4 rooms</td>
<td>34,854</td>
</tr>
<tr>
<td>5 rooms</td>
<td>13,863</td>
</tr>
<tr>
<td>6 rooms</td>
<td>3,082</td>
</tr>
<tr>
<td>7 rooms</td>
<td>823</td>
</tr>
<tr>
<td>8 rooms</td>
<td>617</td>
</tr>
<tr>
<td>9 rooms or more</td>
<td>753</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>VEHICLES AVAILABLE (ACS distribution applied to 2010 Census control)</th>
<th>Manhattan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupied housing units</td>
<td>105,877</td>
</tr>
<tr>
<td>No vehicles available</td>
<td>81,500</td>
</tr>
<tr>
<td>1 vehicle available</td>
<td>21,495</td>
</tr>
<tr>
<td>2 vehicles available</td>
<td>2,378</td>
</tr>
<tr>
<td>3 or more vehicles available</td>
<td>504</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TELEPHONE SERVICE (ACS distribution applied to 2010 Census control)</th>
<th>Manhattan</th>
</tr>
</thead>
<tbody>
<tr>
<td>No telephone service available (excluding cell phones)</td>
<td>6,610</td>
</tr>
</tbody>
</table>
### HOUSE HEATING FUEL (ACS distribution applied to 2010 Census control)

<table>
<thead>
<tr>
<th>Occupied housing units</th>
<th>Manhattan Inundation Area</th>
<th>Manhattan Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimate</td>
<td>Percent</td>
</tr>
<tr>
<td>Utility gas</td>
<td>36,119</td>
<td>34.1</td>
</tr>
<tr>
<td>Bottled, tank, or LP gas</td>
<td>1,098</td>
<td>1.0</td>
</tr>
<tr>
<td>Electricity</td>
<td>25,574</td>
<td>24.2</td>
</tr>
<tr>
<td>Fuel oil, kerosene, etc.</td>
<td>36,086</td>
<td>34.1</td>
</tr>
<tr>
<td>Coal or coke</td>
<td>129</td>
<td>0.1</td>
</tr>
<tr>
<td>Wood</td>
<td>52</td>
<td>0.0</td>
</tr>
<tr>
<td>Solar energy</td>
<td>179</td>
<td>0.2</td>
</tr>
<tr>
<td>Other fuel</td>
<td>3,589</td>
<td>3.4</td>
</tr>
<tr>
<td>No fuel used</td>
<td>3,052</td>
<td>2.9</td>
</tr>
</tbody>
</table>

### VALUE (ACS distribution applied to 2010 Census control)

<table>
<thead>
<tr>
<th>Owner-occupied units</th>
<th>Manhattan Inundation Area</th>
<th>Manhattan Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimate</td>
<td>Percent</td>
</tr>
<tr>
<td>Less than $50,000</td>
<td>984</td>
<td>6.1</td>
</tr>
<tr>
<td>$50,000 to $99,999</td>
<td>342</td>
<td>2.1</td>
</tr>
<tr>
<td>$100,000 to $149,999</td>
<td>201</td>
<td>1.2</td>
</tr>
<tr>
<td>$150,000 to $199,999</td>
<td>161</td>
<td>1.0</td>
</tr>
<tr>
<td>$200,000 to $299,999</td>
<td>677</td>
<td>4.2</td>
</tr>
<tr>
<td>$300,000 to $499,999</td>
<td>2,152</td>
<td>13.2</td>
</tr>
<tr>
<td>$500,000 to $999,999</td>
<td>5,968</td>
<td>36.7</td>
</tr>
<tr>
<td>$1,000,000 or more</td>
<td>5,762</td>
<td>35.5</td>
</tr>
</tbody>
</table>

### GROSS RENT (ACS distribution applied to 2010 Census control)

<table>
<thead>
<tr>
<th>Occupied units paying rent</th>
<th>Manhattan Inundation Area</th>
<th>Manhattan Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimate</td>
<td>Percent</td>
</tr>
<tr>
<td>Less than $200</td>
<td>2,730</td>
<td>3.1</td>
</tr>
<tr>
<td>$200 to $299</td>
<td>7,655</td>
<td>8.7</td>
</tr>
<tr>
<td>$300 to $499</td>
<td>7,991</td>
<td>9.0</td>
</tr>
<tr>
<td>$500 to $749</td>
<td>13,569</td>
<td>15.3</td>
</tr>
<tr>
<td>$750 to $999</td>
<td>10,932</td>
<td>12.4</td>
</tr>
<tr>
<td>$1,000 to $1,499</td>
<td>13,163</td>
<td>14.9</td>
</tr>
<tr>
<td>$1,500 or more</td>
<td>32,405</td>
<td>36.6</td>
</tr>
<tr>
<td>No rent paid</td>
<td>1,187</td>
<td></td>
</tr>
</tbody>
</table>

### GROSS RENT AS A PERCENTAGE OF HOUSEHOLD INCOME (GRAPI) (ACS distribution applied to 2010 Census control)

<table>
<thead>
<tr>
<th>Occupied units paying rent (excluding units where GRAPI cannot be computed)</th>
<th>Manhattan Inundation Area</th>
<th>Manhattan Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimate</td>
<td>Percent</td>
</tr>
<tr>
<td>Less than 15.0 percent</td>
<td>17,000</td>
<td>19.6</td>
</tr>
<tr>
<td>15.0 to 19.9 percent</td>
<td>11,133</td>
<td>12.8</td>
</tr>
<tr>
<td>20.0 to 24.9 percent</td>
<td>10,876</td>
<td>12.5</td>
</tr>
<tr>
<td>25.0 to 29.9 percent</td>
<td>10,501</td>
<td>12.1</td>
</tr>
<tr>
<td>30.0 to 34.9 percent</td>
<td>8,708</td>
<td>10.0</td>
</tr>
<tr>
<td>35.0 percent or more</td>
<td>28,569</td>
<td>32.9</td>
</tr>
<tr>
<td>Not computed</td>
<td>2,845</td>
<td></td>
</tr>
</tbody>
</table>

*The Operational Inundation Area consists of areas in New York City that FEMA determined were inundated with flood waters. Note: While general housing data were available for the Hurricane Operational Inundation Area, more detailed housing data were only available for a larger area that included all census tracts intersecting the Hurricane Operational Inundation Area. The percent distributions for the detailed housing data were applied to the general housing data (housing units, occupied housing units, owner occupied housing units, and renter occupied housing units) in the Operational Inundation Area for each respective census tract to produce a set of estimates. Census tract estimates were summed up to the borough level. These borough estimates were then summed to produce a set of citywide values. For consistency of comparison, the same process was used to produce overall city and borough estimates.*
Demographic and Housing Profile
Hurricane Sandy Operational Inundation Area*
Queens, 2010 Census

<table>
<thead>
<tr>
<th></th>
<th>Inundation Area</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>Population</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under 5 years</td>
<td>12,450</td>
<td>6.6</td>
</tr>
<tr>
<td>5 to 17 years</td>
<td>31,915</td>
<td>16.9</td>
</tr>
<tr>
<td>18 to 34 years</td>
<td>44,267</td>
<td>23.5</td>
</tr>
<tr>
<td>35 to 44 years</td>
<td>25,423</td>
<td>13.5</td>
</tr>
<tr>
<td>45 to 54 years</td>
<td>26,640</td>
<td>14.1</td>
</tr>
<tr>
<td>55 to 64 years</td>
<td>21,659</td>
<td>11.5</td>
</tr>
<tr>
<td>65 years and over</td>
<td>26,090</td>
<td>13.8</td>
</tr>
<tr>
<td>In Households</td>
<td>182,100</td>
<td>96.6</td>
</tr>
<tr>
<td>In Group Quarters</td>
<td>6,344</td>
<td>3.4</td>
</tr>
<tr>
<td>Institutionalized</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Correctional Facilities for Adults</td>
<td>234</td>
<td>3.7</td>
</tr>
<tr>
<td>Juvenile Facilities</td>
<td>72</td>
<td>1.1</td>
</tr>
<tr>
<td>Nursing Facilities</td>
<td>3,567</td>
<td>56.2</td>
</tr>
<tr>
<td>Other Institutionalized</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Non-institutionalized</td>
<td>2,471</td>
<td>39.0</td>
</tr>
<tr>
<td>College/University Housing</td>
<td>139</td>
<td>2.2</td>
</tr>
<tr>
<td>Military Quarters</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Other Non-institutionalized</td>
<td>2,332</td>
<td>36.8</td>
</tr>
<tr>
<td>Housing Units</td>
<td>77,164</td>
<td>100.0</td>
</tr>
<tr>
<td>Occupied Housing Units</td>
<td>68,853</td>
<td>89.2</td>
</tr>
<tr>
<td>Occupied Housing Units</td>
<td>68,853</td>
<td>100.0</td>
</tr>
<tr>
<td>Renter Occupied</td>
<td>38,076</td>
<td>55.3</td>
</tr>
<tr>
<td>Owner Occupied</td>
<td>30,777</td>
<td>44.7</td>
</tr>
<tr>
<td>Average Household Size</td>
<td></td>
<td>2.64</td>
</tr>
</tbody>
</table>

*The Operational Inundation Area consists of areas in New York City that FEMA determined were inundated with flood waters.
Ratio of Income to Poverty Level in the Past 12 Months for Persons for Whom Poverty Status is Determined
Census 2010 Summary Files and American Community Survey 2006-2010 Estimates
Hurricane Operational Inundation Area in Queens*

<table>
<thead>
<tr>
<th>Persons for whom poverty status is determined</th>
<th>Inundation Area</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimate</td>
<td>Percent</td>
</tr>
<tr>
<td>Under 1.00 (Below poverty threshold)</td>
<td>28,170</td>
<td>15.3</td>
</tr>
<tr>
<td>Under .50 (Extreme poverty)</td>
<td>13,960</td>
<td>7.6</td>
</tr>
<tr>
<td>.50 to .99</td>
<td>14,209</td>
<td>7.7</td>
</tr>
<tr>
<td>1.00 to 1.24 (Near poor)</td>
<td>7,576</td>
<td>4.1</td>
</tr>
<tr>
<td>1.25 to 1.49</td>
<td>7,041</td>
<td>3.8</td>
</tr>
<tr>
<td>1.50 to 1.84</td>
<td>9,962</td>
<td>5.4</td>
</tr>
<tr>
<td>1.85 to 1.99</td>
<td>4,036</td>
<td>2.2</td>
</tr>
<tr>
<td>2.00 and over</td>
<td>127,160</td>
<td>69.1</td>
</tr>
</tbody>
</table>

*The Operational Inundation Area consists of areas in New York City that FEMA determined were inundated with flood waters.

Note: While population data were available for the Hurricane Operational Inundation Area, poverty data were only available for a larger area that included all census tracts intersecting the Hurricane Operational Inundation Area. The percent distributions for the poverty data were applied to the population for whom poverty was determined (the poverty universe) in the Operational Inundation Area for each respective census tract to produce a set of estimates. Census tract estimates were summed up to the borough level. These borough estimates were then summed to produce a set of citywide values. It should also be noted that the poverty universe for each borough was determined by taking the ratio of the poverty universe to the overall population, according to the 2006-2010 American Community Survey, and applying it to the overall population according to the 2010 Census. For consistency of comparison, the same process was used to produce overall city and borough estimates.
<table>
<thead>
<tr>
<th>Land Use</th>
<th>Total Lots (BBL) Number</th>
<th>Total Building Area (sq. ft.) Number</th>
<th>Total Residential Area (sq. ft.) Number</th>
<th>Total Residential Units Number</th>
<th>Total Residential Buildings Number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percent</td>
<td>Percent</td>
<td>Percent</td>
<td>Percent</td>
<td>Percent</td>
</tr>
<tr>
<td>Land</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>304,491</td>
<td>166,139,812</td>
<td>84,735,319</td>
<td>79,507</td>
<td>33,103</td>
</tr>
<tr>
<td>One &amp; Two Family Buildings</td>
<td>22,123</td>
<td>44,759,407</td>
<td>44,756,732</td>
<td>34,360</td>
<td>29,058</td>
</tr>
<tr>
<td>Multi - Family Walk-Up Buildings</td>
<td>1,925</td>
<td>9,323,492</td>
<td>9,284,426</td>
<td>10,528</td>
<td>3,083</td>
</tr>
<tr>
<td>Multi - Family Elevator Buildings</td>
<td>132</td>
<td>25,555,755</td>
<td>24,849,050</td>
<td>28,803</td>
<td>323</td>
</tr>
<tr>
<td>Mixed Residential and Commercial Buildings</td>
<td>399</td>
<td>6,076,749</td>
<td>4,916,409</td>
<td>5,730</td>
<td>557</td>
</tr>
<tr>
<td>Commercial and Office Buildings</td>
<td>439</td>
<td>7,533,301</td>
<td>101,386</td>
<td>39</td>
<td>33</td>
</tr>
<tr>
<td>Industrial and Manufacturing</td>
<td>790</td>
<td>23,847,410</td>
<td>29,675</td>
<td>16</td>
<td>8</td>
</tr>
<tr>
<td>Transportation and Utility</td>
<td>414</td>
<td>18,124,754</td>
<td>11,419</td>
<td>13</td>
<td>14</td>
</tr>
<tr>
<td>Public Facilities and Institutions</td>
<td>238</td>
<td>9,042,155</td>
<td>760,614</td>
<td>111</td>
<td>16</td>
</tr>
<tr>
<td>Open Space and Outdoor Recreation</td>
<td>548</td>
<td>20,001,648</td>
<td>13,281</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Parking Facilities</td>
<td>501</td>
<td>1,514,180</td>
<td>-</td>
<td>-</td>
<td>0.0</td>
</tr>
<tr>
<td>Vacant Land</td>
<td>2,591</td>
<td>4,587</td>
<td>4,587</td>
<td>4</td>
<td>0.0</td>
</tr>
<tr>
<td>No Data</td>
<td>391</td>
<td>376,374</td>
<td>7,740</td>
<td>3</td>
<td>0.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Lots (BBL) Number</th>
<th>Total Building Area (sq. ft.) Number</th>
<th>Total Residential Area (sq. ft.) Number</th>
<th>Total Residential Units Number</th>
<th>Total Residential Buildings Number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>324,430</td>
<td>1,198,626,249</td>
<td>865,177,217</td>
<td>813,692</td>
</tr>
<tr>
<td>One &amp; Two Family Buildings</td>
<td>246,582</td>
<td>443,980,231</td>
<td>443,980,067</td>
<td>340,832</td>
</tr>
<tr>
<td>Multi - Family Walk-Up Buildings</td>
<td>34,687</td>
<td>169,430</td>
<td>169,004,334</td>
<td>195,030</td>
</tr>
<tr>
<td>Multi - Family Elevator Buildings</td>
<td>1,726</td>
<td>195,330</td>
<td>190,319,061</td>
<td>204,558</td>
</tr>
<tr>
<td>Mixed Residential and Commercial Buildings</td>
<td>11,239</td>
<td>79,540</td>
<td>57,696,240</td>
<td>69,198</td>
</tr>
<tr>
<td>Commercial and Office Buildings</td>
<td>6,910</td>
<td>84,994</td>
<td>1,152,058</td>
<td>1,218</td>
</tr>
<tr>
<td>Industrial and Manufacturing</td>
<td>3,787</td>
<td>76,255</td>
<td>267,027</td>
<td>187</td>
</tr>
<tr>
<td>Transportation and Utility</td>
<td>2,283</td>
<td>23,688</td>
<td>93,754</td>
<td>86</td>
</tr>
<tr>
<td>Public Facilities and Institutions</td>
<td>2,782</td>
<td>93,285</td>
<td>2,532,563</td>
<td>2,568</td>
</tr>
<tr>
<td>Open Space and Outdoor Recreation</td>
<td>1,101</td>
<td>22,823</td>
<td>100,866</td>
<td>5</td>
</tr>
<tr>
<td>Parking Facilities</td>
<td>3,693</td>
<td>7,869</td>
<td>5,262</td>
<td>2</td>
</tr>
<tr>
<td>Vacant Land</td>
<td>8,517</td>
<td>181,074</td>
<td>12,355</td>
<td>-</td>
</tr>
<tr>
<td>No Data</td>
<td>1,123</td>
<td>614,468</td>
<td>13,630</td>
<td>8</td>
</tr>
</tbody>
</table>

*Inundation areas are derived from a surge hindcast created by FEMA MOTF using surge modeling and observed data. The hindcast uses a 3 ft. elevation model.

For this analysis, a lot is included if any part of the lot is in the inundation area, except for Total Residential Buildings. For Total Residential Buildings, all lots that were wholly in the Operational Inundation Area, or had the majority of their housing in the Operational Inundation Area, were included.
### UNITS IN STRUCTURE (PLUTO distribution applied to 2010 Census control)

<table>
<thead>
<tr>
<th></th>
<th>Inundation Area</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimate</td>
<td>Percent</td>
</tr>
<tr>
<td>Total housing units</td>
<td>77,164</td>
<td>100.0</td>
</tr>
<tr>
<td>One &amp; Two Family Buildings</td>
<td>35,271</td>
<td>45.7</td>
</tr>
<tr>
<td>Multi - Family Walk- Up Buildings</td>
<td>10,190</td>
<td>13.2</td>
</tr>
<tr>
<td>Multi - Family Elevator Buildings</td>
<td>25,642</td>
<td>33.2</td>
</tr>
<tr>
<td>Mixed Residential and Commercial Buildings</td>
<td>5,886</td>
<td>7.6</td>
</tr>
<tr>
<td>Other</td>
<td>174</td>
<td>0.2</td>
</tr>
</tbody>
</table>

### YEAR STRUCTURE BUILT (PLUTO distribution applied to 2010 Census control)

<table>
<thead>
<tr>
<th></th>
<th>Inundation Area</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimate</td>
<td>Percent</td>
</tr>
<tr>
<td>Total housing units</td>
<td>77,164</td>
<td>100.0</td>
</tr>
<tr>
<td>Built 2000 or later</td>
<td>10,725</td>
<td>13.9</td>
</tr>
<tr>
<td>Built 1990 to 1999</td>
<td>1,997</td>
<td>2.6</td>
</tr>
<tr>
<td>Built 1980 to 1989</td>
<td>2,539</td>
<td>3.3</td>
</tr>
<tr>
<td>Built 1970 to 1979</td>
<td>6,593</td>
<td>8.5</td>
</tr>
<tr>
<td>Built 1960 to 1969</td>
<td>18,677</td>
<td>24.2</td>
</tr>
<tr>
<td>Built 1950 to 1959</td>
<td>13,480</td>
<td>17.5</td>
</tr>
<tr>
<td>Built 1940 to 1949</td>
<td>3,073</td>
<td>4.0</td>
</tr>
<tr>
<td>Built 1930 to 1939</td>
<td>9,068</td>
<td>11.8</td>
</tr>
<tr>
<td>Built 1920 to 1929</td>
<td>6,797</td>
<td>8.8</td>
</tr>
<tr>
<td>Built 1910 to 1919</td>
<td>2,073</td>
<td>2.7</td>
</tr>
<tr>
<td>Built Before 1900</td>
<td>894</td>
<td>1.2</td>
</tr>
<tr>
<td>Unknown</td>
<td>1,064</td>
<td>1.4</td>
</tr>
</tbody>
</table>

### ROOMS (ACS distribution applied to 2010 Census control)

<table>
<thead>
<tr>
<th></th>
<th>Inundation Area</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimate</td>
<td>Percent</td>
</tr>
<tr>
<td>Total housing units</td>
<td>77,164</td>
<td>100.0</td>
</tr>
<tr>
<td>1 room</td>
<td>3,754</td>
<td>4.9</td>
</tr>
<tr>
<td>2 rooms</td>
<td>3,661</td>
<td>4.7</td>
</tr>
<tr>
<td>3 rooms</td>
<td>13,689</td>
<td>17.7</td>
</tr>
<tr>
<td>4 rooms</td>
<td>16,866</td>
<td>21.9</td>
</tr>
<tr>
<td>5 rooms</td>
<td>15,623</td>
<td>20.2</td>
</tr>
<tr>
<td>6 rooms</td>
<td>10,077</td>
<td>13.1</td>
</tr>
<tr>
<td>7 rooms</td>
<td>4,939</td>
<td>6.4</td>
</tr>
<tr>
<td>8 rooms</td>
<td>3,271</td>
<td>4.2</td>
</tr>
<tr>
<td>9 rooms or more</td>
<td>5,285</td>
<td>6.8</td>
</tr>
</tbody>
</table>

### VEHICLES AVAILABLE (ACS distribution applied to 2010 Census control)

<table>
<thead>
<tr>
<th></th>
<th>Inundation Area</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimate</td>
<td>Percent</td>
</tr>
<tr>
<td>Occupied housing units</td>
<td>68,853</td>
<td>100.0</td>
</tr>
<tr>
<td>No vehicles available</td>
<td>23,011</td>
<td>33.4</td>
</tr>
<tr>
<td>1 vehicle available</td>
<td>26,458</td>
<td>38.4</td>
</tr>
<tr>
<td>2 vehicles available</td>
<td>14,907</td>
<td>21.7</td>
</tr>
<tr>
<td>3 or more vehicles available</td>
<td>4,478</td>
<td>6.8</td>
</tr>
</tbody>
</table>

### TELEPHONE SERVICE (ACS distribution applied to 2010 Census control)

<table>
<thead>
<tr>
<th></th>
<th>Inundation Area</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimate</td>
<td>Percent</td>
</tr>
<tr>
<td>No telephone service available (excluding cell phones)</td>
<td>3,997</td>
<td>5.8</td>
</tr>
</tbody>
</table>
### HOUSE HEATING FUEL (ACS distribution applied to 2010 Census control)

<table>
<thead>
<tr>
<th>Occupied housing units</th>
<th>Queens</th>
<th>Inundation Area</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimate</td>
<td>Percent</td>
<td>Estimate</td>
</tr>
<tr>
<td>Utility gas</td>
<td>68,853</td>
<td>100.0</td>
<td>780,117</td>
</tr>
<tr>
<td>Bottled, tank, or LP gas</td>
<td>45,785</td>
<td>66.5</td>
<td>503,962</td>
</tr>
<tr>
<td>Electricity</td>
<td>908</td>
<td>1.3</td>
<td>11,685</td>
</tr>
<tr>
<td>Fuel oil, kerosene, etc.</td>
<td>5,323</td>
<td>7.7</td>
<td>42,215</td>
</tr>
<tr>
<td>Coal or coke</td>
<td>15,402</td>
<td>22.4</td>
<td>211,386</td>
</tr>
<tr>
<td>Wood</td>
<td>66</td>
<td>0.1</td>
<td>400</td>
</tr>
<tr>
<td>Solar energy</td>
<td>42</td>
<td>0.1</td>
<td>542</td>
</tr>
<tr>
<td>Other fuel</td>
<td>24</td>
<td>0.0</td>
<td>83</td>
</tr>
<tr>
<td>No fuel used</td>
<td>555</td>
<td>0.8</td>
<td>5,672</td>
</tr>
<tr>
<td></td>
<td>749</td>
<td>1.1</td>
<td>4,172</td>
</tr>
</tbody>
</table>

### VALUE (ACS distribution applied to 2010 Census control)

<table>
<thead>
<tr>
<th>Owner-occupied units</th>
<th>Queens</th>
<th>Inundation Area</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimate</td>
<td>Percent</td>
<td>Estimate</td>
</tr>
<tr>
<td>Less than $50,000</td>
<td>30,777</td>
<td>100.0</td>
<td>335,454</td>
</tr>
<tr>
<td>$50,000 to $99,999</td>
<td>1,242</td>
<td>4.0</td>
<td>6,503</td>
</tr>
<tr>
<td>$100,000 to $149,999</td>
<td>501</td>
<td>1.6</td>
<td>7,924</td>
</tr>
<tr>
<td>$150,000 to $199,999</td>
<td>596</td>
<td>1.9</td>
<td>9,864</td>
</tr>
<tr>
<td>$200,000 to $299,999</td>
<td>1,298</td>
<td>4.2</td>
<td>17,776</td>
</tr>
<tr>
<td>$300,000 to $499,999</td>
<td>2,596</td>
<td>8.4</td>
<td>36,601</td>
</tr>
<tr>
<td>$500,000 to $999,999</td>
<td>9,449</td>
<td>30.7</td>
<td>101,434</td>
</tr>
<tr>
<td>$1,000,000 or more</td>
<td>13,684</td>
<td>44.5</td>
<td>146,144</td>
</tr>
</tbody>
</table>

### GROSS RENT (ACS distribution applied to 2010 Census control)

<table>
<thead>
<tr>
<th>Occupied units paying rent</th>
<th>Queens</th>
<th>Inundation Area</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimate</td>
<td>Percent</td>
<td>Estimate</td>
</tr>
<tr>
<td>Less than $200</td>
<td>37,084</td>
<td>100.0</td>
<td>431,887</td>
</tr>
<tr>
<td>$200 to $299</td>
<td>830</td>
<td>2.2</td>
<td>3,654</td>
</tr>
<tr>
<td>$300 to $499</td>
<td>2,557</td>
<td>6.9</td>
<td>8,634</td>
</tr>
<tr>
<td>$500 to $749</td>
<td>2,883</td>
<td>7.8</td>
<td>13,880</td>
</tr>
<tr>
<td>$750 to $999</td>
<td>5,192</td>
<td>14.0</td>
<td>38,802</td>
</tr>
<tr>
<td>$1,000 to $1,499</td>
<td>6,364</td>
<td>17.2</td>
<td>76,456</td>
</tr>
<tr>
<td>$1,500 or more</td>
<td>9,823</td>
<td>26.5</td>
<td>188,354</td>
</tr>
<tr>
<td>No rent paid</td>
<td>9,435</td>
<td>25.4</td>
<td>102,107</td>
</tr>
<tr>
<td></td>
<td>992</td>
<td></td>
<td>12,776</td>
</tr>
</tbody>
</table>

### GROSS RENT AS A PERCENTAGE OF HOUSEHOLD INCOME (GRAPI) (ACS distribution applied to 2010 Census control)

<table>
<thead>
<tr>
<th>Occupied units paying rent (excluding units where GRAPI cannot be computed)</th>
<th>Queens</th>
<th>Inundation Area</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimate</td>
<td>Percent</td>
<td>Estimate</td>
</tr>
<tr>
<td>Less than 15.0 percent</td>
<td>36,325</td>
<td>100.0</td>
<td>424,346</td>
</tr>
<tr>
<td>15.0 to 19.9 percent</td>
<td>5,549</td>
<td>15.3</td>
<td>53,037</td>
</tr>
<tr>
<td>20.0 to 24.9 percent</td>
<td>4,531</td>
<td>12.5</td>
<td>50,177</td>
</tr>
<tr>
<td>25.0 to 29.9 percent</td>
<td>3,735</td>
<td>10.3</td>
<td>50,998</td>
</tr>
<tr>
<td>30.0 to 34.9 percent</td>
<td>4,706</td>
<td>13.0</td>
<td>46,510</td>
</tr>
<tr>
<td>35.0 percent or more</td>
<td>3,763</td>
<td>10.4</td>
<td>37,689</td>
</tr>
<tr>
<td>Not computed</td>
<td>14,042</td>
<td>38.7</td>
<td>185,934</td>
</tr>
<tr>
<td></td>
<td>1,751</td>
<td></td>
<td>20,317</td>
</tr>
</tbody>
</table>

*The Operational Inundation Area consists of areas in New York City that FEMA determined were inundated with flood waters.

Note: While general housing data were available for the Hurricane Operational Inundation Area, more detailed housing data were only available for a larger area that included all census tracts intersecting the Hurricane Operational Inundation Area. The percent distributions for the detailed housing data were applied to the general housing data (housing units, occupied housing units, owner occupied housing units, and renter occupied housing units) in the Operational Inundation Area for each respective census tract to produce a set of estimates. Census tract estimates were summed up to the borough level. These borough estimates were then summed to produce a set of citywide values. For consistency of comparison, the same process was used to produce overall city and borough estimates.
Demographic and Housing Profile
Hurricane Sandy Operational Inundation Area*  
Staten Island, 2010 Census

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Staten Island Inundation Area</th>
<th>Total</th>
<th>Staten Island</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td></td>
<td>Number</td>
</tr>
<tr>
<td>Population</td>
<td>75,651</td>
<td>100.0</td>
<td>468,730</td>
<td>100.0</td>
</tr>
<tr>
<td>Under 5 years</td>
<td>4,600</td>
<td>6.1</td>
<td>28,339</td>
<td>6.0</td>
</tr>
<tr>
<td>5 to 17 years</td>
<td>12,456</td>
<td>16.5</td>
<td>80,862</td>
<td>17.3</td>
</tr>
<tr>
<td>18 to 34 years</td>
<td>17,205</td>
<td>22.7</td>
<td>104,184</td>
<td>22.2</td>
</tr>
<tr>
<td>35 to 44 years</td>
<td>11,008</td>
<td>14.6</td>
<td>65,630</td>
<td>14.0</td>
</tr>
<tr>
<td>45 to 54 years</td>
<td>12,066</td>
<td>15.9</td>
<td>71,748</td>
<td>15.3</td>
</tr>
<tr>
<td>55 to 64 years</td>
<td>9,394</td>
<td>12.4</td>
<td>58,623</td>
<td>12.5</td>
</tr>
<tr>
<td>65 years and over</td>
<td>8,922</td>
<td>11.8</td>
<td>59,344</td>
<td>12.7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Staten Island</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>In Households</td>
<td>74,051</td>
<td>97.9</td>
</tr>
<tr>
<td>In Group Quarters</td>
<td>1,600</td>
<td>21.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>In Group Quarters</th>
<th>Staten Island</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>Institutionalized</td>
<td>918</td>
<td>57.4</td>
</tr>
<tr>
<td>Correctional Facilities for Adults</td>
<td>918</td>
<td>57.4</td>
</tr>
<tr>
<td>Juvenile Facilities</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Nursing Facilities</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Other Institutionalized</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Non-institutionalized</td>
<td>682</td>
<td>42.6</td>
</tr>
<tr>
<td>College/University Housing</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Military Quarters</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Other Non-institutionalized</td>
<td>682</td>
<td>42.6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Housing Units</th>
<th>Staten Island</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>Occupied Housing Units</td>
<td>26,612</td>
<td>93.2</td>
</tr>
<tr>
<td>Renter Occupied</td>
<td>9,638</td>
<td>36.2</td>
</tr>
<tr>
<td>Owner Occupied</td>
<td>16,974</td>
<td>63.8</td>
</tr>
<tr>
<td>Average Household Size</td>
<td>2.78</td>
<td>2.78</td>
</tr>
</tbody>
</table>

*The Operational Inundation Area consists of areas in New York City that FEMA determined were inundated with flood waters.
Ratio of Income to Poverty Level in the Past 12 Months for Persons for Whom Poverty Status is Determined
Census 2010 Summary Files and American Community Survey 2006-2010 Estimates
Hurricane Operational Inundation Area in Staten Island*

<table>
<thead>
<tr>
<th>Persons for whom poverty status is determined</th>
<th>Staten Island</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Inundation Area</td>
<td>Estimate</td>
</tr>
<tr>
<td>Under 1.00 (Below poverty threshold)</td>
<td>74,452</td>
<td>459,940</td>
</tr>
<tr>
<td>Under .50 (Extreme poverty)</td>
<td>6,693</td>
<td>47,570</td>
</tr>
<tr>
<td>.50 to .99</td>
<td>2,969</td>
<td>22,549</td>
</tr>
<tr>
<td>1.00 to 1.24 (Near poor)</td>
<td>3,723</td>
<td>25,021</td>
</tr>
<tr>
<td>1.25 to 1.49</td>
<td>3,343</td>
<td>15,543</td>
</tr>
<tr>
<td>1.50 to 1.84</td>
<td>2,317</td>
<td>13,979</td>
</tr>
<tr>
<td>1.85 to 1.99</td>
<td>3,250</td>
<td>19,037</td>
</tr>
<tr>
<td>2.00 and over</td>
<td>1,671</td>
<td>8,501</td>
</tr>
<tr>
<td></td>
<td>57,178</td>
<td>355,309</td>
</tr>
</tbody>
</table>

*The Operational Inundation Area consists of areas in New York City that FEMA determined were inundated with flood waters.

Note: While population data were available for the Hurricane Operational Inundation Area, poverty data were only available for a larger area that included all census tracts intersecting the Hurricane Operational Inundation Area. The percent distributions for the poverty data were applied to the population for whom poverty was determined (the poverty universe) in the Operational Inundation Area for each respective census tract to produce a set of estimates. Census tract estimates were summed up to the borough level. These borough estimates were then summed to produce a set of citywide values. It should also be noted that the poverty universe for each borough was determined by taking the ratio of the poverty universe to the overall population, according to the 2006-2010 American Community Survey, and applying it to the overall population according to the 2010 Census. For consistency of comparison, the same process was used to produce overall city and borough estimates.
### Staten Island Inundation Area

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Total Lots (BBL)</th>
<th>Total Building Area (sq. ft.)</th>
<th>Total Residual Area (sq. ft.)</th>
<th>Total Residential Units</th>
<th>Total Residential Buildings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percentage</td>
<td>Number</td>
<td>Percentage</td>
<td>Number</td>
</tr>
<tr>
<td></td>
<td>23,111</td>
<td>100.0%</td>
<td>57,156,535</td>
<td>100.0%</td>
<td>35,545,559</td>
</tr>
<tr>
<td>One &amp; Two Family Buildings</td>
<td>17,438</td>
<td>75.5%</td>
<td>29,726,821</td>
<td>52.0%</td>
<td>29,721,433</td>
</tr>
<tr>
<td>Multi - Family Walk- Up Buildings</td>
<td>296</td>
<td>1.3%</td>
<td>2,553,875</td>
<td>4.5%</td>
<td>2,552,235</td>
</tr>
<tr>
<td>Multi - Family Elevator Buildings</td>
<td>15</td>
<td>0.1%</td>
<td>2,559,606</td>
<td>4.5%</td>
<td>2,559,606</td>
</tr>
<tr>
<td>Mixed Residential and Commercial Buildings</td>
<td>287</td>
<td>1.2%</td>
<td>1,071,066</td>
<td>1.9%</td>
<td>628,573</td>
</tr>
<tr>
<td>Commercial and Office Buildings</td>
<td>599</td>
<td>2.6%</td>
<td>7,058,161</td>
<td>12.3%</td>
<td>31,223</td>
</tr>
<tr>
<td>Industrial and Manufacturing</td>
<td>242</td>
<td>1.0%</td>
<td>4,950,250</td>
<td>8.7%</td>
<td>7,170</td>
</tr>
<tr>
<td>Transportation and Utility</td>
<td>359</td>
<td>1.6%</td>
<td>2,691,780</td>
<td>4.7%</td>
<td>7,899</td>
</tr>
<tr>
<td>Public Facilities and Institutions</td>
<td>124</td>
<td>0.5%</td>
<td>5,133,283</td>
<td>9.0%</td>
<td>23,841</td>
</tr>
<tr>
<td>Open Space and Outdoor Recreation</td>
<td>415</td>
<td>1.8%</td>
<td>936,507</td>
<td>1.6%</td>
<td>13,579</td>
</tr>
<tr>
<td>Parking Facilities</td>
<td>246</td>
<td>1.1%</td>
<td>419,220</td>
<td>0.7%</td>
<td>-</td>
</tr>
<tr>
<td>Vacant Land</td>
<td>2,896</td>
<td>12.5%</td>
<td>-</td>
<td>0.0%</td>
<td>-</td>
</tr>
<tr>
<td>No Data</td>
<td>194</td>
<td>0.8%</td>
<td>56,766</td>
<td>0.1%</td>
<td>-</td>
</tr>
</tbody>
</table>

### Staten Island Borough

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Total Lots (BBL)</th>
<th>Total Building Area (sq. ft.)</th>
<th>Total Residual Area (sq. ft.)</th>
<th>Total Residential Units</th>
<th>Total Residential Buildings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percentage</td>
<td>Number</td>
<td>Percentage</td>
<td>Number</td>
</tr>
<tr>
<td></td>
<td>123,480</td>
<td>100.0%</td>
<td>320,280,272</td>
<td>100.0%</td>
<td>234,905,774</td>
</tr>
<tr>
<td>One &amp; Two Family Buildings</td>
<td>105,120</td>
<td>85.1%</td>
<td>198,339,138</td>
<td>61.9%</td>
<td>198,326,424</td>
</tr>
<tr>
<td>Multi - Family Walk- Up Buildings</td>
<td>1,853</td>
<td>1.5%</td>
<td>18,346,277</td>
<td>5.7%</td>
<td>18,296,850</td>
</tr>
<tr>
<td>Multi - Family Elevator Buildings</td>
<td>85</td>
<td>0.1%</td>
<td>13,467,194</td>
<td>4.2%</td>
<td>13,425,290</td>
</tr>
<tr>
<td>Mixed Residential and Commercial Buildings</td>
<td>1,439</td>
<td>1.2%</td>
<td>5,601,405</td>
<td>1.7%</td>
<td>3,551,680</td>
</tr>
<tr>
<td>Commercial and Office Buildings</td>
<td>2,182</td>
<td>1.8%</td>
<td>19,839,928</td>
<td>6.2%</td>
<td>341,357</td>
</tr>
<tr>
<td>Industrial and Manufacturing</td>
<td>418</td>
<td>0.3%</td>
<td>6,924,708</td>
<td>2.2%</td>
<td>17,768</td>
</tr>
<tr>
<td>Transportation and Utility</td>
<td>775</td>
<td>0.6%</td>
<td>3,579,642</td>
<td>1.1%</td>
<td>19,306</td>
</tr>
<tr>
<td>Public Facilities and Institutions</td>
<td>672</td>
<td>0.5%</td>
<td>51,635,422</td>
<td>16.1%</td>
<td>866,600</td>
</tr>
<tr>
<td>Open Space and Outdoor Recreation</td>
<td>1,885</td>
<td>1.5%</td>
<td>1,476,326</td>
<td>0.5%</td>
<td>40,937</td>
</tr>
<tr>
<td>Parking Facilities</td>
<td>770</td>
<td>0.6%</td>
<td>990,310</td>
<td>0.3%</td>
<td>2,500</td>
</tr>
<tr>
<td>Vacant Land</td>
<td>7,839</td>
<td>6.3%</td>
<td>17,062</td>
<td>0.0%</td>
<td>17,062</td>
</tr>
<tr>
<td>No Data</td>
<td>447</td>
<td>0.4%</td>
<td>62,860</td>
<td>0.0%</td>
<td>-</td>
</tr>
</tbody>
</table>

*Inundation areas are derived from a surge hindcast created by FEMA MOTF using surge modeling and observed data. The hindcast uses a 3 ft. elevation model.

For this analysis, a lot is included if any part of the lot is in the inundation area, except for **Total Residential Buildings**. For **Total Residential Buildings**, all lots that were wholly in the Operational Inundation Area, or had the majority of their housing in the Operational Inundation Area, were included.
Selected Housing Characteristics
Census 2010 Summary Files and American Community Survey 2006-2010 Estimates
Hurricane Operational Impact Area in Staten Island*

<table>
<thead>
<tr>
<th>UNITS IN STRUCTURE (PLUTO distribution applied to 2010 Census control)</th>
<th>Staten Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimate</td>
<td>Percent</td>
</tr>
<tr>
<td>Total housing units</td>
<td>28,561</td>
</tr>
<tr>
<td>One &amp; Two Family Buildings</td>
<td>22,375</td>
</tr>
<tr>
<td>Multi - Family Walk-Up Buildings</td>
<td>2,516</td>
</tr>
<tr>
<td>Multi - Family Elevator Buildings</td>
<td>2,732</td>
</tr>
<tr>
<td>Mixed Residential and Commercial Buildings</td>
<td>678</td>
</tr>
<tr>
<td>Other</td>
<td>260</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>YEAR STRUCTURE BUILT (PLUTO distribution applied to 2010 Census control)</th>
<th>Staten Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimate</td>
<td>Percent</td>
</tr>
<tr>
<td>Total housing units</td>
<td>28,561</td>
</tr>
<tr>
<td>Built 2000 or later</td>
<td>4,239</td>
</tr>
<tr>
<td>Built 1990 to 1999</td>
<td>2,987</td>
</tr>
<tr>
<td>Built 1980 to 1989</td>
<td>4,996</td>
</tr>
<tr>
<td>Built 1970 to 1979</td>
<td>3,835</td>
</tr>
<tr>
<td>Built 1960 to 1969</td>
<td>3,735</td>
</tr>
<tr>
<td>Built 1950 to 1959</td>
<td>1,282</td>
</tr>
<tr>
<td>Built 1940 to 1949</td>
<td>813</td>
</tr>
<tr>
<td>Built 1930 to 1939</td>
<td>2,288</td>
</tr>
<tr>
<td>Built 1920 to 1929</td>
<td>2,044</td>
</tr>
<tr>
<td>Built 1910 to 1919</td>
<td>938</td>
</tr>
<tr>
<td>Built 1900 to 1909</td>
<td>672</td>
</tr>
<tr>
<td>Built Before 1900</td>
<td>580</td>
</tr>
<tr>
<td>Unknown</td>
<td>152</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ROOMS (ACS distribution applied to 2010 Census control)</th>
<th>Staten Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimate</td>
<td>Percent</td>
</tr>
<tr>
<td>Total housing units</td>
<td>28,561</td>
</tr>
<tr>
<td>1 room</td>
<td>524</td>
</tr>
<tr>
<td>2 rooms</td>
<td>398</td>
</tr>
<tr>
<td>3 rooms</td>
<td>3,276</td>
</tr>
<tr>
<td>4 rooms</td>
<td>4,340</td>
</tr>
<tr>
<td>5 rooms</td>
<td>6,345</td>
</tr>
<tr>
<td>6 rooms</td>
<td>6,108</td>
</tr>
<tr>
<td>7 rooms</td>
<td>3,460</td>
</tr>
<tr>
<td>8 rooms</td>
<td>1,793</td>
</tr>
<tr>
<td>9 rooms or more</td>
<td>2,317</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>VEHICLES AVAILABLE (ACS distribution applied to 2010 Census control)</th>
<th>Staten Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimate</td>
<td>Percent</td>
</tr>
<tr>
<td>Occupied housing units</td>
<td>26,612</td>
</tr>
<tr>
<td>No vehicles available</td>
<td>4,159</td>
</tr>
<tr>
<td>1 vehicle available</td>
<td>10,702</td>
</tr>
<tr>
<td>2 vehicles available</td>
<td>8,478</td>
</tr>
<tr>
<td>3 or more vehicles available</td>
<td>3,273</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TELEPHONE SERVICE (ACS distribution applied to 2010 Census control)</th>
<th>Staten Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimate</td>
<td>Percent</td>
</tr>
<tr>
<td>No telephone service available (excluding cell phones)</td>
<td>404</td>
</tr>
</tbody>
</table>
### HOUSE HEATING FUEL (ACS distribution applied to 2010 Census control)

<table>
<thead>
<tr>
<th>Occupied housing units</th>
<th>Estimate</th>
<th>Percent</th>
<th>Total</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utility gas</td>
<td>23,021</td>
<td>86.5</td>
<td>141,947</td>
<td>85.8</td>
</tr>
<tr>
<td>Bottled, tank, or LP gas</td>
<td>307</td>
<td>1.2</td>
<td>1,895</td>
<td>1.1</td>
</tr>
<tr>
<td>Electricity</td>
<td>819</td>
<td>3.1</td>
<td>5,010</td>
<td>3.0</td>
</tr>
<tr>
<td>Fuel oil, kerosene, etc.</td>
<td>2,331</td>
<td>8.8</td>
<td>15,785</td>
<td>9.5</td>
</tr>
<tr>
<td>Coal or coke</td>
<td>4</td>
<td>0.0</td>
<td>42</td>
<td>0.0</td>
</tr>
<tr>
<td>Wood</td>
<td>19</td>
<td>0.1</td>
<td>57</td>
<td>0.0</td>
</tr>
<tr>
<td>Solar energy</td>
<td>1</td>
<td>0.0</td>
<td>12</td>
<td>0.0</td>
</tr>
<tr>
<td>Other fuel</td>
<td>64</td>
<td>0.2</td>
<td>333</td>
<td>0.2</td>
</tr>
<tr>
<td>No fuel used</td>
<td>46</td>
<td>0.2</td>
<td>433</td>
<td>0.3</td>
</tr>
</tbody>
</table>

### VALUE (ACS distribution applied to 2010 Census control)

<table>
<thead>
<tr>
<th>Owner-occupied units</th>
<th>Estimate</th>
<th>Percent</th>
<th>Total</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $50,000</td>
<td>206</td>
<td>1.2</td>
<td>1,130</td>
<td>1.1</td>
</tr>
<tr>
<td>$50,000 to $99,999</td>
<td>257</td>
<td>1.5</td>
<td>926</td>
<td>0.9</td>
</tr>
<tr>
<td>$100,000 to $149,999</td>
<td>163</td>
<td>1.0</td>
<td>977</td>
<td>0.9</td>
</tr>
<tr>
<td>$150,000 to $199,999</td>
<td>403</td>
<td>2.4</td>
<td>2,057</td>
<td>1.9</td>
</tr>
<tr>
<td>$200,000 to $299,999</td>
<td>1,437</td>
<td>8.5</td>
<td>8,244</td>
<td>7.8</td>
</tr>
<tr>
<td>$300,000 to $499,999</td>
<td>9,107</td>
<td>53.7</td>
<td>50,691</td>
<td>47.8</td>
</tr>
<tr>
<td>$500,000 to $999,999</td>
<td>5,084</td>
<td>30.0</td>
<td>38,955</td>
<td>36.7</td>
</tr>
<tr>
<td>$1,000,000 or more</td>
<td>316</td>
<td>1.9</td>
<td>3,156</td>
<td>3.0</td>
</tr>
</tbody>
</table>

### GROSS RENT (ACS distribution applied to 2010 Census control)

<table>
<thead>
<tr>
<th>Occupied units paying rent</th>
<th>Estimate</th>
<th>Percent</th>
<th>Total</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $200</td>
<td>187</td>
<td>2.1</td>
<td>1,225</td>
<td>2.2</td>
</tr>
<tr>
<td>$200 to $299</td>
<td>289</td>
<td>3.3</td>
<td>2,794</td>
<td>5.0</td>
</tr>
<tr>
<td>$300 to $499</td>
<td>488</td>
<td>5.5</td>
<td>4,050</td>
<td>7.3</td>
</tr>
<tr>
<td>$500 to $749</td>
<td>610</td>
<td>6.9</td>
<td>5,158</td>
<td>9.3</td>
</tr>
<tr>
<td>$750 to $999</td>
<td>1,636</td>
<td>18.4</td>
<td>9,172</td>
<td>16.5</td>
</tr>
<tr>
<td>$1,000 to $1,499</td>
<td>3,459</td>
<td>39.0</td>
<td>21,687</td>
<td>39.0</td>
</tr>
<tr>
<td>$1,500 or more</td>
<td>2,204</td>
<td>24.8</td>
<td>11,491</td>
<td>20.7</td>
</tr>
<tr>
<td>No rent paid</td>
<td>765</td>
<td></td>
<td>3,804</td>
<td></td>
</tr>
</tbody>
</table>

### GROSS RENT AS A PERCENTAGE OF HOUSEHOLD INCOME (GRAPi) (ACS distribution applied to 2010 Census control)

<table>
<thead>
<tr>
<th>Occupied units paying rent (excluding units where GRAPi cannot be computed)</th>
<th>Estimate</th>
<th>Percent</th>
<th>Total</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 15.0 percent</td>
<td>1,016</td>
<td>11.6</td>
<td>6,496</td>
<td>12.0</td>
</tr>
<tr>
<td>15.0 to 19.9 percent</td>
<td>976</td>
<td>11.1</td>
<td>6,375</td>
<td>11.7</td>
</tr>
<tr>
<td>20.0 to 24.9 percent</td>
<td>1,028</td>
<td>11.7</td>
<td>5,900</td>
<td>10.9</td>
</tr>
<tr>
<td>25.0 to 29.9 percent</td>
<td>931</td>
<td>10.6</td>
<td>5,743</td>
<td>10.6</td>
</tr>
<tr>
<td>30.0 to 34.9 percent</td>
<td>878</td>
<td>10.0</td>
<td>5,180</td>
<td>9.5</td>
</tr>
<tr>
<td>35.0 percent or more</td>
<td>3,943</td>
<td>45.0</td>
<td>24,603</td>
<td>45.3</td>
</tr>
<tr>
<td>Not computed</td>
<td>867</td>
<td></td>
<td>5,084</td>
<td></td>
</tr>
</tbody>
</table>

*The Operational Inundation Area consists of areas in New York City that FEMA determined were inundated with flood waters.

Note: While general housing data were available for the Hurricane Operational Inundation Area, more detailed housing data were only available for a larger area that included all census tracts intersecting the Hurricane Operational Inundation Area. The percent distributions for the detailed housing data were applied to the general housing data (housing units, occupied housing units, owner occupied housing units, and renter occupied housing units) in the Operational Inundation Area for each respective census tract to produce a set of estimates. Census tract estimates were summed up to the borough level. These borough estimates were then summed to produce a set of citywide values. For consistency of comparison, the same process was used to produce overall city and borough estimates.
XV. RESPONSES TO PUBLIC COMMENTS

This section describes the comments received from the public following the release of this proposed Partial Action Plan A. The section reflects the comments, modifications, and clarifications made to the Plan following the public comment period, which occurred from March 22 to April 4, 2013.

Housing Comments

General
1. One commenter stated that the HUD Notice requires grantees to describe how they will encourage the provision of disaster-resistant housing for all income groups, including an assessment of how planning decisions may affect racial, ethnic, and low-income concentrations and that the Action Plan is missing this assessment.

   This assessment is now included in the Action Plan in the “Housing Programs: Overview” section.

NYC Houses Rehabilitation and Reconstruction
1. Mandatory Resilience

   Over sixty comments related to the process for elevating homes to meet ABFE and flood insurance requirements. On this topic, seven commenters requested clarification on FEMA's policies on flood insurance and asked that the City work to minimize increases in flood insurance rates. Ten commenters also requested that funds be directed toward families whose homes do not meet the definition of substantial damage or substantial improvement. Ten asked questions regarding the determination of substantial damage. One commenter had concerns about accessibility.

Resilience Covered by the Grant Assistance

The NYC Department of Buildings’ (DOB) construction code requires that, when a building has suffered substantial damage or undergoes rehabilitation and reconstruction efforts that can be classified as substantial improvements, all construction work must fully comply with flood zone regulations in Appendix G of the 2008 NYC Building Code. For residential buildings, this includes elevating habitable spaces and filling in the basement or cellar. The City grant assistance will incorporate resilience measures for homes that were destroyed by Sandy or have suffered substantial damage, as defined by DOB. Resilience measures will make the house compliant with local Building Codes and zoning and ordinances at a minimum.

Elevation Requirements

Based on recent Federal guidance from the Hurricane Sandy Rebuilding Task Force, the City will require that buildings participating in NYC Houses be elevated to standards using the best available flood elevation data plus freeboard, a factor of safety specified in the Building Code. The City's intention is to use the Preliminary Flood Insurance Rate Maps (P-FIRM) for NYC when they are issued and require that projects funded with CDBG-DR meet P-FIRM elevation plus freeboard. Freeboard is one or two feet, depending on building occupancy and flood zone. For one- and two-family homes, freeboard is two feet to the first finished floor. In V Zones, it is two feet to the underside of the structure.
Access to Raised Homes
There are various options for a person with a disability to access a raised home. These scenarios will be considered on a case-by-case basis with the support of design and engineering professionals. The Mayor’s Office of Persons with Disabilities will provide support in considering options.

Definition of Substantial Damage and Substantial Improvement
If the cost of restoring the structure to its pre-storm condition equals or exceeds 50% of the market value of the structure prior to the storm, it is then considered “substantially damaged” by DOB. A building’s classification of substantial damage relates to its damage as of the day of the storm.

DOB also defines “substantial improvement” as any repair, reconstruction, rehabilitation, addition, or improvement of a building or structure, the cost of which equals or exceeds 50% of the market value of the structure before the improvement or repair is started. If the structure has sustained substantial damage, any repairs are considered a substantial improvement regardless of the actual repair work performed.

NYC Houses assistance will incorporate resilience measures into the rehabilitation of a home if the home is substantially damaged. NYC Houses will assess required repair work through the program case management process.

Definitions of these terms can be found in Appendix G (Flood-Resistant Construction), Chapter G2 (Definitions), Section BC G201.

Discretionary Resilience
Homes with less severe damage may be eligible for assistance for resilience measures, subject to available funding. The City is considering the viability of a more generally available mitigation program through funding mechanisms such as the Hazard Mitigation Grant Program, pending policy guidelines that will be produced by New York State. However, preliminary estimates suggest that available funding sources are far from adequate to support mitigation for homes beyond those that were the most severely impacted, with levels of damage requiring mitigation. The City will consider funding “discretionary resilience” for this category of properties if sufficient funding is available.

Flood Insurance
Flood insurance is primarily provided by the Federal government through the National Flood Insurance Program (NFIP), administered by FEMA. Homeowners with Federally-backed mortgages are required to purchase flood insurance if the property is located within a Federally-designated Special Flood Hazard Area. In addition, program policy will adhere to Federal law requirements that homeowners participating in the CDBG-DR Housing programs and within a Special Flood Hazard Area purchase flood insurance covering the amount of rehabilitation and resilience work done, up to the insurance limit.

FEMA Biggert Waters Act and National Flood Insurance Program
Prior to Sandy, Congress passed the Biggert-Waters Flood Insurance Reform Act of 2012, reauthorizing the NFIP through September of 2017 and requiring a number of reforms to strengthen
the future financial solvency of the program. In the past, flood insurance was relatively inexpensive for properties that were constructed before FEMA’s Flood Insurance Rate Maps came into effect. The Biggert-Waters Act removes subsidies within the NFIP program and converts to a pure risk-based approach, which could result in substantial increases in flood insurance rates for properties below the Base Flood Elevation. However, FEMA has not yet addressed several post-reform issues, including affordability to policyholders. The requirements and implementation of the Biggert-Waters Act and NFIP are mandated by FEMA and are not under the jurisdiction of the City.

2. Eligibility, Prioritization and Duplication of Benefits

Almost 90 commenters had questions on who may apply for the program, how the City will prioritize funding, and what impact previously received resources may have on rehabilitation or reconstruction. More than twenty commenters requested clarification on how SBA and FEMA funds will be taken into account when calculating unmet need. An additional twenty commenters requested further focus on low- and middle-income families and clarification about the City’s funding priorities.

**Eligibility Threshold**

Owners of one- to two-unit buildings and three- to four-unit buildings that are owner-occupied and whose homes were damaged by Sandy are eligible for assistance through the NYC Houses Rehabilitation and Reconstruction program. Owners of rental properties, co-ops, and condos with five (5) or more units and owners of three- to four-unit buildings that are not owner-occupied are eligible for the Multi-Family Building Rehabilitation program. All residential buildings that act as primary residences are eligible. Applicants for rehabilitation and reconstruction grants in the NYC Houses program must have 1) rehabilitation needs and 2) unmet financial needs. NYC Houses is available to homeowners across the five boroughs.

A building with rehabilitation needs is one that was physically impacted by Sandy. Unmet financial needs means that a financial gap remains between the cost to complete the repairs, as determined by the NYC Houses assessment, and the resources that the homeowner has already received towards rehabilitation or reconstruction. Receipt of or denial of other funding for rehabilitation, such as SBA Disaster Loans or insurance payments, does not deem a homeowner ineligible from the program. These payments will be taken into consideration with regard to calculating the amount of grant that each homeowner is eligible for based on Federal guidelines. This process is described below (see “Duplication of Benefits”).

**Prioritization**

There is no income restriction on NYC Houses at this time. However, the City will prioritize limited funding based on the level of damage and financial need, based on national objectives set out by HUD. The City’s goal is to address the highest-need families first. Based on comments received, the City will streamline the program priorities for this round of funding as reflected in the “Program Priorities” section of the NYC Houses Rehabilitation and Reconstruction program description.

**Duplication of Benefits, Unmet Need and Grant Size**

The grant amount for each applicant in the NYC Houses program will be based on 1) the scope of work and 2) the unmet need of the homeowner.
The NYC Houses team will determine the scope of work based on the type of rehabilitation and limited by maximum unit pricing. The scope will be limited by standard rehabilitation pricing rather than by dollar amount to ensure that property rehabilitations are able to be completed with these funds. In the case of a reconstruction, the level of assistance will be based on the cost of a set of pre-designed model homes. In the case of major rehabilitation – buildings that meet the substantial damage threshold in the “Mandatory Resilience” section above – and reconstruction, the grant amount will include the cost of resilience measures to comply with City standards including elevation, as required by the NYC Building Code.

The unmet need for each homeowner is the cost to complete (scope of work) minus assistance received and, in the case of SBA, approved, for the same purpose. These funds include payments such as FEMA assistance, insurance payouts, SBA loans, and philanthropic programmatic support. This policy is driven by Federal Duplication of Benefits guidelines. Applicable Federal law on this policy can be found in the “Other Program Criteria” section. In response to comments, this revised Action Plan clarifies Federal policy that an applicant’s SBA loan status must be taken into account with regard to calculating unmet need, but does not make him or her ineligible for this program. In accordance with Federal Duplication of Benefits guidelines, CDBG-DR funds are not permitted to be used to pay or reimburse SBA loans. Further, SBA loans are considered allocated for the purposes of this calculation if they are in process or if the homeowner has opted out of the loan. Please also note that homeowners must apply for an SBA Disaster Loan before being assisted for the same purpose with CDBG-DR funds, provided that the application period for an SBA Disaster Loan is open.

Upon registering for NYC Houses, each homeowner will be assigned a Housing Recovery Specialist that will work with him/her to assess and verify funds received for rehabilitation, calculate unmet need, and provide a menu of options for rehabilitation and reconstruction.

**Rental Properties**

Rental properties with year-long tenants are eligible for NYC Houses. Beneficiary calculations and income calculation to determine priority will be based on the HUD guidelines. Landlords with higher incomes may be supported by loans.

In response to comments, the City clarified language on the calculation of beneficiaries for one- to two-family rental properties: “For the purposes of determining priority in the case of a single-family home (one- to two-units), the income category of the entire building will be determined by the household with the lowest income.”

3. **Second Homes**

Six commenters requested that NYC Houses cover second homes.

The HUD Federal Register Notice at 78 FR 14329 (effective date March 11, 2013), prohibits second homes, as defined by IRS Publication 936, from eligibility for rehabilitation assistance or residential incentives or from participating in a CDBG-DR buyouts program.
4. **Reimbursements and Additional Cost Assistance**

More than forty commenters requested that the program include reimbursements for homeowners who have already made out-of-pocket repairs. Commenters requested clarification on opportunities for additional cost assistance.

**Reimbursements**

The City recognizes that homeowners have incurred out-of-pocket costs by taking the initiative to begin repair work while waiting for the Disaster Relief Appropriations Act, 2013 to be passed. In response to the comments received, the City will amend its program to include reimbursements for one- to four-unit buildings as allowed by HUD and consistent with NYC Houses priorities. These homeowners will be equally subject to the program’s eligibility requirements and restrictions on assistance and unit prices and labor costs may be subject to caps. NYC Houses will only reimburse for work done in full compliance with the NYC Building Code. Per HUD guidelines, reimbursements are not permitted for SBA loan payments and for properties that are substantially damaged. All reimbursement is contingent on compliance with NYC Houses requirements and is dependent upon an environmental review as required by the National Environmental Protection Act and HUD regulations.

As stated above, the first priority for these limited, initial CDBG-DR funds will be to complete rehabilitation and reconstruction of homes for families who have not been able to address damage.

**Additional Cost Assistance**

In extremely limited hardship cases and pending sufficient funds, NYC Houses will consider housing-related assistance, such as short-term mortgage assistance. This additional cost assistance would be provided in cases where homeowners can document the property damages caused by Sandy and verify that Federal and prior personal funds have been expended to repair those damages.

5. **Application Process/Timing**

Twenty-nine commenters requested more information on applying to NYC Houses. They asked that the City establish the program application and intake process quickly and make information easily available.

**Overall timeline**

Following the public comment period, this revised Partial Action Plan describes the City’s plan to spend these funds and was submitted to HUD on April 23, 2013. The City reached out to impacted homeowners through open houses to build the infrastructure for these new assistance programs and gather data on damaged buildings and residents affected. The City anticipates that it will begin registration for NYC Houses when funding becomes available.

**Application and Intake process**

In compliance with Federal requirements, the NYC Houses team will individually review, scope, and address each application. NYC Houses expects to begin rehabilitation work in the summer of 2013. Owners of properties damaged by Sandy are expected to register either online, via phone, or by coming to an NYC Houses location. Registered homeowners will be assigned a Housing Recovery Specialist who will accompany the homeowner throughout the process. The Housing Recovery Specialist will
collect the documents needed for their application, assign an assessment expert to visit the homeowner's property to assess the cost to complete rehabilitation, and coordinate the review of their application for eligibility and grant award size. Where possible, the City will leverage existing data already collected by FEMA, the National Flood Insurance Program, Rapid Repairs, or SBA.

Once the grant is awarded, the homeowner can sign a grant agreement, and rehabilitation can begin.

6. **Reconstruction Path**

Ten comments related to the types of reconstruction and rehabilitation assistance that will be a part of NYC Houses. Four of those comments related to the use of predesigned homes.

**Pre-designed Model Homes and Exceptions**

Assistance to homeowners may consist of a choice of pre-designed model homes whose size and features are determined based on a combination of the household size and the pre-storm square footage. Pre-designed model homes may be used to boost the speed of construction and contain costs. The City will seek the continued input of communities in this process to ensure that new homes respect neighborhood character and promote high quality urban design.

The program will seek to offer designs appropriate to meet the needs and preferences of households while accounting for the unique scale, context, and site conditions of neighborhoods.

Model homes will comply with Section 504 of the Rehabilitation Act of 1973.

7. **Pool of Contractors**

More than thirty commenters asked how contractors will be selected for NYC Houses and whether local contractors will be included in the City's selection of contractors. Eight commenters also expressed a desire to choose their own contractors instead of using preselected contractors. Two commenters had concerns about quality control and customer service.

**City-Selected Contractors**

Applying lessons learned from previous disasters, which left many residents without completed homes to which they could return, the City has determined that the payments of grants should go directly to a pool of pre-selected contractors managed as part of the City's program.

The City will select contractors based on a set of criteria and homeowners will be assigned contractors to conduct the rehabilitation and reconstruction work. Contractor selection and direct payment by the City will help ensure compliance with program priorities, prevent fraud, waste and abuse, and allow the City to stretch recovery funds by taking advantage of economies of scale.

**Exceptions and Homeowner-Selected Contractors**

In response to comments, the City may permit homeowners the option to select a contractor for reconstruction and rehabilitation. In addition to the program requirements and parameters for grant
assistance that will continue to apply, this option will have further conditions as outlined and amended in the revised Action Plan.

Local Contractors
The City’s procurement system is designed to ensure transparency, fairness and wise use of taxpayer dollars. Contracting opportunities related to Hurricane Sandy disaster recovery funds will meet all applicable City, State, and Federal guidelines, such as guidelines to ensure that solicitations are made fully public and open to all qualified firms, including local contractors. Contractors will be encouraged to demonstrate local knowledge and the potential to leverage local organizations where appropriate.

8. Administration Cost
Three commenters suggested that the Plan was vague on the administrative costs associated with running the program.

Administrative and Program Planning Costs
The City is still in the process of determining planning and administration costs. Of the funds allocated for housing recovery assistance, up to 5% of the allocations may be set aside for program administration, with an additional amount of funds that may be used for planning activities (recognizing that planning activity funds cannot exceed 15% of the funds allocated for this activity). Examples of administration activities include general management, oversight, and coordination; providing local officials and citizens with information about the CDBG-DR program; Fair Housing activities; and preparation and submission of the Action Plan. Examples of planning activities include functional plans for housing such as land use and urban environmental design; policy planning and management; and other plans and studies (e.g. small area and neighborhood plans).

9. Restricted Grants
Fifteen commenters asked for clarification on the requirements, structure, and mechanics associated with grants that homeowners may receive under the program. They requested that certain requirements associated with the grants, specifically the condition that a homeowner maintains ownership for a period of up to five years, exclude transactions between family members.

Restriction rationale
Restrictions on grants are based on lessons learned from previous disaster recovery programs and are meant to limit potential impact on damaged neighborhoods. Their purpose is to invest in rebuilding for disaster survivors who are willing to commit to remaining part of a viable neighborhood. The restriction ensures that long-term benefit of the assistance go to disaster survivors.

Grant restriction mechanisms
Requirements associated with the restricted grant may include conditions such as requiring the property owner to maintain ownership of the home for a period of up to five years, starting at the date of completion of construction. The restricted period will decrease in cases where the estimated cost of rehabilitation is limited. The City may use various mechanisms to enforce the assistance agreement, such as an enforcement mortgage. The dollar amount associated with the restriction will be prorated based on the years met within the restricted period.
In response to comments, the City may consider reviewing the five-year requirement in special circumstances on a case-by-case basis to account for hardship and for transactions between family members. This protocol will be developed as part of the program operations and guidelines, and information will be forthcoming at the time of the NYC Houses launch.

**Misspent funds**

In instances where any funds already received and earmarked for housing rehabilitation or replacement have not been used for their intended purpose, the City will not replace that amount with grant funding. However, recognizing that the homeowner may thus require more funding to complete rehabilitation, the City may offer assistance such as non-Federally-funded no-interest loans, with restrictions placed on the property, to meet objectives in a manner consistent with Duplication of Benefits requirements.

10. **Attached Homes**

Nine commenters had questions regarding the mechanics of raising attached homes to meet resilience standards under NYC Houses.

The City and FEMA will work with homeowners to design the best available resilience strategy for the needs of buildings that are required to meet resilience standards under NYC Houses. Attached homes will need to be considered on a case-by-case basis and with the expertise of design and engineering professionals. The City and FEMA are working together to analyze the design and cost implications of strategies for attached buildings.

11. **Buyouts**

More than thirty commenters expressed interest in and had questions regarding New York State's buyout plan.

The State of New York is pursuing a buyout option for targeted areas. The City has requested that these buyouts be concentrated in areas where there is evidence that the land is inappropriate to support housing because of a clear and continued threat to human life and property. Applicants interested in this program will be referred to the State program after expressing interest through the NYC Houses intake process. Please visit [www.nysandyhelp.ny.gov](http://www.nysandyhelp.ny.gov) for more information about the State’s program.

Per Federal guidelines, a buyout is the acquisition of properties located in a floodway or floodplain that is intended to reduce risk from future flooding. These may not be redeveloped, with the exception of specifically defined uses that allow for open space.

Properties purchased through a buyout as determined by HUD guidance may be purchased at pre- or post-flood fair market value.
12. **Strategic Acquisitions and Smart Redevelopment Options**

Seven commenters sought more information about the potential acquisition of property for broader redevelopment efforts and inquired into the programmatic details of the “smart redevelopment” path.

*The City is considering strategies to acquire properties for broader redevelopment efforts. Different from buyouts, these acquisitions would be limited to areas specifically targeted for this purpose by the City and community for reconstruction. Relocation assistance will be provided for this path and participation will be voluntary. To clarify this process, the Action Plan has been updated.*

*Applicants will discuss these pathways as options with the Housing Recovery Specialist during the case management portion of the program. Further details are under development as part of the operating model and will be available to homeowners at the time of the CDBG-DR program launch.*

Properties acquired by the City that may be redeveloped are required by HUD guidance to be purchased at post-storm fair market value. *The City intends to provide property owners in the acquisition path with relocation assistance to ensure they are able to reestablish themselves in an equivalent post-storm residence. All acquisition participants must have a definitive permanent, sustainable housing solution and will participate on a voluntary basis.*

Separately, the City also intends to support redevelopment for units or areas where participating property owners request and envision a new density, structural, or design model. *All redevelopments will be required to comply with building codes and flood protection standards, which might be difficult to otherwise achieve under the reconstruction or retrofitting of existing buildings. The City will seek the input and collaboration of communities and stakeholders in developing new patterns of resilient building in these targeted locations.*

13. **Relocation Assistance**

Five commenters requested additional information regarding relocation assistance opportunities for program participants.

*In response to comments, the City has amended the Action Plan to clarify this issue. In the case of rental properties, the City will comply with the Uniform Relocation Act and minimize displacement. In the case of acquisitions for redevelopment, the City intends to provide the homeowners of the acquired properties with additional relocation assistance to ensure they are able to reestablish themselves in an equivalent post-storm residence. All acquisition participants must have a definitive permanent, sustainable housing solution.*

14. **Operating Model**

Fifteen commenters requested information about how the program operations would work, including questions regarding program outreach, agency leadership, the central management function, and the appeals processes for homeowners.
**Program Outreach**

Upon approval of this program, the City intends to undertake a broad, three-pronged outreach strategy, building on efforts to date:

- An internet and media campaign to describe program parameters, announce program intake, and provide guidance on how to apply;
- Community outreach in neighborhoods that sustained damage, continuing to leverage public officials, non-profit, and local community groups; and
- Direct community-based meetings, discussions and forums to provide further guidance and capture feedback from impacted neighborhoods.

Owners of properties damaged by Sandy are expected to register either online, via phone, or by coming to any of the program-designated locations. The City will track homeowner registration and compare it to existing damage assessment data to identify areas where further outreach is potentially required to maximize homeowner awareness about the program.

**Agency Leadership**

The overall program will be coordinated by the Mayor’s Office of Housing Recovery Operations. The rehabilitation activities will be led by City agencies with experience in implementing housing and capital projects.

The operational details, guidelines, and procedures are being developed in parallel, and will be announced soon.

**Central Management Function**

Once homeowners register, either online, via phone, or by coming to an NYC Houses location, they will be assigned a Housing Recovery Specialist.

At a scheduled appointment, the homeowner will provide all required documentation to the Housing Recovery Specialist, who will answer questions and guide the homeowner through the process, including:

- Financial and eligibility review, conducted by a dedicated team to determine homeowner and property eligibility, resources received, etc.;
- Estimate of the cost to complete the rehabilitation and/or reconstruction work, based on an assessment expert’s physical inspection;
- Determination of the unmet need by comparing the cost to complete with resources already received;
- Housing, finance, legal, and other tailored counseling; and
- Decision on the rehabilitation path and the grant agreement.
Customer Service and Appeals Process

At any point throughout the process, homeowners have the option to call a customer service representative to walk them through their potential challenges and receive additional support and to escalate issues as necessary.

These issues will be recorded and reviewed on a regular basis by the program team to identify and address any systemic challenges in a timely fashion.

In addition, in line with its existing policies and practices, the City will establish a formal appeals process for the program. This protocol, including details on the appeals process, appealable decisions, review criteria, and governance mechanisms, will be developed as part of the program operations and guidelines, and information will be announced at the time of program launch.

15. Mold

Eight commenters asked questions about mold treatment and removal. They requested additional information about the Local Initiative Support Coalition (LISC) program, which is an external mold treatment effort funded by private entities in partnership with the City, and expressed concern about outreach to vulnerable populations on this issue. Finally, they asked whether there will be funding for mold treatment under the CDBG-DR program.

In January 2013, New York City launched a mold treatment program to help up to 2,000 individuals and households remove mold in their homes. This $15 million remediation program is administered by Neighborhood Revitalization NYC (NRNYC), an affiliate of the Local Initiatives Support Corporation, a community development non-profit corporation with 30 years of experience working in New York City. Neighborhood Revitalization NYC coordinates mold treatment that is performed at no cost to the homeowner by private contractors and non-profit organizations. The City worked to identify a solution to the mold program in advance of the passage of the Disaster Relief Appropriations Act, 2013, which authorized CDBG-DR funding. This program is funded by the Mayor’s Fund to Advance New York City, the American Red Cross, and the Robin Hood Foundation.

Further information about the LISC NRNYC program can be found online at http://www.lisc.org/nyc/programs/green_and_healthy_neighborhoods/neighborhood_revitalization_nyc.php or by contacting LISC NYC.

In addition, the Mayor’s Fund to Advance New York City sponsored multilingual mold awareness and safe practice trainings, which are being offered to the public in communities most affected by the storm. These free training sessions educate homeowners and volunteers on how to effectively treat mold, and are led by experts from Hunter College and the University of Medicine and Dentistry of New Jersey. Individuals who attend the trainings can also pick up a mold clean-up kit, provided at no cost by the Mayor’s Fund. The City will continue to work with faith- and community-based organizations to help fellow New Yorkers with mold and other housing related issues and to offer other assistance that will help communities rebuild and recover from the storm.

The City’s NYC Houses Rehabilitation and Reconstruction program will address mold if identified through the assessment process, as mold removal is an eligible activity under CDBG-DR.
16. **Opportunities for Non-Profits**

Nine commenters associated with non-profit organizations asked how their groups will be able to apply for opportunities to participate in the CDBG-DR implementation and sought clarification on how their current programs will be coordinated with the CDBG-DR program. Three commenters asked questions about the Non-profit Rebuilding Consortium, a privately-funded program engaging non-profit construction organizations to repair non-structurally damaged rental and owner-occupied properties. They requested information on whether the work of the Consortium will be coordinated with the publicly-funded CDBG-DR programs. In addition, commenters requested information about how to engage with the Consortium and how it will work with volunteer agencies that are currently doing home repairs.

*The City will comply with local and HUD procurement policies for all contracted work. This includes functions central to the program operating model such as case management, outreach, and counseling. Programmatic administrative estimates account for these critical components of the program. Information regarding procurements for the CDBG-DR programs will be forthcoming and bids will be open and competitive. Contractors will be encouraged to demonstrate local knowledge and the potential to leverage local organizations where appropriate. Consistent with HUD Section 3 goals, contractors will also be encouraged to train and hire low- or very low-income residents when appropriate.*

As addressed in the Action Plan, the City will continue to work closely with the philanthropic community, including the Mayor’s Fund to Advance New York City, where appropriate.

**Non-Profit Rebuilding Consortium**

*In March 2013, New York City announced that in response to the continuing need to repair homes damaged by Hurricane Sandy, the NYC Home Repair Consortium was being created to repair at least 600 non-structurally damaged rental and owner-occupied properties that still have unmet needs. The Consortium is being funded privately by the Mayor’s Fund to Advance New York City, American Red Cross, and Robin Hood Relief Fund.*

*The Consortium will serve a specific category of homes that meet certain eligibility requirements, with a focus on candidates currently displaced by the disaster that are residing in hotels or other temporary housing. Additional eligibility requirements are available at [www.sandyhousingrepairsnyc.com](http://www.sandyhousingrepairsnyc.com). Participation in this program is voluntary for interested families and separate from the CDBG-DR housing programs.*

17. **Undocumented Communities**

Four commenters requested clarification on the eligibility of, impact on, and sufficiency of the needs assessment of the undocumented population and housing units.

*Eligibility for the CDBG-DR housing programs is determined by HUD. In accordance with HUD guidance, only “qualified aliens”, as defined in Section 431 of the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA), are eligible to receive non-exempted Federal public benefits. The housing assistance program qualifies as a Federal public benefit in part because*
the subsidy will be provided directly to eligible homeowners in the form of a loan or grant to assist in the rebuilding of a home structurally damaged as a result of Hurricane Sandy.

Also funded by CDBG-DR dollars, the City’s emergency Rental Assistance program will provide eligible individuals or households with monthly rental cash assistance for up to 24 months. The emergency rental assistance program prohibits non-qualified aliens from receiving Federal public benefits.

Section 401(c) of the Act defines Federal public benefit, and includes as part of its definition grants, loans, and assisted housing or other similar benefits for which payments or assistance are provided to an individual, household, or family by an agency of the United States or by appropriated funds of the United States.

Although PRWORA allows governmental or private entities to receive grants that then might be used to provide assistance to undocumented immigrants, the rental assistance program is considered a Federal public benefit because the rental subsidy will directly benefit an individual, household, or family. Therefore, only qualified aliens are able to receive this Federal public benefit.

The City is currently exploring alternative options through private dollars to support individuals and families who do not qualify for the housing assistance programs.

The City used the best available data to assess damage inflicted on the housing stock and will continue to update its analysis as more information becomes available.

In addition, the Mayor’s Office of Immigrant Affairs will continue to work closely with the undocumented community through partner organizations to identify and help address potential barriers and challenges.

18. Fair Housing

Two commenters requested that the City provide information regarding assessment of impact to racial and ethnic groups and suggested that the City address legal obligations to Affirmatively Further Fair Housing.

In response to comments, the Housing section of the Action Plan has been amended to include an assessment of impacts to demographic groups.

The City seeks to create a range of affordable housing opportunities citywide. Through the Mayor’s New Housing Marketplace Plan, the Department of Housing Preservation and Development has built or preserved affordable housing in every Community Board in the City. New York City also operates two Section 8 Housing Choice Voucher programs (through HPD and the New York City Housing Authority), which give recipients the opportunity to select their own housing in whatever neighborhood they choose. Unfortunately, funding for Section 8 is extremely limited, particularly since the start of sequestration, so the City’s ability to allocate Section 8 vouchers to households displaced by Sandy is limited.
The rehabilitation and new construction to be financed with CDBG-DR funds will be located in storm damaged areas, but the City has proposed to create a rental subsidy program similar to Section 8, which would allow households to move as they choose.

Regarding Affirmatively Furthering Fair Housing, the formulation requirements state that “the grantee must update its Analysis of Impediments to Fair Housing Choice in coordination with its post-waiver (full) Consolidated Plan update, so that it more accurately reflects housing conditions following the disaster” (78 FR 14329, pg. 14339 “Consolidated Plan waiver”). The City of New York is required to update its full Consolidated Plan, including Housing Needs Analysis and Five-Year Strategic Plan, to reflect disaster-related needs, any unmet disaster-related needs, and associated priorities no later than its Fiscal Year 2015 Consolidated Plan update. According to the City of New York’s Consolidated Plan Strategic Plan formulation cycle, the City’s 2015 Proposed Consolidated Plan is currently scheduled to be the City’s next Five-Year Strategic Plan (for Plan Years 2015-2019). The analysis of impediments will be conducted as part of the City’s 2015 Consolidated Plan formulation cycle.

19. **Hotels**

Two commenters requested further information regarding the City’s hotel program.

The New York City hotel program has assisted more than 3,000 Sandy evacuees during its six-month course and, by April 30, the City will successfully transition households remaining in the program (estimated at fewer than 600) either back to their homes or to new, appropriate housing options.

20. **Casework and Counseling**

Eight commenters requested that consideration be given to financial and legal counseling. Of those, four commenters requested information regarding the qualifications of the Housing Recovery Specialists.

Counseling will be available through the program and referrals will be made through the Housing Recovery Specialists. Counselors will support families facing difficult tradeoffs and decisions, for example, implications of mortgage delinquencies for the recovery process.

Housing Recovery Specialists will be selected in compliance with local and HUD procurement guidelines based on relevant experience and skills.

21. **Requests for Help**

Seven comments were in the form of requests for immediate assistance.

Individuals with questions are directed to call 311, the City’s main source of government information and non-emergency services, for referral to the Department of Homeless Services.

**Multi-Family Building Rehabilitation**

1. **Multi-Family Eligibility**

Six commenters asked about general eligibility for the Multi-Family Rehabilitation Program. Specifically, they asked for clarification on whether multi-family property owners, tenants, and
cooperatives will be eligible. One commenter requested that the City focus on landlords whose basements were flooded in the storm.

The City’s housing recovery programs are designed to help people affected by Hurricane Sandy – including homeowners and tenants of rental properties – achieve permanent, sustainable housing solutions that allow them to remain in New York City and, where possible, return to their neighborhoods. Of the initial $648M allocated toward housing, $225 million will be directed to repair and resiliency measures of multi-family rental housing stock. In addition, the $306 million directed at small homes rehabilitation will include rental units.

Multi-family buildings located in the five boroughs of New York City – including rentals, cooperatives, and condominiums – that have suffered damage from Hurricane Sandy (including basement flooding) will qualify for assistance to rebuild, rehabilitate, and, in the case of buildings with substantial damage, mitigate against future losses to comply with local building and zoning codes as adjusted to address future flood risk. These properties will be eligible to apply for low- or no-interest loans, which may be forgiven depending on property specific circumstances.

It is important to note that households that occupied units in multi-family rental properties before the storm will have the right to remain in these units, or to return if interim relocation is required while work is ongoing.

2. Mortgage Assistance

One commenter asked whether the City will be providing mortgage assistance using CDBG-DR funding.

The City is prioritizing the initial allocation of CDBG-DR funds for owners facing ongoing repair needs. As reflected in the needs assessment included in the plan, significant physical repair needs remain. HPD will consider additional mortgage assistance programs for future allocations of CDBG-DR funding as repair needs are addressed. Mortgage assistance, if provided, can only be done in conjunction with a rehabilitation project.

HPD urges homeowners struggling with their mortgages to contact the Center for New York City Neighborhoods at 646-786-0888 or www.cnycn.org. CNYCN can connect homeowners with free legal services and housing counseling regarding disaster-related mortgage forbearance and/or loan modifications.

3. Rental Resources

One commenter asked about resources available to renters who have been displaced since the storm and are looking for housing.

The New York City Housing Recovery Portal website was launched in December 2012 for NYC residents displaced by Hurricane Sandy. Through the Portal, households register with the City, which will help match them to units that they can afford. The City attempts to match geographic preference where possible, but is constrained by the existing supply of housing. (See the “Rental Subsidy” section below for more on assistance to renters). The Housing Recovery Portal will close 30 days after the City's
Action Plan is approved. All Housing Recovery Services will be provided centrally by calling 311 or by going to [www.nyc.gov/nycrecovery](http://www.nyc.gov/nycrecovery).

4. **Smoke-Free Policies**

One commenter recommended that all newly reconstructed multi-family housing units be rebuilt as smoke-free units.

*HPD encourages all owners of multi-family housing that receive subsidies from HPD to adopt smoke-free policies for new tenants, although HPD does not mandate it. Adopting smoke-free policies for existing tenants under rent-stabilization would constitute a material change in their lease, which is not permissible under law.*

5. **Rental Subsidy**

Two commenters had questions about the roll-out, requirements, and structure of a CDBG-DR-funded rental subsidy program. They sought clarification on the use of a 50% AMI threshold, the time frame of the program, and whether the availability of Disaster Housing Assistance Program (DHAP) funding would impact its availability. They also had questions on program specifics, including incentives that may be provided to landlords under the program, lease terms, and the definition of family.

*The CDBG-DR voucher program is contingent on the granting of a HUD waiver, which has been received. The program would closely mirror the Section 8 program in order to minimize confusion and simplify training of counselors already familiar with Section 8. As such, the standard 50% AMI income eligibility threshold will be used. As in the Section 8 program, HPD will define family as a single person or a group of two or more persons with or without children who maintain an interdependent relationship and whose income and resources are available to meet the family’s needs. Families must declare or document as necessary a stable family relationship or have a history as a family unit. Families may also include live-in aides.*

*Per current law, the CDBG-DR funding must be spent within two years, but voucher recipients needing funding past this point can possibly transfer to public housing or Section 8, pending availability. Lease terms under the program are one to two years, at the discretion of the landlord, although exceptions for shorter leases will be considered. However, HPD will not grant requests for voucher recipients to use the vouchers in different locations within the two year period. First and last month's rent incentives are being considered to attract landlord participation, as the voucher program is voluntary.*

*Households residing in hotels are one target population for the proposed rental subsidy program, but are not the only eligible candidates. The City anticipates serving other low-income households, including those in non-conventional housing situations such as basement units.*

*Based on comments and in order to clarify the purpose of the CDBG-DR Rental Assistance program, the City has amended the Action Plan to allocate funding separately for this purpose. This program is intended to serve vulnerable populations impacted by Sandy, including low-income families and those that may be at risk of homelessness. This funding is an initial allocation and the City anticipates adding funds as the plan is amended.*
Public Housing Rehabilitation and Resilience

1. **Allocation of Funds**

Four commenters asked for more details on the City's allocation of $120 million to public housing. One commenter asked why funds are being directed to public housing buildings and community centers if those buildings did not sustain permanent, structural damage. Another requested that funds be directed to parks and playgrounds on NYCHA grounds.

*While NYCHA facilities did not sustain permanent structural damage, many critical systems endured significant damage.* The initial $120 million allocation (revised to $108 million in this revised Action Plan after accounting for planning and administration) represents the remaining cost (unmet need) to complete the work necessary that will not be covered by insurance or FEMA Public Assistance. The Action Plan includes the costs associated with the restoration of playgrounds, ball fields/courts, general grounds repair, and tree planting, which are expected to be covered by NYCHA’s insurance, FEMA proceeds, and/or future rounds of CDBG-DR funding.

2. **Resilience Measures**

Five comments related to the City's plan to make public housing infrastructure more resilient. Of those, two commenters asked that the City consider measures beyond the introduction of permanent emergency generators and the replacement of boilers.

*The efforts outlined in the Action Plan focus on restoration and resiliency. These efforts are intended to provide the physical infrastructure to make NYCHA communities as a whole better prepared for future events. The main focus is to repair and upgrade all critical utilities including electric, heat, and elevators, so that NYCHA properties and NYCHA residents are better protected in future storms. The physical improvements will be supplemented with additional improvements such as training, communication, and other improvements identified in NYCHA’s lessons learned exercise.*

NYCHA’s initial efforts for restoration and resiliency will be focused on developments that were directly impacted by Sandy. Going forward, NYCHA will also continue to focus on resiliency for all buildings. Those efforts will identify priorities that take into consideration the impacts of FEMA updated floods maps as well as the relative vulnerability of NYCHA buildings (i.e. senior buildings).

3. **Emergency Generators and Replacement of Boilers**

The intent of the solution described as permanent emergency generators was to provide a means of supplying backup power to NYCHA buildings. Permanent emergency generators represent the easiest, most obvious method but NYCHA has already begun, in anticipation of this funding, to explore alternate methods of providing this form of resiliency. The alternate methods being considered include, but are not necessarily limited to, the use of cogeneration facilities to provide both heat/hot water and a source of backup power. All of NYCHA’s detailed plans for moving forward at each of our developments will be vetted publicly with residents and other stakeholders.

3. **Effect on Available Units**

One commenter asked how the City’s plan would affect the number of public housing units available.
While moving mechanical and electrical equipment to higher elevations is a critical component of NYCHA’s resiliency plan, methods are being sought to make those improvements with as little impact to public housing units as possible. If units are affected by proposed mitigation, those plans would include replacement of those units so that there is no net reduction in the number of units.

4. **Section 3 of the Housing and Urban Development Act of 1968**

One commenter asked how the City will allocate jobs to NYCHA and community residents in accordance with Section 3 of the Housing and Urban Development Act of 1968.

As with all NYCHA construction projects funded through HUD, NYCHA contracts related to Sandy recovery will comply with Section 3 requirements. NYCHA’s Resident Employment & Economic Sustainability (REES) office has already begun efforts to prepare and/or train residents for opportunities in the building trades most likely to be the focus of Sandy recovery efforts.

5. **Mold Remediation in NYCHA Buildings**

One commenter asked whether the City’s plan includes mold remediation in NYCHA buildings.

Mold remediation efforts in NYCHA buildings began shortly after Sandy and have continued since then wherever necessary. These ongoing efforts are anticipated to be reimbursed through NYCHA’s insurance, FEMA proceeds, and/or future rounds of CDBG-DR funding.

6. **Inventory of Sites**

One comment requested that the following NYCHA sites be added to the City’s inventory of impacted developments: Coney Island Site 8, Coney Island Site 1B, and Coney Island Site 4/5.

The list of NYCHA developments that sustained significant damage is listed in Appendix B of the Plan and includes the referenced sites.

7. **Overall Costs**

Five commenters asked for more information on NYCHA-related costs represented in the Action Plan. They asked for clarification on the Public Housing unmet need and what the City may spend on NYCHA community centers and NYCHA’s Emergency Operations Center.

The costs identified in the Action Plan represent preliminary estimates. These estimates will be refined and detailed as design plans are prepared with details of the required work. The roll-out plan for these improvements will also be prepared once more details are available regarding proposed repair and mitigation measures and after vetting options with residents and stakeholders.

**Community Centers**

Subject to future funding, NYCHA will be proposing in future allocations of CDBG-DR to invest approximately up to $180 million in community centers so that they can serve the local community in future storms. These costs are over and above the costs associated with repairs directly related to the storm. Costs associated with repairs of centers affected by the storm are included in the NYCHA-wide repair estimates.
Emergency Operations Center

NYCHA’s Emergency Operations Center (EOC) in Long Island City is located within Zone A. During Sandy this EOC was nearly evacuated due to flooding. Subject to future funding, NYCHA is currently considering alternative locations for a NYCHA EOC that would not be as vulnerable in future storms. It is anticipated that as alternatives are developed, future allocations of CDBG-DR will include funding for this purpose. The efforts and cost estimate for NYCHA’s EOC also include IT disaster recovery and back-ups.

8. **Oversight**

One commenter asked about measures that will be taken to ensure construction oversight and compliance.

As work progresses through design and into construction, there will be independent oversight of all work to ensure a high quality of work that is completely code compliant, including accessibility codes.

9. **Smoke-Free Policies**

One commenter recommended that all new reconstructed public housing units be rebuilt as smoke-free units.

NYCHA is currently reviewing the impact of making housing units smoke-free and the logistics of implementing such measures.

Business Program Comments

**Loans and Grants**

The City received 14 comments pertaining to loans and grants and other forms of assistance.

1. Multiple commenters expressed that businesses need more loans and grants, or inquired about what direct assistance was available to businesses, and one suggested that businesses need tax breaks.

   *The City will not provide tax breaks at this time. However, the City plans to establish a loan and grant fund of approximately $72 million, with loans generally capped at $150,000 and grants generally capped at $60,000. Businesses that experienced extreme impacts may be eligible for loans up to $1MM and grants up to $100,000. The City also plans to create a fund of approximately $100 million to assist businesses that are willing to make resiliency investments in their properties.*

2. Three commenters thought that the City should provide grants, rather than loans, to businesses. One commenter stated that grants should be smaller, to assist more businesses, while four commenters expressly asked for larger loans for businesses that experienced high levels of loss or damage.

   *By offering a combination of low-interest loans and grants, the City balances the need for grants with the need to assist the maximum number of businesses, by re-loaning funds that are repaid to*
additional businesses. The City’s experience with the current loan and grant program indicates that loans and grants above the current level, $25,000 for loans and $10,000 for grants, are called for.

3. One commenter noted that requirement that businesses apply to SBA before applying to CDBG-DR programs is unfair.

   Businesses did have to apply for SBA loans prior to applying for the City’s CDBG-DR programs. It is a federal requirement that funds received from the SBA for the same need will be counted against the CDBG-DR funds for which a business may apply. However, businesses are no longer required to apply for a loan once the SBA Disaster Loan application period closes.

4. One commenter asked what types of businesses are eligible for the Business Resiliency Investment Program.

   Any type of for-profit business that otherwise meets the Small Business Administration’s definition of a small business and can demonstrate a Hurricane Sandy-related impact may apply for funding under this program, including retailers.

5. One commenter asked that the City simplify the application process for grants and loans.

   The City will streamline the application process to the extent possible, while adhering to HUD requirements.

General Inquiries

The City received seven comments on the business programs in the Action Plan generally.

1. One commenter noted that Human Service organizations should be eligible for assistance under the Business Resiliency Investment Program and the Neighborhood Game Changer Investment Competition.

   Under HUD regulations, business recovery funds cannot be provided to non-profit entities.

2. One other commenter asked what assistance is available to manufacturing firms, and another asked about assistance options available to retail and other businesses.

   Industrial firms that experienced loss or damage as a result of Hurricane Sandy are eligible for the Business Loan and Grant Program and the Business Resiliency Investment Program. In addition, industrial businesses that otherwise meet the eligibility requirements may also apply for funding under the Neighborhood Game Changer Investment Competition. The business programs are generally designed to provide assistance to businesses of all kinds.

3. One commenter asserted that small business owners should have input into the development of programs.

   The programs were designed in response to input that was collected from small businesses throughout the five boroughs through a variety of outreach measures, including the Business Recovery Zone
captains (individuals appointed by the Mayor to oversee recovery efforts in each of the highly-impacted areas), neighborhood canvassing, and work with the current business assistance programs.

4. One commenter noted that the Action Plan needs more quantifiable job goals.

*Job creation is an essential criterion that will be considered in the selection of winners of the Neighborhood Game Changer Investment Competition.* In addition, one of HUD’s national objectives is to retain and create jobs and our programs seek to accomplish those objectives, but until responses are received to the RFPs that are expected to be issued in connection with several programs, the City cannot make accurate job projections.

5. One commenter asked about the quality of jobs expected to be retained by these programs, and noted that programs should be targeted at low-wage workers, and another commented that all business development should insure that the profits return to the community in the form of living-wage jobs, training, and career opportunities.

*Under Federal guidelines, at least 51% of the programs’ allocations must be used to benefit low- and moderate-income workers and/or areas.* In addition, in selecting winners of the Neighborhood Game Changer Investment Competition, impact on the community, including quality and quantity of jobs, will be considered.

6. One commenter stated that the Action Plan did not contain the required assessment of barriers to recovery for businesses affected by Hurricane Sandy.

*The section in the Action Plan on the Needs Assessment of impacted businesses identifies the critical impediments to resuming operations, including resumption of operation either because of being dislocated, loss of inventory, lack of access to capital, employee dislocation, and/or loss of consumers from badly flooded neighborhoods where businesses are located.* The section cites the key affected industries and businesses by NAICS code.

**Neighborhood Game Changer Investment Competition**

Five individuals included comments on the Neighborhood Game Changer Investment Competition in their feedback.

1. One commenter asserted that a better-defined program that addresses more specifically how this competition will benefit the targeted neighborhoods would yield more focused solutions and two commenters believe that the program should be collaborative, not competitive, and one commenter stressed that the competition must ensure a participatory selection process.

*The program is designed as a competition in order to benefit from many different people’s perspectives and ideas and generate the best possible solutions. However, there is no prohibition on working collaboratively within the community to generate responses to the RFP that is expected to be issued in connection with this program.* The RFP for the Neighborhood Game Changer Investment Competition will more specifically define the goals, and each winner of the competition will be required to enter into a binding contract before receiving any funding to ensure they deliver the benefits that are proposed.
2. One commenter asserted that the competition-based business programs proposed in the Action Plan will disadvantage minority-owned businesses.

*Among other goals, this program is designed to increase access to capital and to address the capital needs of businesses in impacted communities, not to disadvantage anyone. In addition, the utilization of minority- and women-owned businesses is a criterion that will be considered in the selection of the winners of the Neighborhood Game Changer Investment Competition.*

3. One commenter stated that funding for resiliency and competition grants should be delayed to place more emphasis on immediate recovery and rehabilitation needs.

*The City believes that the programs related to resiliency are necessary to help address the City's needs across several areas. These programs are designed to help the City be ready for future storms to the greatest extent possible. In many cases these programs will help protect the investments the City and others are making to restore their properties.*

**Transparency**

1. The City received several comments that pertained to transparency and compliance from one commenter, including requests that the RFP process and execution of the Action Plan remain transparent, ensuring that compliance measures be strengthened, and inquiries about whether data and assessments will be made public.

*Activities under all programs described in the Action Plan are subject to rigorous reporting and transparency guidelines as defined by HUD and under other applicable laws. Further, activities under all programs are subject to rigorous reporting and monitoring compliance guidelines as defined by HUD and under other applicable laws. It is anticipated that NYCEDC's report referenced in the Unmet Needs section, “Hurricane Sandy: An Assessment of Impacted Commercial Corridors and Recommendations for Revitalization,” will be made public. Additionally, the City will release all data that is required to be made public.*

**Eligibility of Geography**

1. Three comments were received regarding eligibility for programs by geographic location. Two of these comments were regarding the North Shore of Staten Island, stressing that it needed assistance in addition to the South and East Shores; another commenter thought that the Business Recovery Funds and Grants seemed targeted to areas such as: Lower Manhattan, Red Hook, and Williamsburg.

*While the Neighborhood Game Changer Investment Competition is limited to the hardest hit neighborhoods, eligible businesses in areas of inundation that experienced loss or damage, eligible businesses in the flood plain, or eligible businesses that experienced power outages as a result of the storm may seek funding under other programs discussed in the Action Plan, such as the Business Loan and Grant Program and the Business Resiliency Investment Program.*
Public Services

Debris Removal

1. Five commenters addressed concerns about debris removal.

The NYC Department of Sanitation (DSNY) started the cleanup of non-commercial debris placed at the curb in all affected areas of New York City on October 30. As of April 19, DSNY had collected over 2.1 million cubic yards of storm-related debris. DSNY supervisors surveyed debris on private property, the results of which were sent to the NYC Office of Emergency Management, which then coordinated with the U.S. Army Corp of Engineers (USACE) and their private vendor. For the period immediately following Sandy, private debris removal was the responsibility of a vendor under contract to the USACE. As of March 18, 2013, DSNY has been informing homeowners and contractors of their responsibility to handle their debris by arranging for a private dumpster service and leaving copies of the rules at homes with large piles of debris and informing them that they are in violation of DSNY policy. To the extent that small amounts of debris material is currently placed out at the curb or found on public property, DNSY has and will continue to provide additional debris removal operations to address this issue.

FDNY-Related Comments

1. Two comments related to the New York City Fire Department (FDNY). The first comment concerned the fire house in the Coney Island area of Brooklyn and its repetitive flooding issues. The second comment suggested providing more four-wheel drive vehicles for fire departments.

FDNY is studying potential solutions to address the flooding condition at the location referenced in the comment as well as other firehouses in flood zone areas. This process is in the early stages on feasibility and cost. FDNY has 222 four-wheel drive vehicles in its fleet.

Childcare Services

1. Three comments pertained to the need for day-care options following the storm, emergency planning provisions for childcare services in critical areas, and leveraging funding for Head Start.

The City’s Continuity of Operations Planning (COOP) program ensures City agencies like the Administration for Children’s Services (ACS) can continue providing vital public services in the event of an emergency. Under the COOP program, each agency has its own plan to keep essential public services operating during and after an emergency or disruption. ACS Facilities’ staff visited all damaged sites to identify the various needs of the programs, including repairs and replacement of supplies and goods, most especially in the hardest hit areas of Coney Island, the Rockaways, and Staten Island. ACS collaborated with several City agencies including NYCHA, DOHMH, and DOE to ensure continuity of service to children and families. ACS’ Office of Public-Private Partnerships was able to secure $2 million in private grant funds for Early Care and Education sites that were affected by Hurricane Sandy. Construction is now underway at several of the hardest hit centers and 15 have been able to reopen since the storm hit. ACS is currently working closely with the office of Head Start to secure funds for Head Start facilities impacted by Hurricane Sandy; determination is still pending.
Health and Human Services, Healthcare, City Hospitals

1. Nine comments related to healthcare facilities, a number of which are under the jurisdiction of the NYC Health and Hospitals Corporation (HHC). Some comments referred to fortifying healthcare infrastructure and leveraging funding sources related to health and human services.

HHC is returning to normal operations while also planning and implementing mitigation measures to protect its vulnerable facilities. Bellevue Hospital, Coney Island Hospital, and the Coler campus of the Coler-Goldwater Specialty Hospital and Nursing Facility experienced major storm surge damage in basements, mechanical spaces, and, in the case of Coney Island Hospital, first floor areas. Several other HHC hospitals, nursing homes, and health centers experienced damages that required repairs, emergency remediation, and/or debris removal. The Ida G. Israel Community Health Center, an offsite ambulatory clinic of Coney Island Hospital, was irreparably damaged by flooding. Coney Island leadership has identified another community-based site that is less vulnerable to future storms so that HHC can continue to provide much needed ambulatory care services to the community and patients who depended upon the Ida G. Israel Center. The recovery work for the facilities described here is eligible for Category B FEMA reimbursement and some permanent work may be eligible for Category E FEMA reimbursement, but HHC must also address critical needs that are not otherwise covered by FEMA or other disaster recovery resources. CDBG-DR funding will help fill this gap.

Additionally, measures to fortify healthcare infrastructure are currently being contemplated by the Special Initiative for Rebuilding and Resiliency. Please see the “Resiliency” response for more information. The City will make all possible efforts to best leverage funding sources for which health and human services programs are eligible.

Libraries

1. Three commenters raised questions or issues pertaining to the libraries. Comments included general statements that the libraries need to be restored, recommendation for explicit funding for the renovation and enhancement of specific branches of the Brooklyn Public Library system, and suggestions that funding and resilience planning should be made available for public libraries in affected areas.

The City will use CDBG-DR funds to leverage other funding sources to rehabilitate and reconstruct public facilities, including libraries whose infrastructure is either owned by the City or which the City is legally responsible for repairing. The other Federal funding sources CDBG-DR funding will leverage include FEMA Public Assistance grants. The City is currently pursuing with FEMA all possible funding for libraries damaged by Sandy. Additionally, the City plans to dedicate $327 million of this initial award of CDBG-DR funds to Resiliency Investments, the specific uses of which will be detailed in a future Partial Action Plan (see “Resiliency” for more information).

2. One commenter pointed out that the address of the branch in Brighton Beach was erroneously labeled in the City’s inventory of damaged public libraries.

The inventory of damaged public libraries has been revised to correctly list the Brighton Beach library branch as being located at 16 Brighton First Road.
Emergency Preparedness

1. One commenter stressed the importance of more training, resources, and cross-jurisdiction collaboration for emergency responders.

The Federal government’s National Incident Management System (NIMS) provides a consistent, nationwide approach and vocabulary for multiple agencies or jurisdictions to work together under a standardized, on-scene, all-hazards incident management approach. New York City developed the Citywide Incident Management System (CIMS) to address New York City’s unique incident management requirements and is fully compliant with NIMS. In addition to emergency responders and City personnel, 1,500 NYC Community Emergency Response Team (CERT) volunteers (54 teams across the City covering all of the 59 NYC Community Districts) are also trained in the CIMS protocol. Please visit nyc.gov/oem to learn more about CIMS, CERT, and Ready New York.

2. Two commenters raised issues with dissemination of information during an emergency, asking for a dedicated radio band for emergency information during power outages.

OEM’s protocols include the dissemination of emergency information through a wide variety of channels, including, but not limited to, press conferences carried on major network and radio stations; use of the Emergency Alert System and Wireless Emergency Alerts; Notify NYC messages disseminated via landline, mobile, text, email, and Twitter; social media channels; door-to-door canvassing and dissemination of flyers; and messages broadcast via bullhorn and light-package equipped cars. All residents are encouraged to register for Notify NYC public messaging by visiting www.nyc.gov.

3. Two commenters suggested that non-profit organizations be included in emergency planning.

OEM works with non-profit organizations though the NYC Citizen Corps Council, Volunteer Organizations Active in Disasters (VOAD), and Partners in Preparedness program, among others. The Citizen Corps Council brings together local leaders from community organizations, government, the private sector, and volunteer programs to promote grassroots emergency preparedness and volunteerism. OEM works with more than 40 non-profits through VOAD, an umbrella group of organizations including FEMA, the American Red Cross, and the Salvation Army. Additionally, more than 300 private sector businesses and non-profits are engaged in emergency preparedness through the Partners in Preparedness program. To get involved with the Citizen Corps Council, VOAD, or Partners in Preparedness, please visit www.nyc.gov/oem.

Capital Expenditures to Address Infrastructure Needs

Beaches/Boardwalks

1. In total, ten commenters raised questions or issues pertaining to beaches and boardwalks. Three commenters stated the Action Plan did not adequately address these topics. Eight of these pointed to the need for beach restoration and the restoration or creation of dunes and other protective structures on beaches to protect the adjacent communities. Four commenters noted the economic benefits of beach restoration and protective measures. Three commenters focused on specific locations: Midland and South Beaches in Staten Island and Breezy Point and the Rockaways in Queens.
The Department of Parks and Recreation (Parks Department) is working, in conjunction with the U.S. Army Corps of Engineers and other independent experts and in consultation with local residents, on both easy-to-install short term measures as well as longer-term projects to provide erosion and flood control. Regular updates are issued to the community through the beach recovery website www.nyc.gov/parks/beach-recovery.

Additionally, the City plans to dedicate $327 million of this initial award of CDBG-DR funds to Resiliency Investments that will be detailed in a future Partial Action Plan.

2. One commenter asked when the Rockaway boardwalk would be rebuilt.

The Parks Department has made repairs to salvageable sections of the boardwalk and is now creating concrete boardwalk islands to allow immediate access to beaches and is developing plans for long-term restoration of the boardwalk.

3. Two comments were outside the scope of the Action Plan and included suggestions for beach replenishment using a specific type of sand and concerns about parking and traffic related to the public beach opening.

**DOT-Related Projects**

1. Eighteen comments related to capital improvement requests within the purview of City agencies, primarily DOT.

   The comments focused on areas within the most severely affected boroughs in some of the hardest hit neighborhoods such as Broad Channel, the Rockaway Peninsula, and coastal areas of Staten Island. Much of the attention in the comments was to measures such as new and upgraded bulkheads, street raising, and similar projects aimed at mitigating effects of future potential storms. All the initiatives are reflected in the Action Plan within the City’s infrastructure programs or the fundamental goals within Resiliency. Regarding Duplication of Benefits (DOB), the City is pursuing coordination of beneficiary records with FEMA regarding all possible funding for such projects as a first step consistent with DOB requirements.

**DSNY Infrastructure**

1. One comment requested repairs to a Sanitation Garage.

   All damages to DSNY Garages have been addressed to the extent that the facility is fully operational. The City continues to explore mitigation opportunities at high risk facilities.

**EDC Infrastructure**

1. Two comments asked about the timeline and status of two waterfront infrastructure projects in Staten Island under the jurisdiction of EDC.

   EDC is engaging with FEMA on funding for both projects and will take all necessary measures to ensure both expediency and safety throughout the reconstruction/development process.
Park Facilities

1. Four comments related to City parks. One comment expressed concern that Crescent Beach Park was not listed among the damaged parks listed in the Action Plan. The second comment stated that all parks on the East Shore of Staten Island were impacted and should receive assistance. One comment requested that Park personnel be given more four-wheel drive vehicles to assist in emergencies. The final comment expressed concern that a particular Coney Island Park was not listed, Dreier-Offerman/Calvert Vaux Park.

*Crescent Beach Park is listed in the Action Plan under “beach parks” in Staten Island in the Appendices. Regarding the Staten Island parks, the Action Plan does specifically list 47 Staten Island parks in the following groupings: 32 are listed as Parks and Playgrounds, 7 are listed as Parks and Recreation Facilities, and 8 are listed as Beach Parks. Regarding the remaining two comments, the City of New York is seeking to leverage both FEMA and CDBG-DR disaster funds to repair and equip all eligible damaged and impacted parks throughout the five Boroughs.*

School Facilities

1. One commenter expressed concern about a school facility in the Rockaways that was flooded.

*The School Construction Authority’s (SCA) consultant performed moisture and mold investigations at the school in question and determined that all inspected areas were suitable for re-occupancy. The custodian continues to monitor the situation and will inform the SCA if further investigations are required.*

Water/Wastewater Systems

1. Sixteen commenters addressed issues pertaining to the City’s water and sewer infrastructure. Ten commenters stated that storm sewers were too few, too old, or absent in certain areas, especially those most impacted by the flood; many suggested the use of CDBG-DR funds to install or improve storm sewers. Two commenters recommended the construction of holding tanks adjacent to wastewater treatment facilities to prevent the release of untreated wastewater into the surrounding waterways. Two commenters suggested using CDBG-DR funds for various studies or analyses to determine the best way to avoid storm water flooding and sewage back-ups in specific locations. Two commenters each made a series of construction recommendations for specific neighborhoods.

*The City’s capital program includes substantial, on-going investment in storm water and wastewater collection and treatment, including many of the types of improvements suggested by commenters. Comprehensive analysis of potential approaches to increase the resiliency of the City’s water and sewer infrastructure and prepare for projected changes in sea levels and storm intensity is part of the Resilience Program, which will be discussed in a forthcoming Partial Action Plan (see “Resiliency”).

*The City will use CDBG-DR funds to leverage other funding sources to rehabilitate and reconstruct public facilities and infrastructure, including storm water and wastewater treatment infrastructure. The other federal funding sources CDBG-DR funding will leverage include FEMA Public Assistance grants.*
NYPD-Related Comments

1. Two comments related to the New York City Police Department. One comment requested rehabilitation and mitigation for a police precinct in Brooklyn. The second comment requested that the City acquire more four-wheel drive vehicles for the Police Department.

   The damaged police precinct will be addressed pursuant to the City’s Infrastructure Goals outlined in the Action Plan. All future emergency response needs for vehicles are currently being evaluated by the City and if deemed necessary will be funded using available Federal funding or as part of the Department’s normal course of business.

Action Plan Scope and Process, Administrative and Other

Public Comment Period, Community Engagement, Action Plan Process and Transparency

1. Seventeen comments related to the timing and length of the comment period and inquiries about what steps the City took to encourage broad citizen awareness and participation. Some commenters also inquired about the next steps in the process and had concerns about expediency in releasing the funds. Twelve commenters asked about community engagement and ensuring that there is continued transparency throughout the CDBG-DR process.

   As stated in the Executive Summary of the Action Plan, the City opened a 14-day public comment period on March 22, 2013. In order to accommodate individuals observing religious holidays, the City made the decision to extend the period beyond the Federally required seven day minimum while also working diligently to ensure that funding be released as quickly as possible. Links to the draft Plan and electronic comment form were posted prominently on the City’s homepage (www.nyc.gov). The City took extensive measures to ensure that participation was facilitated for all segments of the population and similar measures will be taken for future Plans and Amendments. Please refer to the Executive Summary and Citizen Participation sections. The City has and will continue to engage the community through a variety of outlets including community meetings, open houses, social media, and other formats. In order to maintain transparency throughout the process, the City plans to comply with all HUD requirements for reporting.

Non-Profits and Religious Organizations

1. Nine commenters asked about non-profit organizations, including religious organizations, and their eligibility to receive assistance.

   With support from the Mayor’s Fund to Advance New York City, non-profits impacted by the storm are eligible to apply for grants, in addition to loans, through the NYC Non-profit Recovery Loan Program launched in November 2012. Non-profit organizations that serve New York City residents, including religious organizations that have a non-profit status, are able to apply. Non-profit organizations that have suffered structural damages and have applied to the Federal Emergency Management Agency (FEMA) will be considered for grants of up to $333,000. Eligible groups that incurred losses up to $1 million can receive a grant of one-third of the documented costs. Additionally, groups that have tangible losses including lost furnishings, equipment, and supplies that are not covered by FEMA or insurance will be considered for grants, not tied to loans, up to $100,000. To apply, visit www.fcny.org. A range of resources for non-profit organizations are available at www.nyc.gov/nonprofit. The City may consider allocating funding in a future tranche of CDBG-DR
funding to support rebuilding for this specific sector if the aid provided through the existing NYC Non-profit Recovery Loan & Grant Program proves to be insufficient.

Resiliency

1. Over 50 comments expressed needs and concerns related to resiliency issues, including coastal protection, healthcare, and transportation resilience, energy supply and community inclusion in the SIRR process.

The Partial Action Plan A contemplates a future Partial Action Plan which will delineate specific programming of funds within the initial CDBG-DR allocation of $1.77 billion to address resiliency related matters. In December 2012, the Mayor formed a Special Initiative for Rebuilding and Resiliency (SIRR) with an objective of delivering a comprehensive report with action steps to identify critical needs and issues, and to present solutions. Coastal protection (including dune restoration, dredging, sea wall, and berms), healthcare, and transportation infrastructure and energy supply are four of over a dozen key areas of focus. All comments received and related to resiliency have been provided to SIRR to be incorporated into their community input efforts. It is anticipated the future Partial Action Plan to program funds for resiliency projects and programs will be based on the final SIRR report, which will be released in May. In that Plan, these comments will be reviewed again to assure that the concerns, questions, and issues raised have been considered and addressed as appropriate.

Hazard Mitigation Grant Program (HMGP)

1. One commenter suggested that the City combine HMGP with CDBG-DR to assist building owners with recovery and resiliency and asked that the City ensure the public is informed of these funding sources.

New York City will evaluate the possibility of combining the Hazard Mitigation Grant Program (HMGP) with the CDBG-DR funds for future “discretionary resilience” projects, pending HMGP policy guidelines that will be produced by New York State (NYS). At the time of developing the NYC CDBG-DR Action Plan, NYS has not released the guidelines for the HMGP grant related to Sandy. These guidelines will determine which project types are prioritized for HMGP funds.

NYC continues to work closely with FEMA and New York State to communicate to the public the differences between the HMGP and CDBG-DR by distributing printed materials, having staff representation at Housing Recovery Forums held across the City in March, and addressing homeowners’ questions through email and phone.

Needs Assessment/Storm Response Description

1. Two comments questioned the scope of the unmet need assessment and description of Sandy impact.

Neither comment offers specific sources of information or data that could have been applied to the unmet need and storm impact assessment in the Action Plan. The Plan notes that the assessment is based on the best available data at time of preparation.
Long-Term Recovery

1. Twelve comments related to long term recovery planning related ideas and concerns.

   Three comments asked for clarifications on terms used in the Action Plan tied to City laws and regulations such as V Zones which are explained in various sections of the Action Plan. One comment offered ideas related to planning for resiliency, which is reflected in the resiliency section of the Action Plan. Three comments expressed concerns about longer term implications of changes to FEMA Advisory Base Flood Elevations, which is outside the Action Plan scope, impacts on future actions to low-income and minority neighborhoods (acknowledged throughout Action Plan as a priority attention with all proposed programs), and flood insurance mandates (outside Action Plan Scope).

Allocation of CDBG Funding

1. Eight comments indicated that the CDBG-DR funds should be targeted to those areas most impacted by the storm. One comment stated that CDBG-DR funds are not adequate to meet the unmet needs and to ask HUD for additional CDBG-DR funding.

   The City’s CDBG-DR programs do address the needs of the impacted areas. HUD requires that funded activities tie back to the effects of the storm. Eligibility for assistance has been designed to address homes (one- to four-family and multi-unit), businesses, and neighborhoods in the impacted areas. Prospective recipients of CDBG-DR funds will have to demonstrate that they are located within an impacted area. The City expects that additional CDBG-DR funds will be allocated by HUD to the City in the months to come. However, the City does not know the specific amounts and timing of the additional allocation.

2. One comment stated that funding for resiliency and competitive grants should be delayed to place more emphasis on immediate recovery and rehabilitation needs.

   The City believes that the programs related to resiliency are necessary to help address the City’s needs across several areas. These programs are designed to help the City be ready for future storms to the greatest extent possible. In many cases, these programs will help protect the investments the City and others are making to restore property.

3. One comment felt that the Action Plan does not accurately reflect the individual communities that were inundated.

   Based on the comment, the Action Plan now identifies the communities of Old Howard Beach, New Howard Beach, Ramblersville, and Lindenwood.

Citywide Administration and Planning

1. Four comments related to funding for citywide administration and planning, and deployment of planning funds. Three of the commenters asked for detail on planned levels of expense and expressed concern that funds will be taken away from programs. One commenter proposed planning funds be granted to non-profits for long term community recovery.

   The Action Plan has been amended to specify amounts allocated for administration and planning, and those allocations are below the CDBG-DR caps for those activities. In both the housing and economic development program descriptions in the Action Plan, it is noted that efforts will be made to engage
non-profits and community-based organizations in the delivery and follow-through of the proposed programs.

**Contracting, Hiring, and Section 3**

1. Five comments related to contracting, hiring, and HUD Section 3 hiring requirements. One comment suggested stronger compliance language for the Section 3 requirements. One comment expressed concerns that contractors should not have criminal records, and the remaining comments were encouraging the City of New York to employ low- to-moderate-income persons for CDBG-DR-funded jobs.

These topics all relate to the use of CDBG-DR funds to employ workers to carry out recovery efforts. Section 3 is a provision of the Housing and Urban Development Act of 1968 that is intended to ensure that when employment or contracting opportunities are generated because a covered project or activity necessitates the employment of additional persons or the awarding of contracts for work, preference must be given to low- and moderate-income persons or business concerns residing in the community where the project is located.

The City is dedicated to compliance with all HUD Section 3 requirements and has included Section 3 in the Compliance section of the Action Plan to ensure that these activities are actively monitored and enforced for all applicable projects and activities receiving CDBG-DR funding. All contractors will also be required to be licensed, bonded, and insured to provide the highest level of safe and professional services.

Leveraging the CDBG-DR funds to create and retain jobs for low- to moderate-income citizens is also a primary objective and targeted goal addressed through the City’s Business Loan and Grant programs. Funds used for these activities must demonstrate how investing these funds into small businesses that meet the SBA Small Business definition will retain current low- to moderate-income jobs or create new low- to moderate-income jobs as part of the eligibility criteria.

**Other/Off Topic**

Over 20 comments were on matters and subjects entirely outside the scope of the Action Plan and CDBG-DR eligible uses and/or outside of City jurisdiction. Responses to some of the specific comments the City received are addressed below.

1. Four comments requested dredging in specific areas.

   *Dredging is not under the jurisdiction of the City and is overseen by the U.S. Army Corps of Engineers (USACE). As such, the USACE received funding through the Disaster Relief Appropriations Act, 2013 to dredge Federal navigation channels.*

2. Two commenters expressed wishes for expedited restoration and improvement of public transit to the Rockaways.

   *Public transportation is overseen by the MTA, a NY State entity, and is thus out of the scope of this plan. The City’s DOT does not have any Sandy-related capital projects that affect the MTA’s ability to reactivate subway service to the Rockaways.*
Application for Federal Assistance SF-424

*1. Type of Submission
   ☐ Preapplication
   ☑ Application
   ☐ Changed/Corrected Application

*2. Type of Application
   ☑ New
   ☐ Continuation
   ☐ Revision

*If Revision, select appropriate letter(s):

*3. Date Received:

4. Application Identifier:
   B-13-MS-36-0001

5a. Federal Entity Identifier:

5b. Federal Award Identifier:

State Use Only:

6. Date Received by State:

7. State Application Identifier:

8. APPLICANT INFORMATION:

* a. Legal Name: City of New York

* b. Employer/Taxpayer Identification Number (EIN/TIN): 13-6400434

*c. Organizational DUNS: 155946981

d. Address:
   *Street 1: 255 Greenwich Street
   Street 2:
   *City: New York
   County:
   *State: New York
   Province:
   Country: USA
   *Zip/ Postal Code: 10007

e. Organizational Unit:
   Department Name:
   NYC Office of Management and Budget
   Division Name:

f. Name and contact information of person to be contacted on matters involving this application:
   Prefix: Ms.
   Middle Name: Mark
   Last Name: Levine
   Suffix:
   Title: Director of Accounting Services
   Organizational Affiliation:
   NYC Office of Management and Budget

*Telephone Number: 212-788-5804
*Fax Number: 212-788-0091
*Email: levinem@omb.nyc.gov
Application for Federal Assistance SF-424
Version 02

9. Type of Applicant 1: Select Applicant Type:
   C. City or Township Government

   Type of Applicant 2: Select Applicant Type:
   - Select One -

   Type of Applicant 3: Select Applicant Type:
   - Select One -

   *Other (specify):

*10. Name of Federal Agency:
   Department of Housing and Urban Development

11. Catalog of Federal Domestic Assistance Number:
    14.269

   CFDA Title:
   Community Development Block Grant

*12. Funding Opportunity Number:

*Title:

13. Competition Identification Number:

   Title:

14. Areas Affected by Project (Cities, Counties, States, etc.):

   Citywide

*15. Descriptive Title of Applicant’s Project:

   Community Development Block Grant - Disaster Recovery Initial Action Plan

Attach supporting documents as specified in agency instructions.
16. Congressional Districts Of: 6-19

* a. Applicant: City of New York

* b. Program/Project: CDBG Disaster Recovery Action Plan

Attach an additional list of Program/Project Congressional Districts if needed.

17. Proposed Project:

* a. Start Date: 5/1/13

* b. End Date: 4/30/15

18. Estimated Funding ($):

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<td>*g. TOTAL</td>
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* 19. Is Application Subject to Review By State Under Executive Order 12372 Process?

☐ a. This application was made available to the State under the Executive Order 12372 Process for review on

☐ b. Program is subject to E.O. 12372 but has not been selected by the State for review.

☑ c. Program is not covered by E.O. 12372

* 20. Is the Applicant Delinquent On Any Federal Debt? (If “Yes”, provide explanation.)

☐ Yes  ☑ No

21. By signing this application, I certify (1) to the statements contained in the list of certifications** and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)

☑ **I AGREE

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Prefix: Mr.

* First Name: Cas

Middle Name:

* Last Name: Holloway

Suffix:

* Title: Deputy Mayor

* Telephone Number: (212) 788-3191

Fax Number: (212) 788-3229

* Email: cholloway@cityhall.nyc.gov

* Signature of Authorized Representative: [Signature]

Date Signed: 04-19-2013
Application for Federal Assistance SF-424

*Applicant Federal Debt Delinquency Explanation

The following field should contain an explanation if the Applicant organization is delinquent on any Federal Debt. Maximum number of characters that can be entered is 4,000. Try and avoid extra spaces and carriage returns to maximize the availability of space.
Certifications

a. The grantee certifies that it will affirmatively further fair housing, which means that it will conduct an analysis to identify impediments to fair housing choice within its jurisdiction and take appropriate actions to overcome the effects of any impediments identified through that analysis, and maintain records reflecting the analysis and actions in this regard (see 24 CFR 570.487(b)(2) and 570.601(a)(2)). In addition, the grantee certifies that agreements with subrecipients will meet all civil rights related requirements pursuant to 24 CFR 570.503(b)(5).

b. The grantee certifies that it has in effect and is following a residential anti-displacement and relocation assistance plan in connection with any activity assisted with funding under the CDBG program.

c. The grantee certifies its compliance with restrictions on lobbying required by 24 CFR Part 87, together with disclosure forms, if required by Part 87.

d. The grantee certifies that the Action Plan for Disaster Recovery is authorized under State and local law (as applicable) and that the grantee, and any entity or entities designated by the grantee, possess(es) the legal authority to carry out the program for which it is seeking funding, in accordance with applicable HUD regulations and this Notice.

e. The grantee certifies that activities to be administered with funds under this Notice are consistent with its Action Plan.

f. The grantee certifies that it will comply with the acquisition and relocation requirements of the URA, as amended, and implementing regulations at 49 CFR Part 24, except where waivers or alternative requirements are provided for in this Notice.

g. The grantee certifies that it will comply with Section 3 of the Housing and Urban Development Act of 1968 (12 U.S.C. 1701u), and implementing regulations at 24 CFR Part 135.

h. The grantee certifies that it is following a detailed citizen participation plan that satisfies the requirements of 24 CFR 91.105 or 91.115, as applicable (except as provided for in notices providing waivers and alternative requirements for this grant). Also, each UGLG receiving assistance from a State grantee must follow a detailed citizen participation plan that satisfies the requirements of 24 CFR 570.486 (except as provided for in notices providing waivers and alternative requirements for this grant).

i. Each State receiving a direct award under this Notice certifies that it has consulted with affected UGLGs in counties designated in covered major disaster declarations in the non-entitlement, entitlement, and tribal areas of the State in determining the uses of funds, including method of distribution of funding, or activities carried out directly by the State. (Not applicable to New York City.)

j. The grantee certifies that it is complying with each of the following criteria:

(1) Funds will be used solely for necessary expenses related to disaster relief, long-term recovery, restoration of infrastructure and housing, and economic revitalization in the most impacted and distressed areas for which the President declared a major disaster in the aftermath of Hurricane Sandy, pursuant to the Stafford Act.
(2) With respect to activities expected to be assisted with CDBG-DR funds, the Action Plan has been developed so as to give the maximum feasible priority to activities that will benefit low- and moderate-income families.

(3) The aggregate use of CDBG-DR funds shall principally benefit low- and moderate-income families in a manner that ensures that at least 50 percent of the grant amount is expended for activities that benefit such persons.

(4) The grantee will not attempt to recover any capital costs of public improvements assisted with CDBG-DR grant funds, by assessing any amount against properties owned and occupied by persons of low- and moderate-income, including any fee charged or assessment made as a condition of obtaining access to such public improvements, unless: (a) disaster recovery grant funds are used to pay the proportion of such fee or assessment that relates to the capital costs of such public improvements that are financed from revenue sources other than under this title; or (b) for purposes of assessing any amount against properties owned and occupied by persons of moderate income, the grantee certifies to the Secretary that it lacks sufficient CDBG funds (in any form) to comply with the requirements of clause (a).

k. The grantee certifies that it (and any subrecipient or recipient) will conduct and carry out the grant in conformity with title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d) and the Fair Housing Act (42 U.S.C. 3601-3619) and implementing regulations.

l. The grantee certifies that it has adopted and is enforcing the following policies. In addition, States receiving a direct award must certify that they will require UGLGs that receive grant funds to certify that they have adopted and are enforcing:

(1) A policy prohibiting the use of excessive force by law enforcement agencies within its jurisdiction against any individuals engaged in nonviolent civil rights demonstrations; and

(2) A policy of enforcing applicable State and local laws against physically barring entrance to or exit from a facility or location that is the subject of such nonviolent civil rights demonstrations within its jurisdiction.

m. Each State or UGLG receiving a direct award under this Notice certifies that it (and any subrecipient or recipient) has the capacity to carry out disaster recovery activities in a timely manner; or the State or UGLG will develop a plan to increase capacity where such capacity is lacking.

n. The grantee will not use grant funds for any activity in an area delineated as a special flood hazard area or equivalent in FEMA's most recent and current data source unless it also ensures that the action is designed or modified to minimize harm to or within the floodplain. The grantee further certifies that at a minimum, actions to minimize harm will include elevating or floodproofing new construction and substantial improvements to one foot above the base flood elevation and otherwise acting in accordance with Executive Order 11988 and 24 CFR part 55. The relevant data source for this provision is the latest issued FEMA data or guidance, which includes advisory data (such as Advisory Base Flood Elevations) or preliminary and final Flood Insurance Rate Maps.

o. The grantee certifies that its activities concerning lead-based paint will comply with the requirements of 24 CFR part 35, subparts A, B, J, K, and R.

p. The grantee certifies that it will comply with applicable laws.
q. The grantee certifies that it has reviewed the requirements of this Notice and requirements of Public Law 113-2 applicable to funds allocated by this Notice, and that it has in place proficient financial controls and procurement processes and has established adequate procedures to prevent any duplication of benefits as defined by section 312 of the Stafford Act, to ensure timely expenditure of funds, to maintain comprehensive websites regarding all disaster recovery activities assisted with these funds, and to detect and prevent waste, fraud, and abuse of funds.

Cas Holloway
Deputy Mayor for Operations, City of New York

4-15-2013
Date