
City of New York Community Development Block Grant – Disaster Recovery (CDBG-DR) Proposed Amendments to Action Plan

Overview

The City of New York (“City” or “NYC”) is the recipient of \$1.78 and \$1.44 billion allocations for a total grant award of \$3.220 billion from the United States Department of Housing and Urban Development (HUD) to assist in disaster recovery and rebuilding efforts resulting from Hurricane Sandy. The initial Action Plan submitted by the City, which was approved by HUD on May 7, 2013, was followed by:

- Amendment 1 - Substantial Amendment, approved by HUD on August 23, 2013;
- Amendment 2 - Technical Amendment - Projections of Expenditures and Outcomes, posted August 5, 2013, acknowledged by HUD on September 5, 2013;
- Amendment 3 - Technical Amendment - Amended Projections of Expenditures and Outcomes, acknowledged by HUD on September 10, 2013; and,
- Amendment 4 - Substantial Amendment, approved by HUD on November 25, 2013.

All Action Plans and related amendments are viewable on NYC’s Hurricane Sandy disaster recovery website at: <http://www.nyc.gov/cdbg>.

Any change greater than \$1 million in funding committed to a certain program, the addition or deletion of any program, or change in eligibility criteria or designated beneficiaries of a program constitutes a substantial amendment and such amendment will be available for public review and approval by HUD.

In this fifth amendment, the City proposes to allocate the entire grant award into five general categories (refer to page 3 for Summary of revised program allocations for Tranche 1 and Tranche 2):

- 1) \$1.695 billion allocated to individual programs related to housing rehabilitation, reconstruction, reimbursement, acquisition for redevelopment, resilience, and rental assistance;
- 2) \$266 million allocated to individual programs providing direct financial assistance to businesses and competitions to spur economic development in affected areas and promote creative and cost-effective technology solutions to resiliency needs;
- 3) \$855 million allocated to infrastructure, interim assistance, and public service costs;
- 4) \$234 million allocated to resiliency investment activities including mitigation for building systems and coastal protection activities; and
- 5) \$169 million allocated to administrative, planning, and oversight activities related to the grant.

The proposed Amendment 5:

General

- Updates funding amounts for programs to reflect second allocation of CDBG-DR funds to New York City
- Reflects revisions to the Citizen Participation Plan
- Revises key information contained within program descriptions and program start and end dates to reflect updated information and timelines in all areas
- Updates need assessment in all areas
- Other non-substantial updates for all areas

Housing

- Revises several Housing program descriptions to better define program eligibility, objectives, and priorities
- Clarifies the treatment of single family (1-4 units) and multi-family (5 or more units) buildings under the Build it Back program
- Provides additional information regarding the acquisition and reimbursement options under the Build it Back program

Business

- Reallocates \$100 million from across the four Business programs, inclusive of \$13 million of associated Administrative and Planning costs, to Housing. (The Program reallocation of \$87 million from Business to Housing is netted against the \$60 million reallocation from Resilience to Business to show \$27 million in the summary table below)
- Reallocates \$60 million from the Building Mitigation Incentive Program (renamed the Residential Building Mitigation Program) under Resilience to the Building Resiliency Investment Program under Business (net the relevant portion of the \$100 million reallocation mentioned above, this \$60 million is reflected as a \$20 million increase in the summary table below)
- Revises the Business Resiliency Investment Program description to better define program eligibility, objectives, and priorities

Infrastructure and Other City Services

- Revises existing projects within Infrastructure and Other City Services and identifies new specific projects within Rehabilitation / Reconstruction of Public Facilities
- Identifies major infrastructure projects (defined as Covered Projects) and further details the City's response to impacts to public infrastructure

Resilience

- Reallocates \$60 million from the Building Mitigation Incentive Program (and renames the balance of funds the Residential Building Mitigation Program) to the Building Resiliency Investment Program under Business
- Revises the Residential Building Mitigation Program description to better define program eligibility, objectives, and priorities
- Reallocates funding within Resilience Planning and Administration sections

Citywide Administration and Planning

- Reallocates funds between Citywide Planning and Administration (\$17 million from Citywide Planning to Citywide Administration)
- Reallocates \$13 million out of Administration and Planning associated with Business Programs (see above) to Housing Programs, and adds \$5 million of Tranche 2 funds for Citywide Administration related to Housing Programs, for a net change of \$8 million as indicated in the summary table below.

The City received an initial allocation of \$1.773 billion of CDBG-DR funds from HUD to support recovery and rebuilding after Hurricane Sandy. On November 18, 2013, the City received a second allocation of \$1.447 billion.

A summary of program allocations proposed for Amendment 5 is below.

Program Name	CDBG-DR Allocations		
	1 st Tranche	2 nd Tranche	Total
Housing Programs	\$648,000,000	\$1,047,000,000	\$1,695,000,000
Build it Back Build it Back Rehabilitation and Reconstruction for 1-4 Unit Homes	\$306,000,000	\$716,000,000	\$1,022,000,000
Rental Assistance	\$19,000,000	-	\$19,000,000
Build it Back Multi-Family Building Rehabilitation	\$215,000,000	\$131,000,000	\$346,000,000
Public Housing Rehabilitation and Resilience	\$108,000,000	\$200,000,000	\$308,000,000
Business Programs	\$293,000,000	(\$27,000,000)	\$266,000,000
Business Recovery Loan and Grant Program	\$72,000,000	(\$30,000,000)	\$42,000,000
Business Resiliency Investment Program	\$90,000,000	\$20,000,000	\$110,000,000
Neighborhood Game Changer Investment Competition	\$90,000,000	(\$6,000,000)	\$84,000,000
Resiliency Innovations for a Stronger Economy (RISE:NYC)	\$41,000,000	(\$11,000,000)	\$30,000,000
Infrastructure and Other City Services	\$360,000,000	\$495,000,000	\$855,000,000
Public Services	\$237,000,000	\$130,000,000	\$367,000,000
Emergency Demolition	\$1,000,000	\$1,000,000	\$2,000,000
Debris Removal/Clearance	\$8,000,000	\$4,500,000	\$12,500,000
Code Enforcement	\$1,000,000	-	\$1,000,000
Rehabilitation/Reconstruction of Public Facilities (including \$50 million which may be specified as Coastal Protection)	\$15,000,000	\$359,500,000	\$374,500,000
Interim Assistance	\$98,000,000	-	\$98,000,000
Resilience	\$294,000,000	(\$60,000,000)	\$234,000,000
Coastal Protection	\$174,000,000	-	\$174,000,000
Residential Building Mitigation Program	\$120,000,000	(\$60,000,000)	\$60,000,000
Citywide Administration and Planning	\$177,820,000	(\$8,000,000)	\$169,820,000
Planning	\$89,820,000	(\$17,000,000)	\$72,820,000
Administration	\$88,000,000	\$9,000,000	\$97,000,000
TOTAL	\$1,772,820,000	\$1,447,000,000	\$3,219,820,000

Public Comment

Some of the proposed amendments to the Action Plan are substantial amendments that are open to public comment, as required by HUD, to extend for thirty calendar days from the date of publication of the proposed amendments. Comments must be received no later than Saturday, January 25, 2014 at 11:59 PM (EST). The proposed CDBG-DR Action Plan Amendment 5 and the public commenting forms are available on <http://www.nyc.gov/cdbg>. Individuals will be able to read the amendment and the currently approved Action Plan and comment on the amendment in English, Spanish, Russian, and Chinese (simplified). The online materials will also be accessible for the visually impaired.

Paper copies of the Action Plan Amendment 5, including in large print format (18pt. font size), are available at the following address in English as well as the languages listed above:

New York City Office of Management and Budget
255 Greenwich Street, 8th Floor Reception Area
New York, New York 10007

Written comments may be mailed to Calvin Johnson, Assistant Director, CDBG-DR, NYC Office of Management & Budget, 255 Greenwich St., 8th Floor, New York, NY 10007. Comments may be provided 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. For more information on how people with disabilities can access and comment on Action Plan Amendment 5, dial 311 or, using a TTY or Text Telephone, (212) 504-4115.

Public Hearings will be held regarding Action Plan Amendment 5. The public hearings will take place at the locations and times listed below. Hearings are subject to change. Please check 311 or nyc.gov for the most updated information.

~~January 14, 2014 from 7-9pm
CYO Building at Mount Loretto
6581 Hylan Boulevard, Staten Island~~

~~January 15, 2014 from 7-9pm
Knights of Columbus (Rockaway Park)
333 Beach 90th Street, Queens~~

~~January 16, 2014 from 7-9pm
Sheepshead Bay High School
3000 Avenue X, Brooklyn~~

The Public Hearings regarding the proposed Action Plan Amendment 5 (posted December 27, 2013) are now scheduled for the dates and locations listed below.

February 24, 2014 at 7PM
Sheepshead Bay High School, 3000 Avenue X, Brooklyn

February 25, 2014 at 7PM
Knights of Columbus, 333 Beach 90th Street, Queens

February 27, 2014 at 7PM
New Dorp High School, 465 New Dorp Lane, Staten Island

At the end of the comment period, all comments shall be reviewed and a City response will be incorporated into the City's Responses to Public Comments document. A summary of the comments and the City's responses will be submitted to HUD in the final CDBG-DR Action Plan

Amendment 5. The revised Action Plan Amendment 5 including the public comments and responses will be posted on the City's CDBG-DR website at <http://www.nyc.gov/cdbg>

Note: The following sections contain sections of the currently approved Action Plan (Action Plan Incorporating Amendments 1-4) that the City proposes to amend. For clarity, text that has been removed or changed has been underlined or has otherwise been identified within each section.

I. Executive Summary

Original Text:

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 public 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

Program Name	CDBG-DR Allocations
Housing Programs	\$648,000,000
NYC Houses Rehabilitation and Reconstruction	\$306,000,000
Rental Assistance	\$19,000,000
Multi-Family Building Rehabilitation	\$215,000,000
Public Housing Rehabilitation and Resilience	\$108,000,000
Business Programs	\$293,000,000
Business Loan and Grant Program	\$72,000,000
Business Resiliency Investment Program	\$90,000,000
Neighborhood Game Changer Investment Competition	\$90,000,000
Infrastructure and Building Resiliency Technologies Competition	\$41,000,000
Infrastructure and Other City Services	\$360,000,000
Public Services	\$237,000,000
Emergency Demolition	\$1,000,000
Debris Removal/Clearance	\$8,000,000
Code Enforcement	\$1,000,000
Rehabilitation/Reconstruction of Public Facilities	\$15,000,000

Interim Assistance	\$98,000,000
Resilience	\$294,000,000
Coastal Protection	\$174,000,000
Building Mitigation Incentive Program	\$120,000,000
Citywide Administration and Planning	\$177,820,000
Planning*	\$89,820,000
Administration*	\$88,000,000
TOTAL	\$1,772,820,000

* 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, the 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.

Any change greater than \$1 million in funding committed to a certain program, the addition or deletion of any program, or change in the designated beneficiaries of a program constitutes a substantial amendment and such amendment will be available for public review and approval by HUD. A comment period of at least seven (7) days is required for all substantial amendments to the Action Plan.

The City submitted its first proposed substantial amendment (Amendment 1) on July 12, 2013, followed by a 7-day public comment period. The amended Action Plan was published to the City's web site on October 4, 2013. This revised action plan includes the proposed amendments and addresses public comments where needed. Two non-substantial amendments, Projections of Expenditures and Outcomes (Technical Amendment 2) and Amended Projections and Outcomes (Technical Amendment 3), were acknowledged by HUD and published to the City's web site on August 5 and October 4, 2013, respectively.

The City submitted its second substantial amendment (Amendment 4) on October 4, 2013, followed by a 7-day public comment period.

The City will post all Action Plans, amendments, and its responses to public comments on the City's CDBG-DR website: www.nyc.gov/cdbg.

For more details of the citizen participation plan, see the Citizen Participation Plan in Section XIII of this document.

Replace with:

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 public services in the City's history.

The response to Hurricane Sandy has 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 Action Plan describe how New York City will use its CDBG-DR allocations to support recovery from Hurricane Sandy and to build resilience to the challenges of climate change. The programs in this Action Plan include programs to build and support housing, businesses, resiliency, and New York City infrastructure and other City services.

On May 7, 2013, HUD approved the City's initial Action Plan, which detailed the City's plans for its first allocation of \$1,772,820,000 of CDBG-DR funding. On November 18, 2013, the Department of Housing and Urban Development (HUD) announced a second round of funding and the City of New York was awarded an additional \$1,447,000,000.

[text removed]

Any change greater than \$1 million in funding committed to a certain program, the addition or deletion of any program, or change in the designated beneficiaries of a program constitutes a substantial amendment and such amendment will be available for public review and approval by HUD. A comment period of at least thirty (30) days and a public hearing are required for all substantial amendments to the Action Plan. From time to time, the City may also make non-substantial amendments to its Action Plan. Non-substantial amendments do not require a public comment period but must be posted on the City's dedicated CDBG-DR website (<http://www.nyc.gov/html/cdbg/html/home/home.shtml>).

The City submitted its first proposed substantial amendment (Amendment 1) on July 12, 2013, followed by a 7-day public comment period. The amended Action Plan was published to the City's web site on October 4, 2013. This revised action plan includes the proposed amendments and addresses public comments where needed. Two non-substantial amendments, Projections of Expenditures and Outcomes (Technical Amendment 2) and Amended Projections and Outcomes (Technical Amendment 3), were acknowledged by HUD and published to the City's web site on August 5 and October 4, 2013, respectively.

The City submitted its second substantial amendment (Amendment 4) on October 4, 2013, followed by a 7-day public comment period.

The current Action Plan incorporates Amendments 1 through 5 and was approved by HUD on [DATE TO BE DETERMINED]. The city published its proposed Amendment 5 on December 27, 2013, and the public comment period closed on January 25, 2014, at 11:59 PM (EST). Amendment 5 updates the Action Plan to include the second round of CDBG-DR funding. The City's total CDBG-DR allocation as of this time is \$3,219,820,000. The chart below details previously approved amounts and the new funding totals for each program.

The City will post all Action Plans, amendments, and its responses to public comments on the City's CDBG-DR website: www.nyc.gov/cdbg. For details of the citizen participation plan, see the Citizen Participation Plan in Section XIII of this document.

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

Program Name	CDBG-DR Allocations
Housing Programs	\$1,695,000,000
Build it Back Build it Back Rehabilitation and Reconstruction for 1-4 Unit Homes	\$1,022,000,000
Rental Assistance	\$19,000,000
Build it Back Multi-Family Building Rehabilitation (5+ Units)	\$346,000,000
Public Housing Rehabilitation and Resilience	\$308,000,000
Business Programs	\$266,000,000
Business Recovery Loan and Grant Program	\$42,000,000
Business Resiliency Investment Program	\$110,000,000
Neighborhood Game Changer Investment Competition	\$84,000,000
Resiliency Innovations for a Stronger Economy (RISE:NYC)	\$30,000,000
Infrastructure and Other City Services	\$855,000,000
Public Services	\$367,000,000
Emergency Demolition	\$2,000,000
Debris Removal/Clearance	\$12,500,000
Code Enforcement	\$1,000,000
Rehabilitation/Reconstruction of Public Facilities (including \$50 million which may be specified as Coastal Protection)	\$374,500,000
Interim Assistance	\$98,000,000

Resilience	\$234,000,000
Coastal Protection	\$174,000,000
Residential Building Mitigation Program	\$60,000,000
Citywide Administration and Planning	\$169,820,000
Planning*	\$72,820,000
Administration*	\$97,000,000
TOTAL	\$3,219,820,000

* These 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.

II. INTRODUCTION

Original Text:

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 11,500 homes representing more than 20,000 units when it concludes at the end of March 2013. At the peak of the program in January 2013, 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 9 prime contractors.

Replace with:

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 11,800 homes representing more than 20,000 units when it concluded at the end of March 2013. At the peak of the program in January 2013, 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 9 prime contractors. The City will use CDBG-DR funds to reimburse this program.

Original Text:

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.

Replace with:

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 the Action Plan will support New York City's recovery.

Original Text:

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.

Replace with:

The City's initial allocation of CDBG-DR funds was \$1,772,820,000. On November 18, 2013, the City was awarded an additional \$1,447,000,000, bringing the total CDBG-DR funding to \$3,219,820,000. The City's Action Plan details how the City intends to use these allocations to fulfill unmet funding needs as a result of the storm. According to detailed needs assessments performed by the City, the City's needs still exceed its total CDBG-DR award (needs assessment and unmet needs are discussed in subsequent sections of this document). It is 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 Action Plan will also describe how it will leverage other funding sources to address areas of unmet need.

Consultation with Stakeholders and Other Governments

Original Text:

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.

Replace with:

The programs in the City's Action Plan 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.

IV. Funding Justification

Original Text:

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.

Replace with:

New York City plans to spend its allocation of \$3.22 billion of CDBG-DR funds to address the most urgent housing, business, resilience, and infrastructure needs in the neighborhoods hardest hit by Hurricane Sandy through several new programs, which fall into four categories of immediate need (housing recovery, business recovery, long-term resilience, and infrastructure and other City costs). Funds will also be used for administration of the programs and for long-term planning. The City's programs are described below.

Original Text:

Housing Recovery – \$648 Million

Of the \$648 million allocated for housing assistance through the build it Back Program, the City allocated \$521 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 single-family homes (one to two units) that are either occupied by the homeowner or year-round tenants; and
- \$215 million to provide for the rehabilitation of multi-family buildings (five or more units) and small multi-family buildings (three to four units).

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 \$19 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.

Replace with:

Housing Recovery – \$1.695 Billion

Of the \$1.695 billion allocated for housing assistance through the Build it Back Program, the City allocated \$1.368 billion 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:

- \$ 1.022 billion to provide for the rehabilitation and reconstruction of one to four unit homes that are either occupied by the homeowner or year-round tenants; and
- \$ 346 million to provide for the rehabilitation of multi-family buildings (five or more units).

The City also allocated \$308 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 \$19 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 through the Build it Back Program. The City also identifies how future funding allocations will potentially be used, including the articulation of potential housing programs not funded by the first two rounds of NYC’s CDBG-DR funding allocation.

Original Text:

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 Competition: \$41 million to allocate, through a “Race-to-the-Top”-style competition, grants to the most innovative and cost-effective measures to improve building and infrastructure resiliency. Grants will be allocated to identify technologies and measures that improve the resiliency of (1) critical infrastructure networks, and (2) building systems.

Replace with:

Business Recovery/Infrastructure Resilience – \$266 Million

Business Recovery Loan and Grant Program: \$42 million to provide loans and grants to as many as 435 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 Investment Program: \$110 million to provide grants to companies for physical investments to improve resiliency to severe weather. The program is anticipated to fund up to \$2 million per applicant property, of the cost of specified improvements that increase the resiliency of buildings or businesses to future storms.

Neighborhood Game-Changer Investment Competition: \$84 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.

Resiliency Innovations for a Stronger Economy (RISE : NYC): \$30 million to allocate, through a “Race-to-the-Top”-style competition, grants to the most innovative and cost-effective measures to improve building and infrastructure resiliency. Grants will be allocated to identify technologies and measures that improve the resiliency of (1) critical infrastructure networks, and (2) building systems.

Original Text:

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, \$237 million has been allocated for public service activities that assisted the public during and after the storm, \$1 million has been allocated for emergency demolition, \$8 million has been allocated for debris removal and clearance, and \$1 million has been allocated for code enforcement, \$15 million has been allocated for the rehabilitation and reconstruction of public facilities, and \$98 million has been allocated for interim assistance. 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, public safety, and for the restoration of its beaches. These services, 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.

Replace with:

Infrastructure and Other City Services - \$855 Million

In this Action Plan, the City is dedicating to direct City agency costs an allocation of \$855 million, nearly one-third of the total unmet need for these costs. Of this, \$367 million has been allocated for public service activities that assisted the public during and after the storm, \$2 million has been allocated for emergency demolition, \$12.5 million has been allocated for debris removal and clearance, \$1 million has been allocated for code enforcement, \$374.5 million has been allocated for the rehabilitation and reconstruction of public facilities (of which \$50 million may be more specifically defined as Coast Protection), and \$98 million has been allocated for interim assistance. 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, public safety, and for the restoration of its beaches. These services, 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 appropriate preliminary Flood Insurance Rate Map levels. The City also has a comprehensive coastal protection plan that includes projects such as an Integrated Flood Protection system. Additional mitigation needs will be determined on a site-specific basis.

As part of the Infrastructure and Other City Services Program, the City of New York is using CDBG-DR funds as reimbursement for expenses already incurred, primarily in the form of funding for the non-Federal contribution to projects and activities significantly funded with resources from other Federal agencies, such as FEMA.

Original Text:

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 released a report on June 11, 2013 which included recommendations, 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.

Replace with:

Resilience - \$234 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 released a report on June 11, 2013 which included recommendations and identifies 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 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.

Proportionality of CDBG-DR Allocation to Unmet Needs

Original Text:

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: CDBG-DR Allocations in Relation to Unmet Need (Amounts in Millions)

Category	Allocation by Category	% of Total Allocation	Unmet Need by Category*	% of Total Unmet Need*
Housing	\$648	41%	\$6,610	42%
Business	\$293	18%	\$2,400	15%
Infrastructure & City Costs	\$360	23%	\$4,300	27%

Resilience	\$294	18%	\$2,400	15%
Total	\$1,595		\$15,710	

*Note: These figures are estimates based upon the best available data. Numbers may be adjusted as more accurate data is identified.

Replace with:

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: CDBG-DR Allocations in Relation to Unmet Need (Amounts in Millions)

Category	Allocation by Category	% of Total Allocation	Unmet Need by Category*	% of Total Unmet Need*
Housing	\$1,695	56%	\$6,610	42%
Business	\$266	9%	\$2,400	15%
Infrastructure & City Costs	\$855	28%	\$4,300	27%
Resilience	\$234	8%	\$2,400	15%
Total	\$3,050		\$15,710	

*Note: These figures are estimates based upon the best available data. Numbers may be adjusted as more accurate data is identified.

V. Source of Funds to be Leveraged

Original Text:

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.

Replace with:

The CDBG-DR allocation of \$3.22 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.

Original Text:

- Non-Profit Rebuilding Consortium: The City is working to leverage private resources and harness the work of voluntary agencies and contractors 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.

Replace with:

- Non-Profit Rebuilding Consortium: The City is working to leverage private resources and harness the work of voluntary agencies and contractors to make rehabilitations to homes that may not be eligible for Build it Back due to federal rules and restrictions. The Mayor's Fund to Advance New York City, with additional support from the Robin Hood Foundation, the American Red Cross and JPMorgan Chase, and in partnership with HRO, has created the NRNYC Home Repair Program to use private dollars to rehabilitate homes that may not be served by the publicly-funded program. The NRNYC Home Repair Program will be administered by Neighborhood Revitalization NYC, an affiliate of the Local Initiatives Support Corporation, a community development not-for-profit corporation with 30 years of experience working in New York City.
- Additionally, the City, through an interagency team, led by HPD, HDC and HRO, has worked with a group of community-based organizations across the five boroughs to reach vulnerable populations under the Hurricane Sandy Housing and Neighborhood Recovery Donors Collaborative.
- The Department of Housing Preservation and Development's (HPD) loan programs will leverage CDBG-DR funds, 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.

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.

Original Text:

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.

Replace with:

NYCEDC will leverage other funding sources in a number of ways. The prior loan and grant program leveraged funds from private investors with funds from Goldman Sachs and 23 additional banks. In the Business Recovery 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 guarantee program, NYCEDC estimates that it may be able to leverage \$5 for every dollar of private funds. 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.

VI. CDBG-DR Program Allocations

Original Text:

Program	CDBG-DR Allocations (\$ millions)	% of Funds Expected to Benefit Low/Mod Persons	Total Funds Expected to Benefit Low/Mod Persons
<i>Housing Programs</i>	\$648		\$439
NYC Houses Rehabilitation and Reconstruction	\$306	55%	\$168
Rental Assistance	\$19	100%	\$19
Multi-Family Building Rehabilitation	\$215	67%	\$144
Public Housing Rehabilitation and Resilience	\$108	100%	\$108
<i>Business Programs</i>	\$293		\$81
Business Loan and Grant Program	\$72	50%	\$36
Business Resiliency Investment Program	\$90	50%	\$45
Neighborhood Game Changer Investment Competition	\$90	TBD	TBD
Infrastructure and Business Resiliency Technologies Competition	\$41	TBD	TBD
<i>Infrastructure and Other City Costs</i>	\$360		\$206
Public Services	\$237	78%	\$186
Emergency Demolition	\$1	0%	\$0
Debris Removal/Clearance	\$8	100%	\$8
Code Enforcement	\$1	0%	\$0
Rehabilitation/Reconstruction of Public Facilities	\$15	80%	\$12
Interim Assistance	\$98	0%	\$0
<i>Resilience</i>	\$294		\$150
Coastal Protection	\$174	51%	\$89
Building Mitigation Incentive Program	\$120	51%	\$61
<i>Citywide Administration and Planning</i>	\$178		
Planning*	\$90	N/A	N/A
Administration*	\$88	N/A	N/A

TOTAL	\$1,773	54.9%	\$876
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*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.

Replace with:

Program	CDBG-DR Allocations (\$ millions)	% of Funds Expected to Benefit Low/Mod Persons	Total Funds Expected to Benefit Low/Mod Persons
<i>Housing Programs</i>	\$1,695		\$1,062

Build it Back: Rehabilitation, Reconstruction and Reimbursement for 1-4 Unit Buildings	\$1,022	55%	\$562
Rental Assistance	\$19	100%	\$19
Build it Back Multi-Family Building	\$346	50%	\$173
Public Housing Rehabilitation and Resilience	\$308	100%	\$308
<i>Business Programs</i>	\$266		\$76
Business Recovery Loan and Grant Program	\$42	50%	\$21
Business Resiliency Investment Program	\$110	50%	\$55
Neighborhood Game Changer Investment Competition	\$84	TBD	TBD
Resiliency Innovations for a Stronger Economy (RISE : NYC)	\$30	TBD	TBD
<i>Infrastructure and Other City Service</i>	\$855		\$599
Public Services	\$367	78%	\$286
Emergency Demolition	\$2	0%	\$0
Debris Removal/Clearance	\$13	100%	\$13
Code Enforcement	\$1	0%	\$0
Rehabilitation/Reconstruction of Public Facilities	375	80%	\$300
Interim Assistance	\$98	0%	\$0
<i>Resilience</i>	\$234		\$137
Coastal Protection	\$174	51%	\$89
Residential Building Mitigation Program	\$60	80%	\$48
TOTAL	\$3,050	61.44%	\$1,874

*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. [text removed] At least 51% of grant program funds must benefit Low- and Moderate-Income populations. The table above excludes Planning and Administration funding which is not included in this calculation.

Please note that, although New York City has identified the programs to which it will commit its 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. [text removed] Under its initial incremental obligation, signed with HUD on August 16th, 2013, the City requested \$425,000,000 which will be broken out as follows:

- \$75 million for its Housing Programs,
- \$50 million for its Business Programs,
- \$250 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.

[text removed]

VII. Housing

Impact to the City's Housing Stock

Original Text:

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.

Replace with:

Public Housing

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- 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.

Immediately after Sandy, NYCHA had detailed condition assessments performed by various architectural and engineering consulting firms at each of the impacted developments. These assessments provided detailed information on exactly what building elements were damaged, the degree of damage, the estimated cost to repair or replace damaged building components as well as concepts and conceptual cost estimates for various feasible approaches to permanent repair with resiliency. These assessments have been shared with NYCHA's insurance carriers and have served as a starting point for all FEMA reviews and the formal Project Worksheet preparation process. Therefore, these assessments, the scope of work specified, and the associated construction cost estimates are the basis for the determination of the total impact on NYCHA and ultimately, NYCHA's unmet need.

Original Text

Housing (excluding public housing)

Based on the analyses conducted, the City estimates that more than 69,000 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. [text removed] 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.

Replace with:

Housing (excluding public housing)

Based on the analyses conducted, the City estimates that more than 69,000 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. [text removed] The New York City Housing Recovery Portal website (www.nyc.gov/housingrecovery) allowed 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, in addition to registration data collected through the City's 311 system; provided 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.
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- **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.

Note that these categories are based on damage estimates developed in advance of the Program's design of scope and standards and are not tied to the type of repair work required. Build it Back projections are discussed later in this Action Plan.

New York City's Response to Impact to the Housing Stock

Department of Environmental Protection (DEP): NYC Rapid Repairs

Original text:

The program ended in March of 2013. NYC Rapid Repairs assisted over 11,500 buildings comprising nearly 20,000 residential units, in the five boroughs. Rapid Repairs has also provided significant construction opportunities for the City's Minority- and Women-Owned Business Enterprises (MWBs). Rapid Repairs employed 9 prime contractors and approximately 185 subcontractors, including 37 MWBs.

Replace with:

The program ended in March of 2013. NYC Rapid Repairs assisted with over 11,800 homes repairs comprising over 20,000 residential units in the five boroughs. Rapid Repairs has also provided significant construction opportunities for the City's Minority- and Women-Owned Business Enterprises (MWBES). Rapid Repairs employed 9 prime contractors and approximately 185 subcontractors, including 37 MWBEs.

Developer Coordination and Housing Match Program

Original text:

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.

Replace with:

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. The Portal closed when 311 Build it Back registration opened.

City Hotel Program

Original text:

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 provided services to approximately 3,132 displaced households across 50 different locations. Organizations provided 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.

Replace with:

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 provided services to approximately 3,132 displaced households across 50 different locations. Organizations provided case management services where evacuees were connected to City or Federal benefits for which they were eligible. Organizations also helped with housing plans, including a collaboration with FEMA to ensure that all eligible evacuees were registered with the appropriate programs.

Low-Income Population

Original Text:

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 a limited, state-run program. Through the Temporary Disaster Assistance Program HPD will deliver assistance with the goal of preventing homelessness among this population.

Replace with:

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. To the extent possible, these households will be placed in NYCHA public housing units. 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 a limited, state-run program. Through the Temporary Disaster Assistance Program (TDAP), HPD will deliver assistance with the goal of preventing homelessness among this population.

Remaining Unmet Housing Needs

Original text:

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). A property meets the "Substantial Damage" definition 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.

Replace with:

Assessing the Demand

Public Housing

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.

Non-Public Housing

For the NYC Build it Back Program, the City’s program to assist homeowners, landlords, and tenants in the five boroughs whose homes and properties were damaged by Hurricane Sandy, the assessment of demand is further refined by registrations for the program. On Monday, June 3, 2013, Mayor Bloomberg announced the opening of registration for the Build it Back program. As of October 31, the closing date for registration, the program received registrations for more than 20,000 buildings and 60,000 residential units.

Consultation with Stakeholders

Since May 2013, the Build it Back Team conducted outreach to both inform stakeholders about the City’s post-storm efforts and to gather feedback from impacted households, community partners, and elected officials. In June, the City held a series of housing forums in the most impacted neighborhoods. Over the course of four events, which built upon events the City held in the spring, over 1,000 residents met with staff to learn about the Build it Back program before registration opened. Once registration opened, additional sessions were held in August and September for over 200 homeowners to educate and inform them about rebuilding options. Interpretation was offered in seven languages at these events: Chinese, Spanish, Italian, Yiddish, Hebrew, Russian, and American Sign Language.

During the months of September and October, HRO led expansive efforts to ensure that homeowners in impacted communities were aware of Build it Back and had the opportunity to register. Based on analyses, the City identified neighborhoods with the greatest damage, as well as demographic characteristics of those areas, to develop targeted outreach. This included publicizing the Program via traditional and digital media outlets, utilizing local print, radio, and social media in both English and foreign languages. Additional efforts included a series of phone banking, door-to-door outreach, and letter mailing campaigns to reach as many impacted community members as possible. These efforts continued through the October 31st registration deadline. In total, over 25,699 applicants registered for the Program.

Outreach efforts also relied on input and help from community partners, long-term recovery groups, and elected officials. An interagency team, led by HPD, HDC and HRO and funded through a philanthropic collaborative, engaged a group of community-based organizations across the five boroughs to reach vulnerable populations under the Hurricane Sandy Housing and Neighborhood Recovery Donors Collaborative. To access hard-to-reach immigrant communities, the Mayor’s Fund, in partnership with the Mayor’s Office of Immigrant Affairs and Federation of Protestant Welfare Agencies, sponsored teams of outreach workers to survey immigrant households about their needs, connect them with services for which they were eligible, and provide information on the City’s plans for long-term disaster case management. Almost seven thousands households were

surveyed and assisted through these efforts. Consultation with these groups has also helped HRO adjust program guidelines and policies to ensure that they reflect community needs as they evolve.

With the close of registration, engagement with the public has continued via a customer service call center designed to answer questions about the Program and provide status updates for applicants. The City is also holding meetings with applicants and community-based organizations to provide Program updates, answer status questions, and get feedback in person. The City anticipates holding nearly ten of these sessions by the end of December.

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, approximately \$393 million is needed for permanent repairs or 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, the City has concluded that the likely overall cost to reconstruct or rehabilitate destroyed, substantially damaged, or non-substantially damaged buildings that are registered for the program is approximately \$2.5 billion.

- Approximately \$200 million is needed to reconstruct destroyed or structurally unsound units.
- Approximately \$1.2 billion is needed to rehabilitate buildings with substantial damage. 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 mandatory resiliency requirements needed in order to meet building codes
- \$1.1 billion is needed to rehabilitate buildings that are not substantially damaged. This cost includes discretionary resiliency measures to mitigate future flood risk, consistent with the

principles set forth by the Hurricane Sandy Rebuilding Task Force and the Federal Register November 18, 2013 Notice (78 FR 69111)

The total cost is approximately \$2.1 billion to reconstruct single-family homes (one to four units) and approximately \$400 million for multi-family buildings (five or more units).

Resilience and Rehabilitation of Damaged Buildings

Public Housing

NYCHA is proactively seeking measures to further strengthen all of its impacted properties. In addition to the immediate expenditures and required repair costs, approximately \$587 million is needed for resiliency and mitigation measures to be incorporated into the above referenced repairs. These measures are intended to minimize the damage caused by future storms or minimize the direct impact to thousands of residents.

- \$297 million to improve resiliency by implementing measures that range from simple improvements such as the installation of watertight enclosures, the use of submarine doors for mechanical rooms, waterproofing basement areas to more advanced measures such as raised boiler rooms, elevated switch gear, combined heat and power systems and rain screen façade systems. \$120 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 what was previously described as 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. Once data is available, this reference will be updated to refer to the current Evacuation Zones 1 through 6.
- \$50 million to increase the resilience of NYCHA's Emergency Operations Center (EOC) since the current EOC, which is located in a Hurricane Evacuation Zone, experienced flooding and suffered damage during Sandy.

Housing (excluding public housing)

Resiliency measures are incorporated into the scope of work for substantially damaged buildings as part of the Build it Back Program.

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. FEMA's preliminary FIRMs 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. (Once data is available and the analysis complete, this will be updated to refer to the current zone structure of Hurricane Evacuation Zones 1 through 6). 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 Preliminary FIRMs have nearly doubled the overall number of NYCHA buildings in what was previously described as Evacuation Zone A.
- \$60 million to enhance 30 Community Centers in non-damaged buildings located in what was previously referred to as 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)

Resiliency measures for non-damaged buildings are described in the Resiliency chapter of the Action Plan under the Residential Building Mitigation Program.

Determining Unmet Housing Needs

Original text:

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.

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- 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 Hood Foundation, was allocated to the mold remediation program.
 - Other private assistance resources are being identified based on need.

Replace with:

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 registrants of the program 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

The methodology for the calculation of unmet need for public housing is slightly different from the methodology referenced in the November 18, 2013 Federal Register Notice. The damaged infrastructure has undergone extensive, well-documented, detailed assessments for third party engineers and architects. These assessments included detailed construction cost estimates based on standard cost estimating practices. These cost estimates were the basis of the calculation of unmet need. With the estimates broken down by development and by type of work, estimated insurance recovery could be calculated by development. It was then assumed that FEMA would cover the balance of repairs. Assumptions were then also made, based on scope of proposed resilience, on the percentage of FEMA reimbursement for resiliency and mitigation efforts. The unmet need was then simply the sum of the local match of FEMA repairs, the local match of FEMA resiliency, breakage related to FEMA resiliency and the balance of resiliency and mitigation measures not covered by FEMA.

As publicly-owned properties, NYCHA facilities are eligible for FEMA's Public Assistance Grant Program. Mandatory rehabilitation, and a 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 insurance coverage is capped at approximately \$440 million. However, it cannot be assumed that NYCHA will receive 100% of all claims made against these NFIP and commercial policies.
- FEMA Public Assistance funds should cover a percentage of the remaining costs associated with repairs, rehabilitations, replacements, resilience 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,

NYCHA has aggressively pursued this funding however, at this time it cannot be assumed that there will be any revenue from this source in the calculation of unmet need.

Potential available funding from insurance and FEMA to address NYCHA's needs is estimated at approximately \$515 million to \$530 million (depending on the local cost share percentage). There is a gap in funding some of the mandatory rehabilitation. 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.

Of the over \$1.8 billion required to rebuild and rehabilitate NYCHA buildings, approximately \$895 million is anticipated to be funded by existing or identified programs and financial resources, leaving \$930 million in unmet need for rehabilitation and reconstruction costs. This figure takes into account the first and second round of CDBG-DR allocations.

Housing (excluding public housing) Unmet Need

Of the \$2.5 billion required to rebuild and rehabilitate non-NYCHA buildings, approximately \$700 million is anticipated to be funded by existing or identified programs and financial resources, leaving \$1.8 billion in unmet need for rehabilitation and reconstruction costs. The City estimates that there will be approximately \$400 million of unmet need after the first and second allocation of CDBG DR funds for Build it Back are applied.

Housing Programs - NYC Build it Back

Original text:

Overview - NYC Build it Back

Based on lessons learned from past disasters, NYC Build it Back has been designed as 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:

- **Rehabilitation and Reconstruction - 1-4 Unit Homes:** Grants or forgivable loans for reconstruction or rehabilitation of single-family (one- to two-unit) homes and small multi-family (three- to four-unit) buildings 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 (five or more units) 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. Note that small multi-family (three- to four-unit) buildings are funded out by the multi-family activity category.

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 and will be applied to this program. 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.

Replace with:

Overview - Build it Back

Based on lessons learned from past disasters, NYC Build it Back has been designed as a single program with several permanent housing recovery paths that maximize agency expertise. 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:

- **Rehabilitation and Reconstruction – 1-4 Unit Homes:** With the additional \$641 million for these homes in Tranche 2 and \$1.022 billion overall, 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 all low- and moderate- income applicants and low-, moderate- and middle-income homeowners whose primary residences or rental properties with year-round low-, moderate- and middle-income tenants were destroyed or experienced major damage. With additional funds provided in the second allocation of funding, the City projects that Build it Back will also begin serving those with the most damage in Priority 2. Program priorities are described later in this section.
- **Multi-Family buildings:** The City will invest an additional \$206 million in Tranche 2 and \$346 million overall in its multi-family housing stock – both affordable and market rate – capitalizing on the strong HPD and HDC institutional infrastructure.

In order to align funding allocations with programmatic operations, \$75 million of Tranche 1 funding will be reallocated from the Multi-Family Building Rehabilitation program (“Multi-Family”) to the Build it Back Program for 1-2 Unit Buildings (previously called “Build it Back Rehabilitation

and Reconstruction”). This is a technical adjustment resulting in no change to the funding allocation across buildings types.

Although the work being performed on buildings with 3 to 4 units is being conducted through the Build it Back Program for 1 to 2 unit buildings, the funding was previously included in the Multi-Family allocation. This amendment aligns the funding and management of this portion of the program under one program category. As such, this is a net-zero change and will not impact the number of buildings being funded in the various unit categories (i.e., 1 to 2 unit buildings, 3 to 4 unit buildings, and buildings with 5 or more units.)

Definitions, eligibility requirements, and other specifics for each of these paths are described below. 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).

Temporary relocation assistance for tenants is a standard component of existing HPD rehabilitation programs and will be applied to this program. 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). In compliance with federal definition, a tenant will be considered permanently displaced if relocated for more than 12 months. Please note that homeowners who voluntarily apply for assistance are not required by URA to be assisted with relocation funds.

Original text:

Summary of Program Priorities

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

- **Rehabilitation and Reconstruction – 1-4 Unit Homes:** 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 \$215 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.

Replace with:

Summary of Program Priorities

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

-
- **Rehabilitation and Reconstruction – 1-4 Unit Homes:** With the additional \$614 million for these homes in Tranche 2 and \$1.022 billion overall, 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 all low- and moderate- income applicants and low-, moderate- and middle-income homeowners whose primary residences or rental properties with year-round low-, moderate- and middle-income tenants were destroyed or experienced major damage. Program priorities are described later in this section.
 - **Multi-Family buildings:** The City will invest an additional \$206 million in Tranche 2 and \$346 million overall in its multi-family housing stock – both affordable and market rate – capitalizing on the strong HPD and HDC institutional infrastructure.

Original text:

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.

Replace with:

The Build it Back program shares unified program elements across program paths:

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

Coordinated program administration

Original text:

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.

Replace with:

For non-public housing, the City's permanent housing recovery program will be led by the Build it Back Program, which leverages 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.

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 where applicable.

NYC Build it Back (Core Paths)

Original text:

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 all small multi-family buildings containing three- and four-units. Small multi-family (three- to four-unit) buildings are funded out of the multi-family activity category. 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). Repair costs must be within the same footprint of the damaged structure, sidewalk, driveway, parking lot, or other developed area to be considered for reimbursement. Costs incurred after (or costs associated with contracts signed after) October 29, 2013 will not be eligible for reimbursements. 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 Rehabilitation and Reconstruction program for one- to four-family homes, 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 Build it Back 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 or a Letter of Credit satisfactory to the City to guarantee satisfactory completion of the construction.
- For the rehabilitation program, the Contractor must adhere to the unit pricing determined by the City through a competitive process, and for the reconstruction program, the Contractor must adhere to the reconstruction budget determined by the City based on the size and unit count of the pre-storm home.
- 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.

Replace with:

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 determined to be more feasible to reconstruct than to rehabilitate;
- Major rehabilitation: Residential property that is not destroyed but has substantial damage as assessed by the Department of Buildings and will be repaired and elevated; 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 four units that are either owner-occupied or occupied by a year-round tenant. 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.

- Reimbursements: 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). Repair costs must be within the same footprint of the damaged structure, sidewalk, driveway, parking lot, or other developed area to be considered for reimbursement. To comply with

federal guidance, costs incurred after (or costs associated with contracts signed after) October 29, 2013 will not be eligible for reimbursements. The City has requested an extension of this deadline, established by HUD guidance, to accommodate program implementation timing and public concerns.

Priorities for reimbursement will be based upon financial need. The City intends for a reimbursement program to:

- Serve low- and- moderate income applicants as the priority. Outside of this group, reimbursements may be given lower priority for processing than applicants who are requesting funds for essential rehabilitation or reconstruction of their homes;
- Provide a grant amount that covers up to a portion of eligible reimbursable expenses;
- May focus initial funding on applicants who are not otherwise receiving significant rehabilitation or reconstruction benefits from the Program, and
- Expenses must meet applicable program requirements.

Multi-family reimbursements will follow this general framework. All program parameters will be made available once finalized.

The program for one- to four-family homes will incorporate funding mechanisms intended to ensure compliance with program priorities; prevent fraud, waste, and abuse; and allow for scale. Under the Rehabilitation program, the property owner will receive access to a restricted grant upon signing an assistance agreement detailing program priorities. Under the Reconstruction program, the property owner will receive funds through a forgivable loan at a legal closing only after all due diligence requirements established by the program have been met. These funding mechanisms 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.

In addition to general program requirements, specific Disaster Recovery requirements associated with the restricted grant/forgivable loan may include the following conditions:

3. **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.
4. **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 green building guidelines specified in the HUD CPD Green Building Checklist. Where feasible, new reconstruction work will adhere to the Enterprise Green Communities Standard, or Energy Star Certified Homes as an alternate. 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 developers that will be selected by the City to reconstruct their homes with pre-designed homes approved by the City; or homeowners may also select their own architect and contractor and seek direct approval from the City on proposed designs, budget, and reconstruction of their home. 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 Build it Back 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 construction completion 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 or, as an alternative to the Performance Bond, a Letter of Credit in amounts satisfactory to the City to guarantee satisfactory completion of the construction.
- The Reconstruction scope will be based on the size and unit count of the pre-storm home, and the program may impose controls and parameters on the maximum rebuild scope, including size, total development cost, and amount of allowable homeowner upgrades to the standard rebuild scope.
- For the rehabilitation program, the Contractor must adhere to the unit pricing determined by the City through a competitive process, and for the reconstruction program, the Developer and Contractor are subject to cost reasonableness review by the City and a reconstruction budget based on the size and unit count of the pre-storm home.
- 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.

Original text:

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:

Replace with:

Unmet Need

Build it Back program benefits 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:

Original text:

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 homes impacted by Hurricane Sandy. This program category will also include small multi-family buildings with three- to four-units. Landlord-owned buildings that are five or more 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.

Replace with:

ELIGIBILITY CRITERIA: Owners of one to four unit homes in New York City who are eligible for CDBG-DR assistance and had their homes impacted by Hurricane Sandy. [text removed] Landlord-owned buildings that are five or more 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 discretionary resilience measures to mitigate future flood risk, consistent with the principles set forth by the Hurricane Sandy Rebuilding Task Force and the Federal Register November 18, 2013 Notice (78 FR 6911), 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. [text removed]

Original text:

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 (one to two units) and small multi-family (three to four units) homes, 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.

Replace with:

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). The program will prioritize Disaster Housing Assistance Program (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 (one to two units) and small multi-family (three to four units) homes, 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.

With the additional allocation of funds provided in Tranche 2, the City projects the ability to serve Priority 1 applicants and to begin serving Priority 2 applicants with the most significant damage.

Original text:

GRANT/LOAN SIZE LIMIT:

- **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.

Replace with:

GRANT/LOAN SIZE LIMIT:

- **Reconstruction:** Assistance may consist of a choice among a set of pre-designed homes whose size and features are determined based on 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.

Build it Back Rehabilitation and Reconstruction (Additional Paths)

Buyouts

Original text:

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 is coordinating with New York State (NYS) to advance the NY Home Buyout Program as included in the NYS Action Plan. 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).

Replace with:

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 is coordinating with New York State (NYS) to advance the NY Home Buyout Program as included in the NYS Action Plan. [text removed] 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). The City may pursue targeted buyouts where appropriate should program options, including state buyouts, become infeasible.

Other Additional Paths

Original text:

In addition to the core paths (rehabilitation and reconstruction assistance) described thus far, the City will provide other paths for assistance to owners under the Build it Back program. 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. The City is coordinating with New York State on advancing this program. 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.

Replace with:

In addition to the core paths (rehabilitation and reconstruction assistance) described, the City will provide other paths for assistance to owners under the Build it Back program. These paths will be for limited assistance and aim to provide 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 Build it Back 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. The City has coordinated with New York State (NYS) on advancing this program (A Memorandum of Understanding regarding the program was signed by New York City and New York State in December 2013.) Applicants will go through the Build it Back registration, intake and eligibility process. All applicants eligible for Build it Back and that meet the NYS criteria, including being located in the 100 year floodplain and deemed substantially damaged based on both the Department of Finance fair market value and a licensed appraisal, will be provided the acquisition option. Applicants that select the acquisition option will be referred to the NYS. Please visit <http://stormrecovery.ny.gov/> for further details.

Under this program, after acquisition and associated requirements are complete, properties will be transferred to the City or a designated entity. In addition to intake, which includes damage assessment and eligibility review, the City will be responsible for activities related to the

property transaction, including performing an appraisal, demolition and clearing of structures, asbestos abatement necessary for demolition, site maintenance and carrying costs and property disposition.

Please note that the City will not use eminent domain for this activity and all applicants will participate on a voluntary basis.

The City may offer an acquisition program as an alternative to or in addition to the NYS acquisition program. Under specific circumstances, the City may determine that rehabilitation or reconstruction of housing structures as they existed before the storm may not be feasible due to site conditions. In such limited cases, the City may acquire properties that meet broader Build it Back criteria, including the following:

- Residential structures that contain 1-2 units; and
- Substantially damaged, as defined as properties whose repair estimates as assessed by the City's inspections exceed 50% of pre storm value, using both the NYC Department of Finance value and an appraised value for the market value of the property.

Should the City pursue acquisitions in addition to the State program, the City will provide an option for relocation incentive payments in addition to the post-storm value of the acquired property, as described in the HUD March 5, 2012 Notice (78 FR 14345).

The City may also provide an option to homeowners who would otherwise be eligible for the NYS acquisition program, but cannot be acquired by the City or State because they live in a structure that is on property that is owned by a cooperative or condominium which cannot be purchased (for example, the Breezy Point Cooperative, Inc.). Under this program option, relocation incentive payments may be offered and would require the homeowner to relocate to a new permanent residence outside of the cooperative or condominium. The program may also reflect requirements set forth in the NYS or analogous NYC acquisition program.

Original text:

- **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 that were not damaged, but are now facing higher insurance premiums due to the new FEMA Preliminary Work Maps (PWM).

Replace with:

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 that were not damaged, but are now facing higher insurance premiums due to updated FEMA flood maps or changes imposed by the Biggert-Waters Act. These funds may also be available homeowners who have been newly included in FEMA-designated flood zones.

Original text:

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 three National Objectives: those with an urgent need, those who are low- to moderate-income, and preventing or eliminating slum or blight. 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 summer of 2013. However, each situation will need to be individually scoped and addressed, which means that the rehabilitation work will likely start in the winter 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.

Replace with:

CDBG-DR FUNDING ALLOCATION: \$1,022,000,000

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, Relocation

NATIONAL OBJECTIVE: The program will serve populations that meet three National Objectives: those with an urgent need, those who are low- to moderate-income, and preventing or eliminating slum or blight. All beneficiaries demonstrate an urgent need, as they live within a Presidentially-declared disaster zone. The City expects that approximately 55% of funding for Build it Back 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

PROJECTED ACCOMPLISHMENTS: Through the total funding for Build it Back, the City plans to serve approximately 7,000 units of low-, moderate-, and/or middle-income housing that serve as primary residences or rental properties with year-round tenants that were destroyed or had major damage. In addition, the City plans to provide assistance to more than 35,000 units of low-, moderate-, and middle-income housing that experienced moderate damage.

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 summer of 2013. Each situation will need to be individually scoped and addressed, which means that the rehabilitation work will likely start in the end of 2013 to beginning of 2014.

Typical Flow for Build it Back Build it Back

Note: The section “Examples of Expected Typical Scenarios” located after “Ongoing Homeowner Point of Contact” in the original text has been removed in this amendment.

Original text:

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 than 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

[this section will be removed as part of Amendment 5]

Replace with:

Homeowner Intake and Case Management

The City executed a broad three-pronged outreach strategy, building on efforts to date, including 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 registered through NYC 311. Once registered, applicants are assigned a Housing Recovery Specialist.

The homeowner then provides all required documentation to the Housing Recovery Specialist. If applicable, the Housing Recovery Specialist may also refer the applicant to counseling within the program.

An assessor will visit the homeowner's property to assign a value to the cost to complete rehabilitation and work previously completed.

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:

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- 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 Build it Back program team will receive the 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 program will determine the unmet need and will work with the homeowner to determine the most appropriate path for the property.

The Housing Recovery Specialist will meet in person with the homeowner to describe the options and next steps and transition the homeowner to the appropriate path.

Ongoing Homeowner Point of Contact

The Build it Back program will maintain a “customer service” line to respond to questions throughout the rehabilitation/reconstruction process.

Temporary Disaster Assistance Program (TDAP)

Original text:

ELIGIBILITY CRITERIA: Eligibility for the Rental Assistance program will be limited to displaced households at or below 50% of Area Median Income.

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: \$19,000,000; the City anticipates adding additional funding when the Action Plan is amended.

Replace with:

ELIGIBILITY CRITERIA: Eligibility for the Rental Assistance program will initially be limited to displaced households at or below 50% of Area Median Income. After this priority group has been served, HPD will open eligibility to include households at or below 50% of AMI which relocated following Sandy but which have leases expiring within 4 months of applying to the program, or which now pay more than 40% of income in rent.

PROGRAM PRIORITIES: To prevent homelessness among low-income households that were displaced by Hurricane Sandy and face significant barriers to relocation. After the initial launch of the program, priority was 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 expiring FEMA rental assistance; and/or
3. 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. 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: \$19,000,000

Build it Back - Multi-Family Building Rehabilitation

The Multi-Family Building Rehabilitation Program Objective and Description will be updated to reflect program updates and include Tranche 2 funding.

Original Text:

PROGRAM OBJECTIVE AND DESCRIPTION: The City has allocated \$215 million for rehabilitation loans for multi-family (five units or more) housing and small multi-family (three to four units) properties.

Small multi-family buildings are addressed through the NYC Rehabilitation and Reconstruction guidelines. 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.

Replace with:

PROGRAM OBJECTIVE AND DESCRIPTION: The City has allocated \$346 million for rehabilitation loans and reimbursement for multi-family (five units or more) housing. 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.

Original text:

This program may include reimbursements for storm-related costs already incurred. Costs incurred after (or costs associated with contracts signed after) October 29, 2013, will not be eligible. In general, priorities for reimbursement will be based on financial need and applicants must comply with all program procedures.

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 or the HUD CPD Green Retrofit Checklist standards for environmentally sustainable construction.

Replace with:

This program may include reimbursements for storm-related costs already incurred. Costs incurred after (or costs associated with contracts signed after) October 29, 2013, will not be eligible. In addition to what is described in the Build it Back Section for 1-4 Unit homes, priorities for multi-family reimbursement will be to address buildings that serve low-and-moderate income tenants and provide affordable housing for NYC and applicants must comply with all program procedures.

The CDBG-DR funds will be conveyed as 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 or is necessary to comply with accessibility requirements under Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794) pursuant to 24 part CFR 8 and the Uniform Federal Accessibility Standards (UFAS). Government assisted multifamily buildings may also be eligible for the program, subject to the Build it Back Policies and Procedures, regardless of registration with the program. All work must meet Enterprise Green Communities, Energy Start Certified Homes or the HUD CPD Green Retrofit Checklist standards for environmentally sustainable construction.

Original text:

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. 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.

Replace with:

In some cases, owners have self-funded rehabilitation work to address immediate needs after the storm that were critical to restoring habitability and 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. In limited cases where this has created financial hardships that jeopardize the owner's ability to make mortgage payments, mortgage assistance may also be available to owners who were unable to make mortgage payments due to the loss of rental income caused by the storm rendering units uninhabitable for extended periods of time. Mortgage assistance will only be available to owners who are also receiving CDBG-DR funds to do additional rehab work to address unmet needs.

Original text:

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.

Replace with:

PROGRAM PRIORITIES:

- Properties requiring loans to restore basic habitability;

-
- Significantly damaged buildings with basic services restored but in need of major rehabilitation;
 - Buildings serving the most at-risk demographic populations
 - Buildings populated by higher percentages of low- and moderate-income households

Original text:

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.

Replace text:

NATIONAL OBJECTIVE: The Multi-Family Building Rehabilitation program will primarily meet the Low- and Moderate-Income (LMI) Housing national objective. For units within this program that do not meet LMI criteria, the Urgent Need national objective will apply. 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 52% of the approximately 27,000 units will serve low- and moderate-income households.

Original text:

CDBG-DR ALLOCATION: \$215,000,000

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 fall of 2013. However, each project will need to be individually scoped and designed and will require permits and, in some cases, zoning review. 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.

Replace with:

CDBG-DR ALLOCATION: \$346,000,000

PROJECTED ACCOMPLISHMENTS: Approximately 27,000 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 began preliminary outreach to property owners during the initial Action Plan review process. The CDFIs, in concert with the City, have conducted targeted outreach to properties that are in their existing portfolios that they know to be in the hundred year floodplain and have also worked with community partners located within affected neighborhoods to outreach directly to Sandy-damaged multifamily buildings in their respective catchment areas. Also, as part of the program's outreach efforts, HPD identified all multifamily buildings with 5+ units that had registered for the Rapid Repair Program or that as of January 2013 still had a yellow DOB placard, a red DOB placard or a power outage and called every owner or property manager where that information was available through the City's annual Multiple Dwelling Registration.

Lending began in the fall of 2013 with the first loans closing on the anniversary of the storm. Each project is individually scoped and designed and requires permits and, in some cases, zoning review. 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.

Public Housing Rehabilitation and Resilience

Original text:

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.

Replace with:

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 main program elements are described below and have been designed to address the diverse building infrastructure in NYCHA's current portfolio.

Repairs – Denotes program work that is required and directly related to restoring NYCHA facilities and associated building systems to pre-storm conditions. Generally, this work includes only the most basic of resiliency measures that can be implemented at nominal cost, as part of required repairs. Most of this work is insurance eligible and eligible for FEMA reimbursement. As a result, CDBG-DR allocations for this element of this program will be assigned to cover those costs that not covered by insurance or FEMA. In addition, assignments will be made under this element of the program to cover the required 10% local match of all FEMA funded repairs.

Resiliency and Mitigation - A critical element in the Housing Authority's recovery and the overall effort to preserve public housing in NYC, will be to ensure that the infrastructure that is replaced, is replaced in a manner that reduces the risk of that equipment being damaged in future storms and minimizes the impact on the City's most vulnerable population. Many different levels of resiliency are recommended as part of NYCHA's permanent recovery. The resiliency measures range from the simple protections such as the addition of flood gates or the use of watertight enclosures to more advanced measures such as constructing elevated boiler rooms, CHP plants and new rain screen facades. The addition of building enhancements that do not necessarily protect existing equipment but instead provide the Authority with the ability to continue to serve our residents if equipment were to fail or critical services were to be interrupted are also included in this element. Emergency power generators are a good example of this type of improvement. . All of these elements of work

are not eligible for any insurance reimbursement but are eligible for FEMA reimbursement for a percentage of these costs. That percentage varies based on the specific building element being made resilient (i.e. Boiler, electrical system, etc.). CDBG-DR allocations under this element of the program will be assigned to cover the required 10% local match on the FEMA reimbursements as well as the percentage of costs NOT covered by FEMA (referred to as breakage).

Projects currently identified for CDBG-DR funding include the following:

- Installation of emergency generators at Sandy-damaged facilities: Design work has commenced for this project and construction is scheduled to begin in the first quarter of 2014
- Basic resiliency measures: Initiatives may include the installation of new boilers in newly built elevated structures, elevation of mechanical and electrical equipment above the floodplain, and the installation of flood gates and pumps.
- Advanced restoration measures: Pending funding availability, NYCHA anticipates advanced restoration at damaged buildings that may exceed \$50,000,000 in cost. These initiatives may include combined boiler plants or co-generation and façade improvements that will provide thermal efficiency and reduce heating load. Under HUD's Federal Register notice for the second allocation of funds (78 FR 69104), these projects are considered "covered projects" and are described in further detail below.

Mitigation –Under this element of the program, NYCHA will look to implement mitigation measures (i.e. emergency generators) at locations that were affected by Sandy but do not require any additional extensive or long term repairs. None of the proposed mitigation work is eligible for insurance reimbursement or for FEMA reimbursement. Therefore, all of the costs associated with this work is proposed to come from CDBG-DR.

Programmatic – A number of system wide NYCHA improvements have been recommended. These proposed improvements are not specific to physical improvements at a particular development but rather agency-wide, programmatic improvements that will enable the agency to better respond and recover from future events, thereby reducing the impact on our residents. Elements of work included in this category include the procurement of emergency response equipment (portable generators, high power pumps, etc.), the implementation of an Incident Command Structure (ICS) at NYCHA, providing for emergency IT backup systems and Continuity of Operations efforts, an improved Emergency Operation Center, etc. None of this work is eligible for insurance or FEMA reimbursement. Therefore, all of the costs associated with this work is proposed to come from CDBG-DR funding.

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; location of critical equipment; flood zone and overall vulnerability of a particular building or buildings.

HUD ELIGIBILITY CATEGORY: Rehabilitation/Reconstruction of Residential Structures

NATIONAL OBJECTIVE: Funding for restoration, resiliency, and mitigation 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: \$308,000,000

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.

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, design work scheduled to be completed beginning in the first quarter of 2014 with letting and construction beginning shortly thereafter. Design and construction at developments with more complex improvements could take several years to complete.

Covered Projects

HUD's Federal Register notice for the second allocation of funds (78 FR 69104) included additional requirements for assessing major infrastructure projects. The goal of the additional requirements is to have the City provide information about the long-term rebuilding strategy for major infrastructure projects and ensure that where feasible resiliency has been factored into the design. Executive Order 13632, published at [77 FR 74341](#), established the Hurricane Sand Rebuilding Task Force, to ensure government-wide and region-wide coordination to help communities as they develop comprehensive rebuilding strategies. Section 5(b) of Executive Order 13632 requires that HUD, "as appropriate and to the extent permitted by law, align [the Department's] relevant programs" with the [Hurricane Sandy Rebuilding Strategy](#) which was released by the Task Force on August 19, 2013. An initiative of the Task Force is [Rebuild by Design](#) which is aimed at addressing structural and environmental vulnerabilities that Hurricane Sandy exposed in communities throughout the region and developing fundable solutions to better protect residents from future disasters.

The Federal Register for the second allocation states the following, "an infrastructure project is defined as an activity, or a group of related activities, designed by the grantee to accomplish, in whole or in part, a specific objective related to critical infrastructure sectors such as energy, communications, water and wastewater systems, and transportation, as well as other support measures such as flood control." HUD included additional requirements for assessing major infrastructure projects and set the threshold for the determining "Covered Projects." As stated on page 69107, major infrastructure projects are:

“defined as having a total cost of \$50 million or more (including at least \$10 million of CDBG-DR funds), or benefit multiple counties. Additionally, two or more related infrastructure projects that have a combined total cost of \$50 million or more (including at least \$10 million of CDBG-DR funds) must be designated as major infrastructure projects. Projects encompassed by this paragraph are herein referred to as “Covered Projects”.

In December 2012, as Sandy relief efforts were well underway, Mayor Bloomberg created the Special Initiative for Rebuilding and Resiliency (SIRR), and charged it with working the Office of Long-Term Planning and Sustainability (OLTPS) to develop a new plan to address the likely effects of climate change. SIRR released an extensive risk analysis report to the public entitled *A Stronger, More Resilient New York* (a.k.a. the SIRR Report) on June 11, 2013. The report is a comprehensive plan that contains actionable recommendations both for rebuilding the communities impacted by Sandy and increasing the resilience of infrastructure and buildings citywide.

Each Covered Project must address five (5) different analysis criteria within the Action Plan. These criteria are:

- Project Identification/Description;
- Use of Impact and Unmet Needs Assessment, the Comprehensive Risk Analysis and the Rebuild by Design Collaborative Risk Analysis;
- Transparent and Inclusive Decision Processes;
- Long-Term Efficacy and Fiscal Sustainability; and
- Environmentally Sustainable and Innovative Investments.

The City of New York has made it a priority to leverage other Federal funding sources in order to extend the number of CDBG-DR projects that the City can fund.

Covered Project

New York City Housing Authority (NYCHA) Building Damage

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 by Hurricane Sandy.

- 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.

Restoration and improved resiliency for public housing is a City priority. In the first round of CDBG-DR funding, \$108 million of funding was allocated to begin putting resiliency measures into place. Funds from this allocation will be used to provide the local match for FEMA public assistance that becomes obligated to repair the public housing buildings and/or cover costs not covered by FEMA or other funding sources.

1. Identification/Description

Combined Heat and Power

NYCHA's developments in Coney Island were especially impacted due to substantial sand and saltwater infiltration. Building systems such as boilers and electrical and mechanical equipment were heavily damaged by excessive flooding. The hurricane flooded all the basements as well as spaces up to approximately 3 feet above the ground level. NYCHA developed a plan for temporary restoration of heat and power and engaged contractors to do minor repairs. Designers were brought on board to provide detailed assessments that identified required permanent work. Pending funding availability, NYCHA plans to restore systems with advanced resiliency. It is exploring the feasibility of combining 10 boiler plants for three impacted developments in Coney Island into one centrally located combined heat and power plant that will provide centralized heating and emergency back-up power to more than 2,000 residents. Alternate advanced climate systems are being considered that provide, among other things, heat and cooling with localized temperature control in each unit.

Façade Improvements

More than 356 NYCHA buildings at 97 developments in all five boroughs sustained moderate damage, mostly due to wind damage to roofs and building façades. Pending available funding, NYCHA will look at advanced approaches to improve building façade by installing a new prefab rain screen façade system in buildings, where appropriate. The façade system will further preserve the building envelope and prevent water intrusion. In addition, the façade will provide thermal efficiency and enable us to reduce the number of boilers that need to be installed.

Electrical Distribution System

Existing high voltage electrical distribution systems with step down transformers in buildings are particularly vulnerable and difficult to repair. Pending available funding, NYCHA will explore replacing on-site high voltage distribution systems, where appropriate, with a more traditional system where high voltage is provided by the local utility to the site and standard distribution is provided to each location.

ELIGIBLE ACTIVITY: Rehabilitation/Reconstruction of Public Facilities

NATIONAL OBJECTIVE: Low- and Moderate-Income Housing

2. Use of Impact and Unmet Needs Assessment, the Comprehensive Risk Analysis and the Rebuild by Design Collaborative Risk Analysis

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.

In December 2012, Mayor Bloomberg created the Special Initiative for Rebuilding and Resiliency (SIRR) to focus on improving citywide infrastructure and building long term resilience. In June 2013, SIRR released a report entitled "A Stronger, More Resilient New York" that put forth a comprehensive plan containing actionable recommendations for rebuilding Sandy-impacted communities and for increasing the resilience of infrastructure and buildings citywide. The SIRR report includes a [chapter on Buildings](#) which sets forth strategies for protecting the city's public housing units. The report suggests targeting resiliency measures that include raised boilers and electrical switch gears.

The Rebuild By Design competition, an initiative of the Hurricane Sandy Rebuilding Task Force and HUD, has been tasked with developing fundable solutions to better protect residents from future climate events. Ten participating design teams are currently engaged in an extensive research process involving local community input and fieldwork. The winning designs are expected to be announced in April 2014. After they have been announced, NYC will use the collaborative risk analysis developed by the winners. NYC will use the Rebuild By Design risk analysis to evaluate Covered Projects. In the meantime, the City is basing its risk analysis on the SIRR report. Public outreach was a priority during the process of developing the SIRR report. Elected officials, community leaders, and the general public were consulted and their input contributed to the recommendations outlined in the report.

3. Transparent and Inclusive Decision Processes

Public outreach was a priority during the process of developing the SIRR report. Elected officials, community leaders, and the general public were consulted and their input contributed to the recommendations outlined in the report. As part of NYCHA's Annual Plan process, NYCHA staff briefed residents in all five boroughs on its strategic goals for Hurricane Sandy recovery, including estimated costs for the repair and resiliency to impacted developments. NYCHA will engage and update residents as plans are finalized based on available funding.

4. Long-Term Efficacy and Fiscal Sustainability

NYC will assure the long-term efficacy and sustainability of this program through ongoing monitoring and evaluation. During implementation, the City will ensure that all the appropriate mitigation measures are put into place and meet government standards. The City will be vigilant in doing immediate assessments after future storms events to monitor or assess the structures and equipment to see if they adequately withstood storm and hurricane conditions. Outcomes will be reported to the appropriate City departments to address any failures in structures and equipment.

Furthermore, in 2008, Mayor Bloomberg convened the New York City Panel on Climate Change (NPCC). The Panel is made up of a body of leading climate and social scientists charged with developing local climate projections. In September 2012 New York City formally codified the NPCC to institutionalize a process for updating local climate projections and identifying and implementing strategies to address climate risks. The NPCC develops climate projections using global climate models. These models are mathematical representations of the Earth's climate system (e.g., the interactions between the ocean, atmosphere, land, and ice.) They use estimates of future greenhouse gas and pollutant concentrations to project changes in climate variables such as temperature and precipitation. The City has worked with the NPCC to develop a series of "future flood maps" for New York that will help guide the city's rebuilding and resiliency efforts.

5. Environmentally Sustainable and Innovative Investments

In order to protect the NYCHA's critical infrastructure it is crucial to examine sustainable and resilient elements that can be included in all of our projects to ensure our infrastructure can withstand the impacts of climate change. We expect to be significant contributors to the virtual climate-resilience toolkit outlined in the Action Plan.

The NPCC develops climate projections using global climate models. These models are mathematical representations of the Earth's climate system (e.g., the interactions between the ocean, atmosphere, land, and ice.) They use estimates of future greenhouse gas and pollutant concentrations to project changes in climate variables such as temperature and precipitation. The City has worked with the NPCC to develop a series of "future flood maps" for New York that will help guide the city's rebuilding and resiliency efforts. The report states in its section on Initiatives for Improving the Quality of Climate Analysis that, "OLTPS and the NPCC will work to identify a set of metrics that can help the City and others measure actual climate changes against predicted climate change in order to adjust policies and investment decisions in the future." The SIRR reports goal is to minimize the impacts of climate change and enable quick recovery after extreme weather events.

The City is also informed by the [President's Climate Action Plan](#). The Action Plan identifies the need for boosting the resilience of buildings and infrastructure (page 13). The Action Plan also outlines actions for conserving land and water resources (page 15). The City of New York will look to the Federal government's efforts in planning for climate change and make efforts to align public housing with best practices for resiliency and sustainability.

VIII. Business

Impact to the City's Economy

Original text:

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.

Replace with:

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. This program provided approximately \$20 million in loans and grants to more than 650 businesses. The average loan size was \$22,895, and more than 80% of loans awarded were for the maximum amount.

Original text:

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.

Replace with:

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. Through the program, 94 applications for waivers were determined to be eligible and approved and 64 businesses successfully obtained sales tax letters, allowing them to proceed with reconstruction work while saving up to \$2.8 million in sales tax expenses.

Original Text:

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 Preliminary Work Maps have nearly doubled the number of NYC buildings located in the 100-year flood zone, suggesting that approximately 67,000 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)

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

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;
1. Anchoring new or existing industry clusters and catalyzing significant long-term economic growth in the five BRZ's and adjacent impacted areas;
 2. Protecting businesses in vulnerable floodplain areas of the City by incentivizing proactive investments in resiliency measures; and
 3. 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.

Replace with:

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, these estimates, combined with the strong demand for the City's emergency loan and grant program indicated that there was 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.

Applying the unmet needs formula and the available data at the time, 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 was left with an unmet business and economic need of \$5.7 billion.

However, demand for the Business Recovery Loan and Grant Program launched with the City's first tranche of funds, relative to the Emergency Loan and Grant Program launched immediately following the storm, has been less than anticipated. Between May 2013, when the Business Recovery Loan and Grant Program launched, and late November 2013, roughly 550 businesses had expressed interest in the program, with approximately 320 in the application packaging stage. Over a similar time frame, more than 1,100 businesses had requested assistance for the Emergency Loan and Grant Program. Given this indication of demand, the City has reduced the scope of the Business Loan and Grant Program.

Businesses also face significant Sandy-related impacts as a result of the expansion of the City's floodplain. Of the approximately 23,400 businesses located in Sandy Inundation Areas, many were located outside FEMA's 100-year flood zone. The revised preliminary FEMA Preliminary Flood Insurance Rate Maps have nearly doubled the number of NYC buildings located in the 100-year flood zone, suggesting that approximately 68,000 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. 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. Investments in resiliency measures will address these concerns and reduce the direct, long-term effects of Hurricane Sandy.

Based on this risk, the City had initially allocated approximately \$90M in funding to the Business Resiliency Investment Program. Recognizing the connection between building-based and business-based resiliency measures, the City is combining the funding for commercial structures under the Building Mitigation Incentive Program with funds dedicated to the Business Resiliency Investment Program. The combined funding and scope of the two programs will result in significant administrative savings, allowing the City to reduce the amount of funding anticipated to be spent across both programs.

Post-storm analysis also highlighted the extreme financial challenges that businesses face in financing currently available resiliency improvements given the high cost of retrofitting buildings not designed with flood protection in mind. In fact, the June 2013 Report from the Mayor's Special Initiative on Rebuilding and Resiliency, A Stronger More Resiliency New York, indicated that approximately \$1.2B would be required to incentivize resiliency improvements across a significant share of square footage in the floodplain. Recognizing that funding on this scale will not come from a single source, the City is also exploring more additional funding sources, including leveraging funds through Community Development Finance Institutions and other intermediaries, as well alternative approaches such as revolving loan funds, leveraging energy efficiency improvements to reduce costs, social impact bonds and other strategies.

Through the Resiliency Technologies Competition, now called RISE:NYC – Resiliency Innovations for a Stronger Economy, the City is also preserving funding to foster new technologies to further encourage both existing and new businesses to deploy mitigation measures to minimize the impact of future disasters and catastrophes. Since the purpose of this program is to pilot solutions and technologies that could be scaled through other programs – such as the expanded Business Resiliency Investment Program or other sustainable funding streams – the City has reduced the funding for this program to be consistent with the scale of projects anticipated to be funded under this program.

The City also remains committed to the Neighborhood Game Changer Investment Program, which is designed to identify and fund transformational investments and catalyze long-term economic growth in the areas impacted by Sandy. This program has been revised from \$90M to \$83M to reflect the needs outlined in the proposals received following a Request for Proposal process launched in June of 2013. Proposed Game Changer projects are evaluated based on a variety of factors, including their ability to create jobs, generate significant economic activity and leverage other sources of public and private investment.

Economic Goals

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.

Original text:

Business Loan and Grant Program

Replace with:

Business Recovery Loan and Grant Program

Original text:

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.

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 Business Loan and Grant 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.

Replace with:

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. This program provided approximately \$20 million in loans and grants to more than 650 businesses. The average loan size was \$22,895, and more than 80% of loans awarded were for the maximum amount.

The Business Recovery Loan and Grant Program will 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.

Original text:

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

Replace with:

HUD Eligibility Category: Special Economic Development Activities (aka Economic Development or Recovery Activity that Creates/Retains Jobs) and Microenterprise Assistance.

Original text:

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

Replace with:

National Objective: Urgent Need; Low- and Moderate-Income Job Creation/Retention; Low- and Moderate-Income Area; and Low- and Moderate-Income Limited Clientele (Microenterprise).

Original text:

CDBG-DR Allocation: \$72,000,000

Replace with:

CDBG-DR Allocation: \$42,000,000

Given indications of demand to date, the City has reduced the scope of this program.

Original Text:

Projected Accomplishments: At least 750 businesses assisted and approximately 7,500 jobs retained

Replace with:

Projected Accomplishments: At least 435 businesses assisted and approximately 4,350 jobs retained

Original text:

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 Preliminary Work Maps (PWMs) released in June 2013 have nearly doubled the number of NYC buildings located in the 100-year flood zone, suggesting approximately 68,000 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, and 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.
- structurally reinforcing wood-framed buildings, dry flood-proofing, elevating mechanical systems, protecting critical systems, and implementing other mitigation measures

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.

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;
- Meet the following criteria
 1. Sustained direct physical impact of Sandy (inundation or power loss); or
 2. Were located in the inundation area of the storm and can demonstrate direct or indirect impacts from the storm; or
 3. Are located within FEMA's revised 100-year floodplain as defined by either the revised June 2013 FEMA Preliminary Work Maps (PWMs) or subsequent updates and can demonstrate direct or indirect impacts from the storm (i.e., are evaluating whether to expand or even continue operations in these vulnerable areas)

Preference may be given for projects that 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: Commercial space that meets the following criteria will be eligible:

- sustained direct physical damages as a result of the storm (inundation or power loss); or
- were located in the inundation area of the storm and demonstrate direct or indirect impacts from the storm; or

-
- are located within the 100-year floodplain, as defined by either the revised June 2013 FEMA Preliminary Work Maps (PWMs) or subsequent updates and can demonstrate direct or indirect impacts from the storm (i.e., are evaluating whether to expand or even continue operations in these vulnerable areas)

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 that sustained direct physical damage from Sandy, were located in the inundation area of the storm, or are within FEMA's revised 100-year floodplain, as defined by either the revised June 2013 FEMA Preliminary Work Maps (PWMs) or subsequent updates.

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.

Replace with:

Business Resiliency Investment Program

[NOTE: This program combines the Business Resiliency Investment Program (\$90,000,000) as well as the Building Mitigation Incentive Program funding administered by NYCEDC (\$60,000,000)].

PROGRAM OBJECTIVE AND DESCRIPTION: During the 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 FEMA Preliminary Flood Insurance Rate Maps (FIRMs) released in December 2013 have nearly doubled the number of NYC buildings located in the 100-year flood zone, suggesting approximately 68,000 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.

This program will provide CDBG-DR funds for investments to improve the resiliency of commercial space to severe weather. By helping businesses make long-term, strategic improvements to property, buildings, and 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:

- Elevating mechanical systems;
- Protecting critical building systems;
- Dry flood-proofing;
- Wet flood-proofing of certain uses;
- Structurally reinforcing wood-framed buildings; and/or
- Completing other resiliency investments, including business-based measures such as creating business disaster preparedness plans, elevating or protecting business equipment/inventory and/or data systems, etc.

This program will incentivize businesses to make these investments now by reimbursing a portion of the incremental costs of completing these mitigation measures. The program is anticipated to fund up to \$2 million per applicant, of the cost of specified improvements that increase the resiliency of buildings or businesses to future storms. (NOTE: if a single applicant is applying on behalf of multiple properties, the \$2 million maximum amount applies per property).

Applicants may qualify for higher award amounts and/or the full amount of the incremental cost of completing measures, based on factors such as:

- Significant financial hardship – i.e., extreme difficulty funding a project using other available sources (Note: these would be in addition to those sources already considered as a part of the duplication of benefits, such as unleveraged assets, personal savings and other potential sources)
- Significant estimated impacts on low-to-moderate income communities or employees
- High density of uses protected as a result of the resiliency investment, based on total square footage and/or number of jobs or businesses protected, per dollar of investment

The detailed procedures for reviewing such cases will be included in the program's Policies & Procedures.

In addition, the program also anticipates that applicants applying for less than \$10,000 in funding for activities that will not require construction will be eligible to qualify for 100 percent (rather than a portion) of the costs of their mitigation measures.

(This program will fund resiliency improvements, rather than repairs. Properties repaired through other programs noted in the Action Plan are eligible for resiliency improvements, subject to Duplications of Benefits regulations.) Please note that all construction work funded under this program will comply with all applicable City, State, and Federal requirements including, but not limited to, the Davis-Bacon and Related Acts and Section 3 of the Housing and Urban Development Act of 1968. 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); and Microenterprise (Limited Clientele)

NATIONAL OBJECTIVE: Urgent Need; Low- and Moderate-Income Job Creation/Retention; and Low- and Moderate-Income Area; and Low- and Moderate-Income Limited Clientele (Microenterprise).

CDBG-DR ALLOCATION: \$110,000,000.

Recognizing the connection between building-based and business-based resiliency measures, the City is combining the funding for commercial structures under the Building Mitigation Incentive Program with funds dedicated to the Business Resiliency Investment Program. The combined funding and scope of the two programs will result in significant administrative savings, allowing the City to reduce the amount of funding anticipated to be spent across both programs.

Post-storm analysis also highlighted the extreme financial challenges that businesses face in financing currently available resiliency improvements given the high cost of retrofitting buildings not designed with flood protection in mind. In fact, the June 2013 Report from the Mayor's Special Initiative on Rebuilding and Resiliency, A Stronger More Resiliency New York, indicated that approximately \$1.2B would be required to incentivize resiliency improvements across a significant share of square footage in the floodplain. Recognizing that funding on this scale will not come from a single source, the City is also exploring additional funding sources, including leveraging funds through Community Development Finance Institutions and other intermediaries, as well alternative approaches such as revolving loan funds, leveraging energy efficiency improvements to reduce costs, social impact bonds and other strategies.

PROJECTED ACCOMPLISHMENTS: Up to 17 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 of New York. An additional allowable entity or entities may be chosen to operate the program.

ELIGIBLE APPLICANTS/PROPERTIES: It is currently anticipated that, in order to be eligible for this program, applicants must:

- If they are a for-profit entity, meet the SBA definition of a small business;
- Undertake one or more of the prescribed resiliency measures;

-
- Occupy/own a commercial space that is not worth more than a threshold amount per square foot;
 - Meet the following criteria:
 1. Sustained direct physical impact of Sandy (inundation or power loss); or
 2. Were located in the inundation area of the storm (the Sandy Inundation Area is defined by the extent of the DSLOSH Hindcast Surge Extent Model and used as a boundary for DCP's PLUTO lot data to determine which lots were at risk of inundation by Hurricane Sandy—a dataset created on 2/15/13) and can demonstrate direct or indirect impacts from the storm; or
 3. Are located within FEMA's revised 100-year floodplain as defined by either the revised December 2013 FEMA Preliminary FIRMs or subsequent updates and can demonstrate direct or indirect impacts from the storm (i.e., are evaluating whether to expand or even continue operations in these vulnerable areas)

Preference may be given for projects that demonstrate maximum impact to low- and moderate-income communities or employees.

This program is open to businesses in tenant-occupied space, as well as the owners of privately-owned commercial space. If business tenants are applying for resiliency measures requiring access to common building systems or areas, property owner consent (or the consent of another owner-designated party) will be required. Resiliency measures that would not require this access – such as assistance with creating business disaster preparedness plans, elevating or protecting business equipment/inventory and/or data systems, etc., would not require the consent of the owner/owner-designated party.

ELIGIBILITY CRITERIA: Commercial space that meets the following criteria will be eligible:

- Sustained direct physical damages as a result of the storm (inundation or power loss); or
- Were located in the inundation area of the storm (the Sandy Inundation Area is defined by the extent of the DSLOSH Hindcast Surge Extent Model and used as a boundary for DCP's PLUTO lot data to determine which lots were at risk of inundation by Hurricane Sandy—a dataset created on 2/15/13) and demonstrate direct or indirect impacts from the storm; or
- Are located within the 100-year floodplain, as defined by either the revised December 2013 FEMA Preliminary FIRMs or subsequent updates and can demonstrate direct or indirect impacts from the storm (i.e., are evaluating whether to expand or even continue operations in these vulnerable areas)

Eligible resiliency measures will be pre-determined, with the ability to approve additional measures at NYCEDC's discretion.

PROGRAM PRIORITIES: Although it is anticipated that funds would be disbursed on a first-come, first-served basis, NYCEDC reserves the right to prioritize applicants, and to ensure that a mix of eligible businesses types are served, based on criteria such as:

- The applicant sustained direct physical damage as a result of Hurricane Sandy and is also located in the best available data concerning 100-year floodplain

-
- The project can demonstrate maximum impact to low- and moderate-income area
 - The resiliency investments seek to protect adjacent communities from hazardous materials that might otherwise be subject to flooding.
 - The high density of uses protected as a result of the resiliency investment, , based on total square footage and/or number of jobs or businesses protected, per dollar of investment

All applicants meeting program Eligibility Criteria will be eligible for funds; applicants not falling into a program priority may also receive funds through this program.

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 that sustained direct physical damage from Sandy, were located in the inundation area of the storm, or are within FEMA's revised 100-year floodplain, as defined by either the revised December 2013 FEMA Preliminary FIRMs or subsequent updates, throughout the five boroughs.

PROGRAM START AND END DATES: Detailed program design is currently being completed. It is anticipated that the program will begin accepting applications by the end of Q2 2014; fund disbursement will continue through 2016 or until all 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 same purpose will be deducted from grants provided through this program.

Neighborhood Game Changer Investment Competition

Original text:

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

Replace with:

CDBG-DR Allocation: \$84,000,000

Funding for this program has been revised to reflect the needs outlined in the proposals received following a Request for Proposal process launched in June of 2013.

Original text:

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.

Replace with:

Program Administration: NYCEDC, which will be a subrecipient of the City of New York, will administer the RFP release and selection process, with administration of winning proposals to be determined.

Original text:

Program Start and End Dates: March 2013 through December 2013 for RFP process; TBD for program administration.

Replace with:

Program Start and End Dates: March 2013 through December 2013 for RFP process; December 2013 through expenditure of funds for program administration.

Original text:

Infrastructure and Building Resiliency Investment Competition

Replace with:

Resiliency Innovations for a Stronger Economy (RISE : NYC)

Original text:

The FEMA Preliminary Work Maps (PWM) have nearly doubled the number of buildings located in the 100-year flood zone, suggesting approximately 68,000 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.

Replace with:

The FEMA Preliminary Flood Insurance Rate Maps (FIRMs) have nearly doubled the number of buildings located in the 100-year flood zone, suggesting approximately 68,000 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.

Original text:

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

Replace with:

CDBG-DR Allocation: \$30,000,000

Given that the purpose of this program is to pilot solutions and technologies that could be scaled through other programs – such as the expanded Business Resiliency Investment Program or other sustainable funding streams – the City has reduced the funding from this program to be consistent with the scale of projects anticipated to be funded under this program.

Original text:

Program Administration: NYCEDC will be a subrecipient of the New York City Office of Management and Budget. 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 competition to identify technologies and measures that improve the resiliency of (1) critical infrastructure networks, including power, liquid fuel, steam, natural gas and telecommunications and (2) building systems.

Replace with:

Program Administration: NYCEDC will be a subrecipient of the City of New York. 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 competition to identify technologies and measures that improve the resiliency of (1) critical infrastructure networks, including power, liquid fuel, steam, natural gas and telecommunications and (2) building systems.

Original text:

ELIGIBILITY CRITERIA:

Eligible projects must benefit small businesses that:

- sustained physical damages as a result of the storm; or
- were located in the inundation area of the storm and can demonstrate direct or indirect impact from the storm; or
- sustained a loss of power or utility connection as a result of the storm; or
- are located within the 100-year floodplain, as defined by either the revised June 2013 FEMA Preliminary Work Maps (PWMs) or subsequent updates and can demonstrate direct or indirect impact from the storm (i.e., are evaluating whether to expand or even continue operations in these vulnerable areas)

Eligible projects that can demonstrate a benefit to small businesses that incurred extensive physical damages as a result of the storm may be given preference, at the discretion of NYCEDC and the City.

Replace with:

ELIGIBILITY CRITERIA:

Eligible projects must benefit small businesses that:

- sustained physical damages as a result of the storm; or
- were located in the inundation area of the storm and can demonstrate direct or indirect impact from the storm; or
- sustained a loss of power or utility connection as a result of the storm; or
- are located within the 100-year floodplain, as defined by either the revised December 2013 FEMA Preliminary Flood Insurance Rate Maps (FIRMs) or subsequent updates and can

demonstrate direct or indirect impact from the storm (i.e., are evaluating whether to expand or even continue operations in these vulnerable areas)

Eligible projects that can demonstrate a benefit to small businesses that incurred extensive physical damages as a result of the storm may be given preference, at the discretion of NYCEDC and the City.

Original text:

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

Replace with:

Grant/Loan Size Limit: While NYCEDC intends to competitively award the \$30 million grant to multiple proposals, award amounts will be based upon the proposal-specific proven financial need.

Original text:

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

- Release solicitation and procure a technical consultant (Q2 2013);
- Launch competition and solicit proposals (Q3/Q4 2013); and
- Select proposals and award grants (Q2 2014).

Replace with:

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

- Release solicitation and procure a technical consultant (Q2 2013);
- Launch competition and solicit proposals (Q4 2013/Q1 2014); and
- Select proposals and award grants (Q4 2014).

IX. Infrastructure and Other City Services

Original text:

IX. Infrastructure and Other City Services

Replace with:

IX. Infrastructure and Other City Services (IOCS)

Original text:

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.

Replace with:

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 \$3.35 billion.

Original text:

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_{A.M.} 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 were more than \$4.5 billion. These early estimates were comprised of \$1.5 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. Based on current information as of September 30, 2013, these estimates have held up comparatively well although overall costs are now estimated at approximately \$4.8 billion, including both emergency response and infrastructure repairs.

Likewise, the City's unmet need for emergency response public services, debris removal, and costs to repair and rebuild damaged City infrastructure was estimated at more than \$1.2 billion. Based on availability of funds, determinations of funding eligibility, completed damage assessments, and revisions to scopes of work, the current estimates of unmet need have increased from more than

\$1.2 billion to over \$1.8 billion. In this first allocation of CDBG-DR funds, the City is dedicating \$360 million, roughly one-fifth 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.

Replace with:

New York City's Response to Infrastructure Impact

The City's response to infrastructure impact is being heavily informed by the national Hurricane Sandy Rebuilding Task Force's *Hurricane Sandy Rebuilding Strategy* report, which was released in August 2013. In particular, the report outlines a number of recommendations on the following topics that the City has taken particular interest in as they relate to IOCS:

- Risk assessment (recommendations 1 & 2);
- Infrastructure resilience (recommendations 3-9, 11, 16, & 19-25); and
- Green standards (recommendations 19-22).

The Task Force's report, along with the City's report *A Stronger, More Resilient New York*, have informed this Action Plan and may be consulted at various stages of IOCS's process.

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.

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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.

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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.

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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 were more than \$4.5 billion. These early estimates were comprised of \$1.6 billion for the costs of emergency response (protecting health and safety and assistance to special needs populations), debris removal, and more than \$3.3 billion in estimated costs for repairing and rebuilding damaged City infrastructure. Based on current information as of November 30, 2013, these estimates have held up comparatively well although overall costs are now estimated at approximately \$4.96 billion, including both emergency response and infrastructure repairs.

Likewise, the City's unmet need for emergency response public services, debris removal, and costs to repair and rebuild damaged City infrastructure was estimated at more than \$1.2 billion. Based on availability of funds, determinations of funding eligibility, completed damage assessments, and revisions to scopes of work, the current estimates of unmet need have increased from more than \$1.2 billion to over \$1.6 billion. The City is dedicating \$835 million, roughly half of its total unmet need, in CDBG-DR funds.

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;
5. Restoring parks and recreational facilities in order for impacted communities to resume recreational activities;
6. Assisting residential communities impacted by Sandy with emergency repairs to properties to the extent necessary to alleviate the emergency conditions caused by the storm; and
7. As part of its restoration projects for Sandy-damaged infrastructure, the City anticipates evaluating project design elements, such as elevating building systems equipment, and may incorporate these design elements, as applicable, to enhance preparedness for potential future disasters

Original text:

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:

Health and Hospitals Corporation (HHC): The Health and Hospitals Corporation (HHC) is a public benefit not-for-profit corporation controlled by the City of New York that primarily serves low-income residents. HHC provided healthcare services to the public during and after the storm and incurred expenses in three areas – the provision of new services to alleviate emergency conditions in impacted communities, restoring facilities serving low- to moderate-income patients to their full operational capacity, and hastening service readiness to more quickly serve vulnerable populations. A total of \$183 million of currently available CDBG-DR funds is allocated towards the Public Services provided by HHC.

1) Provision of New Services:

Due to the impact from Hurricane Sandy, HHC facilities lost the ability to maintain all of their traditional services but quickly established several new service offerings to assist those vulnerable populations most affected by the storm. Each of the HHC hospitals and the Corporation's central offices staffed and maintained command centers through and after the storm. Moreover, HHC provided staff and supplies to New York City's Special Medical Needs Shelters for the most vulnerable populations. As soon as possible, both Bellevue and Coney Island Hospitals created urgent care clinics in their hospitals to provide additional services to the community because their Emergency Departments were unable to re-open. During a time of crisis and recovery, HHC and its staff adapted to the needs of the communities it serves, especially those most impacted by the hurricane.

Coney Island Hospital operated four mobile van units to provide services to neighborhoods that were tremendously impacted by the storm, ultimately serving over 4,000 patients since the storm. Also, additional dental services were provided at the hospital after Sandy to replace services lost due to the closure of the Community Health Center, with nearly 5,000 dental visits taking place in the new service location. In addition, the Bellevue Cancer Center staff provided oncology services at Woodhull Medical & Mental Health Center in Bushwick, with over 2,000 additional oncology visits provided to 1,000 additional patients at Woodhull when compared to the same period the year before.

Replace with:

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 may 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:

Health and Hospitals Corporation (HHC): The Health and Hospitals Corporation (HHC) is a public benefit not-for-profit corporation controlled by the City of New York that primarily serves low-income residents. HHC provided healthcare services to the public during and after the storm and incurred expenses in three areas – the provision of new services to alleviate emergency conditions in impacted communities, restoring facilities serving low- to moderate-income patients to their full operational capacity, and hastening service readiness to more quickly serve vulnerable populations. A total of \$222.6 million of currently available CDBG-DR funds is allocated towards the Public Services activity provided by HHC.

1) Provision of New Services:

Due to the impact from Hurricane Sandy, HHC facilities lost the ability to maintain all of their traditional services but quickly established several new service offerings to assist those vulnerable populations most affected by the storm. Each of the HHC hospitals and the Corporation's central offices staffed and maintained command centers through and after the storm. Moreover, HHC provided staff and supplies to New York City's Special Medical Needs Shelters for the most vulnerable populations. As soon as possible, both Bellevue and Coney Island Hospitals created urgent care clinics in their hospitals to provide additional services to the community because their Emergency Departments were unable to re-open. During a time of crisis and recovery, HHC and its staff adapted to the needs of the communities it serves, especially those most impacted by the hurricane.

Coney Island Hospital operated four mobile van units to provide services to neighborhoods that were tremendously impacted by the storm. Two of the mobile vans served Staten Island and another served Garrison Beach and Coney Island immediately after the storm, and a fourth was opened in June 2013 and continues to serve the community 5-days-per-week for pediatrics and adults similar to services provided at Ida G. Israel Community Health Center, which was closed due to the hurricane. The mobile vans have provided services to over 4,000 patients since the storm.

Additional dental services are now being provided at the hospital to replace services lost due to the closure of the Community Health Center. Nearly 5,000 dental visits have taken place in this new service location. In addition, the Bellevue Cancer Center staff provided oncology services at Woodhull Medical & Mental Health Center in Bushwick. The Cancer Center was open at Woodhull from November 7, 2012, to February 18, 2013. Over 2,000 additional oncology visits were provided to 1,000 additional patients at Woodhull when compared to the same period the year before.

Original text:

HUD ELIGIBILITY CATEGORY: Public Services

NATIONAL OBJECTIVE: Low- and Moderate-Income Area; Low- and Moderate-Income Persons; and Urgent Need

CDBG-DR ALLOCATION: \$237,000,000

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, Administration for Children's Services, Department of Buildings, Department of Health and Mental Hygiene, Department of Investigation, Department of Youth and Community Development, District Attorney of New York, Department of Housing Preservation and Development, Department of Parks and Recreation, 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

15% PUBLIC SERVICES CAP: With this reclassification of costs, the Public Services IOCS activity of \$237 million and the TDAP activity of \$19 million under Housing programs will account for 14.4% of the total \$1.773 billion in grant funds.

Replace with:

HUD ELIGIBILITY CATEGORY: Public Services

NATIONAL OBJECTIVE: Low- and Moderate-Income Area; Low- and Moderate-Income Limited Clientele; and Urgent Need

CDBG-DR ALLOCATION: \$367,000,000

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, Administration for Children's Services, Department of Buildings, Department of Health and Mental Hygiene, Department of Investigation, Department of Youth and Community Development, District Attorney of New York, Department of Housing Preservation and Development, Department of Parks and Recreation, Department of Transportation; Brooklyn Public Library; Campaign Finance Board; City Council; City University of New York; Civilian Complaint Review Board; Department of Cultural Affairs; Department of Cultural Affairs (WCS); Department of Consumer Affairs; Department of Design and Construction; Department of Finance; Department of Finance; Department of Investigation; Department of Probation; Department of Records and Information Services; Economic Development Corporation; Financial Information Services Agency; Law Department; Office of Administrative Trials and Hearings; Office of the Public Advocate; and Queens Borough Public Library.

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

15% PUBLIC SERVICES CAP: With this reclassification of costs, the estimated Public Services IOCS activity of \$367 million and the TDAP activity of \$19 million under Housing programs will account for 12% of the total \$3.22 billion in grant funds, well under the 15% cap.

Original text:

Emergency Demolition

CDBG-DR ALLOCATION: \$1,000,000

Replace with:

Emergency Demolition

CDBG-DR ALLOCATION: \$2,000,000

Original text:

Debris Removal/Clearance

CDBG-DR ALLOCATION: \$8,000,000

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; Department of Citywide Administrative Services; Department of Education; Department of Health and Mental Hygiene; District Attorney of New York; Economic Development Corporation; Human Resources Administration; and Department of Correction.

Replace with:

Debris Removal/Clearance

CDBG-DR ALLOCATION: \$12,500,000

PROGRAM ADMINISTRATION: Department of Citywide Administrative Services; Department of Correction; Department of Cultural Affairs; Department of Education; Department of Environmental Protection; Department of Health and Mental Hygiene; Department of Parks and Recreation; Department of Sanitation; Department of Transportation; District Attorney of New York; Economic Development Corporation; Human Resources Administration; New York Fire Department; New York Police Department; Office of Emergency Management; and Queens Borough Public Library.

Original Text:

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, and current, 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. Following HUD's guidance, the City will be adopt FEMA and other federal agency environmental reviews when feasible. 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.

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- **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).

CDBG-DR funds will fund the planning, design, and related services for the Rockaway Beach Boardwalk, which was damaged by Hurricane Sandy. As of August 2013, the design of the Rockaway Beach Boardwalk has begun. It is anticipated to provide for protective structures that are more resilient and able to withstand storm and tidal forces that may impact the coastline in future years. A total of \$10 million is currently available for the design and related services of Phase II of the Rockaway Beach Boardwalk covered under Planning, Administration, and IOCS Program costs. Construction of the boardwalk will be funded in a future CDBG-DR allocation.

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 dewatering 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 (Paide 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.

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- **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:

6. 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.
7. 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: \$15,000,000

PROJECTED ACCOMPLISHMENTS: 96 Public Facilities (14 beaches; 71 schools; and 11 hospitals/health clinics)

PROGRAM ADMINISTRATION: Health and Hospitals Corporation; Department of Education; School Construction Authority; Department of Parks and Recreation; Department of Citywide Administrative Services; Department of Cultural Affairs; Department of Design and Construction; Department of Environmental Protection; Department of Health and Mental Hygiene; Department of Homeless Services; Department of Investigation; Department of Transportation; Economic Development Corporation; Fire Department of New York; Housing and Preservation Development; Human Resources Administration; Mayor's Office; Department of Parks and Recreation; New York Police Department; and the Department of Correction.

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

Replace with:

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 current estimated impact to City infrastructure and public facilities is \$3.3 billion (including costs for damage to water and sewer infrastructure, streets and roads, as well as other non-residential structures). The City may use CDBG-DR funds to leverage other federal funding sources to rehabilitate and reconstruct public facilities. The other federal funding sources CDBG-DR funding anticipates it will leverage include FEMA Public Assistance grants as well as Army Corps of Engineers and Federal Highway Administration funds. Following HUD's guidance, the City will be adopt FEMA and other federal agency environmental reviews when feasible. 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, a portion of the extremely large additional City infrastructure unmet needs are expected to be addressed pending funding availability in a future allocation.

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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.

See the "IOCS Covered Projects" section for detailed information about HHC's major infrastructure projects.

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 City of New York 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. 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 City of New York made it a priority to restore sections of the City's beaches and supporting infrastructure across Queens, Brooklyn, and Staten Island, to lessen hardship faced by the communities and small businesses that rely on this public asset for their very livelihood. Restoration activities included 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). As of August 2013, the design of the Rockaway Beach Boardwalk has begun. It is anticipated to provide for protective structures that are more resilient and able to withstand storm and tidal forces that may impact the coastline in future years.

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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.

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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

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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.

See the "IOCS Covered Projects" section for a detailed description of DOC's major infrastructure projects.

Department of Transportation (DOT)

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- **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.

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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.

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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.

See the "IOCS Covered Projects" section for a more detailed description of this major infrastructure project.

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.

Department of Environmental Protection (DEP)

Construction/ Reconstruction of Water/Sewer Lines or Systems

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.

Department of Transportation (DOT)

Construction/Reconstruction of Streets

The City may 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.

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 thoroughways 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).

See "IOCS Covered Projects" for a detailed description of DOT major infrastructure projects.

Department of Design and Construction (DDC)

Construction/Reconstruction of Streets

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.

New York City Economic Development Corporation (NYCEDC)
Rehabilitation/Reconstruction of Other Non-Residential Structures

The City may 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. Agencies who did this work include:

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).

HMGP

FEMA's Hazard Mitigation Grant Program (HMGP) provides grants to states and local governments to implement long-term hazard mitigation measures after a major disaster declaration. The purpose of the HMGP is to reduce the loss of life and property due to natural disasters and to enable mitigation measures to be implemented during the immediate recovery from a disaster. The HMGP is authorized under Section 404 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act.

The City of New York has submitted 40 HMGP applications to the State of New York for review, for a combined total project cost of \$546.12 million. FEMA can fund up to 75 percent of the eligible costs of each project. The state or grantee must provide a 25 percent match, which can be fashioned from a combination of cash and in-kind sources. Funding provided to states under CDBG can be used to meet the non-federal share requirement and the City of New York expects to provide the 25% match for these projects. While it is not anticipated that all 40 projects will be funded, the City expects some portion to be funded. As such, the City is estimating between \$50-137 million in CDBG-DR funds being used as the HMGP match.

Red Hook Integrated Flood Protection System

The City has a comprehensive coastal protection plan that includes projects such as an Integrated Flood Protection system in Red Hook, Brooklyn. The City has dedicated \$1M towards a design competition for the Red Hook Integrated Flood Protection System. A portion of funds from IOCS

Rehabilitation/Reconstruction of Public Facilities may be used towards program costs for this project. New York City and New York State are currently exploring joint funding opportunities, which would contribute to the project being structured in phases. The estimated cost for this project is \$193M.

See “Resilience Covered Projects” section, below, for a detailed description of the Red Hook Integrated Flood Protection System”

IOCS Covered Projects

HUD’s Federal Register notice for the second allocation of funds (78 FR 69104) included additional requirements for assessing major infrastructure projects. The goal of the additional requirements is to have the City provide information about the long-term rebuilding strategy for major infrastructure projects and ensure that where feasible resiliency has been factored into the design. Executive Order 13632, published at 77 FR 74341, established the Hurricane Sand Rebuilding Task Force, to ensure government-wide and region-wide coordination to help communities as they develop comprehensive rebuilding strategies. Section 5(b) of Executive Order 13632 requires that HUD, “as appropriate and to the extent permitted by law, align [the Department’s] relevant programs” with the *Hurricane Sandy Rebuilding Strategy* which was released by the Task Force on August 19, 2013. An initiative of the Task Force is *Rebuild by Design* which is aimed at addressing structural and environmental vulnerabilities that Hurricane Sandy exposed in communities throughout the region and developing fundable solutions to better protect residents from future disasters.

The Federal Register for the second allocation states the following, “an infrastructure project is defined as an activity, or a group of related activities, designed by the grantee to accomplish, in whole or in part, a specific objective related to critical infrastructure sectors such as energy, communications, water and wastewater systems, and transportation, as well as other support measures such as flood control.” HUD included additional requirements for assessing major infrastructure projects and set the threshold for the determining “Covered Projects.” As stated on page 69107, major infrastructure projects are:

“defined as having a total cost of \$50 million or more (including at least \$10 million of CDBG-DR funds), or benefit multiple counties. Additionally, two or more related infrastructure projects that have a combined total cost of \$50 million or more (including at least \$10 million of CDBG-DR funds) must be designated as major infrastructure projects. Projects encompassed by this paragraph are herein referred to as “Covered Projects”.

In December 2012, as Sandy relief efforts were well underway, Mayor Bloomberg created the Special Initiative for Rebuilding and Resiliency (SIRR), and charged it with working the Office of Long-Term Planning and Sustainability (OLTPS) to develop a new plan to address the likely effects of climate change. SIRR released an extensive risk analysis report to the public entitled *A Stronger, More Resilient New York* (a.k.a. the SIRR Report) on June 11, 2013. The report is a comprehensive plan that contains actionable recommendations both for rebuilding the communities impacted by Sandy and increasing the resilience of infrastructure and buildings citywide.

The following is a list of covered projects under the IOCS Chapter of this Action Plan Amendment:

- 1) HHC – Bellevue Hospital Center

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- 2) HHC – Coler-Goldwater Memorial Hospital
 - 3) HHC – Coney Island Hospital (CIH)
 - 4) HHC – Metropolitan Hospital Center
 - 5) DPR – Parks Beaches: Phase I and II
 - 6) DOT - Road Reconstruction
 - 7) DOT - Movable Bridges and Underpasses
 - 8) DOT – Traffic and Planning
 - 9) DOT – Street Resurfacing
 - 10) DCLA – New York Aquarium
 - 11) DOC – Rikers Island Shoreline Restoration, DOC Facility Damage
 - 12) HMGP - FEMA’s Hazard Mitigation Grant Program (HMGP)

In addition to these IOCS Covered Projects there are two other covered projects identified in this Action Plan Amendment. For a detailed description of the NYCHA major infrastructure project, see the Housing section above. For a detailed description of the Red Hook Integrated Flood Protection System, see the Resilience section, below.

Each Covered Project must address five (5) different analysis criteria within the Action Plan.

These criteria are:

- Project Identification/Description;
- Use of Impact and Unmet Needs Assessment, the Comprehensive Risk Analysis and the Rebuild by Design Collaborative Risk Analysis;
- Transparent and Inclusive Decision Processes;
- Long-Term Efficacy and Fiscal Sustainability; and
- Environmentally Sustainable and Innovative Investments.

The City of New York has made it a priority to leverage other Federal funding sources in order to extend the number of CDBG-DR projects that the City can fund.

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 within the City’s legal responsibility to repair. 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, a conservation organization with programs in New York City and in diverse locations across the globe). The Aquarium campus buildings serve both the animal collections and visitors are unique in their engineering and architecture. Together these buildings provide for the care and exhibition of over 12,000 specimens representing 395 aquatic and marine species and, as a campus, this Aquarium has been a key economic and cultural anchor for the Coney Island community for over half a century.

Covered Project:

Department of Cultural Affairs (DCLA) – New York Aquarium

1. Project Description and Analysis

NYC has determined that the restoration of the New York Aquarium is a Covered Project, per HUD's definition.

Hurricane Sandy caused extensive flood damage to the Aquarium's 14-acre facility, which fronts on the Coney Island boardwalk and beach. The storm's 12- to 14-foot surge inundated campus buildings and grounds, and damaged the electrical and mechanical equipment that is critical to campus operations and the life support systems that are essential to the survival of the Aquarium's collection. The facility requires extensive repair and reconstruction in order to fully reopen to the public.

Most damage to the facility was caused by salt water exposure and the flooding of campus systems, much of which are below grade. The ensuing loss of power was the central problem for the organization, which led to damages across the mechanical, electrical and plumbing systems and also damaged the separate and multiple life support systems (LSS) required by the aquatic and marine collections. The LSS includes pumps, filters, distribution piping and controls that support water flow, filtration, aeration, and ozonation. Security, IT, fire alarm systems were flooded and inundated with salt water. Architectural elements and finishes and exhibits were also severely damaged by flooding from the storm.

A team of engineers, architects, and estimators compiled a comprehensive scope of work (damage assessment reports) that identified the 46 buildings and structures damaged in the storm and detailed a restoration scope—the base scope. The base scope of work defines replace-in-kind restoration to the all damaged elements on the entire campus. The base scope includes required code-compliant replacements where the damaged elements or equipment did not meet current code requirements due to grandfathering under old New York City Building Code and also a new DFE (Design Flood Elevation) based on FEMA's best available flood data. Under the guidelines of the Public Assistance program, the cost of the base scope is estimated to fall in the range of \$50 to \$60 million.

In addition to the base scope, the restoration will include mitigation measures to protect the Aquarium from future flood-like events that may be funded through section 406 of the Stafford Act or other FEMA or CDBG funds. The City is exploring what mitigation opportunities would be most beneficial to the campus and the surrounding community, and has not made a final decision on the mitigation options to request from FEMA. Once the options have been presented, FEMA will evaluate the proposals, make a selection, propose alternatives, or otherwise provide feedback and changes. As a result, final mitigation costs associated with the project are not yet known. As of now it can be estimated that they may be as low as \$5 million or as high as \$40 or \$50 million.

The Aquarium was able to partially re-open to the public on May 25, 2013, in time for the first full summer season after the storm and serving as a significant attraction and key economic engine for the flood-damaged neighborhood. The only partially-opened Aquarium has served more than 293,000 visitors since May 25, 2013.

ELIGIBLE ACTIVITY: Rehabilitation/Reconstruction of Public Facilities

NATIONAL OBJECTIVE: Urgent Need

2. Use of Impact and Unmet Needs Assessment, the Comprehensive Risk Analysis, and the Rebuild by Design Collaborative Risk Analysis

See the Needs Assessment section for more unmet needs assessment detail.

In December 2012, as Sandy relief efforts were well underway, Mayor Bloomberg created the Special Initiative for Rebuilding and Resiliency (SIRR), and charged it with working with the Office of Long-Term Planning and Sustainability (OLTPS) to develop a new plan to address the likely effects of climate change. SIRR released an extensive risk analysis report to the public entitled *A Stronger, More Resilient New York* (aka the SIRR Report) in June 2013.

The Rebuild By Design competition, an initiative of the Hurricane Sandy Rebuilding Task Force and HUD, has been tasked with developing fundable solutions to better protect residents from future climate events. Ten participating design teams are currently engaged in an extensive research process involving local community input and fieldwork. The winning designs are expected to be announced in April 2014. After they have been announced, NYC will use the collaborative risk analysis developed by the winners. NYC will use the Rebuild By Design risk analysis to evaluate Covered Projects. In the meantime, the City is basing its risk analysis on the SIRR report.

The SIRR Report is a comprehensive plan that contains actionable recommendations both for rebuilding the communities impacted by Sandy and increasing the resilience of infrastructure and buildings citywide. The Report specifically addresses the five communities hardest hit by Sandy, including Southern Brooklyn, which encompasses Coney Island. The SIRR Report includes a chapter on initiatives for increasing resiliency in Southern Brooklyn and recommends and pledges, among other approaches, an initiative to support area recovery, particularly in Coney Island, through the rebuilding and expansion of the entertainment district:

The City anticipates support enhancement of key area attractions to anchor recovery and growth, including construction of major new amusements, construction of a new seasonal amphitheater and community arts center, and expansion of the New York Aquarium, the most-visited attraction in Brooklyn and a year-round asset in the entertainment district.

3. Transparent and Inclusive Decision Processes

The Aquarium restoration is a FEMA-funded project, either under FEMA Public Assistance or FEMA's Section 406 mitigation program, and the decision process for what will or will not be funded is solely at the discretion of FEMA. The CDBG-DR funds may be used for the local match after FEMA has approved and obligated funds for the project.

At the same time, transparency and inclusive decision processes have been at the center of the City's longstanding commitment to the revitalization of Coney Island. Public outreach was a priority during the process of developing the SIRR Report in 2013, which, as noted above, focuses extensively on Coney Island. Elected officials, community leaders, and the general public were consulted and their input contributed to the recommendations outlined in the report. Similarly, in 2009, the Department of City Planning, on the adoption of the Coney Island revitalization plan emphasized that the plan built upon a commitment made by Mayor Bloomberg in 2005 with the announcement of the Coney Island Strategic Plan, and "is the product of over 300 public meetings with numerous stakeholders, ranging from elected officials, residents, property and business owners, to Coney Island enthusiasts from New York City and beyond."

In all of these plans, the New York Aquarium, a central Coney Island attraction since 1957, has been recognized and even heralded as a fundamental stabilizing force in this seaside community.

4. Long-Term Efficacy and Fiscal Sustainability

The enhancement of the Aquarium has been a long term goal of the Coney Island Development Corporation. By the same token, the Aquarium's Director (Jon Dohlin) is Vice Chairperson for the Alliance for Coney Island, and through this and other means the Wildlife Conservation Society is an active participant in the affairs of the community. The Aquarium is an important part of the Coney Island neighborhood and an anchor of the Coney Island Redevelopment Plan; thus it is vital that the facility is rebuilt and fully reopened to the public as quickly as possible.

The SIRR report identifies Coney Island as the neediest of the Southern Brooklyn communities. At one "end of the socioeconomic spectrum is Coney Island," the report notes, "where the unemployment rate is 13 percent and the poverty rate is 23 percent. Only one-fifth of Coney Island residents own homes."

The devastation of multiple exhibit buildings has left Brooklyn's most visited cultural institution with a fraction of its visitor capacity. Prior to the storm the Aquarium attracted more than 750,000 visitors annually, educated more than 12,000 schoolchildren in its classrooms and hosted more than 120,000 school trips a year, while adding more than \$58 million dollars to the economy of one of New York City's most under-served neighborhoods. In order to return to this level of activity, this project needs to restore existing damaged buildings to a functional state and comply with current building and safety codes. A FEMA and CDBG-DR investment in the rebuilding of this facility (in conjunction with the City's support of an expansion of the exhibition structures), will ensure that this facility can return to its current and long-term significance in the larger revitalization of this once-distressed and still struggling community.

If funded, NYC will assure the long-term efficacy and sustainability of these projects through ongoing monitoring and evaluation. During implementation, the City will ensure that all the appropriate mitigation measures are put into place and meet government standards. The City will be vigilant in doing immediate assessments after future storms events. The agency will provide monitoring or assessment of the structures and equipment to see if they can withstand storm and hurricane conditions. This will be reported to the appropriate City departments to address any failures in structures and equipment.

5. Environmentally Sustainable and Innovative Investment

In June 2013, the City released the SIRR report, which is focused on increasing the resiliency of New York City, with a long-term emphasis on preparing for a protecting against the impacts of climate change. As detailed in the SIRR Report, the City has been making a concerted effort to understand the effects that climate change will have on New York. In 2008, Mayor Bloomberg convened the New York City Panel on Climate Change (NPCC). The Panel is made up of a body of leading climate and social scientists charged with developing local climate projections. In September 2012 New York City formally codified the NPCC to institutionalize a process for updating local climate projections and identifying and implementing strategies to address climate risks.

The City's Office of Long Term Planning and Sustainability (OLTPS) will work with NPCC and key stakeholders to develop additional climate change projections. In its section on Initiatives for Improving the Quality of Climate Analysis, the SIRR Report states that "OLTPS and the NPCC will

work to identify a set of metrics that can help the City and others measure actual climate changes against predicted climate change in order to adjust policies and investment decisions in the future.”

The SIRR Report’s goal is to minimize the impacts of climate change and enable quick recovery after extreme weather events. The report identifies Southern Brooklyn/Coney Island goals which are entirely consistent with the restoration and mitigation effort underway in the Aquarium rebuild. Specifically, these goals included:

- Providing additional coastal/shoreline protection from wave action, beach erosion, and oceanfront vulnerabilities.
- Adding protection from “back-door” inundation.
- Focusing on infrastructure inadequacy, particularly drainage.
Addressing the lagging recovery of some neighborhood services and commercial corridors (of which Surf Avenue is one).

The City is also informed by the President’s Climate Action Plan. The Action Plan identifies the need for boosting the resilience of buildings and infrastructure (page 13). The City of New York will look to the Federal government’s efforts in planning for climate change and make efforts to align public housing with best practices for resiliency and sustainability.

Department of Corrections (DOC)

The City of New York Department of Corrections (DOC) will restore the shorelines of Rikers Island and Hart Island as well as address related facilities’ damages. 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. However, two Rikers Island based facilities, the Anna M. Kross Center and the Robert N Davoren Center, sustained extensive roof damage caused by high winds. The storm surge and flooding did significantly impact the north shoreline of the Rikers Island, eroding an estimated four acres of land. Nineteen permanent modular building complexes, used as offices for both civilian and uniform staff members and used to conduct administrative hearings, are located along the eroded north shore of the Island. Four modular buildings were immediately decommissioned and the balance of the modular building complexes will need to be permanently evacuated as soon as possible and before shoreline restoration work can proceed.

New York’s city cemetery on Hart Island occupies 101 acres in the Long Island Sound on the eastern edge of the Bronx. The Sandy storm surge and wave action caused considerable damage to the shoreline and seawalls of Hart Island.

The City of New York has prioritized these projects as safe and secure operation of New York City jails, and ensures the safety of all New York communities *and* safeguards the well-being of persons in the custody of DOC.

Covered Project:

Department of Corrections (DOC) – Rikers Island and Hart Island Shoreline Restoration, DOC Facility Damage

1. Identification/Description

NYC has determined that the restoration of the Rikers Island and Hart Island shorelines, along with replacement and relocation of modular building complexes and repair of damaged facilities, is a Covered Project, per HUD's definition.

The Sandy storm surge and flooding significantly impacted the north shoreline of Rikers Island eroding an estimated four acres of land. Restoration of the Rikers shoreline will consist of replacing fill material that was washed away in order to bring the shoreline back to pre-disaster condition; subsequently, mitigation is planned to place rip-rap on this portion of the shoreline to prevent future damage from similar disasters.

Approximately nineteen permanent modular complexes, used as offices for both civilian and uniform staff members and used to conduct administrative hearings, are located along the eroded north shore of the Island. Four modular building units were immediately decommissioned after Sandy and the balance of the modular building complexes will need to be permanently evacuated as soon as possible and before shoreline restoration work can proceed. Due to safety concerns, and in order to allow the reconstruction and mitigation of the Rikers shoreline to proceed, the modular building complexes located along the eroded north shore will need to be replaced and relocated.

Hart Island, located in the Long Island Sound, off the east coast of the Bronx, is home to New York City's Potters Field. It is the largest tax funded cemetery in the world. Prison labor is used to perform the daily mass burials that number close to one million. DOC performs all burials and exhumations at Hart Island. There was significant damage to the shoreline and seawalls of Hart Island after Hurricane Sandy. Restoration of the Hart Island shoreline will consist of replacing fill material that was washed away in order to bring the shoreline back to pre-disaster condition; subsequently a designed revetment is planned to mitigate future damage.

The Anna M. Kross Center (AMKC) and Robert N. Davoren Center (RNDC) jail facilities on Rikers Island sustained roof damage so extensive as to warrant full roof replacements. In addition to the roof replacements, hazard mitigation work is planned in order to prevent similar damage in the future.

ELIGIBLE ACTIVITY: Rehabilitation/Reconstruction of Public Facilities

NATIONAL OBJECTIVE: Urgent Need; Low- and Moderate-Income Limited Clientele; or Low- and Moderate-Income Area, depending on determination from data analysis.

2. Use of Impact and Unmet Needs Assessment, the Comprehensive Risk Analysis and the Rebuild by Design Collaborative Risk Analysis

All restoration and mitigation work benefits the entire New York City jurisdiction. The shorelines' stability is necessary to ensure that the facilities abutting the shore remain operational in the event of future storms and remain safe from long-term erosion caused by normal weather. These shoreline adjacent facilities include not only the modular building complexes that must be moved to allow the shoreline work to proceed, but roads and parking lots that are integral to all Rikers Island operations. The preliminary cost estimate for restoration and mitigation of the shoreline is from \$22 million to \$27 million. The preliminary estimate for restoration of the Hart Island shoreline is between \$7 million and \$12 million. The preliminary cost estimate for relocation of the modular building complexes is between \$17 million and \$36 million. The preliminary cost estimate for roof repair on Rikers Island is between \$6 million and \$10 million. The total project cost estimate for all

of these activities is between \$52 and \$85 million. Part of these projects will be covered by FEMA and the remainder may be reimbursed by CDBG-DR.

In December 2012, Mayor Bloomberg created the Special Initiative for Rebuilding and Resiliency (SIRR) to focus on improving citywide infrastructure and building long term resilience. In June 2013, SIRR released a report entitled “A Stronger, More Resilient New York” that put forth a comprehensive plan containing actionable recommendations for rebuilding Sandy-impacted communities and for increasing the resilience of infrastructure and buildings citywide. The SIRR report includes a chapter on Coastal Protection and a chapter on Buildings which sets forth strategies for protecting the city’s coastlines and structural resiliency.

The Rebuild By Design competition, an initiative of the Hurricane Sandy Rebuilding Task Force and HUD, has been tasked with developing fundable solutions to better protect residents from future climate events. Ten participating design teams are currently engaged in an extensive research process involving local community input and fieldwork. The winning designs are expected to be announced in April 2014. After they have been announced, NYC will use the collaborative risk analysis developed by the winners. NYC will use the Rebuild By Design risk analysis to evaluate Covered Projects. In the meantime, the City is basing its risk analysis on the SIRR report. Public outreach was a priority during the process of developing the SIRR report. Elected officials, community leaders, and the general public were consulted and their input contributed to the recommendations outlined in the report.

3. Transparent and Inclusive Decision Processes

The joint Rikers Island and Hart Island shorelines, along with and replacement and relocation of modular building complexes and repair of damaged facilities, project is anticipated to be a FEMA-funded project, utilizing FEMA Public Assistance funding and/or FEMA 406 Hazard Mitigation program funding. Therefore, the decision process for granting assistance is at the discretion of FEMA. In this case, the CDBG-DR funds may be used after FEMA has approved and obligated funds for the project.

If FEMA funding is not approved for the entire project, there is the potential for additional CDBG-DR funding participation. Because of the security concerns related to information about Rikers Island infrastructure systems, public hearings on these projects may not be advisable.

4. Long-Term Efficacy and Fiscal Sustainability

As the Rikers Island and Hart Island embankments continue to erode, the Islands are becoming increasingly vulnerable to damage from future storms. Hazard mitigation measures, such as the rip-rap proposed for the north shoreline of Rikers Island, are intended to reduce or eliminate the long-term risk to life and property from future hazards. The Rikers shoreline abuts on parking lots, roads, and program areas, the loss of which will disrupt Department operations. The Hart Island shoreline is adjacent to gravesites. FEMA has determined that funding dedicated to hazard mitigation measures yields compounded returns on investment. Once restored, DOC will continue to maintain the shoreline, monitoring the shoreline for erosion and backfilling as necessary to maintain safety and desired slope for line of sight requirements. This restoration and mitigation enables the Department to avoid future costly large scale projects such as this one for not only shoreline restoration but for the facilities abutting the shore as well.

If funded, NYC will assure the long-term efficacy and sustainability of this program through ongoing monitoring and evaluation. During implementation, the City will ensure that all the appropriate mitigation measures are put into place and meet government standards. The City will be vigilant in

doing immediate assessments after future storms events. The agency will provide monitoring or assessment of the structures and equipment to see if they can withstand storm and hurricane conditions. This will be reported to the appropriate City departments to address any failures in structures and equipment.

5. Environmentally Sustainable and Innovative Investments

The Special Initiative for Rebuilding and Resiliency (SIRR) was charged with producing a plan to provide additional protection from the impacts of climate change. The report produced by SIRR contains a chapter on climate analysis that sets forth a series of initiatives designed to strengthen the City's ability to understand and prepare for the impacts of climate change.

Furthermore, in 2008, Mayor Bloomberg convened the New York City Panel on Climate Change (NPCC). The Panel is made up of a body of leading climate and social scientists charged with developing local climate projections. In September 2012 New York City formally codified the NPCC to institutionalize a process for updating local climate projections and identifying and implementing strategies to address climate risks. The NPCC develops climate projections using global climate models. These models are mathematical representations of the Earth's climate system (e.g., the interactions between the ocean, atmosphere, land, and ice.) They use estimates of future greenhouse gas and pollutant concentrations to project changes in climate variables such as temperature and precipitation. The City has worked with the NPCC to develop a series of "future flood maps" for New York that will help guide the city's rebuilding and resiliency efforts.

The City is also informed by the President's Climate Action Plan. The Action Plan identifies the need for boosting the resilience of buildings and infrastructure (page 13). The Action Plan also outlines actions for conserving land and water resources (page 15). The City of New York will look to the Federal government's efforts in planning for climate change.

Department of Transportation (DOT)

The New York City Department of Transportation (DOT) oversees one of the most complex urban transportation networks in the world. DOT's staff of over 4,500 employees manage approximately 6,300 miles of streets and highways, over 12,000 miles of sidewalk, 781 bridge structures and six tunnels. DOT's staff installs and maintains over 1.3 million street signs, traffic signals at more than 12,000 signalized intersections, over 250,000 street lights, and 69 million linear feet of markings. DOT also promotes the use of sustainable modes of transportation.

NYC's transportation system suffered extensive damage due to Hurricane Sandy, affecting 8.5 million public transit riders and 4.2 million drivers. A number of DOT projects had damage that meets and exceed the thresholds to be considered Covered Projects by HUD. FEMA has recognized the need to repair and mitigate by providing robust funds to these transportation projects. The City of New York is anticipating that FEMA will provide funding – both through the Public Assistance (PA)/404 Mitigation program and Hazard Mitigation Grant Program (HMGP)/406 Mitigation program – for some of these projects. The City is seeking, in part, to leverage CDBG-DR funds as the "non-federal" share for these projects.

Chapter 10 of the City's SIRR report provides a detailed analysis of what occurred to NYC's transportation during Sandy and offers an extensive risk assessment of the potential impact of climate change on the transportation system in NYC. The SIRR report also presents 18 actionable recommendations for the improved resilience of transportation system in NYC. Among the

recommendations are: (#1) Reconstruct and resurface key streets damaged by Sandy; (#2) Integrate climate resiliency features into future capital projects; (#3) Elevate traffic signals and provide backup electrical power; (#4) Protect NYCDOT tunnels in Lower Manhattan from flooding; and (#5) Install watertight barriers to protect movable bridge machinery.

It was clear from the extensive damage suffered to the City's transportation system and the critical importance of this system in the daily lives of residents that the City of New York must prioritize CDBG-DR funds towards the reconstruction and rehabilitation of DOT road, bridges, underpasses, traffic signals, and street lights. The damages to this infrastructure put a strain on NYC's transportation system after Sandy.

The following is a list of DOT's Covered Projects:

Covered Project:

DOT - Road Reconstruction

1. Identification/Description

NYC has determined that DOT's Road Reconstruction infrastructure work is a Covered Project, per HUD's definition.

DOT's request for road construction consists of road segments that fall under the jurisdiction of either of FEMA or FHWA for federal funding repair options. There have been identified 124 FEMA street segments totaling 20.1 lane miles and 143 FHWA street segments totaling 30.77 lane miles. As a result of the cumulative effects of Hurricane Sandy and subsequent excessive loading from debris removal operations in the aftermath of the storm the affected roadways revealed cracking, rutting, subsidence base failure and pavement failure, including asphalt and concrete, sidewalk damage, failures at or near drainage structures and visual evidence of sub-surface drainage pipe failures and/or blockages creating standing water hazards. Weakening of drainage and other structures resulted in failure as evidenced by deformation of the structure and the surrounding roadways. The Department is working to fully reconstruct these street segments across all boroughs damaged by Hurricane Sandy.

DOT's standard operating procedure when completing road reconstruction is to replace from property line to property line which includes sidewalks, curbs and the roadway for the full length of the segment. These three roadway elements must be treated as interdependent components of a single roadway system in consideration of road reconstruction. FEMA has approved full segment roadway reconstruction, excluding curbs and sidewalks (unless damaged), only at locations Over fifty percent of the segment sustained damage. DOT estimates the cost not funded by FEMA for the scope of work for full road segment reconstruction in accordance with DOT's standard operating procedure to be \$38.7 million.

Post-event, DOT conducted field assessments that revealed and recorded extensive damages to the affected segments resulting from both storm damage, as well as damages resulting from heavy equipment utilized for clearing and hauling operations for debris removal. Sub-surface testing is being conducted in order to verify potential for additional latent damage to roadway sub-base caused by inundation and saturation.

The estimated road reconstruction costs are \$101 million for FEMA, which includes \$12.5 million for mitigation, and \$160 million for FHWA, which includes \$20.9 million for mitigation (15%). Preliminary resiliency mitigation options are being developed at the Rockaway Beach Road Ends by Arup Engineers to keep the road ends in place during and after a major flood event. Mitigation options for the FHWA road segments will be explored once the subsurface road analysis has been completed and the extent of damages identified.

ELIGIBLE ACTIVITY: Rehabilitation/Reconstruction of Public Facilities

NATIONAL OBJECTIVE: Urgent Need; Low- and Moderate-Income Area, once a determination has been made regarding service area.

2. Use of Impact and Unmet Needs Assessment, the Comprehensive Risk Analysis, and the Rebuild by Design Collaborative Risk Analysis

See the Needs Assessment section for more unmet needs assessment detail.

In December 2012, as Sandy relief efforts were well underway, Mayor Bloomberg created the Special Initiative for Rebuilding and Resiliency (SIRR), and charged it with working the Office of Long-Term Planning and Sustainability (OLTPS) to develop a new plan to address the likely effects of climate change. SIRR released an extensive risk analysis report to the public entitled *A Stronger, More Resilient New York* (a.k.a. the SIRR Report) on June 11, 2013. The report is a comprehensive plan that contains actionable recommendations both for rebuilding the communities impacted by Sandy and increasing the resilience of infrastructure and buildings citywide. The SIRR report specifically addresses the five communities hardest hit by Sandy, including: Brooklyn-Queens Waterfront, East and South Shores of Staten Island, South Queens, Southern Brooklyn, and Southern Manhattan.

The SIRR report includes a chapter on Transportation, which provides descriptions of what happened during Sandy to the Department's infrastructure, including the ferries, roadways and bridges. It also includes a risk assessment of climate change on transportation assets from sea level rises to storm surges, high winds, and heat waves and initiatives to protect our assets for continual operation, prepare our infrastructure for extreme weather events and increase flexibility and redundancy.

The Rebuild By Design competition, an initiative of the Hurricane Sandy Rebuilding Task Force and HUD, has been tasked with developing fundable solutions to better protect residents from future climate events. Ten participating design teams are currently engaged in an extensive research process involving local community input and fieldwork. The winning designs are expected to be announced in April 2014. After they have been announced, NYC will use the collaborative risk analysis developed by the winners. NYC will use the Rebuild By Design risk analysis to evaluate Covered Projects. In the meantime, the City is basing its risk analysis on the SIRR report. Public outreach was a priority during the process of developing the SIRR report. Elected officials, community leaders, and the general public were consulted and their input contributed to the recommendations outlined in the report.

3. Transparent and Inclusive Decision Processes

These projects may either be a replacement-in-kind of the existing roadway or improved roadway project. For a replacement-in-kind project, the Department of Design and Construction (DDC - as

DOT's construction manager) will engage a community liaison who will coordinate outreach prior to the construction start and during the construction activity. For an improved roadway project, during the planning phase, DOT will meet with the community board/ elected officials; during the design phase, DDC will meet with the community board/elected officials. During the construction phase, DDC will have the community liaison handling outreach.

4. Long-Term Efficacy and Fiscal Sustainability

As reported in the SIRR report, the City has been making a concerted effort to understand the effects that climate change will have on New York. In 2008, Mayor Bloomberg convened the New York City Panel on Climate Change (NPCC). The Panel is made up of a body of leading climate and social scientists charged with developing local climate projections. In September 2012 New York City formally codified the NPCC to institutionalize a process for updating local climate projections and identifying and implementing strategies to address climate risks.

According to the report, the Office of Long Term Planning and Sustainability (OLTPS) will work with NPCC and key stakeholders to develop additional climate change projections and to make these projections even more useful.

The Department is expert in project monitoring, evaluation, and post-construction analysis as demonstrated by our world renowned plans and initiatives including our "Sustainable Streets: 2013 and Beyond" report, which chronicles the implementation and effects of many NYCDOT programs. NYC DOT intends to build projects that can flex and adapt to the changing environmental conditions, this will be achieved through innovative design, new materials, and technological analysis of conditions and utilization of climate data projections. Each project will include regular visual inspection, on-going traffic and usage monitoring and tracking any micro-climatic conditions present within the vicinity of each project's limits. Each of the proposed projects will undergo a climate responsive feasibility analysis ensuring the investments can withstand and/or be designed to accommodate future retrofits to changing climate conditions.

If funded, NYC will assure the long-term efficacy and sustainability of this program through ongoing monitoring and evaluation. During implementation, the City will ensure that all the appropriate mitigation measures are put into place and meet government standards. The City will be vigilant in doing immediate assessments after future storms events. The agency will provide monitoring or assessment of the structures and equipment to see if they can withstand storm and hurricane conditions. This will be reported to the appropriate City departments to address any failures in structures and equipment.

5. Environmentally Sustainable and Innovative Investment

The NPCC develops climate projections using global climate models. These models are mathematical representations of the Earth's climate system (e.g., the interactions between the ocean, atmosphere, land, and ice). They use estimates of future greenhouse gas and pollutant concentrations to project changes in climate variables such as temperature and precipitation. The City has worked with the NPCC to develop a series of "future flood maps" for New York that will help guide the city's rebuilding and resiliency efforts. The report states in its section on Initiatives for Improving the Quality of Climate Analysis that, "OLTPS and the NPCC will work to identify a set of metrics that can help the City and others measure actual climate changes against predicted climate change in order to adjust policies and investment decisions in the future." The SIRR reports

goal is to minimize the impacts of climate change and enable quick recovery after extreme weather events.

The Department's projects are in alignment with the *President's Climate Action Plan* under several categories of investments, specifically with the chapter on **Building a 21st-Century Transportation Sector** (page 8). DOT is a leader in the planning, design, and development incorporating resilient features into all of the agency's Capital Projects and will look to the Federal government's efforts in planning for climate change.

The Department demonstrated our ability to bounce back following Hurricane Sandy for both the emergency response/repairs to long-term planning and implementation of resilient designs. We are currently working with international planning/engineering consultants to identify innovative ways to design for our most vulnerable communities. We are examining resilient strategies and designs for incorporation into our capital roadway, bridge and ferry projects including hardening roadways, examining new classes of ferries, and coating our bridge cables. In particular, for the underpasses, the Department is developing an innovative water tight barrier system that can be rapidly deployed by in-house forces in the event of a future flood event.

In order to protect the Department's critical infrastructure it is crucial to examine sustainable and resilient elements that can be included in all of our projects to ensure our infrastructure can withstand the impacts of climate change. We expect to be significant contributors to the virtual climate-resilience toolkit outlined in the Action Plan.

Covered Project:
DOT - Movable Bridges and Underpasses

1. Identification/Description

NYC has determined that DOT's Movable Bridges and Underpasses infrastructure work is a Covered Project, per HUD's definition.

The Department identified Hurricane Sandy-related damages to twenty movable bridges and underpasses owned and operated by the City of New York. These bridges and underpasses were subject to surge tides, flooding and high winds. The bridges are located over navigable waterways (the Gowanus Canal, Newtown Creek, Harlem River, etc.) and the movable span needs to operate properly to ensure continued mobility, reliability and safety of vehicular traffic, non-motorized traffic over the bridge and the water borne vessels.

Of the twenty movable bridges that had storm related damages, thirteen will need capital repairs and rehabilitation. The extent of the damages varies by facility, however for all the bridges, both the electrical and mechanical systems were exposed to saltwater and damaged. These systems need to be restored to pre-storm conditions. Current estimates for repairs alone are \$35 million for the movable bridges. These bridges are:

- Metropolitan Avenue Bridge (over Newtown Creek)
- Grand Street Bridge (over Newtown Creek)
- Borden Avenue Bridge (over Newtown Creek)
- Hunters Point Avenue Bridge (over Newtown Creek)
- Ninth Street Bridge (over the Gowanus Canal)
- Union Street Bridge (over the Gowanus Canal)

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- Third Street Bridge (over the Gowanus Canal)
 - Carroll Street Bridge (over the Gowanus Canal)
 - Third Avenue Bridge (over the Harlem River)
 - Madison Avenue Bridge (over the Harlem River)
 - 145th Street Bridge (over the Harlem River)
 - Macombs Dam Bridge (over the Harlem River)
 - 207th Street Bridge (over the Harlem River)

The two underpasses in Lower Manhattan, Battery Park Underpass and West Street Underpass, were both flooded to their roofs, which means that all tunnel ventilation, electrical, and mechanical systems were entirely submerged in saltwater. This resulted in closures and diminished operational capacity. These systems need to be restored to pre-storm conditions. Current estimates for repairs alone are \$43 million for both underpasses.

All of these facilities are funded by USDOT Federal Highways Administration (FHWA) Emergency Relief program, except for the Carroll Street Bridge, which will be funded by FEMA Public Assistance program. Emergency repairs were completed immediately on all of the facilities to restore essential traffic, to minimize the extent of damages, and to protect the facility itself. These repairs are 100% funded by FHWA and FEMA. Permanent restoration is funded 80% by FHWA and 90% by FEMA.

The Department retained an engineering consultant to conduct assessments, develop design plans for only the permanent restoration, and obtain the appropriate permits. The engineering consultants will also provide Construction Support Services and Resident Engineering/Inspection Services. This design work is currently in process. NYCDOT has requested that these repair projects receive, under NEPA classification, a Type II – automatic categorical exclusion, as they are primarily replacement-in-kind projects.

The Department's intent is to complete all the necessary permanent restoration for all aforementioned facilities. Beyond permanent repair, the Department is investigating hazard mitigation and betterment plans for the underpasses and for several of the movable bridges to reduce the risk of damage and loss of function from flooding and other hazards as well as improving the reliability and resilience of the infrastructure. These measures will likely require coordination and permitting with other federal and state entities including the United States Army Corps of Engineers, the United States Coast Guards, the New York State Department of Environmental Conservation, and the State Historic Preservation Office, among others.

CDBG-DR funds may be used to supplement design and construction for the aforementioned facilities, which were damaged by Hurricane Sandy.

ELIGIBLE ACTIVITY: Rehabilitation/Reconstruction of Public Facilities

NATIONAL OBJECTIVE: Urgent Need; Low- and Moderate-Income Area, once a determination has been made regarding service area.

2. Use of Impact and Unmet Needs Assessment, the Comprehensive Risk Analysis, and the Rebuild by Design Collaborative Risk Analysis

See the Needs Assessment section for more unmet needs assessment detail.

In December 2012, as Sandy relief efforts were well underway, Mayor Bloomberg created the Special Initiative for Rebuilding and Resiliency (SIRR), and charged it with working the Office of Long-Term Planning and Sustainability (OLTPS) to develop a new plan to address the likely effects of climate change. SIRR released an extensive risk analysis report to the public entitled *A Stronger, More Resilient New York* (a.k.a. the SIRR Report) on June 11, 2013. The report is a comprehensive plan that contains actionable recommendations both for rebuilding the communities impacted by Sandy and increasing the resilience of infrastructure and buildings citywide. The SIRR report specifically addresses the five communities hardest hit by Sandy, including: Brooklyn-Queens Waterfront, East and South Shores of Staten Island, South Queens, Southern Brooklyn, and Southern Manhattan.

The SIRR report includes a chapter on Transportation, which provides descriptions of what happened during Sandy to the Department's infrastructure, including the ferries, roadways and bridges. It also includes a risk assessment of climate change on transportation assets from sea level rises to storm surges, high winds and heat waves and initiatives to protect our assets for continual operation, prepare our infrastructure for extreme weather events and increase flexibility and redundancy.

The Rebuild By Design competition, an initiative of the Hurricane Sandy Rebuilding Task Force and HUD, has been tasked with developing fundable solutions to better protect residents from future climate events. Ten participating design teams are currently engaged in an extensive research process involving local community input and fieldwork. The winning designs are expected to be announced in April 2014. After they have been announced, NYC will use the collaborative risk analysis developed by the winners. NYC will use the Rebuild By Design risk analysis to evaluate Covered Projects. In the meantime, the City is basing its risk analysis on the SIRR report. Public outreach was a priority during the process of developing the SIRR report. Elected officials, community leaders, and the general public were consulted and their input contributed to the recommendations outlined in the report.

3. Transparent and Inclusive Decision Processes

This project is funded through the FEMA Public Assistance program and the FHWA Emergency Relief program and the decision criteria and project selection were based upon coordination with those funding partners. The CDBG-DR funds may be used for the local match after FEMA and FHWA has approved and obligated funds for the projects.

These projects may either be a restoration of the existing bridge or improved bridge project. For a restoration project, the DOT will engage a community liaison who will coordinate outreach prior to the construction start and during the construction activity. For an improved bridge project, during the planning and design phases, DOT will meet with the community board/ elected officials; during the design phase, DDC will meet with the community board/elected officials. During the construction phase, DOT will have the community liaison handling outreach with the community board and elected officials. During the construction phase, DOT will have the community liaison handling outreach with the community board/elected officials.

4. Long-Term Efficacy and Fiscal Sustainability

As reported in the SIRR report, the City has been making a concerted effort to understand the effects that climate change will have on New York. In 2008, Mayor Bloomberg convened the New York City Panel on Climate Change (NPCC). The Panel is made up of a body of leading climate and social scientists charged with developing local climate projections. In September 2012 New York

City formally codified the NPCC to institutionalize a process for updating local climate projections and identifying and implementing strategies to address climate risks.

According to the report, the Office of Long Term Planning and Sustainability (OLTPS) will work with NPCC and key stakeholders to develop additional climate change projections and to make these projections even more useful.

The Department is expert in project monitoring, evaluation, and post-construction analysis as demonstrated by our world renowned plans and initiatives including our “Sustainable Streets: 2013 and Beyond” report, which chronicles the implementation and effects of many NYCDOT programs. NYC DOT intends to build projects that can flex and adapt to the changing environmental conditions, this will be achieved through innovative design, new materials, and technological analysis of conditions and utilization of climate data projections. Each project will include regular visual inspection, on-going traffic and usage monitoring and tracking any micro-climatic conditions present within the vicinity of each project’s limits. Each of the proposed projects will undergo a climate responsive feasibility analysis ensuring the investments can withstand and/or be designed to accommodate future retrofits to changing climate conditions.

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The Department demonstrated our ability to bounce back following Hurricane Sandy for both the emergency response/repairs to long-term planning and implementation of resilient designs. We are currently working with international planning/engineering consultants to identify innovative ways to design for our most vulnerable communities. We are examining resilient strategies and designs for incorporation into our capital roadway, bridge and ferry projects including hardening

roadways, examining new classes of ferries, and coating our bridge cables. In particular, for the underpasses, the Department is developing an innovative water tight barrier system that can be rapidly deployed by in-house forces in the event of a future flood event.

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Covered Project:

DOT - Traffic and Planning

1. Identification/Description

NYC has determined that DOT's Traffic and Planning unit's infrastructure work is a Covered Project, per HUD's definition.

Traffic and Planning's Covered Project includes the repair, removal, and installation of infrastructure for traffic signal intersections and intelligent traffic systems citywide as well as street lights in Parks, the Rockaways, and federal highways. Accordingly, when Hurricane Sandy hit, the electrical systems that keep these lights functioning were flooded and heavily damaged. Underground conduit that houses cables and wires that act as the power source were flooded with salt water, sewage, and other contaminants, some of which remains stagnant within the conduit citywide. Emergency repairs were made to heavily damaged intersections immediately following the storm and temporary power was provided in locations as deemed necessary. The permanent restorations of these elements of the traffic infrastructure have yet to take place. The total cost of the project is approximately \$76 million for the rehabilitation and reconstruction of all Hurricane Sandy damaged traffic infrastructure, citywide.

This \$76 million estimate includes two mitigation measures that will be utilized by DOT's Traffic and Planning Unit: 1) the replacement of currently used galvanized steel conduit with a more economical HDPE conduit with a longer usable lifespan; and 2) Coastal Storm foundations which will be utilized at street lights and traffic signal intersections in the Rockaways, as well as traffic signal locations south of Belt Parkway in Brooklyn. Due to the flood water inundation of the galvanized steel conduits used throughout the city, HDPE conduit will be used to replace damaged conduit. If a storm of similar degree were to hit New York City again, it is expected that HDPE will fare better in comparable conditions. The use of HDPE conduit is part of NYCDOT's standard specifications. Coastal Storm Foundations are only being installed in the most inundated locations. In the aftermath of the storm, streetlight and traffic signal poles in the hardest hit areas were found to be leaning and several foundations were uprooted, rendering them unusable and causing public safety issues. With a larger, deeper foundation, it is anticipated these dangers will be prevented if a storm of similar magnitude were to occur again.

ELIGIBLE ACTIVITY: Rehabilitation/Reconstruction of Public Facilities

NATIONAL OBJECTIVE: Urgent Need; Low- and Moderate-Income Area, once a determination has been made regarding service area.

2. Use of Impact and Unmet Needs Assessment, the Comprehensive Risk Analysis, and the Rebuild by Design Collaborative Risk Analysis

See the Needs Assessment section for more unmet needs assessment detail.

In December 2012, as Sandy relief efforts were well underway, Mayor Bloomberg created the Special Initiative for Rebuilding and Resiliency (SIRR), and charged it with working the Office of Long-Term Planning and Sustainability (OLTPS) to develop a new plan to address the likely effects of climate change. SIRR released an extensive risk analysis report to the public entitled *A Stronger, More Resilient New York* (a.k.a. the SIRR Report) on June 11, 2013. The report is a comprehensive plan that contains actionable recommendations both for rebuilding the communities impacted by Sandy and increasing the resilience of infrastructure and buildings citywide. The SIRR report specifically addresses the five communities hardest hit by Sandy, including: Brooklyn-Queens Waterfront, East and South Shores of Staten Island, South Queens, Southern Brooklyn, and Southern Manhattan.

The SIRR report includes a chapter on Transportation, which provides descriptions of what happened during Sandy to the Department's infrastructure, including the ferries, roadways and bridges. It also includes a risk assessment of climate change on transportation assets from sea level rises to storm surges, high winds and heat waves and initiatives to protect our assets for continual operation, prepare our infrastructure for extreme weather events and increase flexibility and redundancy.

The Rebuild By Design competition, an initiative of the Hurricane Sandy Rebuilding Task Force and HUD, has been tasked with developing fundable solutions to better protect residents from future climate events. Ten participating design teams are currently engaged in an extensive research process involving local community input and fieldwork. The winning designs are expected to be announced in April 2014. After they have been announced, NYC will use the collaborative risk analysis developed by the winners. NYC will use the Rebuild By Design risk analysis to evaluate Covered Projects. In the meantime, the City is basing its risk analysis on the SIRR report. Public outreach was a priority during the process of developing the SIRR report. Elected officials, community leaders, and the general public were consulted and their input contributed to the recommendations outlined in the report.

3. Transparent and Inclusive Decision Processes

This project is funded through the FEMA Public Assistance program and the FHWA Emergency Relief program and the decision criteria and project selection were based upon coordination with those funding partners. The CDBG-DR funds will be used for the local match after FEMA and FHWA has approved and obligated funds for the projects.

This project is the replacement/restoration of the existing damaged infrastructure with minimal construction-related impact to the community-at-large therefore the DOT Borough Commissioner will notify the affected community board(s) and local elected officials when the work commences.

4. Long-Term Efficacy and Fiscal Sustainability

As reported in the SIRR report the City has been making a concerted effort to understand the effects that climate change will have on New York. In 2008, Mayor Bloomberg convened the New York City Panel on Climate Change (NPCC). The Panel is made up of a body of leading climate and social scientists charged with developing local climate projections. In September 2012 New York City formally codified the NPCC to institutionalize a process for updating local climate projections and identifying and implementing strategies to address climate risks.

According to the report, the Office of Long Term Planning and Sustainability (OLTPS) will work with NPCC and key stakeholders to develop additional climate change projections and to make these projections even more useful.

The Department is expert in project monitoring, evaluation, and post-construction analysis as demonstrated by our world renowned plans and initiatives including our “Sustainable Streets: 2013 and Beyond” report, which chronicles the implementation and effects of many NYCDOT programs. NYC DOT intends to build projects that can flex and adapt to the changing environmental conditions, this will be achieved through innovative design, new materials, and technological analysis of conditions and utilization of climate data projections. Each project will include regular visual inspection, on-going traffic and usage monitoring and tracking any micro-climatic conditions present within the vicinity of each project’s limits. Each of the proposed projects will undergo a climate responsive feasibility analysis ensuring the investments can withstand and/or be designed to accommodate future retrofits to changing climate conditions.

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5. Environmentally Sustainable and Innovative Investment

The NPCC develops climate projections using global climate models. These models are mathematical representations of the Earth’s climate system (e.g., the interactions between the ocean, atmosphere, land, and ice.) They use estimates of future greenhouse gas and pollutant concentrations to project changes in climate variables such as temperature and precipitation. The City has worked with the NPCC to develop a series of “future flood maps” for New York that will help guide the city’s rebuilding and resiliency efforts. The report states in its section on Initiatives for Improving the Quality of Climate Analysis that, “OLTPS and the NPCC will work to identify a set of metrics that can help the City and others measure actual climate changes against predicted climate change in order to adjust policies and investment decisions in the future.” The SIRR reports goal is to minimize the impacts of climate change and enable quick recovery after extreme weather events.

The Department’s projects are in alignment with the *President’s Climate Action Plan* under several categories of investments, specifically with the chapter on **Building a 21st-Century Transportation Sector** (page 8). DOT is a leader in the planning, design, and development incorporating resilient features into all of the agency’s Capital Projects and will look to the Federal government’s efforts in planning for climate change.

The Department demonstrated our ability to bounce back following Hurricane Sandy for both the emergency response/repairs to long-term planning and implementation of resilient designs. We are currently working with international planning/engineering consultants to identify innovative ways to design for our most vulnerable communities. We are examining resilient strategies and designs for incorporation into our capital roadway, bridge and ferry projects including hardening roadways, examining new classes of ferries, and coating our bridge cables. In particular, for the

underpasses, the Department is developing an innovative water tight barrier system that can be rapidly deployed by in-house forces in the event of a future flood event.

In order to protect the Department's critical infrastructure it is crucial to examine sustainable and resilient elements that can be included in all of our projects to ensure our infrastructure can withstand the impacts of climate change. We expect to be significant contributors to the virtual climate-resilience toolkit outlined in the Action Plan.

Covered Project:

DOT—Street Resurfacing

2. Identification/Description

NYC has determined that DOT's street Resurfacing work is a Covered Project, per HUD's definition.

The Department identified damage to 277 lane miles in need of resurfacing. Strong winds, heavy rain, and a storm surge due to Hurricane Sandy caused extensive damage throughout the City of New York and flooded streets along the shorelines in all five boroughs. The majority of the road damage was in Coney Island, the Rockaways, and Staten Island. The storm water inundated the roads, caused subgrade saturation and damaged the sections of the roads due to debris and the resulting heavy traffic during the debris removal operation. The work will include milling, paving, and ancillary work such as pedestrian ramps and tree pruning. The total project cost is approximately \$58 million for the resurfacing of the damaged streets.

The cost of street resurfacing is being reimbursed either by FEMA or FHWA based on the location of the damaged street segment. Post-event, DOT conducted field assessments that revealed and recorded extensive damages to the affected segments resulting from both storm damage, as well as damages resulting from heavy equipment utilized for clearing and hauling operations for debris removal. Sub-surface testing in order to verify potential for additional latent damage to roadway sub-base caused by inundation and saturation.

Of the FEMA portion of street segments, the resurfacing work was divided into two phases based on pre-storm condition ratings. Phase 1 included road segments that had been rated as "good" prior to the storm but had post-storm ratings of "fair" to "poor" based on the level of damage that these road segments suffered in the storm. The remaining road segments were placed into Phase 2.

FEMA has stated that if between 17.5 and 80 percent of the visible surface of a road segment is damaged, only the portions of the road segment that exhibit visible surface-level damage are eligible for curb-to curb resurfacing. If there is less than 50 feet between damaged sections, then this undamaged in-between damaged portions is also eligible for curb-to-curb resurfacing but will not be included in the calculation of the percentage of road segment damaged. If less than 17.5 percent of the visible surface of a segment is damaged, the damaged portions of the segment are eligible to be spot-patched (not resurfaced from curb to curb) only. DOT estimates the cost not funded by FEMA for the scope of work for full segment resurfacing in accordance with DOT's standard operating procedure to be \$20 million.

FHWA uses the same methodology as FEMA to determine which segments fall into Phase 1 versus Phase 2. FHWA approved to resurface the entire 16.73 lane miles solicited in Phase 1. The

Department is using a contractor to help identify latent damages for Phase 2 segments. The contractor, HNTB is compiling a report on subsurface damage and a haul route map for the debris staging sites subjected to excessive deterioration by oversized and overloaded trucks during the debris hauling phase of disaster recovery. HNTB is also analyzing latent damages for street segments that being reimbursed by FEMA.

ELIGIBLE ACTIVITY: Rehabilitation/Reconstruction of Public Facilities

NATIONAL OBJECTIVE: Urgent Need; Low- and Moderate-Income Area, once a determination has been made regarding service area.

3. Use of Impact and Unmet Needs Assessment, the Comprehensive Risk Analysis, and the Rebuild by Design Collaborative Risk Analysis

See the Needs Assessment section for more unmet needs assessment detail.

In December 2012, as Sandy relief efforts were well underway, Mayor Bloomberg created the Special Initiative for Rebuilding and Resiliency (SIRR), and charged it with working the Office of Long-Term Planning and Sustainability (OLTPS) to develop a new plan to address the likely effects of climate change. SIRR released an extensive risk analysis report to the public entitled *A Stronger, More Resilient New York* (a.k.a. the SIRR Report) on June 11, 2013. The report is a comprehensive plan that contains actionable recommendations both for rebuilding the communities impacted by Sandy and increasing the resilience of infrastructure and buildings citywide. The SIRR report specifically addresses the five communities hardest hit by Sandy, including: Brooklyn-Queens Waterfront, East and South Shores of Staten Island, South Queens, Southern Brooklyn, and Southern Manhattan.

The SIRR report includes a chapter on Transportation, which provides descriptions of what happened during Sandy to the Department's infrastructure, including the ferries, roadways and bridges. It also includes a risk assessment of climate change on transportation assets from sea level rises to storm surges, high winds and heat waves and initiatives to protect our assets for continual operation, prepare our infrastructure for extreme weather events and increase flexibility and redundancy.

The Rebuild By Design competition, an initiative of the Hurricane Sandy Rebuilding Task Force and HUD, has been tasked with developing fundable solutions to better protect residents from future climate events. Ten participating design teams are currently engaged in an extensive research process involving local community input and fieldwork. The winning designs are expected to be announced in April 2014. After they have been announced, NYC will use the collaborative risk analysis developed by the winners. NYC will use the Rebuild By Design risk analysis to evaluate Covered Projects. In the meantime, the City is basing its risk analysis on the SIRR report. Public outreach was a priority during the process of developing the SIRR report. Elected officials, community leaders, and the general public were consulted and their input contributed to the recommendations outlined in the report.

4. Transparent and Inclusive Decision Processes

This project is funded through the FEMA Public Assistance program and the FHWA Emergency Relief program and the decision criteria and project selection were based upon coordination with

those funding partners. The CDBG-DR funds may be used for the local match after FEMA and FHWA has approved and obligated funds for the projects.

DOT Borough Commissioners notify the community board and elected officials the schedule for implementation. This project is the replacement/restoration of the existing damaged infrastructure with construction-related impacts to the community-at-large; therefore the DOT Borough Commissioner will notify and provide a work schedule to the affected community board(s) and local elected officials prior to implementation.

5. Long-Term Efficacy and Fiscal Sustainability

As reported in the SIRR report, the City has been making a concerted effort to understand the effects that climate change will have on New York. In 2008, Mayor Bloomberg convened the New York City Panel on Climate Change (NPCC). The Panel is made up of a body of leading climate and social scientists charged with developing local climate projections. In September 2012 New York City formally codified the NPCC to institutionalize a process for updating local climate projections and identifying and implementing strategies to address climate risks.

According to the report, the Office of Long Term Planning and Sustainability (OLTPS) will work with NPCC and key stakeholders to develop additional climate change projections and to make these projections even more useful.

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Department of Parks and Recreation (DPR)

In Rockaway Beach, Queens, 37 blocks or nearly 3 miles of boardwalk, experienced severe damage. CDBG-DR funds are anticipated to fund the planning, design, and related services for the Rockaway Beach Boardwalk, which was damaged by Hurricane Sandy. As of August 2013, the design of the Rockaway Beach Boardwalk has begun. It is anticipated to provide for protective structures that are more resilient and able to withstand storm and tidal forces that may impact the coastline in future years.

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 a baffle wall, 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.

Covered Project:

Department of Parks and Recreation (DPR) – Parks Beaches: Phases I and II

1. Project Description and Analysis

NYC has determined that DPR's Parks Beaches, Phases I and II work is a Covered Project, per HUD's definition.

Phase I started in spring 2013. Phase I includes work to restore the Brooklyn, Rockaway, and Staten Island beaches, including repairing buildings, installing new comfort and lifeguard stations to replace destroyed facilities, providing way-finding signage, and rebuilding other amenities such as ramps, stairs, benches, and lighting. The work in Phase I was designed to help facilitate opening the beaches in time for beach season, make as little impact on the waterfront as possible, both through the design of buildings and creation of natural protectors such as dunes, mitigate future damage from storms, and restore structures that were important to the community.

The work proposed for Phase II will complete the reconstruction of the Rockaway Beach Boardwalk and provide protective structures that are more resilient and able to withstand storm and tidal forces that may impact the coastline in future years. CDBG-DR funds are anticipated to fund the planning, design, and construction services for the Rockaway Beach Boardwalk, which was damaged by Hurricane Sandy. As of August 2013, the design for Phase II of the Rockaway Beach Boardwalk is underway. A total of \$10 million is currently available for the design and related services of Phase II of the Rockaway Beach Boardwalk covered under Planning, Administration, and IOCS Program costs.

Phase II would complete reconstruction of the Rockaway Beach Boardwalk and increase its resistance to future storms by raising its elevation by up to three feet above the 100 year flood elevation and rebuilding in concrete as opposed to wood. The boardwalk would be primarily reconstructed in its pre-existing alignment, but the original pile foundation would be replaced with new piles. New access to the beach would be included with stairs and ramps across the new dune that is currently being constructed by the U.S. Army Corps of Engineers (USACE) to provide flood protection to shoreline communities of the Rockaway Peninsula.

Phase II would incorporate a sand-retaining wall underneath the northern (upland) edge of the rebuilt boardwalk. The wall would retain sand placed between it and the USACE-constructed dune, reducing the drift of sand into the neighboring community. The wall is being designed to retain the force of saturated sand fill behind it (and therefore the static pressure of water). It has not been designed to withstand the dynamic energy of waves since the wall will be protected by the USACE dune, the sand between the dune and the wall, and the renourished beach that will be extended 200 feet seaward from the USACE dune. The USACE intends to maintain the dune and the beach and renourish them as necessary. In addition, as a result of an ongoing Reformulation Study, the USACE may provide additional protective measures to further protect the coastal structures. The proposed wall design consists of a series of H-piles supporting concrete panels between the flanges. The panels would be attached to the piles so that the bottom of the slab is 2 feet above the calculated erosion depth of +5 feet NAVD88 (the lowest elevation assumed by the USACE in the absence of any beach nourishment). During an extreme storm event, the scour would open a gap beneath the wall, allowing some of the water to pass under the wall. In some segments of the beach, the proposed work for Phase II would potentially include restoration and stabilization of the existing dunes through the addition of infill sand from an upland source, geotextile fabric, native plantings, and a sand fence.

ELIGIBLE ACTIVITY: Rehabilitation/Reconstruction of Public Facilities

NATIONAL OBJECTIVE: Low- and Moderate-Income Area, based on a citywide low/mod population; Urgent Need

2. Use of Impact and Unmet Needs Assessment, the Comprehensive Risk Analysis, and the Rebuild by Design Collaborative Risk Analysis

The City of New York identified damage to approximately 536 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. Phase I is estimated to be \$332 million and Phase II is estimated at \$227 million for construction of the coastline protection measures and the boardwalk. Part of these projects will be covered by FEMA and the remainder by CDBG-DR.

Coastal protection is covered in Chapter 3 of the SIRR report. This section of the report includes a Risk Assessment and projected impacts of climate change. The analysis concludes that the greatest risk to the City of New York is storm surge. Phase I and II of the Rockaway Boardwalk project is an important element of the SIRR initiative on community and economic recovery to ensure long-term activation of the beach and waterfront. The Climate Analysis chapter in the report discusses current and future vulnerabilities to New York City and sets the framework for the rest of the report where initiatives to address those vulnerabilities are discussed. As described above, the City has incorporated sustainability measures in the design of the project and continues to coordinate with the USACE and other stakeholders to increase resistance to future storms.

The Rebuild By Design competition, an initiative of the Hurricane Sandy Rebuilding Task Force and HUD, has been tasked with developing fundable solutions to better protect residents from future climate events. Ten participating design teams are currently engaged in an extensive research process involving local community input and fieldwork. The winning designs are expected to be announced in April 2014. After they have been announced, NYC will use the collaborative risk analysis developed by the winners. NYC will use the Rebuild By Design risk analysis to evaluate Covered Projects. In the meantime, the City is basing its risk analysis on the SIRR report. Public outreach was a priority during the process of developing the SIRR report. Elected officials, community leaders, and the general public were consulted and their input contributed to the recommendations outlined in the report.

3. Transparent and Inclusive Decision Processes

The City began coordinating with USACE immediately after Sandy on the beach replenishment design plans and process. USACE had planned to replenish the beach to 1994 authorization levels (a +10 elevation), but at the request and encouragement of the City, USACE increased the berm profile to a +14 elevation. Coordination between the City and USACE continued through the first phase of beach replenishment (complete in 2013) and a decision was made to increase the height of the berm to a +16 profile through a process known as betterment. The USACE is anticipated to begin construction of this berm in early 2014.

Relating to the boardwalk, the City has been in continuous coordination with USACE on the Jamaica Bay Reformulation Study and Environmental Feasibility Study which looks at shoreline protection measures for the bay and ocean sides of Rockaway. Parks attends design meetings with USACE to discuss the reformulation options they are considering, as well as share the City's goals for the

boardwalk reconstruction project. Significant effort has been made to ensure that our projects work together to provide the most protection possible to the residents of Rockaway. Coordination is also necessary to ensure that the boardwalk reconstruction design does not interfere with or preclude future USACE investments in protection along the Rockaway peninsula.

The City has also engaged in discussions with the community and received input throughout Phase I and II. Interested parties and project stakeholders have been invited to attend community listening sessions to discuss the needs to the community and presentations continue to be given at local Community Board meetings. City officials attend these meetings to engage in discussions on the project including planning and process.

4. Long-Term Efficacy and Fiscal Sustainability

As reported in the SIRR report and the PlaNYC's *A Greener, Greater New York* report, the City has been making a concerted effort to understand the effects that climate change will have on New York City. In 2008, Mayor Bloomberg convened the New York City Panel on Climate Change (NPCC). The NPCC is made up of a body of leading climate and social scientists charged with developing local climate projections. In September 2012, New York City formally codified the NPCC to institutionalize a process for updating local climate projections and identifying and implementing strategies to address climate risks.

Also, according to the Climate Analysis chapter of the SIRR report, the NYC Office of Long Term Planning and Sustainability (OLTPS) will work with NPCC and key stakeholders to develop additional climate change projections and to make these projections even more useful.

If funded, NYC will assure the long-term efficacy and sustainability of this program through ongoing monitoring and evaluation. During implementation, the City will ensure that all the appropriate mitigation measures are put into place and meet government standards. The City will be vigilant in doing immediate assessments after future storms events. The agency will provide monitoring or assessment of the structures and equipment to see if they can withstand storm and hurricane conditions. This will be reported to the appropriate City departments to address any failures in structures and equipment.

5. Environmentally Sustainable and Innovative Investment

The NPCC develops climate projections using global climate models. These models are mathematical representations of the Earth's climate system (e.g., the interactions between the ocean, atmosphere, land, and ice.) They use estimates of future greenhouse gas and pollutant concentrations to project changes in climate variables such as temperature and precipitation. The City has worked with the NPCC to develop a series of "future flood maps" for New York that will help guide the city's rebuilding and resiliency efforts.

The SIRR report states in its section on Initiatives for Improving the Quality of Climate Analysis that, "OLTPS and the NPCC will work to identify a set of metrics that can help the City and others measure actual climate changes against predicted climate change in order to adjust policies and investment decisions in the future." The SIRR report's goal is to minimize the impacts of climate change and enable quick recovery after extreme weather events. The report identifies initiatives that will make the coastline more resilient.

The City is also informed by the President's Climate Action Plan. The Action Plan identifies the need for identifying vulnerabilities of key sectors to climate change (page 14) and states the following: "In 2013, the Department of Agriculture and Department of the Interior released several studies

outlining the challenges a changing climate poses for America’s agricultural enterprise, forests, water supply, wildlife, and public lands.” The Action Plan also outlines actions for conserving land and water resources (page 15). The City of New York will look to the Federal government’s efforts in planning for climate change.

Health and Hospitals Corporation (HHC)

The Health and Hospitals Corporation (HHC) is a public benefit corporation that primarily serves a low- and moderate-income (LMI) population. A number of HHC facilities suffered extensive damage due to Hurricane Sandy. Four HHC hospitals had damage that meets and exceed the thresholds to be considered Covered Projects by HUD. The City of New York is anticipating that FEMA will provide funding – both through the Public Assistance (PA)/404 Mitigation program and Hazard Mitigation Grant Program (HMGP)/406 Mitigation program – for all four of these hospitals. The City is seeking to leverage CDBG-DR funds as the “non-federal” share for these projects.

Chapter 8 of the City’s SIRR report provides a detailed analysis of what occurred to hospitals during Sandy and offers an extensive risk assessment of the potential impact of climate change on the healthcare system in NYC. The SIRR report also presents 12 actionable recommendations for the improved resilience of hospitals and healthcare in NYC. Among the recommendations are (#1) improving the design and construction of new hospitals, (#2) requiring the retrofitting of existing hospitals in the 500-year floodplain, and (#3) supporting HHC’s effort to protect public hospital emergency departments from flooding.

It was clear from the extensive damage suffered to these four HHC hospitals and the critical importance of the hospitals that the City of New York must prioritize CDBG-DR funds towards the reconstruction and rehabilitation of HHC hospitals. The damages to these hospitals put a strain on NYC’s healthcare system after Sandy.

These hospitals play a crucial role in NYC’s healthcare system and are especially vital to the communities they serve. FEMA has recognized the need to repair and mitigate by providing robust funds to these hospitals and CDBG-DR funds is expected to provide the match to FEMA’s funds.

The following is a list of HHC’s four Covered Projects:

Covered Project:

HHC – Bellevue Hospital Center

1. Identification/Description

NYC has determined that Bellevue Hospital Center’s infrastructure work is a Covered Project, per HUD’s definition.

Bellevue Hospital’s importance is both to its surrounding neighborhoods and institutions, as well as to New Yorkers across the City. Established in 1735, Bellevue Hospital Center is the nation’s oldest operating hospital. Bellevue Hospital is an 828-bed acute care facility serving 32,000 admissions, treating 125,000 visits to its Emergency Departments (medical, psychiatric and pediatric) and providing more than one half million outpatient visits per year. Bellevue employs more than 4,000 staff.

Bellevue Hospital is a major citywide referral center for highly complex cases and serves as the designated medical facility for dignitaries visiting New York City including the President of the United States and diplomats from the United Nations. Bellevue's Emergency Department has the highest level designation for trauma, amputations requiring re-implantation, pediatric cardio-cooling and poisonings. Additionally, Bellevue is one of only four Trauma Centers in Manhattan and the only one located south of 68th Street, serving a population of over 600,000 in this geographic area. The hospital is designated as a Level IV Regional Perinatal Center and operates a Neonatal Intensive Care Unit to serve the most premature and medically fragile newborns. Bellevue also serves as the major receiving hospital for New York City's correctional system, it is the Comprehensive Psychiatric Emergency Program for that part of Manhattan and the only comprehensive psychiatric program for children and adolescents in the entire city. Patients come to Bellevue Hospital from across the City (over 100 zip codes from all 5 boroughs are included in the primary, secondary and tertiary service areas of Bellevue's Emergency Department).

Bellevue Hospital was evacuated and closed because of Hurricane Sandy. Bellevue gradually reopened with most services reopening by February 7, 2013. Bellevue Hospital'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. Repairs and replacement were done to elevators, domestic water pumps, fuel pumps, medical gases, and generators. The total project costs include approximately \$78.9 million for the rehabilitation and reconstruction of Bellevue Hospital, as well as a significant mitigation costs between \$190 million and \$275 million, for an estimated total of between \$258 million and \$343 million (this total excludes \$60 – 80 million for Emergency Protective Measures).

Preliminary mitigation options for Bellevue have been estimated at between \$190 – 275 million, depending on whether HHC receives approval from FEMA the following three options. Option A, a perimeter flood wall, would cost between \$50 – 75 million. Option B, elevating the Emergency Department, would cost between \$50 – 80 million. Option C, hardening internal critical systems, would cost between \$90 – 120 million. Critical systems hardening would include generator replacement, emergency power, vertical transportation, steam system, domestic water system, and medical gas improvements.

HHC has not made a final selection of these options to present to FEMA. Once the options have been submitted, FEMA will evaluate the proposals, make a selection, propose alternatives, or otherwise provide feedback and changes. As a result, final mitigation costs associated with the project are not yet known.

ELIGIBLE ACTIVITY: Rehabilitation/Reconstruction of Public Facilities

NATIONAL OBJECTIVE: Urgent Need; or Low- and Moderate-Income Limited Clientele, based on a review of patient data documenting that the percentage of all patients on Medicaid and Medicare – key indicators of poverty – is above 51%.

2. Use of Impact and Unmet Needs Assessment, the Comprehensive Risk Analysis, and the Rebuild by Design Collaborative Risk Analysis

See the Needs Assessment section for more unmet needs assessment detail.

The SIRR report specifically addresses the five communities hardest hit by Sandy, including: Brooklyn-Queens Waterfront, East and South Shores of Staten Island, South Queens, Southern Brooklyn, and Southern Manhattan. The SIRR report includes a chapter on Healthcare, which provides descriptions of what happened during Sandy to New York City's healthcare system, a risk assessment of climate change on the healthcare system, and initiatives for increasing resiliency in the healthcare system.

The Rebuild By Design competition, an initiative of the Hurricane Sandy Rebuilding Task Force and HUD, has been tasked with developing fundable solutions to better protect residents from future climate events. Ten participating design teams are currently engaged in an extensive research process involving local community input and fieldwork. The winning designs are expected to be announced in April 2014. After they have been announced, NYC will use the collaborative risk analysis developed by the winners. NYC will use the Rebuild By Design risk analysis to evaluate Covered Projects. In the meantime, the City is basing its risk analysis on the SIRR report. Public outreach was a priority during the process of developing the SIRR report. Elected officials, community leaders, and the general public were consulted and their input contributed to the recommendations outlined in the report.

3. Transparent and Inclusive Decision Processes

These projects are FEMA-funded projects, either under FEMA Public Assistance or FEMA's Section 406 Hazard Mitigation program, and the decision process for what will or will not be assisted is solely at the discretion of FEMA. The CDBG-DR funds may be used for the local match after FEMA has approved and obligated funds for the project.

In addition to coordinating with FEMA, the City of New York and the New York City Health and Hospital Corporation will be engaged in a decision-making process that involves the input of other institutions. Bellevue Hospital is located along "Hospital Row," along with the Veterans Administration Hospital and New York University. The City and HHC are coordinating with NYU and the VA on the larger "Hospital Row" recovery effort.

4. Long-Term Efficacy and Fiscal Sustainability

As reported in the SIRR report and the PlaNYC's *A Greener, Greater New York* report, the City has been making a concerted effort to understand the effects that climate change will have on New York City. In 2008, Mayor Bloomberg convened the New York City Panel on Climate Change (NPCC). The NPCC is made up of a body of leading climate and social scientists charged with developing local climate projections. In September 2012, New York City formally codified the NPCC to institutionalize a process for updating local climate projections and identifying and implementing strategies to address climate risks.

Also, according to the Climate Analysis chapter of the SIRR report, the NYC Office of Long Term Planning and Sustainability (OLTPS) will work with NPCC and key stakeholders to develop additional climate change projections and to make these projections even more useful.

The City and HHC will be leveraging other Federal resources in the funding of this project. As such, this project has the backing and support from FEMA, which is ensuring efficacy of a vulnerable facility that, as the only State-designated regional trauma center south of 68th Street in Manhattan, provides a critical service to a critical needs community.

If funded, NYC will assure the long-term efficacy and sustainability of this program through ongoing monitoring and evaluation. During implementation, the City will ensure that all the appropriate mitigation measures are put into place and meet government standards. The City will be vigilant in doing immediate assessments after future storms events. The agency will provide monitoring or assessment of the structures and equipment to see if they can withstand storm and hurricane conditions. This will be reported to the appropriate City departments to address any failures in structures and equipment.

5. Environmentally Sustainable and Innovative Investment

The NPCC develops climate projections using global climate models. These models are mathematical representations of the Earth's climate system (e.g., the interactions between the ocean, atmosphere, land, and ice.) They use estimates of future greenhouse gas and pollutant concentrations to project changes in climate variables such as temperature and precipitation. The City has worked with the NPCC to develop a series of "future flood maps" for New York that will help guide the city's rebuilding and resiliency efforts.

The SIRR report states in its section on Initiatives for Improving the Quality of Climate Analysis that, "OLTPS and the NPCC will work to identify a set of metrics that can help the City and others measure actual climate changes against predicted climate change in order to adjust policies and investment decisions in the future."

The SIRR report's goal is to minimize the impacts of climate change and enable quick recovery after extreme weather events. The report identifies initiatives that will make the healthcare system more resilient.

The City is also informed by the President's Climate Action Plan. The Action Plan identifies the need for boosting the resilience of buildings and infrastructure (page 13). It also identifies the following actionable item:

"Promoting Resilience in the Health Sector: The Department of Health and Human Services will launch an effort to create sustainable and resilient hospitals in the face of climate change. Through a public-private partnership with the healthcare industry, it will identify best practices and provide guidance on affordable measures to ensure that our medical system is resilient to climate impacts. It will also collaborate with partner agencies to share best practices among federal health facilities. And, building on lessons from pilot projects underway in 16 states, it will help train public-health professionals and community leaders to prepare their communities for the health consequences of climate change, including through effective communication of health risks and resilience measures." (page 14).

The City of New York will look to the Federal government's efforts in planning for climate change.

Covered Project:

HHC – Coler-Goldwater Memorial Hospital

1. Identification/Description

NYC has determined that Coler-Goldwater Memorial Hospital’s infrastructure work is a Covered Project, per HUD’s definition.

Located on Roosevelt Island, Coler-Goldwater Hospital is a 2,000-bed facility which offers patient/resident focused clinical, nursing, and rehabilitative care necessary to address the medical, physical, and social needs of patients/residents. The Coler campus was hard hit by Sandy, losing power, heat and hot water for an extended period. Although nearly 100 of Coler’s most vulnerable patients were transferred to the Goldwater campus, the remaining residents remained sheltered at Coler until power, heat, and hot water were ultimately restored through mobile emergency generators and temporary boilers.

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. Repairs and replacement were done to the fire pump and alarm systems, the elevators, and generators. The total project costs include approximately \$58.5 million for the rehabilitation and reconstruction of Coler, as well as a mitigation costs between \$70 million and \$90 million, for an estimated total of between \$120 million and \$140 million (this total excludes \$15 – 35 million for Emergency Protective Measures).

Preliminary mitigation options for Coler-Goldwater Hospital have been estimated at between \$70 – 90 million. Option A, a perimeter flood wall, would cost between \$65 – 80 million. Option B, generator system hardening, would cost between \$5 – 10 million. Were the hospital to pursue both mitigation measures, it would cost between \$70 – 90 million.

HHC has not made a final selection of these options to present to FEMA. Once the options have been submitted, FEMA will evaluate the proposals, make a selection, propose alternatives, or otherwise provide feedback and changes. As a result, final mitigation costs associated with the project are not yet known.

ELIGIBLE ACTIVITY: Rehabilitation/Reconstruction of Public Facilities

NATIONAL OBJECTIVE: Low- and Moderate-Income Limited Clientele; Low- and Moderate-Income Area; or Urgent Need. Patient data is under review and will help determine which National Objective is met.

2. Use of Impact and Unmet Needs Assessment, the Comprehensive Risk Analysis, and the Rebuild by Design Collaborative Risk Analysis

See the Needs Assessment section for more unmet needs assessment detail.

The SIRR report specifically addresses the five communities hardest hit by Sandy, including: Brooklyn-Queens Waterfront, East and South Shores of Staten Island, South Queens, Southern Brooklyn, and Southern Manhattan. The SIRR report includes a chapter on Healthcare, which provides descriptions of what happened during Sandy to New York City’s healthcare system, a risk assessment of climate change on the healthcare system, and initiatives for increasing resiliency in the healthcare system.

The Rebuild By Design competition, an initiative of the Hurricane Sandy Rebuilding Task Force and HUD, has been tasked with developing fundable solutions to better protect residents from future climate events. Ten participating design teams are currently engaged in an extensive research process involving local community input and fieldwork. The winning designs are expected to be announced in April 2014. After they have been announced, NYC will use the collaborative risk analysis developed by the winners. NYC will use the Rebuild By Design risk analysis to evaluate Covered Projects. In the meantime, the City is basing its risk analysis on the SIRR report. Public outreach was a priority during the process of developing the SIRR report. Elected officials, community leaders, and the general public were consulted and their input contributed to the recommendations outlined in the report.

3. Transparent and Inclusive Decision Processes

These projects are FEMA-funded projects, either under FEMA Public Assistance or FEMA's Section 406 Hazard Mitigation program, and the decision process for what will or will not be assisted is solely at the discretion of FEMA. The CDBG-DR funds may be used for the local match after FEMA has approved and obligated funds for the project.

4. Long-Term Efficacy and Fiscal Sustainability

As reported in the SIRR report and the PlaNYC's *A Greener, Greater New York* report, the City has been making a concerted effort to understand the effects that climate change will have on New York City. In 2008, Mayor Bloomberg convened the New York City Panel on Climate Change (NPCC). The NPCC is made up of a body of leading climate and social scientists charged with developing local climate projections. In September 2012, New York City formally codified the NPCC to institutionalize a process for updating local climate projections and identifying and implementing strategies to address climate risks. Also, according to the Climate Analysis chapter of the SIRR report, the NYC Office of Long Term Planning and Sustainability (OLTPS) will work with NPCC and key stakeholders to develop additional climate change projections and to make these projections even more useful.

The City and HHC will be leveraging other Federal resources in the funding of this project. As such, this project has the backing and support from FEMA, which is ensuring efficacy of a vulnerable facility that provides a critical service to a critical needs community.

If funded, NYC will assure the long-term efficacy and sustainability of this program through ongoing monitoring and evaluation. During implementation, the City will ensure that all the appropriate mitigation measures are put into place and meet government standards. The City will be vigilant in doing immediate assessments after future storms events. The agency will provide monitoring or assessment of the structures and equipment to see if they can withstand storm and hurricane conditions. This will be reported to the appropriate City departments to address any failures in structures and equipment.

5. Environmentally Sustainable and Innovative Investment

The NPCC develops climate projections using global climate models. These models are mathematical representations of the Earth's climate system (e.g., the interactions between the ocean, atmosphere, land, and ice.) They use estimates of future greenhouse gas and pollutant concentrations to project changes in climate variables such as temperature and precipitation. The

City has worked with the NPCC to develop a series of “future flood maps” for New York that will help guide the city’s rebuilding and resiliency efforts.

The SIRR report states in its section on Initiatives for Improving the Quality of Climate Analysis that, “OLTPS and the NPCC will work to identify a set of metrics that can help the City and others measure actual climate changes against predicted climate change in order to adjust policies and investment decisions in the future.”

The SIRR reports goal is to minimize the impacts of climate change and enable quick recovery after extreme weather events. The report identifies initiatives that will make the healthcare system more resilient.

The City is also informed by the President’s Climate Action Plan. The Action Plan identifies the need for boosting the resilience of buildings and infrastructure (page 13) and states the following:

“Promoting Resilience in the Health Sector: The Department of Health and Human Services will launch an effort to create sustainable and resilient hospitals in the face of climate change. Through a public-private partnership with the healthcare industry, it will identify best practices and provide guidance on affordable measures to ensure that our medical system is resilient to climate impacts. It will also collaborate with partner agencies to share best practices among federal health facilities. And, building on lessons from pilot projects underway in 16 states, it will help train public-health professionals and community leaders to prepare their communities for the health consequences of climate change, including through effective communication of health risks and resilience measures.” (page 14).

The City of New York will look to the Federal government’s efforts in planning for climate change.

Covered Project:

HHC – Coney Island Hospital (CIH)

1. Identification/Description

NYC has determined that Coney Island Hospital’s infrastructure work is a Covered Project, per HUD’s definition.

Coney Island Hospital in Brooklyn serves a community of nearly 750,000 people. CIH was evacuated and closed because of Hurricane Sandy. The hospital gradually reopened, with most services restored by February 19, 2013. 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. Permanent work at the hospital included elevator repair, extensive first floor repairs, replacement of imaging equipment, and replacement of switch gear. The total project costs include approximately \$117.8 million for the rehabilitation and reconstruction of Coney Island Hospital, as well as a mitigation costs between \$300 million and \$450 million, for an estimated total of between \$402 million and \$552 million (this total excludes \$18 – 38 million of Emergency Protective Measures).

Preliminary mitigation options for Coney Island Hospital have been estimated at between \$300 – 450 million. Option A, a perimeter flood wall, would cost between \$80 – 95 million. Option B, internal critical systems hardening, would cost between \$300 – 350 million. Critical systems hardening would include an improved drainage system; pumping plants; and raising all switch gear, pumps, and motors. Were the hospital to pursue all both Option A and B mitigation measures, it would cost between \$380 – 445 million. A third option (Option C), for a new mitigated facility, would cost between \$375 – 400 million.

HHC has not made a final selection of these options to present to FEMA. Once the options have been submitted, FEMA will evaluate the proposals, make a selection, propose alternatives, or otherwise provide feedback and changes. As a result, final mitigation costs associated with the project are not yet known.

ELIGIBLE ACTIVITY: Rehabilitation/Reconstruction of Public Facilities

NATIONAL OBJECTIVE: Urgent Need; or Low- and Moderate-Income Limited Clientele, based on a review of patient data documenting that the percentage of all patients on Medicaid and Medicare – key indicators of poverty – is above 51%.

2. Use of Impact and Unmet Needs Assessment, the Comprehensive Risk Analysis, and the Rebuild by Design Collaborative Risk Analysis

See the Needs Assessment section for more unmet needs assessment detail.

The SIRR report specifically addresses the five communities hardest hit by Sandy, including: Brooklyn-Queens Waterfront, East and South Shores of Staten Island, South Queens, Southern Brooklyn, and Southern Manhattan; Coney Island Hospital is located in Southern Brooklyn. The SIRR report includes a chapter on Healthcare, which provides descriptions of what happened during Sandy to New York City’s healthcare system, a risk assessment of climate change on the healthcare system, and initiatives for increasing resiliency in the healthcare system. The SIRR report also includes, on page 147, a detailed description of CIH during and after Sandy, including: “It took almost five days to pump out over 10 million gallons of water from flooded basement areas.”

The Rebuild By Design competition, an initiative of the Hurricane Sandy Rebuilding Task Force and HUD, has been tasked with developing fundable solutions to better protect residents from future climate events. Ten participating design teams are currently engaged in an extensive research process involving local community input and fieldwork. The winning designs are expected to be announced in April 2014. After they have been announced, NYC will use the collaborative risk analysis developed by the winners. NYC will use the Rebuild By Design risk analysis to evaluate Covered Projects. In the meantime, the City is basing its risk analysis on the SIRR report. Public outreach was a priority during the process of developing the SIRR report. Elected officials, community leaders, and the general public were consulted and their input contributed to the recommendations outlined in the report.

3. Transparent and Inclusive Decision Processes

These projects are FEMA-funded projects, either under FEMA Public Assistance or FEMA’s Section 406 Hazard Mitigation program, and the decision process for what will or will not be assisted is solely at the discretion of FEMA. The CDBG-DR funds may be used for the local match after FEMA has approved and obligated funds for the project.

4. Long-Term Efficacy and Fiscal Sustainability

The alternate long-term measures being proposed for flood mitigation at CIH is referred to as the Baseline Approach. The Baseline Approach consists of constructing a floodwall around the entire perimeter of the CIH campus as well as elevating critical systems and services to a level at which floodwaters are not expected to reach.

FEMA's BCA Toolkit Version 4.8 was used to obtain the Benefit Cost Ratio (BCR) for the proposed mitigation measures at CIH. The analysis for CIH uses a combination of engineering assessments and statistical determinations of likely occurrences and associated damages during future events." Based on the results of the BCA prepared for the CIH, it has been concluded that the flood mitigation project being proposed will mitigate physical damages and loss of service to CIH during future flood events up to the design level, or 500-year flood. The Benefit Cost Ratio of 1.53 demonstrates that this project is not only protective of CIH but also a cost-effective solution.

As reported in the SIRR report and the PlaNYC's *A Greener, Greater New York* report, the City has been making a concerted effort to understand the effects that climate change will have on New York City. In 2008, Mayor Bloomberg convened the New York City Panel on Climate Change (NPCC). The NPCC is made up of a body of leading climate and social scientists charged with developing local climate projections. In September 2012, New York City formally codified the NPCC to institutionalize a process for updating local climate projections and identifying and implementing strategies to address climate risks. Also, according to the Climate Analysis chapter of the SIRR report, the NYC Office of Long Term Planning and Sustainability (OLTPS) will work with NPCC and key stakeholders to develop additional climate change projections and to make these projections even more useful.

The City and HHC will be leveraging other Federal resources in the funding of this project. As such, this project has the backing and support from FEMA, which is ensuring efficacy of a vulnerable facility that provides a critical service to a critical needs community.

If funded, NYC will assure the long-term efficacy and sustainability of this program through ongoing monitoring and evaluation. During implementation, the City will ensure that all the appropriate mitigation measures are put into place and meet government standards. The City will be vigilant in doing immediate assessments after future storms events. The agency will provide monitoring or assessment of the structures and equipment to see if they can withstand storm and hurricane conditions. This will be reported to the appropriate City departments to address any failures in structures and equipment.

5. Environmentally Sustainable and Innovative Investment

The NPCC develops climate projections using global climate models. These models are mathematical representations of the Earth's climate system (e.g., the interactions between the ocean, atmosphere, land, and ice.) They use estimates of future greenhouse gas and pollutant concentrations to project changes in climate variables such as temperature and precipitation. The City has worked with the NPCC to develop a series of "future flood maps" for New York that will help guide the city's rebuilding and resiliency efforts.

The SIRR report states in its section on Initiatives for Improving the Quality of Climate Analysis that, "OLTPS and the NPCC will work to identify a set of metrics that can help the City and others

measure actual climate changes against predicted climate change in order to adjust policies and investment decisions in the future.”

The SIRR reports goal is to minimize the impacts of climate change and enable quick recovery after extreme weather events. The report identifies initiatives that will make the healthcare system more resilient.

The City is also informed by the [President’s Climate Action Plan](#). The Action Plan identifies the need for boosting the resilience of buildings and infrastructure (page 13) and states the following:

“Promoting Resilience in the Health Sector: The Department of Health and Human Services will launch an effort to create sustainable and resilient hospitals in the face of climate change. Through a public-private partnership with the healthcare industry, it will identify best practices and provide guidance on affordable measures to ensure that our medical system is resilient to climate impacts. It will also collaborate with partner agencies to share best practices among federal health facilities. And, building on lessons from pilot projects underway in 16 states, it will help train public-health professionals and community leaders to prepare their communities for the health consequences of climate change, including through effective communication of health risks and resilience measures.” (page 14).

The City of New York will look to the Federal government’s efforts in planning for climate change.

Covered Project:

HHC – Metropolitan Hospital Center

1. Identification/Description

NYC has determined that Metropolitan Hospital Center’s infrastructure work is a Covered Project, per HUD’s definition.

Metropolitan Hospital Center in Manhattan suffered facility damage with a total project cost for the rehabilitation and reconstruction estimated at \$10 million, with an additional \$50 million to \$80 million in potential mitigation costs, for an estimated total of between \$60 million and \$90 million (this total excludes \$5 – 25 million for Emergency Protective Measures). A critical project is the repair or replacement of electric feeders to the hospital.

HHC has not made a final selection of these options to present to FEMA. Once the options have been submitted, FEMA will evaluate the proposals, make a selection, propose alternatives, or otherwise provide feedback and changes. As a result, final mitigation costs associated with the project are not yet known.

ELIGIBLE ACTIVITY: Rehabilitation/Reconstruction of Public Facilities

NATIONAL OBJECTIVE: Low- and Moderate-Income Limited Clientele; Low- and Moderate-Income Area; or Urgent Need. Patient data is under review and will help determine which National Objective is met.

2. Use of Impact and Unmet Needs Assessment, the Comprehensive Risk Analysis, and the Rebuild by Design Collaborative Risk Analysis

See the Needs Assessment section for more unmet needs assessment detail.

The SIRR report specifically addresses the five communities hardest hit by Sandy, including: Brooklyn-Queens Waterfront, East and South Shores of Staten Island, South Queens, Southern Brooklyn, and Southern Manhattan. The SIRR report includes a chapter on Healthcare, which provides descriptions of what happened during Sandy to New York City's healthcare system, a risk assessment of climate change on the healthcare system, and initiatives for increasing resiliency in the healthcare system.

The Rebuild By Design competition, an initiative of the Hurricane Sandy Rebuilding Task Force and HUD, has been tasked with developing fundable solutions to better protect residents from future climate events. Ten participating design teams are currently engaged in an extensive research process involving local community input and fieldwork. The winning designs are expected to be announced in April 2014. After they have been announced, NYC will use the collaborative risk analysis developed by the winners. NYC will use the Rebuild By Design risk analysis to evaluate Covered Projects. In the meantime, the City is basing its risk analysis on the SIRR report. Public outreach was a priority during the process of developing the SIRR report. Elected officials, community leaders, and the general public were consulted and their input contributed to the recommendations outlined in the report.

3. Transparent and Inclusive Decision Processes

These projects are FEMA-funded projects, either under FEMA Public Assistance or FEMA's Section 406 Hazard Mitigation program, and the decision process for what will or will not be assisted is solely at the discretion of FEMA. The CDBG-DR funds may be used for the local match after FEMA has approved and obligated funds for the project.

4. Long-Term Efficacy and Fiscal Sustainability

As reported in the SIRR report and the PlaNYC's *A Greener, Greater New York* report, the City has been making a concerted effort to understand the effects that climate change will have on New York City. In 2008, Mayor Bloomberg convened the New York City Panel on Climate Change (NPCC). The NPCC is made up of a body of leading climate and social scientists charged with developing local climate projections. In September 2012, New York City formally codified the NPCC to institutionalize a process for updating local climate projections and identifying and implementing strategies to address climate risks. Also, according to the Climate Analysis chapter of the SIRR report, the NYC Office of Long Term Planning and Sustainability (OLTPS) will work with NPCC and key stakeholders to develop additional climate change projections and to make these projections even more useful.

The City and HHC will be leveraging other Federal resources in the funding of this project. As such, this project has the backing and support from FEMA, which is ensuring efficacy of a vulnerable facility that provides a critical service to a critical needs community.

If funded, NYC will assure the long-term efficacy and sustainability of this program through ongoing monitoring and evaluation. During implementation, the City will ensure that all the appropriate

mitigation measures are put into place and meet government standards. The City will be vigilant in doing immediate assessments after future storms events. The agency will provide monitoring or assessment of the structures and equipment to see if they can withstand storm and hurricane conditions. This will be reported to the appropriate City departments to address any failures in structures and equipment.

5. Environmentally Sustainable and Innovative Investment

The NPCC develops climate projections using global climate models. These models are mathematical representations of the Earth's climate system (e.g., the interactions between the ocean, atmosphere, land, and ice.) They use estimates of future greenhouse gas and pollutant concentrations to project changes in climate variables such as temperature and precipitation. The City has worked with the NPCC to develop a series of "future flood maps" for New York that will help guide the city's rebuilding and resiliency efforts.

The report states in its section on Initiatives for Improving the Quality of Climate Analysis that, "OLTPS and the NPCC will work to identify a set of metrics that can help the City and others measure actual climate changes against predicted climate change in order to adjust policies and investment decisions in the future."

The SIRR reports goal is to minimize the impacts of climate change and enable quick recovery after extreme weather events. The report identifies initiatives that will make the healthcare system more resilient.

The City is also informed by the President's Climate Action Plan. The Action Plan identifies the need for boosting the resilience of buildings and infrastructure (page 13) and states the following:

"Promoting Resilience in the Health Sector: The Department of Health and Human Services will launch an effort to create sustainable and resilient hospitals in the face of climate change. Through a public-private partnership with the healthcare industry, it will identify best practices and provide guidance on affordable measures to ensure that our medical system is resilient to climate impacts. It will also collaborate with partner agencies to share best practices among federal health facilities. And, building on lessons from pilot projects underway in 16 states, it will help train public-health professionals and community leaders to prepare their communities for the health consequences of climate change, including through effective communication of health risks and resilience measures." (page 14).

The City of New York will look to the Federal government's efforts in planning for climate change.

HMGP

The City of New York is expecting to use CDBG-DR funds as a match for FEMA's Hazard Mitigation Grant Program (HMGP). HMGP provides grants to states and local governments to implement long-term hazard mitigation measures after a major disaster declaration. The purpose of the HMGP is to reduce the loss of life and property due to natural disasters and to enable mitigation measures to be implemented during the immediate recovery from a disaster. The HMGP is authorized under Section 404 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act.

The Breezy Point Risk Mitigation System is among one of the forty HMGP applications the City of New York has submitted to the State of New York for review. FEMA can fund up to 75% of the eligible costs of each project. The state or grantee must provide a 25% match, which can be fashioned from a combination of cash and in-kind sources. Funding provided to states under CDBG can be used to meet the non-federal share requirement and the City of New York expects to provide the 25% match for these projects.

Covered Project:

HMGP – Breezy Point Risk Mitigation System

1. Identification/Description

NYC has determined that the Breezy Point Risk Mitigation System is a Covered Project, per HUD's definition.

Damage from Hurricane Sandy

Hurricane Sandy had a devastating impact on New York City. The storm took the lives of 44 individuals. It also damaged over 23,000 residential structures containing more than 69,000 housing units, forced 6,500 patients to be evacuated from hospitals and nursing homes, knocked out power to over 800,000 customers, compromised 23,400 businesses, and barred 1.1 million New York City children from attending school for a week.

Sandy's biggest impacts were the result of its massive storm surge and the flooding that the surge caused. A staggering 50.6 square miles of New York City flooded—17 percent of the city's total land mass—and in many areas the depth of floodwaters was unprecedented.

The neighborhood of Breezy Point suffered particularly harsh damage, from both storm surge and flooding, because of its location along Rockaway Inlet, the Harbor, and the Atlantic Ocean. Moreover, the Breezy Point area was excluded from the U.S. Army Corps of Engineers' Rockaway Beach project, which ends at Beach 149th Street, approximately 2.6 miles east of Breezy Point. The Breezy Point community begins at approximately Beach 200th Street. There is currently no active federal, State, or City flood or protection project in the Breezy Point community.

During Hurricane Sandy, record waves of over 30 feet and storm surges of 10.70 to 12.70 (NAVD) were recorded by the National Buoy Data Center of NOAA and the US Geological Survey, respectively. The massive inundation and damage to homes and infrastructure (and the resulting loss of services) were unprecedented. Coastal flooding far exceeded predicted coastal flood heights for a 100-year storm on FEMA's Effective Flood Maps. Hurricane Sandy is not the first coastal storm to strike this area. As a barrier island, the Rockaways—and Breezy Point in particular are susceptible to flooding and wave damage from hurricanes and nor'easters, especially over the past three decades.

Comprehensive Risk Assessment

The City's proposals for coastal protection measures, such as the Breezy Point Risk Mitigation System are based on a multi-faceted analysis. This analysis considered factors ranging from the nature and likelihood of coastal hazards (such as destructive waves or flooding), to the possible impact of these hazards on the built environment and critical infrastructure, to the likely effectiveness of certain protective measures. The City also considered whether an area included high concentrations of particularly vulnerable populations, such as the elderly or those with

disabilities that would be at greater risk during a storm event. Another important consideration was the underlying geomorphology of the regions examined, as well as the coastal features already in place.

To inform this larger evaluation, the City engaged Swiss Re, a reinsurance company, to complete a quantitative assessment looking at the frequency and severity of an event (such as a coastal storm) as well as the magnitude of loss likely to be suffered if such an event were to occur. The City applied Swiss Re's natural catastrophe models to New York City to help understand the potential impacts of wind and storm surge on the city (FEMA's FIRMs do not model the impacts of wind), assuming a world of rising sea levels and more intense storms. This analysis was used as one piece of the larger and is described in further detail on pages 33-36 of *A Stronger, More Resilient New York*.

The Breezy Point Risk Mitigation Project

The Breezy Point Risk Mitigation Project is a critical part of barrier island protection for both the Breezy Point community and the Jamaica Bay watershed and floodplain. The proposed project has two principal components: a double dune system on the ocean side of the community and new protective measures on the bay side. The objective of the proposed double dune system is to provide sustainable, natural flood and erosion protection utilizing natural protective features such as beaches, dunes, beach vegetation and the barrier island. The dune will be designed to withstand the forces associated with a 100-year flood height, as indicated on FEMA's latest maps, plus sea level rise (2.58 feet) over the life of the project and provide long term, sustainable protection with minimum project maintenance.

This approach is both sustainable and consistent with the federally approved New York State Coastal Management Plan (CMP) and the New York City Waterfront Revitalization Plan (WRP). The principal need at Breezy Point along the ocean side is to provide a double dune system where the primary dune (most seaward dune) can both survive the wave impact of a coastal storm (storm induced erosion) and the secondary dune (the landward dune) can provide protection from the storm surge (flooding). The cost of this work is estimated to be \$20.2 Million.

The bay side of the peninsula needs special attention to widen the beach for urgent flood and erosion protection, which includes enhancing existing structures. Protection of the bay side of Breezy Point will be accomplished by creating a complementary series of bayside flood and erosion protection devices, including an H-Pile baffle wall, T-Head groins, PVC sheet pile and beach fill. These devices will be applied on a reach by reach basis along the bayside shoreline by apply engineering standards and practices to the underlying geological setting and observed flooding parameters to develop a consistent and coherent flood protection system. The cost of this component of the work is estimated to be \$37.6 million.

The combined cost of the project, both ocean-side and bay side, is \$58.2 million and is expected to mitigate damages, such as those incurred by Sandy amounting to over \$400 million.

ELIGIBLE ACTIVITY: Rehabilitation/Reconstruction of Public Facilities

NATIONAL OBJECTIVE: Urgent Need

2. Use of Impact and Unmet Needs Assessment, the Comprehensive Risk Analysis, and the Rebuild by Design Collaborative Risk Analysis

For a discussion of the City’s comprehensive citywide risk analysis, see the section above. Not building the Breezy Point Mitigation System would leave over 2,400 residential and commercial buildings in Breezy Point, as well as emergency personnel, resources and infrastructure, exposed to flooding during a 100-year flood height, plus a 2.58 feet sea level rise. The estimated cost of not building the dune exceeds the cost of the selected alternative. There is also a need to protect the bayside: The bayside shoreline of Breezy and Roxbury is low and level, inviting storm surge waters into areas and adversely impacting infrastructure including electric, gas, transportation and emergency services. No action would allow these periodic floods to gradually degrade systems.

In December 2012, Mayor Bloomberg created the Special Initiative for Rebuilding and Resiliency (SIRR) to focus on improving citywide infrastructure and building long term resilience. In June 2013, SIRR released a report entitled “A Stronger, More Resilient New York” that put forth a comprehensive plan containing actionable recommendations for rebuilding Sandy-impacted communities and for increasing the resilience of infrastructure and buildings citywide. The SIRR report includes a chapter on Coastal Protection which sets forth strategies for protecting the city’s coastlines.

The Rebuild By Design competition, an initiative of the Hurricane Sandy Rebuilding Task Force and HUD, has been tasked with developing fundable solutions to better protect residents from future climate events. Ten participating design teams are currently engaged in an extensive research process involving local community input and fieldwork. The winning designs are expected to be announced in April 2014. After they have been announced, NYC will use the collaborative risk analysis developed by the winners. NYC will use the Rebuild By Design risk analysis to evaluate Covered Projects. In the meantime, the City is basing its risk analysis on the SIRR report. Public outreach was a priority during the process of developing the SIRR report. Elected officials, community leaders, and the general public were consulted and their input contributed to the recommendations outlined in the report.

3. Transparent and Inclusive Decision Processes

As part of the City’s storm recovery effort, both the Special Initiative on Rebuilding and Resiliency (SIRR) and the Housing Recovery Office conducted extensive outreach in South Queens. Between January 2013 and June 2013, SIRR held three public meetings in South Queens, briefed elected officials on a monthly basis, briefed community-based organizations every 4-6 weeks, and engaged approximately 14 City, State, and Federal elected officials, two community boards, and over 55 faith-based, businesses, and community organizations. Additionally, staff from the Mayor’s Office of Housing Recovery Operations (HRO), have had many conversations with residents of the Breezy Point Cooperative regarding this project and community and the Cooperative is willing to grant the necessary public access to install this project.

4. Long-Term Efficacy and Fiscal Sustainability

The Breezy Point Mitigation System project will protect vulnerable lands, homes, infrastructure and natural resources, as well as the one and only road in and out of Breezy Point, from flooding and erosion caused by hurricanes and northeasters.

The oceanside dune and bayside structures will be designed to withstand the forces associated with a

100-year flood height, as indicated on FEMA’s Preliminary Flood Insurance Rate Maps. They will also withstand sea level rise (2.58 feet) over the life of the project and provide long-term, sustainable protection with minimum project maintenance. This approach is both sustainable and consistent with the federally-approved New York State Coastal Management Plan (CMP) and the New York City Waterfront Revitalization Plan (WRP).

The prevention of the storm surge will protect homes, businesses and Rockaway Point Blvd., which is the sole egress/ingress to Breezy Point, the designated Hurricane Evacuation Route and the sole means of emergency access to Breezy Point.

The project will mitigate damages of over \$400 million at a cost of \$58 million, resulting in a Benefit Cost Ratio of 1.65 over the lifetime of this project. This is based on the FEMA-approved Benefit Cost Analysis Software, version 4.8.

If funded, NYC will assure the long-term efficacy and sustainability of this program through ongoing monitoring and evaluation. During implementation, the City will ensure that all the appropriate mitigation measures are put into place and meet government standards. The City will be vigilant in doing immediate assessments after future storms events. The agency will provide monitoring or assessment of the structures and equipment to see if they can withstand storm and hurricane conditions. This will be reported to the appropriate City departments to address any failures in structures and equipment.

5. Environmentally Sustainable and Innovative Investment

The Special Initiative for Rebuilding and Resiliency (SIRR) was charged with producing a plan to provide additional protection from the impacts of climate change. The report produced by SIRR contains a chapter on climate analysis that sets forth a series of initiatives designed to strengthen the City’s ability to understand and prepare for the impacts of climate change.

Furthermore, in 2008, Mayor Bloomberg convened the New York City Panel on Climate Change (NPCC). The Panel is made up of a body of leading climate and social scientists charged with developing local climate projections. In September 2012 New York City formally codified the NPCC to institutionalize a process for updating local climate projections and identifying and implementing strategies to address climate risks. The NPCC develops climate projections using global climate models. These models are mathematical representations of the Earth’s climate system (e.g., the interactions between the ocean, atmosphere, land, and ice.) They use estimates of future greenhouse gas and pollutant concentrations to project changes in climate variables such as temperature and precipitation. The City has worked with the NPCC to develop a series of “future flood maps” for New York that will help guide the city’s rebuilding and resiliency efforts.

The City is also informed by the President’s Climate Action Plan. The Action Plan identifies actions for conserving land and water resources (page 15). The City of New York will look to the Federal government’s efforts in planning for climate change.

The Breezy Point Mitigation System is a green investment that minimizes upland wave zones without disrupting the built environment. The Hurricane Sandy Rebuilding Task Force’s *Rebuilding Strategy* focuses on the need for green infrastructure in Recommendations 19-22. As outlined in Recommendation 19: “Consider green infrastructure options in all Sandy infrastructure investments,” this mitigation system takes habitat into account, upholds landscape conservation for

the tourism, recreation, and aesthetic values on which economies depend; protects the Jamaica Bay watershed protection for clean drinking water and improved flood management; protects the threatened and endangered species population along Jamaica Bay; and preserves other associated ecosystem services from which people derive benefits including aquaculture.

HUD ELIGIBILITY CATEGORY: Rehabilitation/Reconstruction of Public Facilities

NATIONAL OBJECTIVE: Low- and Moderate-Income Limited Clientele; Low- and Moderate-Income Area; Urgent Need

CDBG-DR ALLOCATION: \$374,500,000

PROJECTED ACCOMPLISHMENTS: 96 Public Facilities (14 beaches; 71 schools; and 11 hospitals/health clinics)

PROGRAM ADMINISTRATION: Health and Hospitals Corporation; Department of Education; School Construction Authority; Department of Parks and Recreation; City Council; Department of Citywide Administrative Services; Department of Correction; Department of Cultural Affairs; Department of Design and Construction; Department of Environmental Protection; Department of Health and Mental Hygiene; Department of Homeless Services; Department of Investigation; Department of Sanitation; Department of Transportation; Economic Development Corporation; Fire Department of New York; Housing and Preservation Development; Human Resources Administration; Mayor's Office; Office of the Chief Medical Examiner; Office of Emergency Management; New York City Housing Authority; Department of Buildings; Office of Long Term Planning & Sustainability; Housing Recovery Office; and the New York Police Department.

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

Original text:

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

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

OTHER FUNDING SOURCES: FEMA Public Assistance

Replace with:

This activity has been re-categorized under "Rehabilitation/Reconstruction of Public Facilities"

Original text:

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 thoroughways 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

Replace with:

This activity has been re-categorized under "Rehabilitation/Reconstruction of Public Facilities"

Original text:

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).

Replace with:

This activity has been re-categorized under "Rehabilitation/Reconstruction of Public Facilities"

Original text:

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.

Replace with:

This activity has been removed from the Action Plan.

Original text:

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.

Replace with:

This activity has been removed from the Action Plan.

Original text:

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.

Replace with:

This activity has been removed from the Action Plan

Original Text:

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

Replace with:

This section has been restructured and re-categorized under "Rehabilitation/ Reconstruction of Public Facilities."

Original text:

IOCS Summary

The following chart represents the most recent calculation of IOCS funding on an agency-by-agency basis, based on the best available information at the close of the City's Fiscal Year 2013. This CDBG-DR funding is across the Public Services, Emergency Demolition, Debris Removal/Clearance, Code Enforcement, Rehabilitation/Reconstruction of Public Facilities, and Interim Assistance activities within the overall IOCS program. The cost share reimbursement for IOCS programs will cover the CDBG-DR-eligible unmet needs not already reimbursed by FEMA, including the 10% non-federal share consistent with the cost share agreement, as well as additional costs associated with Hurricane Sandy not funded by FEMA, other Federal agencies, or other sources of funds.

IOCS Funding By Agency

<u>Agency</u>	<u>CDBG-DR Funding (\$ millions)</u>
Administration for Children's Services	\$0.1
Department of Buildings	\$0.5
Department of Citywide Administrative Services	\$11.2
Department of Cultural Affairs	\$0.0
Department of Design and Construction	\$1.1
Department of Education	\$4.9
Department of Environmental Protection	\$101.9
Department of Health and Mental Hygiene	\$2.6
Department of Homeless Services	\$2.2
Department of Investigation	\$0.0
Department of the Aging	\$0.1
Department of Transportation	\$2.2
Department of Youth & Community Development	\$0.0
District Attorney of New York	\$0.0
Economic Development Corporation	\$0.1
Fire Department	\$1.3
Health and Hospitals Corporation	\$183.0
Housing and Preservation Development	\$1.0
Human Resources Administration	\$7.0
Mayoralty	\$0.5
Office of Emergency Management	\$0.4
Parks and Recreation	\$6.6
Police Department	\$16.0
Department of Correction	\$0.3
Other	\$17.0
Grand Total	\$360.0

Note: All figures are rounded to the nearest \$100,000. Agencies listed as \$0.0 are less than \$100,000. May not sum to total due to rounding.

Replace with:

IOCS Summary

FEMA funds 90% of approved Public Assistance projects and 75% of HMGP projects. The remaining 10% and 25% cost shares, respectively, is expected to be covered by CDBG-DR funds as well as other CDBG-DR-eligible costs.

X. Resilience

Overview

Original Text:

According to FEMA's Preliminary Work Maps (PWMs), which represent the federal government's current assessment of New York City's flood risk, the 100-year floodplain—the area with a 1 percent or greater chance of flooding in any given year—has expanded compared to the floodplain on the 1983 maps that were in effect when Sandy hit, increasing by about 15 square miles or 45 percent. The PWMs can be viewed at <http://www.region2coastal.com>.

Replace with:

According to FEMA's Preliminary FIRMs, which represent the federal government's current assessment of New York City's flood risk, the 100-year floodplain—the area with a 1 percent or greater chance of flooding in any given year—has expanded compared to the floodplain on the 1983 maps that were in effect when Sandy hit, increasing by about 15 square miles or 45 percent. The Preliminary FIRMs can be viewed at <http://www.region2coastal.com>.

Original Text:

The risks for New York City are even more serious going forward, taking climate projections from the NPCC into account. These projections indicate that sea levels around New York City, which have already risen by more than a foot over the last 100 years, could rise by more than 2.5 feet by mid-century. It is estimated that rising sea levels could expand the floodplain to 59 square miles by the 2020s (up 23 percent from the PWMs), encompassing 88,800 buildings (up 31 percent). By the 2050s, New York City's floodplain could be 72 square miles—nearly a quarter of the city, an area that today contains 114,000 buildings, along with 97 percent of the city's power generation capacity, 20 percent of hospital beds, and a large share of its public housing. Over 800,000 New Yorkers (or 10 percent of the city's current population) now live in the 100-year floodplain projected for the 2050s, assuming the high end of sea level rise projections.

Replace with:

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New York City’s Sustainability and Resiliency Planning Pre- and Post-Sandy

Original Text:

The result of SIRR’s analysis, planning, and outreach is a 438-page report entitled *A Stronger, More Resilient New York*, released on June 11, 2013. The report contains over 250 detailed initiatives addressing the vulnerabilities of the city’s infrastructure, built environment, and coastal communities. Among the report’s initiatives are the crucial programs included in this Action Plan to address important unmet needs that Sandy highlighted. The plan can be reviewed at: <http://www.nyc.gov/html/sirr/html/report/report.shtml>

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The result of SIRR’s analysis, planning, and outreach is a 438-page report entitled *A Stronger, More Resilient New York*, released on June 11, 2013. The report contains over 250 detailed initiatives addressing the vulnerabilities of the city’s infrastructure, built environment, and coastal communities. Among the report’s initiatives are the crucial programs included in this Action Plan to address important unmet needs that Sandy highlighted. The plan can be reviewed at: <http://www.nyc.gov/html/sirr/html/report/report.shtml>

Since the plan’s release, the City has completed or nearly completed 53 near-term milestones (or 90%) and has made progress on 195 initiatives (or 76%). Below is a summary of the programs and allocations in the New York City CDBG-DR Action Plan dedicated to resiliency. More details for each of these programs can be found in the relevant sections of the Action Plan.

Program Name	CDBG-DR Allocations		
	Amended 1st Tranche	2nd Tranche	Total
Housing Programs	\$108,000,000	\$300,000,000	\$408,000,000
Discretionary Resilience for 1-4 Family Homes	\$0	\$100,000,000	\$100,000,000
NYCHA Resiliency	\$108,000,000	\$200,000,000	\$308,000,000
Business Programs	\$224,000,000	\$0	\$224,000,000
Neighborhood Game Changer Competition	\$84,000,000	\$0	\$84,000,000
Business Resiliency Investment Program	\$110,000,000	\$0	\$110,000,000
Infrastructure and Building Resiliency Technologies Competitions	\$30,000,000	\$0	\$30,000,000
		Low	High
Infrastructure and Other City Services		\$0	\$1,037,500,000
Section 404 Match*	\$0	\$0	\$137,500,000
FEMA PA & Section 406 Match (for Infrastructure Resilience Projects)**	\$0	\$0	\$900,000,000
Resilience	\$234,000,000	\$0	\$234,000,000
Coastal Protection (Hospital Row, Revetments, Bulkheads)	\$174,000,000	\$0	\$174,000,000

Residential Building Mitigation Program	\$60,000,000	\$0	\$60,000,000
General Resilience Planning	\$26,143,000	\$0	\$26,143,000
Resiliency Studies: Coney Island Creek, Newtown Creek, Flood Maps	\$26,143,000	\$0	\$26,143,000
TOTAL	\$649,143,000		\$1,414,893,000

* FEMA requires a 25% match for Section 404 Hazard Mitigation Grant Program (HMGP) Projects. HMGP funding is provided for resiliency projects. The City submitted \$550 million in HMGP projects, which would result in a maximum match of \$137,500,000. We have estimated match for approximately 50% of total potential match allocation.

** Infrastructure resiliency projects funded through FEMA Public Assistance (PA) and Section 406 funding each require a 10% match. The City estimates that it is eligible for at least \$9,000,000,000 in FEMA PA/ 406 funding for infrastructure resilience projects, which would result in a maximum match of \$900,000,000. We have estimated match for approximately 50% of total potential match allocation.

Needs Assessment

Original text:

Because these coastal protection measures were effective during Sandy, they were among the options that SIRR considered during its analysis of measures that might be implemented in New York City to protect vulnerable areas from damage in the future.

Replaced with:

Because these coastal protection measures were effective during Sandy, they were among the options that SIRR considered during its analysis of measures that might be implemented in New York City to protect vulnerable areas from damage in the future. Due to funding limitations, many of the SIRR priorities are being deferred to Tranche 3.

Coastal Protection

Original Text:

PROGRAM OBJECTIVE AND DESCRIPTION: This program aims to protect neighborhoods and hospitals that were adversely impacted by Sandy by strengthening coastal protection measures, as detailed below. These efforts will also protect other publicly funded repair (including CDBG-DR and FEMA Public Assistance), restoration, and improvement efforts, which will ensure the long-term viability of those investments. The City has prioritized these coastal protection measures because of the large number of homes, businesses, and investments that will be protected; the City’s ability to implement these measures quickly; and the availability of federal dollars to fund these interventions.

Please note that all components of this program will comply with all applicable City, State, and Federal requirements including, but not limited to, the Davis-Bacon and Related Acts and Section 3 of the Housing and Urban Development Act of 1968. The City will also consider statistical analysis of the demographic makeup of the areas served and perform outreach as appropriate to ensure that there are no disparate impacts on certain communities and to maximize attention to areas with low- and moderate-income populations.

CDBG-DR ALLOCATION: \$174 Million

Further estimates will be developed as each project moves into the design phase. NYCEDC, or an additional allowable agency, intends to draw upon its standard construction process, utilizing contracted construction managers or its typical procurement process to select engineers and architects that will generate further estimates when the project is at an appropriate point.

Install Armor Stone Revetments

Funding will be used to install armor stone shoreline revetments in areas where Sandy's water damage caused significant physical damage and left neighborhoods exposed to additional flooding.

The South Shore of Staten Island continues to be at risk for future erosion of its beaches and bluffs. Revetments on the South Shore of Staten Island will help stabilize bluffs that are exposed to erosion and damage as a result of Sandy. This project will protect the adjacent neighborhood and provide useful information about the effectiveness of such shoreline erosion control.

During Sandy, Coney Island Creek was the source of much of the "backdoor" flooding in Southern Brooklyn including neighborhoods with low- and moderate-income populations. Raising the Coney Island Creek's lowest edge elevations to a consistent grade in locations vulnerable to flooding and erosion will eliminate flooding at low spots bordering the Creek.

HUD ELIGIBILITY CRITERIA: Rehabilitation/Reconstruction of Public Facilities; Rehabilitation/Reconstruction of Other Non-residential Structures; Rehabilitation/Reconstruction of a Public Improvement

NATIONAL OBJECTIVE: Urgent Need, Low- and Moderate-Income Area Benefit

PROJECTED ACCOMPLISHMENTS: Reduced risk of coastal wave action, erosion, and flooding in the neighborhoods adjacent to the South Shore of Staten Island and Coney Island Creek in Southern Brooklyn.

PROGRAM ADMINISTRATION: The City anticipates it will work through the OLTPS and NYCEDC. NYCEDC may serve as a sub-recipient from the City and may be responsible for procuring and implementing the installation of the revetments. NYCEDC may also secure permitting from all appropriate agencies, including the USACE, which will be consulted before any action is taken if such action would fall within the jurisdiction of the USACE. An additional allowable entity may be chosen to operate the program, such as a City agency or eligible nonprofit corporation through a sub-recipient agreement.

ELIGIBILITY CRITERIA: Neighborhoods adjacent to the South Shore of Staten Island and Coney Island Creek in Southern Brooklyn and that were adversely impacted by flooding as a result of Sandy and are located within the 100-year floodplain may be eligible.

PROGRAM PRIORITIES: Sites subject to wave action, erosion, and flooding—particularly in areas with large low- and moderate-income populations. Additionally, as the target service areas will likely be the focus of other restoration efforts funded by CDBG-DR and FEMA, such as through housing and economic development programs and other infrastructure investments, the identification and implementation of coastal protection measures will seek to ensure long-term protection of such investments and of investments in low- to moderate- income communities.

GEOGRAPHIC AREA TO BE SERVED: South Shore of Staten Island and Southern Brooklyn.

PROGRAM START AND END DATES: Revetment construction will begin in 2014 and will be completed by 2016.

OTHER FUNDING SOURCES: None

Repair, Install, and Raise Bulkheads

Funding will be used to raise bulkheads in low-lying neighborhoods throughout the city, including in a number of low- and moderate-income communities impacted by Hurricane Sandy, to minimize inland tidal flooding. The impact of daily and weekly tidal flooding during non-storm conditions on low-lying neighborhoods will further worsen neighborhoods in the floodplain. This will continue to threaten the economic viability and residential stability of these neighborhoods. Implementing a program to raise bulkheads and other shoreline structures to minimize the risk of regular flooding in targeted neighborhoods will help ensure New York City's coastal communities are not further exposed to flood damage.

NATIONAL OBJECTIVE: Urgent Need, Low- and Moderate-Income Area Benefit

PROJECTED ACCOMPLISHMENTS: Repair, install, and raise bulkheads and other shoreline structures to reduce risk of flooding in neighborhoods in the 100-year floodplain.

PROGRAM ADMINISTRATION: The City anticipates working through OLTPS and NYCEDC through a sub-recipient agreement with the New York City Office of Management and Budget (OMB). An additional allowable entity may be chosen to operate the program. If selected, NYCEDC would be responsible for securing appropriate permitting and the USACE will be consulted before any work begins, to the degree such work requires consultation with the USACE.

ELIGIBILITY CRITERIA: Neighborhoods within the 100-year floodplain affected by Sandy's impact.

PROGRAM PRIORITIES: Vulnerable areas, with initial priority given to areas that suffered direct physical impacts from Sandy, and to areas with significant low- and moderate-income populations. Additionally, as the target service areas will likely be the focus of other restoration efforts funded by CDBG-DR and FEMA, such as through housing and economic development programs and other infrastructure investments, the identification and implementation of innovative coastal protection measures will seek to ensure long-term protection of such investments.

GEOGRAPHIC AREA TO BE SERVED: Impacted communities within the 100-year floodplain and critical infrastructure assets affected by Sandy's impact.

PROGRAM START AND END DATES:

Design: Bulkhead design and site selection will begin and end in 2013.

Installation: Phase I bulkhead installation will begin in 2014 and end in 2016. Phase II bulkhead installation will begin in 2015 and end in 2017.

OTHER FUNDING SOURCES: None

Install an Integrated Flood Protection System at Hospital Row

Funding will be used to install an integrated flood protection system at "Hospital Row," which includes Bellevue Hospital, the Veterans Affairs New York Harbor Hospital (VA), and New York

University's Langone Medical Center (NYU). (Note: the floodwall will result from an international design competition discussed below.) The City intends to protect Bellevue Hospital and will work with the VA and NYU to coordinate investments and maximize the effectiveness of the floodwall. Utilizing passive floodwalls, other permanent features such as floodwalls, temporary features like deployable floodwalls, and other localized measures where appropriate to integrate the system will ensure that hospitals will have the protections necessary to serve New York City, including significant low- and moderate-income populations.

HUD ELIGIBILITY CRITERIA: Rehabilitation/Reconstruction of Public Facilities

NATIONAL OBJECTIVE: Urgent Need, Low- and Moderate-Income Clientele

PROJECTED ACCOMPLISHMENTS: To repair and strengthen Bellevue Hospital, in cooperation with the VA and NYU, to protect critical life-saving facilities.

PROGRAM ADMINISTRATION: The City will work with the VA and NYU to coordinate an integrated flood protection system that leverages resources to reduce the risk of flooding in this area. An additional allowable entity may be chosen to operate the program. The City will work through OLTPS and NYCEDC. NYCEDC will serve as a sub-recipient from OMB. An additional allowable entity may be chosen to operate the program, such as a City agency or eligible nonprofit corporation through a sub-recipient agreement.

ELIGIBILITY CRITERIA: Critical life-support facilities that were adversely impacted by flooding as a result of Sandy, are located within the 100-year floodplain, or are otherwise vulnerable to future storms.

PROGRAM PRIORITIES: Preserving and protecting critical facilities. Additionally, as these hospitals will likely receive other restoration work funded by CDBG-DR and FEMA, the use of funds for these coastal protection measures will ensure long-term protection of such investments.

GEOGRAPHIC AREA TO BE SERVED: East side of Manhattan

PROGRAM START AND END DATES:

Phase I: In 2014, the City will program 10 percent of the total project funds for design at the conclusion of the global competition (see below for program details).

Phase II: Between 2016 and 2018, the City will finish project construction.

OTHER FUNDING SOURCES: None

Conduct a Global Design Competition for Integrated Flood Protection Systems

To address the high risk of flooding along Manhattan's east side, the City proposes installing a flood protection system that is integrated with the urban environment. A global design competition will be held to build integrated floodwall systems. A competition is the best means to solicit proposals for floodwalls that minimize the impact to the built environment of the neighborhood, while providing enhanced protection during storm conditions. These systems can be deployed as needed and do not interrupt community life during non-storm conditions. Subject to available funding, the competition will launch in 2014, and upon designation of winning ideas, can proceed into design and construction in 2014. This measure will ensure Bellevue Hospital and other impacted and vulnerable neighborhoods in the 100-year floodplain have reduced risk from future flood inundation.

Through a Request for Proposals, NYCEDC will harness the best ideas from public and private organizations and individuals to look at floodwall protection systems. The score 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.

HUD ELIGIBILITY CRITERIA: Rehabilitation/Reconstruction of Public Facilities; Rehabilitation/Reconstruction of Other Non-residential Structures; Rehabilitation/Reconstruction of a Public Improvement

NATIONAL OBJECTIVE: Urgent Need, Low- and Moderate-Income Area Benefit

PROJECTED ACCOMPLISHMENTS: Identification and implementation of significant design technology intended to reduce the risk of flooding along Manhattan's east side.

PROGRAM ADMINISTRATION: The City will work through NYCEDC and OLTPS.

ELIGIBLE APPLICANTS/PROPERTIES: NYCEDC, which may be a sub-recipient of the City or OLTPS, will administer the RFP release and selection process, by the City, consistent with HUD rules and regulations, with administration of winning proposals to be determined.

ELIGIBILITY CRITERIA: Proposals should demonstrate innovative flood protection measures in complicated urban environments.

PROGRAM PRIORITIES: Efficient and cost-effective flood protection that does not disrupt the urban environment. As the target service areas will likely be the focus of other restoration efforts funded by CDBG-DR and FEMA, such as through housing and economic development programs and other infrastructure investments, the identification and implementation of innovative coastal protection measures will seek to ensure long-term protection of such investments.

GEOGRAPHIC AREA TO BE SERVED: Impacted communities within the 100-year floodplain and critical infrastructure assets along Manhattan's east side

PROGRAM START AND END DATES: The design competition will begin and end in 2014.

OTHER FUNDING SOURCES: None

Replace with:

Coastal Protection

PROGRAM OBJECTIVE AND DESCRIPTION: This program aims to protect neighborhoods and hospitals that were adversely impacted by Sandy by strengthening coastal protection measures, as detailed below. These efforts will also protect other publicly funded repair (including CDBG-DR and FEMA Public Assistance), restoration, and improvement efforts, which will ensure the long-term viability of those investments. The City has prioritized these coastal protection measures because of the large

number of homes, businesses, and investments that will be protected; the City's ability to implement these measures quickly; and the availability of federal dollars to fund these interventions.

Please note that all components of this program will comply with all applicable City, State, and Federal requirements including, but not limited to, the Davis-Bacon and Related Acts and Section 3 of the Housing and Urban Development Act of 1968. The City will also consider statistical analysis of the demographic makeup of the areas served and perform outreach as appropriate to ensure that there are no disparate impacts on certain communities and to maximize attention to areas with low- and moderate-income populations.

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HUD ELIGIBILITY CRITERIA: Rehabilitation/Reconstruction of Public Facilities; Rehabilitation/Reconstruction of Other Non-residential Structures; Rehabilitation/Reconstruction of a Public Improvement

NATIONAL OBJECTIVE: Urgent Need, Low- and Moderate-Income Area Benefit

PROJECTED ACCOMPLISHMENTS: Reduced risk of coastal wave action, erosion, and flooding in the neighborhoods adjacent to the South Shore of Staten Island and Coney Island Creek in Southern Brooklyn.

PROGRAM ADMINISTRATION: The City anticipates it will work through the OLTPS and NYCEDC. NYCEDC may serve as a sub-recipient from the City and may be responsible for procuring and implementing the installation of the revetments. NYCEDC may also secure permitting from all appropriate agencies, including the USACE, which will be consulted before any action is taken if such action would fall within the jurisdiction of the USACE. An additional allowable entity may be chosen to operate the program, such as a City agency or eligible nonprofit corporation through a sub-recipient agreement.

ELIGIBILITY CRITERIA: Neighborhoods adjacent to the South Shore of Staten Island and Coney Island

Creek in Southern Brooklyn and that were adversely impacted by flooding as a result of Sandy and are located within the 100-year floodplain may be eligible.

PROGRAM PRIORITIES: Sites subject to wave action, erosion, and flooding—particularly in areas with large low- and moderate-income populations. Additionally, as the target service areas will likely be the focus of other restoration efforts funded by CDBG-DR and FEMA, such as through housing and economic development programs and other infrastructure investments, the identification and implementation of coastal protection measures will seek to ensure long-term protection of such investments and of investments in low- to moderate- income communities.

GEOGRAPHIC AREA TO BE SERVED: South Shore of Staten Island and Southern Brooklyn.

PROGRAM START AND END DATES: Revetment construction will begin in 2014 and will be completed by 2016.

OTHER FUNDING SOURCES: None

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NATIONAL OBJECTIVE: Urgent Need, Low- and Moderate-Income Area Benefit

PROJECTED ACCOMPLISHMENTS: Repair, install, and raise bulkheads and other shoreline structures to reduce risk of flooding in neighborhoods in the 100-year floodplain.

PROGRAM ADMINISTRATION: The City anticipates working through OLTPS and NYCEDC through a sub-recipient agreement with the New York City Office of Management and Budget (OMB). An additional allowable entity may be chosen to operate the program. If selected, NYCEDC would be responsible for securing appropriate permitting and the USACE will be consulted before any work begins, to the degree such work requires consultation with the USACE.

ELIGIBILITY CRITERIA: Neighborhoods within the 100-year floodplain affected by Sandy's impact.

PROGRAM PRIORITIES: Vulnerable areas, with initial priority given to areas that suffered direct physical impacts from Sandy, and to areas with significant low- and moderate-income populations. Additionally, as the target service areas will likely be the focus of other restoration efforts funded by CDBG-DR and FEMA, such as through housing and economic development programs and other infrastructure investments, the identification and implementation of innovative coastal protection measures will seek to ensure long-term protection of such investments.

GEOGRAPHIC AREA TO BE SERVED: Impacted communities within the 100-year floodplain and critical infrastructure assets affected by Sandy's impact.

PROGRAM START AND END DATES:

Design: Bulkhead design and site selection will begin and end in 2014.

Installation: Phase I bulkhead installation will begin in 2014 and end in 2016. Phase II bulkhead installation will begin in 2015 and end in 2017.

OTHER FUNDING SOURCES: None

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HUD ELIGIBILITY CRITERIA: Rehabilitation/Reconstruction of Public Facilities

NATIONAL OBJECTIVE: Urgent Need, Low- and Moderate-Income Clientele

PROJECTED ACCOMPLISHMENTS: To repair and strengthen Bellevue Hospital, in cooperation with the VA and NYU, to protect critical life-saving facilities.

PROGRAM ADMINISTRATION: The City will work with the VA and NYU to coordinate an integrated flood protection system that leverages resources to reduce the risk of flooding in this area. An additional allowable entity may be chosen to operate the program. The City will work through OLTPS and NYCEDC. NYCEDC will serve as a sub-recipient from OMB. An additional allowable entity may be chosen to operate the program, such as a City agency or eligible nonprofit corporation through a sub-recipient agreement.

ELIGIBILITY CRITERIA: Critical life-support facilities that were adversely impacted by flooding as a result of Sandy, are located within the 100-year floodplain, or are otherwise vulnerable to future storms.

PROGRAM PRIORITIES: Preserving and protecting critical facilities. Additionally, as these hospitals will likely receive other restoration work funded by CDBG-DR and FEMA, the use of funds for these coastal protection measures will ensure long-term protection of such investments.

GEOGRAPHIC AREA TO BE SERVED: East side of Manhattan

PROGRAM START AND END DATES:

Phase I: In 2014, the City will program 10 percent of the total project funds for design at the conclusion of the global competition (see below for program details).

Phase II: Between 2016 and 2018, the City will finish project construction.

OTHER FUNDING SOURCES: None

Conduct a Global Design Competition for Integrated Flood Protection Systems

To address the high risk of flooding along Manhattan's east side, the City proposes installing a flood protection system that is integrated with the urban environment. A global design competition will be held to build integrated floodwall systems. A competition is the best means to solicit proposals for floodwalls that minimize the impact to the built environment of the neighborhood, while providing enhanced protection during storm conditions. These systems can be deployed as needed and do not interrupt community life during non-storm conditions. Subject to available funding, the competition will launch in 2014, and upon designation of winning ideas, can proceed into design and construction in 2014. This measure will ensure Bellevue Hospital and other impacted and vulnerable neighborhoods in the 100-year floodplain have reduced risk from future flood inundation.

Through a Request for Proposals, NYCEDC will harness the best ideas from public and private organizations and individuals to look at floodwall protection systems. The score 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.

HUD ELIGIBILITY CRITERIA: Rehabilitation/Reconstruction of Public Facilities; Rehabilitation/Reconstruction of Other Non-residential Structures; Rehabilitation/Reconstruction of a Public Improvement

NATIONAL OBJECTIVE: Urgent Need, Low- and Moderate-Income Area Benefit

PROJECTED ACCOMPLISHMENTS: Identification and implementation of significant design technology intended to reduce the risk of flooding along Manhattan's east side.

PROGRAM ADMINISTRATION: The City will work through NYCEDC and OLTPS.

ELIGIBLE APPLICANTS/PROPERTIES: NYCEDC, which may be a sub-recipient of the City or OLTPS, will administer the RFP release and selection process, by the City, consistent with HUD rules and regulations, with administration of winning proposals to be determined.

ELIGIBILITY CRITERIA: Proposals should demonstrate innovative flood protection measures in complicated urban environments.

PROGRAM PRIORITIES: Efficient and cost-effective flood protection that does not disrupt the urban environment. As the target service areas will likely be the focus of other restoration efforts funded by CDBG-DR and FEMA, such as through housing and economic development programs and other infrastructure investments, the identification and implementation of innovative coastal protection measures will seek to ensure long-term protection of such investments.

GEOGRAPHIC AREA TO BE SERVED: Impacted communities within the 100-year floodplain and critical infrastructure assets along Manhattan's east side

PROGRAM START AND END DATES: The design competition will begin and end in 2014.

OTHER FUNDING SOURCES: None

Covered Projects

HUD's Federal Register notice for the second allocation of funds (78 FR 69104) included additional requirements for assessing major infrastructure projects. The goal of the additional requirements is to have the City provide information about the long-term rebuilding strategy for major infrastructure projects and ensure that where feasible resiliency has been factored into the design. Executive Order 13632, published at [77 FR 74341](#), established the Hurricane Sand Rebuilding Task Force, to ensure government-wide and region-wide coordination to help communities as they develop comprehensive rebuilding strategies. Section 5(b) of Executive Order 13632 requires that HUD, "as appropriate and to the extent permitted by law, align [the Department's] relevant programs" with the [Hurricane Sandy Rebuilding Strategy](#) which was released by the Task Force on August 19, 2013. An initiative of the Task Force is [Rebuild by Design](#) which is aimed at addressing structural and environmental vulnerabilities that Hurricane Sandy exposed in communities throughout the region and developing fundable solutions to better protect residents from future disasters.

The Federal Register for the second allocation states the following, "an infrastructure project is defined as an activity, or a group of related activities, designed by the grantee to accomplish, in whole or in part, a specific objective related to critical infrastructure sectors such as energy, communications, water and wastewater systems, and transportation, as well as other support measures such as flood control." HUD included additional requirements for assessing major infrastructure projects and set the threshold for the determining "Covered Projects." As stated on page 69107, major infrastructure projects are:

"defined as having a total cost of \$50 million or more (including at least \$10 million of CDBG-DR funds), or benefit multiple counties. Additionally, two or more related infrastructure projects that have a combined total cost of \$50 million or more (including at least \$10 million of CDBG-DR funds) must be designated as major infrastructure projects. Projects encompassed by this paragraph are herein referred to as "Covered Projects".

In December 2012, as Sandy relief efforts were well underway, Mayor Bloomberg created the Special Initiative for Rebuilding and Resiliency (SIRR), and charged it with working the Office of Long-Term Planning and Sustainability (OLTPS) to develop a new plan to address the likely effects of climate change. SIRR released an extensive risk analysis report to the public entitled *A Stronger, More Resilient New York* (a.k.a. the SIRR Report) on June 11, 2013. The report is a comprehensive plan that contains actionable recommendations both for rebuilding the communities impacted by Sandy and increasing the resilience of infrastructure and buildings citywide.

Each Covered Project must address five (5) different analysis criteria within the Action Plan. These criteria are:

- Project Identification/Description;
- Use of Impact and Unmet Needs Assessment, the Comprehensive Risk Analysis and the Rebuild by Design Collaborative Risk Analysis;
- Transparent and Inclusive Decision Processes;
- Long-Term Efficacy and Fiscal Sustainability; and

-
- Environmentally Sustainable and Innovative Investments.

The City of New York has made it a priority to leverage other Federal funding sources in order to extend the number of CDBG-DR projects that the City can fund.

Covered Project:

Integrated Flood Protection System at Red Hook

1. Identification/Description

NYC has determined that the Integrated Flood Protection System at Red Hook is a Covered Project, per HUD's definition.

Damage from Hurricane Sandy

Hurricane Sandy had a devastating impact on New York City. The storm took the lives of 44 individuals. It also damaged over 23,000 residential structures containing more than 69,000 housing units, forced 6,500 patients to be evacuated from hospitals and nursing homes, knocked out power to over 800,000 customers, compromised 23,400 businesses, and barred 1.1 million New York City children from attending school for a week.

Sandy's biggest impacts were the result of its massive storm surge and the flooding that the surge caused. A staggering 50.6 square miles of New York City flooded—17 percent of the city's total land mass—and in many areas the depth of floodwaters was unprecedented.

The neighborhood of Red Hook suffered particular damage. Water flooded the neighborhood from all three of its coasts - from Upper Bay, Buttermilk Channel, and Gowanus Bay. This inundation impacted much of the neighborhood including NYCHA's Red Hook Houses, save for a small elevated section around Coffey Street and a few streets in northern Red Hook close to Hamilton Avenue. Properties along Columbia Street Waterfront District also experienced significant flooding. Consequently, the Red Hook Houses faced weeks without power, heat, and sometimes running water. This was particularly difficult for residents who were elderly and/or had disabilities. At the same time, NYCHA staff, dealing with similar challenges in multiple locations, worked night and day to make necessary repairs and secure generators and temporary boilers to get these buildings back online.

Red Hook's waterfront businesses were also impacted by the flooding, as floodwaters filled the ground floors and basements, damaging building systems and contents. In total, approximately 3,100 businesses employing approximately 34,600 people - along Red Hook's waterfront-- were impacted by Sandy. A number of retail businesses, both large and small, were also severely affected including stores and restaurants along Van Brunt Street. Nearby, Fairway Market, an important area anchor, had to gut its Red Hook store, though it reopened after four months.

Comprehensive Risk Assessment

The City's proposals for coastal protection measures, such as the Red Hook Integrated Flood Protection system, are based on a multi-faceted analysis. This analysis considered the following factors: the nature and likelihood of coastal hazards (such as destructive waves or flooding); possible impact of these hazards on the built environment and critical infrastructure; likely effectiveness of certain

protective measures. The City also considered whether an area included high concentrations of particularly vulnerable populations, such as the elderly or those with disabilities that would be at greater risk during a storm event. Another important consideration was the underlying geomorphology of the regions examined, as well as the coastal features already in place.

To inform this larger evaluation, the City engaged Swiss Re, a reinsurance company, to complete a quantitative assessment looking at the frequency and severity of an event (such as a coastal storm) as well as the magnitude of loss likely to be suffered if such an event were to occur. The City applied Swiss Re's natural catastrophe models to New York City to help understand the potential impacts of wind and storm surge on the city (FEMA's FIRMs do not model the impacts of wind), assuming a world of rising sea levels and more intense storms. This analysis was used as one piece of the larger assessment and is described in further detail on pages 33-36 of *A Stronger, More Resilient New York*.

PROJECT DESCRIPTION:

The City will install an integrated flood protection system in Red Hook, composed of permanent features, temporary features, and landscape and drainage improvements. The approach would protect much of the neighborhood, but at the same time, would not interfere with the neighborhood fabric during non-storm conditions. The design will be selected following an international competition, outlined in this Action Plan) and may include elevation of portions of the Brooklyn Waterfront Greenway. Other elements would likely run along the first mapped street inland of the waterfront throughout the neighborhood. The goal is to begin design 2014 with the goal of completion by 2016. The total estimated cost of constructing the integrated flood protection system is \$193 million.

The City has a comprehensive costal protection plan that includes projects such as an Integrated Flood Protection system in Red Hook, Brooklyn. The City has dedicated \$1M towards a design competition for the Red Hook Integrated Flood Protection System. A portion of funds from IOCS Rehabilitation/Reconstruction of Public Facilities may be used towards program costs for the Red Hook Costal Protection project. The estimated cost for this project is \$193M. New York City and New York State are currently exploring joint funding opportunities, which would contribute to the project being structured in phases.

HUD ELIGIBILITY CATEGORY: Rehabilitation/Reconstruction of Public Facilities;
Rehabilitation/Reconstruction of Other Non-residential Structures

NATIONAL OBJECTIVE: Low-and Moderate-Income Area Benefit; Urgent Need

CDBG-DR ALLOCATION: Approximately \$50 million contributed to Phase One of the project

PROJECTED ACCOMPLISHMENTS: Design competition, identification and implementation of an integrated flood protection system to reduce the risk of flooding in Red Hook, Brooklyn;

PROGRAM ADMINISTRATION: The City will work through NYCEDC and OLTPS.

ELIGIBLE APPLICANTS/PROPERTIES: NYCEDC, which may be a sub-recipient of the City or OLTPS, will administer the RFP release and selection process, by the City, consistent with HUD rules and regulations, with administration of winning proposals to be determined.

ELIGIBILITY CRITERIA: Proposals should demonstrate innovative flood protection measures in complicated urban environments.

PROGRAM PRIORITIES: Efficient and cost-effective flood protection that does not disrupt the urban environment.

GEOGRAPHIC AREA TO BE SERVED: Impacted communities within the 100-year floodplain and critical infrastructure assets along Red Hook, Brooklyn.

PROGRAM START AND END DATES: The design competition will begin and end in 2014 and the construction will go through 2016

OTHER FUNDING SOURCES: In development

2. Use of Impact and Unmet Needs Assessment, the Comprehensive Risk Analysis, and the Rebuild by Design Collaborative Risk Analysis

Red Hook faces a number of challenges from climate change: A low-lying topography; older-often attached buildings; a significant number of industrial businesses, with valuable ground floor equipment and inventory that are difficult to elevate; vulnerable commercial corridors; and a significant population that lacks the means to make resiliency investments. These conditions make site specific investments a challenge, likely leaving many businesses, residential, and infrastructure investments exposed.

Red Hook faces major risks in the future. FEMA's Preliminary Flood Insurance Rate Maps (FIRMS) -- the best data currently available-- show an expanded Floodplain that encompasses much of Red Hook. Red Hook's waste water treatment plant is also within the preliminary FIRM 100-year floodplain.

Rebuild by Design's comprehensive risk analysis focuses on Red Hook's dense urban edge and the neighborhood's long-term history as a harbor district. Rebuild by Design's analysis of Red Hook's dense urban edge revealed that large commercial anchors produce large annual sales volume but many of the smaller businesses suffer from the lack of foot traffic. The risk analysis suggests "New regulations supporting innovative commercial development, including removable commercial uses or floodable ground floors, and management and financial support for collective action by Red Hook businesses."

Consequently, the City has prioritized Red Hook and estimates that the integrated flood protection system would protect over 8,000 people, including many NYCHA residents, \$14 billion in property value, and \$12 billion in GDP value.

3. Transparent and Inclusive Decision Processes

Following Hurricane Sandy, the Special Initiative on Rebuilding and Resiliency (SIRR) and the Mayor's Office of Housing Recovery Operations have been involved in formal and informal conversations with the Red Hook community. Between January 2013 and June 2013, SIRR briefed the elected officials monthly and engaged approximately 20 city, state, and federal elected officials. Additionally, SIRR briefed community-based organizations every four to six weeks, met with five community boards, and

spoke with over 40 faith-based, business, and community organizations. Through these conversations, priorities for the community emerged including providing flood protection from inland water bodies; mitigated street and property flooding, and combined sewer overflow events; and addressing the major expense of repairs and resiliency for low-rise buildings. The integrated flood protection system will help the community address these challenges.

4. Long-Term Efficacy and Fiscal Sustainability

The Red Hook integrated flood protection system will be built to withstand sea level rise over the life of the project (2.58 feet) while also being flexible and adaptable in order to preserve and strengthen the historic Red Hook waterfront. The benefits of this approach to Red Hook are three-fold: the design and implementation of structural and non-structural interventions can be tailored to the diverse topographic and geomorphic conditions of the Red Hook Peninsula; it diversifies exposure to given technologies; the interventions are scalable to available funding from multiple resources, rather than requiring all resources to be secured before funding moves forward. This flexible and iterative approach will ensure the safety of residents and businesses. The housing stock in Red Hook is primarily composed of semi attached row houses which are difficult to retrofit and this \$193 million investment in the integrated flood protection system will mitigate the need for costly and difficult retrofit measures. The agency will provide monitoring or assessment of the structures and equipment to see if they can withstand storm and hurricane conditions. This will be reported to the appropriate City departments to address any failures in structures and equipment.

This approach is both sustainable and consistent with the federally-approved New York State Coastal Management Plan (CMP) and the October 2013 update to the New York City Local Waterfront Revitalization Plan (LWRP).

5. Environmentally Sustainable and Innovative Investment

The integrated flood protection system measures were evaluated in light of important public considerations such as waterfront access, navigation impacts, recreational benefits, environmental impact, contribution to ecosystem restoration, social and environmental justice, and impact on neighborhood quality of life.

Unmet Building Needs

Original text:

The risk of storm surge combined with sea level rise is likely to present the greatest climate threat to New York City's building stock. This is demonstrated by FEMA's recently released PWMs, which expand New York City's 100-year floodplain so that it now includes nearly 67,700 buildings. These buildings, encompassing approximately 534 million square feet of space, are home to approximately 398,000 residents and 271,000 jobs.

Replace with:

The risk of storm surge combined with sea level rise is likely to present the greatest climate threat to New York City's building stock. This is demonstrated by FEMA's recently released Preliminary FIRMs, which expand New York City's 100-year floodplain so that it now includes nearly 68,000

buildings. These buildings, encompassing approximately 534 million square feet of space, are home to approximately 398,000 residents and 271,000 jobs.

Original Text:

Based on Federal and City research about how Sandy impacted New York City’s building stock and on the best available information on techniques that provide flood protection for buildings and their systems, the City proposes a Building Mitigation Incentive Program, detailed in *A Stronger, More Resilient New York*. This program, which will cost approximately \$1.2 billion, aims to rebuild and fortify buildings and building systems in vulnerable neighborhoods. The program discussed herein is 10 percent of the total need. The City plans to pursue additional federal assistance to fulfill the remaining need.

Replace with:

Based on Federal and City research about how Sandy impacted New York City’s building stock and on the best available information on techniques that provide flood protection for buildings and their systems, the City proposes a Residential Building Mitigation Program, detailed in *A Stronger, More Resilient New York*. This program, which will cost approximately \$1.2 billion, aims to rebuild and fortify buildings and building systems in vulnerable neighborhoods. The program discussed herein is 5 percent of the total need. The City plans to pursue additional federal assistance to fulfill the remaining need.

Building Mitigation Incentive Program

Original Text:

Program Objective and Description: The Building Mitigation Incentive program will offer loans and/or grants to owners of flood-impacted and vulnerable properties for the incremental cost of structurally reinforcing wood-framed buildings, dry flood-proofing, elevating mechanical systems, protecting critical systems, and implementing other mitigation measures. (The program will not fund repairs of damaged properties already eligible through other programs noted in the Action Plan.) The goal is to protect buildings and building systems in flood-vulnerable areas that were impacted by Sandy from inundation, power loss from a local source, and other impacts that threaten the economic vitality of coastal neighborhoods. This program will support and strengthen these Sandy-impacted and vulnerable neighborhoods in two ways. Firstly, owners will be encouraged to undertake flood-proofing improvements to avert the catastrophic losses in building types that have proven most vulnerable during Sandy. Secondly, because this incentive focuses efforts on elevation or protection of critical building systems, it will enable the buildings to recover faster, and thus enable inhabitants to reoccupy their buildings—and resume normal lives—sooner.

Please note that all construction work funded under this program will comply with all applicable City, State, and Federal requirements including, but not limited to, the Davis-Bacon and Related Acts and Section 3 of the Housing and Urban Development Act of 1968. The City will also consider statistical analysis of the demographic makeup of the areas served and perform outreach as appropriate to ensure that there is sufficient disbursement of funds through impacted and vulnerable communities.

HUD ELIGIBILITY CATEGORY: Rehabilitation/Reconstruction of Residential structures; Renovation of Structures; Rehabilitation/Reconstruction of Other Non-residential Structures.

NATIONAL OBJECTIVE: Low- and Moderate-Income Area Benefit; Urgent Need.

CDBG-DR ALLOCATION: \$120,000,000.

Of this amount \$60 million is allocated for affordable housing, as defined by Department of New York City Housing Preservation and Development (HPD) housing programs. It is anticipated that 80 percent of these funds will benefit low- and moderate-income persons. Funds will be targeted towards properties which do not meet the City's definition of substantial damage and for which resiliency improvements have not been budgeted elsewhere in the Action Plan. To avoid duplication of benefits, these \$60 million dollars will fund resiliency programs created in tandem with HPD/HRO repair programs to ensure effective use of federal dollars.

The remaining \$60 million is allocated for high-density residential and commercial buildings that are facing financial hardship and are economically vulnerable due to rising insurance costs and loss of property value as a result of Hurricane Sandy. Low-density residential will be prioritized in subsequent rounds of CDBG funding.

PROJECTED ACCOMPLISHMENTS: This allocation would fund resiliency measures across approximately 20 million square feet.

PROGRAM ADMINISTRATION: This program is expected to be administered by HPD for residential buildings and by NYCEDC for commercial buildings through a sub-recipient agreement with the City. Staff will be available to assist applicants in multiple languages. The agencies will oversee the program, but one or more Community Development Financial Institutions (CDFI) or other allowable entities may be chosen to operate the program as well as a sub-recipient.

ELIGIBLE APPLICANTS/PROPERTIES: Eligible applicants shall be the legal owners of privately owned buildings impacted by Sandy. Cooperative and condominium properties will also be eligible. Applications will be accepted for all buildings in the 100-year floodplain (defined by the most current federal flood map) with a portion of the allocation (to be determined) reserved for (1) property owners in census tracts located in the Sandy Inundation Area (the Sandy Inundation Area is defined by the extent of the DSLOSH Hindcast Surge Extent Model and used as a boundary for DCP's PLUTO lot data to determine which lots were at risk of inundation by Hurricane Sandy—a dataset created on 2/15/13), (2) buildings where owners or tenants are low- or moderate-income and demonstrate a need for financial assistance to lessen property vulnerability, or (3) census tracts that experienced economic loss, damage, or business interruption as a result of the storm.

ELIGIBILITY CRITERIA: Eligible buildings must be located within the 100-year floodplain (based on the Preliminary Work Maps or the best information available) and demonstrate a need for flood-related improvements.

GRANT/LOAN SIZE LIMIT: The program will fund up to 95 percent of eligible costs of mitigation improvements in the form of loans or grants of up to \$2 million per building. Projects above that cap may be approved based on demonstration of need after a full underwriting of the proposed project. The maximum subsidized share of eligible costs is scaled to the project assessed value with higher value property receiving a lower percentage of eligible costs than lower value properties. In the case of

affordable housing properties, the program may fund up to 100 percent of resiliency costs based on an analysis of financial need.

PROGRAM PRIORITIES: The \$60 million allocated for affordable housing will be spent pursuant to the Program Priorities described for the Multifamily Rehabilitation Program in Action Plan A. These priorities are 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. It is anticipated that the remainder of this program will provide funds to eligible recipients that demonstrate a need for flood-proofing on a first-come, first-served basis, subject to the reservation of certain funding amounts for classes of high-density property to be specified and funds allocated pro rata to the boroughs based on the number of buildings located in the 100-year floodplain.

In subsequent allocations, funds will be utilized to assist single-family homes.

GEOGRAPHIC AREA TO BE SERVED: Areas in the 100-year floodplain throughout the five boroughs.

PROGRAM START AND END DATES: Funds will initially be disbursed in the fall of 2013 and continue through the fall of 2015 or until 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 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.

Replace with:

Residential Building Mitigation Program

[NOTE: the \$60 million portion of the Building Mitigation Program being administered by NYCEDC has been moved to the Business Resiliency Investment Program under Business Programs.]

PROGRAM OBJECTIVE AND DESCRIPTION: The Residential Building Mitigation Program will be administered by the New York City Department of Housing Preservation and Development (HPD) through the Build it Back Multi-Family program and offer loans and/or grants to owners of residential flood-impacted and vulnerable properties for the incremental cost of resiliency measures such as structurally reinforcing wood-framed buildings, dry flood-proofing, elevating mechanical systems, protecting critical systems, and implementing other mitigation measures. These funds are not duplicative of Build it Back repairs to damaged properties already funded through other programs noted in the Action Plan, but may add resiliency measures to projects that are not otherwise covered. The goal is to protect buildings and building systems in flood-vulnerable areas that were impacted by Sandy from inundation, power loss from a local source, and other impacts that threaten the economic vitality of coastal neighborhoods. This program will support and strengthen these Sandy-impacted and vulnerable neighborhoods in two ways. Firstly, owners will be encouraged to undertake flood-proofing

improvements to avert the catastrophic losses in building types that have proven most vulnerable during Sandy. Secondly, because this program focuses efforts on elevation or protection of critical building systems, it will enable the buildings to recover faster, and thus enable inhabitants to reoccupy their buildings—and resume normal lives—sooner.

Please note that all construction work funded under this program will comply with all applicable City, State, and Federal requirements including, but not limited to, the Davis-Bacon and Related Acts and Section 3 of the Housing and Urban Development Act of 1968. The City will also consider statistical analysis of the demographic makeup of the areas served and perform outreach as appropriate to ensure that there is sufficient disbursement of funds through impacted and vulnerable communities.

HUD ELIGIBILITY CATEGORY: Rehabilitation/Reconstruction of Residential structures; Renovation of Structures.

NATIONAL OBJECTIVE: Low- and Moderate-Income Area Benefit; Urgent Need; Low- and Moderate-Income Housing Benefit.

CDBG-DR ALLOCATION: \$60,000,000.

This \$60 million is allocated for affordable housing, as defined by Department of New York City Housing Preservation and Development (HPD) housing programs. It is anticipated that 80 percent of these funds will benefit low- and moderate-income persons. Funds will be targeted towards properties which do not meet the City's definition of substantial damage and for which resiliency improvements have not been budgeted elsewhere in the Action Plan. To avoid duplication of benefits, these \$60 million dollars will fund resiliency programs created in tandem with Build it Back repair programs to ensure effective use of federal dollars. It is anticipated that low-density residential will be prioritized in subsequent rounds of CDBG funding.

PROJECTED ACCOMPLISHMENTS: This allocation would fund resiliency measures across approximately 10 million* square feet and benefit over 15,000* housing units.

*These are projections as of Action Plan Amendment 4 and could change pending approval of Amendment 5

ELIGIBLE APPLICANTS/PROPERTIES: Eligible applicants shall be the legal owners of privately owned multi-family (5 or more units) residential buildings impacted by Sandy. Cooperative and condominium properties will also be eligible. Applications will be accepted for all buildings in the 100-year floodplain (defined by the most current federal flood map) with a portion of the allocation (to be determined) reserved for (1) property owners in census tracts located in the Sandy Inundation Area (the Sandy Inundation Area is defined by the extent of the DSLOSH Hindcast Surge Extent Model and used as a boundary for DCP's PLUTO lot data to determine which lots were at risk of inundation by Hurricane Sandy—a dataset created on 2/15/13), or (2) affordable housing multi-family buildings .

ELIGIBILITY CRITERIA: Eligible buildings must be located within the 100-year floodplain (based on the Preliminary Flood Insurance Rate Maps (FIRMS) or the best information available) or Sandy Inundation Area and demonstrate a need for flood-related improvements.

GRANT/LOAN SIZE LIMIT: The program may fund up to 100 percent of resiliency costs.

PROGRAM PRIORITIES: This \$60 million allocated for affordable housing will be spent pursuant to the Program Priorities described for the Multifamily Rehabilitation Program in Action Plan A. These priorities are 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.

GEOGRAPHIC AREA TO BE SERVED: Areas in the 100-year floodplain or the Sandy Inundation Area throughout the five boroughs.

PROGRAM START AND END DATES: Funds will initially be disbursed in the winter of 2014 and continue through the fall of 2015 or until 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 Sandy will be deducted from grants provided through this program.

Resiliency Funding Gap

As mentioned previously, since the plan's release, the City has completed or nearly completed 53 near-term milestones (or 90%) and has made progress on 195 initiatives (or 76%). Despite this significant progress and the Action Plan investments, the plan still faces a funding gap of at least \$4.5 billion. Due to funding limitations, many of the SIRR priorities are being deferred to Tranche 3. The City will continue to seek a combination of federal, state, and private financing to complete this plan.

This funding gap includes critical unmet needs in the areas of coastal protection, buildings, neighborhoods, and infrastructure, as detailed in *A Stronger, More Resilient New York*. For example, coastal protection priorities include integrated flood protection systems at East Harlem, Lower East Side, Hunts Point, and Red Hook. Together, these investments would protect up to [200,000 residents, in excess of \$200 billion in property value, and \$300 billion in economic activity for an estimated cost of \$933 million. The City is working closely with HUD's Rebuild by Design program to develop plans and complete flood protection systems for the Lower East Side and Hunts Point.

Similarly, the City's Building Mitigation Incentive Program (outlined in the City's first amendment to the CDBG-DR Action Plan) is a \$1.2 billion program (of which \$120 million has been funded) that encourages owners and tenants to adopt flood resiliency measures through an incentive program and targeted building requirements. This program provides grants for physical resiliency measures that seek to reduce physical damage from flooding by protecting critical building systems. These physical investments are designed to support economic and social resiliency in the city's 100-year floodplain by reducing economic losses, displacement, and business interruption in the event of future flooding. The Hurricane Sandy Rebuilding Task Force highlighted the efficacy of this program in their *Hurricane Sandy Rebuilding Strategy* document, supporting this use of CDBG-DR funding.

The social resiliency of New York City lives in our neighborhoods. In addition to the coastal protection and building mitigation measures mentioned above, the City will continue to pursue a robust community resiliency agenda that bolsters the structures and communal networks of neighborhoods that were affected by Sandy. Within the Sandy-affected neighborhoods, the City and Rebuild by Design are collaborating on projects including protecting critical food markets in Hunts Point, protecting

vulnerable neighborhoods in the Lower East Side, constructing breakwaters on Staten Island and Raritan Bay, revitalizing commercial corridors in Red Hook and along Beach 116th street in the Rockaway Peninsula.

Investments in New York City's infrastructure, such as roads, hospitals, nursing homes, and adult care facilities, are another central component to the resiliency of the city and its residents and businesses. The City is working closely with the State and Federal Governments to leverage federal resources and coordinate design and implementation of infrastructure investments.

Planning

Original Text:

Mayor's Office of Long-Term Planning and Sustainability (OLTPS): \$1.5 million

Replace with:

Mayor's Office of Long-Term Planning and Sustainability (OLTPS): \$4.2 million

Original Text:

NYC Economic Development Corporation (NYCEDC): \$1 million

Replace with:

NYC Economic Development Corporation (NYCEDC): \$6.9 million

Original Text:

Other: \$1.3 million

Replace with:

Department of Health and Mental Hygiene: (DOHMH): \$0.5 million

Original Text:

CDBG-DR ALLOCATION: \$13.1 million. The City may repurpose funds that are not used for planning for program activities. If a change in funding is greater than \$1 million, it constitutes a substantial amendment and such amendment will be available for public review and approval by HUD.

Replace with:

CDBG-DR ALLOCATION: \$21 million. The City may repurpose funds that are not used for planning for program activities. . If a change in funding is greater than \$1 million, it constitutes a substantial amendment and such amendment will be available for public review and approval by HUD.

Administration

Original Text:

Office of Long-Term Planning and Sustainability: \$5 million

Replace with:

Office of Long-Term Planning and Sustainability: \$2 million

Original Text:

Other: \$4.4 Million [remove text]

CDBG-DR ALLOCATION: \$13.1 million. The City may repurpose funds that are not used for administration for program activities. If a change in funding is greater than \$1 million, it constitutes a substantial amendment and such amendment will be available for public review and approval by HUD.

Replace with:

CDBG-DR ALLOCATION: \$5.143 million. The City may repurpose funds that are not used for administration for program activities. If a change in funding is greater than \$1 million, it constitutes a substantial amendment and such amendment will be available for public review and approval by HUD.

XI. Citywide Administration and Planning

Original Text:

Planning

Please note that this section provides an overview of citywide planning costs for the implementation of CDBG-DR programs. Specific planning costs for the program areas (where known) are detailed in the appropriate sections of this document.

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 Mayor’s 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.

Additionally, Citywide Planning activities will include the preparation and revision of the CDBG-DR Action Plan, and Subrecipient Agreements or Memorandums of Understanding, as well as the preparation and oversight of Environmental Reviews.

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: The Mayor’s Office of Housing Recovery Operations; Department of Housing Preservation and Development; the New York City Housing Authority; the NYC Economic Development Corporation; Department of City Planning; Department of Parks and Recreation; and the Mayor’s Office of Long-Term Planning and Sustainability.

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:

- Ensuring citizen participation (including publication of public notices);
- Preparation of the required CDBG-DR quarterly reports;
- Maintenance of the CDBG-DR website;
- 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; the Mayor's Office of Housing Recovery Operations; Department of Housing Preservation and Development; the New York City Housing Authority; Department of Small Business Services; the NYC Economic Development Corporation; Department of City Planning; the Mayor's Office of Long-Term Planning and Sustainability; 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

Replace with:

Planning

Please note that this section provides an overview of citywide planning costs for the implementation of CDBG-DR programs. Specific planning costs for the program areas (where known) are detailed in the appropriate sections of this document.

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 Mayor's 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) [text removed] and the Office of Long-Term Planning and Sustainability (OLTPS) will use CDBG-DR funds for SIRR-related and other long-term community planning and rebuilding efforts working closely with DCP and other agencies.

Additionally, Citywide Planning activities will include the preparation and revision of the CDBG-DR Action Plan, and Subrecipient Agreements or Memorandums of Understanding, as well as the preparation and oversight of Environmental Reviews.

Planning activities may also include funding for the newly created position of Local Disaster Recovery Manager (LDRM) for the City's Hurricane Sandy recovery efforts. As referenced in the November 18, 2013 Federal Register notice, "consistent with the recommendation of the Rebuilding Strategy, grantees may use CDBG-DR funds to fill Local Disaster Recovery Manager positions, which are recommended by the National Disaster Recovery Framework. . . A LDRM may coordinate and manage the overall long-term recovery and redevelopment of a community, which includes the local administration and leveraging of multiple federally funded projects and programs." There may also be related Administration activities related to this function.

HUD ELIGIBILITY CATEGORY: Planning (and Administration)

NATIONAL OBJECTIVE: There is no HUD national objective for Planning activities.

CDBG-DR ALLOCATION: \$72,820,000; this allocation is based on the best currently available data and [text removed] has been adjusted since HUD's approval of the City's first approved Action Plan in May, 2013 to meet the City's current anticipated needs.

PROJECTED ACCOMPLISHMENTS: N/A

PROGRAM ADMINISTRATION: The Office of Management and Budget; The Mayor's Office of Housing Recovery Operations; Department of Housing Preservation and Development; the New York City Housing Authority; the NYC Economic Development Corporation; Department of City Planning; Department of Parks and Recreation; and the Mayor's Office of Long-Term Planning and Sustainability.

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:

- Ensuring citizen participation (including publication of public notices);
- Preparation of the required CDBG-DR quarterly reports;
- Maintenance of the CDBG-DR website;
- Monitoring of the expenditures for CDBG-DR programs;
- Monitoring of subrecipients, contractors, and City agencies;
- 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: \$97,000,000; this allocation is based on the best currently available data and has been adjusted since HUD's approval of the City's first approved Action Plan in May, 2013 to meet the City's current anticipated needs.

PROJECTED ACCOMPLISHMENTS: N/A

PROGRAM ADMINISTRATION: Office of Management and Budget; the Mayor's Office of Housing Recovery Operations; Department of Housing Preservation and Development; the New York City Housing Authority; Department of Small Business Services; the NYC Economic Development Corporation; Department of City Planning; the Mayor's Office of Long-Term Planning and Sustainability; 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

Original text:

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 Preliminary Work Maps (PWMs) 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 approximately 67,000 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.

Replace with:

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 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 Preliminary Flood Insurance Rate Maps (FIRMs) 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 approximately 68,000 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.

Original text:

- 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.

Replace with:

- 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 68,000 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 October 2013, DCP introduced 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.

Original Text:

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. [text removed]

Replace with:

In June 2013, the City released *A Stronger, More Resilient New York*. The report contains over 250 detailed initiatives addressing the vulnerabilities of the city's infrastructure, built environment, and coastal communities. Among the report's initiatives are the crucial programs included in this Action Plan to address important unmet needs that Sandy highlighted. The plan can be reviewed at: <http://www.nyc.gov/html/sirr/html/report/report.shtml>

Original Text:

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.

Replace with:

FEMA's Preliminary Flood Insurance Rate Maps (FIRMs) represent the best currently available information on flood hazards and the elevation buildings should meet to be protected from damage. [text removed] 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.

Original Text:

- 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.

Replace with:

- 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 released its recommendations in June 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. [text removed] In June 2013, the Department of Buildings released "Rebuilding NYC After Hurricane Sandy: A Guide to New Code and Zoning Standards for Industry Professionals."

Original Text:

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.

Replace with:

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 or Energy Star Certified Homes. 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

Original Text:

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
- HUD *Federal Register* Notice, at 78 FR 14329, effective March 11, 2013
- Section 18 of the Small Business Act, as amended (14A U.S.C. 647)

Replace with:

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
- HUD *Federal Register* Notice, at 78 FR 14329, effective March 11, 2013
- HUD *Federal Register* Notice, at 78 FR 69104, effective November 25, 2013
- Section 18 of the Small Business Act, as amended (14A U.S.C. 647)

Original Text:

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.

Initial Cost estimate:	\$180,000
Funds received from FEMA, SBA, insurance & others for same purpose:	\$150,000
<u>City's verification of Owner Certification of Work Already Completed:</u>	<u>-\$100,000</u>
Funds that the owner will provide to complete work:	<u>\$50,000</u>
CDBG-DR <u>NYC Houses</u> Program Unmet Need, eligible for assistance	\$30,000

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.

Initial Cost estimate:	\$180,000
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Funds received from FEMA, SBA, insurance & others for same purpose:	\$150,000
City's verification: Owner Certification of Work Already Completed:	-\$100,000
<u>City's verification: Owner Certification of Allowed Activities:</u>	<u>-\$10,000</u>
Funds that the owner will provide to complete work:	<u>\$40,000</u>
CDBG-DR <u>NYC Houses</u> Program Unmet Need, eligible for assistance	\$40,000

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
<u>City's verification: Owner Certification of Eligible Costs for Interim Housing:</u>	<u>-\$10,000</u>
Funds that the owner will provide to complete work:	<u>\$0</u>
CDBG-DR <u>NYC Houses</u> 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
<u>City's verification: Owner Certification of Eligible Costs for Interim Housing:</u>	<u>-\$10,000</u>
Funds that the owner will provide to complete work:	<u>\$0</u>
CDBG-DR <u>NYC Houses</u> 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

Replace with:

DOB Example, Not Displaced: Property owner is applying for home rehabilitation assistance from the Build it Back program. The owner was able to live in the home while repairing the impacts from Hurricane Sandy.

Initial Cost estimate:	\$180,000
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Funds received from FEMA, SBA, insurance & others for same purpose:	\$150,000
<u>City's verification of Owner Certification of Work Already Completed:</u>	<u>-\$100,000</u>
Funds that the owner will provide to complete work:	\$50,000
CDBG-DR <u>Build it Back</u> Program Unmet Need, eligible for assistance	\$30,000

DOB Example, Interim Housing: Property owner is applying for home rehabilitation assistance from the Build it Back 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.

Initial Cost estimate:	\$180,000
Funds received from FEMA, SBA, insurance & others for same purpose:	\$150,000
City's verification: Owner Certification of Work Already Completed:	-\$100,000
<u>City's verification: Owner Certification of Allowed Activities:</u>	<u>-\$10,000</u>
Funds that the owner will provide to complete work:	\$40,000
CDBG-DR <u>Build it Back</u> Program Unmet Need, eligible for assistance	\$40,000

DOB Example, Spent personal funds: Property owner is applying for home rehabilitation assistance from the Build it Back 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
<u>City's verification: Owner Certification of Eligible Costs for Interim Housing:</u>	<u>-\$10,000</u>
Funds that the owner will provide to complete work:	_____\$0
CDBG-DR <u>Build it Back</u> 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 Build it Back 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
<u>City's verification: Owner Certification of Eligible Costs for Interim Housing:</u>	<u>-\$10,000</u>
Funds that the owner will provide to complete work:	_____\$0
CDBG-DR <u>Build it Back</u> 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

Original Text:

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.

Revised Text:

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. [text removed] It is anticipated the City will apply program income received to the CDBG-DR program toward the funding of further disaster-related activities or other CDBG-eligible activities, with the final determination of end use made by the City’s Office of Management and Budget. 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.

Original Text:

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 that 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.

Replace with:

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 that permits changes to the City of New York's Consolidated Plan Citizen Participation Plan. The Federal Register assigning the second allocation of Hurricane Sandy funds (78 FR 69104) modified these requirements. The following section describes the citizen participation process in conformance with the regulations.

b. Public Hearing

[text removed]

For substantial amendments to the Action Plan, the City of New York will hold public hearings. Citizens and stakeholders will have reasonable and timely access to the public hearing(s).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 Recovery homepage (www.nyc.gov/recovery).

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, NY 10007

A comment period of at least thirty (30) 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:

Office of Management and Budget
255 Greenwich Street, 8th 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 City's Responses to Public Comments 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 approved 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 D: Projected Expenditures and Outcomes

Original Text:

Housing

The City's CDBG-DR Action Plan includes \$648 million of CDBG-DR funding for housing programs.

The New York City Build it Back program will cover the rehabilitation and reconstruction of residential structures damaged by Hurricane Sandy. Build it Back consists of two pathways: (1) Single Family Rehabilitation and Reconstruction and (2) Multi-Family Rehabilitation. As stated in the Action Plan, the City has allocated \$306 million for single-family homes (1-2 units) and \$215 million for multi-family buildings (3 or more units).

Based on initial application intake, the Mayor's Office of Housing Recovery Operations (HRO) expects to complete work on 2,900 single-family homes and 15,900 multi-family units with the initial allocations. The projections below reflect the expected construction timeline with work beginning in the 4th quarter of 2013. The initial program allocation is projected to be expended by the second quarter of 2016.

The New York City Housing Authority (NYCHA) will receive a separate allocation of \$108 million for resiliency measures. With this funding, NYCHA will install permanent emergency generators in 100 buildings. As stated in the Action Plan, this project is expected to benefit 20,000 residents. The projections assume that project design and preparation will begin in the 4th quarter of 2013 and that work will be completed during the second half of 2014.

Additionally, \$19 million has been allocated to a rental assistance program for low-income households. The first vouchers were handed out in the 3rd quarter of 2013. With rental assistance limited to 24 months, the projections assume that the program will wind down by mid-2016. As indicated in the Action Plan, this program is expected to serve approximately 600 households.

Replace with:

The City's CDBG-DR Action Plan includes \$648 million of CDBG-DR funding for housing programs.

The New York City Build it Back program will cover the rehabilitation and reconstruction of residential structures damaged by Hurricane Sandy. Build it Back consists of two pathways: (1) Single Family Rehabilitation and Reconstruction and (2) Multi-Family Rehabilitation. As stated in the Action Plan, the City has allocated \$306 million for single-family homes (1-2 units) and \$215 million for multi-family buildings (3 or more units).

Based on initial application intake, the Mayor's Office of Housing Recovery Operations (HRO) expects to complete work on 2,900 single-family homes and 15,900 multi-family units with the initial allocations. The projections below reflect the expected construction timeline with work beginning in the 1st quarter of 2014. The initial program allocation is projected to be expended by the second quarter of 2016.

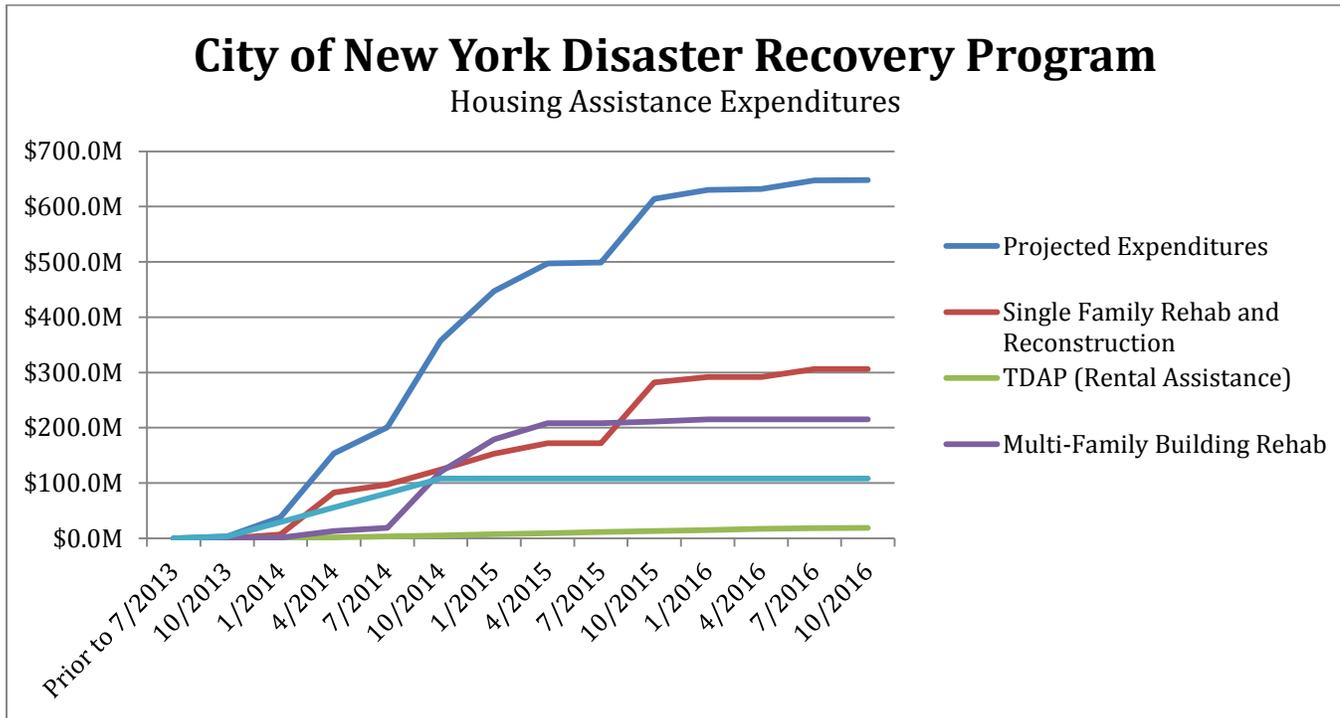
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Financial Projections

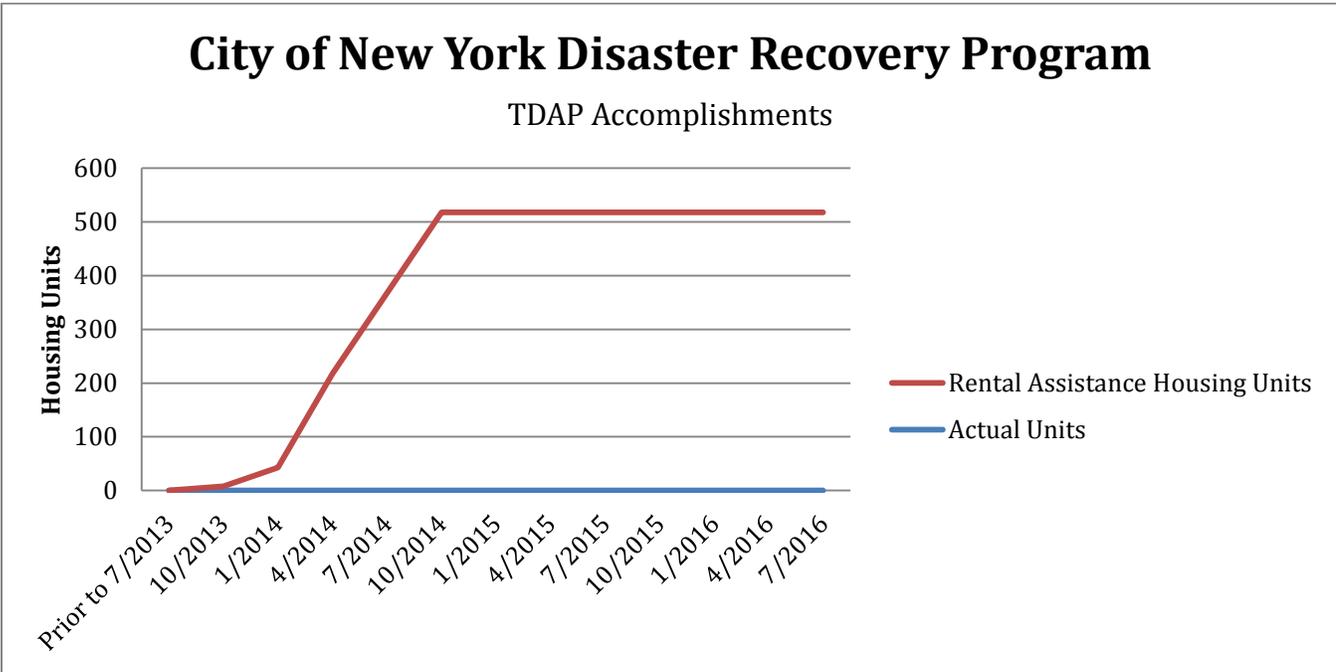
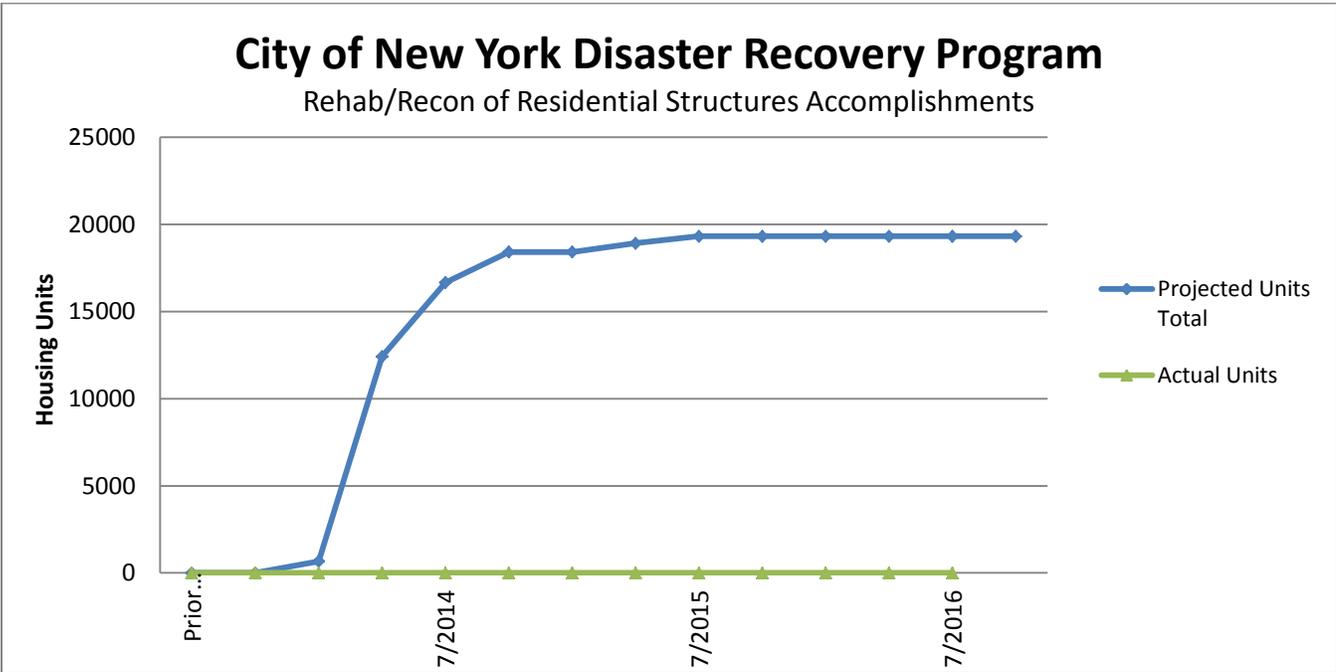
Housing	Prior to 7/2013	10/2013	1/2014	4/2014	7/2014	10/2014	1/2015	4/2015
Projected Expenditures	\$0.0M	\$3.5M	\$38.1M	\$153.3M	\$201.0M	\$357.2M	\$447.2M	\$497.2M
<i>Single Family Rehab and Reconstruction</i>	\$0.0M	\$0.0M	\$7.0M	\$83.0M	\$97.0M	\$124.0M	\$153.0M	\$172.0M
<i>TDAP (Rental Assistance)</i>	\$0.0M	\$0.3M	\$0.7M	\$1.7M	\$3.2M	\$5.2M	\$7.2M	\$9.2M
<i>Multi-Family Building Rehab</i>	\$0.0M	\$0.0M	\$1.0M	\$13.0M	\$19.0M	\$120.0M	\$179.0M	\$208.0M
<i>Public Housing Rehab & Resilience</i>	\$0.0M	\$3.2M	\$29.4M	\$55.6M	\$81.8M	\$108.0M	\$108.0M	\$108.0M
Quarterly Projection	\$0.0M	\$3.5M	\$34.6M	\$115.2M	\$47.7M	\$156.2M	\$90.0M	\$50.0M
<i>Single Family Rehab and Reconstruction</i>	\$0.0M	\$0.0M	\$7.0M	\$76.0M	\$14.0M	\$27.0M	\$29.0M	\$19.0M
<i>TDAP (Rental Assistance)</i>	\$0.0M	\$0.3M	\$0.4M	\$1.0M	\$1.5M	\$2.0M	\$2.0M	\$2.0M
<i>Multi-Family Building Rehab</i>	\$0.0M	\$0.0M	\$1.0M	\$12.0M	\$6.0M	\$101.0M	\$59.0M	\$29.0M
<i>Public Housing Rehab & Resilience</i>	\$0.0M	\$3.2M	\$26.2M	\$26.2M	\$26.2M	\$26.2M		
Actual Expenditure	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M
<i>Single Family Rehab and Reconstruction</i>								
<i>TDAP (Rental Assistance)</i>								
<i>Multi-Family Building Rehab</i>								
<i>Public Housing Rehab & Resilience</i>								
Actual Quarterly Expend (from QPRs)	\$0.0M							

Housing	7/2015	10/2015	1/2016	4/2016	7/2016	10/2016	1/2017
Projected Expenditures	\$499.2M	\$614.1M	\$630.1M	\$632.0M	\$647.2M	\$648.0M	\$648.0M
<i>Single Family Rehab and Reconstruction</i>	\$172.0M	\$282.0M	\$292.0M	\$292.0M	\$306.0M	\$306.0M	\$306.0M
<i>TDAP (Rental Assistance)</i>	\$11.2M	\$13.1M	\$15.1M	\$17.0M	\$18.2M	\$19.0M	\$19.0M
<i>Multi-Family Building Rehab</i>	\$208.0M	\$211.0M	\$215.0M	\$215.0M	\$215.0M	\$215.0M	\$215.0M
<i>Public Housing Rehab & Resilience</i>	\$108.0M						
Quarterly Projection	\$2.0M	\$115.0M	\$16.0M	\$1.8M	\$15.3M	\$0.8M	\$0.0M
<i>Single Family Rehab and Reconstruction</i>	\$0.0M	\$110.0M	\$10.0M	\$0.0M	\$14.0M		
<i>TDAP (Rental Assistance)</i>	\$2.0M	\$2.0M	\$2.0M	\$1.8M	\$1.3M	\$0.8M	
<i>Multi-Family Building Rehab</i>	\$0.0M	\$3.0M	\$4.0M				
<i>Public Housing Rehab & Resilience</i>							
Actual Expenditure	\$0.0M						
<i>Single Family Rehab and Reconstruction</i>							
<i>TDAP (Rental Assistance)</i>							
<i>Multi-Family Building Rehab</i>							
<i>Public Housing Rehab & Resilience</i>							
Actual Quarterly Expend (from QPRs)							



Performance Projections

Housing	Prior to 7/2013	10/2013	1/2014	4/2014	7/2014	10/2014	1/2015	4/2015	7/2015
Projected Units Total	0	0	673	12418	16668	18418	18418	18918	19318
<i>Projected Units - Rehab/Recon of Residential Structures (SF + MF + Public Housing)</i>	0	0	630	12200	16300	17900	17900	18400	18800
# of Housing Units (Quarterly Projection)	0	0	630	11,570	4,100	1,600	0	500	400
Actual Units	0	0	0	0	0	0	0	0	0
# of Housing Units (Populated from QPR Reporting)	0								
<i>Projected Units - Public Services (TDAP)</i>	0	8	43	218	368	518	518	518	518
# of Units (Quarterly Projection)	0	8	35	175	150	150	0	0	0
Actual Units	0	0	0	0	0	0	0	0	0
# of Units (Populated from QPR Reporting)	0								
Programs									
<i>Single Family Rehab and Reconstruction (Rehab/Recon)</i>									
# of Housing Units	0	0	400	1300	300	200	0	400	300
<i>Multi-Family Building Rehabilitation(Rehab/Recon)</i>									
# of Housing Units	0	0	230	10270	3800	1400	0	100	100
<i>Public Housing Rehabilitation and Resilience(Rehab/Recon)</i>									
# of Housing Units	0	0	1650	1650	1650	1650			
<i>TDAP (Public Services)</i>									
# of Housing Units	0	8	35	175	150	150			
Housing									
		10/2015	1/2016	4/2016	7/2016	10/2016	1/2017		
Projected Units Total		19318	19318	19318	19318	19318	19318		
<i>Projected Units - Rehab/Recon of Residential Structures (SF + MF + Public Housing)</i>		18800	18800	18800	18800	18800	18800		
# of Housing Units (Quarterly Projection)		0	0	0	0	0	0		
Actual Units		0	0	0	0	0	0		
# of Housing Units (Populated from QPR Reporting)									
<i>Projected Units - Public Services (TDAP)</i>		518	518	518	518	518	518		
# of Units (Quarterly Projection)		0	0	0	0	0	0		
Actual Units		0	0	0	0	0	0		
# of Units (Populated from QPR Reporting)									
Programs									
<i>Single Family Rehab and Reconstruction (Rehab/Recon)</i>									
# of Housing Units		0	0	0	0	0	0		
<i>Multi-Family Building Rehabilitation(Rehab/Recon)</i>									
# of Housing Units		0	0	0	0	0	0		
<i>Public Housing Rehabilitation and Resilience(Rehab/Recon)</i>									
# of Housing Units									
<i>TDAP (Public Services)</i>									
# of Housing Units									



Original Text:

Business

Pending the launch and overall design of several Business Activities, the City has worked to develop best estimates of expenses and beneficiaries given current information. To simplify assumptions about future expenditures and performance, the projected expenditures for the **Neighborhood Game Changer Investment Program**, **Business Resiliency Investment Program**, and **Infrastructure and Building Resiliency Technologies Competition** are equally distributed over the each program's estimated schedule. These estimates will be updated once overall program design is better formulated and respondents to open Requests for Proposals (RPFs) have been selected, and competition and program applications have been received.

The **Business Loan and Grant Program** has begun intake for interested businesses and has based its estimates on an earlier program that provided loans and grants to Sandy-impacted Businesses. Expenses are projected to begin in the second half of 2013, with a significant investment towards recruiting the staff needed for this program and to begin distribution of loan and grant funds through the New York Business Development Corporation LDC (NYLDC). Expenses further increase in the fourth quarter of 2013 with the addition of Community Development Financial Institutions (CDFIs) as additional lending partners. All loan and grant funds are projected to be disbursed by the fourth quarter of 2015 with additional smaller expenses for loan servicing and monitoring through the third quarter of 2019, as loans are paid back.

Given the nature of all Business Activities, the City's high-level, initial estimates of job creation/retention are expected to lag behind program expenditures. For their respective programs, job creation/retention estimates are based on:

- **Neighborhood Game Changer Investment Program:** performance requirements in similar programs to create and retain jobs, as well as the scale of the overall program,
- **Infrastructure and Building Resiliency Technologies Competition:** U.S. Department of Housing and Urban Development (HUD) benchmarks for similar programs, and
- **Business Loan and Grant Program:** an earlier program that provided loans and grants to Sandy-impacted Businesses.
- **Business Resiliency Investment Program:** the number of businesses measured by square feet impacted by Hurricane Sandy, and an estimate of the number of businesses that could be reached using currently available funds, based on analysis completed as part of the Mayor's Special Initiative for Rebuilding and Resiliency's (SIRR) *A Stronger, More Resilient New York* report of the estimated potential costs and benefits of targeted flood-protection measures on sites in the 100-year floodplain.

Replace with:

Business

Pending the launch and overall design of several Business Activities, the City has worked to develop best estimates of expenses and beneficiaries given current information. To simplify assumptions about future expenditures and performance, the projected expenditures for the **Neighborhood Game Changer Investment Program, Business Resiliency Investment Program, and Resiliency Innovations for a Stronger Economy (RISE:NYC)** are equally distributed over each program's estimated schedule. These estimates will be updated once overall program design is better formulated and respondents to open Requests for Proposals (RPFs) have been selected, and competition and program applications have been received.

The **Business Recovery Loan & Grant Program** has been intaking and processing interested businesses, while revising its initial estimates based on an earlier Sandy loan/grant program to more accurately reflect the program's demand. Expenses began to accrue in the second half of 2013, with significant investment towards recruiting the Program staff needed to begin distribution of loan and grant funds through the New York Business Development Corporation LDC (NYLDC). Expenses further increased in the fourth quarter of 2013 as loans and grants were awarded and will continue to increase with the addition of Community Development Financial Institutions (CDFIs) as additional lending partners. All loan and grant funds are currently projected to be disbursed by the fourth quarter of 2015 with additional smaller expenses for loan servicing and monitoring through the third quarter of 2019, as loans are paid back.

Given the nature of all Business Activities, the City's high-level, initial estimates of job creation/retention are expected to lag behind program expenditures. For their respective programs, job creation/retention estimates are based on:

- **Neighborhood Game Changer Investment Program:** performance requirements in similar programs to create and retain jobs, as well as the scale of the overall program,
- **Resiliency Innovations for a Stronger Economy (RISE:NYC):** U.S. Department of Housing and Urban Development (HUD) benchmarks for similar programs, and
- **Business Loan and Grant Program:** initially based an earlier program that provided loans and grants to Sandy-impacted Businesses, but revised downwards to accurately reflect program demand and therefore its outcome
- **Business Resiliency Investment Program:** the number of businesses measured by square feet impacted by Hurricane Sandy, and an estimate of the number of businesses that could be reached using currently available funds, based on analysis completed as part of the Mayor's Special Initiative for Rebuilding and Resiliency's (SIRR) *A Stronger, More Resilient New York* report of the estimated potential costs and benefits of targeted flood-protection measures on sites in the 100-year floodplain.

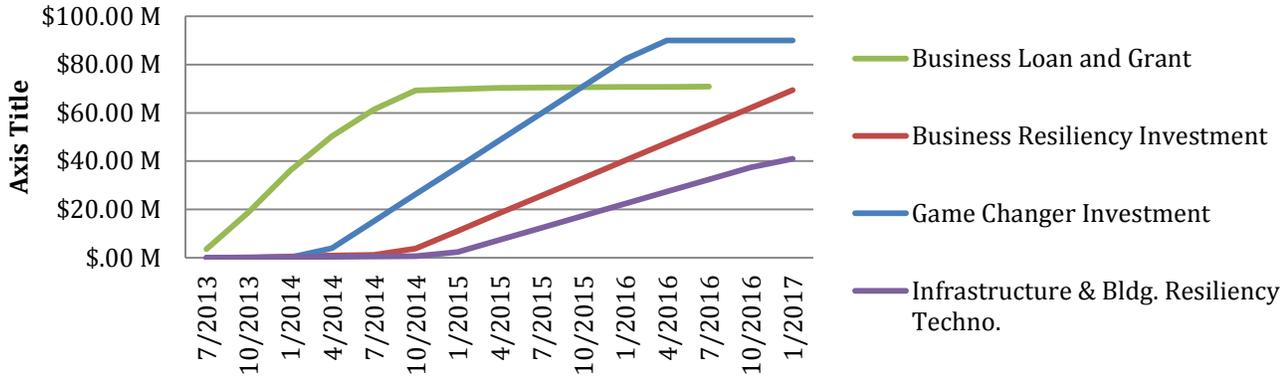
Financial Projections

Economic Development	7/2013	10/2013	1/2014	4/2014	7/2014	10/2014	1/2015	4/2015
Projected Expenditures								
<i>Business Loan and Grant</i>	\$0.0 M	\$0.0 M	\$3.59 M	\$18.73 M	\$36.14 M	\$50.26 M	\$61.40 M	\$69.28 M
<i>Business Resiliency Investment</i>	\$0.0 M	\$0.1 M	\$0.5 M	\$1.0 M	\$1.3 M	\$3.9 M	\$11.2 M	\$18.4 M
<i>Game Changer Investment</i>	\$0.0 M	\$0.1 M	\$0.2 M	\$0.4 M	\$1.5 M	\$26.3 M	\$37.5 M	\$48.6 M
<i>Infrastructure & Bldg. Resiliency Techno.</i>	\$0.1 M	\$0.2 M	\$0.4 M	\$0.5 M	\$0.6 M	\$0.7 M	\$2.4 M	\$7.4 M
Quarterly Projection								
<i>Business Loan and Grant</i>	\$0.00M	\$0.00 M	\$3.59 M	\$15.14 M	\$17.41 M	\$14.13 M	\$11.14 M	\$7.88 M
<i>Business Resiliency Investment</i>	\$0.00M	\$0.06 M	\$0.46 M	\$0.46 M	\$0.29 M	\$2.62 M	\$7.28 M	\$7.28 M
<i>Game Changer Investment</i>	\$0.00 M	\$0.11 M	\$0.11 M	\$0.375 M	\$11.17 M	\$11.17 M	\$11.17 M	\$11.17 M
<i>Infrastructure & Bldg. Resiliency Techno.</i>	\$0.07 M	\$0.15 M	\$0.15 M	\$0.11 M	\$0.11 M	\$0.11 M	\$1.75 M	\$5.00 M
Actual Expenditure								
<i>Business Loan and Grant</i>	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M
<i>Business Resiliency Investment</i>	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M
<i>Game Changer Investment</i>	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M
<i>Infrastructure & Bldg. Resiliency Techno.</i>	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M
Actual Quarterly Expend (from QPRs)								
<i>Business Loan and Grant</i>	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M
<i>Business Resiliency Investment</i>	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M
<i>Game Changer Investment</i>	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M
<i>Infrastructure & Bldg. Resiliency Techno.</i>	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M

Economic Development	7/2015	10/2015	1/2016	4/2016	7/2016	10/2016	1/2017
Projected Expenditures							
<i>Business Loan and Grant</i>	\$69.83 M	\$70.36 M	\$70.46 M	\$70.57 M	\$70.68 M	\$70.78 M	\$70.88 M
<i>Business Resiliency Investment</i>	\$25.7 M	\$33.0 M	\$40.3 M	\$47.5 M	\$54.8 M	\$62.1 M	\$69.4 M
<i>Game Changer Investment</i>	\$59.8 M	\$71.0 M	\$82.2 M	\$90.0 M	\$90.0 M	\$90.0 M	\$90.0 M
<i>Infrastructure & Bldg. Resiliency Techno.</i>	\$12.4 M	\$17.4 M	\$22.4 M	\$27.4 M	\$32.4 M	\$37.4 M	\$41.0 M
Quarterly Projection							
<i>Business Loan and Grant</i>	\$0.55 M	\$0.53 M	\$0.11 M	\$0.11 M	\$0.11 M	\$0.10 M	\$0.10 M
<i>Business Resiliency Investment</i>	\$7.28 M	\$7.28 M	\$7.28 M	\$7.28 M	\$7.28 M	\$7.28 M	\$7.28 M
<i>Game Changer Investment</i>	\$11.17 M	\$11.17 M	\$11.17 M	\$7.80 M	\$0.00 M	\$0.00 M	\$0.00 M
<i>Infrastructure & Bldg. Resiliency Techno.</i>	\$5.00 M	\$5.00 M	\$5.00 M	\$5.00 M	\$5.00 M	\$5.00 M	\$3.56 M
Actual Expenditure							
<i>Business Loan and Grant</i>	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M
<i>Business Resiliency Investment</i>	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M
<i>Game Changer Investment</i>	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M
<i>Infrastructure & Bldg. Resiliency Techno.</i>	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M
Actual Quarterly Expend (from QPRs)							
<i>Business Loan and Grant</i>	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M
<i>Business Resiliency Investment</i>	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M
<i>Game Changer Investment</i>	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M
<i>Infrastructure & Bldg. Resiliency Techno.</i>	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M	\$0.0M

City of New York Disaster Recovery Program

Economic Development Expenditures



Performance Projections

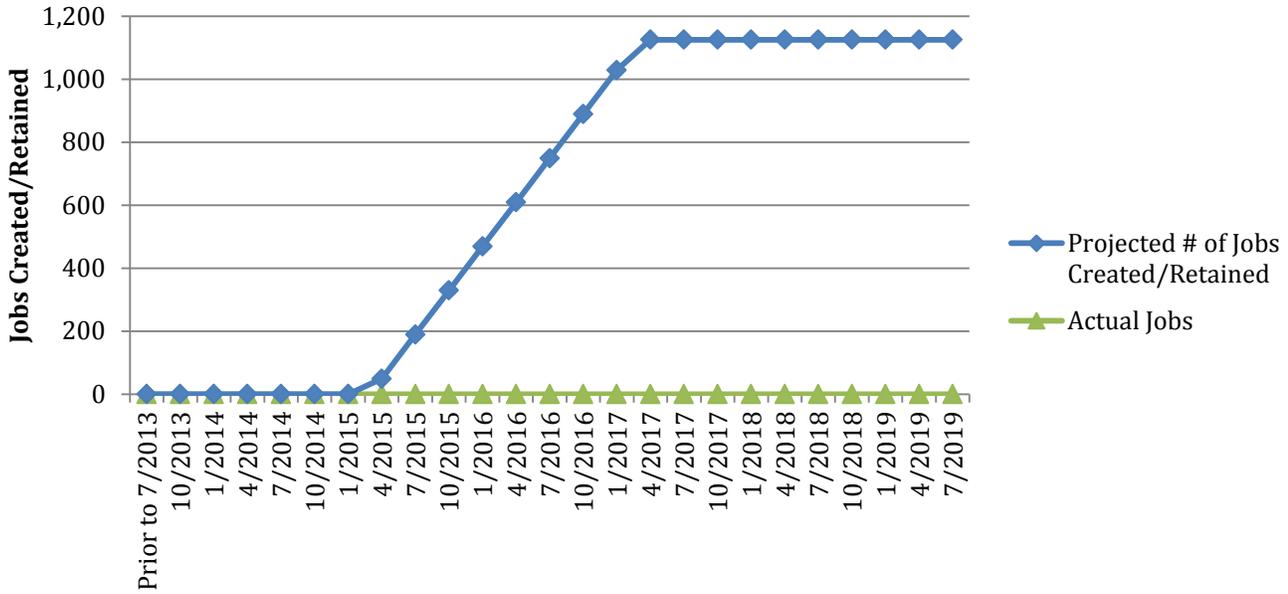
Economic Development	Prior to 7/2013	10/2013	1/2014	4/2014	7/2014	10/2014	1/2015	4/2015	7/2015	10/2015	1/2016	4/2016	7/2016
Business Loan and Grant													
Projected # of Jobs Created/Retained	0	0	100	500	1,250	2,000	2,750	3,500	4,250	5,000	5,100	5,200	5,300
# of Jobs Created/Retained (Quarterly Projection)	0	0	100	400	750	750	750	750	750	750	100	100	100
Actual Jobs	0	0	0	0	0	0	0	0	0	0	0	0	0
# of Jobs Created/Retained (Populated from QPR Reporting)	0												
Game Changer Investment Competition													
Projected # of Jobs Created/Retained	0	0	0	0	0	0	0	49	189	329	469	609	749
# of Jobs Created/Retained (Quarterly Projection)	0	0	0	0	0	0	0	49	140	140	140	140	140
Actual Jobs	0	0	0	0	0	0	0	0	0	0	0	0	0
# of Jobs Created/Retained (Populated from QPR Reporting)	0												
Infrastructure and Building Resiliency Technologies Competition													
Projected # of Jobs Created/Retained	0	0	0	0	0	0	0	0	0	0	0	0	69
# of Jobs Created/Retained (Quarterly Projection)	0	0	0	0	0	0	0	0	0	0	0	0	69
Actual Jobs	0	0	0	0	0	0	0	0	0	0	0	0	0
# of Jobs Created/Retained (Populated from QPR Reporting)	0												
Business Resiliency Investment Program													
Projected # of Million Sq. Ft. Made More resilient	0	0	0	0	0	0	0	0	0	0	0	560,788	1,611,690
# of Million Sq. Ft. Made More resilient (Quarterly Projection)	0	0	0	0	0	0	0	0	0	0	0	560,788	1,050,902
Actual # Million Sq. Ft. Made More resilient	0	0	0	0	0	0	0	0	0	0	0	0	0
# of Million Sq. Ft. Made More resilient (Populated from QPR Reporting)	0												

Quarterly Projections by Activity Type													
Business Loan and Grant													
# of Permanent Jobs Created	0	100	400	750	750	750	750	750	750	750	100	100	100
Game Changer Investment Competition													
# of Permanent Jobs Created	0	0	0	0	0	0	0	49	140	140	140	140	140
Infrastructure and Building Resiliency Technologies Competition													
# of Permanent Jobs Created	0	0	0	0	0	0	0	0	0	0	0	0	69
Business Resiliency Investment Program													
# of Million Sq. Ft. Made More resilient	0	0	0	0	0	0	0	0	0	0	0	560788	1050902

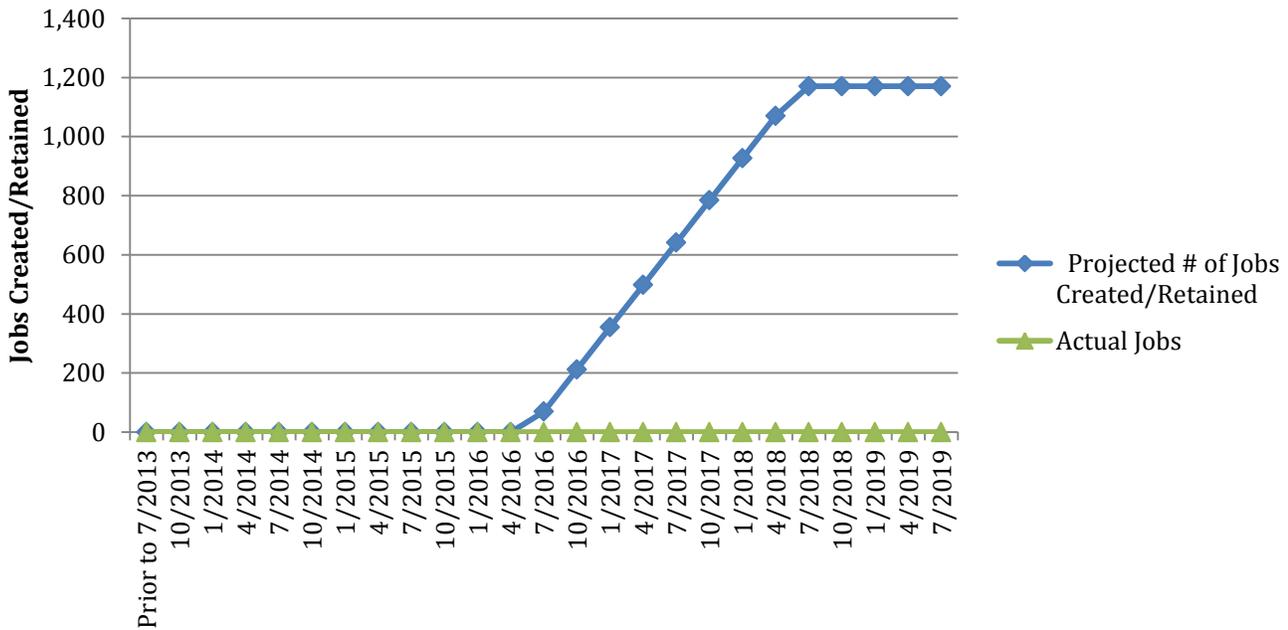
Economic Development	10/2016	1/2017	4/2017	7/2017	10/2017	1/2018	4/2018	7/2018	10/2018	1/2019	4/2019	7/2019
Business Loan and Grant												
Projected # of Jobs Created/Retained	5,400	5,500	5,600	5,700	5,800	5,900	6,000	6,100	6,200	6,300	6,400	6,500
# of Jobs Created/Retained (Quarterly Projection)	100	100	100	100	100	100	100	100	100	100	100	100
Actual Jobs	0	0	0	0	0	0	0	0	0	0	0	0
# of Jobs Created/Retained (Populated from QPR Reporting)												
Game Changer Investment Competition												
Projected # of Jobs Created/Retained	889	1,029	1,125	1,125	1,125	1,125	1,125	1,125	1,125	1,125	1,125	1,125
# of Jobs Created/Retained (Quarterly Projection)	140	140	96	0	0	0	0	0	0	0	0	0
Actual Jobs	0	0	0	0	0	0	0	0	0	0	0	0
# of Jobs Created/Retained (Populated from QPR Reporting)												
Infrastructure and Building Resiliency Technologies Competition												
Projected # of Jobs Created/Retained	212	355	498	641	784	927	1,070	1,170	1,170	1,170	1,170	1,170
# of Jobs Created/Retained (Quarterly Projection)	143	143	143	143	143	143	143	100	0	0	0	0
Actual Jobs	0	0	0	0	0	0	0	0	0	0	0	0
# of Jobs Created/Retained (Populated from QPR Reporting)												
Business Resiliency Investment Program												
Projected # of Million Sq. Ft. Made More resilient	2,662,592	3,713,494	4,764,396	5,815,298	6,866,200	7,917,102	8,968,004	10,018,906	11,069,808	12,120,710	13,000,000	13,000,000
# of Million Sq. Ft. Made More resilient (Quarterly Projection)	1,050,902	1,050,902	1,050,902	1,050,902	1,050,902	1,050,902	1,050,902	1,050,902	1,050,902	1,050,902	879,290	879,290
Actual # Million Sq. Ft. Made More resilient	0	0	0	0	0	0	0	0	0	0	0	0
# of Million Sq. Ft. Made More resilient (Populated from QPR Reporting)												

Quarterly Projections by Activity Type												
Business Loan and Grant												
# of Permanent Jobs Created	100	100	100	100	100	100	100	100	100	100	100	100
Game Changer Investment Competition												
# of Permanent Jobs Created	140	140	96									
Infrastructure and Building Resiliency Technologies Competition												
# of Permanent Jobs Created	143	143	143	143	143	143	143	100				
Business Resiliency Investment Program												
# of Million Sq. Ft. Made More resilient	1050902	1050902	1050902	1050902	1050902	1050902	1050902	1050902	1050902	1050902	879290	879290

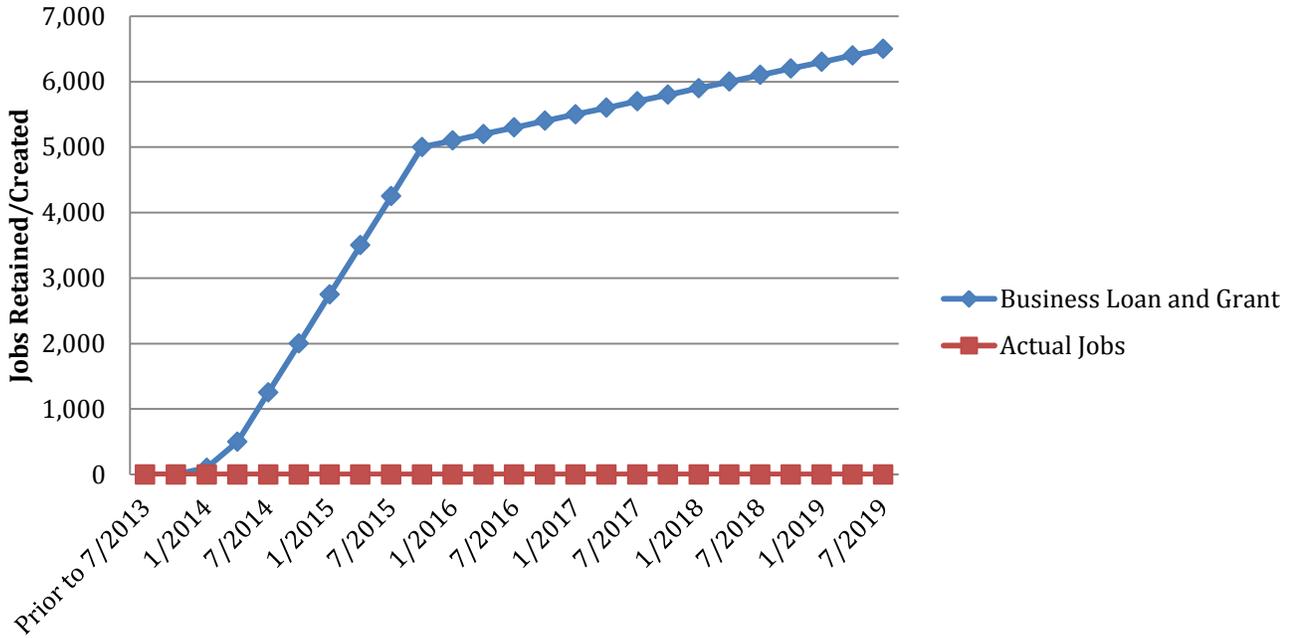
City of New York Disaster Recovery Program Game Changer investment Accomplishments



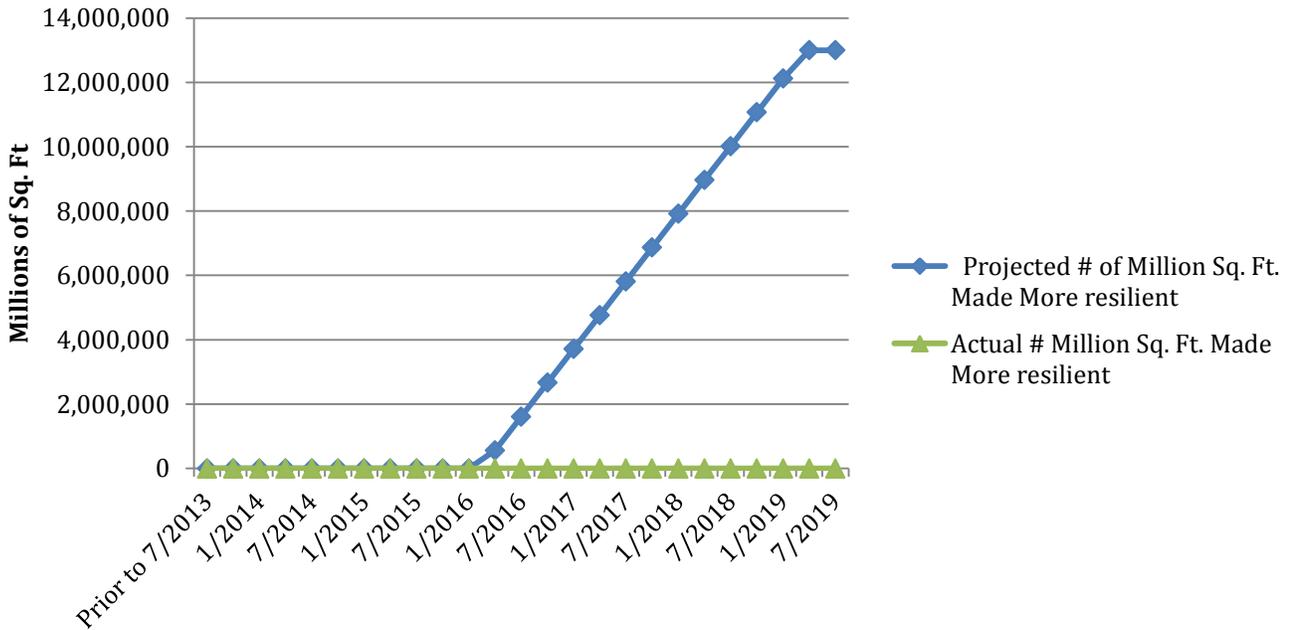
City of New York Disaster Recovery Program Infrastructure & Building Resiliency Technologies Competition Achievements



City of New York Disaster Recovery Program Business Loan and Grant



City of New York Disaster Recovery Program Business Resiliency Investment Accomplishments



Infrastructure and Other City Services (IOCS)

No updates to Financial and Performance Projections.

Resiliency

Original Text:

Resiliency

Resiliency measures have been further outlined in the first Action Plan amendment. Based on the Mayor's Special Initiative for Rebuilding and Resiliency's (SIRR) *A Stronger, More Resilient New York* report, program descriptions have been detailed for both Coastal Protection and Building Impacts projects.

Coastal Protection program allocation is currently proposed at \$174 million to be distributed among installing armor stone revetments; repairing, installing, and raising bulkheads; and designing (through a Global Design Competition) and installing an integrated Flood Protection System at Hospital Row. As stated in the first Action Plan Amendment, the Coastal Protection program is currently projected to begin during the latter half of 2013 through to 2018, and it is on this basis for which the expenditure projections are based on. Expenditures are projected to begin early 2014 and continue through to the latter half of 2015.

Likewise, the current proposed allocation towards Building Impacts is at \$120 million, to be used towards the Building Mitigation Incentive Program as described in the first Action Plan Amendment. Project Management Office (PMO) for the incentive program will probably not be established until end of 2013 so it is likely the first applications for funding will not be processed until the first quarter of 2014. If the funding is tied to the submission of reimbursement receipts, then a lag will be incorporated into the timeframe to match the estimated construction period for the retrofits. One-to-three family homes were not specifically targeted in this analysis due to half the funds being allocated to the NYC Housing Preservation and Development (HPD) for affordable housing projects (assumed 50% split between low-rise and high-rise) and the rest of it allocated to NYC Economic Development Corporation (EDC), which will likely be for commercial and mixed-use high-rise projects. HPD will only be financing affordable housing with their program while EDC has the discretion to focus on any commercial or high-rise building types. Industrial low-rise buildings (1-2 stories) not assumed to take up funds due to strained economics (low rents / building values relative to resiliency retrofit costs). Projected outcomes were based off similar analysis and distributed equally through the first eight quarters (and beyond) given the range of 20-34 million sq. ft., which is consistent with the Action Plan's amendment of estimated 20 million square feet.

Replace with:

Resiliency

The Resiliency Program allocation totals \$234 million. This funding will be divided into the Coastal Protection Program and the Residential Building Mitigation Program. These Resiliency measures have been further outlined in the fifth Action Plan amendment, which are based on the Mayor's Special Initiative for Rebuilding and Resiliency's (SIRR) *A Stronger, More Resilient New York* report.

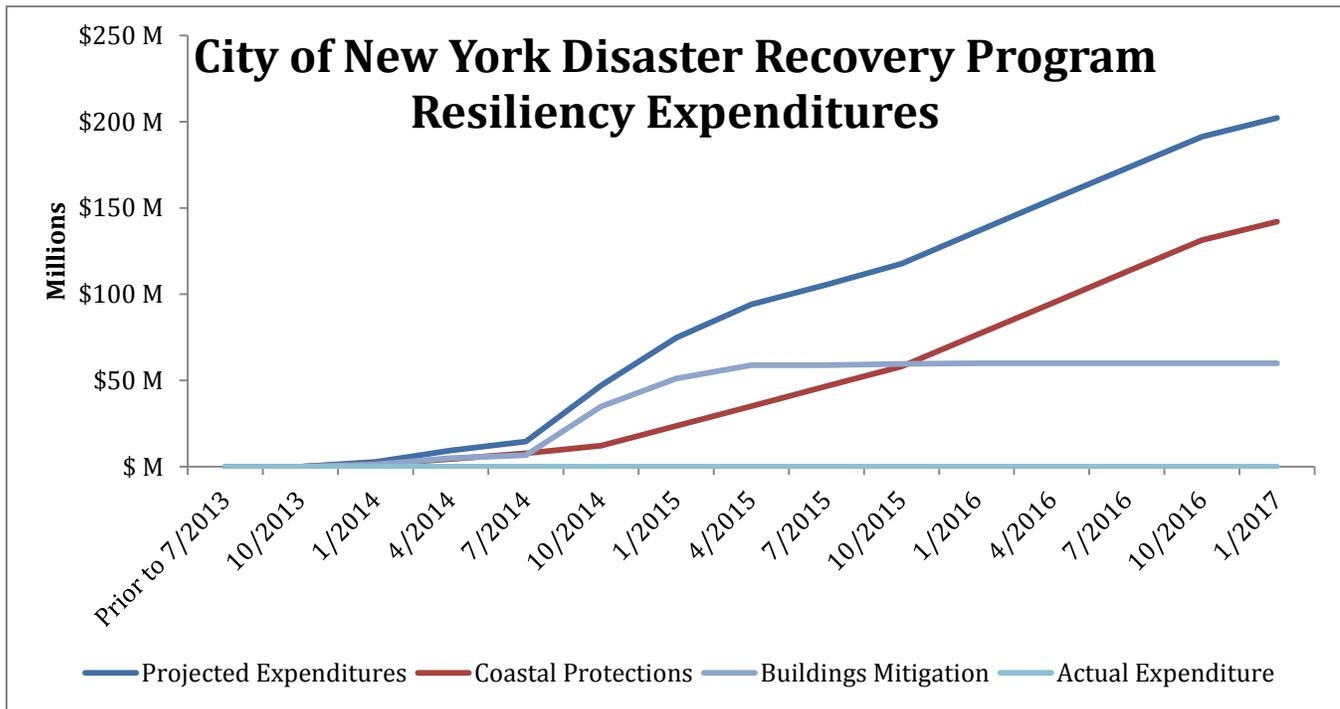
Coastal Protection program allocation is currently proposed at \$174 million to be distributed among installing armor stone revetments; repairing, installing, and raising bulkheads; and designing (through a Global Design Competition) and installing an integrated Flood Protection System at Hospital Row. As stated in the first Action Plan Amendment, the Coastal Protection program is currently projected to begin during the latter half of 2013 through to 2018, and it is on this basis for which the expenditure projections are based on. Expenditures are projected to begin early 2014 and continue through to the latter half of 2015.

Likewise, the current proposed allocation towards Building Impacts is \$60 million, and will be used - towards the Residential Building Mitigation Program, as described in the fifth Action Plan Amendment. These funds are allocated for affordable housing, as defined by the Department of New York City Housing Preservation and Development (HPD). The goal is to protect buildings and building systems in flood-vulnerable areas that were impacted by Sandy. Buildings are eligible within the 100-year floodplain or the Sandy Inundation Area. Funds will initially be disbursed in 2014 and continue through the fall of 2015. Projected outcomes are based off the expected number of housing units served over individual quarters and given an approximate range of sq. ft., which reflects the Action Plan's amendment of estimated 10 million square feet.

Financial Projections

Resiliency	Prior to 7/2013	10/2013	1/2014	4/2014	7/2014	10/2014	1/2015	4/2015
Projected Expenditures	\$ M	\$ M	\$3 M	\$9 M	\$15 M	\$47 M	\$75 M	\$94 M
Coastal Protections		\$ M	\$2 M	\$5 M	\$8 M	\$12 M	\$24 M	\$35 M
Buildings Mitigation		\$ M	\$1 M	\$5 M	\$7 M	\$35 M	\$51 M	\$59 M
Quarterly Projection	\$ M	\$ M	\$3 M	\$7 M	\$5 M	\$33 M	\$28 M	\$19 M
Coastal Protections		\$0.00 M	\$1.50 M	\$3.00 M	\$3.30 M	\$4.30 M	\$11.50 M	\$11.50 M
Buildings Mitigation		\$0.00 M	\$1.33 M	\$3.60 M	\$1.80 M	\$28.20 M	\$16.20 M	\$7.80 M
Actual Expenditure	\$ M	\$ M	\$ M	\$ M	\$ M	\$ M	\$ M	\$ M
Actual Quarterly Expend (from QPRs)	\$ M							

Resiliency	7/2015	10/2015	1/2016	4/2016	7/2016	10/2016	1/2017
Projected Expenditures	\$106 M	\$118 M	\$136 M	\$155 M	\$173 M	\$191 M	\$202 M
Coastal Protections	\$47 M	\$58 M	\$76 M	\$95 M	\$113 M	\$131 M	\$142 M
Buildings Mitigation	\$59 M	\$60 M					
Quarterly Projection	\$12 M	\$12 M	\$19 M	\$18 M	\$18 M	\$18 M	\$11 M
Coastal Protections	\$11.50 M	\$11.50 M	\$18.30 M	\$18.30 M	\$18.30 M	\$18.30 M	\$10.80 M
Buildings Mitigation	\$0.00 M	\$0.60 M	\$0.48 M	\$0.00 M	\$0.00 M	\$0.00 M	\$0.00 M
Actual Expenditure	\$ M						
Actual Quarterly Expend (from QPRs)							



Performance Projections

Resiliency	Prior to 7/2013	10/2013	1/2014	4/2014	7/2014
Buildings Mitigation					
Projected # of Sq. Feet of Residential and Other Nonresidential structures (appr	0.00	0.00	0.07	0.21	6.68
# of Sq. Feet of Residential and Other Nonresidential structures (Quarterly		0.00	0.07	0.14	6.47
Actual # Sq. ft of Residential and Other Nonresidential structures	0.00	0.00	0.00	0.00	0.00
# of Sq. Feet of Residential and Other Nonresidential structures (Populated	0.00				

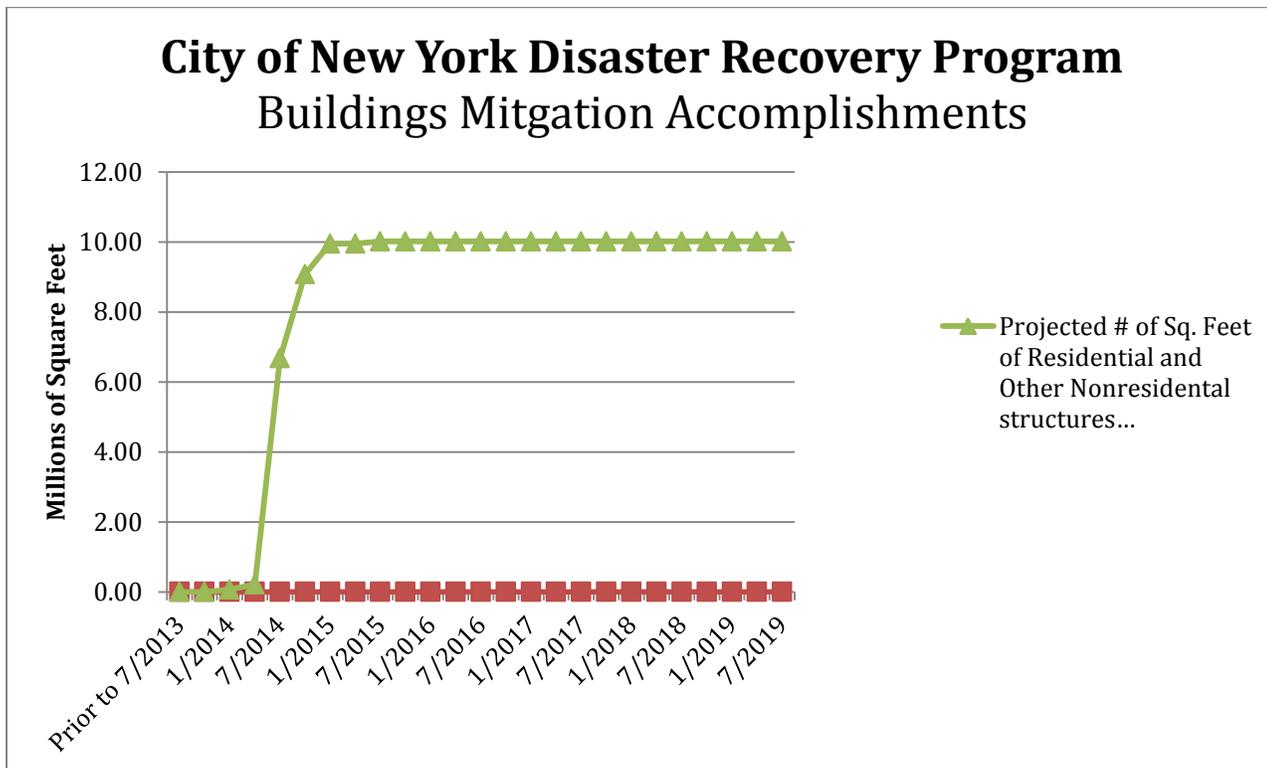
Quarterly Projections by Activity Type

Building Mitigation					
Projected # of Sq. Ft of Residential and Other Nonresidential structures	0	0	0.07	0.14	6.47
Projected # of housing units			104	230	10270

Resiliency	10/2014	1/2015	4/2015	7/2015	10/2015
Buildings Mitigation					
Projected # of Sq. Feet of Residential and Other Nonresidential structures (appr	9.07	9.96	9.96	10.02	10.02
# of Sq. Feet of Residential and Other Nonresidential structures (Quarterly	2.39	0.88	0.00	0.06	0.00
Actual # Sq. ft of Residential and Other Nonresidential structures	0.00	0.00	0.00	0.00	0.00
# of Sq. Feet of Residential and Other Nonresidential structures (Populated					

Quarterly Projections by Activity Type

Building Mitigation					
Projected # of Sq. Ft of Residential and Other Nonresidential structures	2.39	0.88	0.00	0.06	0
Projected # of housing units	3800	1400	0	96	0



Admin and Planning

No updates to Financial and Performance Projections.