

# **City of New York Community Development Block Grant – Disaster Recovery (CDBG-DR) Proposed Amendment 12 to Action Plan**

**NOTE:** This notice provides an update to the notice originally published on September 23, 2016. The public hearing originally scheduled for October 17<sup>th</sup> at Coney Island Hospital has been rescheduled to October 20<sup>th</sup>. See below for more information.

## **Overview**

The City of New York (“City” or “NYC”) is the recipient of \$4.214 billion of Community Development Block Grant – Disaster Recovery (CDBG-DR) funding from the U.S. Department of Housing and Urban Development (HUD) to assist in disaster recovery and rebuilding efforts resulting from Hurricane Sandy. The City's approved CDBG-DR Action Plan details how the City plans to spend the grant on eligible Hurricane Sandy disaster recovery and rebuilding activities.

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 review by the public and approval by HUD.

The City is publishing proposed Amendment 12 for public comment. Amendment 12 proposes the following changes:

## **General**

- Reallocates funding across program areas to fund the completion of the Build it Back and Business Loan and Grant Programs.
- Note: Funding transferred to Housing from other recovery categories will be fully replaced with other City funds. All current planned projects will move forward without delays or gaps in funding or have already been completed. Sources of funding will consist of City Capital dollars committed as part of the September 2016 Capital Commitment Plan (\$350 million) and certain disaster response expenses, incurred by the City in prior fiscal years, that are no longer being reimbursed with CDBG-DR funding (\$150 million).
- Updates need assessments and funding justifications to reflect the reallocation of funds.
- Updates program descriptions where needed to provide clarifying detail or current project status and information.

## **Housing**

- Reallocates \$500 million to the Single Family Build it Back program to serve all eligible applicants.
- Updates Single Family Build it Back program description, explaining program pathways, additional benefits and needs assessment.
- Reduces Temporary Disaster Assistance Program (TDAP) allocation by \$10 million to reflect eligible population needs.
- Creates a new program benefit for TDAP to allow arrears payments to be made to landlords on behalf of beneficiaries that experience a gap in subsidy while transitioning from the program to Section 8 rental assistance.

- Reallocates \$9 million to NYCHA's Program Allocation from the City's Planning and Administration funding.
- Creates a new workforce development program targeting NYCHA residents.

#### **Business**

- Reallocates \$10 million to the Hurricane Sandy Business Loan and Grant Program to serve all eligible applicants.
- Reallocates \$12 million from the Restoration of Saw Mill Creek Marsh and \$15 million from the Rockaways Commercial Corridor Resiliency programs to fund needs in other program areas. Both programs will move forward with other sources of funding, including Capital funds the City is providing as part of the September 2016 Capital Commitment Plan.
- Updates the program description of the Coney Island Resiliency Improvements program, which was formerly referred to as the Coney Island Green Infrastructure Improvements program.

#### **Infrastructure and Other City Services (IOCS)**

- Updates the overall IOCS allocation from \$755 million to \$419 million in order to fund needs in other program areas. CDBG-DR funding has been reduced across all IOCS program areas, however, projects previously identified either have already occurred and will now be funded with City funds instead of CDBG-DR, including Capital funds the City is providing as part of the September 2016 Commitment Plan. (Note: A version of this notice appearing in some newspapers on September 23, 2016 incorrectly indicates that the remaining IOCS allocation is \$434 million.)
- Reorganizes chapter to clarify where CDBG-DR funds have been committed and removes detail for programs that are no longer anticipated to receive CDBG-DR funding.

#### **Coastal Resiliency**

- Reallocates \$152 million from the Coastal Protection program to fund needs in other program areas. Components of the Raise Shorelines project and the Red Hook Integrated Flood Protection System will move forward with Capital funds the City is providing as part of the September 2016 Capital Commitment Plan. A portion of the Raise Shorelines Program will continue to be funded with CDBG-DR

#### **Planning and Administration**

- Describes efforts to apply lessons learned and to develop tools for preparedness for future disasters.

#### **The comment period on the proposed CDBG-DR Action Plan Amendment 12 is now open.**

**Comments must be received no later than October 24, 2016, at 11:59 PM (EST).** The proposed CDBG-DR Action Amendment 12 and the public commenting forms are available at <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. Written comments may also be directed by mail to Calvin Johnson, Assistant Director, CDBG-DR, NYC Office of Management and Budget, 255 Greenwich Street, 8<sup>th</sup> Floor, New York, NY 10007. Public comments may be given in person at any of the three hearings listed below.

**The schedule of public hearings for proposed Amendment 12 is listed below. Hearings are subject to change. Please call 311 or 212-NEW-YORK (212-639-9675) from outside New York City or check <http://www.nyc.gov/cdbg> for the most updated information.**

**Wednesday, October 5, 2016, at 7:00PM**

Beach Channel Educational Campus Auditorium  
100-00 Beach Channel Drive, Rockaway Park, Queens

**Thursday, October 13, 2016, at 7:00PM**

SIUH North Campus, Regina McGinn Education and Conference Center  
475 Seaview Avenue, Staten Island

**Thursday, October 20, 2016, at 7:00PM**

Coney Island Hospital Auditorium  
2601 Ocean Parkway, Brooklyn

(Note: In a prior version of this notice, the date for this hearing appeared as Monday October 17<sup>th</sup>. This hearing is rescheduled to October 20<sup>th</sup>.)

Paper copies of the Action Plan Amendment 12, including in large print format (18pt. font size), are available at the following address in both English and the languages listed above:

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

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 for approval in the final CDBG-DR Action Plan Amendment 12. The revised Action Plan Amendment 12 including the public comments and responses will be posted on the City's CDBG-DR website at <http://www.nyc.gov/cdbg>.

**Some notes about the formatting of this substantial Action Plan amendment document:**

The changes that this substantial amendment (Amendment 12) proposes for the City of New York are described below. The City is indicating, by Chapter header, where changes will be made to the currently approved Action Plan incorporating Amendments 1-11. This document can be found on the City's website at [http://www.nyc.gov/html/cdbg/html/approved/action\\_plan.shtml](http://www.nyc.gov/html/cdbg/html/approved/action_plan.shtml).

A summary of changes by chapter has been provided in narrative form with indications of where new text will replace existing text. This document only includes chapters where changes are being made as part of Amendment 12. Once Amendment 12 is approved by HUD, the text of this amendment will be incorporated into the City's overall approved Action Plan. Then, the approved Action Plan, without indication of the changes made through this amendment, will be published at [www.nyc.gov/cdbg](http://www.nyc.gov/cdbg). In addition to the current approved Action Plan, the City's CDBG-DR website includes a full history of all amendments associated with the Plan.

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There are no changes to the following chapters from Action Plan Incorporating Amendments 1-11:

II. Introduction

III. Geographic Areas Affected

XIII. Other Program Criteria

## I. EXECUTIVE SUMMARY

The allocation chart below represents the City's reallocation plan for proposed Amendment 12. The resulting allocations will replace the charts included in previous versions of the Action Plan.

Program Allocations (\$s in '000)	Current Action Plan Allocations	Action Plan Amendment 12 Reallocations	Action Plan Amendment 12 Resulting Allocations	See below
<b>Housing</b>	<b>\$ 2,519,056</b>	<b>\$ 499,000</b>	<b>\$ 3,018,056</b>	
Build it Back Single Family	1,713,056	500,000	2,213,056	
Build it Back Multi-Family	476,000	-	476,000	
Build it Back Temporary Disaster Assistance Program	19,000	(10,000)	9,000	
Build it Back Workforce Development	3,000	-	3,000	
NYCHA Rehab and Resilience	308,000	9,000	317,000	
<b>Business</b>	<b>\$ 123,000</b>	<b>\$ (17,000)</b>	<b>\$ 106,000</b>	
Hurricane Sandy Business Loan and Grant	48,000	10,000	58,000	
Business PREP	3,000	-	3,000	
Resiliency Innovations for a Stronger Economy (RISE:NYC)	30,000	-	30,000	
Saw Mill Creek Wetland Restoration	12,000	(12,000)	-	*
Coney Island Resiliency Improvements	15,000	-	15,000	
Rockaways Streetscape Improvements	15,000	(15,000)	-	*
<b>Infrastructure and Other City Services</b>	<b>\$ 755,000</b>	<b>\$ (335,537)</b>	<b>\$ 419,463</b>	
Public Services	322,500	(97,752)	224,748	*
Emergency Demolition	2,000	(2,000)	-	*
Debris Removal/Clearance	12,500	(5,845)	6,655	*
Code Enforcement	1,000	(1,000)	-	*
Interim Assistance	98,000	(870)	97,130	*
Rehab/Reconstruction of Public Facilities	319,000	(228,070)	90,930	*
<b>Coastal Resiliency</b>	<b>\$ 570,000</b>	<b>\$ (137,463)</b>	<b>\$ 432,537</b>	
Raise Shorelines	159,000	(152,000)	7,000	*
Staten Island University Hospital	28,000	-	28,000	
East Side Coastal Resiliency	338,000	-	338,000	
Hunts Point Resiliency	45,000	-	45,000	
Breezy Point Risk Mitigation	-	14,537	14,537	
<b>Planning and Administration</b>	<b>\$ 246,820</b>	<b>\$ (9,000)</b>	<b>\$ 237,820</b>	
Planning	85,740	(4,320)	81,420	
Administration	161,080	(4,680)	156,400	
<b>GRAND TOTAL</b>	<b>\$ 4,213,876</b>	<b>\$ -</b>	<b>\$ 4,213,876</b>	

\* Indicates where City funds are being used to fully fund projects where CDBG-DR funds were previously identified.

## IV. FUNDING JUSTIFICATIONS

*The entirety of the Funding Justifications chapter of the Action Plan will be revised to read as follows:*

### Introduction

New York City plans to spend its allocation of \$4.21 billion of CDBG-DR funding to address the most urgent housing, business, infrastructure, and resiliency needs in the neighborhoods hardest hit by Hurricane Sandy. The City's intends to implement programs that will address the greatest needs in each of these four categories. The unmet needs assessment described in this Action Plan shows that the current CDBG-DR allocation is not sufficient to cover the entirety of the City's overall recovery, rebuilding, and coastal protection needs, requiring the City to prioritize the most effective use of available funding sources. Certain examples of these remaining needs are indicated through the Action Plan.

The City has prioritized housing recovery and the fulfillment of the HUD requirement to use at least 50 percent of its CDBG-DR allocation to benefit low- and moderate- income populations. Programs were chosen and designed based on original unmet needs assessments and have been modified based on updated needs assessments. Unmet needs assessments are as of September 2016, when the proposed Action Plan Amendment 12 was released for public comment.

The City's programs are summarized below:

### Housing – \$3.018 billion

Action Plan Amendment 12 provides an additional \$500 million to the Build it Back Single Family Program in order to serve all eligible applicants. Additionally, Action Plan Amendment 12 reallocates \$10 million from the Temporary Disaster Assistance Program (TDAP) program, which is nearing completion and will not require the original \$19 million budget to serve all eligible participants. An additional \$9 million for NYCHA is sourced from reclassified Citywide Planning and Administrative costs previously allocated to NYCHA and does not constitute a net budget increase. The City will use CDBG-DR to fund the following Housing programs:

***Build it Back:*** \$2.701 billion to fully complete the permanent housing recovery program that will address the identified remaining unmet need for single-family and multi-family applicants. Within this program, the City has further broken down funding into the following categories:

- \$2.21 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.
- \$476 million to provide for the rehabilitation and resiliency of multi-family buildings (five or more units).
- \$9 million for the Temporary Disaster Assistance Program (TDAP) rental subsidy program to serve low-income households displaced by Hurricane Sandy, and
- \$3 million for a workforce development program as part of Build it Back.

For further details on these funds in regards to updated unmet needs, please see the Needs Assessment within Chapter VII (Housing) of this Action Plan below.

***Public Housing:*** \$317 million

The City has allocated \$317 million to NYCHA to make necessary repairs and fund targeted efforts to strengthen resiliency to future floods at the City's public housing facilities. The CDBG-DR allocation will be used as the local match portion of FEMA-funded repair and resiliency projects at impacted facilities. In addition, NYCHA may fund projects with CDBG-DR that are not funded by FEMA.

**Business – \$106 million**

Business recovery programs previously identified as funded with CDBG-DR funding as recently as Action Plan Amendment 11, but no longer identified here, are still occurring with the full commitment of the City, now using other resources, particularly City capital funds reflected as of the 2016 September Capital Commitment Plan. Action Plan Amendment 12 also reallocates \$10 million from TDAP towards the Hurricane Sandy Business Loan and Grant Program. The net change to CDBG-DR Business programs is a decrease of \$17 million in CDBG-DR funds, but no programs are reduced in their overall level of funding. The City will use CDBG-DR to fund the following Business programs:

***Hurricane Sandy Business Loan and Grant Program (HSBLGP):*** \$58 million to provide loans and grants to 350 businesses impacted by Hurricane Sandy.

***Business PREP (Preparedness and Resiliency Program):*** \$3 million to assist businesses implement operational and physical resiliency measures through one-on-one site visits and assessments, grants to help businesses implement low-cost resiliency improvements, business resiliency online resources, and emergency preparedness workshops.

***Resiliency Innovations for a Stronger Economy (RISE : NYC):*** \$30 million competition to identify and allocate funding for the most innovative and cost-effective technologies that help prepare small businesses for future climate events by improving the resiliency of their energy infrastructure, telecom networks, and building systems.

***Coney Island Resiliency Improvements:*** \$15 million to advance resiliency measures throughout the Coney Island peninsula. The resiliency improvements will help protect hundreds of local businesses along the main commercial corridors between Coney Island Creek and the ocean, and throughout Coney Island, as well as thousands of residents in the community.

**Infrastructure and Other City Services (IOCS) – \$419.5 million**

Action Plan Amendment 12 reallocates \$321 million from IOCS to the Build it Back Single Family Program and reclassifies the \$14.5 million Breezy Point Risk Mitigation project previously included as a Public Facilities project now as a Coastal Resiliency project. The result of this amendment is to

change the previous IOCS budget of \$755 million to \$419.5 million. IOCS programs previously identified as funded with CDBG-DR funding – as recently as Action Plan Amendment 11, but no longer identified here – are still occurring with the full commitment of the City, now using other resources, including \$178 million in City capital funds reflected as of the 2016 September Capital Commitment Plan and the balance reflected as revenue adjustments to prior City Fiscal Years or other adjustments with no direct change in the City’s budget.

As permitted in the March 5, 2013 Federal Register, much of these CDBG-DR funds for IOCS will be used to fund the required non-Federal share (“local match”) of FEMA Public Assistance disaster grants and other Federal grants. The City is allocating \$419.5 million to direct City agency costs associated with local cost shares on other Federal recovery funds. The City will use CDBG-DR to fund the following Infrastructure and Other City Services programs:

- \$224.75 million has been allocated for public service activities that assisted the public during and after the storm
- \$6.655 million has been allocated for debris removal and clearance
- \$97.1 million has been allocated for interim assistance, and
- \$90.93 million has been allocated for the rehabilitation and reconstruction of public facilities.

The category of public facilities is associated with Infrastructure projects and the other categories are associated with Other City Services.

### **Coastal Resiliency – \$432.5 million**

Action Plan Amendment 12 reallocates \$152 million from Coastal Resiliency to the Build it Back Single Family Program and reclassifies one earlier IOCS project (Breezy Point) as Coastal Resiliency. Components of the Raise Shorelines project and the Red Hook Integrated Flood Protection System (previously described together as Coastal Protection) are still occurring with the full commitment of the City, now using other non-CDBG-DR resources, specifically City capital funds reflected as of the 2016 September Capital Commitment Plan. A portion of the Raise Shorelines program will continue to be funded with CDBG-DR. The City will use CDBG-DR to fund the following Coastal Resiliency programs:

***Raise Shorelines:*** \$7 million for feasibility assessments, preliminary design, technical studies, and planning for installing armor stone revetments and repairing, installing, and raising bulkheads, and developing integrated flood protection systems at various locations throughout the city.

***Staten Island University Hospital Resiliency:*** \$28 million to protect and elevate mechanical systems at Staten Island University Hospital.

***Rebuild by Design: East Side Coastal Resiliency:*** \$338 million for the City to implement a coastal protection project along the East Side of Manhattan. These funds cover include \$335 million for “Compartment 1” as defined in the winning Rebuild by Design proposal in the area between Montgomery St. and East 25th Street. The area has one of the deepest floodplains in Manhattan and is comprised of the largest concentration of affordable, subsidized, and public housing in Manhattan. In addition to the \$335 million HUD awarded to this program through the Rebuild by

Design competition, the City has dedicated an additional \$3 million in CDBG-DR funding to support this project.

In addition to the Rebuild by Design award, “Compartment 2” is covered by a \$176 million from HUD’s National Disaster Resilience Competition award from HUD through the CDBG-NDR program, which along with local leveraged funds, will be allocated to “Compartment 2” as defined in the Rebuild by Design proposal. “Compartment 2” covers the Two Bridges neighborhood from Montgomery Street south to the Brooklyn Bridge. “Compartment 3,” covering the Manhattan Tip, is funded by \$108 million in City capital funds, and currently carries a remaining unmet need to ensure full protection from the Brooklyn Bridge, to the Battery, and again north through Battery Park City.

***Rebuild by Design: Hunts Point Resiliency:*** \$45 million for continued study, analysis, planning, and stakeholder engagement related to the flood risk reduction and energy resiliency goals of the Rebuild by Design Hunts Point Lifelines proposal and the design and construction of a resulting energy resiliency pilot project. Of these funds, \$20 million are from the third allocation of CDBG-DR as part of Rebuild by Design, and an additional \$25 million are reallocated from existing Business programs.

***Breezy Point Risk Mitigation:*** \$14.5 million to cover the 25 percent local match contribution to a FEMA Hazard Mitigation Grant Program Section 404 award to provide coastal protection in the Breezy Point community of the Rockaways. This project was previously funded in the IOCS section of the Action Plan and is now being explicitly described under Coastal Resiliency.

## **Planning and Administration – \$237.8 million**

Action Plan Amendment 12 reclassifies \$9 million of Planning and Administration funds allocated to NYCHA as Housing program costs for NYCHA.

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

Additionally, the City must provide administrative and support services necessary to formulate, implement, and evaluate the City’s CDBG-DR programs. These overall grant management activities include preparing and amending the CDBG-DR Action Plan; ensuring the public is aware of and understands the Plan; developing program policies and procedures; monitoring program expenditures; ensuring compliance with all requirements; and creating reporting functionality on Recovery websites, etc. Planning and Administration also includes program-specific Planning and Administration costs.

Please note that the Planning and Administration allocations are based on the best data currently available. It can be anticipated that, as programs are implemented and actual needs are determined, these allocations may be adjusted accordingly. However, planning and administrative expenses will not surpass the HUD-mandated statutory caps (20 percent for Planning and Administration combined and 5 percent for Administration).

## **HUD Allocation Methodology**

As reference, the March 5, 2013 Federal Register Notice (78 FR 14349) and the November 18, 2013 Federal Register Notice (78 FR 69112), each contain an Appendix detailing the Allocation Methodology based on an estimate of best available data. Due to the timing of the first allocation, HUD did not use data on infrastructure need to calculate the value of the allocation but did allow grantees to use funds from the first allocation towards infrastructure, which the City chose to do. The amount the City received in the first allocation was based on an Allocation Methodology that made the calculation based only on estimates for the restoration of housing and for economic revitalization. The Allocation Methodology for the second allocation updated that data for housing and economic revitalization and additionally used estimates for infrastructure unmet needs from FEMA Public Assistance, US Army Corps of Engineers, and US Department of Transportation sources. The Allocation Methodology calculation for the second allocation also included adjustments for public housing and an application of an additional 30 percent to estimates for damaged homes, infrastructure, and small businesses in order to address resiliency costs. One of the requirements of the Action Plan is for a grantee to address how disaster relief, long-term recovery, restoration of infrastructure and housing, and economic revitalization are being implemented in the most impacted and distressed areas. The City is allocating funds in a manner generally consistent with how the Federal government calculated the CDBG-DR allocation awards. The City's recovery programs will address the greatest need across four main areas: (1) Housing, (2) Business for small businesses and economic revitalization, (3) Infrastructure and Other City Services for disaster relief and restoration of infrastructure, and (4) Coastal Resiliency for long-term recovery and resiliency.

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

To receive CDBG-DR funds, HUD requires an unmet needs assessment that enables the City to design recovery programs responsive and proportionate to the type and location of actual needs on the ground. At a minimum, the needs assessment must evaluate three core aspects of recovery—housing, infrastructure, and the economy (*e.g.*, estimated job losses). The City has expanded this needs assessment guidance to cover other city services and coastal resiliency as separate categories. The assessment must also take into account the various forms of assistance available to, or likely to be available to, affected communities and individuals (including estimated insurance and eligible FEMA, SBA, or other Federal assistance, as well as direct City funding the City is able to secure from its own resources) to identify disaster recovery needs that are not likely to be addressed by other sources of funds.

Additionally, HUD notes in its federal guidance that data is in a constant state of improvement after a disaster, moving from estimated to actual. It is further expected that as the damage estimates become increasingly more accurate, continued evaluations will validate the accuracy of initial assumptions and may require adjustments in priorities and the proportionality of funding allocations.

As part of Action Plan Amendment 12, the City has reevaluated its unmet need by reviewing its existing recovery programs and has made changes that are necessary to make the programs work best for New Yorkers. The reallocations made as part of Amendment 12 make more targeted investments in hard-hit areas that ultimately will have tremendous value for homeowners, tenants,

businesses, and jobs. In addition to re-evaluating the unmet need under the approach recommended by HUD, the City has further validated the resulting unmet needs figures by taking two alternative approaches. One is an incremental approach, looking at unmet needs by recovery category as of the last approved Action Plan and making incremental adjustments for new information since the prior analysis. The second method is a “bottom up” approach identifying specific projects and known sources of funding to build a total need from scratch. All approaches resulted in identified unmet needs in the approximately same order of magnitude.

The table below reflects the distribution of the City’s CDBG-DR resources relative to the overall updated assessment of unmet needs as well as the prioritization of the most effective funding options across the unmet needs categories.

These figures are based upon best available data and projections for unmet needs as defined in the individual unmet need sections and are current as of the publication of this proposed Amendment 12. Unmet need was used to determine funding allocations as well as the need to fulfill HUD requirements. Recognizing that the CDBG-DR allocation to the City is not sufficient to cover all unmet needs, Amendment 12 reallocates funding to the Build it Back Single Family Program and the Hurricane Sandy Business Loan and Grant Program in order to fully serve all applicants to these direct beneficiary programs.

The proportional amount of funding the City has dedicated to housing programs reflects the City’s priority to complete the Build it Back program as critical to recovery in the City’s hardest hit communities. In order to continue to meet the assessed recovery needs, the City has evaluated and determined previously unavailable City funding that could most effectively be applied to the outstanding recovery and resiliency priorities. For all business, infrastructure, and resiliency projects previously identified as receiving CDBG-DR funding, the City has identified previously unavailable City funding and new City Capital as part of its September 2016 Capital Commitment Plan (the City’s most recent capital budget financial plan update). As such, the unmet need for certain projects has been reduced. These reductions are reflected in the unmet need column below. In addition, CDBG-DR funding has been reduced in the “Other City Services” category, which largely consisted of the required 10 percent local match for FEMA grant funding to pay for immediate post-storm activities that addressed life and safety needs. Due to the compliance and coordination challenges of combining HUD and FEMA funding, the City has determined that using CDBG-DR funding to fulfill the City’s commitment to serve all Build it Back applicants is the most efficient use of CDBG-DR funding. For further discussion of unmet need in each program area, please see the analyses of unmet need in each Action Plan section.

**Table: CDBG-DR Allocations in Relation to Unmet Need (\$ in '000s)**

Category	Unmet Need Before CDBG-DR	% of Unmet Need	CDBG-DR Funding	% of Unmet Need Covered by CDBG-DR
Housing	\$ 5,400,000	40%	\$ 3,018,056	56%
Business	\$ 2,400,000	18%	\$ 106,000	4%
Infrastructure	\$ 2,500,000	18%	\$ 90,930	4%
Other City Services	\$ 900,000	7%	\$ 328,533	37%
Coastal Resiliency	\$ 2,400,000	18%	\$ 432,537	18%
<b>Total</b>	<b>\$ 13,600,000</b>		<b>\$ 3,976,056</b>	<b>29%</b>

Notes: These figures are estimates based upon the best available data. Numbers may be adjusted as more accurate data is identified. Numbers may not add up due to rounding.

The City had previously identified its unmet need as \$17.1B in its Action Plan incorporating Amendments 1 -11. The reduction of \$3.5 billion is attributable to revisions in estimates of costs, particularly in Infrastructure and Other City Services; an increase in Housing need intended to be addressed by this Amendment; additional FEMA Public Assistance secured or recognized since April 2015; and additional explicit City funding commitments provided, specifically new City capital funds not previously available to budget which are now reflected as part of the 2016 September Capital Commitment Plan.

Additional information about unmet needs is provided within the relevant sections of the Action Plan describing existing programs. As part of the City's assessment of unmet needs, the City needed to prioritize the use of CDBG-DR funding for existing activities, but particular unmet needs for particular beneficiaries still remain, including amongst low- to moderate-income communities. Were the City to secure additional resources, it would fund a variety of projects that have been specifically identified and are currently unfunded as a means of addressing some of these remaining unmet needs. Specific examples of projects in several categories include the following:

- the repair and mitigation of affordable housing units and regulated housing properties,
- resiliency of residential and commercial building stock,
- additional or enhanced coastal protection of specific neighborhoods such as Red Hook or Lower Manhattan, and
- stormwater management and green infrastructure at various facilities including New York City Housing Authority properties.

## V. SOURCES OF FUNDING TO BE LEVERAGED

*The following section of this chapter will be updated, expanding on existing descriptions:*

### **Housing**

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

In addition to Federal sources and private insurance payouts, the private and nonprofit sectors provide financial resources and support to New Yorkers impacted by Hurricane Sandy. Since the storm, the Mayor's Fund to Advance New York City played a critical role in relief and recovery efforts by facilitating privately-funded programs that leverage flexible capital to address unmet housing needs while the CDBG-DR programs were put in place. Additionally, NYC Service, a City agency that leads targeted volunteer opportunities and initiatives, worked with the FEMA Volunteerism staff and housing agencies to leverage work from the volunteer community, including long-term recovery efforts in impacted areas, and serve as an interface for coordination with the City's recovery efforts.

A selection of the housing-related programs that have been implemented are as follows:

- **Neighborhood Recovery Fund and Counseling:** The Center for New York City Neighborhoods, through support from the Mayor's Fund and Goldman Sachs Gives, deployed \$1.4 million in funding to help affected homeowners.
- **Mold Removal and Safe Practices Training:** The mold program was supported by more than \$13 million in private funds from the Mayor's Fund, the American Red Cross, and the Robin Hood Foundation. The program removed mold in approximately 2,000 homes in the hardest hit areas. The work was administered by Neighborhood Revitalization NYC, an affiliate of the Local Initiatives Support Corporation (LISC).
- **Partnerships with Non-Profit Rebuilding Efforts:** The City also works to leverage private resources and 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, created the NRNYC Home Repair Program to use private dollars to rehabilitate up to 550 homes that may not be served by the publicly-funded program. The NRNYC Home Repair Program is administered by Neighborhood Revitalization NYC, an affiliate of LISC.
- **Hurricane Sandy Housing and Neighborhood Recovery Donors Collaborative:** A public-private team, led by HPD, HDC, and HRO, in partnership with 16 of the City's leading philanthropic organizations and the Mayor's Fund to Advance NYC, raised over \$3.4 million in grants to support community-based organizations across the five boroughs to reach vulnerable populations under the Hurricane Sandy Housing and Neighborhood Recovery Donors Collaborative.

- Build it Back forged a strong partnership with the Disaster Case Management Program. Through cross-training, information exchange and regular case conferencing, Build it Back applicants had access to a wide range of social services to meet their post-disaster needs. Moreover, applicants, with help of their Disaster Case Managers, were able to access over \$5 million in financial aid through the Unmet Needs Roundtable that was used to meet needs that could not be met using CDBG-DR funds. .
- Sandy Temporary Rental Program: Since June 2015, Build it Back, the Mayor's Fund to Advance NYC, and New York Disaster Interfaith Services (NYDIS) have assisted vulnerable and under-resourced homeowners through the privately-funded Sandy Temporary Rental Program. Administered by NYDIS and funded by the American Red Cross, Robin Hood Foundation, the Building Trade Employers' Association, the Salvation Army, and the United Methodist Committee on Relief, the Sandy Temporary Rental Program operates in conjunction with Build it Back's Temporary Relocation Assistance program, which provides rental reimbursement for homeowners relocated for at least a month due to construction. This model was used in developing Build it Back's Temporary Housing Services' contract, which is designed to provide direct assistance to applicants that may not have the financial ability to relocate in advance of construction.
- The Department of Housing Preservation and Development's (HPD) loan programs will leverage CDBG-DR funds, beginning with programs launched immediately after the storm: Neighborhood Housing Services (NHS), through its Emergency Loan Program, provided owner-occupants of one- to four-unit homes with loans and grants to conduct emergency repair work. NHS also operated 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.

## VI. CDBG-DR PROGRAM ALLOCATIONS

The following table “CDBG-DR funds benefiting Low and Moderate Income Persons” will be updated to reflect the reallocation of funding across program areas.

Program Allocations	CDBG-DR Allocations (Excluding Admin and Planning)	% of Funds Projected to Benefit Low/ Mod Persons	Total Funds Expected to Benefit Low/ Mod Persons
<b>Housing Programs</b>	<b>\$ 3,018,056</b>	<b>52%</b>	<b>\$ 1,572,395</b>
Build it Back Single Family	2,213,056	45%	995,875
Build it Back Multi-Family	476,000	52%	247,520
Build it Back Temporary Disaster Assistance Program	9,000	100%	9,000
Build it Back Workforce Development	3,000	100%	3,000
NYCHA Rehab and Resilience	317,000	100%	317,000
<b>Business Programs</b>	<b>\$ 106,000</b>	<b>46%</b>	<b>\$ 49,050</b>
Hurricane Sandy Business Loan and Grant	58,000	57%	33,060
Business PREP	3,000	33%	990
Resiliency Innovations for a Stronger Economy (RISE:NYC)	30,000	25%	7,500
Coney Island Resiliency Improvements	15,000	50%	7,500
<b>Infrastructure and Other City Services</b>	<b>\$ 419,463</b>	<b>67%</b>	<b>\$ 279,077</b>
Public Services	224,748	78%	175,303
Debris Removal/Clearance	6,655	43%	2,862
Interim Assistance	97,130	29%	28,168
Rehabilitation/Reconstruction of Public Facilities	90,930	80%	72,744
<b>Resiliency Programs</b>	<b>\$ 432,537</b>	<b>83%</b>	<b>\$ 360,950</b>
Raise Shorelines	7,000	0%	-
Staten Island University Hospital	28,000	0%	-
East Side Coastal Resiliency	338,000	100%	338,000
Hunts Point Resiliency	45,000	51%	22,950
Breezy Point Risk Mitigation	14,537	0%	-
<b>GRAND TOTAL</b>	<b>\$ 3,976,056</b>	<b>57%</b>	<b>\$ 2,261,472</b>

(\$ in '000s)

## VII. HOUSING

**Summary of changes:** *The Housing chapter of the Action Plan has been updated to reflect the reallocation of \$500 million to the Build it Back Single Family Program in order to serve all eligible applicants. The unmet needs analysis has been updated to support this reallocation of funding. The Single Family program description has been reorganized to make program pathways and benefits more clearly to the public.*

*The TDAP allocation has been reduced by \$10 million to reflect eligible population needs. TDAP will now offer arrears payments to be made to landlords on behalf of beneficiaries that experience a gap in subsidy while transitioning from TDAP to Section 8 rental assistance.*

*NYCHA's program allocation has been increased by \$9 million, as a result of a reclassification of \$9 million in Planning and Administration funding allocated to NYCHA. NYCHA will add a Workforce Development Program.*

### **Additional Details:**

*The text in the "Needs Assessment" section under the header "Non-Public Housing" will be updated as follows:*

#### **Non-public housing (Build it Back)**

To estimate the number and severity of damaged buildings, the City analyzed field inspections and data sources that included Department of Buildings (DOB) and Department of Housing Preservation and Development (HPD) inspections, FEMA building inspections, inundation assessments, utility outages, and registrations for the Rapid Repairs program.

The City 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 New York City Housing Recovery Portal, in addition to registration data collected through the City's 311 system, provided 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:

- **Severe damage (Reconstruction required):** More than 800 buildings (more than 900 units) were destroyed or became structurally unsound. More than 95 percent 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.

As of September 2016, the City's original 2013 estimates of housing damage align with the applicants that are anticipated beneficiaries of federal, State, and City programs, including Build It Back.

*The text in the "Needs Assessment" section under the header "Remaining Unmet Housing Needs" will be updated as follows:*

## **Remaining Unmet Housing Needs**

### **Assessing the Demand**

Build it Back is the City's program to assist homeowners, landlords, and tenants in the five boroughs whose homes and properties were damaged by the storm. For NYC Build it Back, the assessment of demand was further refined by registrations for the program. Registration for the City's Build It Back program was announced on June 3, 2013. As of the closing date for registration (October 31, 2013), the program received registrations for more than 20,000 buildings, encompassing 60,000 residential units.

Of the initial 20,725 applicants in 2013, 4,771 did not complete an initial eligibility review.

The 15,954 applicants that completed the initial eligibility review aligns with the numbers of single family homes damaged and the current projected numbers of single family homes with major and moderate damage that are anticipated beneficiaries of federal, State, and City programs, including Build It Back.

### ***Consultation with Stakeholders***

Starting in 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 2013, the City held a series of housing forums in the most impacted neighborhoods. Prior to the registration opening, over one thousand residents attended these informational events. Additional sessions were held in August and September while registration was open. 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 2013, 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 other 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 31, 2013 registration deadline.

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

To serve Program registrants, Build it Back collaborated with community leaders to open intake Centers in the heart of impacted communities. In addition to four full-service intake Centers in Brooklyn, Queens, and Staten Island, the Program opened a dozen Build it Back satellite centers in Mill Basin and Howard Beach and staff conducted sessions at the offices of elected officials and community organizations in Brooklyn (Coney Island, Sheepshead Bay, Gerritsen Beach, Red Hook, Seagate), Queens (Belle Harbor, Rockaway Park, Rockaway Beach), Staten Island (Dongan Hills, Arthur Kills), and the Bronx (Throgs Neck). In total, Build it Back conducted more than 450 sessions.

In 2014, Build it Back staffed its intake Centers with experienced City managers and recruited new homeowner representatives to process applications through completion.

In addition to the walk-in Centers, the Program also operates a centralized Customer Call Center, which fielded over 800 calls a week from applicants, and launched a web portal for applicants to review their status and upload documents.

To help remove obstacles to applicant participation in the Program, Build it Back contracted with the Center for New York City Neighborhoods (CNYCN), a non-profit agency that partners with local community-based organizations to provide housing, counseling, and legal services to homeowners. Counselors were out-stationed in the Build it Back Centers and to date, have served more than 4,000 applicants. The most utilized types of counseling are related to

- Transfer Amounts and Coordination of Benefits (30%),
- SBA disaster loan cancellation (18%),
- Temporary Relocation Assistance and Tenant Advisory Services (17%), Mortgage, Foreclosure and Ownership issues (13%), and
- Pathway and Benefit Selection (10%).

In summer 2015, when application processing was nearly complete, Build it Back identified 4,000 unresponsive applicants who had not completed intake or were found eligible but had not selected a Program pathway. As part of the outreach campaign, senior citizens, disabled individuals, and low- and moderate-income households were targeted for specialized outreach. Build it Back engaged local community groups, Disaster Case Managers, and volunteers in going door to door to reach the harder-to-serve applicants.

To learn about and to address community needs, the Program also participates in recovery task forces in Staten Island, Queens, and Brooklyn. These groups consist of local elected officials, City agencies, and local civic associations. Additionally, Build it Back has helped organize special events and is a regular participant in civic organization and community board meetings.

### ***Cost to Rehabilitate, Reconstruct, or Reimburse Damaged Buildings***

After review of eligible applicants, funding from other sources, financial needs of applicants, costs to reconstruct or rehabilitate properties based on design details, regulatory requirements, and community input, the City has concluded that the likely overall cost to complete the programs to serve all substantially damaged or non-substantially damaged buildings registered for the Build it Back Program is approximately \$2.7 billion:

- Approximately \$2.213 billion is needed to reconstruct, acquire, rehabilitate, elevate or reimburse single family homes.
- Approximately \$476 million is needed for multi-family rehabilitation, reimbursement, and 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)
- Approximately \$9 million is needed for TDAP to address tenant population not served through the Build it Back Single or Multi-Family Programs

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

To understand the unmet need to be addressed by City programs, the City built upon the 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. The City subtracted the estimated funds authorized or received thus far from City, State, and federal programs, as well as privately-funded programs, from demand estimates to calculate the unmet need for reconstruction, rehabilitation, acquisition, and mitigation measures. The demand model has been adjusted to align with eligible applicant pathway information; actual data on available funding; final designs based on site surveys and borings, regulatory requirements, and community input; and additional new needs to ensure all eligible applicants are served. While the current total unmet need for all New York City Sandy-impacted housing, including NYCHA, is estimated at \$5.4 billion, the approximately \$500 million increase from the previous unmet need calculation is captured in the Build it Back Single Family reallocation proposed as part of Amendment 12.

The unmet need for housing also addresses the preservation and development of affordable units in multifamily buildings affected by the storm, as well as the development of new affordable housing to address the rental housing shortage. The City therefore supports the financing of additional unmet capital improvements in storm-impacted buildings, and the development of new housing units as means of creating affordability and housing stock in storm-damaged neighborhoods. 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, and to support the long-term affordability of storm damaged buildings and communities.

## **Housing Goals**

The City's housing recovery programs are designed to meet the unmet needs described above and help people affected by Hurricane Sandy including homeowners and tenants of rental properties achieve permanent, sustainable housing solutions.

The objectives of the programs include:

1. Helping people affected by Sandy directly by replacing and rehabilitating housing units, including identifying opportunities for additional affordability and mitigation enhancement measures.
2. Helping people affected by Sandy by improving the resiliency of their housing units while restoring their buildings/residences.
3. Supporting resiliency improvements to reduce risk and strengthen neighborhoods in flood zones.
4. Leveraging philanthropic investments and engaging local communities directly to both address immediate gaps with flexible capital and maximize CDBG-DR dollars.

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

The City's focus is to provide assistance to affected New Yorkers quickly while ensuring accountability and proper use of funds. The City has also accounted for the complexities faced by affected residents incorporating customer service and counseling options to help applicants understand their options and the impacts (financial and otherwise) of their decisions.

For program operations, the City will maximize private and non-profit sector expertise and its experience in housing infrastructure while putting appropriate accountability and oversight mechanisms in place.

## **Housing Programs**

*The "Overview - NYC Build it Back" section will be replaced in its entirety with the following:*

### **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 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:** The City will invest a total of \$2.21 billion overall in providing assistance to all homeowners whose primary residences or rental properties with year-round tenants were destroyed or experienced damage.
- **Multi-Family Buildings:** The City will invest \$476 million overall in its multi-family housing stock – both affordable and market rate.

- **TDAP:** The City will invest \$9 million for the TDAP rental subsidy program to serve low-income households displaced by Hurricane Sandy.
- **Workforce Development:** The City will invest \$3 million for a workforce development program to boost long-term recovery by supplying residents of impacted communities with the necessary skills to increase household income.

Definitions, eligibility requirements, and other specifics for each of these paths are described below. Additional funding may be used to support resiliency 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).

The Build it Back Single and Multi-family programs share unified program elements across program paths:

- **Coordinated outreach and branding:** The program has a single branding (NYC Build it Back) that will be leveraged in all its communication and outreach activities. The housing recovery program has a common outreach strategy, executed by the various participating City housing agencies that is supported by the Mayor's Office and coordinates with the State outreach when appropriate. The City will also leverage the broad network of community service and volunteer organizations with well-established ties to our communities.
- **Common intake and processing staff and procedures:** A single City program management entity, the Mayor's Office of Housing Recovery Operations (HRO), oversees intake and processing of all applications before applicants are connected directly with a specific program path and oversight agency. Program path options are based on building type and an assessment of damage and financial need during the intake process. Existing affordable housing developments that have been previously assisted by HPD and/or HDC may be routed through separate intake procedures.
- **Coordinated program administration:** Build it Back leverages the expertise of 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 HRO, DDC, EDC, 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 to leverage the expertise and capabilities of private non-profits, community-based organizations, Community Development Financial Institutions, and contractor and consultant support.

**Updated Contracting Efficiencies:** HRO has been undertaking a process to improve the efficiency of its operations by directly taking on the responsibility of overseeing contracts related to Build it Back, as many of these contracts had previously been held by other City agencies. Six contracts related to pre-construction services and hazard mitigation services are currently held by the NYC Economic Development Corporation, a subrecipient and quasi-City agency. As part of the aforementioned process, HRO, on behalf of the City, will conduct new non-competitive procurements with the current vendors under the EDC contracts and enter into replacement contracts that contain the same substantive provisions, and the same pricing, as the current EDC contracts. These six new contracts will replace the current contracts for preconstruction services (Dewberry Engineers, Inc.), architectural scoping services (IBTS), construction inspection services (CDM Smith; IBTS), and hazard testing (KAM Consultants Corp.; Omega Laboratories, Inc.).

**Geographic area to be served:** The program will cover areas in all of the five boroughs of New York City that were affected by Hurricane Sandy. Following the storm, the City utilized U.S. Census and American Community Survey data to estimate the demographic makeup (including race, income, and homeownership rates) of the impacted housing units by the housing type and associated level of necessary rehabilitation or reconstruction. This information can be found in Appendix F.

## **Build it Back Single Family**

*The “Program Objective and Description” under the Build it Back Single Family Housing will be replaced in its entirety with the following:*

### **PROGRAM OBJECTIVES:**

The City offers different assistance types to the owners of Sandy damaged homes providing flexibility to homeowners to meet their needs. Assistance types offered are based on an analysis of the damage to the applicant’s home and other factors such as location, site constraints, and building type. Assistance will fall into one of the following categories:

- 1. Reconstruction (Rebuild):** The complete reconstruction of a home which was destroyed or is determined by the Program to be more feasible to reconstruct than to repair. Homes will be rebuilt so that they are in compliance with New York City’s latest elevation requirements.
- 2. Rehabilitation with Elevation:** The repair and elevation of a home that was damaged by Sandy. Elevation will be offered to homes where required by New York City’s Building Code and where elevation is requested by the applicant and the Program determines that it is reasonable to elevate. Elevation includes the repair of a damaged home so that the residential portion of the home is located above the base flood elevation. This activity may involve the physical lifting of a home or the abandonment of the portion of the home that is below the minimum elevation height.
- 3. Rehabilitation:** The repair of a home that experienced moderate damage from Sandy. Rehabilitation may also include mitigation against future loss through the use of appropriate alternative mitigation measures such as the elevation of critical utilities or filling in subgrade space.
- 4. Optional Relocation Assistance:** Temporary housing and other related assistance provided to homeowners who are receiving reconstruction, elevation, or repair assistance that requires relocation during construction.
- 5. Reimbursement:** Direct payment to applicants for eligible out of pocket repair, elevation, or rebuild construction expenses that were incurred prior to HUD-mandated deadlines.
- 6. New York City Acquisition for Redevelopment:** The purchase of a storm-damaged property by the program for redevelopment in the future.
- 7. New York City Buyout:** The purchase of a storm-damaged property by program so that future development on the site can be restricted.
- 8. Breezy Point and Edgewater Park Cooperative Relocation:** A resettlement grant provided to the owners of storm-damaged homes in certain cooperative communities so that they may relocate to a new home located outside of the cooperative.

**9. NY Rising Acquisition for Redevelopment or Buyout:** The purchase of a storm-damaged property through the State of New York's NY Rising program.

**PROGRAM DESCRIPTION:**

The City defines "homes" as single-family properties containing one to four residential units and individually owned condominium or cooperative units that are either owner-occupied or occupied by a year-round tenant. Pursuant to the federal requirements, second homes and vacation homes are not eligible for assistance. As a condition of receiving assistance, property owners must agree to maintain flood insurance in the amount and duration prescribed by FEMA's National Flood Insurance Program (typically the cost of the project) if the assisted property is located in a floodplain. The Program's grant agreement will enumerate the Program's CDBG-DR flood insurance requirements. The City will incorporate mechanisms in its programs to prevent fraud, waste, and abuse and to allow for scale.

If assistance is provided to fund the repair or reconstruction of a home, the Program will require that the work be performed in compliance with the Green Building Standard specified in the March 5th, 2013 Federal Register Notice, as applicable. The Program has distinct policies that specify the application of the Green Building Standard for repair and reconstruction projects.

**APPLICANT UNMET NEEDS ANALYSIS:**

Build it Back program benefits are 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 or reconstruct or provide other assistance less any other assistance received or available for the same purpose (e.g., insurance, SBA loans, other Federal assistance). Unmet need is determined by analyzing:

- Funds received by an applicant from other sources for repair, reconstruction or for other purposes that may potentially duplicate Build it Back assistance.
- Funds spent by an applicant to repair or reconstruct their home.
- Funds spent by an applicant on other allowable expenses.
- Funds that were received by applicants but which were not yet spent on eligible construction or non-construction activities are considered "unspent" funds. Unspent funds include amounts received by an applicant for repair or reconstruction which were spent on ineligible items or services. The Program also anticipates that it will collect a number of Increased Cost of Compliance (ICC) grant payments for certain elevation projects that will also reduce an applicant's unmet need after assistance has been provided.

Unspent funds are pooled with the assistance provided by the Program to meet an applicant's total need. Such funds are called "transfer amounts" because the applicant must transfer the funds to the Program in order for a construction project to proceed. Applicants that cannot fully fund their transfer amount may be eligible for a reduction in a construction scope of work to reduce their transfer amount, consistent with federal duplication of benefits requirements. In cases where the

Program is not performing construction, but is instead providing a cash award to an applicant, an applicant's transfer amount will reduce their award.

#### **2016 UPDATED PROGRAM UNMET NEED ANALYSIS:**

The Build it Back Single Family Program is designed to meet the unmet needs of applicants according to the analysis outlined above. In September of 2016, the Build it Back Program performed an analysis of its population served to date and the remaining unmet needs within its applicant population. In its prior Action Plan (incorporating Amendments 1-11), the Program anticipated that it would require \$1,713,056,000 to serve its total applicant population. Based upon the revised September 2016 analysis, the Program has determined that it will require \$2,213,056,000 to serve its total eligible population so that it may meet all of the unmet, eligible disaster recovery needs of impacted New Yorkers. In order to meet this total need, the City of New York is increasing the Build it Back Program's CDBG-DR allocation to \$2,213,056,000.

Adjustments to unmet need identified in this Action Plan include the following:

**Design and Construction Requirements:** The City has identified many design and construction requirements that were not included in its post-Sandy housing reconstruction analysis or the cost model including:

- Addressing complex and neighborhood-specific regulatory requirements including residential sprinklers, septic systems and compliance with updated 2014 New York City Building Code requirements for life-safety.
- Requests for access to elevated homes through the use of vertical platforms and stair lifts and the implementation of Fair Housing accessibility requirements for some attached and semi-detached homes.
- Enhanced structural requirements due to soil conditions, site constraints, high water table, flood zones, location adjacent to major bodies of water that require the use of enhanced helical piles, dewatering and drainage.
- Increased construction complexity to address issues such as lead based paint, asbestos and the poor-quality and age of existing housing stock.
- The inability of the Program to reuse existing foundations and the need for complete foundation demolition and the installation of multiple, deep helical piles for new foundations due to soil conditions.
- Design adaptations required to address community and homeowner input including providing a second means of egress, enclosed foundations, and over-elevation.
- The need for additional, complex construction in certain housing types such as split level-homes, homes with masonry first floors, slabs on grade, attached homes and semi-attached homes that was not anticipated when the Program prepared its initial damage assessments.
- The City's use of additional contract capacity to ensure a construction schedules that could assist all homeowners in their recovery in a timeframe to meet HUD-mandated obligation and expenditure deadlines.
- Strengthening market conditions throughout the Tri-State area have led to increased construction costs through competition for materials, skilled labor and professional services.

- Expanded insurance requirements and the use of Contractor Controlled Insurance Policies that were purchased to expand contractor and skilled labor capacity to reduce overall program schedule.

**Increased Homeowner Assistance:** The City provided new and expanded assistance to homeowners with financial needs to ensure homeowners do not forego elevation or reconstruction due to financial hardship including:

- Optional relocation assistance and additional services and costs for homeowners through the Temporary Housing Services contract
- Allowance by the City for homeowners to decrease transfer amount payments to the City by expanding allowable expenses to include, temporary repairs, design costs, temporary housing, and other disaster related expenses not related to permanent repairs where appropriate
- Additional reimbursement to SBA loan population: Based on community input, the City performed an analysis of its population and discovered that many applicants that were reimbursement eligible had also received Small Business Administration disaster loans that had requirements that were not clearly understood and created significant financial hardships for many borrowers. The risk of financial hardship was particularly evident when the Program considered that the average age of applicants who had both received SBA loans and were reimbursement eligible was 59. In order to address this situation, Build it Back determined that it was fair and equitable to maximize the reimbursement provided to the recipients of SBA loans to address issues associated with the SBA loan application process and to help ensure that the recipients of SBA loans were not placed in financial risk due to disaster-related debt.

**Duplication of Benefits:** Reevaluation of actual applicant “transfer amounts” calculated from funds that were received by applicants, but which were not yet spent on eligible construction or non-construction activities.

**Expanded and Adaptive Pathways:** The City developed new Program flexibility and new Program options including City-administered acquisition or buyout programs and limited new intake to ensure all eligible applicants can be served including:

- Homes that cannot be offered construction assistance: The City, based upon feedback provided by HUD, initiated a site and design review process in 2015 to review individual projects using objective criteria to detect homes that would not be offered construction assistance for rehabilitation with elevation or reconstruction due to site conditions, regulatory constraints, and cost reasonableness. These eligible applicants are offered the option of participating in the City-administered acquisition and buyout program.
- Attached homes or homes with shared infrastructure where construction or acquisition options are dependent on one or more neighbors: The City expanded intake on a limited basis to allow homes dependent on neighbor participation to proceed with elevation or reconstruction focusing on LMI neighborhoods. The City’s acquisition program was also developed to purchase properties in this category.

**Long-Term Planning:** The City believes that all of its design, site evaluation and construction efforts will positively impact the City’s long-term planning efforts by providing templates for identifying hazardous and vulnerable areas in the future, limiting and restricting development in certain areas that pose a risk to life or property, and planning the City’s longer-term resiliency

efforts. One prime example of the benefit of the Program's efforts in this area has been the development of elevation strategies for attached and semi-attached homes that are new and unique and the use of alternative mitigation measures in impacted structures that cannot be elevated.

**Cost reasonableness requirements:** The City developed a robust system to ensure that costs for the program are necessary and reasonable. This analysis considers multiple factors related to market conditions, labor availability, site constraints, housing density, and New York City construction industry requirements including insurance requirements and regulatory requirements.

#### **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. Properties that contain five or more units are addressed by the Multi-family Building Rehabilitation assistance described below. There is no income limitation regarding eligibility. . The Program may, however, offer increased benefits to LMI households as defined herein.

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 are potentially eligible. Second homes as defined by IRS Publication 936 are not eligible construction, reimbursement or relocation assistance. Second homes may be eligible for acquisition or buyout assistance.

Homes that are deemed to be either substantially damaged or substantially improved will be elevated as required by New York City Building Code to mitigate against future losses. The City's intention is to use Preliminary Flood Insurance Rate Maps (P-FIRMs) and to require that CDBG-DR-funded projects meet P-FIRM elevation, plus freeboard, where required as a factor of safety specified in the Building Code.

Where feasible, homes with less severe damage are eligible for 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 6911), funds permitting.

#### **PROGRAM PRIORITIES:**

Previously, due to funding limitations, the Program employed a prioritization schedule to assist New Yorkers with the greatest need based on level of damage and Area Median Income (AMI). Subsequently, the Program determined that all applications will be processed regardless of level of damage or level of income. Although the Program will no longer classify applications using the priority system, the Program will continue to classify all applications as meeting either the Low to Moderate Income Household, Low to Moderate Income Area, Urgent Need or Slum and Blight National Objectives as required by HUD.

#### **CORE PATHS AND PROGRAM ACTIVITIES:**

Build It Back offers the following core paths and program options to eligible homeowners:

##### **Reconstruction (Rebuild)**

The Program offers assistance to all eligible homeowners whose projects meet the Low to Moderate Income Household or Urgent Need National Objectives to reconstruct their Sandy damaged or destroyed residential property. Eligible homeowners may choose to utilize a builder approved by the City or they may choose to manage their own construction project using an architect and builder of their choice. The City will inspect the completed work and will make payments directly to the builder. The Program must review and approve the CDBG-DR funded portion of the design and budget of all rebuild projects.

Homeowners managing their own construction projects 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, and environmental review in accordance with HUD guidelines. The homeowner must adhere to standards determined by the City, and agree to City construction inspections to ensure timeliness and quality.

**Rehabilitation with Elevation and Rehabilitation:** The Program offers assistance to all eligible homeowners whose projects meet the Low- to Moderate-Income Household or Urgent Need National Objectives to repair or repair and elevate their Sandy damaged residential property. Rehabilitation (repair) assistance will be provided through city-administered construction contracts, owner-managed contracts, and direct grants, as further described below.

Eligible homeowners may choose to utilize a city-approved contractor or they may choose to manage their own construction project using a construction contractor of their choice. The City will inspect the completed work and will make payments directly to the contractor. The Program must review and approve the CDBG-DR funded portion of the design and budget of all repair and repair and elevation projects.

The Program also offers direct grant assistance to all eligible homeowners whose projects meet the Low to Moderate Income Household or Urgent Need National Objectives to repair their Sandy damaged residential property. In cases where homeowners elect to receive a direct grant to complete moderate repair projects (those projects not requiring elevation), homeowners will receive up to two payments with the final payment being issued upon the passing a final inspection. Under the Direct Grant option, the homeowner receives access to a restricted grant upon signing an assistance agreement detailing program priorities. The homeowner must:

- Adhere to the unit pricing determined by the City through a competitive process.
- Adhere to financial controls put in place by the City to ensure sound financial and project management.
- Agree to seek all required permits and must agree to a final program inspection before final payment is issued.

Homeowners receiving direct grants or managing their own construction projects 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, and environmental review in accordance with HUD guidelines, and the homeowner must adhere to standards determined by the City, and agree to City construction inspections to ensure timeliness and quality.

## **Optional Relocation Assistance**

The City has determined that certain homeowners could be exposed to potentially dangerous conditions in their homes prior to completion, unless it is able to provide temporary relocation assistance to homeowners who are voluntarily displaced. Many of these homeowners face the burden of incurring significant rental or mortgage expenses that may prevent them from participating in Build it Back's rehabilitation, rehabilitation with elevation, and reconstruction options or vacating their damaged homes prior to the start of construction. Accordingly, the City provides relocation assistance to homeowners who are eligible to receive Build it Back construction assistance to repair or replace their owner-occupied properties.

Relocation assistance may include apartment rental, hotel stays, required deposits, fees paid to rental brokers, and other necessary, reasonable, and eligible costs associated with relocating from a home during construction such as moving and storage assistance.

Relocation assistance will be made available to all homeowners whose projects meet the Low to Moderate Income Household or Urgent Need National Objectives when Build it Back determines that an applicant must vacate his or her home. This determination is made as a part of Build it Back's standard process and assistance will be made available to all existing Build it Back homeowners that meet the Program's eligibility criteria for construction assistance.

Eligible Build it Back homeowners will not be required to apply to the Program for this benefit. Relocation assistance will be made in the form of reimbursements to the homeowner for expenses incurred or in the form of direct placement into suitable housing. Optional Relocation Assistance will be included in the CDBG-DR allocation for the Build it Back Program and is not a separate allocation. The City will make its Optional Relocation Plan available for review on the City's Build it Back website.

## **Reimbursement**

The Program offers reimbursement assistance to all eligible homeowners that have completed Sandy-related construction work with personal resources whose projects meet the Low to Moderate Income Household or Urgent Need National Objectives. Reimbursements are issued in line with applicable laws, regulations, and program requirements (e.g., eligibility criteria, grant restrictions). Repairs 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 or costs associated with contracts signed before the earlier of a) the homeowner's application to the Program or b) October 29, 2013 will be eligible for reimbursement.

The City's reimbursement program provides a grant amount that covers all or a portion of eligible reimbursable expenses and includes reviews to ensure that reimbursable expenses meet applicable program requirements. The Program provides additional reimbursement of up to 100% of reimbursable expenses to homeowners that received SBA loan payments as outlined earlier in the Action Plan but no more than the eligible reimbursement expenses.

## **New York City Acquisition for Redevelopment**

Under the Build it Back program, the City will provide a program path to acquire properties for the repair or reconstruction of a home or cluster of homes in ways that mitigates future risks in limited and targeted cases.

The City will offer an Acquisition Program as an alternative to the NYS Acquisition Program, if there is a programmatic need identified by the City such as the unavailability of the NYS Acquisition Program to the applicant. Acquisition will include the purchase of real property, which can include air rights, water rights, rights-of-way, easements, or other interests held by program eligible homeowners. The City will acquire properties under the Low to Moderate Income Household, Low to Moderate Income Service Area, Urgent Need or Slum and Blight National Objectives. Properties that are purchased under the Acquisition Program will be redeveloped for residential use, including residential use for eligible Build it Back applicants, or retained by the City or its designees for public purposes to be outlined in the Program policies and procedures.

Under this program option, Acquisition would be offered to homeowners that are otherwise eligible for program assistance if the City determines that any of the following circumstances exist:

- The property is located in the floodplain, was substantially damaged by Sandy, and acquisition through New York State's Acquisition for Redevelopment program is unavailable to the homeowner.
- The property has site or environmental conditions that prevent the feasible reconstruction or repair of the residential units located on the property by the Build It Back program. This may include, but is not limited to, conditions such as homes that are located over bodies of water, homes that are located in or that are adjacent to wetlands or homes that present unique construction challenges that make the repair or reconstruction of the home infeasible.
- The property is subject to zoning or other restrictions that limit or impair the ability of the Program to provide a feasible housing solution to the impacted homeowner without acquisition.

The City may identify properties that meet the above criteria. In such cases, the owner, including bank-owned properties obtained through foreclosure or similar means, may be invited to participate in this specific program activity even if they had not previously applied to the Program.

The City has identified potential alternative redevelopment uses for the property that will contribute to the overall recovery of the City and its residents. This may include, but is not limited to, the redevelopment of individual properties or groups of properties to ensure greater resiliency to future storms, the transfer of undevelopable land to adjacent owners of developed land, the correction of hazardous conditions, the establishment of a safe means of ingress and egress to impacted areas, or other eligible uses to be identified in the future. In such cases, owners of these strategic properties, including bank-owned properties obtained through foreclosure or similar means, may be invited to participate in this specific program activity even if they had not previously applied to the Program.

The City will acquire identified properties for post-storm fair market value as determined by an independent appraisal. In order to facilitate the acquisition of properties by the City and in order to enable the long-term recovery of property owners who are impacted by acquisition, the City will combine its acquisition offer with resettlement incentive payments as described in the HUD March 5, 2013 Notice (78 FR 14345).

Resettlement incentives will include, but are not limited to, funding provided to eligible homeowners to relocate to a new primary residence. Resettlement incentives will be sized as follows:

*Base Resettlement Incentive:* The base resettlement incentive for owner-occupied acquired properties will be the difference between the pre-storm value of the land plus the structure that was or will be demolished and the post-storm value of the land and structure as determined through appraisal. The base incentive shall be made available to all acquired properties without additional obligation.

*Supplemental Resettlement Incentives:* In order to defray the high cost of purchasing replacement housing in New York City and in order to encourage resettlement within the City, the Program may offer one or more of the following supplemental resettlement incentives for projects currently in a construction pathway and which meet objective cost-effectiveness criteria, including, but not limited to, projects with complex designs, unusual site conditions, etc. Supplemental Resettlement Incentives are only made available to applicants who purchase a new home in New York City for resettlement and the amount of all resettlement incentives, together with property acquisition costs, cannot exceed the purchase price of the applicant's new home together with closing costs, taxes, fees, and other purchase-related costs. The specific incentives are outlined below:

- *NYC Residency Resettlement:* The Program may offer a resettlement incentive in the amount of \$50,000 to owner-occupants who sell their property to the Program, subsequently resettle within New York City, and agree to maintain ownership of their new home for a period of five (5) years. This resettlement incentive may be combined with an additional incentive in the amount of \$50,000 provided to homeowners who also agree to a new home located in New York City that is located outside of the 100-year floodplain. The Program may provide an incentive in the amount of \$50,000 to homeowners whose households meet the Program's low to moderate income criteria.
- *Rebuild Relocation:* Where repair or reconstruction is infeasible or unavailable to an applicant, the Program will evaluate the option of providing the construction or repair of a replacement primary residence for the homeowner in a new location on land owned by the City, land that was obtained through the New York City or New York State Acquisition Programs, or land purchased for resettlement, as an alternative to the resettlement incentive payment. Applicants receiving Rebuild Relocation are not eligible to receive any acquisition or relocation funds from the Program.
- *Rebuild Resettlement:* In limited cases, the Program has offered a resettlement incentive that is equivalent of the Program's estimated post-construction value of the home that would have been rebuilt on its original location. This resettlement incentive was previously offered to applicants in certain unusual, project-specific circumstances, including, but not limited to, progressing in the Program's Rebuild pathway to the point of final design and/or construction where the Program subsequently determined that the home that the applicant was eligible to receive could not be rebuilt on the applicant's property due to site conditions or other factors. Applicants receiving this incentive are required to relocate to a new home located in New York City that is located outside of the 100-year floodplain. Applicants receiving this resettlement incentive are not eligible for any other resettlement incentives outlined herein, including the Base Resettlement Incentive. This type of Rebuild

Resettlement is no longer offered by the Program, and has been superseded by the new resettlement incentives outlined above.

The City will also utilize program funding for eligible costs associated with housing counseling to assist eligible homeowners in obtaining a permanent housing solution or employing the services of a realtor and other professionals to assist with the purchase of a replacement home or property on which to construct a replacement home.

Upon acquisition of an eligible property, the City will demolish residential and commercial structures on the property and will clear the property of hazards or other improvements requiring clearance or will repair or rebuild the existing structure(s) to allow for future use. The City will also undertake the remediation of known or suspected environmental contamination, where feasible. The City will dispose of the acquired property by: sale, lease, donation, retaining the property for public purposes to be outlined in the Program's policies and procedures, or disposing of the acquired property by transfer of ownership to eligible homeowners for the repair or construction of housing for use as a primary residence. The City will utilize program funds for reasonable costs incurred in temporarily managing the property and for other eligible costs associated with disposition, clearance, remediation, repair, or construction. All proceeds obtained from the sale or lease of the property shall be program income.

### **New York City Buyout**

The City believes that buyouts may be an important component of an overall housing mitigation and resiliency strategy in selected areas, alongside the resiliency measures outlined elsewhere in this proposed Action Plan. Under the Build it Back program, the City will provide a program path to acquire properties for use as open space in ways that mitigate future risks in limited and targeted cases.

The City will offer a Buyout Program for homeowners who were not in a buyout area that was identified by New York State in its Buyout Program, if there is a programmatic need identified by the City such as the unavailability of the NYS Acquisition Program to the applicant. The City's Buyout Program is specifically designed to purchase flood-prone properties and remove impacted residents from harm's way and ensure that no residential development is permitted to be built in such locations. Buyout will include the purchase of real property, including, for example, air rights, water rights, rights-of-way, easements, or other interests held by program eligible homeowners. The City will purchase properties under the Buyout Program using the Low to Moderate Income Household, Low to Moderate Income Area, Urgent Need, or Slum and Blight National Objectives.

Properties that are purchased under the Buyout Program will be converted to open space, returned to nature, or integrated into the City's flood protection measures. This will allow the City to create areas that will assist with mitigating the impacts of future flood or severe rain events by creating additional space to absorb floodwaters and mitigate the effects of wave action. Properties that are purchased through the Buyout Program will be used, for example, to create or add to parks, wetlands, wildlife management areas, beaches or other open areas that will not be developed for residential or commercial purposes. Buyout will only be offered if the City determines that the purchase of the property will meet its long term goals of mitigating against future storm risk.

At the City's sole discretion, buyout will be offered to homeowners that are otherwise eligible for program assistance if the City determines that any of the following circumstances exist:

- The property has site or environmental conditions that prevent the redevelopment of the property for residential or commercial use and the City determines that the property is otherwise suitable for the conditions outlined above.
- The property is located in a floodway, flood-prone area or an area that has sustained severe repetitive flood losses as defined by the program.
- The City determines that the conversion of the property to open space will assist it in mitigating against future flood losses.

The City may identify properties that meet the above criteria. In such cases, the owner, including bank-owned properties obtained through foreclosure or similar means, may be invited to participate in this specific program activity even if they had not previously applied to the Program.

The City will purchase identified properties under the Buyout Program for pre-storm fair market value and, if feasible, necessary, and cost-reasonable, the City will offer some or all of the alternative benefits listed in the New York City Acquisition section above, such as resettlement incentives.

Upon purchase of a property under the Buyout Program, the City will demolish residential and commercial structures on the property and will clear the property of hazards or other improvements requiring clearance. The City will also undertake the remediation of known or suspected environmental contamination, where feasible. The City will dispose of the property by donation or it may retain the property for public purposes to be outlined in the Program's policies and procedures. In no case will the property be utilized for the redevelopment of residential or commercial spaces. All properties purchased under the Buyout Program will be utilized for open space or returned to nature. The City will utilize program funds for reasonable costs incurred in temporarily managing the property and for other eligible costs associated with disposition, clearance, and remediation.

### **Breezy Point and Edgewater Park Cooperative Relocation**

The Program offers assistance to eligible homeowners who would otherwise be eligible for the New York City or New York State Acquisition Program, but whose properties cannot be acquired by the City or State because the land upon which the home is situated is not owned by the homeowner. Such projects must meet the Low to Moderate Income Household or Urgent Need National Objectives. This includes situations where the eligible homeowner owns the residential structure, but the land upon which the structure is situated is owned by a cooperative or condominium association (for example, the Breezy Point Cooperative, Inc.).

Under this program option, resettlement incentive payments are offered to eligible homeowners to relocate to an area that is less susceptible to future storm related hazards such as flooding. Homeowners receiving resettlement assistance will be considered to be the beneficiaries of such assistance. Homeowners accepting resettlement assistance will be required to relocate to a new suitable permanent residence outside of the cooperative or condominium, in accordance with HUD requirements. The resettlement incentive is based upon the pre-storm value of the structure that was or will be demolished. The resettlement incentive does not include the value of the land itself,

which is tied to the condominium or cooperative shares. The homeowner may also opt to sell their ownership interest in the property to assist with resettlement costs. In no event will the City take an ownership interest in the subject property under this Program option.

The City will demolish all residential and commercial structures on the property and will clear the property of hazards or other improvements requiring clearance. The City will also undertake the remediation of known or suspected environmental contamination, where feasible. The City will not acquire or purchase the ownership interest that eligible homeowners have in the property where the impacted home was located. After demolition, Appendix G of the New York City Construction Code requires that any new construction meet resiliency standards, including elevation to Base Flood Elevation plus freeboard.

### **NY Rising Acquisition for Redevelopment and Buyout**

The City has partnered with New York State's NY Rising program to provide a separate acquisition and buyout benefit to certain Sandy-impacted homeowners living in New York City. Homeowners interested in acquisition were processed through the Build it Back registration, intake, and eligibility process. All eligible Build it Back homeowners that met the acquisition criteria defined by NY Rising were referred to the State until the State's deadline to accept new applicants expired. Applications that were determined to be eligible for acquisition after the State ceased accepting new referrals are provided the opportunity to be acquired by the New York City program. The City, at its option, may facilitate the transfer of properties acquired by the State to the City program. Once this transfer is completed, the City will be responsible for activities related to the property transaction.

The City is also coordinating with New York State (NYS) to advance the NY Home Buyout Program as included in the NYS Action Plan. Applicants interested in pursuing this option and who own property in the targeted areas may be referred to the State program. The City will pursue targeted buyouts where appropriate should program options, including State buyouts, become unavailable or infeasible.

**CDBG-DR ALLOCATION:** \$2,213,056,000

**HUD ELIGIBILITY CATEGORY:** Rehabilitation/Reconstruction of Residential Structures, Construction of New Replacement Housing (24 CFR 570.202), Acquisition of Real Property (Buyout of Residential Properties or Redevelopment of Acquired Properties) (3/5/13 HUD CPD Notice, 78 FR 14345, 31.), Relocation (24 CFR 570.606), Housing Incentives to Resettle (3/5/13, 78 FR 14345, 29) and Public Services (24 CFR 570.201(e)).

**NATIONAL OBJECTIVE:** The program will serve populations that meet the National Objectives: Low to Moderate Income Household, Low to Moderate Income Area, Urgent Need or Slum and Blight. All beneficiaries demonstrate an urgent need, as they live within a Presidentially-declared disaster zone. The City expects that approximately 45 percent of funding for Build it Back will be directed to low- and moderate-income households.

**PROJECTED ACCOMPLISHMENTS:** Through the total funding for Build it Back, the City plans to serve approximately 8,500 single-family homes including 11,800 units.

**PERFORMANCE SCHEDULE:** The City's schedule is as follows:

- Outreach – Spring 2013
- Registration – Summer to Fall 2013
- Intake, eligibility review, and case management – Summer 2013 to Winter 2015
- Reimbursement – March 2014 to December 2014
- Design, Construction, and Warranty – 2014 to 2018
- Acquisition and Buyout – 2015 to 2017

### **Temporary Disaster Assistance Program (TDAP)**

*The following text under the fourth paragraph of the “Program Objective and Description” section for the TDAP program will be added:*

Since 2013, the New York City Department of Housing Preservation and Development (HPD) assisted 225 households through TDAP. In June 2015, when Section 8 vouchers became available, all potentially eligible TDAP participants were provided the opportunity to apply for long-term Section 8 voucher assistance. For some families, there were delays in their application for Section 8 assistance which led to rental arrears. Delays can be attributed to applicants’ uncertainty as to whether they would like to remain in their TDAP assisted apartment or to their confusion regarding changing application processes due to the change in source of subsidy.

A limited number of households experienced a gap in subsidy. Section 8 assistance could not begin before a tenant submitted a complete Section 8 application, an owner formally accepted the tenant under the Section 8 program, and a unit passed inspection. Although participants continued to pay their share of the rent, the landlord could no longer receive the subsidy to close the gap between the tenant share and the actual rent for the unit under TDAP.

The City will use a portion of the current CDBG-DR TDAP allocation to make one-time payments of arrears directly to landlords to prevent eviction and possible homelessness during affected households’ transition to Section 8.

*In addition, the TDAP allocation will be reduced from \$19 million to \$9 million due to a smaller than anticipated eligible applicant pool. The TDAP allocation will be reflected as follows:*

**CDBG-DR ALLOCATION:** \$9,000,000

### **Build it Back Workforce Development**

*The SBS Workforce 1 Sandy Recovery Center is increasing its projected accomplishments from 500 to 5,000 persons. Since opening, the Center has seen greater than anticipated traffic of individuals seeking careers services. Additionally, SBS will change projected accomplishments for its Job Training Voucher Program from 350 to 175 persons to reflect demand for pre-apprenticeship training programs that are longer in duration and provide more technical skills. Additionally, the Training Voucher Program will add Urgent Need as a potential*

*National Objective. The updates will be reflected in the Workforce Development Programs section will be updated as follows:*

### **Sandy Impact Area Workforce1 Center**

**PROJECTED ACCOMPLISHMENTS:** 5,000 persons

### **Job Training Voucher Program**

**PROJECTED ACCOMPLISHMENTS:** 175 persons

**NATIONAL OBJECTIVES:** Low-Moderate Income Clientele/Urgent Need

### **Public Housing (NYCHA)**

*The text in the NYCHA “Needs Assessment” section under the header “Resiliency of Other Impacted Buildings” will be updated as follows:*

NYCHA has been awarded \$49.5M to implement mitigation measures through FEMA’s Hazard Mitigation Grant Program (HMGP). The initial scope of work proposed in the HMGP application was for the “hardening” of ten community centers. NYCHA has, however, determined that the initial scope of work would not result in a cost-effective/feasible project. Therefore, NYCHA has proposed a modification to this scope of work to include implementing other mitigation projects with a similar mitigation scope as the FEMA-funded 406 mitigation activities in the Special Flood Hazard Area (SFHA) for unfunded buildings.

The final scope of work is dependent on FEMA approval and the outcome of the phase 1 feasibility analysis, but the proposed scope of work includes:

- Dry flood proofing the envelopes of the buildings;
- Installation of standby generators to provide standby power for the entire building; and
- Elevation and relocation of electrical and mechanical systems in freestanding buildings.

### **Public Housing Rehabilitation and Resiliency**

*The City will reallocate \$9 million from citywide Planning & Administration to NYCHA’s overall program allocation to meet additional unmet needs, including funding NYCHA’s Office of Recovery and Resiliency salaries associated with project delivery activities that will serve as a portion of the 10 percent local match requirement for the FEMA 428 Program. NYCHA’s CDBG-DR allocation will be reflected follows:*

**CDBG-DR ALLOCATION:** \$317,000,000

Note: This allocation is inclusive of the \$1,400,000 identified for the NYCHA Workforce Development Program described below.

***The NYCHA “Performance Schedule” will be updated as follows:***

**PERFORMANCE SCHEDULE:** NYCHA continues to move forward with design, environmental review, and procurement associated with its FEMA 428 program. As of September 2016, all but five of 33 developments have completed design or are in a procurement phase. The remaining five developments are between 50-100 percent designed.

Eight of the 33 developments in NYCHA’s 428 program have released Requests for Proposals for construction work of which five have been awarded contracts. Construction has started at Oceanside, Coney Island 4 & 5, and Astoria Houses.

Lower East Side V permanent repair and mitigation rehabilitation is currently under construction and 75 percent complete. The scope of work associated with additional buildings in NYCHA’s portfolio that have been deemed “lesser damaged” and are not part of the 428 program is still in development.

The majority of NYCHA’s emergency response work has been completed; however, some activities such as maintenance of temporary boilers as well as emergency, electrical, and mechanical repairs are ongoing.

As of September 2016, NYCHA is performing cost-effectiveness/feasibility analyses under phase 1 of its \$49.5 million HMGP grant award. NYCHA’s proposed \$120 million HMGP stormwater grant application is pending award.

The Request for Proposal for NYCHA’s workforce development program was released September 8, 2016 and the anticipated program implementation period is from January 2017 until January 2018.

*The following text will be added at the end of the Housing chapter to describe NYCHA’s new workforce development program:*

**NYCHA Workforce Development**

**PROGRAM OBJECTIVE AND DESCRIPTION:**

Over the course of the next several years, 33 NYCHA developments damaged by Hurricane Sandy will undergo major rehabilitation and mitigation construction projects. All of NYCHA’s Sandy contracts are subject to HUD’s Section 3 goal that 30 percent of all new hires are Section 3 employees. Additionally, all of Sandy’s contracts are subject to NYCHA’s Resident Employment Program goal that 15 percent of all labor dollars go towards NYCHA residents.

While an unprecedented opportunity exists for NYCHA residents to enter into a career in the building and construction trades, the overwhelming majority of the new hire Sandy construction positions fall under NYCHA’s Project Labor Agreement (PLA) which requires contractors to hire from union halls. Therefore, it is imperative that NYCHA has a trained, qualified workforce to refer out for union membership. To this end, NYCHA proposes to implement a pre-apprenticeship program in order to better prepare NYCHA residents to enter the workforce and construction industry. The program will not only provide robust training, it will also feature providers that have direct entry capabilities into a construction union apprenticeship, putting these individuals on a

path to the middle class. The goal is to facilitate entry into the unions that will potentially lead to job opportunities in NYCHA's Sandy construction projects.

NYCHA will use CDBG-DR funds to create a program to provide subsidies for participation in pre-apprenticeship job training programs. The subsidies will be primarily for NYCHA residents at Sandy-impacted developments but may be offered to residents of non-impacted developments and nonresidents alike, depending upon availability. NYCHA will assist participants in finding a suitable pre-apprenticeship program through the use of a pre-qualified list created through a Request for Proposal procurement process. Programs must meet certain minimum requirements in order to be pre-qualified. On behalf of each program participant, NYCHA will be responsible for paying a fixed amount to the participant's selected program. NYCHA may offer additional incentives to the participant for completion of the training program.

**ELIGIBILITY CRITERIA:** Eligibility for the job training program will be prioritized for NYCHA residents that reside in Sandy-impacted developments, following NYCHA residents throughout their portfolio. After the program's initial launch, NYCHA may open eligibility to include non-NYCHA residents

**PROGRAM PRIORITIES:** To boost long-term recovery by providing participants with the necessary skills and potential job opportunities to increase household income.

**HUD ELIGIBILITY CATEGORY:** Public Services (24 CFR 570.201(e))

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

**CDBG-DR ALLOCATION:** \$1,400,000

Note: Funding for the Workforce Development program is included as part of NYCHA's overall \$317M program allocation.

**PROJECTED ACCOMPLISHMENTS:** 165 persons

## VIII. BUSINESS

**Summary of changes:** *This chapter includes program reallocations based on unmet needs analysis. Additional funds have been allocated towards the Hurricane Sandy Business Loan and Grant Program. The Saw Mill Creek and Rockaway Commercial Corridor Projects will no longer be funded with CDBG-DR; these projects will move forward with the full commitment of the City, including City Capital funds the City is providing as part of the 2016 September Capital Commitment Plan. In addition, the program description of Coney Island Resiliency Improvements has been updated.*

### **Additional Details:**

*The text in the “Needs Assessment” section under the header “Remaining Unmet Economic Needs” will be updated as follows:*

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 percent 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, small- and medium-enterprises (SMEs), and industrial companies that lacked business continuity or flood insurance to help weather the storm.

Through the City’s continued outreach to community partners, business recovery groups, and elected officials, including the Action Plan public hearings, the City has not uncovered additional unmet need. However, with remaining unmet needs in excess of available CDBG-DR funds, the City is prioritizing Federal funding to pursue strategic, targeted, and cost-effective programing as outlined below:

- **Hurricane Sandy Business Loan and Grant Program (HSBLGP):** \$58 million to provide loans and grants to 350 businesses impacted by Hurricane Sandy.
- **Business PREP (Preparedness Resiliency Program):** \$3 million to assist businesses implement operational and physical resiliency measures through one-on-one site visits and assessments, grants to help businesses implement low-cost resiliency improvements, business resiliency online resources, and emergency preparedness workshops.
- **Resiliency Innovations for a Stronger Economy (RISE : NYC):** \$30 million competition to identify and allocate funding for the most innovative and cost-effective technologies that help prepare small businesses for future climate events by improving the resiliency of their energy infrastructure, telecom networks, and building systems.
- **Coney Island Resiliency Improvements:** \$15 million to advance resiliency measures throughout the Coney Island peninsula. The resiliency improvements will help protect hundreds of local businesses along the main commercial corridors between Coney Island

Creek and the ocean, and throughout Coney Island, as well as thousands of residents in the community.

Although the unmet needs assessment for small businesses throughout the City remains unchanged at this time, the City has re-evaluated the needs of the CDBG-DR funded programs. Through the Hurricane Sandy Business Loan and Grant Program, SBS has provided funding for working capital, inventory, and equipment needs for 350 small businesses that were impacted by the storm. When Action Plan Amendment 8B was submitted in early 2015, the City anticipated that \$48 million would fully fund the program. After the application period for the program closed on January 31, 2015, SBS worked with all eligible applicants to determine their remaining unmet need. As a result, an additional need beyond the \$48 million was determined. With this amendment, the City is reallocating funding to complete the program.

Hurricane Sandy impacted businesses in a variety of ways, including business losses, cancelled tourist visits, wages not paid to workers who could not commute into the affected region, and physical damage to buildings and public infrastructure. CDBG-DR funding cannot directly address all of these economic impacts, so City Has allocated funding to programs which will help Sandy-impacted businesses better prepare for future disasters. By participating in Business PREP, small businesses will learn how to better protect themselves both physically and financially. The RISE: NYC program provides participating businesses with technology that upgrades their energy system, flood protection, or communication networks. Although the programs cannot fully address the business losses from the storm, the City has made every effort to address the needs of the eligible small businesses that have elected to participate in these programs. In addition, Coney Island Resiliency Improvements will address needs in the commercial areas of Coney Island.

The City will still pursue the implementation of the Saw Mill Creek Restoration and the Rockaways Commercial Corridor Resiliency projects that were previously included in the Action Plan. These projects will move forward with the full commitment of the City, now using other resources, specifically City capital funds reflected as of the 2016 September Capital Commitment Plan. Both projects presented particular challenges for moving forward with CDBG-DR funding, such as federal regulations triggered by revenue generation (Saw Mill Creek) and the complexities of combining two federal funding sources (Rockaway Commercial Corridor). Additional information about these projects can be found at the end of this chapter under “Projects to be Funded from Other Sources.”

## **Business Programs**

### **Hurricane Sandy Business Loan and Grant Program (HSBLGP)**

*Total funding for the program will be increased from \$48 million to \$58 million in order to fully serve the 350 small business applicants determined to be eligible by the program following the closing of the application period on January 31, 2015. The reallocation will be reflected as follows:*

**CDBG-DR Allocation:** \$58,000,000

## **Business Preparedness and Resiliency Program (Business PREP)**

*The program was previously referred to as the Preparedness & Resiliency for Emergencies Program. It is now known as the Business Preparedness and Resiliency Program.*

*The “Program Objective and Description” section includes information about the micro-grant component. The text will be updated as follows:*

SBS will provide a grant program to eligible small businesses to complement the on-site risk assessments. The grants must be used to implement specific preparedness-related recommendations.

*The City will add the Low- and Moderate-Income Limited Clientele (Microenterprise) as a National Objective to provide a more accurate representation of assisted businesses in performance reports. The national objective will now appear as follows:*

**NATIONAL OBJECTIVE:** Urgent Need; Low to Moderate - Income Area; and Low- and Moderate-Income Limited Clientele (Microenterprise)

*The “Other Funding Sources” section will be updated to reflect an additional source of funds:*

**OTHER FUNDING SOURCES:** The Governor’s Office of Storm Recovery will provide an additional \$4.1 million of CDBG-DR funding to enable the City to serve more businesses. The subrecipient agreement between the State and City was executed in April 2016. The total program funding is now \$7.1 million.

## **Coney Island Resiliency Improvements**

*Coney Island Resiliency Improvements was formerly referred to as Coney Island Green Infrastructure Improvements in the Action Plan. It has been renamed to reflect its amended scope.*

*The following text under the fifth paragraph of the “Program Objective and Description” section for the program will updated as follows:*

The City will utilize CDBG-DR funding to continue advancing resiliency measures throughout the Coney Island peninsula. These investments will help protect hundreds of local businesses along the main commercial corridors between Coney Island Creek and the ocean, and throughout Coney Island, as well as thousands of residents in the community.

*The following section will be added to the end of the Business chapter:*

### **Projects to be Funded from Other Sources**

The following section describes projects that will no longer be financed with CDBG-DR funding but will move forward with City Capital funding identified in the City's September 2016 Capital Plan.

#### **Restoration of Saw Mill Creek Marsh**

The northwest coast of Staten Island incurred some of the most severe flooding and inundation of any part of New York City during Hurricane Sandy. Many locations sustained more than six feet of water and inundation that pressed more than a mile inland from the coast.

The degraded condition of the Marsh, after years of filling, ditching, and industrial development, provided limited protection to area businesses and residents. The Marsh still experiences daily tidal flows and is surrounded by several tributaries and bodies of water (including Pralls Creek, a major tributary of Arthur Kill only 600 feet west of the Marsh site). However, the Marsh no longer maintains its pre-Sandy absorptive capacity and has largely been filled at-grade with nearby water systems, putting local businesses and residents at-risk during significant storm events.

City capital funding will be used to restore approximately 68 acres of wetlands in the Marsh in order to provide more effective protection against extreme weather events to businesses and residents in northeastern Staten Island. It is expected that a restored wetland at the site will act as a natural buffer to protect these populations by attenuating flood waters. By reestablishing tidal channels and upland high marsh, overall salt marsh function will be restored. The clean-up, enhancement, and restoration of the site will increase the acreage of tidal wetlands in the Saw Mill Creek watershed, and is expected to improve the watershed's water quality, sediment quality, and flood attenuation.

In addition, the City plans to leverage the restoration of the Marsh to create a pilot compensatory wetland mitigation bank that will generate credits based on the ecological uplift produced by the restoration of the wetland and the achievement of other related milestones. The restoration of the Marsh and the creation of the mitigation bank are part of the City's Mitigation and Restoration Strategies for the Habitat and Ecological Sustainability initiative, also known as "MARSHEs."

It is expected that the credits will be available to provide compensatory mitigation for the permitted and unavoidable impacts of waterfront construction projects within the mitigation bank's primary and secondary service area. It is also expected that this mechanism will provide efficiencies for permit applicants who, unable to identify appropriate compensatory mitigation options, often experience delays of up to three years in navigating the waterfront permitting and approval process. This project is expected to result in more ecologically successful wetland restorations in the New York City area because of scale efficiencies in wetland ecosystems and cost efficiencies in carrying out monitoring and maintenance requirements for restored sites.

To fund this project, approximately \$12 million is allocated in the City's 2016 September Capital Commitment Plan.

For more information about the Saw Mill Creek Restoration, please visit EDC's website at [www.nycedc.com/project/marshes-initiative](http://www.nycedc.com/project/marshes-initiative).

### **Rockaways Commercial Corridor Resiliency**

The Rockaways experienced extensive flooding and long-term power outages as a result of Hurricane Sandy that led to prolonged economic loss impacting residents and businesses. In addition to its direct physical impact, the storm affected the commercial viability of business districts. Businesses that suffered damage continue to struggle in its aftermath from a decline in economic activity, in part due to surrounding vacant storefronts and damaged streetscape.

Across the Rockaways, flooding that recurs as a result of heavy rainfall events or tidal activity is also a year-round concern. Continuous flooding and resulting ponding damages, and degrades the quality of street surfaces and landscaping, negatively impacting neighborhood character.

To address these issues, the City is planning to invest in resiliency measures and economic revitalization in the Rockaways, including the Downtown Far Rockaway main commercial corridor and surrounding business areas. The City will be investing in streetscape enhancements, including: street furnishings, street trees, and wayfinding signs throughout the area. In addition, the project will include street reconstruction and site improvements along Beach 22nd to Beach 20th Street between Mott Avenue and Cornaga Avenue, to improve access to business districts from the area's transit hub and to revitalize a central commercial corridor. The project will also be utilizing innovative green infrastructure practices including permeable pavement and bioswales to increase stormwater capture, which will supplement existing plans by the City to upgrade and install a sewer system in the area. This project will leverage planned investments from existing federal and City funding for improvements in the area to increase resiliency and promote economic revitalization by creating an accessible, vibrant, and thriving commercial/transit corridor for residents and businesses, many of which employ low-income workers.

To fund this project, \$7.5 million will be committed in the City's 2016 September Capital Commitment Plan. In addition, the following funding sources have also been identified: \$7.5M from other federal sources; \$5.3 million in City Capital; \$4.5 million in NY Rising funds from the Governor's Office of Storm Recovery; \$1.472 million from Congressman Gregory W. Meeks; and \$436,060 from Councilman Donovan Richards. There has been no overall reduction in funding commitment for this project.

For more information about this project and other initiatives in the area, please visit: <http://www.nycedc.com/project/downtown-far-rockaway>

## IX. INFRASTRUCTURE AND OTHER CITY SERVICES (IOCS)

### Summary of changes:

*The overall IOCS allocation is being reduced from \$755 million to \$419.5 million in order to provide needed funds for the Build it Back Single Family Program in the Housing allocation. The City is committed to funding IOCS projects that were previously planned through other funding sources. The City is no longer using CDBG-DR funding for two eligible activities – Emergency Demolition and Code Enforcement – however, the costs incurred for this work, which has already been performed, will be accounted for through prior year financial plan revenue adjustments. In addition, those activities funded under Rehabilitation/Reconstruction of Public Facilities activities are decreasing from \$319 million to \$90.93 million. The resilience efforts for NYC Health + Hospitals will continue as planned, but the portion of CDBG-DR funding has been reduced and will be committed instead in the City's September 2016 Capital Commitment Plan.*

*Activities removed from CDBG-DR funding, though not from the City's recovery plans, include damaged police facilities, fire facilities, Department of Sanitation facilities, facilities at Rikers Island and Hart Island, City sidewalks and underpasses, conduit and facilities at Homeport and Bush Terminal, FDNY emergency communications system and firehouse conduit, and the Department of Environmental Protection electrical conduit.*

*In addition, the complexities of multiple streams of funding for a given project have made the feasibility of using CDBG-DR funds as the local match source difficult to administer in some cases. In such cases, the use of City Capital funds as the local match source for large, complex infrastructure projects will enable a more streamlined approach to recovery. Further detailed information about previously planned IOCS projects that are no longer being funded by CDBG-DR, but are now funded with other sources, will be moved to the appendices to the Action Plan. Further agency-specific damage descriptions will be found in Appendix C of the approved Action Plan incorporating Amendments 1-12.*

### Additional Details:

*The entirety of the Infrastructure and Other City Services chapter will be replaced as follows:*

For the purposes of this Action Plan, IOCS is broken into two sections: 1) **Other City Services** is comprised of Public Services, Debris Removal/Clearance, and Interim Assistance activities; and 2) **Infrastructure** is comprised of Rehabilitation/Reconstruction of Public Facilities.

### Needs Assessment

Hurricane Sandy caused more than \$19 billion in damage and disrupted economic activity, thousands of homes and businesses were destroyed or seriously impacted, infrastructure systems and vital services that serve millions were disrupted, and 44 New Yorkers tragically lost their lives. Billions of dollars of Federal assistance were provided to the City to support recovery efforts. Agencies including, FEMA, USACE, FHWA, DOT, and HUD provided grants for recovery projects. The mandated sequence of delivery of federal programs, each Agency's eligible activities, and the requirement to avoid duplication of benefits establishes the hierarchy and appropriateness for the

application of funds. In addition, the different environmental review processes for each federal agency can affect the use of funds as local match.

FEMA, USACE, FHWA, and DOT funds are the primary source of funding for eligible activities under their respective authorities. HUD CDBG-DR funds are used to meet the funding gap generated by the local match requirements and as such are the funds of last resort. The City is dependent on the policies, rules, and regulations of the other federal agencies to determine which projects or portions of projects will be HUD eligible, when they will be approved, and when the City can identify a project for use of HUD funds. Due to the complexity of these programs and projects, it can take months to years before the primary federal agency approves a project in order for the City to move forward for implementation. This process may cause some delay in the determination of projects eligible for HUD CDBG-DR funds and require the City to estimate the amount of unmet need requiring HUD funding. In many of these instances, the City has committed its own funds to avoid delays in the recovery of the community and its citizens.

### Impact to the City's Infrastructure

Hurricane Sandy caused damage to the City's 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.

NYC Health + Hospitals (H+H) had ten large hospitals damaged, including extensive damage to Bellevue, Coney Island, and Coler Hospitals. H+H also experienced damage to five smaller healthcare facilities as well as to four of its administrative office spaces. Two hospitals (Bellevue and Coney Island) and several community healthcare facilities were evacuated and displaced, and Coler Hospital was left without electricity, heat, or hot water. Temporary administrative offices also had to be leased, built-out, and supplied with computers and telephones.

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

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

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

Twenty-nine Fire Department facilities were damaged due to the storm, including 16 Firehouses, six EMS stations, five Marine facilities, and two support facilities (Paidge Avenue and Fort Totten). There was widespread damage to apparatus doors (after being hit by a high quantity of seawater),

basements (which filled to the top with water), electrical and heating systems (including pipes), and various structural aspects. Marine facilities suffered damage to piers, piles, electrical systems and transformers, as well as the wave attenuator at Marine 9, which is intended to reduce wave height in order to provide safe berthing for vessels. FDNY also suffered losses of information technology equipment, communications networks and infrastructure, fire apparatus, and ambulances.

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

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

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

Hurricane Sandy adversely affected 10 of the City's 14 Wastewater Treatment Plants. Rockaway, the smallest wastewater facility by capacity, was the most severely affected. Most of the damage was to electrical systems including substations, motors, control panels, junction boxes, and instrumentation. Power outages required many DEP facilities to operate on their emergency generators for up to two weeks. Of the 96 DEP pumping stations, 42 were impacted by the storm.

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

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

### **New York City's Response to Infrastructure Impact**

The Hurricane Sandy Rebuilding Task Force's Hurricane Sandy Rebuilding Strategy report was released in August 2013, and the City's response to infrastructure impact is informed by the Task Force's report. In particular, the report outlines a number of recommendations on the following topics that has influenced the City's IOCS funding allocations:

- Risk assessment (recommendations 1 & 2)
- Infrastructure resiliency (recommendations 3-9, 11, 16, & 19-25)
- 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 the recovery process.

The City's survey of the damage inflicted on infrastructure and the restoration thereof is ongoing and involves many City agencies. 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.

### **Unmet Infrastructure and Other City Services Needs**

For both Other City Services and Infrastructure projects, the City is using CDBG-DR funds as a match to other Federal funding and for reimbursement of expenditures not covered by other federal agencies but determined eligible under HUD regulations. The City is allocating \$419.5 million in direct City agency costs: \$328.5 million will fund other city services and \$90.93 million will fund the rehabilitation and reconstruction of public facilities.

#### **Other City Services**

The City's emergency response costs include the provision of public services, protecting health and safety and assistance to special needs populations, debris removal, in-home sheltering through the Rapid Repair program, and other early recovery activities.

Significant portions of these costs are covered by FEMA through the Public Assistance program, which covers 90 percent of eligible costs. The remaining 10 percent local contribution to FEMA grants, as well as activities performed by the City not funded by FEMA or other grant programs constitutes an unmet need for City services estimated at \$900 million. For Other City Services programs, the City is using CDBG-DR funds as a match to other Federal funding and non-match activities.

The City had previously identified its unmet need for Other City Services at \$2.1 billion. As of Amendment 12, the City now estimates its unmet need at \$900 million. The reduction is attributable to revisions in estimates of costs and additional FEMA Public Assistance secured or recognized. Based on projected amounts from other sources of Federal funding, the CDBG-DR contribution towards covering the unmet need is \$328.5 million. As a result of prior year financial plan revenue adjustments through the end of City Fiscal Year 2016, the City of New York will not pursue CDBG-DR funding as the source for all of its remaining costs.

### Infrastructure

The City had previously identified its unmet need for infrastructure at \$5.3 billion. As of Amendment 12, the City now estimates its unmet need at \$2.5 billion. The reduction is attributable to revisions in estimates of costs, additional FEMA Public Assistance secured or recognized, and additional explicit City funding commitments reflected as part of the 2016 September Capital Commitment Plan. The City is currently dedicating \$90.93 million in CDBG-DR funds to Infrastructure.

*The following table “Infrastructure: Rehabilitation of Public Facilities” reflects the reallocation of funding across IOCS activities as well as figures for remaining needs and respective funding sources. This chart is intended to depict projects that were identified for possible CDBG-DR funding in Action Plan Incorporating Amendments 1-11. This chart does not show the entirety of the City’s unmet infrastructure need. Descriptions for projects no longer being funded with CDBG-DR will be moved to the appendices when the Action Plan is approved to incorporate Amendment 12.*

Agency	Project	Previous IOCS Allocation	Revised IOCS Allocation	Remaining Need	Funding Source for Remaining Need
H+H	4 Hospitals 428	172,270,535	35,270,535	137,000,000	City Capital
DPR	Rockaway Boardwalk	48,037,354	48,037,354	-	N/A
DDC	Breezy Point HMGP	14,537,000	-	14,537,000	CDBG-DR Coastal Resiliency
DEP	Electrical Conduit and Fittings 428	12,813,107	-	12,813,107	City Capital
DPR	Beach Open Up: Modulars & Entry Islands	119,000,000	-	119,000,000	CDBG-DR IOCS or City Capital
DPR	Beach Open Up: Steeplechase Pier	9,200,000	-	9,200,000	CDBG-DR IOCS or City Capital
NYPD	Damaged Facilities	5,000,000	-	5,000,000	City Capital
DSNY	Damaged Facilities	600,000	-	600,000	City Capital
DOC	Rikers & Hart Island Damaged Facilities	6,500,000	-	6,500,000	City Capital
DDC	Construction/ Reconstruction of Streets	1,500,000	-	1,500,000	City Capital
NYCEDC	Conduit & Facilities at Homeport	11,570,000	-	11,570,000	City Capital
DOT	Underpasses	10,500,000	-	10,500,000	City Capital
FDNY	Emerg. Comm. System & Firehouse Conduit	17,000,000	-	16,445,555	City Capital
DDC	DDC Nursing Homes HMGP	-	4,100,000	-	N/A
TGI	Conduit PAAP	-	1,027,978	-	N/A
FDNY	Damaged Facilities	-	2,494,133	-	N/A
<b>Total:</b>		<b>428,527,996</b>	<b>90,930,000</b>	<b>344,665,662</b>	

### Method of Allocation

With remaining unmet needs in excess of available CDBG-DR funds, the City of New York is prioritizing CDBG-DR funding to limit the impact of Hurricane Sandy on its ability to serve the needs of its citizens. To the fullest extent possible, CDBG-DR funding is being used to leverage other federal funding sources to maximize the total amount of federal contribution to the recovery effort.

CDBG-DR funds are used as a match to other federal funding or to cover complete projects or portions of projects only eligible under the CDBG-DR program.

Funding decisions for IOCS have largely occurred in two stages:

First, by covering costs incurred during the relief phase of Sandy, the City used CDBG-DR funds to benefit the public more quickly. By initially funding costs already incurred, federal dollars were able to quickly reach the most impacted communities because these emergency services were contracted for, executed, and expensed within months of the storm's impact. The City prioritized projects that served vulnerable populations and communities hit hardest by the disaster. For example, the City immediately funded \$183 million to reimburse Coney Island and Bellevue Hospitals for operations costs incurred to remain open immediately following the storm, while the capital projects related to the repair of the two hospitals were still under development.

Second, for remaining IOCS funding, the focus has been on larger scale infrastructure projects with large local match needs. These needs included funding for critical health care facilities, such as public hospitals and nursing homes, and important public spaces, such as Rockaway Boardwalk. At the time, City Capital funds were not immediately accessible and FEMA estimates were still under development, but the availability of CDBG-DR funding for match needs allowed these projects to move forward without delay. For many other large scale infrastructure projects, the decision was made to use City Capital funds. The City continues to face a significant local-share commitment for a variety of projects critical to the future of New York City. Because of the size, scale, and timing of these commitments, the City recognizes that CDBG-DR is not always the best fit. Given the magnitude of recovery and resiliency projects, the City has needs beyond what HUD has allocated.

## **Infrastructure and Other City Services Goals**

The severe destruction and flooding brought on by Hurricane Sandy caused significant damage to 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. Removing and disposing of all storm-related debris that impacted a community's public health and safety, and threatened life and property.
2. Ensuring that public facilities such as fire, police, and other critical infrastructure damaged in the impacted areas are restored.
3. Restoring parks and recreational facilities in order for impacted communities to resume recreational activities.
4. Rebuilding, repairing, and replacing health and hospital facilities damaged in the impacted areas to enable the affected communities' access to medical attention.

5. Assisting residential communities impacted by Sandy with emergency repairs to properties to the extent necessary to alleviate the emergency conditions caused by the storm.
6. 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.

### Comprehensive Risk Analysis

In December 2012, the City began a long-term planning and rebuilding effort across all five boroughs. A task force assembled to analyze the impacts of the storm on the City's buildings, infrastructure, and people; assessing the risks the city faces from climate change in the medium term (2020s) and long term (2050s and 2080s); and outlining ambitious, comprehensive, but achievable strategies for increasing resiliency citywide. This effort culminated in the release of *A Stronger, More Resilient New York* in June 2013. The report is the first by any American city to address extreme weather events and climate change, including chronic stressors like higher temperatures, increased precipitation, and sea level rise, as well as acute impacts like coastal flooding and storm surges, higher intensity rain and wind, and heat waves. This rigorous science informs the comprehensive risk analysis for the infrastructure projects contained in the City's Action Plan.

### Resilience Performance Standards

The Federal Register Notice for the second allocation of funds (78 FR 69104) includes guidelines for "Resilience Performance Standards" related to infrastructure projects. Section VI(2)(e) of the Notice states, "Using the guidelines in the Rebuilding Strategy, grantees are required to identify and implement resilience performance standards that can be applied to each infrastructure project."

The City is committed to developing and implementing a set of Resilience Performance Standards for all infrastructure projects. The City will look to the best available science and promising practices in resiliency to inform the development of these performance standards. One resource will be the recommendations provided in the *Hurricane Sandy Rebuilding Strategy*. Specifically, the City will refer to the guidance provided in the "A Regional Approach to Resilience" and "Infrastructure Resilience Guidelines" sections of this document and will aim to develop a regionally coordinated, resilient approach to infrastructure investment through continued coordination with New York State and organizations such as the U.S. Army Corps of Engineers and FEMA. The City has already engaged in conversations with the Regional Coordination Working Group to discuss these projects.

In the development of these resilience performance standards, the City will incorporate the risk analysis and climate action plan laid out in *A Stronger, More Resilient New York* which was the product of months of research and planning across City government and with our regional partners. The City stands behind this document but believes that developing and certifying "Resilience Performance Standards" requires additional study and coordination with other federally funded disaster projects (including projects developed by Rebuild by Design, the United States Army Corps of Engineers, and FEMA). The City will also look to and utilize the mitigation principles and

strategies developed in the city's 2014 Hazard Mitigation Plan adopted with FEMA in the identification and refinement of these performance standards. In March 2015, the New York City Panel on Climate Change released its updated report *Building the Knowledge Base for Climate Resiliency* which provides climate projections for the New York region through 2100, including temperature, precipitation, and sea level rise. These analyses, which include a chapter on the development of indicators for and monitoring of resiliency efforts, will be integrated into the development of the city's resiliency performance standards. The City will work with grantees across the federal, State, and City government to ensure consistency, quality, and feasibility of resilience performance standards it will adopt.

### Other City Services Programs

Other City Services programs include all programs that meet the following HUD Eligible Activities: Public Services (funded at \$224.75 million), Debris Removal/Clearance (\$6.655 million), and Interim Assistance (\$97.1 million). In general, these projects have already occurred, but CDBG-DR funds are now being sought to cover unanticipated costs to the City in the wake of Hurricane Sandy. The City is seeking reimbursement from HUD once the costs have been properly validated against pre-award guidance and other applicable regulations.

### Other City Services - Public Services

**PROGRAM OBJECTIVE AND DESCRIPTION:** Public Services activity includes: H+H Operational Readiness, DPR Emergency Protective Measures, FDNY Emergency Protective Measures, HRA Disaster Assistance Centers, and NYPD Overtime.

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.

Some of these costs were incurred prior to the preparation of the City's original Action Plan approved by HUD in May 2013. 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. The City will ensure that all CDBG-DR reimbursements for such activities are consistent with the requirement of HUD's March 5, 2013 Federal Register Notice, with regard to pre-award requirements. The City is subject to the provisions of 24 CFR 570.200(h) but may reimburse itself or its subrecipients for otherwise allowable costs incurred on or after the incident date of the covered disaster.

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:

### Public Services - NYC Health + Hospitals (H+H) [formerly Health and Hospitals Corporation (HHC)]:

H+H is a public benefit not-for-profit corporation controlled by the City of New York that primarily serves low-income residents. H+H provided healthcare services to the public during and after the storm and incurred expenses in three areas: (1) the provision of new services to alleviate

emergency conditions in impacted communities, (2) restoring facilities serving low- to moderate-income patients to their full operational capacity, and (3) hastening service readiness to more quickly serve vulnerable populations. A total of \$204 million of currently available CDBG-DR funds is allocated towards the Public Services provided by HHC. Of this \$204 million, \$183 million of CDBG-DR funds have been reimbursed to the City for this activity.

#### 1) Provision of New Services:

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

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 Coney Island, another served Gerritsen Beach, Brooklyn 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.

#### 2) Restoration of Facilities to their Full Operational Capacity:

Urgent measures were required to alleviate existing conditions that posed an immediate threat to the health of communities due to the disaster and to restore H+H facilities to their full operational capacity as soon as feasibly possible. All 11 acute H+H facilities undertook comprehensive preparations to ensure that inpatient services could remain open throughout the storm despite the transit shutdown. Eight facilities provided the clinical staff for the Special Medical Needs Shelters located throughout the system. Several of its central administrative offices were dislocated for five months due to flooding damage in its lower Manhattan office buildings. Ten facilities experienced physical damages from flooding or wind. Two facilities, Bellevue and Coney Island Hospitals, were forced to evacuate due to major flooding. Coney Island Hospital is a 371-bed facility that admits an average of 18,000 patients a year and treats another 300,000 people a year on an outpatient basis. Bellevue Hospital is an 828-bed facility that annually treats over 30,000 inpatients, handles over 125,000 Emergency Service visits, as well as over 500,000 outpatient visits in more than 90 adult and pediatric ambulatory care clinics. More than 80 percent of Bellevue's patients come from the City's medically underserved populations.

Additional expenses were identified without which the physical facilities would not have been ready to re-open for the community. In addition to the emergency repair of the physical infrastructure, these staff and other expenses were critical to the continued maintenance, safety, and upkeep of the building. These include the regular-time labor of facility employees that responded in the immediate aftermath of the storm, such as engineering and plant maintenance, executive leadership and a variety of staff whose jobs were dedicated to responding to the hurricane-related damage and preparing the facility to reopen.

After the evacuations of Coney Island and Bellevue Hospitals, there was a four-month process to fully restore services at Bellevue and partially restore services at Coney Island Hospital. During that period, inpatient (and most of the outpatient) services were not being provided at these hospitals. Medical employees were redeployed throughout H+H to meet the demands of the community and to avoid staff attrition, which would have delayed the eventual reopening. In addition, non-medical staff were maintained to assist with the response and recovery of the closed facilities.

### 3) Service Readiness:

In order to re-open medical services to the community as quickly as possible, it was necessary for H+H to maintain its staff in the period after the storm. Some of the staff were in critical supportive functions, both clinical and administrative, throughout H+H's medical facilities. These areas include but are not limited to human resources, laboratories, pharmacy, radiology, finance, quality management, purchasing, and nursing administration. These staff provided essential support and ancillary services necessary for the provision of services to the community during the interim period. In addition, these staff provided administrative support, such as scheduling and payroll, to the essential facility staff. H+H was able to recover as quickly as it did and ramp up services to vulnerable populations so swiftly because staff were maintained and ready to serve.

By continuing work to repair the buildings as quickly as possible, certain areas of H+H's medical facilities became physically ready to re-open earlier than others, and often earlier than initially anticipated. The ability to gradually begin the provision of clinical services as each area became physically ready required the supportive services of the hospital to be fully operational before any such direct service could be provided. The staff in these supportive areas provided a variety of functions including testing and maintaining the laboratory and radiology equipment so that licensure could be maintained; ordering and purchasing supplies; providing payroll and other financial and human resources support to all staff; and managing employees to ensure sufficient staff were called back and available prior to re-opening. Other staff provided supportive patient care such as laboratory and pharmacy. Once all of H+H's facilities were fully repaired and functioning, staff were ready to meet the demands of the predominantly low-income populations it serves.

**Public Services - Department of Parks and Recreation (DPR):** "Safe Up, Clean Up": The City's beaches, including Rockaway Beach in Queens, Coney Island in Brooklyn, and the beaches of Staten Island, suffered heavy damage from Hurricane Sandy. Sand washed from the beach and was deposited across parks, playgrounds, into buildings and onto roads and other public right of ways. Water and floating debris washed away portions of the boardwalk, features of parks and buildings, sidewalks and asphalt areas, leaving behind debris and creating hazardous and unsafe conditions. The City drew down for emergency "Safe Up, Clean Up" work performed by DPR.

A total of \$0.9 million of currently available CDBG-DR funds is allocated towards the Public Services activity provided by DPR.

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

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

A total of \$1.4 million of currently available CDBG-DR funds is allocated towards the Public Services activity provided by FDNY.

**Public Services - Human Resources Administration (HRA):** In response to the Hurricane, New York City opened Disaster Assistance Centers (DASCs), later converted to Restoration Centers, in the areas most affected by Hurricane Sandy. The multiservice DASCs/Restoration Centers were established to administer critical information and resources to individuals, families, and businesses devastated by Sandy.

The City drew down for labor costs for work performed by the Human Resources Administration (HRA). HRA oversaw several Disaster Assistance Centers, which provided a mix of services to impacted New Yorkers, including the distribution of food and emergency commodities, and information. Additional Emergency Protective Measures conducted by HRA include the management of emergency/mass feeding program, emergency supplies and materials, security services for HRA personnel and locations, janitorial services, and fuel tank rentals for temporary generators.

A total of \$1 million of currently available CDBG-DR funds is allocated towards the Public Services activity provided by HRA.

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

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

- Preparation measures such as testing and fueling generators and relocating and securing Department assets such as aircraft, boats, and vehicles.
- Evacuation of citizens who reside in Zone A<sup>1</sup>.
- Search and rescue of stranded civilians who did not evacuate flood zones.
- Assisting in relocating the City's homeless to shelters.
- Distribution of life-saving equipment and food and water to residents who lost their homes and personal property.
- Enforcement activities including residential and commercial anti-looting patrols, focusing on key neighborhoods around the City that were without power.
- Assisting in debris removal by moving fallen trees and pumping water from flooded tunnels and other flooded areas.
- Regulating traffic, and monitoring citywide gas distribution.
- During the citywide gas shortage officers were posted at open gas stations throughout the City.
- Neighborhood patrols and door-to-door checks on residents in the public housing facilities that lost water and electricity.
- Housing officers distributed food, water, blankets and transported residents, particularly senior citizens, to medical care.
- Police Communication Technicians worked significant overtime to ensure adequate coverage for the City's Emergency 911 system, handling unprecedented call volume.
- Traffic Enforcement Agents worked overtime to direct traffic in the neighborhoods without power throughout the duration of the power loss.

A total of \$17.4 million of currently available CDBG-DR funds is allocated towards the Public Services activity provided by NYPD.

**HUD ELIGIBILITY CATEGORY:** Public Services (24 CFR 570.201(e))

**NATIONAL OBJECTIVE:** Low- and Moderate-Income Area and Urgent Need

**CDBG-DR ALLOCATION:** \$224,748,000

**PROJECTED ACCOMPLISHMENTS:** 8.2 million persons served. The activities under public services vary in terms of how they benefit the City. For example, NYPD overtime is stated to be citywide activity based on the aggregation of individual precinct services areas. Accomplishments will be defined in HUD's Disaster Recovery Grant Reporting system at the individual activity level.

**PROGRAM ADMINISTRATION:** NYC Health + Hospitals, Department of Citywide Administrative Services, Department of Parks and Recreation, Fire Department (including EMS), Human Resources Administration, and New York City Police Department.

**ELIGIBLE APPLICANTS/PROPERTIES:** All members of the public impacted by Hurricane Sandy.

**PROGRAM PRIORITIES:** To provide for the health, safety, and welfare of City residents.

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<sup>1</sup> Hurricane Evacuation Zone A was in effect during Hurricane Sandy. In 2013, the City updated the Hurricane Evacuation Zones to Zones 1-6, whereas Zone A no longer exists

**GEOGRAPHIC AREA TO BE SERVED:** Citywide

**PROGRAM START AND END DATES:** October 27, 2012 – June 30, 2016

**OTHER FUNDING SOURCES:** FEMA Public Assistance

**15 PERCENT PUBLIC SERVICES CAP:** With this reclassification of costs, the estimated Public Services IOCS activity of \$224.75 million, the Housing program activities of Build it Back Workforce Development activity of \$3 million, the workforce development activities of NYCHA of \$1.4 million, and an estimated \$3 million for Business PREP under Business will account for 5.4 percent of the total \$4.21 billion in grant funds, well under the 15 percent cap.

**Other City Services - Debris Removal/Clearance**

**PROGRAM OBJECTIVE AND DESCRIPTION:** The City will use CDBG-DR funding to meet the local match share of FEMA Public Assistance funding for CDBG-DR-eligible debris removal and clearance activities to protect the health and safety of residents; allow for open, safe traffic flow; and limit disruption to economic activity. The City's debris removal costs funded through the CDBG-DR Program includes the following activities:

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

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

**HUD ELIGIBILITY CATEGORY:** Debris Removal (24 CFR 570.201(d))

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

**CDBG-DR ALLOCATION:** \$6,655,000,000

**PROJECTED ACCOMPLISHMENTS:** 8.2 million persons served, including the Bronx, Brooklyn, Manhattan, Queens, and Staten Island. Stemming from information given in various FEMA PWs and the nature of the City's response to the storm, the aggregation of all debris removal activities has benefitted the entire city. Accomplishments will be defined in HUD's Disaster Recovery Grant Reporting system at the individual activity level.

**PROGRAM ADMINISTRATION:** Department of Parks and Recreation; New York City Fire Department

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

**GEOGRAPHIC AREA TO BE SERVED:** Citywide

**PROGRAM START AND END DATES:** October 31, 2012 – June 30, 2014

**OTHER FUNDING SOURCES:** SBS worked with DPR to hire temporary workers to assist with cleanup efforts, using Federal National Emergency Grant funds. FEMA Public Assistance awarded \$243 million in Category A Project Worksheets for debris removal.

#### Other City Services - Interim Assistance (Rapid Repairs)

**PROGRAM OBJECTIVE AND DESCRIPTION:** The NYC Rapid Repairs Program assisted residential owners impacted by Hurricane Sandy with emergency repairs to their private properties to the extent necessary to alleviate the emergency conditions caused by the storm. These emergency repairs allowed residents to stay safely in their homes to complete permanent repairs. This was a pilot program approved by FEMA to be used in lieu of placing families into temporary housing units. Emergency repairs included restoration of heat, electricity, and hot water, and other limited repairs to protect a home from further significant damage. NYC Rapid Repairs assisted over 11,500 buildings comprising nearly 20,000 residential units, in the five boroughs. Under the NYC Rapid Repairs program, the City deployed nine prime construction contractors and 185 subcontractors to make emergency repairs on residential properties affected by Hurricane Sandy. At the peak of the program, NYC Rapid Repairs completed work on more than 200 homes per day with a peak labor force of more than 2,300 skilled tradespeople working in a single day under nine prime contractors. With the program near completion, NYC Rapid Repairs After-Care was launched, with a customer service team dedicated to assisting individual homeowners and answering their questions. Residential property owners that received NYC Rapid Repairs assistance are also eligible to apply for the NYC Build It Back program to complete repairs to the housing unit.

Substantially, these costs were incurred prior to the preparation of the City's original Action Plan approved by HUD in May 2013 and prior to Interim Assistance being identified as a contemplated activity in a subsequent substantial Action Plan Amendment. The City will ensure that all CDBG-DR reimbursements for Rapid Repair activities are consistent with the requirement of HUD's March 5, 2013 Federal Register Notice, with regard to pre-award requirements. The City is subject to the

provisions of 24 CFR 570.200(h) but may reimburse itself or its subrecipients for otherwise allowable costs incurred on or after the incident date of the covered disaster.

**HUD ELIGIBILITY CATEGORY:** Interim Assistance (24 CFR 570.201(f)(2)(iii))

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

**CDBG-DR ALLOCATION:** \$97,130,000

**PROJECTED ACCOMPLISHMENTS:** 20,740 units (approximately 54,000 Persons) served.

**PROGRAM ADMINISTRATION:** Department of Environmental Protection, Mayor's Office of Housing Recovery

**ELIGIBLE APPLICANTS/PROPERTIES:** Residential properties sustaining damage from Hurricane Sandy.

**ELIGIBILITY CRITERIA:**

- Residential property owners within the five boroughs of NYC.
- Homes were required to be deemed structurally safe by the NYC Department of Buildings as denoted by a Yellow or Green placard on the door or no placard at all. Homes with Red placards had to make any necessary repairs to transition to a Yellow or Green placard before a NYC Rapid Repairs Team could safely enter their home.
- Homes were required to be free of standing water to allow for a safe inspection. If there was standing water in the home, homeowners were required to register with the Rapid Repairs Program. The City dewatered homes prior to scheduling an appointment with a NYC Rapid Repairs Team.

**GRANT/LOAN SIZE LIMIT:** Determined based on need.

**PROGRAM PRIORITIES:** The highest priority of the program was to restore heat, electrical power, and hot water to damaged homes.

**GEOGRAPHIC AREA TO BE SERVED:** Storm impacted areas of the five boroughs.

**PROGRAM START AND END DATES:** November 9, 2012 – March 31, 2013

**OTHER FUNDING SOURCES:** FEMA Public Assistance

## Infrastructure Programs

The City of New York's CDBG-DR funds are being considered for a number of infrastructure projects that vary in scale and scope throughout all five boroughs. For some projects, the City intends to provide CDBG-DR as matching funds to other federally-funded infrastructure projects, especially Public Assistance projects where FEMA funds provide 90 percent of the total project cost and HUD funds will provide the remaining 10 percent share. Previously, the City intended to use CDBG-DR funds as match for more projects, but has instead decided to fill that need with City Capital funds.

Listed below are potential projects that are being considered for these funds. The City intends to make final determinations for CDBG-DR funding of infrastructure projects by September 2017. The City's decisions for final CDBG-DR infrastructure projects will be prioritized based on the following criteria:

- Projects that are larger-scale and will have a higher impact on affected communities
- Projects that primarily benefit Low- and Moderate-Income (LMI) persons and vulnerable populations
- Projects where the City can best apply cross-cutting federal requirements
- Considering project timelines that can best meet HUD's two-year timeline for drawing down CDBG-DR funds
- Projects that were impacted by Hurricane Sandy and include additional resiliency measures.

These criteria may change over time, as the City's priorities may shift.

## Infrastructure - Rehabilitation/Reconstruction of Public Facilities

**PROGRAM OBJECTIVE AND DESCRIPTION:** Hurricane Sandy impacted a variety of City facilities throughout the five boroughs of New York City which are operated by many City agencies. The City of New York's CDBG-DR funds are being considered for a number of these infrastructure projects. The City intends to provide CDBG-DR as matching funds to other federally-funded infrastructure projects. Following HUD's guidance, the City will adopt FEMA environmental reviews when feasible.

For a more comprehensive list of sites that were damaged, please see Appendix C. Narrative are provided below for the projects being considered for CDBG-DR funding.

### Rehabilitation/Reconstruction of Public Facilities - NYC Health + Hospitals (H+H)

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

H+H received a commitment from FEMA of \$1.72 billion in Section 428 Public Assistance Alternative Procedures (PAAP) funding for four facilities: Coney Island Hospital in Brooklyn,

Bellevue Hospital Center in Manhattan, Metropolitan Hospital Center in Manhattan, and Coler Specialty Hospital on Roosevelt Island. Specifically, at Coney Island Hospital, funds will be used to reimburse H+H for repairs it made to that facility's basement, first floor, and electrical systems, as well as for the construction of a resilient building that will house an emergency department and ancillary services as well as a flood wall. Bellevue Hospital, H+H's flagship Manhattan hospital, will receive funding towards repair or replacement and relocation of much of its storm-damaged equipment as well as flood protection measures. Metropolitan Hospital will use funds for electrical repairs and flood protection measures. Coler Hospital will replace a generator that was destroyed, complete electrical repairs, and flood protection measures. The City anticipates providing a portion of the 10 percent match in CDBG-DR funds for the 428 PAAP grant.

This project is a 428 Public Assistance Alternative Procedures (PAAP) Pilot Program. The flexibility of the 428 PAAP program may allow communities to mitigate non-disaster damages and may be of strategic advantage for a given community's long-term capital planning. CDBG-DR funds in the amount of \$35 million will cover some design portions of the local match on this FEMA award. Remaining match needs are covered by funding committed as part of the City's September 2016 Capital Commitment Plan.

#### Rehabilitation/Reconstruction of Public Facilities - Department of Parks and Recreation (DPR)

The City of New York identified damage to approximately 400 park sites, including existing buildings and 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). The new facilities and boardwalk are anticipated to provide protective structures that are more resilient and able to withstand storm and tidal forces that may impact the coastline in future years. Rockaway Beach Boardwalk is considered a HUD Covered Project and is further discussed in the "Covered Project" section. This project is a 428 Public Assistance Alternative Procedures (PAAP) Pilot Program. The flexibility of the 428 PAAP program may allow communities to mitigate non-disaster damages and may be of strategic advantage for a given community's long-term capital planning. The estimated HUD CDBG-DR share for the Rockaway Boardwalk project is \$48 million.

*See the "IOCS Covered Projects" section for a detailed description of DPR's major infrastructure project.*

### Rehabilitation/Reconstruction of Public Facilities - New York Fire Department (FDNY)

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

The Department also suffered losses of information technology equipment, communications networks and infrastructure, firefighting equipment, and ambulances. Communications damages include the loss of 615 damaged street alarm boxes located throughout all five boroughs, as well as damage to the underground Emergency Communication System. 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. The estimated HUD CDBG-DR share for FDNY-related projects is \$2.5 million.

The separate Emergency Communication System & Firehouse Conduit project for FDNY, funded 90% by FEMA through the Section 428 Public Assistance Alternative Procedures (PAAP) Pilot Program, and previously contemplated to have CDBG-DR funds cover the 10% local share, will instead have the local share instead covered with City funds reflected as part of the 2016 September Capital Commitment Plan. That project is fully funded.

### Rehabilitation/Reconstruction of Public Facilities – Trust for Governors Island (TGI)

**PROGRAM OBJECTIVE AND DESCRIPTION:** In October 2012, heavy rain, high winds, storm surge and waves generated by Storm Sandy caused flooding in the low lying areas of Governors Island inundating some amount of electrical conduit. TGI is seeking a designer to assess the current condition of the conduits, manholes, cables, and duct banks impacted by the Storm in order to provide engineered drawings and specifications for TGI to procure a contractor to perform the necessary work. In order to provide this assessment, shutdowns of power and supervision by the island's operating engineers and construction managers will be necessary.

Construction activity will, by necessity, include pulling all potentially inundated cable and scoping the conduit. Construction activity may also include pulling and replacing conduit if found to have been damaged. The estimated HUD CDBG-DR share will be \$1 million.

**Rehabilitation/Reconstruction of Public Facilities-Hazard Mitigation Grant Program (HMGP): Resiliency and Mitigation Measures for Nursing Homes and Adult Care Facilities**

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 HMGP projects for which the City intends to use CDBG-DR as a source of local match will directly respond to Sandy-related impacts in neighborhoods that were severely damaged by storm surge, flooding, and wave action from Hurricane Sandy. These projects will protect infrastructure, public facilities, and/or homes that were damaged by the storm.

**PROGRAM OBJECTIVE AND DESCRIPTION:** The City is proposing mitigation solutions that ensure continuation of power at several of the most vulnerable Nursing Home and Adult Care facilities through the protection of new or existing backup power generators and electrical systems. This project will install new emergency generators, elevate existing emergency generators, and/or install common switch-gears and transfer stations in several nursing homes and adult care facilities. This project is intended to both ensure stable backup power and to decrease susceptibility to electrical system flood damage by meeting the FEMA 500 year flood elevation.

**HUD ELIGIBILITY CATEGORY:** Rehabilitation/Reconstruction of Public Facilities and/or Improvements (24 CFR 570.201(c))

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

**CDBG-DR ALLOCATION:** \$4,100,000

**ELIGIBILITY CRITERIA:** Participating facilities that are private nonprofits will be served by the CDBG-DR funding.

**PROGRAM ADMINISTRATION:** Department of Design and Construction

**GEOGRAPHIC AREA TO BE SERVED:** New York City neighborhoods inundated by the storm.

**PROGRAM START AND END DATES:** October 20, 2012-September 30, 2019

**OTHER FUNDING SOURCES:** FEMA Hazard Mitigation Grant Program (HMGP)

**Covered Projects Overview**

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 Sandy 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 of CDBG-DR funding 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.” Per HUD, projects “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.

In December 2012, the City’s Special Initiative for Rebuilding and Resiliency (SIRR) convened to address the creation of a more resilient New York City in the wake of Hurricane Sandy, with a long-term focus on preparing for and protecting against the impacts of climate change. A final report, released in June 2013, presents actionable recommendations both for rebuilding the communities impacted by Sandy and increasing the resiliency of infrastructure and buildings citywide.

Each Covered Project must address five 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
- Environmentally Sustainable and Innovative Investments

The City of New York has made it a priority to leverage other federal funding sources in order to increase the number of projects the City can fund with CDBG-DR funds.

**Covered Project:**

**Rehabilitation/Reconstruction of Public Facilities - Department of Parks and Recreation (DPR) – Rockaway Boardwalk**

In Rockaway Beach, Queens, 37 blocks or nearly 3 miles of boardwalk, experienced severe damage as a result of Hurricane Sandy. CDBG-DR funds are anticipated to fund the planning, design, and related services for the Rockaway Beach Boardwalk, which was damaged by Hurricane Sandy. Design work began in August 2013 and construction began in April 2014. All work is scheduled to be complete by May 2017. It is anticipated to provide 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, tree replacement, 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, DPR 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, DPR 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, DPR 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, DPR will work with USACE to develop and implement a more robust defense against future weather events, including the construction of seawalls and dunes.

**1. PROJECT IDENTIFICATION/DESCRIPTION:**

NYC has determined that DPR's design and construction of the Rockaway Boardwalk is a Covered Project, per HUD's definition. In Rockaway Beach, Queens, 37 blocks or nearly 3 miles of boardwalk, experienced severe damage as a result of Hurricane Sandy. CDBG-DR funds are anticipated to fund the planning, design, and related services for the Rockaway Beach Boardwalk. Design work began in August 2013 and construction began in April 2014. Substantial completion is scheduled for May 2017. It is anticipated to provide protective structures that are more resilient and able to withstand storm and tidal forces that may impact the coastline in future years.

As of the City's Fiscal 2016 preliminary Financial Plan, project costs for the Rockaway Beach Boardwalk are estimated at \$341 million for construction of the coastline protection measures and the boardwalk. Part of these projects will be covered by FEMA and the remainder through CDBG-DR funds. The proposed 428 PAAP activities of this project will bring the total cost up to \$480 million. As this is a FEMA 428 PAAP project, funds are currently capped at \$480,373,535. The City has allocated \$48 million for the FEMA local match portion of this project to HUD-eligible activities.

This project will 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 by 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. In a separate project 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, new access to the beach would be included with stairs and ramps across the new dune.

In addition, this project 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 nourished beach that will be extended 200 feet seaward from the USACE dune. USACE intends to maintain the dune and the beach, and nourish them as necessary. In addition, as a result of an ongoing Reformulation Study, USACE may provide additional protective measures to further protect the coastal structures, through a separate project than this Covered Project. 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 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.

### **Green Infrastructure**

This project has been identified as a Green Infrastructure project, as it will incorporate elements integrating natural systems and processes in resilient infrastructure. Design work began in August 2013 and construction began in April 2014. Substantial completion is scheduled for May 2017. The designs for the boardwalk are expected to include green infrastructure elements, including planting of beach grass on the crest and toe of the dune implemented by USACE, further stabilizing the dune. Additional sand will also be added on the north side of the dune and underneath the boardwalk, which will be held in place by a sand retaining wall. This adds another layer of reinforcement to the dune installed by USACE.

**ELIGIBLE ACTIVITY:** Rehabilitation/Reconstruction of Public Facilities

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

1. 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.

Coastal protection is covered in Chapter 3 of *A Stronger, More Resilient New York*. 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. As mentioned in the report, to address the risk of storm flooding, the City will work to keep water from storm surge out of vulnerable neighborhoods and away from critical infrastructure. To do this, the City will use flood protection structures, such as floodwalls, levees, and local storm surge barriers built, where possible, to the 100-year flood elevation with an additional allowance for future sea level rise. Generally, the City will seek measures that minimize damage if overtopped.

There are two initiatives identified within *A Stronger, More Resilient New York* that relate to this project: Initiative 2 and Initiative 11. The focus of Initiative 2 is to continue to work with USACE to complete emergency beach nourishment on the Rockaway Peninsula. The scope of Initiative 11 is to continue to work with USACE to complete existing studies of the Rockaway Peninsula and implement coastal protection projects.

The Rockaway Boardwalk project is an important element of the *A Stronger, More Resilient New York* 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 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. On June 2, 2014, HUD announced the six winning proposals and additional four finalists. The City will use the Rebuild by Design risk analysis developed by the winners to help evaluate Covered Projects. The City is also basing its risk analysis on the *A Stronger, More Resilient New York* report. Public outreach was a priority during the process of developing the *A Stronger, More Resilient New York* report. Elected officials, community leaders, and the general public were consulted and their input contributed to the recommendations outlined in the report.

## 2. 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. 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. DPR 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 the Rockaway Boardwalk project outreach process. 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. As of November 2014, City officials held approximately 30 meetings with the community to solicit input on design, and provide regular updates on the progress of the project. Early listening sessions also included solicitation of input on preferences for the aesthetic treatment of the boardwalk decking through a survey which was also posted on the DPR website. 680 responses were received both in person and online, which informed the selected color and texture of the concrete for the boardwalk surface as well as programming of a dedicated bike lane.

In addition, the public was informed of the City's proposal to fund the Covered Projects described in the Action Plan through the outreach done during the Action Plan Amendment 5B public comment period. The outreach includes a public comment period on the amendment, three public hearings, and information posed on the City's CDBG-DR website. The City's Action Plan amendment process is further detailed in the Citizen Participation section of the Action Plan.

There has also been a transparent and inclusive process for the FEMA funding. Following a Presidential disaster declaration, the Federal Emergency Management Agency (FEMA) makes disaster assistance available to eligible applicants. One source of funding is the Public Assistance (PA) Program. Potential recipients of this assistance include State, Tribal, and local governments and certain types of private nonprofit organizations. PA funding is made available through an inclusive and transparent process that is open to representatives of the State as well as potential applicants for funding.

There are two ways that FEMA disseminates and makes available to the public and potential applicants information about the PA Program.

The first is through the use of a Joint Information System (JIS) initiated immediately after the disaster. The JIS provides the mechanism to organize, integrate and coordinate information to ensure timely, accurate, accessible and consistent messaging to multiple jurisdictions about the availability of and application deadlines for FEMA programs, including the PA Program. The JIS includes the plans, protocols, standard operating procedures, and structures used to provide public information. The JIS is supported by federal, State, tribal, territorial, regional or local Public

Information Officers and Joint Information Centers. As the disaster progresses FEMA, puts out press releases regarding funding for various projects.

A second way in which FEMA notifies potential applicants of the availability of PA funding is through a series of steps that all aim to educate and make information known about the PA Program. The steps are:

- Preliminary Damage Assessment (PDA): The PDA is a collaborative process in which FEMA, the State, and an applicant representative participate. The PDA is performed to document the impact and magnitude of the disaster on individuals, families, businesses, and public property and to gather information for disaster management purposes.
- Applicants' Briefing: An Applicants' Briefing is a meeting conducted by a representative of the State for potential Public Assistance applicants. The briefing occurs after an emergency or major disaster has been declared and addresses application procedures, administrative requirements, funding, and program eligibility criteria. FEMA will use the JIS to publish notices in newspapers about the dates, times and locations of Applicant Briefings. FEMA personnel participate in the briefing to clarify issues and respond to questions regarding eligibility, floodplain management, insurance requirements, environmental considerations, hazard mitigation, and federal procurement standards.
- Kickoff Meeting: The Kickoff Meeting is conducted by designated FEMA staff members and designed to provide a much more detailed review of the PA Program and the applicant's needs. The meeting is the first step in establishing a partnership among FEMA, the State, and the applicant, and is designed to focus on the specific needs of that applicant. The meeting focuses on the eligibility and documentation requirements that are most pertinent to an applicant.
- Project Formulation: Project formulation is done in cooperation between FEMA, the applicant and State representatives. It is an exchange of information to identify eligible scopes of work and to estimate the costs associated with that work for each of the applicant's projects.

### 3. Long-Term Efficacy and Fiscal Sustainability

NYC OMB and DPR will collaborate in the development of a plan to monitor and evaluate the Rockaway Boardwalk project. DPR has a formal inspection program handled by the Operations and Management Planning division (OMP) which conducts detailed inspections of 16 features at every property DPR maintains. The beach and boardwalk zones and any comfort stations therein are inspected a minimum of twice per year by the OMP inspectors, and a detailed report of conditions noted along with a photo report is generated from these inspections. Any hazardous condition that is identified would be emailed on the same day to the Chief of Operations and district Manager who would then assess the best means for repair. In addition to the formal OMP inspections, district management staff are asked to make regular assessments of the structural condition and cleanliness of these properties, and all staff are instructed to report any unsafe condition immediately upon discovery. Again, these conditions would be remedied in the manner that the district supervision deemed most appropriate, either with skilled trades from the shops or maintenance workers or district staff depending on the particular issue.

In addition, USACE intends to maintain the dune and the beach and renourish them as necessary. Efficacy and sustainability are considered in the design of this project. The boardwalk is being designed 3+ feet higher than the 100 year flood elevation to account for future changes in sea level or other natural forces. The engineers are also designing the structure for a 50+ year service life.

A Needs Assessment with the prevalent data and justification for the project is in previous sections of this Action Plan. As a result, the purpose of this plan is to convey how the CDBG-DR Partners and DPR will monitor the planning, implementation, and achievement of key milestones in the delivery of the completed Covered Project. The plan will also include the evaluation methodology, which the CDBG-DR Partners and DPR will implement after the project is complete. The purpose of the evaluation methodology is to determine the Covered Project's efficacy level in addressing the community needs over a period of time. Components of the evaluation methodology may include the use of data to establish a baseline, monitor progress over a designated period of time, and establish benchmarks to gauge the effectiveness of the project against anticipated outcomes.

The environmental conditions, such as rise in the sea level, flooding, heat waves, and other climate changes, may impact this Covered Project. As reported in the *A Stronger, More Resilient New York* 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 *A Stronger, More Resilient New York*, the Mayor's Office will work with NPCC and key stakeholders to develop additional climate change projections and to make these projections even more useful.

This plan to monitor and evaluate DPR's Covered Project may use the City's resiliency performance measures, described earlier in the IOCS section, and utilize best practices from similar projects, such as HUD's Sustainable Housing and Communities Initiatives and the New York-Connecticut Sustainable Communities Consortium, to develop and implement risk management tools to identify the long-term impact of changing environmental conditions. In combination with the results from the evaluation of this project, data from the risk management tools will guide the CDBG-DR partners and the City in strengthening their strategic plan to mitigate the impact of future storms and climate changes.

DPR maintenance regularly inspects the boardwalk for public safety concerns, and will report any issues to the Capital department if they notice what they believe to be structural issues beyond normal wear and tear. In addition, USACE intends to maintain the dune and the beach and renourish them as necessary.

During implementation of the monitoring plan, 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. DPR 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.

The City CDBG-DR Partners will leverage the current funding partnerships and Covered Project results for fiscal sustainability. The goal is to increase investments from the government, non-profit, and private sectors for the project. These investments will be vital to the maintenance and necessary improvements after the CDBG-DR funds are exhausted for this project.

#### 4. 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.

*A Stronger, More Resilient New York* 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 *A Stronger, More Resilient New York* 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.

#### **Rehabilitation/Reconstruction of Public Facilities - Department of Parks and Recreation (DPR) - Beach Open Up**

The Beach Open-Up series of projects implemented by the Department of Parks and Recreation, described in part as a Covered Project in the Action Plan incorporating Amendments 1-11, has been reconsidered such that its various components do not constitute a Covered Project. The description of the project in Action Plan Amendment 12 is revised to remove descriptions associated with Covered Project requirements. This assessment was based off of the Beach Open-Up projects not meeting the definition of infrastructure and based off of the timing by which the project was substantially completed. The City of New York is still in discussions with FEMA and the State Department of Homeland Security and Emergency Services regarding the amount of FEMA funding for this project. The resolution of those discussions will potentially impact any CDBG-DR funding

for this series of projects. Other relevant pieces of information regarding the Parks Beach Open-Up activity will remain as currently described.

## X. COASTAL RESILIENCY

**Summary of changes:** *The unmet needs section has been updated to provide clarifying information. Additionally, \$152 million of funding for Coastal Protection will be reprogrammed to the Build it Back Single Family Program. City Capital provided as part of the 2016 September Capital Commitment Plan has been identified in place of the CDBG-DR funding. The City of New York is fully committed to providing the same level of funding for Coastal Resiliency as was previously identified in the Action Plan.*

*Program updates have been included for the City's two Rebuild by Design projects: East Side Coastal Resiliency and Hunts Point.*

*The Breezy Risk Mitigation System has been moved from the IOCS to the Resiliency chapter.*

### **Additional Details:**

*The following text under the third and fourth paragraphs of the "New York City's Sustainability and Resiliency Planning Pre- and Post-Sandy" section will be updated as follows to reference the One City, Rebuilding Together report. In addition, the "Resiliency Investments" chart will be removed. Information about resiliency measures as part of other programs can be found in the preceding chapters.*

The result of this 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 PlaNYC 2014 Progress Report detailed the progress made for each initiative in the year following the initial plan release.

In March 2014, Mayor de Blasio released One City, Rebuilding Together to accelerate the City's housing recovery program and expand the City's climate resiliency plan. A progress update for One City, Rebuilding Together was released on October 22, 2015 and can be reviewed at: <http://www1.nyc.gov/assets/home/downloads/pdf/reports/2015/One-City-Progress-Report.pdf>.

*The following text is being added under the "Unmet Coastal Protection Need" section, following the first paragraph. This text was previously in the section entitled "Resiliency Funding Gap":*

Since the release of *A Stronger, More Resilient New York*, the City has made progress on 240 initiatives (or 93 percent). Despite this significant progress and the Action Plan investments, the plan still faces a funding gap. While *A Stronger, More Resilient New York* identifies a Resiliency unmet need of \$4.5 billion dollars, the City is identifying an unmet for Coastal Protection resiliency measures of \$2.4 billion so as not to "double-count" Resiliency needs already accounted for within the Housing, Business, Infrastructure, and Other City Services categories. 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 in East Harlem, the East Side of Manhattan, 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 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 HUD's Rebuild by Design program are collaborating on projects including protecting critical food markets in Hunts Point and protecting vulnerable neighborhoods in the East Side of Manhattan.

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.

*The "Coastal Protection Programs" section is being renamed "Raise Shorelines," as this is the only component of the previous Coastal Protection Programs that will now be funded by CDBG-DR. The Red Hook Integrated Flood Protection System project is no longer being funded using CDBG-DR funds and will move forward with Capital funds the City is providing as part of the September 2016 Capital Commitment Plan. Thus, the entire "Coastal Protection Programs" section is being replaced with the following text. For the Raise Shorelines program, beyond the \$109 million of funding identified (\$7 million CDBG-DR and \$102 million City Capital), there is an additional unmet need estimated to be in excess of \$200 million for the next phase of raise shoreline deployments in various communities throughout New York City.*

## **Raise Shorelines**

**PROGRAM OBJECTIVE AND DESCRIPTION:** This program aims to protect neighborhoods and infrastructure that were adversely impacted by Sandy by strengthening coastal protection measures. 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.

Approximately \$7 million in CDBG-DR funding will be used for design and permitting for coastal protection measures in low-lying neighborhoods throughout the City, including a number of low- and moderate-income communities impacted by Hurricane Sandy, to minimize inland tidal flooding. City capital funding of \$102 million provided as part of the 2016 September Capital Commitment Plan will be used to install coastal protection measures in areas where Sandy's water damage caused significant physical damage and left neighborhoods exposed to additional flooding.

**CDBG-DR ALLOCATION:** \$7,000,000

**HUD ELIGIBILITY CATEGORY:** Planning and Administration (24 CFR 570.205 & 570.206)

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

**PROJECTED ACCOMPLISHMENTS:** Reduced risk of coastal wave action, erosion, and flooding in targeted neighborhoods.

**PROGRAM ADMINISTRATION:** Mayor's Office of Recovery and Resiliency, New York City Economic Development Corporation

**PROGRAM PRIORITIES:** Sites subject to wave action, erosion, and flooding—particularly in areas with large low- and moderate-income populations. 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 affected by Sandy's impact.

**PROGRAM START AND END DATES:** Design anticipated to be complete by Q4 2018.

*The following project, the Breezy Point Risk Mitigation System, was previously in the Hazard Mitigation Grant Program section of the Infrastructure and Other City Services chapter as a Covered Project. It is now in the Resiliency chapter. For more background about Covered Projects and their requirements, see the Covered Projects section in the IOCS chapter.*

## **Rehabilitation/Reconstruction of Public Facilities – HMGP Breezy Point Risk Mitigation System**

### **PROJECT IDENTIFICATION/DESCRIPTION:**

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 one of the City's HMGP applications approved by the State of New York. FEMA can fund up to 75 percent of the eligible costs of each project. The State or grantee must provide a 25 percent match. The City expects to provide the 25 percent match for these projects through CDBG-DR.

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

On August 25, 2015, HUD issued a waiver of 24 CFR 570.202(a)(1) to the extent necessary to permit new construction of a flood mitigation system at Breezy Point, a privately held cooperative in Queens, by classifying the entire system as an improvement for residential purposes. The Breezy Point Risk Mitigation System provides a natural method of defense for the neighborhood and adjacent communities. The development of a new dune will provide layers of defense for the community and protect post-Sandy federal housing investments; this is not the repair or

reconstruction of a preexisting dune facility. Those layers of defense include protecting Rockaway Point Boulevard, the only public road in and out of Breezy Point, and the prevention of backdoor flooding through the community (a large cause of damage during Hurricane Sandy). The City has considered alternatives to this project including elevation and/or buyouts of the flood prone properties in the community. The City's analysis, however, determined that this recovery path would be more expensive and displace individuals from their homes, which would diminish the local tax base and decrease the economic vitality of the community.

#### *Damage from Hurricane Sandy*

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 because Breezy point is a private cooperative property (USACE does not perform work on private property), 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.

Rockaway Point Boulevard was under six feet of water during the storm and impassable for four hours. The Fire Department of New York City (FDNY) was blocked from getting to the area as residential fires burned for over three hours leading to the complete destruction of 125 homes and approximately 25 homes and business in the neighboring communities of Belle Harbor and Rockaway Park. FDNY spent more than one week pumping sea water off the road.

The proposed project is in direct response to the damage this community suffered from Hurricane Sandy. The dune is designed to absorb stormwater and protect Rockaway Point Boulevard from severe flooding and adjacent communities from backdoor flooding (a source of severe damage during Hurricane Sandy). This would enable emergency personnel to access the community during the next disaster and perform critical lifesaving services for 2,837 homes in the community, a commercial area with a bank, supermarket, lumber yard, hardware store and restaurant. The project would also help protect the three volunteer firehouse and ambulance organizations that serve the community.

The Breezy Point Risk Mitigation system will help protect dunes already constructed by the New York City Department of Parks and Recreation (NYC DPR) to the east of the area that are designed to mitigate against seven and one-half miles of housing.

#### *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 impacts 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, who 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 was 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 bayside. 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 bayside of the peninsula needs special attention to widen the beach for urgent flood and erosion protection, which includes enhancing existing structures. Protection of the bayside 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 combined cost of the project, both ocean-side and bayside, is estimated at \$58.1 million and is expected to mitigate damages, such as those incurred by Sandy (Sandy damages amounted to over \$400 million). More specific cost estimates on ocean and bay side investments will be available after the completion of Phase 1B (anticipated in 2016). Breezy Point Risk Mitigation System will explore several sources of potential funding, including FEMA Hazard Mitigation Grant Program funding (pending approval by FEMA) and FEMA Public Assistance funding for damaged properties in the community. New York City and FEMA are in discussion about funding this HMGP application in two phases. One would consist of Technical Review and Design and the second phase will consist of construction.

FEMA approved \$1.2 million for Phase 1 and \$3.86 million for Phase 1B. Phase 1 and Phase 1B both carry a 25 percent local match requirement, which the City intends to cover with CDBG-DR.<sup>2</sup>

Phase 2 of this project is estimated to be \$54.3 million and carries a 25 percent local match requirement. FEMA approval of Phase 2 is anticipated in 2018.

The City intends to use CDBG-DR to fund the local match requirement of the HMGP grant.

### *Green Infrastructure*

Breezy Point suffered damage from Sandy and remained exposed to extreme weather events, particularly along the ocean. The City, therefore, believes a dune project is necessary to protect this neighborhood and to demonstrate the general effectiveness of primary and secondary dune systems as a defense against storm waves and flooding. The objective of the proposed 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 Sandy-level event and provide long term, sustainable protection with minimum project maintenance.

#### 1. 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, the Special Initiative for Rebuilding and Resiliency was formed to focus on improving citywide infrastructure and building long-term resiliency. *A Stronger, More Resilient New York* put forth a comprehensive plan containing actionable recommendations for rebuilding Sandy-impacted communities and for increasing the resiliency of infrastructure and buildings citywide. The 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. On June 2, 2014, HUD announced the award of \$930 million to the winning ideas. The City will use the collaborative risk analysis developed by the winners for the New York City projects. The City will use the Rebuild By Design risk analysis to evaluate Covered Projects. In the meantime, the City is basing its risk analysis on *A Stronger, More Resilient New York*. Public outreach was a priority during the process of developing

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<sup>2</sup> FEMA documentation refers to Phases 1, 2, & 3, which is equivalent to Phase 1, 1B, & 2, respectively.

the report. Elected officials, community leaders, and the general public were consulted and their input contributed to the recommendations outlined in the report.

## 2. Transparent and Inclusive Decision Processes

As part of the City's storm recovery effort, both the Special Initiative for 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 organizations, community organizations, and businesses. 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.

In addition, the public was informed of the City's proposal to fund the Covered Projects described in the Action Plan, through the outreach done during the Action Plan Amendment 5B public comment period. The outreach includes a public comment period on the amendment, three public hearings, and information posted on the City's CDBG-DR website. The City's Action Plan amendment process is further detailed in the Citizen Participation section of the Action Plan.

This project will be subject to the public notice and comment period requirements of the Uniform Land Use Review Procedure.

## 3. 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 ocean-side dune and bay-side 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 an estimated 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.

The City has proposed a phased FEMA 404 application. Phase 1/1B is a study to determine the appropriate design in terms of level of protection, design, and alignment to best conform with issues of efficacy and the environmental concerns in this sensitive location. A maintenance plan is required by the Hazard Mitigation Grant Program and will be established to ensure the system is maintained and continues to be effective for the proposed life of the project.

If funded, New York City will adhere to best practice standards for assuring the long-term efficacy and sustainability of this program through ongoing monitoring and evaluation in collaboration with

partner regulatory agencies such as the Army Corps of Engineers and New York State Department of Environmental Conservation. The City is currently collaborating with these entities to develop monitoring methodology for the Rebuild By Design Offshore Breakwater and Spring Creek tidal wetland restoration project funded through FEMA Hazard Mitigation Grant Program. The City's monitoring and evaluation efforts will be led by agencies implementing and managing this project (New York City Economic Development Corporation, the Office of Emergency Management, and the Office of Recovery and Resiliency).

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.

#### 4. Environmentally Sustainable and Innovative Investment

A Stronger, More Resilient New York 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 City will incorporate guidance from USACE studies and findings stipulated by Public Law 113-2, for long-term nature based resiliency measures.

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.

**CDBG-DR ALLOCATION: \$14,500,000**

**ELIGIBLE ACTIVITY:** Housing Rehabilitation and Preservation, per waiver in August 25, 2015 Federal Register Notice (80 FR 51589)

**NATIONAL OBJECTIVE:** Urgent Need

**PROJECTED ACCOMPLISHMENTS:** Reduced risk of coastal wave action, erosion, and flooding in the targeted neighborhood.

**PROGRAM ADMINISTRATION:** Mayor's Office of Recovery and Resiliency, New York City Department of Design and Construction

**PROGRAM PRIORITIES:** Sites in Breezy Point that are subject to wave action, erosion, and flooding. Efficient and cost-effective flood protection that does not disrupt the urban environment.

**GEOGRAPHIC AREA TO BE SERVED:** Breezy Point neighborhood of Queens

**PROGRAM START AND END DATES:** Phase 1B is expected to be complete by December 9, 2017. Deadlines for Phase 2 will be established once awarded.

## **Staten Island University Hospital**

*No updates to this project description are provided as part of Action Plan Amendment 12.*

### **Rebuild By Design: East Side Coastal Resiliency**

*The "v) Leveraged or Reasonably Anticipated Funds" section will now read as follows:*

Total CDBG-DR Allocation: \$338,000,000

In addition to the \$335 million allocated to this activity by HUD through the Rebuild by Design competition, the City has dedicated an additional \$3 million in CDBG-DR funding to support this project.

The City has also committed \$170 million in capital funding for interior drainage management associated with the proposed flood protection system.

Any additional gaps in funding for the implementation of Compartment 1 and subsequent Compartments will be identified in the Feasibility Study, Pre-Scoping and Conceptual Design Phase of the project. Strategies to pursue additional funds will be identified at that time

### **Rebuild By Design: Hunts Point Resiliency**

*Under the Project Description, the following sentence has been added to the first paragraph:*

The neighborhood is also home to a large residential community that is challenged by poverty, poor health outcomes, and lack of economic opportunity.

*Under the Project Description, the third paragraph is being replaced with the following:*

The \$20 million in CDBG-DR funding awarded to New York City to advance the Hunts Point project is not sufficient. As such, the allocated funding will be used for continued study, analysis, planning, preliminary design, and stakeholder engagement to further evaluate the project components of the Hunts Point Lifelines proposal for financial and technical feasibility, as directed by HUD. Funds will also be used for design, engineering, and construction of a first phase pilot project that will improve the resiliency of the peninsula, which the City certifies that it will complete. In addition to the \$20 million, an additional \$25 million of CDBG-DR funds will be allocated to support this project, producing a total of \$45 million towards improving resiliency in Hunts Point.

The City has partnered with the New York City Economic Development Corporation (NYCEDC) to manage this project, now called the “Hunts Point Resiliency Project”. During the summer of 2015 the City and NYCEDC convened a local Advisory Working Group of representatives from elected officials, businesses, and non-profit organizations to make recommendations to the City to help identify a pilot project. The Advisory Working Group identified energy resiliency and coastal resiliency as their two priority areas. Based upon these recommendations, and other information, the City’s Hunts Point Resiliency Project will conduct two feasibility studies concurrently to further understand energy and coastal resiliency in the peninsula. The project will then advance the energy resiliency study into a pilot project.

*Under the Citizen Participation Plan, the first sentence will now read:*

Ongoing engagement with stakeholders will further explore resiliency goals and priorities for Hunts Point to advance the study of multiple project components.

*Under Project Timeline, the sentence will now read:*

Stakeholder engagement—2015, Initiation of a pilot project—2016, pilot project conceptual design 2017.

*The following text is being added at the end of the Coastal Resiliency chapter:*

### **Projects to be Funded from Other Sources**

The following section describes projects that will no longer be funded with CDBG-DR but will be moving forward with City Capital funding identified in the City’s September 2016 Capital Plan.

### **Red Hook Integrated Flood Protection System**

#### ***Damage from Hurricane Sandy***

The neighborhood of Red Hook suffered particular damage from Hurricane Sandy’s storm surge and flooding. 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 disabled. 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 (many of which are industrial) 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. The integrated flood protection system is a critical step toward ensuring a more resilient Red Hook community.

### ***Citywide 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; and 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*.

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.

### **Project Description:**

It is anticipated that the IFPS will consist of a combination of permanent and long-term components (e.g., multi-purpose berms, deployable floodwalls, street elevations, structural improvements, and landscape and drainage improvements). The approach would maximize flood protection for vulnerable neighborhood areas and minimize disruption to the neighborhood fabric during non-storm conditions. IFPS elements may include elevation of portions of the Brooklyn Waterfront Greenway.

An initial project cost based on very preliminary information was estimated at \$200 million. The project received \$100 million in funding. The City contributed \$50 million from City capital funds, and the State contributed \$50 million in FEMA HMGP funds.

The project is currently in the feasibility study phase which began in December 2015 and will be completed by December 2016.

## **XI. PLANNING AND ADMINISTRATION**

### **Planning**

*The Planning allocation will be reduced by \$4.32 million. This funding has been reallocated to NYCHA's Program allocation as a reclassification of funds. The intended use of the funds better fits with the description of allowable activity delivery costs for Public Housing than for Planning. The Planning allocation will now be reflected as follows:*

**CDBG-DR ALLOCATION:** \$81,420,000

### **Administration**

*The Administration allocation will be reduced by \$4.68 million. This funding has been reallocated to NYCHA's Program allocation as a reclassification of funds. The intended use of the funds better fits with the description of allowable activity delivery costs for Public Housing than for Administration. The Administration allocation will now be reflected as follows:*

**CDBG-DR ALLOCATION:** \$156,400,000

## **XII. LONG-TERM RECOVERY PLANNING**

*The City of New York released A Stronger, More Resilient New York in June of 2013. The report outlined the first-ever comprehensive coastal protection plan for the city, and contains over 250 detailed initiatives addressing the vulnerabilities of the city's infrastructure, built environment, and coastal communities, and serves as the City's guide to long-term recovery and resiliency planning.*

*In April 2015, One New York: The Plan for a Strong and Just City (OneNYC) laid out a sweeping vision for inclusive growth and climate action by advancing equity with the City's visions for sustainability and resiliency. OneNYC sets forth a comprehensive strategy for the City's long-term recovery and resiliency to ensure that the city's neighborhoods, economy, and public services will be ready to withstand and emerge stronger from the impacts of climate change and other 21<sup>st</sup> century threats.*

*Action Plan Amendment 12 updates Chapter XII. Long-Term Recovery Planning to provide additional details about these reports and provides a link to the latest annual OneNYC Progress Report at: <http://www1.nyc.gov/html/onenyc/downloads/pdf/publications/OneNYC-2016-Progress-Report.pdf>*

*Action Plan Amendment 12 also makes further updates to Chapter XII. LONG-TERM RECOVERY PLANNING to provide additional information describing efforts to apply lessons learned and to develop tools for preparedness for future disasters.*

*Text has been added to this chapter under the following header:*

### **Sound, Sustainable Long-Term Recovery Planning**

The objective for long-term recovery planning is to conduct damage assessments, review hazard mitigation plans, prioritize revitalization strategies, create mitigation strategies, encourage revitalization of disaster-resistant communities and infrastructure, and strengthen the capacity to support business and economic stability. As part of the multi-layered resiliency program detailed in OneNYC, the City has developed programs to buy-down risk in vulnerable coastal communities that were devastated by Hurricane Sandy. These strategies include home buyouts, community planning, land use planning, and updates to zoning code in areas vulnerable to flooding. The City has also established systems and programs to be prepared for a timely and cost-efficient recovery process from the next disaster, including establishing emergency contracts and post-disaster sheltering programs. Finally, the City is incorporating lessons learned from Hurricane Sandy and significant weather events since to enhance its emergency preparedness planning processes, the management of disaster recovery resources, promoting flood insurance, and exploring innovative financing mechanisms for resiliency initiatives.

Below are examples of particular endeavors:

#### **Coastal Community Resiliency Planning**

##### ***Coordination of Buyout Programs:***

The Mayor's Office of Recovery and Resiliency (ORR) is working closely with coastal communities across the city to find solutions to the risks posed by sea level rise and climate change that meet residents' needs. Recognizing that there is no "one size fits all" approach to community resiliency,

the way that risks are addressed will not be the same in every neighborhood and have/will come out of deep and ongoing engagement with community members. In certain high-risk neighborhoods, as part of ORR's multi-pronged approach to making New York City more resilient, the Governor's Office of Storm Recovery (GOSR), the United States Department of Agriculture Natural Resources Conservation Service (USDA NRCS), and the City are working in concert on the following buyout programs:

*The USDA program (Staten Island):* USDA NRCS provided \$23.3 million under the Emergency Watershed Protection Program (EWP): \$17.4 million in funding to buy nine acres of floodplain easements on property that is flood prone in Midland Beach and \$5.9 million in funding to buy 3.25 acres of floodplain easements on property that is flood prone in New Dorp, all subject to voluntary homeowner acceptance of the offers. The easements are intended to restore the area to natural conditions, and to enhance fish and wildlife habitat, water quality, flood water retention, and ground water recharge. 40 properties are currently active in this program.

*NYS Enhanced Buyout Area (Oakwood Beach, Graham Beach, Ocean Breeze in Staten Island):* NYS buys properties located in the floodplain that are determined to be most at risk in future disasters based on a history of flooding or other damage related to extreme weather. HUD requires that once a buyout is completed, all structures must be removed and the land can only be used for environmental purposes, including wetlands restoration and coastal buffer zones. Approximately 500 properties are active in this program.

*City Buyout Program (Neighborhoods in Staten Island, Brooklyn, and Queens outside of NYS Buyout Area):* Sale of Storm-affected homes by eligible 1-4 family homeowners to entities affiliated with the State and City respectively who are responsible for interim management before the properties can be further sold. The City will control any sites deemed unfit for subsequent redevelopment. These buyout sites will eventually be transferred to an entity subject to restrictive covenants prohibiting subsequent development in perpetuity.

Specifically, around 53 City Buyout program properties are active in Ramblersville, Broad Channel, Arverne, and Edgemere, Queens; South Beach, Midland Beach, Oakwood Beach, Great Kills, and Annadale, Staten Island; and Seagate, Brooklyn.

***Resilient Edgemere Community Planning Initiative:***

Edgemere is a vulnerable, low-lying, waterfront community in the Rockaways. Edgemere experienced significant damage from Hurricane Sandy and also experiences regular tidal flooding. The combination of a high water table and flat topography ensures that Edgemere experiences significant flooding from heavy rain events during high tides. In addition, sea level rise predictions for this community demonstrate significant risk for this community's future. Edgemere is a primarily low- to moderate-income community with large tracts of publicly-owned vacant land and is also an active Urban Renewal Area.

Since October 2015, the City's Department of Housing Preservation and Development, in coordination with other City agencies, has spearheaded the Resilient Edgemere Community Planning Initiative, working also with City agencies, community members, elected officials, local organizations, and residents. In facilitating this process, HPD set out to accomplish the following objectives:

- Learn, verify, and organize the important issues from community stakeholders in order to influence City agencies' planning processes
- Brainstorm, develop, and test preliminary strategies that address key neighborhood concerns and could lead to viable policies and projects
- Build a base of engaged residents ready to advocate collectively for community goals and priorities
- Provide a model for other coastal communities and neighborhood planning efforts with similar threats

Amongst the goals of the Planning Initiative, are:

- Strengthening the Resiliency of Existing Homes
- Limiting new coastal development
- Improving streets, transportation, and local/regional access
- Connecting jobseekers to resources and training
- Protecting the community from flood risk and improving drainage

As a result of HPD's Resilient Edgemere Community Planning Initiative, HPD is recommending that (1) the City explore the feasibility of transferring land along the Bayfront to NYC Parks and implementation of the Rockaways Parks Conceptual Plan, (2) identify funding and resources for a long-term buyout program to locate current homeowners away from areas that have the highest risk of flood and coastal storm hazards, and (3) explore ways to limit new development on privately-owned land north of Norton Avenue. In addition, this work will both help facilitate and support the Edgemere "Raise Shoreline" project.

The Edgemere plan will demonstrate that empowering local residents can result in thoughtful solutions to the complex challenges posed by adaptation to climate change and historic disinvestment. The plan can serve as a model for the how the City of New York may engage with other vulnerable communities and coastal neighborhoods to build collaboratively a shared vision for a resilient future.

***Land Use for Resiliency:***

Following Sandy, the NYC Department of City Planning (DCP) advanced a temporary, emergency citywide text amendment to promote rebuilding to higher standards by addressing the most urgent zoning barriers. In 2013, DCP launched the *Resilient Neighborhoods* initiative to work directly with floodplain communities to look at specific local issues in certain hard-hit areas and reexamine questions of land use, zoning, and development in light of a new understanding of coastal flood risks. DCP also released the *Retrofitting for Flood Risk* manual, which details resilient retrofit strategies for a range of building types that are unique to New York City. In addition, DCP launched the *Resilient Retail* and *Resilient Industry* studies to identify zoning issues and strategies beyond zoning to promote resiliency of retail corridors and industrial areas in the floodplain. DCP has also been working closely with other agencies, including the Housing Recovery Office and Mayor's Office of Recovery and Resiliency on programs to assist community recovery and build coastal resiliency.

The results of these studies, as well as lessons learned from the rebuilding process, will feed into a future update to the 2013 citywide text amendment, as well as potential locally specific neighborhood zoning changes. By making the 2013 text permanent, and addressing additional

issues throughout the city, zoning will allow property owners to build in ways that both limit damage from floods and reduce insurance costs, and also ensure that development is responsive to neighborhood character and aligns with the need for long-term adaptation.

Zoning strategies to be explored fall along a spectrum based on the risks and needs of each neighborhood:

- **Limit:** In some areas of the floodplain where flood risks are exceptional in their magnitude and frequency, such as where sea level rise is projected to lead to future daily tidal flooding or where basic infrastructure is lacking, zoning and other tools may be used to limit exposure to damage and disruption by limiting future development. For example, DCP has been working with certain communities to develop appropriate zoning regulations to limit new development while also enabling property owners to make investments to protect existing homes.
- **Accommodate:** In many areas of the floodplain, zoning could better accommodate adaptation to flood risk if regulations that impede investment in flood resistant buildings, both new and retrofitting, are modified. While the 2013 Citywide Flood Resiliency Text Amendment removed many of the most direct and urgent barriers to resiliency, additional issues continue to be identified through the recovery process and the experience of individual owners. For example, throughout the floodplain current zoning requirements on small lots with high flood elevations lead to tall, narrow out-of-character homes. DCP has been exploring whether new zoning envelopes could better suit these constrained sites, enabling buildings that are both more resilient and provide higher quality housing than would otherwise be possible.
- **Encourage:** In other areas where there is a risk of flooding during extreme events but infrastructure and context would support opportunities for growth, zoning can be part of a strategy to encourage the construction of new buildings that provide a higher standard of flood protection, or provide incentives for pursuing more costly strategies, such as dry floodproofing, that promote both resiliency and high quality streetscape design. Exploration of such strategies in any area would need to include outreach and coordination with the community, and attention to the full range of local planning issues.

Additional outreach is necessary in order to understand the full range of issues and concerns and will inform a comprehensive strategy for buildings in the floodplain. DCP's goal throughout the outreach process will be to understand what components would shape an update to the citywide flood text that is responsive to risk, unique neighborhood conditions, and community input.

### **Citywide Disaster Preparedness Planning**

In the winter of 2016, the City of New York, through the Department of Design and Construction (DDC) issued a Request for Proposals for on-call emergency-response construction and

construction-related services in response to natural and/or man-made disasters impacting New York City. Work under these contracts will be generally consistent with conducting emergency operations and, while not limited to declared Federal disasters, will be utilized under State or locally declared emergencies. The categories of work that were solicited are:

- Category 1 - Critical Public Facility Restoration;
- Category 2 - Temporary Restoration of Housing;
- Category 3 - Construction Support for Urban Search and Rescue;
- Category 4 - Debris Removal;
- Category 5 - Debris Removal – Marine Transportation;
- Category 6 - Provision of Medical Space and/or Shelters;
- Category 7 - Communications/IT Services Restoration;
- Category 8 - Provision of Environmental Testing Services; and
- Category 9 - Supervision, Management and Administrative Services

The Request for Proposal did not result in contracts for Categories 1, 6, and 7. The City is evaluating next steps to obtain contracts for these services. DDC is committed to providing opportunities for Minority and Women owned Business Enterprises, (“M/WBEs”), and Contractors are strongly encouraged to utilize M/WBEs for services required pursuant to this Contract.

These contracts are not funded with CDBG-DR funds.

***Disaster Cost Recovery Plan:***

Surrounding a disaster, federal assistance may be available through a number of grant programs, often initiated by the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C §5121-5207 (Stafford Act). The Stafford Act is the system by which a Presidential Disaster Declaration triggers financial and physical assistance. The provision is designed to supplement response efforts when the magnitude of the disaster is beyond the ability of local and State resources. The Federal Emergency Management Agency’s (FEMA) Public Assistance (PA) Program is the specific grant program authorized by the Stafford Act making funding available to eligible state and local governments and certain PNP entities, for costs that they incurred as a result of a Presidentially Declared Disaster. Additional disaster grant programs, such as the Federal Highway Administration’s Emergency Relief (FHWA-ER) and the Federal Transportation Administration’s Emergency Relief (FTA ER) programs may also be available to eligible applicants as the result of a Presidential Disaster Declaration. If activated, these programs allocate funding for eligible costs or damages sustained to transportation systems, and may contribute to a reduction of the City’s overall cost share following a declaration.

In the last 10 years, New York City has received 28 Presidential Disaster Declarations, justifying the release of more than \$11.5 billion from FEMA’s PA Program. Following Hurricane Sandy, FTA and FHWA allocated \$300 million collectively, while FEMA allocated \$8.4 billion via the PA Program to the City for recovery. While Hurricane Sandy was a particularly devastating event, the City may be eligible for millions of dollars to help fund its recovery any time a Presidential Disaster Declaration is made.

The City of New York’s Disaster Cost Recovery Plan, establishes the procedures and outlines the roles of participating City agencies responsible for coordinating efforts related to administering

federal disaster relief grant funding to local governmental agencies, and to the extent possible, affected private nonprofit agencies, following a Presidential Disaster Declaration. The function of the Disaster Cost Recovery Plan is to outline the processes the City and those responsible for taking such actions must complete in order to obtain the federal disaster-relief aid to which the City is entitled. This Plan's intent is to increase the City's capability to manage the process effectively, efficiently, and in a manner consistent with state and federal guidelines.

***Post-Disaster Sheltering Plan:***

Based on experience from Hurricane Sandy and an updated Hurricane Evacuation Study (HES), NYC Emergency Management (NYCEM) is working to improve its Hurricane Shelter Program.

NYCEM bases shelter planning assumptions, and its corresponding stockpile, on the Army Corps of Engineers HES Behavioral Survey. In 2015, the HES was updated to revise estimates published in 2006, prompting a need for the City to revise shelter capacity assumptions. Additionally the City conducted several after-action reviews post-Hurricane Sandy, including a review of its shelter plan. These reviews helped identify ways NYCEM can strengthen its planning efforts and better prepare the City for future emergencies.

Since June 2016, NYC Emergency Management (NYCEM), in coordination with OMB and Hagerty Consulting, has been engaged in assessing the entire NYC Coastal Storm shelter system for accurate capacity figures including an assessment of the capacity of shelters and Evacuation Centers for General and Disability Access and Functional Needs (DAFN) populations. This assessment will help NYCEM prepare for, manage, and recover from future disasters or emergencies.

## **Lessons Learned and Development of Disaster Recovery Management Tools**

*A new subsection will be provided to describe a variety of initiatives related to applying lessons learned from Hurricane Sandy and the City's response, and well as implementing tools that have been developed through the recovery process.*

***Case Management System:*** The Mayor's Office of Housing Recovery Operations has developed a Case Management System (CMS) that is the data management system for the Build it Back program. This system integrates data from city, state and federal sources including disaster benefit and insurance information (e.g. SBA, NFIP, FEMA) and NYC Department of Buildings tax lot and building data (BIN/BBL). The system includes functionality adaptable for future use related to application processing, grant management, and includes a two way interface with FISA for reimbursement, payment and collection processes. The system contains many compliance and data validation checkpoints to help facilitate audit reviews. HRO is dedicating planning efforts towards using CMS as a framework and database structure to manage future emergency recovery situations.

***Grant Management System:*** The Office of Management & Budget, in coordination with its consulting resources, has developed an information technology platform to manage CDBG-DR and FEMA expenditures and reimbursement requests. This system could form a model for future grant management systems tracking and providing records for other funding streams, related to disaster recovery and more.

***Scenario Planning Through Hurricane Joaquin and Hurricane Hermine Experiences:*** Through efforts led by New York City Emergency Management and City Hall staff, the City of New York engaged in various levels of hurricane preparedness scenarios, both real and simulation, when Hurricane Joaquin and Hurricane Hermine occurred. The City's preparation and simulated responses during these storms help inform future response and recovery efforts.

***Flood Insurance, Disaster Bonds, and Innovative Finance Considerations:*** Staff from various City of New York agencies have participated in workshops, seminars, and other knowledge-sharing opportunities to gather information about potential innovative funding mechanisms to help prepare for and response to natural and manmade disasters.

## **XIV. APPENDICES**

### **Appendix H: Projected Expenditures and Outcomes**

*The March 5, 2013, Federal Register Notice requires each grantee to amend its Action Plan to update projected expenditures and outcomes within 90 days of HUD's approval of a substantial Action Plan amendment. The City of New York will submit a subsequent technical amendment upon HUD's approval of Action Plan Amendment 12 to update Appendix H. Amendment 12, however, is anticipated to update certain programmatic and beneficiary numbers in tables and charts to be current as of the date of the City of New York's submission of Amendment 12 to HUD.*