



# New York Rising: 2012-2014

**HOUSING**

**SMALL  
BUSINESS**

**COMMUNITY  
RECONSTRUCTION  
PLANS**

**INFRA-  
STRUCTURE**

**A report from  
the Governor's Office  
of Storm Recovery**



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STATE OF NEW YORK  
**EXECUTIVE CHAMBER**  
ALBANY 12224



**ANDREW M. CUOMO**  
GOVERNOR

Dear Friends:

We have been no strangers to natural disasters in the Empire State. In the past four years, New York has been subject to extreme weather events that have created a new reality. While Mother Nature has made her presence known in New York in this new age of extreme weather, New Yorkers have come together to show our determination and resilience.

Recognizing that such storms will be the norm in the future, and recognizing the need to bring all of our resources to bear in preparing, recovering, and mitigating for future storms, we created the Governor's Office of Storm Recovery (GOSR). GOSR is on the front lines of resilience, recovery, and reimagining a new New York, working diligently these past few years to respond to the needs of our citizens, ensure that we build back better than ever, and manage the immense needs and resources to meet our goals. Through a combination of bottom-up and top-down planning, the State is identifying critical areas of focus and has already invested hundreds of millions of dollars to put New Yorkers back in their homes, strengthen and protect our infrastructure, and continue our commitment to rebuilding and growing small businesses throughout the State.

Through a coordinated effort between our city, state, and federal partners, we have an historic opportunity to do as our forefathers did – imagining and building a new state for a new century. It is a daunting challenge, to be sure, but one we can and will rise to and complete.

As we mark the second anniversary of Superstorm Sandy, reflecting back on what we have accomplished while looking to continued progress, I thank all New Yorkers for standing together to make the Empire State stronger than ever before.

Sincerely,

ANDREW M. CUOMO

**WE WORK FOR THE PEOPLE**  
PERFORMANCE \* INTEGRITY \* PRIDE

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# Introduction



**Community recovery on Staten Island in the aftermath of Sandy**

On October 29, 2012, Superstorm Sandy struck the New York metropolitan region, causing unprecedented damage to homes, businesses, infrastructure and an economy still recovering from the effects of a housing crisis and major recession. As many as 300,000 housing units were damaged or destroyed; 2 million utility customers lost power; and the region’s infrastructure was crippled, with more than 2,000 miles of roads affected or closed and public transportation systems facing long-term disruptions. Most critically, 60 New Yorkers died as a result of the storm. Coming on the heels of Hurricane Irene and Tropical Storm Lee — which in 2011 had devastated dozens of communities throughout the State — Sandy left in its wake a path of destruction and a realization of New York’s vulnerability to the effects of climate change.

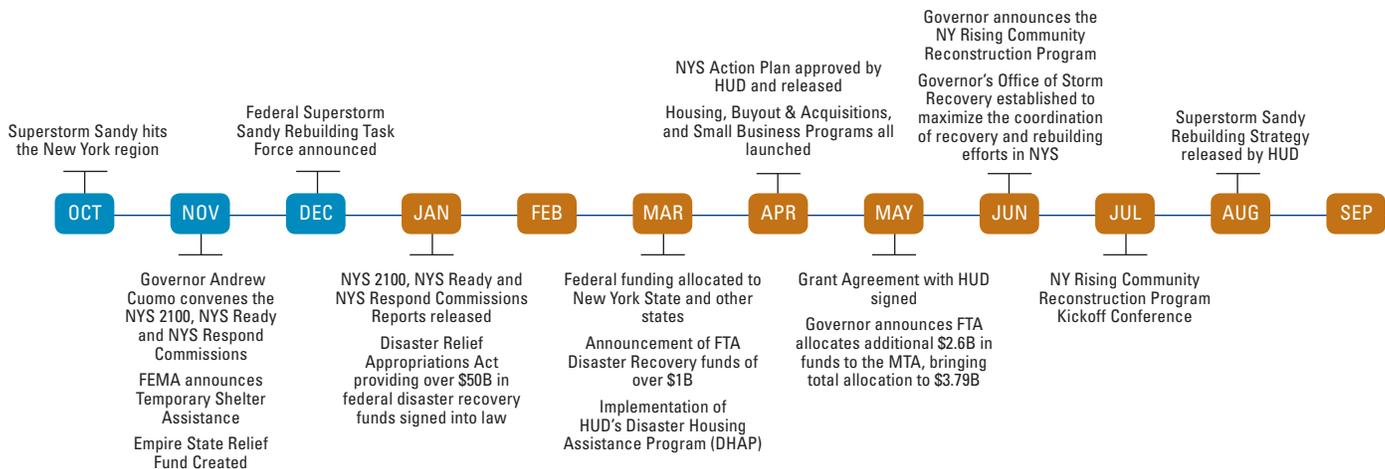
Even before Sandy made landfall, the State was preparing. Days in advance, Governor Andrew M. Cuomo asked President Barack Obama for a federal disaster declaration for New York, which meant that residents and businesses were able to quickly

access federal funds from the Federal Emergency Management Agency (FEMA) and the Small Business Administration (SBA). And, in the immediate storm aftermath, those with private flood insurance began the process of filing claims to assist in covering damage and repairs. But the unmet need — the gap between the identified costs of rebuilding New York’s homes, businesses and infrastructure, and the committed funds to address those costs — remained significant. The State estimated that approximately \$15.74 billion in outstanding housing, business and infrastructure repair- and recovery-related mitigation needs were not currently funded by federal programs.<sup>1</sup> To address this unmet need, additional federal funds would be needed, with those funds leveraged to maximize both short- and long-term resiliency efforts.

In addition, Sandy’s impacts made clear that the State needed a major long-term recovery effort to build resilience against the combined impact of future storm events and rising sea levels.

## 2012

## 2013



<sup>1</sup> State of New York Action Plan Amendment Number 6 ([http://stormrecovery.ny.gov/sites/default/files/uploads/apa\\_6\\_final\\_hud\\_approved.pdf](http://stormrecovery.ny.gov/sites/default/files/uploads/apa_6_final_hud_approved.pdf)); This excludes New York City which received a separate allocation of funds and is engaged in its own recovery and rebuilding effort.



Up to **300,000**  
housing units damaged  
or destroyed

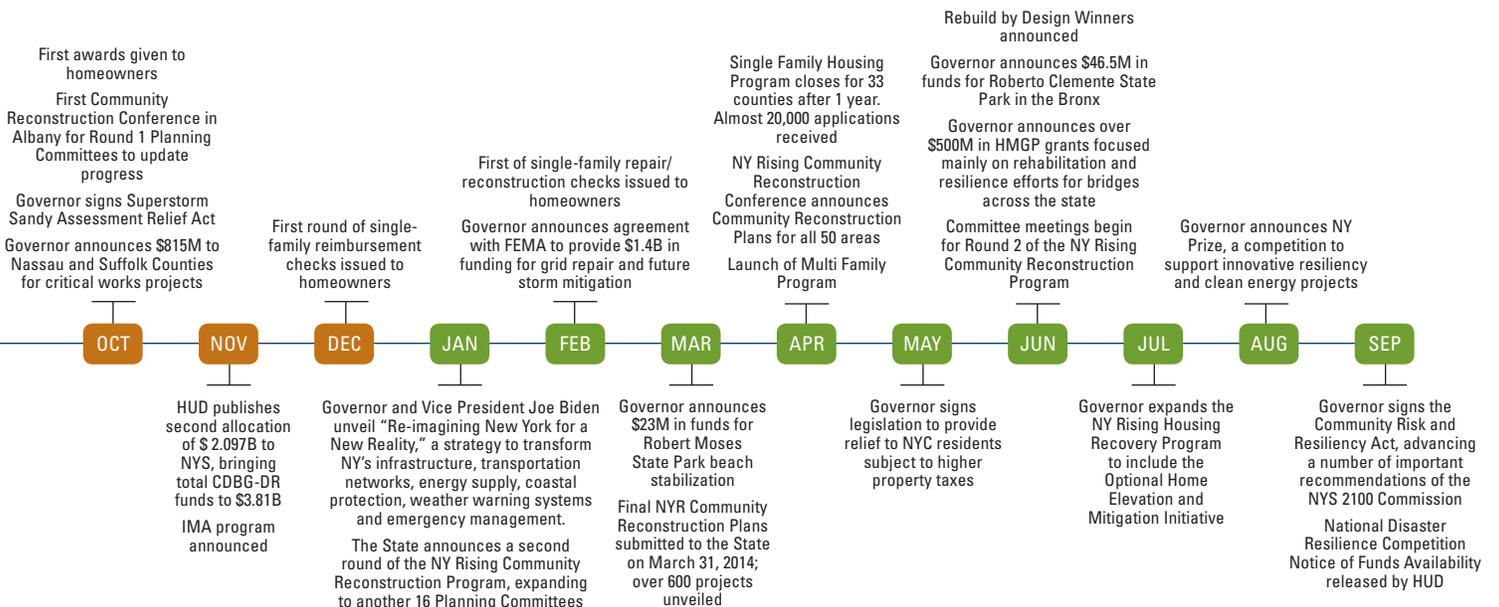
**2,000+**  
miles of roads  
affected or closed

**2 million**  
utility customers  
lost power

**Major**  
disruptions to business  
and transit systems

■ Breezy Point, Queens

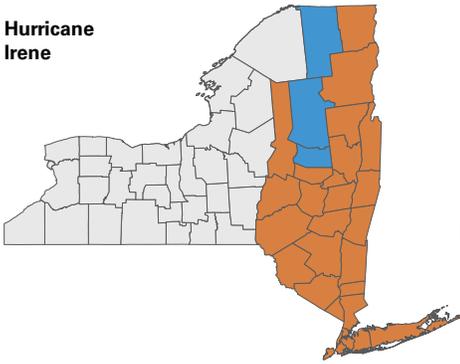
## 2014



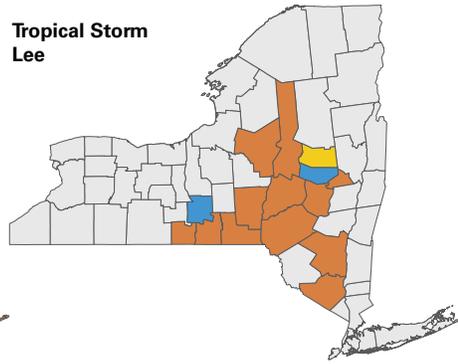
## FEMA Disaster Declaration Areas

- Individual Assistance and Public Assistance
- Individual Assistance
- Public Assistance

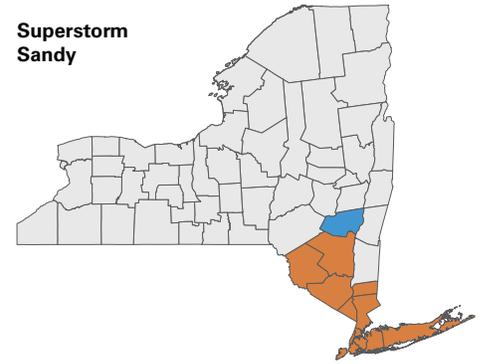
**Hurricane Irene**



**Tropical Storm Lee**

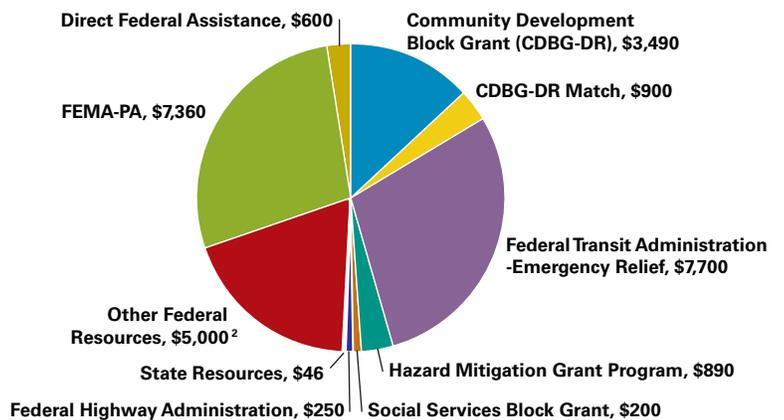


**Superstorm Sandy**



**Road damage from Hurricane Irene**

## Forecasted Flow of Disaster Funds to New York State (excl. NYC CDBG-DR) In Millions



<sup>2</sup> Other Federal Resources consists of funds for agencies such as the U.S. Army Corps of Engineers, Federal Parks, the U.S. Department of Agriculture, the U.S. Department of Education, FEMA's Individual Assistance program and the Small Business Administration's Homes and Business programs.

Within two weeks of Sandy, Governor Cuomo announced the creation of the Empire State Relief Fund to assist in rebuilding and restoring damaged homes and in providing long-term housing. Donated funds were intended to help fill the gap between the cost of repair or replacement of homes and the assistance available to homeowners from private insurance, FEMA and other funding sources. In mid-November 2012, Governor Cuomo established three expert commissions to undertake a thorough review and make specific recommendations to improve New York's emergency preparedness and response capabilities, and its resilience to withstand major weather events and other disasters. Co-sponsored by the Rockefeller Foundation, the NYS 2100 Commission was charged with identifying ways to strengthen the State's infrastructure in the face of more frequent and severe natural disasters. The NYS Respond Commission was formed to suggest measures to improve the State's emergency response and recovery efforts. And the NYS Ready Commission was tasked with identifying ways to ensure that critical systems are prepared for emergencies. Each commission submitted findings to the Governor in early January 2013, less than three months after Sandy, so that the strategies could inform the plans for recovery and rebuilding. This forward-thinking approach has been at the cutting edge of the State's ongoing strategy to address the effects of climate change and introduce resiliency into all levels of policy-making.

Shortly thereafter, in January 2013, President Obama signed into law the Disaster Relief Appropriations Act, providing more than \$50 billion to 19 federal agencies to help communities rebuild after Sandy. An estimated \$26 billion of the total relief aid is forecast to come to New York State (excluding Community Development Block Grant – Disaster Recovery [CDBG-DR] funds allocated to New York City). These funds will be channeled through a myriad of federal agencies and programs.

Funds will be used in a wide range of recovery and resiliency efforts across many areas, such as energy, transportation, coastal/flood protection, health and human services, water and wastewater management and housing.

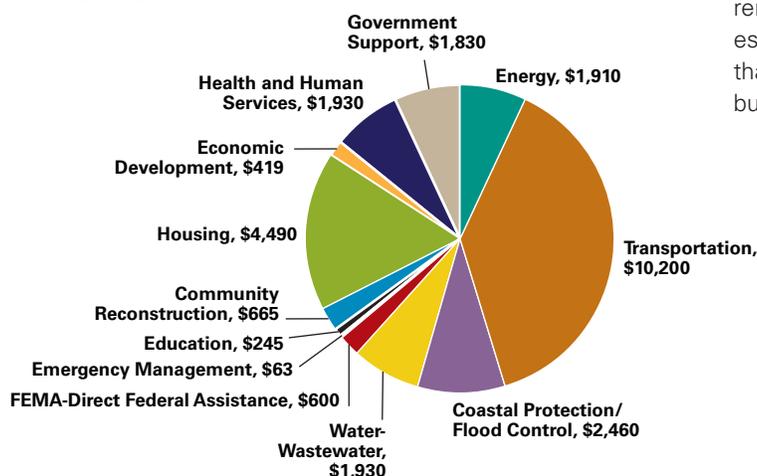
Of the more than \$50 billion in federal funding available, Congress appropriated \$16 billion to the U.S. Department of Housing and Urban Development (HUD) for the CDBG-DR program, so that the agency could provide funds to address unmet community recovery needs in areas along the East Coast impacted by Superstorm Sandy, and areas still not recovered from the earlier Hurricane Irene and Tropical Storm Lee. HUD announced in February 2013 an initial allocation of more than \$1.7 billion to New York State to facilitate the recovery and long-term rebuilding of impacted communities. In November 2013, HUD approved a second allocation of \$2.1 billion in recovery funds, for a total of \$3.8 billion. A third and final tranche of \$600 million was announced in May 2014 to be used for future resiliency efforts.

With the federal funding in place, the State's ongoing focus is on implementing an aggressive, strategic and balanced plan to address the unmet needs of residents and businesses, helping them recover as quickly as possible, and to rebuild New York's infrastructure to be better positioned to withstand future storms.

To mark the second anniversary of Superstorm Sandy, this report provides an update on New York State's recovery and rebuilding activities to date. It includes an in-depth focus on the work of the Governor's Office of Storm Recovery (GOSR), which was established to drive the State's overall recovery efforts and administer its almost \$4.5 billion in CDBG-DR funds. The report is not intended to be a comprehensive listing of all recovery efforts undertaken. Rather it is meant to highlight key activities and their impacts, and the strategic approach employed by the State in addressing critical rebuilding and repair needs while improving long-term resiliency — an approach that will serve as a model for future disaster recovery efforts in New York and elsewhere. This report captures a moment in time of a process that is constantly moving. Tremendous progress has been made to date in getting funds to those in need in New York State. This does not suggest that recovery and rebuilding efforts are slowing down; much remains to be done. GOSR is confident, however, that it has established the framework and processes necessary to ensure that those in need will be assisted, and to enable New York to build back better and stronger than before.

## Forecasted Investment of Disaster Funds to New York State, By Sector (excl. NYC CDBG-DR)

In Millions



# Governor's Office of Storm Recovery



In June 2013, Governor Cuomo established the Governor's Office of Storm Recovery (GOSR) to maximize the coordination of recovery and rebuilding efforts in communities throughout the State that were impacted by Superstorm Sandy, Hurricane Irene and Tropical Storm Lee. Overseeing the portfolio of NY Rising programs, the office uses HUD CDBG-DR funds and assists other State agencies with a comprehensive, coordinated strategy of implementing federal funds, such as FEMA's Hazard Mitigation Grant Program (HMGP), to address communities' most urgent unmet needs in the areas of housing, economic development, community planning and infrastructure.

The NY Rising programs are based on a conviction that a meaningful recovery must reflect the realities of increasingly frequent and extreme weather events, and must enhance New York's resiliency against future storms and rising sea levels as a result of climate change. Since Governor Cuomo took office in January 2011, there have been eight federally declared disasters in New York.<sup>3</sup> The State's primary commitment is to preserve and protect its homes and communities and rebuild its critical infrastructure, better and stronger for the future.

The State's recovery efforts are based on a holistic vision of what it takes to leverage federal funds into a long-term investment. This strategy is supported by five overarching themes that set New York's resiliency and recovery programs apart, and it establishes a new model for coming back from future disasters. The themes strike a balance among critical and often competing priorities, matching the need for urgent action with the need for long-term planning.

## Address immediate needs while focusing on the future.

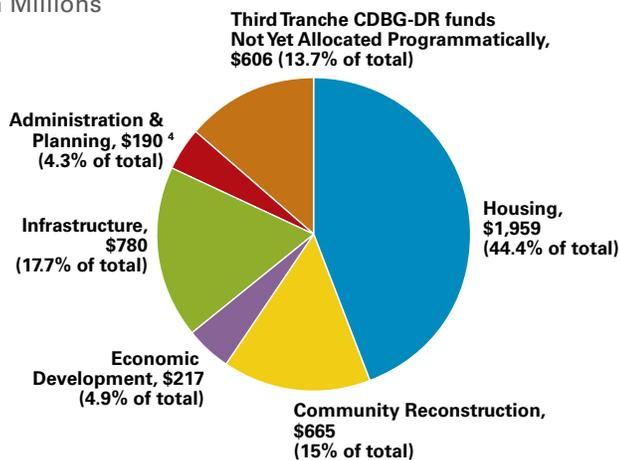
The State's recovery programs focused first on addressing urgent housing, business assistance and infrastructure needs in affected communities. The aim was to get people back in their

*"The new reality in New York is we are getting hit by 100-year storms every couple of years. We have to wake up to that new reality by completely re-imagining our state to be ready for any future disaster."*

— Governor Andrew Cuomo

## CDBG-DR Funds Allocation by Program Area

In Millions



## Economic Impact of Recovery Efforts

The State's recovery initiatives, supported by these five themes, are having — and will continue to have — a positive direct and indirect economic impact throughout New York. The billions of funds allocated to date will generate jobs and income throughout the State. Construction spending will support thousands of jobs in building and related industries, and secondary spending on goods and services by those in the construction-related industries will generate income and jobs Statewide. This cycle of spending and re-spending is known as the multiplier effect. An analysis conducted by the SUNY Rockefeller Institute of Government in conjunction with GOSR estimates that the nearly \$9 billion CDBG-DR, FEMA Public Assistance (FEMA-PA) and FEMA Hazard Mitigation Grant Program (HMGP) investment allocated to housing programs, economic development, community reconstruction and major infrastructure investments will produce more than 111,000 jobs during an assumed five-year construction period, an average of 22,000 jobs a year. Employees at these jobs are expected to earn a combined total of more than \$5 billion over the period, and generate total economic output in the range of \$15.8 billion.<sup>5</sup>

<sup>3</sup> For a full list, see the FEMA Declaration website for New York State: <https://www.fema.gov/disasters/grid/state-tribal-government/38>

<sup>4</sup> Up to 5% as provided in the Federal Register

homes, help businesses reopen and restore key transportation and utility systems as soon as possible. At the same time, the goal was to be forward-looking, recognizing the need to integrate long-term storm resiliency into recovery, rebuilding and planning efforts across all programs.

**Cut red tape.**

Disaster recovery is a complex process that requires an understanding of the many layers of federal rules and procedures, and the ability to design and implement programs that maximize benefits for those affected. Recovery processes need to be efficient and streamlined, minimizing bureaucracy and paperwork as much as possible. They must be flexible to adapt to real-time needs and public feedback, and to make changes when needed to work better. And the processes should be clear and transparent, so that impacted residents, businesses and communities can understand and navigate the often hard choices required for their recovery. “We built a plane and flew it at the same time,” said the Executive Director of the Governor’s Office of Storm Recovery, Jamie Rubin. The constant focus was action: putting into place short- and long-term implementable strategies as quickly as possible to meet critical unmet needs.

**Come back stronger than before.**

GOSR’s recovery efforts also recognize that, while Sandy was an extraordinary event, such storms are likely to occur with greater frequency and strength due to climate change. Sandy exposed New York’s vulnerabilities and made clear that homes, businesses and infrastructure cannot simply be replaced in-kind but must be rebuilt stronger and better to protect against disaster. “The new reality in New York is we are getting hit by 100-year storms every couple of years,” Governor Cuomo said. “We have to wake up to that new reality by completely re-imagining our state to be ready for any future disaster.”

**Take a community-wide and regional perspective.**

Most people experienced Sandy, Irene and Lee through the storms’ impacts on their own homes, businesses or neighborhoods. But these individual and local effects collectively added up to a significant regional impact. The State recognized that, for its recovery to be effective and enduring, the response must also be undertaken from a regional point of view and be coordinated across municipal and jurisdictional borders. Recovery strategies must address more than just one site or community, requiring broad cooperation and coordination among governments, agencies and programs.

**Use a ground-up approach.**

The hallmark of the NY Rising programs is a re-imagining of disaster recovery, from solely a top-down governmental approach to one that is also bottom-up, driven by individuals and communities directly affected. While many recovery aspects must be State-led — such as designing programs, coordinating on large-scale infrastructure projects and interfacing with the federal government — grassroots input is critical. “Rebuilding our communities is something that we cannot do from Albany or Washington,” Governor Cuomo said. “Rather, we have to do it community by community across the State.” This means listening to individuals about what is working well, and what is not, and adapting programs to function better. It also means engaging directly with communities about how their assets are at risk and what they believe are the best tools to mitigate those risks. And it means building long-term relationships with local stakeholders and policy makers so that, when future storms or disasters occur, processes and procedures are in place to enable the State and its communities to coordinate quickly and effectively on recovery.

**Estimated Multiplier Effect of CDBG-DR, FEMA PA and FEMA HMGP Expenditure on New York State Output, Earnings and Employment\***

	Investments	Output Impact	Earnings Impact	Employment Impact (Job-Years)
Housing	\$ 1,959,019,206	\$ 2,944,834,669	\$ 941,332,319	21,173
Economic Development	\$ 208,958,549	\$ 403,684,513	\$ 120,154,300	3,773
Community Reconstruction	\$ 621,226,846	\$ 1,174,615,720	\$ 385,222,767	8,161
Infrastructure	\$ 6,039,047,708	\$ 11,288,663,844	\$ 3,700,445,971	78,576
Total Multiplier Effects, NYS	\$ 8,828,252,309	\$ 15,811,798,747	\$ 5,147,155,357	111,683

\* For a more detailed presentation of the estimated multiplier effect along with the assumptions and supporting data, see table on page 34.

5 Unless indicated otherwise, all data presented in this report regarding funding allocation, beneficiaries and economic impact are as of October 14, 2014. Jobs are expressed as “job-years” defined as one job for one year.

almost **10,000** households assisted for rebuilding and repairs

**\$20.8 million** in grants to small businesses

**600** NYRCR projects proposed

**111,683** jobs to be created, averaging 22,000 a year

**\$5.15 billion** estimated earnings from jobs created

**\$15.8 billion** in economic output from the new jobs

## The Governor's Office of Storm Recovery has invested in four basic areas:

### HOUSING



Home elevation on Long Island

The State decided early-on in the design of its housing program that speed and an investment in resilience were critical. Fundamental decisions were made to speed up the distribution of funds, empower individuals in their own recovery and provide them with opportunities to incorporate optional resilience measures. And in certain cases, there was even the acknowledgment that elective, strategic retreat might be the best course. Up to 300,000 housing units were damaged or destroyed. The Housing Recovery Program assists storm-affected homeowners and owners of condominiums, co-ops and multifamily rental properties with repairs, mitigation and elevation, while the Interim Mortgage Assistance (IMA) Program supplements this aid for homeowners who are renting while their homes are repaired. The Buyout and Acquisition Program addresses long-term resiliency efforts, and has offered hundreds of millions of dollars to purchase the properties of interested homeowners in areas most at-risk from storms.

### SMALL BUSINESS



Flooding from Irene in downtown Margaretville

An estimated 300,000 businesses located in areas flooded by Superstorm Sandy, Hurricane Irene and Tropical Storm Lee suffered physical damage to their business operations or, at a minimum, were closed for extended periods of time due to power outages and limited transportation networks. Even businesses that did not flood were disrupted in a variety of ways, including wind damage to structures and contents and business interruptions from power loss, closed roads and area flooding. Small businesses are in particular need of the State's disaster assistance, as many do not qualify for SBA disaster loans or are not financially able to take on additional debt, and thus have few resources available for rebuilding and repairs. The programs designed by GOSR help these businesses repair or replace equipment and lost inventory, renovate or replace damaged facilities and obtain working capital needed as a direct result of the storms. Additional funds are available for small businesses that are part of the coastal and seasonal tourism industry, while assistance is also provided for marketing of impacted communities that depend on tourism spending as part of their economy. In addition, through its Business Mentor NY initiative, the State connects businesses to free mentoring services and technical assistance, in an effort to enhance their recovery as they rebuild and expand in the wake of the disasters.

***“Rebuilding our communities is something that we cannot do from Albany or Washington; rather, we have to do it community by community across the state.”***

**— Governor Andrew Cuomo**

## COMMUNITY RECONSTRUCTION PLANS



**Public engagement meeting for Idlewild Watershed Communities (Springfield Gardens, Brookville and Rosedale, Queens)**

From the beginning, Governor Cuomo insisted that top-down strategies must be complemented by bottom-up planning. Often, communities have unique insight into what they need to make a resilient recovery. The NY Rising Community Reconstruction (NYRCR) Program provides financial and technical support for storm-impacted communities to develop ambitious and extensive plans focused on local reconstruction and rebuilding needs and opportunities. The community-driven program promotes civic engagement and innovation, empowers municipalities and seeks wide-ranging ideas and strategies for long-term redevelopment and growth. What sets this process apart from many planning programs is that the State set aside hundreds of millions of dollars to implement the ideas generated through the planning efforts.

## INFRA- STRUCTURE



**Robert Moses Causeway repair**

The Infrastructure Program has been designed to assist entities in recovery mitigation by funding projects using CDBG-DR funds, FEMA's Hazard Mitigation Grant Program (HMGP) and other agency initiatives. It also provides the local match for a number of non-HUD-funded federal disaster recovery programs. This allows impacted communities and infrastructure agencies to leverage federal funds to complete critical rebuilding and mitigation projects that may not have been possible otherwise. In addition, investments are made in this program to support critical State infrastructure priorities. The program invests in projects to transform New York's key transportation networks, energy supply, coastal protection, weather warning systems and emergency-management programs.

# HOUSING

## Helping Residents Rebuild and Strengthen Their Homes

Nowhere has the damage from Sandy, Irene and Lee been more pronounced than in housing, both in terms of the impact on New York's housing stock and on its residents. Throughout the State, hundreds of thousands of housing units suffered storm-related damage, with the majority of those units owner-occupied, mostly on Long Island. Although many residents of these units received funding from FEMA and compensation from private insurance, there was a significant Statewide unmet need, reaching more than \$3.5 billion for both owner- and renter-occupied units for all three storms combined (excluding New York City). The NY Rising programs aim to address this need.

Getting people back into their homes was the top priority. The State made key action-focused decisions early on as part of an overall strategy to speed the process and maximize effectiveness, while ensuring that all HUD program requirements were met.

First, GOSR redesigned the eligibility process to collect the most essential documentation up-front, to get money in the hands of homeowners so that they could get the work going. The rest of the requirements could be submitted over the life of the application, with full funding coming at completion of the project.

Demolition of a buyout area in Staten Island



## Case Study: Glenn Mendelsohn, East Atlantic Beach



For more than 50 years, Glenn Mendelsohn has lived with his parents – now both in their 90s – in this tight-knit coastal community in Nassau County. During Superstorm Sandy, their home’s ground floor was heavily damaged, filling up with more than three feet of water. The family’s classic 1977 Monte Carlo and Glenn’s own vehicle were also lost. “Everything was in a ball of confusion with us, trying to take care of business, looking after the folks, making sure they were OK,” he said.

Glenn worked with GOSR staff in Island Park and Lawrence who helped him navigate the recovery and repair process as quickly as possible, with a caseworker to address his individual needs. “I’m always the type to help everybody out, I’m there for everybody,” he said. “So for me to kind of actually accept help from people was a little overwhelming. I’ve never really been in that position before.”

The Mendelsohn family has completed repairs and settled back into their long-time home. “Between you guys and FEMA, it pretty much got us back,” he said.

Seeking to avoid the creation of a new government bureaucracy, GOSR gave responsibility to homeowners, allowing them to use their own qualified contractors, architects and other workers. This approach reduced roadblocks for homeowners, enabling them to drive their own recovery.

GOSR planned for the reconstruction phase early on, recognizing that local governments would face significant challenges in working through applications for rebuilding activities. The State granted \$6 million to municipal governments to improve and accelerate code enforcement activities. This helped residents rebuild and get back into their homes more quickly by expediting inspections and processing documents needed for repairs, reconstruction and replacement of damaged properties.

GOSR conducted substantial outreach to affected communities, meeting with more than 3,000 homeowners at Technical Assistance Meetings (TAMs) to guide them through the rebuilding process. These efforts included engaging a Long Island nonprofit agency to conduct targeted outreach to low- and moderate-income individuals affected by Sandy to encourage them to apply for assistance. GOSR will continue to conduct outreach both to landlords throughout impacted areas who may be eligible for its rental programs, and to previous tenants of damaged units to make them aware of potentially repaired and newly built units as they are completed.

In addition to these action-oriented decisions, GOSR also took a long-term approach and worked to ensure that homeowners built their houses back smarter, to better withstand future storms and the effects of sea level rise. Residents who live in the 100-year floodplain and whose homes were substantially damaged were required to elevate their homes above the base flood elevation, and are eligible for an increase in their maximum benefit cap, to cover the corresponding costs. About one-fifth of homeowners who have received assistance were required to elevate their homes. Owners in the 100-year floodplain who did not experience substantial damage can also opt-in for elevation funding. For those homeowners who may choose not to elevate but still want to improve the resiliency

### Applicants for Housing Resilience Options (October 15, 2014)\*

**1,169** 

opted for elevation

**940** 

elected mitigation

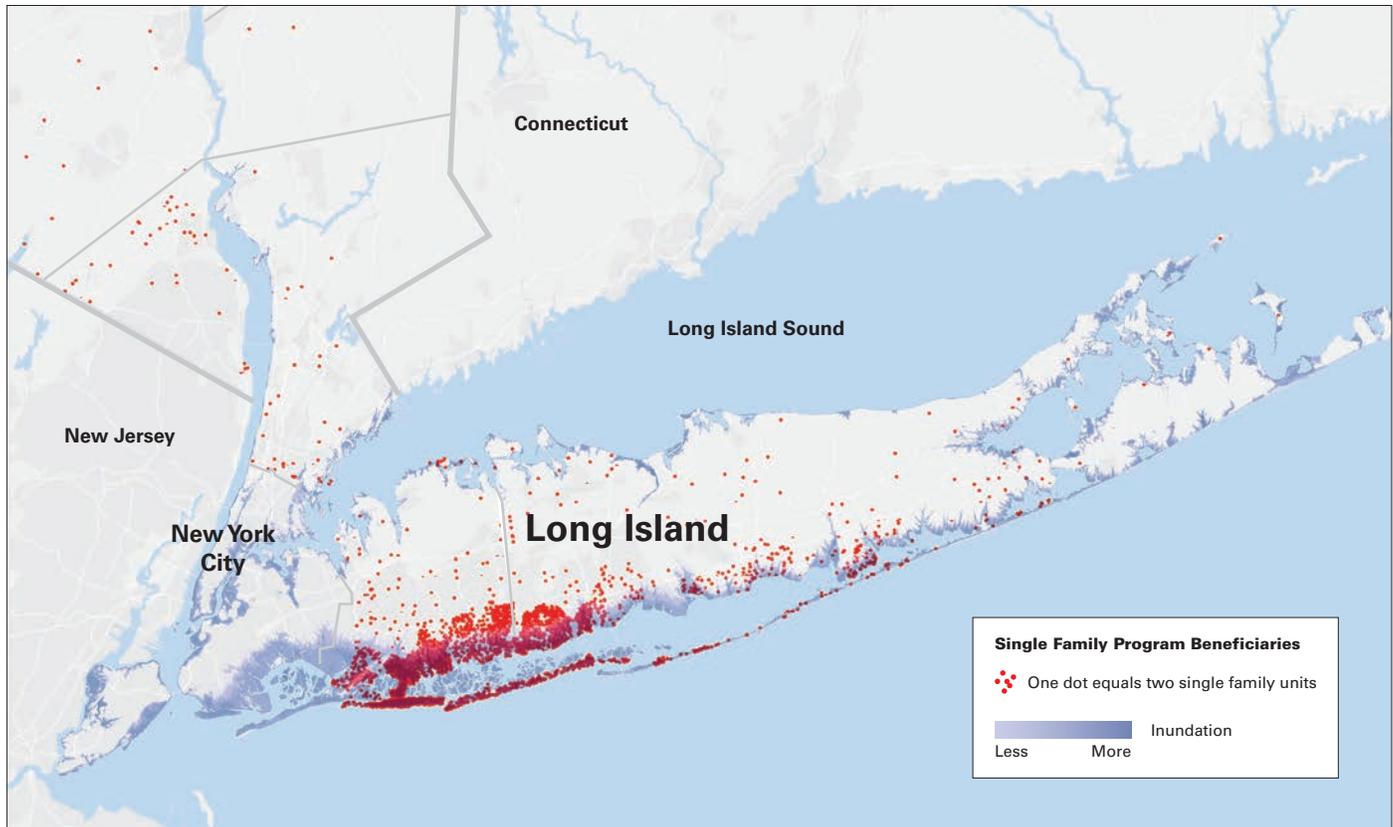
**694** 

elected for bulkhead

Total number of applicants that opted for one or more housing resilience options: **1,796**

\* In addition, so far 1,574 beneficiaries have been required to elevate their structures

## Single Family Program Beneficiaries



***“The insurance covered part of the damage, but thanks to NY Rising, I’m going to be able to rebuild my home.”***

**— Jose Vega, Inwood,**  
Long Island

of their house, GOSR has funded mitigation measures such as elevating electrical systems and components and retrofitting homes with flood-resistant materials. It has also funded repairs to bulkheads associated with residential properties. These measures ensure not just that the building itself is more resilient, but that the entire property is as well.

The State’s Buyout and Acquisition Program also took a long-term resiliency approach, implementing an ongoing policy goal of permanently removing people and structures from areas that have flooded time and time again. For substantially damaged properties within targeted areas in the highest risk areas of the 100-year floodplain, the State offered buy-outs, with the properties to be maintained as coastal buffer zones or other non-developed uses. For substantially damaged properties within the 500-year floodplain but outside of the highest risk areas, the State offered to acquire the properties for future use as either undeveloped green space or for redevelopment with a resilient approach.

The Buyout and Acquisition Program is a powerful tool for addressing future flood risks on a site-by-site basis, but it also improves the resiliency of the larger community. Once a site that is subject to repetitive flooding is redeveloped to more capably withstand future storms, it can no longer cause damage to nearby properties. If the site is transformed to a coastal buffer and integrated into wetlands, open space or stormwater management systems, it can help to protect entire neighborhoods or communities.

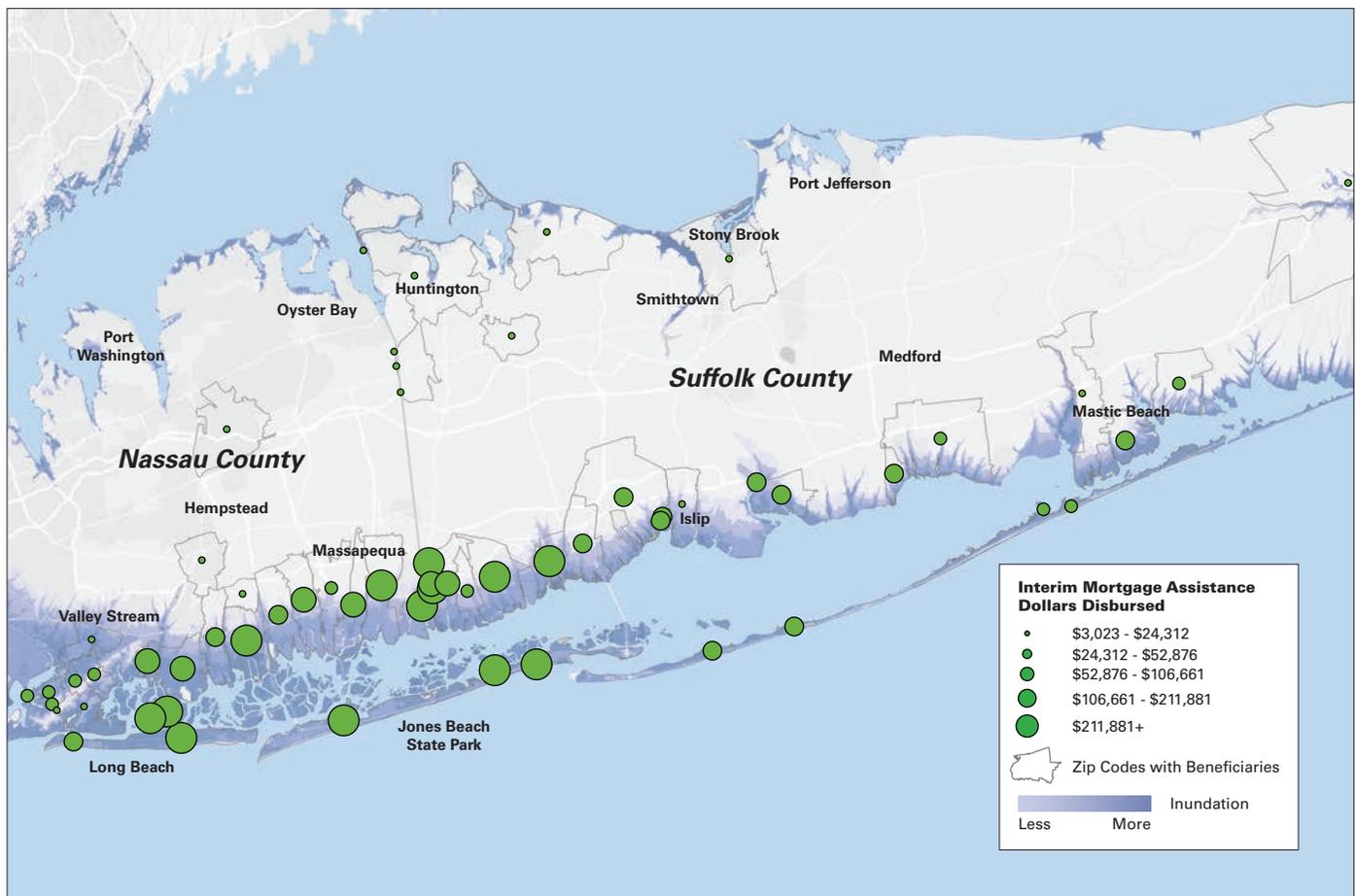
Areas selected for buyout or acquisition were, first and foremost, driven by cooperation of the individual homeowners. They reflected consultation with county and local governments, and, in some cases, direct appeals from the community, representing a ground-up approach that has been highly effective. In Oakwood Beach, Staten Island, for example, nearly 99 percent of residents opted into the Buyout Program.

In April 2014, with the second tranche of CDBG-DR funding, NY Rising launched its Rental Properties Recovery Program and Cooperative and Condominium Recovery Program, initiatives

that assist landlords and owners of rental properties as well as co-op and condominium units. Condominium associations and co-op boards are also eligible to apply for storm-related damages to a building's common elements, such as lobbies, hallways and mechanical systems. Priority in rental assistance is given to properties that offer affordable units — serving renters with income levels below the area's median income — as well as to property owners who have not begun any repairs. Awards under these programs began in September 2014.

GOSR's Housing Recovery Program has sought to balance the need for immediate action with the need for regulatory conformance, primarily by offering flexibility and choice to homeowners, and by being nimble enough to adapt to individual concerns. The State has worked closely with homeowners to help them decide how best to meet their long-term recovery needs, whether flood-proofing their homes, elevating them or relocating to a less vulnerable property. As Rebecca Sinclair, director of the Buyout and Acquisition Program, said, "People have to be able to make a long-term choice for sustainability."

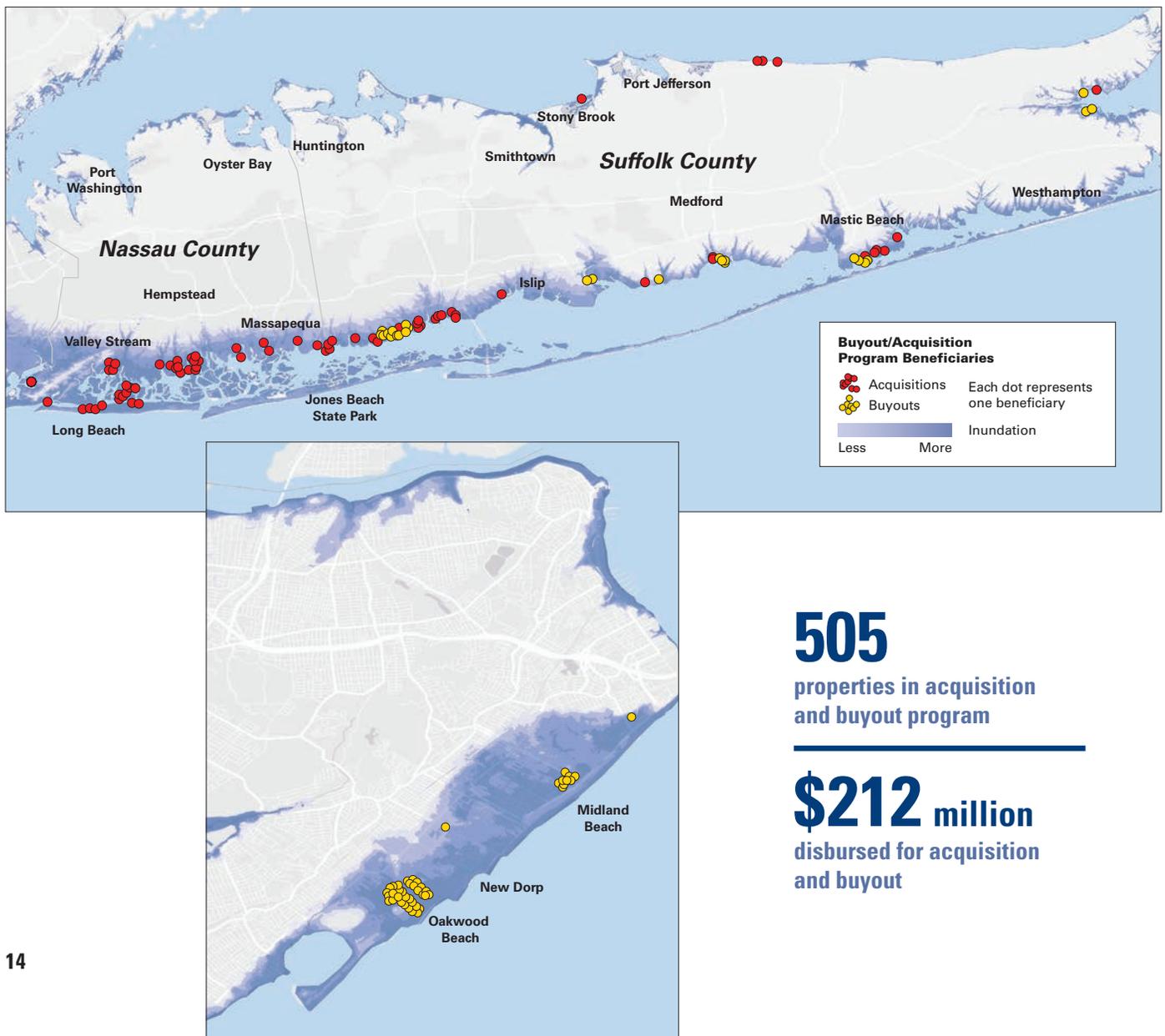
## Interim Mortgage Assistance Dollars Disbursed



Home elevation on Staten Island



## Buyout/Acquisition Program Beneficiaries



# SMALL BUSINESS

## Reviving New York's Economic Engine

Some 98 percent of all businesses in New York are small businesses.<sup>6</sup> These businesses are vital to their communities, providing jobs and strengthening civic character. Small businesses are especially vulnerable to disasters, as they may lack the capital to recover from storm impacts. Yet these businesses are critical in the aftermath of a storm, providing the goods and services that residents most need. When businesses are closed, residents cannot access those goods and services, employees lose wages and businesses suffer loss of revenue. For many small businesses, even a short period of revenue loss is enough to affect their ability to remain open.

The effects of the storms of 2011 and 2012 caused business disruption for an estimated 300,000 small businesses throughout New York. While many of these businesses received FEMA assistance or insurance proceeds for flood damage and business disruption, others still have substantial unmet needs. GOSR's role is to help affected businesses come back stronger than ever by providing supplemental assistance.

The Small Business Program works closely with each assisted business to understand their unique needs and maximize their award. "It's not a cookie-cutter program," said Lauren Nichols, co-director of the Small Business Program. For some

Irene-damaged businesses in Delaware County



**\$20.8 million** in grants to 638 small businesses

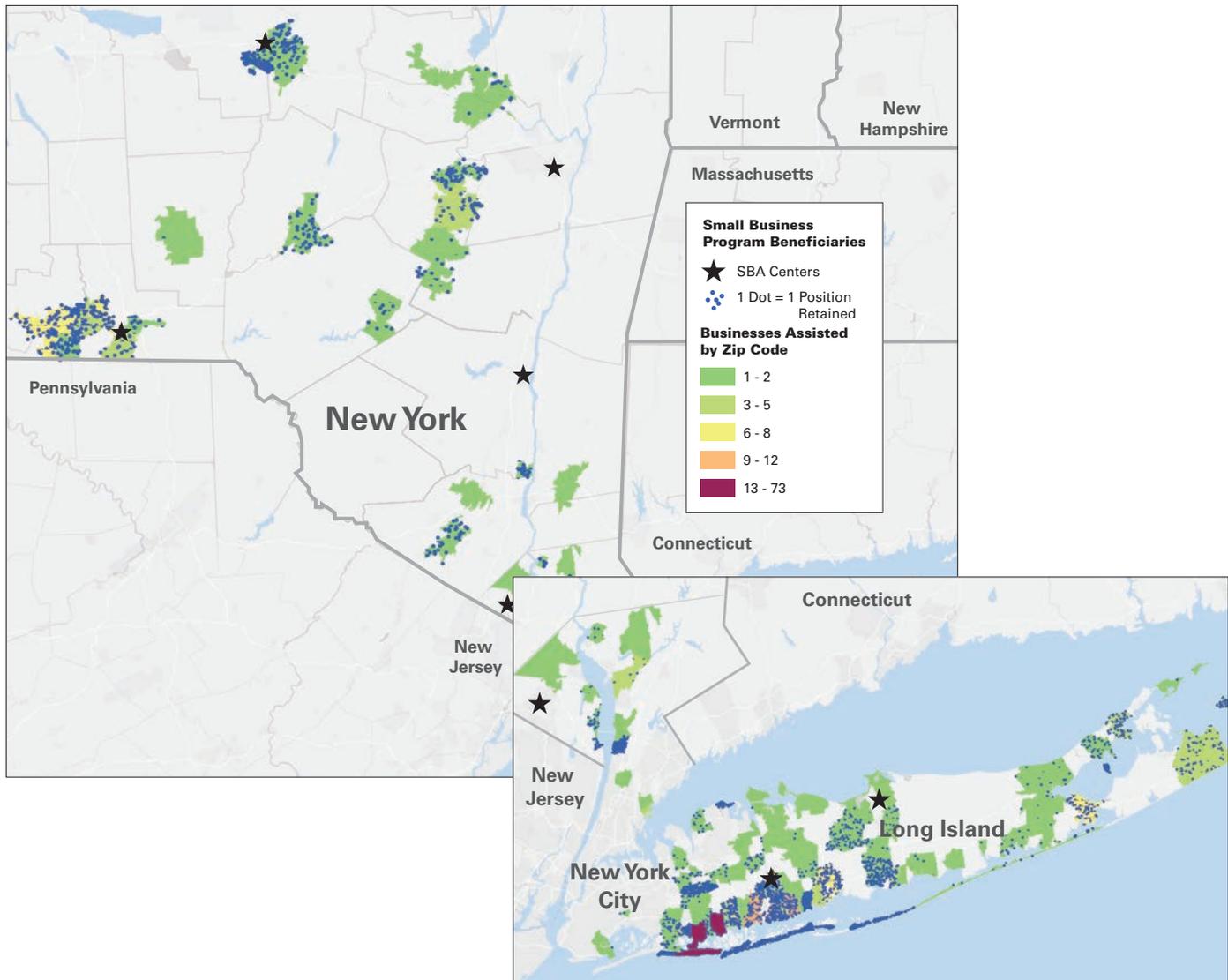
**6,490** positions retained at businesses receiving assistance

**636** registered small businesses in Business Mentor NY

**200+** mentoring engagements held to date

<sup>6</sup> The federal Small Business Administration defines a small business as one that is independently owned and operated, is organized for profit and is not dominant in its field. Depending on the industry, the SBA's size standards are based either on average number of employees or sales volume.

## Small Business Program Beneficiaries



businesses, repairs are the most pressing need, while others may need working capital to cover operating expenses like rent, utilities and employee wages. Coastal and seasonal businesses or those facing severe economic hardship — defined as the risk of business closure or significant job loss — are eligible to receive additional awards, as are businesses implementing mitigation measures like elevating key equipment, installing permanent back-up generators and flood-proofing structures.

As with housing, the goal of the Small Business Program is to get businesses up and running as soon as possible. GOSR set this action-focused approach in several ways. First, it partnered with institutions that already had relationships with local businesses and communities. The State University of New

York's (SUNY) Small Business Development Centers (SBDCs), located at campuses near affected communities, manage the application intake process and are the main point of contact with business applicants. The State's economic development agency, Empire State Development (ESD), provides program outreach and marketing.

GOSR has continually monitored the effectiveness of the program guidelines and the application process, and made targeted changes to streamline the process and reduce bottlenecks. In October 2013, a Preliminary Award Initiative was created to expedite the assistance process, issuing \$10,000 in funding for working capital and other non-construction expenses to businesses that had begun actively completing applications. These businesses could obtain the total award once they completed the application. This fast-tracking initiative

## Case Study: Marshall Coffee, Deer Park

Marshall Coffee, a family-run wholesale coffee and coffee equipment supplier, grew out of the garage of the founders' home in Hicksville more than 30 years ago, and now services 250 businesses in Nassau and Suffolk counties. Although the company's physical location was not damaged by Sandy, much of its equipment housed in customers' facilities was, leading to severe financial hardship.

In the immediate aftermath of the storm, Marshall Coffee kept operating, and it made the decision not to eliminate any jobs. However, its dedicated group of employees agreed to take pay cuts. The business worked with a NY Rising case worker to help them through every step of the recovery process. Although the grant application was not always easy — the paperwork could be daunting — Marshall Coffee received a \$50,000 award for equipment and working capital, and is planning to restore employees' salaries. "To know your State is there to back you up and help you out in really bad times, it's nice to know there's someone to turn to," said founder Gary Marshall.

significantly accelerated a portion of the assistance process. In December 2013, the State determined that the underwriting guidelines being used to qualify small businesses were overly stringent and were slowing the application process. The guidelines were adjusted, and additional training was provided to the SBDC business advisors to allow for better functionality of the application intake system. These adjustments reflect GOSR's commitment to ground-up recovery, listening to the businesses and the community and making the changes needed for the program to work better. Each week, the program is now receiving about eight new applications and is approving 15 to 25 applications.

The Small Business Program is also taking a long-term approach to recovery and resiliency by funding construction for mitigation, so that businesses can rebuild smarter. And the Business Mentor NY initiative is helping small businesses identify and address their challenges by working with business mentors. The one-on-one guidance and counsel helps the businesses improve their operations and systems, so that they are better prepared for future storms. Data from MicroMentor, the online service platform being used by Business Mentor NY, indicate that entrepreneurs in mentorship programs see higher revenue and have a much higher survival rate. More than 200 professionals have volunteered to mentor a small business affected by the storms, and the interactive, Web-based program is intended to expand Statewide.

### Irene-damaged business in Schoharie County before and after recovery



## Case Study: Island Park Laundromat, Island Park

In business for 47 years, Island Park Laundromat has recently reopened after an extensive and difficult recovery process in the wake of Sandy. John Weber, who has owned the business for more than 15 years, also faced significant damage to his house and the loss of two vehicles. Many local residents — his customers — have yet to return to the neighborhood. “I drained my life savings and emergency funds and maxed out my credit cards,” said Weber.

Island Park Laundromat received \$96,000 in total grants through NY Rising, helping it to re-open in early September 2014. Weber calls his case worker “a driving force of optimism,” and credits the State’s assistance with helping him complete the repair process. “When I was frustrated with the system, so was he,” said Weber. “I owe him a big salute. He kept me motivated to see the process through.”



***“We are harnessing the very best of New York’s skilled business professionals to give a boost to our entrepreneurs who are facing obstacles and challenges to business growth.”***

— **Kenneth Adams**, President & CEO,  
Empire State Development Corporation

Irene-damaged  
business  
in Delaware County



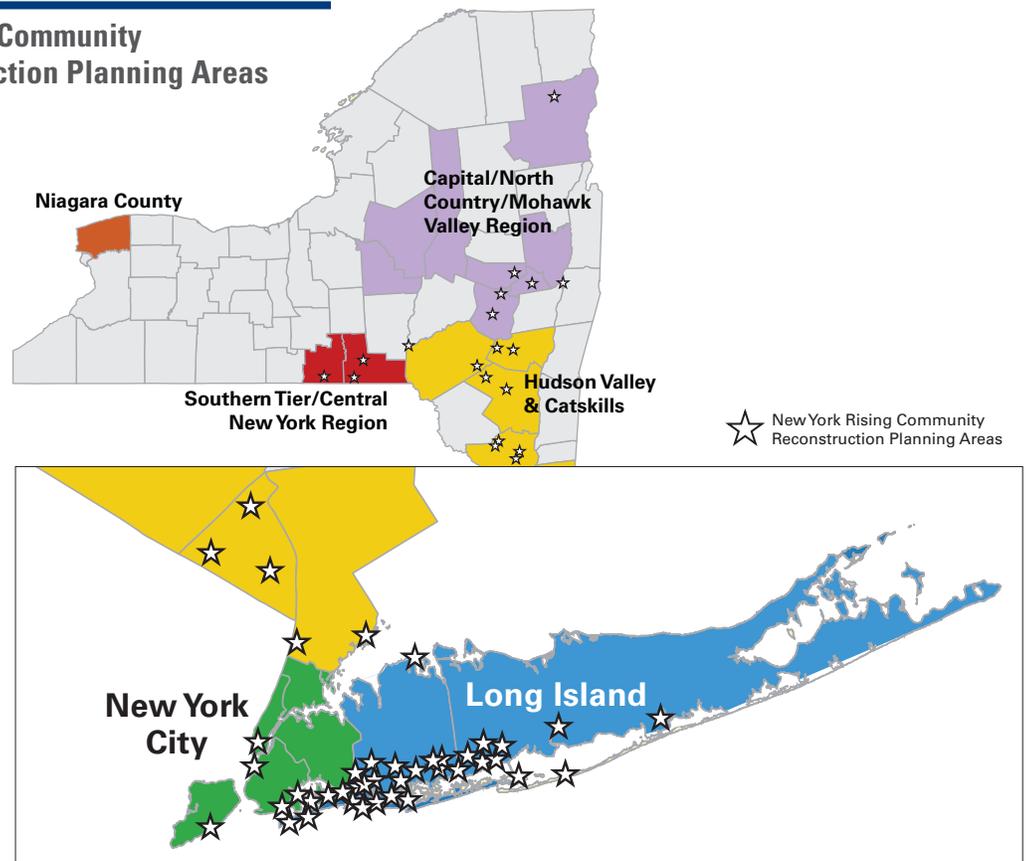
# COMMUNITY RECONSTRUCTION PLANS

## Generating Bottom-Up Recovery and Resilience Strategies

In April 2013, Governor Cuomo announced the New York Rising Community Reconstruction (NYRCCR) Program, an ambitious, first-of-its-kind grassroots recovery initiative within NY Rising to empower local communities to identify and implement specific resiliency strategies in the wake of Sandy, Irene and Lee. The program relies on the stakeholders who know their communities best — residents, business owners and civic leaders — to identify the risks and vulnerabilities to their unique assets, and the strategies and projects to protect and strengthen those assets. In each participating community or group of communities, the State established a planning committee comprised of eight to 30 local leaders who spearhead an eight-month planning process to develop a comprehensive reconstruction plan that will make their community physically, economically and socially more resilient. These community leaders are supported by an interdisciplinary team of experts in community planning, infrastructure, housing, coastal engineering, architecture and economic development, who bring technical skill and knowledge of best practices.

The bottom-up Community Reconstruction planning process was launched in July 2013 with 45 planning areas. A second round of planning has begun for another 16 planning areas in impacted communities, such that all of the most impacted communities across the State have had the opportunity to participate. Communities developing a recovery plan are eligible

**NY Rising Community Reconstruction Planning Areas**



to receive between \$3 million and \$25 million in funds — or more for planning areas encompassing multiple communities — to implement projects identified in their plans.

In addition to these planning areas, the NYRCR Program has facilitated the creation of countywide resiliency plans in five counties that were impacted by the severe summer storms of 2013: Niagara, Madison, Herkimer, Oneida and Montgomery. The planning process for these communities has been similar to the other Community Reconstruction planning areas, but the process has been administered by the Department of State (NYS DOS), and both the planning process and implementation projects for the five counties will be funded by the State rather than with CDBG-DR funds.

In March 2014, the 45 first-round communities and the five additional upstate counties collectively unveiled approximately 600 proposed projects designed to increase resiliency through targeted actions across the State.

The NYRCR Program embodies each of the overarching themes of the NY Rising program. Each plan focuses on both short- and long-term recovery. In addition, the NYRCR Program prioritizes projects that are technically feasible, with the goal of making the identified strategies a reality and putting them to work in strengthening New York's ability to withstand future storms.

To generate the best and highest-impact projects, GOSR created the NY Rising to the Top Competition, which evaluates the Community Reconstruction communities across eight categories, with the winning community in each category receiving an additional \$3 million in implementation funding. The competition was designed to reward innovation and

competition, encouraging communities to devise the best solutions to address their risks. The NY Rising to the Top Competition will be continued with the second-round plans.

The cornerstone of the NYRCR Program is the concept that projects coming out of the community plans must do more than simply restore the status quo; they must help the communities come back stronger and better equipped to respond to future storms. This concept also incorporates a community-wide and regional perspective, understanding that the most effective actions may require cross-jurisdictional coordination and collaboration. A typical Community Reconstruction Plan identifies critical issues and community vision; assesses risks to key assets, needs and opportunities; identifies reconstruction and resiliency strategies; and provides profiles of projects proposed for implementation. Many identified projects relate to local infrastructure, but others incorporate emergency management measures or workforce development and capacity building. The intent is to approach resiliency from a holistic view, recognizing that making a community stronger requires building social organizations or a local economic base as well as physical infrastructure.

The NYRCR Program also exemplifies NY Rising's ground-up, participatory approach to community planning, one that is truly unique among recovery efforts. To date, the program has involved more than 660 planning committee members and thousands of members of the public at more than 560 planning committee meetings, and at least 232 public engagement events. For committee members and impacted residents, who are still coping with their individual recovery needs, this involvement is not simply one of time commitment; it is a long-term investment in the future of their communities. Lasting positive outcomes of this bottom-up approach include an awakening about risk and vulnerability, and an educated cohort of civic leaders who are positioned to lead their communities toward greater resiliency in the long-term.

**50** completed  
Community  
Reconstruction plans

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**16** additional plans  
in progress

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**660+**  
planning committee  
members

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**232+**  
public engagement  
meetings

***“The Committee worked as a team and recognized the importance of sustaining and supporting the identities of our neighborhoods and focused on projects that would have short-term impact as well as promote long-term growth and development.”***

— **Sue Fox**, co-chair  
NY Rising Community Reconstruction  
Planning Committee  
Brighton Beach, Coney Island, Manhattan  
Beach, and Sea Gate

## Staten Island Community Reconstruction Plan

The vulnerable East and South Shores of Staten Island experienced extensive damage during Sandy, devastating longstanding residential communities, weakening both small businesses and major employers and disrupting power systems for weeks and even months. A total of 23 Staten Islanders lost their lives due to the storm.

New York State initially allocated \$25 million in CDBG-DR funds to support projects identified by the Staten Island Planning Committee to address both short-term recovery needs and long-term resiliency efforts. As a winner of the NY Rising to the Top Competition, Staten Island was awarded an additional \$3 million in CDBG-DR funds.

Proposed projects incorporate strategies that identify and assist at-risk businesses, including a Race for Space grant program to fill vacant storefronts; creation of a Local Development Corporation (LDC) for the East Shore; a common application for disaster relief grant funding for local businesses; and a number of infrastructure and long-term planning projects to improve resiliency, such as the New Creek Bluebelt and development of microgrid network pilot projects.



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“We pored over thousands of pages of documents, heard testimony from scores of residents who were personally affected by the storm, spent hundreds of hours deliberating, including some heated sessions when the stakes were high, and most importantly gained a renewed respect for collective impact,” said David Sorkin, co-chair of the Planning Committee. “In addition, several new associations, projects and initiatives were developed as spin-offs to our work. We know that Staten Island will be well-served with the funded projects that will be afforded our community.”



**Proposed Gateway to the Bluebelt,  
Hylan Boulevard, Staten Island**

NY Rising to the Top winners for the first round of Community Reconstruction Plans are:<sup>7</sup>

**Best Regional Collaboration: Southern Tier Communities (Broome and Tioga Counties)**

The Southern Tier communities hosted a Regional Resiliency Summit to educate residents about storm preparedness, recovery and resiliency efforts, and carried this regional perspective through the identification of strategies and projects for the entire Susquehanna River Basin.

**Best Use of Technology in the Planning Process: Village of Waterford**

The Village utilized a computer application system that uses heat mapping and insurance claims data to establish a comprehensive picture of flood-prone areas, creating a model that can be used in other at-risk communities.

**Best Community Involvement in the Planning Process: Village of Margaretville**

The Village took a highly collaborative approach, holding weekly meetings with residents, developing targeted surveys, canvassing door-to-door, reaching out to vulnerable populations, encouraging youth participation and hosting interactive public engagement events.

**Best Inclusion of Vulnerable Populations: Brighton Beach, Coney Island, Manhattan Beach & Sea Gate**

These culturally diverse Brooklyn communities proposed a new vocational high school focused heavily on skills needed for resiliency, sustainability and emergency preparedness, to apply lessons learned from Sandy to help the neighborhoods withstand the effects of climate change.

**Best Use of Green Infrastructure: South Valley Stream**

This hamlet in southern Nassau County proposed to restore a portion of its natural shoreline that experienced heavy flooding during Sandy, through the use of green infrastructure to better manage tidal flow, provide habitat restoration and improve open space.

**Best Innovative and Cost-Effective Financing: Oakdale/West Sayville**

These South Shore Long Island communities proposed a series of public-private partnerships — including a bike share program, water taxi and trolley — that could leverage public funds to secure private investments, enhancing local businesses and the waterfront’s recreational and economic vitality.

**Best Infrastructure Investments with Co-Benefits: Jay/Keene**

These North Country towns proposed using ecological restoration techniques along Johns Creek in Keene, to mitigate flooding risks, with the additional benefits of promoting the spawning of brook trout and spur local economic development.

**Best Approach to Resilient Economic Growth: Staten Island**

The Borough’s East and South Shores encouraged businesses impacted by Sandy to re-open or expand in vacant downtown storefronts through a Race for Space Competition, and proposed the establishment of an East Shore Local Development Corporation to enhance commercial districts through marketing, a cohesive retail strategy and financing initiatives.

**600**  
total projects  
proposed

**50+**  
projects launched  
across the state



**Proposed Brook Road Park  
Stream Edge Restoration, South  
Valley Stream, Nassau County**

<sup>7</sup> Community Reconstruction plans for all first-round communities are available at <http://stormrecovery.ny.gov/nyrcr/final-plans>.

***“This program has been a textbook case of vision, leadership and creativity.”***

— **Joan Lawrence Bauer,**  
co-chair Shandaken/Hardenburgh NY  
Rising Committee



## **Southern Tier Communities: Tioga County and Broome County Community Reconstruction Plans**

The two Southern Tier counties of Tioga County and Broome County both saw devastating flooding along the Susquehanna River when Tropical Storm Lee dropped up to a foot of rain during a 24-hour period, just 10 days after Hurricane Irene had already saturated the ground and elevated water levels. Critical roads were left impassable or entirely washed out. The flooding inundated stormwater and sewer infrastructure, causing widespread damage to homes and commercial districts. Agricultural lands were also hard-hit, as stream bank erosion reduced the amount of productive acreage and harmed the farming operations that are critical to the local economy. Flooding from Tropical Storm Lee is the worst flood of record for the Southern Tier.

In planning for future resiliency, the two planning committees, along with the Village of Sidney Planning Committee, recognized that the Tioga communities, the Broome communities and Sidney all share their borders with the Susquehanna River and are within its watershed, and should work together to comprehensively address flooding issues. The Southern Tier communities hosted a Regional Resiliency Summit to solicit feedback from various sectors and stakeholders. Key projects arising from this regional approach include establishment of a Regional Susquehanna River initiative to conduct a regional river study and identify specific improvements, and to undertake regional Soil and Water Conservation District-related projects to provide greater protection during future flood events.



“These communities have worked together to identify projects that will not only improve critical infrastructure and facilities, but will make the Southern Tier more resilient to the impacts of future storm events,” said Vince Pasquale, co-chair of the Broome County Planning Committee.



**The proposed Village of Sidney GreenPlain comprises four distinct mitigation areas that function independently while forming a contiguous system to substantially increase flood storage.**

While the NYRCR Program’s full impacts will be felt in the years and decades to come, it is already producing tangible results. Dozens of projects have been identified for near-term implementation, and by the fall of 2014, the State anticipates having at least one project being implemented in each Community Reconstruction area.

For example, in the Village of Sidney in Delaware County, \$22 million of FEMA HMGP (Hazard Mitigation Grant Program) funding has been allocated for the GreenPlain project, which would establish a 140-acre mitigation area to provide more flood storage for the Susquehanna River and Weir Creek.

In the Five Towns area of Long Island, the State expects to implement a coordinated stormwater management improvement project incorporating seven individual stormwater management proposals from the Community Reconstruction Plan.

And in Broad Channel, Queens, GOSR has committed \$500,000 in CDBG-DR funds for the Sunset Cove Restoration project, which will include the installation of an oyster reef at the shoreline to protect community assets, planned habitat improvements and recreation amenities, from wave and erosion damage.

To fully implement the identified key projects in each community, GOSR works with “subrecipient” agencies, such as municipalities, other State agencies or nonprofit organizations, which are best positioned at the local level to implement the projects. For example, the Sunset Cove project also received U.S. Department of the Interior (DOI) grants administered by the National Fish and Wildlife Foundation (NFWF), illustrating the effectiveness of creatively leveraging multiple funding sources.

***“From the start they listened and took the thoughts and ideas of the committee and the community into serious consideration.”***

**— Ed Zangrillo,**  
chair Bay Park and East Rockaway  
NY Rising Committee

# INFRA- STRUCTURE

## Repairing, Reinforcing and Re-envisioning New York's Critical Networks

New York's transportation, water and energy infrastructure is the engine by which the State runs. The strength and capacity of its infrastructure has a direct impact on the quality-of-life of residents, the viability of commerce and the health of the State's economy. And in many vulnerable areas throughout New York, coastal protection infrastructure is critical to protecting homes, businesses and community assets. Coastal protection and other infrastructure failures during storm events create significant and far-reaching impacts. Waiting in lengthy gas lines, going without power for weeks and being unable to reach their places of work are experiences that New Yorkers will not soon forget, and they highlight the risks and vulnerabilities that must be addressed throughout the State's critical systems to withstand future storm events.

Given the large scale of the State's infrastructure networks and the complex and often overlapping jurisdictional relationships at play, infrastructure is one of the central areas where government must take a leadership role. The NY Rising Infrastructure Program allocates funds to address short-term needs for the State's critical infrastructure and, in the long-term, ensure that these systems are resilient against future storms. The program works in concert with infrastructure initiatives being undertaken by other agencies, ranging from State agencies such as the Metropolitan Transportation Authority (MTA), New York State Division of Homeland Security and Emergency Services (DHSES), the Port Authority of New York and New Jersey (PANYNJ), the Office of Parks, Recreation and Historic Preservation, the Department of Environmental Conservation (NYSDEC), the Environmental Facilities Corporation (NYSEFC) and the Department of Transportation (NYSDOT); to federal agencies such as the Federal Transit Administration (FTA), the Federal Highway Administration (FHWA), FEMA and the U.S. Army Corps of Engineers; to New York City and its agencies.

### Infrastructure

The NY Rising infrastructure programs are helping communities throughout the State address critical repair and recovery needs, while enabling them to ensure that these systems are resilient against future storms.

<b>1</b> Coastal Protection (seawalls, levees, dunes, etc.)	<b>2</b> Transportation (PANYNJ, MTA, roadways, bridges)	<b>3</b> Critical Facilities (hospitals, firehouses, etc.)
<b>4</b> Water (pump stations, water treatment plants, etc.)	<b>5</b> Natural Resources (parks, rivers, etc.)	<b>6</b> Energy (oil reserves, gas stations, substations, microgrids, etc.)

***“Our plan completely transforms the way we build and protect our infrastructure, safeguard our energy supply, prepare our citizens and first responders and provide fuel and electricity.”***

**— Governor Andrew Cuomo**

## Bridge Scour Program

New York's bridges serve a critical role in economic development, emergency management and quality-of-life, helping people get to jobs, schools and important day-to-day activities. But many of these bridges were not built to withstand the recent and unanticipated extreme weather events. A particular problem is bridge scour, which is caused by swiftly moving water that removes foundation materials such as sand and rocks from around and beneath bridge abutments, piers, foundations and embankments, compromising structural integrity.

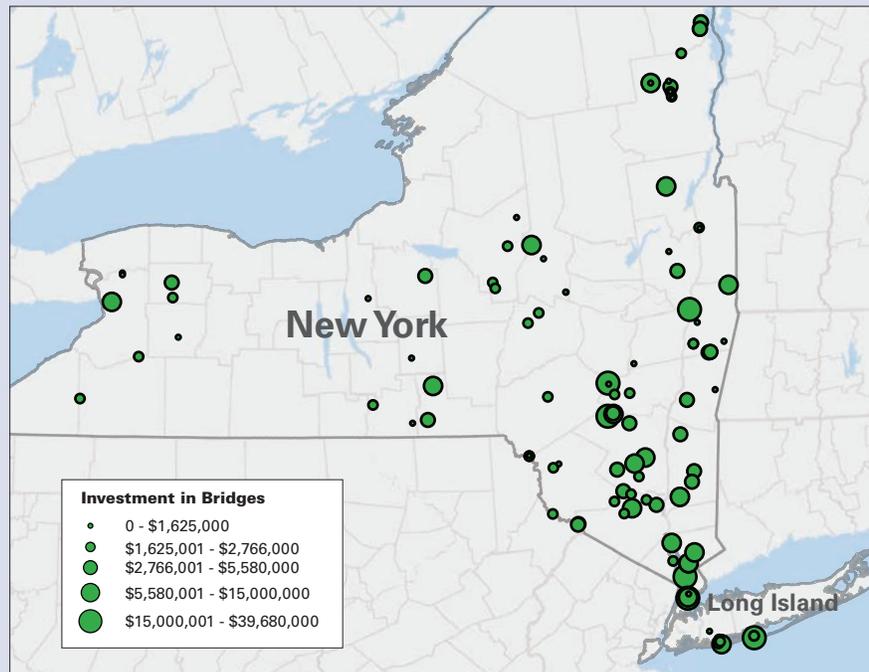
In June 2013, Governor Cuomo called for projects to be funded by FEMA's HMGP to assist local governments and nonprofit organizations in rebuilding stronger and more resilient communities. The bridge scour program is the product of a collaboration among the State's Department of Transportation (NYSDOT), Division of Homeland Security and Emergency Services (DHSES) and GOSR, as well as dozens of local governments, and exemplifies effective flood recovery and emergency management efforts.

In response, NYSDOT identified the 105 bridges in 78 communities throughout New York that are most vulnerable to repeated instances of flooding. Upgrading these bridges will ensure access to emergency services during and after flood events, and reduce the risk of flooding where bridge openings cause rivers and streams to back up.

The total cost of the bridge scour program will be \$518 million, with 25 percent, or \$129.5 million, to be paid through the NY Rising local match. "Upgrading these bridges is not an expense, it is a vital investment in New York's future," said GOSR Executive Director Jamie Rubin. "Our forward-looking approach will enable them to better withstand the effects of nature."

In addition to the bridge scour program, \$711.5 million is being invested in the HMGP, \$128 million of which is being paid through the NY Rising local match.

### Investment in Bridges



### MTA Metro-North embankment work along the Hudson River



The NY Rising Infrastructure Program encompasses three components:

### **Non-Federal Share “Match Program”**

Federal programs require that States and localities pay a portion of the grant award as a condition of receiving funds. Following a disaster, the size of the matching funds can exceed a locality’s available budget for this activity. Although over 3,000 projects have been approved by FEMA with more than 2,000 eligible applicants, many of the applicants have few options to cover the local match requirement.

In most cases, federal funds cannot be used to provide a source of local matching funds. However, the U.S. Congress allows HUD to use its CDBG-DR funds as a local community’s share of the required non-federal match. The FEMA Public Assistance (PA) Match Payment Program provides the non-federal share that eligible applicants (such as public entities) receive through the FEMA-PA program to address recovery costs associated with damage sustained as a result of Superstorm Sandy, Hurricane Irene or Tropical Storm Lee. The NY Rising match helps entities implement projects by maximizing all available resources.

The FEMA-PA program is forecast to account for more than \$8 billion in investment in New York State (including local matches). Transportation will likely account for almost 14 percent of that total, health and hospital investments another 17 percent, water and wastewater for 12 percent, energy (including investments in the Long Island Power Authority) for more than 21 percent, education almost 3 percent and coastal protection and flood control for more than 10 percent. The remaining funds are provided for other direct government and community support.

### **Local Government Public Infrastructure Program**

Many large-scale infrastructure costs of rebuilding from the storms will be covered by the FEMA-PA program. However, GOSR is aware that many local governments and school districts face a strain on their capacity to provide essential services as a result of the storms. To meet these needs, the State will develop a financing program that will address losses to key public services resulting from the disasters.

### **Critical Infrastructure Program**

The Critical Infrastructure Program focuses on investing in a range of projects to repair, rebuild and mitigate key infrastructure assets in New York, including coastal protection, transportation, water and wastewater treatment, natural and open space resources and energy.

The projects and programs funded by the Critical Infrastructure program embody all of the overarching themes of NY Rising. They address both short-term recovery needs and long-term resiliency initiatives, so that New York’s impacted communities — and the critical systems that serve them — can come back stronger and better able to withstand future storms. The projects are action-focused; designed to achieve clear results

## **Bay Park Wastewater Treatment Facility**



The Bay Park Plant is the largest wastewater treatment facility in Nassau County, treating 58 million gallons a day and serving more than 550,000 residents, or 40 percent of the county’s population. During Sandy, engines for the plant’s main pumping system were flooded by nine feet of water, and sewage began to back up and overflow into the streets and basements of some homes in the area. The facility shut down for more than two days, and about 200 million gallons of raw sewage flowed into channels and waterways. Flooding destroyed the plant’s electrical system and compromised other critical systems.

To ensure Nassau County could proceed with urgent repairs to the Bay Park facility, Governor Cuomo announced in October 2013 that the State would provide \$455 million paid from various federal sources. In January 2014, FEMA approved its largest post-Sandy infrastructure award, \$810 million in funding to repair and mitigate the plant. The project includes construction of a berm around the entire facility to protect against a 500-year storm and account for predicted sea level rise, as well as elevating and hardening systems and replacing damaged equipment. GOSR will match 10 percent of the FEMA assistance and purchase a \$20 million generator for the plant, contributing a total of \$101.6 million to the project. Work on the perimeter flood protection — which will allow the construction of elevated athletic fields and better stormwater management infrastructure — began in July 2014.

***“These funds will provide financial assistance to communities as part of the State’s ongoing work to ensure that we are better prepared to protect New Yorkers, strengthen facilities and infrastructure and maintain critical services.”***

**— Governor Andrew Cuomo**

## LIPA Network Recovery and Resilience

The Long Island Power Authority (LIPA) provides electric service to more than 1.1 million customers in Nassau and Suffolk Counties and the Rockaway Peninsula in Queens. In the aftermath of Sandy, thousands of those customers were left without power for weeks. All 12 of LIPA's substations on the South Shore of Long Island suffered flood damage.

Since the storm, LIPA has undertaken substantial repair, recovery and resilience efforts. For example, storm hardening measures, including installation of flood prevention barriers, elevation of equipment and adjustments to switching systems, have been undertaken at substations in eastern Queens and Long Island.

For LIPA's future efforts, GOSR will provide a \$143 million match to FEMA's \$1.4 billion in funds to upgrade LIPA's network. Planned improvements include a new outage management system and other technology upgrades to identify power outages and restore power faster. Funding will also be used to repair substations and electronic distribution systems.

LIPA plans to spend more than 46 percent, or \$766 million, of its total federal and State assistance and insurance proceeds on mitigation measures to protect against future storms, such as strengthening lines, elevating equipment and installing resiliency vegetation.

and provide tangible benefits to residents, businesses and workers; and combined with economic development initiatives and programs to build communities' social and institutional storm-preparedness capacity to achieve maximum impact. Many projects are regional in nature, reflecting the fact that infrastructure often crosses municipal boundaries and serves entire communities or areas. And they are, in many cases, community-driven, resulting from direct coordination with local stakeholders through the Community Reconstruction Program or other input.

GOSR-funded infrastructure projects also incorporate — and in some cases are a direct result of — the findings and recommendations of Governor Cuomo's NYS 2100 Commission, which was convened in the weeks after Superstorm Sandy to address long-term climate change. The Commission's report developed a set of broad recommendations for increasing New York's future resilience, including outlining immediate actions to strengthen existing infrastructure systems, and identifying long-term infrastructure projects that will provide greater climate resilience as well as economic and quality-of-life benefits. Specific recommendations that drive GOSR's funding for infrastructure projects include strengthening existing transportation networks against future hazards; reinforcing critical energy and wastewater infrastructure; and protecting coastal assets through measures such as dune restoration and bulkhead repair.

In addition to directly funding the infrastructure projects highlighted above, GOSR works in partnership with State and federal agencies to facilitate recovery and resiliency programs, including FEMA's HMGP. These projects reflect the same themes as those undertaken under the NY Rising umbrella. They are action-oriented and strike a balance between short-term recovery and long-term resilience, and many have a community-wide or regional impact and flow directly from local stakeholder input. The overall approach by these agencies,



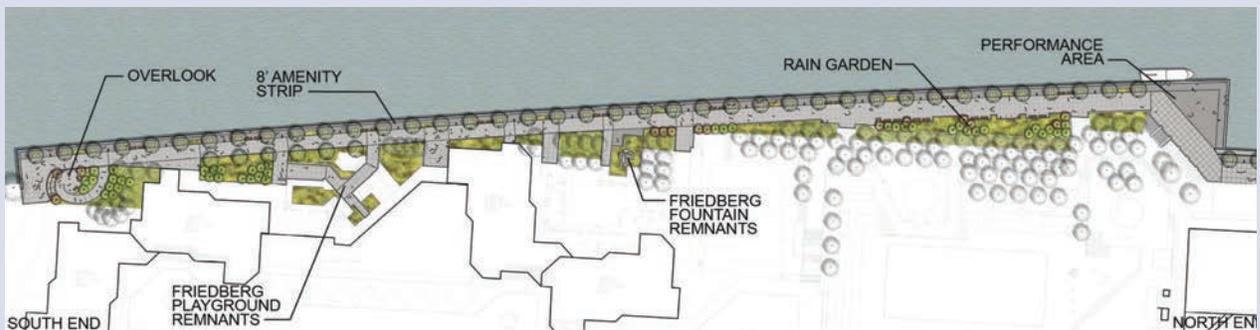
**Damaged bulkhead in Nyack (left) and after repairs by NYSDEC (right)**

## Roberto Clemente State Park

Positioned along the Harlem River in the Bronx, the 25-acre Roberto Clemente State Park attracts some 1.3 million visitors a year, offering facilities including a multi-purpose recreation building, pool complex, ball fields, basketball courts, picnic areas and playgrounds. Its 2,200-foot steel bulkhead also provides coastal protection for the adjacent RiverPark Towers residential complex housing 5,000 people; two public school buildings serving 650 students; a Metro-North Railroad line and a major power transmission line.

During Sandy, Roberto Clemente experienced three feet of flooding, causing severe corrosion of the 40-year-old steel seawall and loss of backfill beneath the park esplanade. Portions of the park remain closed, including sections of the esplanade used by emergency vehicles to respond to calls at RiverPark Towers and on the Harlem River.

In June 2014, the State announced plans to apply for up to \$46.5 million in CDBG-DR funds to rebuild the bulkhead with a more resilient design providing better flood protection, storm resilience and green infrastructure. The work will include park redesigns to improve water access, enhance views and add recreational facilities. "This project is a reminder that parkland is important for providing places for fun and recreation, but — especially in urban areas — serves as an essential buffer for our communities, providing much-needed open space and often absorbing and mitigating the impact of stronger and more frequent storms," said State Parks Commissioner Rose Harvey.



working together with GOSR, is to provide for immediate recovery and repair of critical systems while implementing strategies that will have an effective and lasting impact on New York's ability to withstand future severe weather events.

Recovery and resilience projects undertaken by State and federal agencies range from large-scale, regional initiatives, such as measures to protect a commuter rail line against future storms, to strategies with a more localized impact, such as improving the stormwater management system on a downtown corridor. They are being undertaken across agencies and in close collaboration with local governments, leveraging a variety of funding sources.

For example, NYSDOT completed in 2013 a \$2 million restoration of the entrance roadway to Orient State Park, including reconstruction of undermined pavement and the roadside, replacement of conduits and installation of plantings and dune fencing to protect from future erosion.

In the fall of 2014, the U.S. Army Corps of Engineers expects to award a contract to stabilize the Coney Island Public Beach with re-nourishment and construction of groin structures to prevent beach loss. The \$24 million project is being led by the New York State Department of Environmental Conservation (NYSDEC) and coordinated with the Sea Gate seawall repair project funded through FEMA.

## Jones Beach Boardwalk

The State Office of Parks, Recreation and Historic Preservation (OPRHP) — which saw \$200 million in system-wide damage from Superstorm Sandy — completed in 2013 a \$4 million replacement of 1.5 miles of boardwalk at Jones Beach State Park. The project integrated long-term resiliency measures such as elevated utilities and stronger hardwoods to withstand harsh oceanfront exposure.



## Robert Moses State Park

Robert Moses State Park, Long Island's oldest State Park, is renowned for its five miles of sprawling beaches where visitors can swim, surf and fish. The park is a staple of the region's tourism industry. In 2012, more than 3.2 million people visited Robert Moses State Park, making it New York's third most popular State park. During Sandy, the beaches suffered heavy erosion, with portions of the boardwalk washed away, and the traffic circle collapsed into the Atlantic Ocean.

Governor Cuomo announced in March 2014 that the State would provide \$24 million in CDBG-DR funds to implement beach stabilization and infrastructure protection measures at Robert Moses. The project includes using up to 600,000 cubic yards of sand to nourish beaches, enhance the protective dunes at the traffic circle and restore native vegetation. The project supplements work by NYSDOT to complete limited dune restoration and beach replenishment and to rebuild segments of Ocean Parkway and the collapsed traffic circle. The park reopened in May 2013 in time for the summer season.



**Robert Moses boardwalk, after storm damage (top) and after recovery (bottom)**

## Sea Gate Seawall Repair



During Superstorm Sandy, surges of up to 10 feet destroyed or damaged hundreds of homes throughout the Southern Brooklyn coastal community of Sea Gate. The community's police department and administration buildings were destroyed, nearly 750 homes were damaged, sewer systems and roads were compromised and Sea Gate was left without power for more than six weeks. Homes and businesses in neighboring Coney Island were also heavily damaged. Sea Gate's bulkhead, which has protected against flooding and inundation, was destroyed during the storm, leaving both communities vulnerable to future surges.

To better protect Sea Gate and Coney Island from future storms, the Brighton Beach, Coney Island, Manhattan Beach and Sea Gate Community Reconstruction Plan identified as a priority project the replacement of more than 1,850 feet of bulkhead along the Sea Gate shoreline. In September 2014, Governor Cuomo announced that the \$2.8 million project will be funded through FEMA's HMGP.

## Investing In Water Quality

Suffolk County depends on aquifers as its sole source of drinking water. Nitrogen pollution in these waters is a growing concern. As exposed during Superstorm Sandy, a fundamental water quality problem in Suffolk County is that most residents rely exclusively on septic systems for the disposal of wastewater. Many of these systems were compromised during the storm, exacerbating the problem of nitrogen pollution. Excessive nitrogen levels in these natural areas causes harmful algal blooms that result in the deterioration of areas of tidal wetlands, thus exposing population centers to the unmitigated impact of such storms while also compromising the primary source of drinking water for thousands of county residents. The State is working with Suffolk County to invest in the expansion of sewered areas.

In addition, to develop and commercialize the next generation of nitrogen removal technology for septic tanks and cesspools, the State is partnering with Suffolk County, the State University of New York and Stony Brook (SBU) and the Town of Southampton to establish the New York State Center for Clean Water Technology at Stony Brook. The Center will establish the State as a global leader in this industry, as the technology developed could help communities throughout Long Island, the nation, and beyond to address the critical nitrogen pollution issue.

Looking farther out, Governor Cuomo has announced a \$4.9 billion coordinated transportation resiliency program to enhance the public transportation network's long-term reliability and strength through priority projects identified by a comprehensive inventory and risk assessment. Projects were developed by the MTA, PANYNJ and the Moynihan Station Development Corporation (MSDC), and will be coordinated with other regional priorities. Key elements include fortifying New York Penn Station's railroad service and providing alternatives for Metro-North users to enter Midtown Manhattan in the event of service disruptions in the Bronx; flood protection of East River tunnels used by the Long Island Rail Road, Amtrak and NJ Transit; and mitigation of flood risks at New York City Transit subway yards and bus depots. The Federal Transit Administration (FTA) awarded the State more than \$1.9 billion in September 2014 to support resiliency projects by the MTA, PANYNJ and New York City Department of Transportation (NYCDOT).

Through close coordination with State and federal agencies, ground-up input from impacted communities and consistency with both an established vision and ongoing planning efforts, GOSR's Infrastructure program is working to advance projects that will restore New York's critical systems, harden them against future storms and generate meaningful economic and quality-of-life improvements.

## LaGuardia Resiliency Measures

At LaGuardia Airport — where storm surge from Sandy overwhelmed the dike system and flooded the airfield with about 100 million gallons of water — PANYNJ has several projects underway, totaling more than \$17 million, to repair damages and improve the facility's long-term resiliency. These include full replacement of the airfield lighting and power distribution systems; repair of critical safety systems to prevent aircraft overrun on the runway; repairs and future flood mitigation measures for pump houses; construction of a new elevated electrical substation and creation of flood-walls, dikes, improved drains and more efficient emergency generators. Similar efforts are underway at John F. Kennedy Airport, which also experienced substantial flood damage.

## Montague Tube Subway Tunnel Repair

In early September 2014, the MTA completed initial work to replace storm-damaged systems in the Montague Tube (R train), including tracks, switches, duct banks, power and communications cables, substations and signal equipment. Water from the storm surge during Sandy entered the tube through street-level subway openings, flooding more than 4,000 feet of the tube with salt water for nearly a week and significantly reducing the expected service life of every piece of equipment in the tube. R train service was restored in early September, ahead of schedule, and full construction is expected to be complete by March 2015, at a total cost of up to \$270 million.



## Rebuild By Design

As part of the third tranche of CDBG-DR funding, GOSR will be working to implement recommendations of the Rebuild by Design competition, which was established in the summer of 2012 by President Obama's Hurricane Sandy Rebuilding Task Force to develop innovative ideas to improve the physical, ecological and economic resilience of coastal areas. The yearlong competition was intended to connect world-class researchers and designers with businesses, policymakers and local stakeholders in Sandy-affected areas, to better understand how to redevelop their communities to strengthen environmental and economic assets and enhance resiliency from future storms. In June 2014, HUD Secretary Shaun Donovan announced the award of \$930 million to the six winning proposals for transforming infrastructure across the New York metropolitan region.

The Rebuild By Design competition was administered by HUD, in partnership with the Municipal Art Society, New York University's Institute for Public Knowledge, the Regional Plan Association and the Van Alen Institute. Lead funding for the effort was from the Rockefeller Foundation, with support from the JPB Foundation, the Deutsche Bank Americas Foundation, the Hearst Foundation, the Surdna Foundation and the New Jersey Recovery Fund.

## Living with the Bay: A Comprehensive Regional Resiliency Plan for Nassau County's South Shore

The Interboro Team's proposal presents a range of integrated adaptive measures to keep Nassau County residents safe, while adding to the economic, ecological and social quality of the region. A total of \$125 million in CDBG-DR funds will be used to implement the "Slow Streams" element of the design. The areas around Southern Nassau's north-south tributaries are threatened both by surge water flooding and stormwater inundation. The Interboro proposal addresses these threats through a set of interconnected interventions, transforming the Mill River into a green-blue corridor that stores and filters water, provides public space and creates room for new urban development. These river corridor improvements have co-benefits that address other challenges, such as water quality, ecological recovery and aquifer recharge.



## Living Breakwaters



A total of \$60 million in funding for the SCAPE/Landscape Architecture proposal is to build out the entire Tottenville coastline along Staten Island's South Shore with breakwaters — rocky sloped walls placed within the water column that can drastically dissipate destructive wave energy. The Living Breakwaters proposal uses man-made oyster reefs to help strengthen the breakwaters and break waves, while acting as a filtration system for oceans and providing habitat for finfish, shellfish and lobsters. In addition, the project incorporates a collaboration with the Billion Oyster Project, a long-term, large-scale plan to restore one billion live oysters to New York Harbor over the next 20 years and to educate thousands of students in New York City about the ecology and economy of their local marine environment.

# What Lies Ahead

Although not known at the time, the losses and damage sustained from Tropical Storm Lee, Hurricane Irene and Superstorm Sandy brought about a fundamental paradigm shift in the way the State of New York handles massively destructive weather events. The comprehensive scale of coordination and communication among State agencies and the men and women who staff them; and the sharing of data, information, assets and expertise, has been unprecedented in modern times and set New York on a new course of enhanced storm preparation and recovery. The Statewide, holistic approach to storm recovery addressed coastal protection; transportation and roadways; critical facilities such as hospitals and fire houses; pumping and water treatment facilities; natural and public resources such as parks and rivers; and energy which includes electrical supply, oil reserves and gasoline stations.

What emerged was a vision of handling extreme weather emergencies to preserve and protect the public and mitigate, to the greatest extent practicable, damage and property loss and to bring about the return of business and commerce to normal levels. That also included getting transportation networks and infrastructure functional as much as possible, in the shortest time frame.

The Governor's Office of Storm Recovery (GOSR) was created to coordinate recovery efforts and invest more than \$4 billion made available through the U.S. Department of Housing and Urban Development's Community Development Block Grant-Disaster Recovery (CDBG-DR) Program. Through its NY Rising Housing Recovery, Small Business, Community Reconstruction and Infrastructure programs, New Yorkers' unmet financial needs are being addressed.

The State engaged in critical and strategic analysis to envision a more resilient and sustainable New York, and an innovative component of community empowerment emerged — the NY Rising Community Reconstruction Program. Local stakeholders whose lives and futures are invested in a community became not only advocates, but planners and visionaries. This is a valuable opportunity to leverage partnerships, public consciousness and federal resources in a prudent, creative and responsible manner. Early results are validating the core premise of the program.

With the third tranche of federal money — \$600 million in CDBG-DR funding — now arriving, GOSR remains committed to a future that actively confronts, and prepares for, the new realities of extreme weather. Yet, as we carry out these aims, we will not settle for simply getting back to where we once were. We need to be even greater.

This means continuing to help eligible homeowners rebuild, make repairs, elevate and institute other required and optional elevation and mitigation measures. It means increasing the number of property closings yielded through the Buyout and Acquisition Initiative. And it means providing an array of assistance to small businesses — establishments that serve as hallmarks of local economies and key sources of jobs.

New York is becoming more robust and resilient, as the State redoubles its efforts to both recover from the storms and chart a course that recognizes the beauty of nature as well as its force.

# Appendix

**Table A: Estimated Multiplier Effect of CDBG-DR, FEMA PA and FEMA HMGP Expenditure on New York State Output, Earnings and Employment October 14, 2014**

Program	Industry	NAICS Code <sup>1</sup>	Total Allocation (\$) <sup>2</sup>	Industry Allocation (%)	Industry Allocation (\$)
<b>Housing</b>					
NY Rising Housing Recovery Program <sup>3</sup>	Construction	22	1,056,311,524	100%	1,056,311,524.00
Interim Mortgage & Housing Assistance Program <sup>4</sup>	Real Estate	53	49,000,000	100%	49,000,000.00
NY Rising Rental Properties Recovery Program <sup>5</sup>	Construction	22	232,500,000	100%	232,500,000.00
NY Rising Buyout Program <sup>6</sup>	Construction	22	621,207,682	19%	118,029,459.58
	Services	72		18%	110,326,484.32
Total Housing			1,959,019,206		1,566,167,467.90
<b>Economic Development <sup>7</sup></b>					
	Fishing, Agri, Food Production	11	208,958,549	6%	12,537,512.94
	Construction	22		6%	12,537,512.94
	Manufacturing	31		6%	12,537,512.94
	Retail	42		35%	73,135,492.15
	Services	72		14%	29,254,196.86
	Health and Education	62		8%	16,716,683.92
	Arts, Sports, Recreation	71		25%	52,239,637.25
Total Economic Development			208,958,549		208,958,549.00
<b>Community Reconstruction <sup>8</sup></b>					
	Construction	22	621,226,846	100%	621,226,846.00
Total Community Reconstruction			621,226,846		621,226,846.00
<b>Infrastructure <sup>9,10</sup></b>					
Robert Moses State Park Recovery	Construction	22	72,000,000	100%	24,000,000.00
<a href="#">GOSR's Match: 100%</a>				<a href="#">24,000,000.00</a>	
Roberto Clemente State Park Recovery	Construction	22	72,000,000	100%	48,000,000.00
<a href="#">GOSR's Match</a>				<a href="#">46,500,000.00</a>	
Hazard Mitigation Grant Program with a Match from GOSR					
Bridge Scour Mitigation	Construction	22	518,028,780	100%	518,000,000.00
<a href="#">GOSR's Match: 25%</a>				<a href="#">129,500,000.00</a>	
HMGP Buyout and Acquisition Program (11)	Construction	22	108,849,831	19%	20,681,467.89
	Services	72		18%	19,592,969.58
<a href="#">GOSR's Match</a>				<a href="#">46,939,821.00</a>	
All other HMGP projects with CDBG-DR match (12)	Construction	22	602,669,857	100%	602,669,857.46
<a href="#">GOSR's Match</a>				<a href="#">81,138,760.50</a>	
FEMA-PA Projects Receiving a CDGB-DR Match from GOSR					
Long Island Power Authority Network Recovery	Construction (Power)	22	2,249,894,485	100%	1,434,202,766.00
<a href="#">GOSR's Match: 10%</a>				<a href="#">143,420,276.60</a>	
Bay Park Sewage Plant Recovery	Construction (Sewer)	22	2,249,894,485	100%	815,691,718.76
<a href="#">GOSR's Match: 10%</a>				<a href="#">81,569,171.88</a>	
Other FEMA-PA Projects with CDBG-DR Match (13)	Construction	22	2,487,604,754	100%	2,487,604,754.44
<a href="#">GOSR's Match</a>				<a href="#">373,839,671.00</a>	
Total Infrastructure			6,039,047,708		5,970,443,534.13
<b>Total Estimated Multiplier Effects, New York State</b>			<b>\$8,828,252,309</b>		<b>8,366,796,397.03</b>

Data sources: GOSR Databases as of October 14th, 2014. Analyses for all tables in this appendix conducted by the SUNY Nelson A. Rockefeller Institute of Government in conjunction with GOSR

Final Demand Multiplier Value			Multiplier Effects		
Output	Earnings	Employment (Job-Years)	Output (\$)	Earnings (\$)	Employment (Job-Years)
1.8908	0.6201	13.1364	1,997,273,829	655,018,776	13,876
1.5834	0.2208	8.6111	77,586,600	10,819,200	422
1.8908	0.6201	13.1364	439,611,000	144,173,250	3,054
1.8908	0.6201	13.1364	223,170,102	73,190,067	1,550
1.8780	0.5269	20.5761	207,193,137	58,131,024	2,270
			2,944,834,669	941,332,318	21,173
2.0291	0.5450	23.0592	25,439,867	6,832,944	289
1.8908	0.6201	13.1364	23,705,929	7,774,511	165
1.8606	0.5766	14.7669	23,327,296	7,229,129	185
1.8256	0.5396	16.8533	133,516,154	39,463,911	1,233
1.8780	0.5269	20.5761	54,939,381	15,414,036	602
1.9791	0.7314	22.0861	33,083,989	12,226,582	369
2.0994	0.5975	17.8137	109,671,894	31,213,183	931
			403,684,513	120,154,300	3,773
1.8908	0.6201	13.1364	1,174,615,720	385,222,767	8,161
			1,174,615,720	385,222,767	8,161
1.8908	0.6201	13.1364	45,379,200	14,882,400	315
1.8908	0.6201	13.1364	90,758,400	29,764,800	631
1.8908	0.6201	13.1364	979,434,400	321,211,800	6,805
1.8908	0.6201	13.1364	39,104,519	12,824,578	272
1.8780	0.5269	20.5761	36,795,596	10,323,535	403
1.8908	0.6201	13.1364	1,139,528,166	373,715,578	7,917
1.8908	0.6201	13.1364	2,711,790,589	889,349,135	18,840
1.8908	0.6201	13.1364	1,542,309,901	505,810,434	10,715
1.8908	0.6201	13.1364	4,703,563,069	1,542,563,708	32,678
			11,288,663,844	3,700,445,970	78,576
			<b>15,811,798,747</b>	<b>5,147,155,357</b>	<b>111,683</b>

Notes:

- "The North American Industry Classification System, NAICS, is a uniform system of industrial categories across US, Canada and Mexico. Bureau of Economic Analysis (BEA) multipliers are calculated for NAICS business categories. A full list of NAICS categories can be found at <http://www.naics.com/naics-codes-industry-drilldown/> (accessed Oct 2014)
- Bureau of Economic Analysis, BEA, is an agency under the US Department of Commerce that provides national statistics at various levels, including the GDP and county-level multiplier values for different industries. This analysis uses BEA's RIMS II (Regional Input-Output Modeling System) to estimate the multiplier effect of government expenditure on New York State. Jobs are expressed as "job-years"; defined as one job for one year.
- We assume that the allocated numbers will remain unchanged over the life of the project (e.g. no inflation effect is included in the analysis). Numbers are obtained from GOSR's funding portal (<http://stormrecovery.ny.gov/funding-portal>) on the date of Oct 14, 2014, with occasional changes in consultancy with the programs to fit the analysis.
- We assume that all single-family assistance is being spent in the construction sector;
- We assume that all IMA assistance is being spent in the real estate sector (rent assistance);
- We assume that all rental-housing assistance is being spent in the construction sector;
- "We divided the allocated funds for Buyout into two main parts (as per information from program staff):
  - Part 1: 20 percent of the total allocation, which is spent on program delivery (including demolition, legal services, planning, etc.);
  - Part 2: 80 percent of the total allocation, which is paid directly to the homeowners in return for their properties.
 Part 2 is further subdivided as follows (as per information from program staff):
  - Part 2A: 70 percent of funds will be distributed to homeowners who will purchase an existing property
  - Part 2B: 15 percent of funds will be distributed to homeowners who will build a new property
  - Part 2C: 15 percent of funds will be distributed to homeowners who will rent a property
 In summary, we make the following assumptions for assigning allocated funds to economic sectors (as per information from program staff):
  - Construction: [7 percent of total allocation (demolition)] + [15 percent of Part 2 (those who build new housing)] = 19%
  - Services: [13 percent of total allocation (legal, planning)] + [7 percent of (Part 2A + Part 2B); transaction cost of purchasing a home] = 18%"
- For Economic Development, the division is an extrapolation of up-to-date programmatic disbursement among different industries.
 

As of Sep 19, 2014, the funds have been disbursed among different business types as follows:

  - Fishing, agriculture and food production: 6 percent
  - Construction: 6 percent
  - Manufacturing: 6 percent
  - Retail: 35 percent
  - Services: 14 percent
  - Health and education: 8 percent
  - Arts, sports and recreation: 25 percent"
 Based on disbursement-to-date, we assumed that the same proportions apply to the allocated funds, i.e. 6 percent of all funds are being spent in the construction sector, etc.
- We assume that all CR funds are being spent in construction. The analysis doesn't involve sub-sector division of industries, e.g. water and sewerage, electrical power, etc.
- We assume that all infrastructure funds are being spent in the construction sector. The analysis doesn't involve sub-sector division of industries, e.g. water and sewerage, electrical power, etc.
- Allocated values used in this analysis represent total project investment estimates for infrastructure, not merely GOSR's match (highlighted in orange below the main figure).
 

We make this assumption on the basis that these projects would have been unlikely to proceed without the GOSR matching funds.
- Program breakdowns are assumed to be the same as in (6)
- We assume that all HMGP funding is being spent in the construction sector;
- These projects only include those categorized under FEMA infrastructure programs C-G (we exclude categories A & B that covered debris removal that would have happened in any event).
 

In addition, we only include projects defined as 'large' (defined by a projected cost of \$67,500 and above). Smaller projects are unlikely to have any long-lasting multiplier impacts.

**Table B: Beneficiaries and Disbursement of Single Family Program (by County)**

County	Total	
	Total Beneficiaries	Disbursement (\$)
Albany	24	426,758
Broome	5	58,943
Chenango	1	117,495
Columbia	2	27,299
Delaware	9	323,938
Dutchess	11	216,328
Essex	2	140,692
Greene	14	675,669
Herkimer	13	115,702
Kings	1	64,686
Montgomery	6	128,065
Nassau	5,103	197,385,109
Oneida	2	43,472
Orange	31	506,352
Otsego	5	152,916
Putnam	1	10,189
Rensselaer	3	65,059
Rockland	44	1,595,579
Saratoga	12	331,911
Schenectady	12	475,211
Schoharie	108	5,920,554
Suffolk	1,784	79,722,077
Sullivan	6	171,026
Tioga	11	482,210
Ulster	21	341,174
Warren	3	53,765
Washington	1	11,517
Westchester	26	310,255
Checks Approved – Not Yet Disbursed	2,293	—
<b>Total</b>	<b>9,554</b>	<b>289,873,950</b>

Data sources: GOSR Databases as of October 14th, 2014

**Table C: Eligible Applicants and Unmet Need of Single Family Program (by County)**

County	Eligible Applicants (#)	Unmet Need (\$)		Award Amount (\$)		Award Gap (\$)	% of Need Met
		Ave.	Total	Ave.	Ave.		
Albany	35	27,067	947,338	27,067	947,338	0	100%
Broome	37	54,524	2,017,378	54,524	2,017,378	0	100%
Chenango	8	26,372	210,973	26,372	210,973	0	100%
Clinton	5	30,304	151,520	30,304	151,520	0	100%
Columbia	6	45,191	271,144	45,191	271,144	0	100%
Delaware	79	34,315	2,710,873	34,315	2,710,873	0	100%
Dutchess	23	46,690	1,073,864	46,690	1,073,864	0	100%
Essex	20	46,619	932,390	46,619	932,390	0	100%
Fulton	1	10,516	10,516	10,516	10,516	0	100%
Greene	48	65,282	3,133,515	65,282	3,133,515	0	100%
Herkimer	17	28,403	482,853	28,403	482,853	0	100%
Kings	1	8,636	8,636	8,636	8,636	0	100%
Montgomery	19	41,249	783,724	41,249	783,724	0	100%
Nassau	7,418	51,495	382,000,000	51,350	381,000,000	1,000,000	100%
Oneida	3	30,777	92,331	30,777	92,331	0	100%
Orange	78	29,496	2,300,668	29,496	2,300,668	0	100%
Otsego	13	27,655	359,510	27,655	359,510	0	100%
Putnam	2	29,432	58,863	29,432	58,863	0	100%
Rensselaer	11	23,734	261,069	23,734	261,069	0	100%
Rockland	84	60,379	5,071,830	59,536	5,001,000	70,830	99%
Saratoga	24	50,178	1,204,268	50,178	1,204,268	0	100%
Schenectady	39	55,354	2,158,792	55,163	2,151,352	7,440	100%
Schoharie	268	68,644	18,400,000	67,197	18,000,000	400,000	98%
Suffolk	2,593	63,651	165,000,000	63,214	164,000,000	1,000,000	99%
Sullivan	23	33,202	763,640	33,202	763,640	0	100%
Tioga	34	56,031	1,905,051	56,031	1,905,051	0	100%
Ulster	56	37,922	2,123,613	37,922	2,123,613	0	100%
Warren	4	30,370	121,481	30,370	121,481	0	100%
Washington	4	21,523	86,092	21,523	86,092	0	100%
Westchester	60	35,809	2,148,513	35,809	2,148,513	0	100%
<b>Total</b>	<b>11,013</b>	<b>54,193</b>	<b>596,790,445</b>	<b>53,950</b>	<b>594,312,175</b>	<b>2,478,270</b>	<b>99.58%</b>

Data sources: GOSR Databases as of October 14th, 2014

Notes:

1. The analysis only included 11,013 applicants currently deemed eligible who will be awarded.
2. The gap between 11,013 from the table above and 9,554 total beneficiaries is as a result of either a hold or "reimbursement only" award, and therefore waiting for closeout to get payment.

**Table D: Beneficiaries and Disbursement of Buyout Program (by County)**

County	Total	
	Total Beneficiaries	Disbursement (\$)
Nassau	69	27,189,878
Staten Island	279	125,953,757
Suffolk	123	45,910,875
Additional Beneficiaries*	34	12,791,483
<b>Total</b>	<b>505</b>	<b>211,845,994</b>

Data sources: GOSR Databases as of October 14th, 2014

Note:

\* These awardees have received payment, time/location data in process

**Table E: Beneficiaries of Interim Mortgage Assistance  
(by County)**

<b>County</b>	<b>Total</b>	
	Total Beneficiaries	Disbursement (\$)
Nassau	312	5,145,803
Rockland	2	24,100
Suffolk	138	1,993,012
Ulster	1	14,533
Westchester	1	18,501
<b>Total</b>	<b>454</b>	<b>7,195,949</b>

Data sources: GOSR Databases as of October 14th, 2014

Note:

1. As of October 14th, there were 456 total beneficiaries, 2 have time/location data in process

**Table F: Beneficiaries and Award Amount of Small Business Program (by County)**

County	Total	
	Total Beneficiaries	Disbursement (\$)
Broome	16	541,243
Chenango	1	10,000
Clinton	1	50,000
Delaware	3	51,070
Dutchess	2	60,000
Essex	2	59,519
Fulton	1	10,000
Greene	3	29,954
Herkimer	1	50,000
Kings	1	100,000
Montgomery	1	94,720
Nassau	369	11,302,758
Oneida	4	155,591
Orange	10	396,572
Otsego	2	60,000
Putnam	1	50,000
Queens	1	10,000
Rockland	8	239,220
Saratoga	1	25,496
Schenectady	1	10,000
Schoharie	10	510,714
Suffolk	146	5,257,363
Sullivan	1	10,000
Tioga	11	470,000
Ulster	2	137,642
Warren	1	6,750
Westchester	19	545,000
Additional Beneficiaries*	19	578,248
<b>Total</b>	<b>638</b>	<b>20,821,862</b>

Data sources: GOSR Databases as of October 14th, 2014

Note:

\* These awardees have received payment, time/location data in process





[stormrecovery.ny.gov](http://stormrecovery.ny.gov)