

Enhancing Governance through Research

The Role of Research and Analysis in Storm Recovery and Resiliency Planning

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Governor's Office of Storm Recovery (GOSR)

In conjunction with
The Nelson A. Rockefeller Institute of Government

October 19, 2016

Superstorm Sandy: The 3rd and Largest Storm to Impact NYS in 2 years

Made landfall on October 29, 2012

Killed 60 New Yorkers

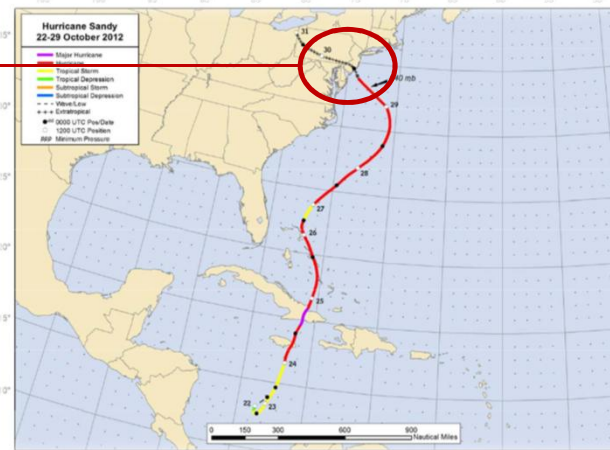
~300,000 housing units were damaged or destroyed

~2 million utility customers lost power

Brought about major and long-lasting disruption to businesses and transit systems



Breezy Point, Queens



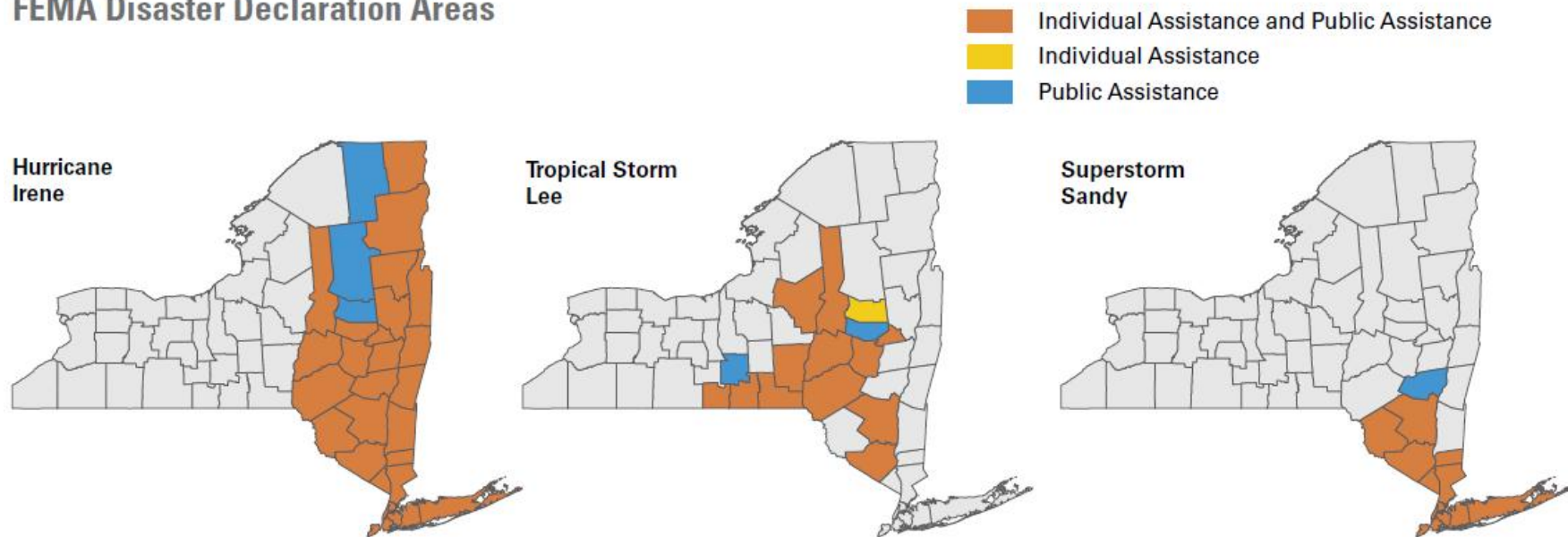
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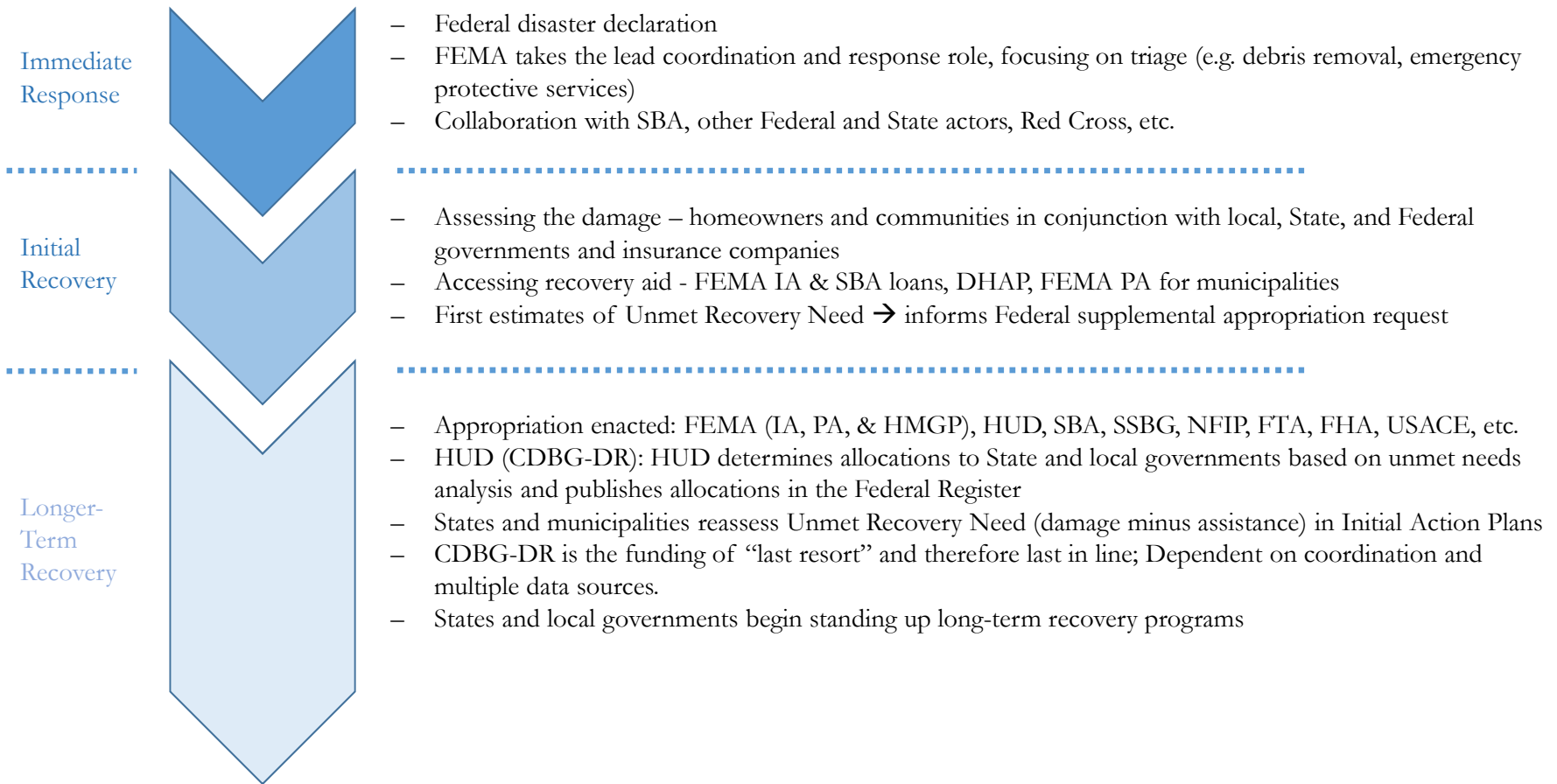
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Irene, Lee & Sandy Impacted 38 Counties in NYS

FEMA Disaster Declaration Areas



Disaster Response Timeline at a Glance



CDBG-DR: An Important Long-Term Recovery Resource

CDBG was born out of Urban Renewal, War on Poverty, and Model Cities

Administered by HUD: Subject to availability of supplemental appropriations

Specifically geared towards serving vulnerable groups, i.e. LMI



DR is a CDBG sub-program to assist with disaster recovery, started in 1993

“Tie to Disaster”: only disaster-affected areas are eligible

Last Dollar In: prohibited from duplicating other gov’t benefits

Has become more significant over time:

- 1993 – 1999: ~\$1.6 billion (5% of CDBG)
- 2000 – 2013: ~\$46.8 billion (46% of CDBG)

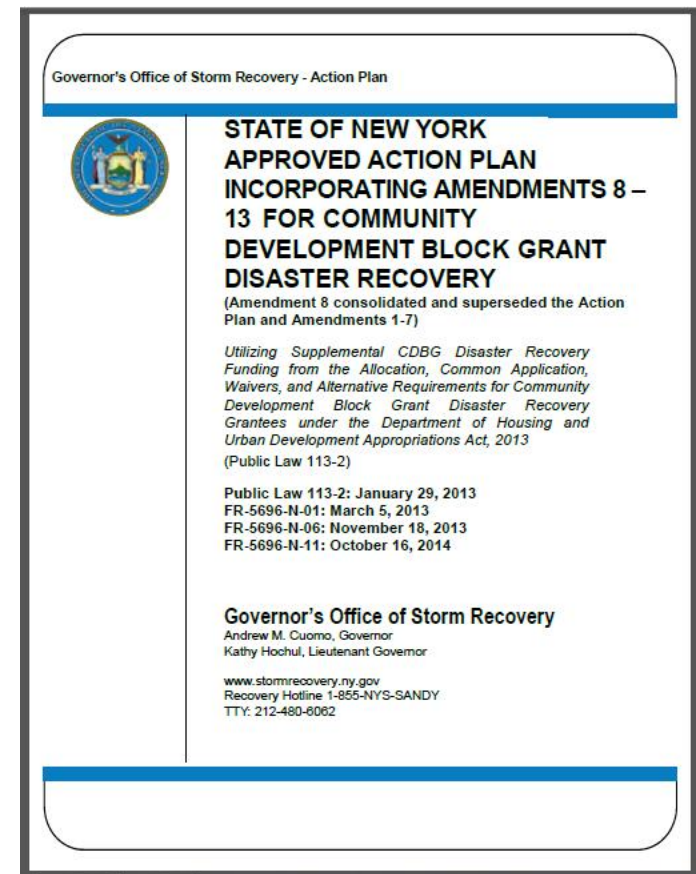
The CDBG-DR Allocation in New York State

The Disaster Relief Appropriations Act of 2013 allocated \$60 billion to Sandy-impacted areas.

Included \$16 billion in HUD's CDBG-DR program.

In March 2013, HUD awarded initial DR grants to six grantees (New Jersey, Connecticut, Rhode Island, Maryland, NYC, and NYS)

To date, NYS has received \$4.5 billion in DR funds. NYC separately received its own allocation of \$4.2 billion.



The Governor's Office of Storm Recovery (GOSR) Oversees NYS's HUD Funds and Helps Coordinate Recovery



Housing



Economic
Development



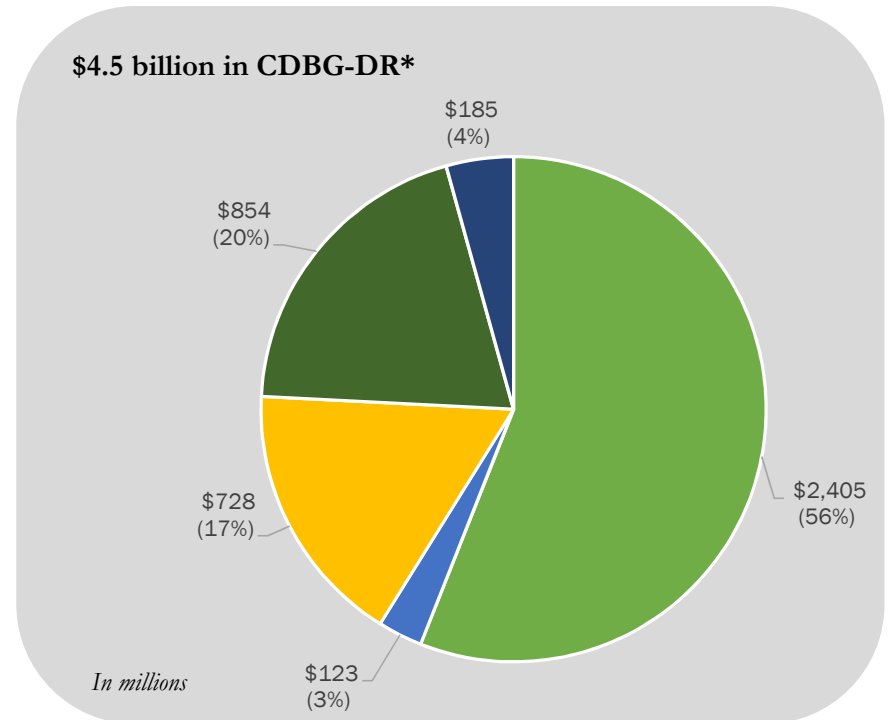
Infrastructure



Community
Reconstruction



Rebuild by Design



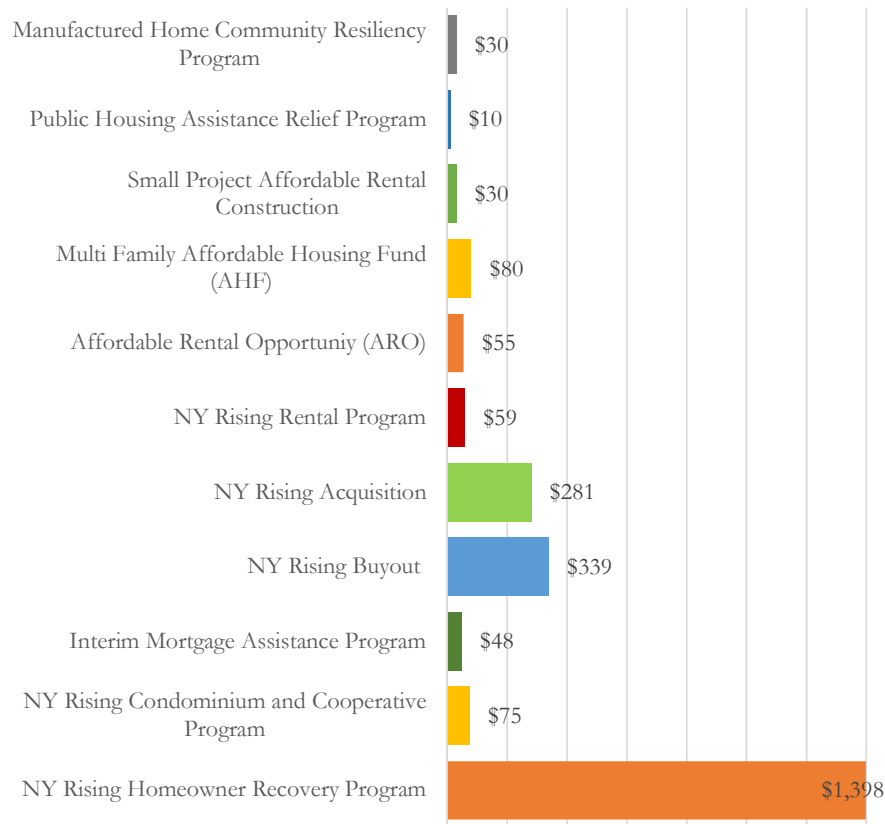
* Note: \$221m is for planning and Administration. Additional detail can be found in the State's CDBG-DR Action Plan 8 <http://stormrecovery.ny.gov/action-plans-and-amendments>



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Housing Recovery: \$2.4 Billion



Committed **half of the \$4.5b** in CDBG-DR funding to housing activities

Awarded **11,000** homeowners with **\$1b+** to support reconstruction and repairs, **75 percent** disbursed

Assisted **50 percent** of Housing Recovery Program participants to complete construction on their homes

Bought out/acquired almost **1,300** properties (~\$500m)

~**400** properties auctioned

Economic Development: \$123 Million

98% of businesses in NYS are small

Program provides grants to affected businesses

Helps repair or replace equipment and inventory and provides working capital

Helps renovate facilities to make them more resilient

Matches business owners with mentors

- **\$49.4 million** in grants provided to **1,043** small businesses
- **71 percent** of small businesses fully-funded
- **3,451** registered small businesses in Business Mentor NY
- **1,727** or more mentoring engagements held to date

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."



Infrastructure: \$854 Million

Stabilization and protection of infrastructure, transportation, energy, and coastal areas against future incidents

FEMA Public Assistance Non-Federal Share

- Assists local governments with match payments: ~\$100m reimbursed

Critical Infrastructure Program

- Repair, rebuild, and mitigate key infrastructure

Local Government Program

- Provides funding to county governments; addresses unmet recovery needs

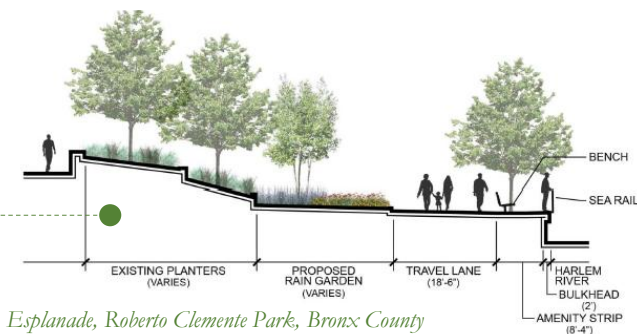
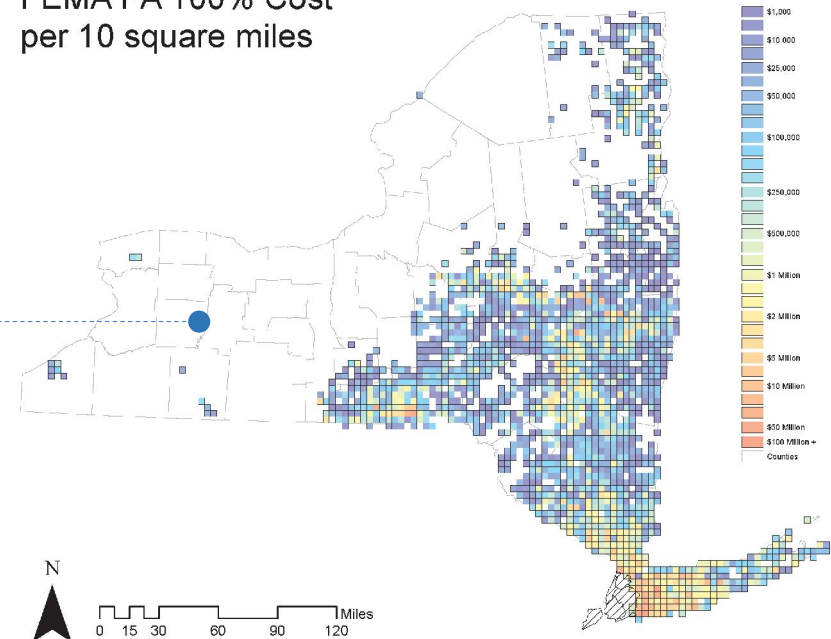
Wastewater Program

- Bay Park Wastewater Treatment Plant, EFC/EPA Storm Mitigation

Natural Resources Program

- Roberto Clemente, Robert Moses, and Jones Beach

FEMA PA 100% Cost per 10 square miles



Esplanade, Roberto Clemente Park, Bronx County

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Community Reconstruction: \$728 Million

First-of-its-kind program

Empowers communities to identify local needs

Develop recovery and resiliency projects

Matches communities with experts and planners

Offers opportunities for participation

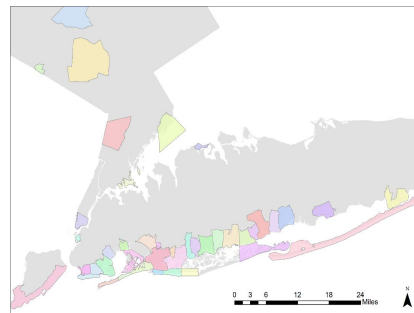
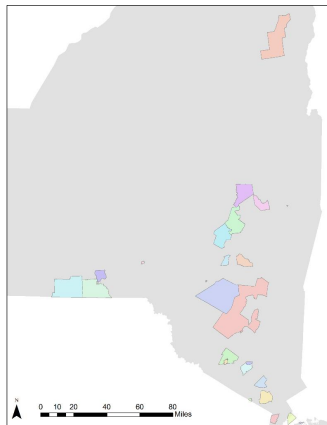
Cultivates regional knowledge



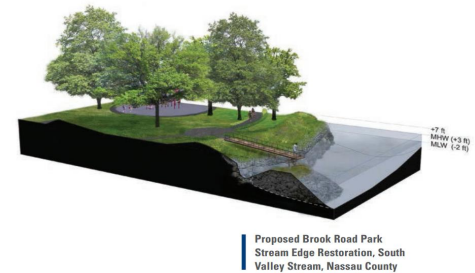
Culvert in Ulster County, before



Culvert in Ulster County, after



- 66 completed Community Reconstruction Plans;
- 650 Planning Meetings held;
- 250 public engagement meetings held;
- 83 Municipal and non-profit partners;
- 254 Active projects;
- **Over \$463 million** dedicated to active projects;
- 166 projects expected to begin construction (or start, if a non-capital project) before October 2017.

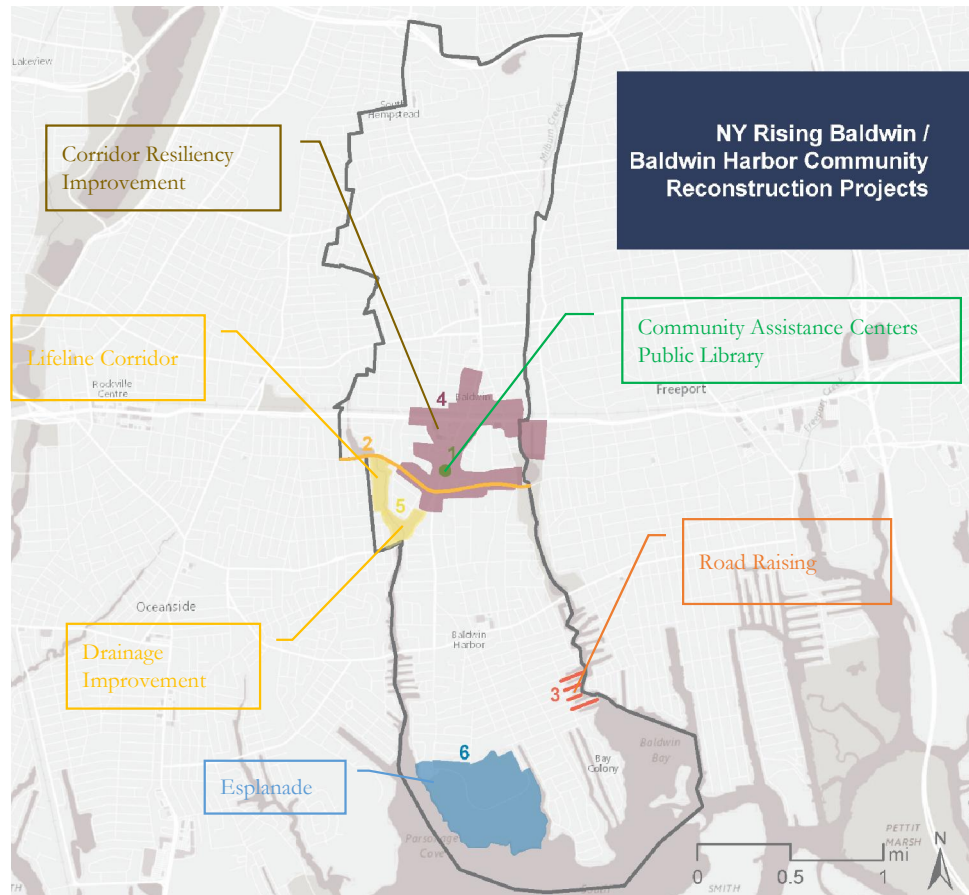


Proposed Brook Road Park
Stream Edge Restoration, South
Valley Stream, Nassau County



Baldwin Harbor Community Reconstruction

Nassau County, NY



- (1) Community Assistance Centers
\$4.4 million in 5 locations, DASNY
- (2) Lifeline Corridor
\$0.33 million, Nassau County
- (3) Road Raising
\$2 million to Town of Hempstead
- (4) Corridor Resiliency Improvements
\$0.8 million, Nassau County
- (5) Drainage Improvement
\$2.5 million, Nassau County
- (6) Esplanade
\$4.2 million, DASNY



Rebuild by Design: \$185 Million

- RBD was conceived as a HUD competition to respond to Superstorm Sandy's devastation in the United States' northeast region
- Competition encouraged interdisciplinary firms (representing the best in planning, design and engineering) to create blueprints for recovery and resiliency efforts
- HUD announced the winners of RBD in June 2014 selected two projects to be implemented by New York State:
 - Living with the Bay (Nassau County, Long Island)
 - Living Breakwaters (Tottenville, Staten Island)

REBUILD BY DESIGN



Rebuild by Design

Living Breakwaters - \$74m (\$60m funded)

- Reduces risk, revives ecologies, connects residents & educators to the shoreline
- 13,000 linear foot off-shore breakwater. Layered approach to reduce wave energy, shoreline erosion, and overall risk
- Provides structural habitat intended to restore & enhance the ecosystems of Raritan Bay
- Fosters community resiliency by providing a space (“Water Hub”) for community engagement on the shoreline (pending funding and programming needs)

Tottenville Dune Project - \$6.75m

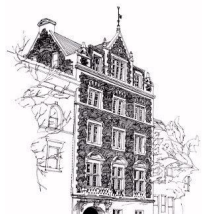
- New York Rising Community Reconstruction Project
- Designed by community stakeholders
- Works collaboratively with the breakwaters project
- Vegetated dune system with reinforced core & sand cap





Disaster-Recovery Research and Analysis: Finding the Middle Ground

Disaster Recovery Management		Academic Disaster-Related Research
Time-sensitive and quick turnaround	◊	Deliberated research, often with longer-term outlook
Limited scope for questioning choices, critiquing strategy and goals	◊	Academic inquiry and independence
Navigating through the existing policy environment	◊	Aiming to inform/modify policy in the longer run
Focus on technical skills utilized for disaster management operation	◊	Broader analytical skills used for substantive analysis and evaluation
Access to proprietary/restricted data	◊	Limited knowledge about internal recovery management and data



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SUNY-RIG is the public policy research arm of the State University of New York

Defines its mission not to advocate particular policies, but “to enhance the capacities of state governments and the federal system to deal effectively with the nation’s domestic challenges.”

Serves agencies of New York State government through studies, special projects, books and reports, and frequent public forums

Previous research work with State of New York:

- Analysis of state fiscal conditions and tax policies
- Study of reforms to improve executive leadership
- Study of state capacity to contract with private agencies
- Investigation of the institutional capabilities of states to reform health care, human services, and disaster recovery



SUNY RIG – GOSR Partnership

Partnership with GOSR began in 2014

- To ensure that NYS can draw on its academic community in helping its communities to recover and thrive—now and in the future
- Management and analysis of New York State's data
- Documenting its recovery operation

Led by Dr. Swati Desai, an economist, human services researcher, and former public official in NYC government



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The partnership has resulted in:

- Internalizing critical analyses and data
- In-house evaluation of programs and overall investment
- Academic and expert-oriented presence
- Detailed program legacy
- Enhanced shared services and documentation
- Combination of complex analysis and internal insight
- A repository for GOSR data & workflow infrastructure



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Internalized Analysis and Data

Led the Analysis of the State's Unmet Recovery Needs (URN)

- [Estimated Damage] – [Aggregate Assistance]
- Dependent on data from various agencies; timely access is crucial
- Required as part of drawdown of HUD's CDBG-DR allocation
- Rigorous internal analysis of unmet needs

TABLE 7: DAMAGE ESTIMATES BY DAMAGE CATEGORY BASED ON AVERAGE SBA LOAN AMOUNTS FOR NEW YORK

Damage Category	FEMA Sample Size	SBA Sample Size	Damage Estimate (Average SBA loan amount by Damage Category)
1 ("Minor-Low")	19,586	901	\$28,227
2 ("Minor-High")	6,099	493	\$45,324
3 ("Major-Low")	24,330	2,800	\$51,455
4 ("Major High")	20,168	4,187	\$74,098
5 ("Severe")	10,695	2,757	\$101,473

Source: FEMA Individual Assistance data effective December 2014; SBA homeowner assistance data effective December 2014, unlike APA6, this analysis excludes loans awarded in any of the five counties of New York City from the SBA sample.⁸

Unmet Needs

Unmet needs are defined as the difference between the total damage and the funds committed or allocated to date including FEMA awards, SBA loans, private insurance, and State programs. For both owner-occupied and rental units, this chapter follows HUD methodology to estimate unmet needs and then separately presents how State programs have addressed this unmet need to date.

Following HUD methodology, the unmet needs for repair of owner-occupied housing units is estimated as follows:

- For homeowners with SBA loans, the unmet need for repair is determined to be zero as per Federal Register Notice (FR-5696-N-11) because the SBA loan amount is presumed to reflect a detailed calculation of repair estimates. Note: 14% of owner-occupied housing units had received a SBA loan.
- For homeowners with flood insurance, HUD assumes insurance proceeds cover 80% of the difference between the damage and the FEMA grant. The remaining 20% is unmet need.
- For homeowners without flood insurance, the unmet need is the difference between the damage and the FEMA grant.

HUD methodology for calculating unmet needs of repair of rental units also assumes that:

- 75% of repair costs for damaged units occupied by renters earning \$30,000 or less a year can be categorized as unmet needs.
- Landlords who rent to households earning more than \$30,000 have sufficient insurance proceeds to make the necessary repairs and therefore have no unmet needs.

HUD has also identified hazard mitigation as part of recovery as an unmet need. This includes elevation of structures, elevation of HVAC systems, and other storm-proofing measures. It is difficult to provide an accurate cost estimate of hazard mitigation needs because neither FEMA nor SBA assessed these needs. For the purpose of this analysis – consistent with HUD's methodology – hazard mitigation costs are assumed to equal 30% of total damage costs to owner-occupied and rental housing units that experienced

In-House Performance Evaluation and Reporting

Reporting on program achievements

- Eligible applicants
- Total beneficiaries
- Unmet need
- Award/disbursement amounts
- Grant compliance

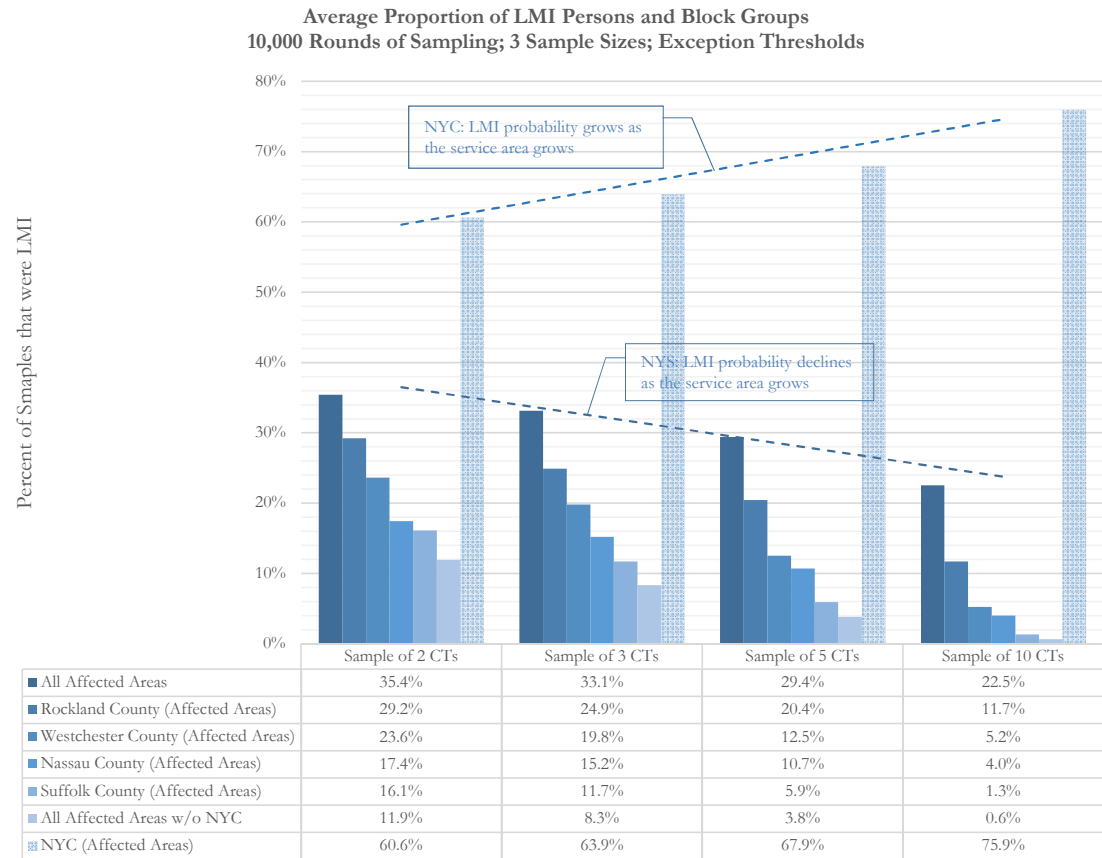
Broader analyses to explore GOSR's impact

- Bringing evidence-based research to executive decision-making
- Bringing a research eye to myriads of data
- Exploring opportunities for best practice and lessons learnt



Bring Together Analysis and Internal Insight

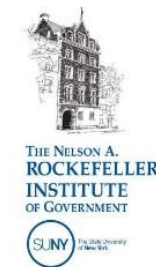
- Impacting policy in real time:
 - Academic disaster-recovery analysis is usually done by external institutions after many of the key decisions have been made
- Internal analysis can benefit from access to restricted data
- RIG's presence added rigorous analysis of proprietary data



Academic and Expert-Oriented Presence

SUNY-RIG facilitates academic insights

- A Managed Participatory Approach to Community Resiliency: A Case Study of New York State's Response to Extreme Weather Events
- Mitigating the Tension Between Timely Assistance and Regulatory Compliance in Disaster Recovery: Lessons from the CDBG-DR Program in New York State
- Potential Challenges to Serve Low- and Moderate-Income Communities under CDBG-DR: New York State and Superstorm Sandy



DISASTER RECOVERY

A Managed-Participatory Approach to Community Resiliency

A Case Study of New York State's Response to Extreme Weather Events

Simon McDonnell,¹ Swati Desai,² Daniel Berkovits,¹ Pooya Ghorbani,² Maria Jessa Cruz,² Renata Silberblatt,¹ Alexander Breinin,¹ Xavier Williams¹

¹ Governor's Office of Storm Recovery (New York)

² Rockefeller Institute of Government, SUNY

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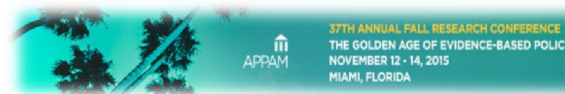
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Best Practices – An Ongoing Project

Documenting practices that can be useful or replicable to other DR grantees or future policymakers

- “Embedded” information systems, policy experts, and research staff
- Become familiar with the “black box” of policymaking

Disaster-recovery offices are often reactive

- Proposing a permanent platform with disaster recovery and resiliency expertise, including understanding of Federal regulations and grant management

Data, workflow, soft infrastructure, and documented federal regulatory knowledge and experience do not have a permanent home

- They can be saved and rapidly reactivated in the event of future disasters

Thank you!



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