

NY Rising Community Center Program NYRCR Project Profiles

NY Rising Community Centers will be selected based on the specific and unique needs of each participating Community, as identified in their individual NY Rising Community Reconstruction (NYRCR) Plan. The enclosed is a collection of the applicable Proposed Project profiles, found within NYRCR Plans. Full NYRCR Plans are available online at: <http://www.stormrecovery.ny.gov/nyrcr/final-plans>.

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Recovery Community Centers

Proposed Project

STRATEGY
Enhance emergency preparedness and response

Recovery Support Functions



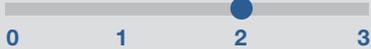
Health & Social Services



Community Planning

Cost
\$1.5 MILLION

Timeline (in years)



0 1 2 3

After Superstorm Sandy, several community-based organizations (CBOs) in the Southeast Brooklyn Waterfront NYRCR Planning Area (Planning Area) opened their facilities to distribute food, supplies, and information to residents. While these efforts provided substantial help to the Southeast Brooklyn Waterfront NYRCR Community (Community), residents have reported they were not extensive enough, and that residents often did not know the locations of these informal relief efforts beforehand. This project would take a first step at meeting a need for a more formalized network of support by funding the development of Recovery Community Centers to be based out of existing community facilities and organizations. Centers would provide emergency preparedness-related programming on a regular basis, as well as emergency-related supportive services, such as food and supplies, in the immediate aftermath of a severe weather event.

Project Description

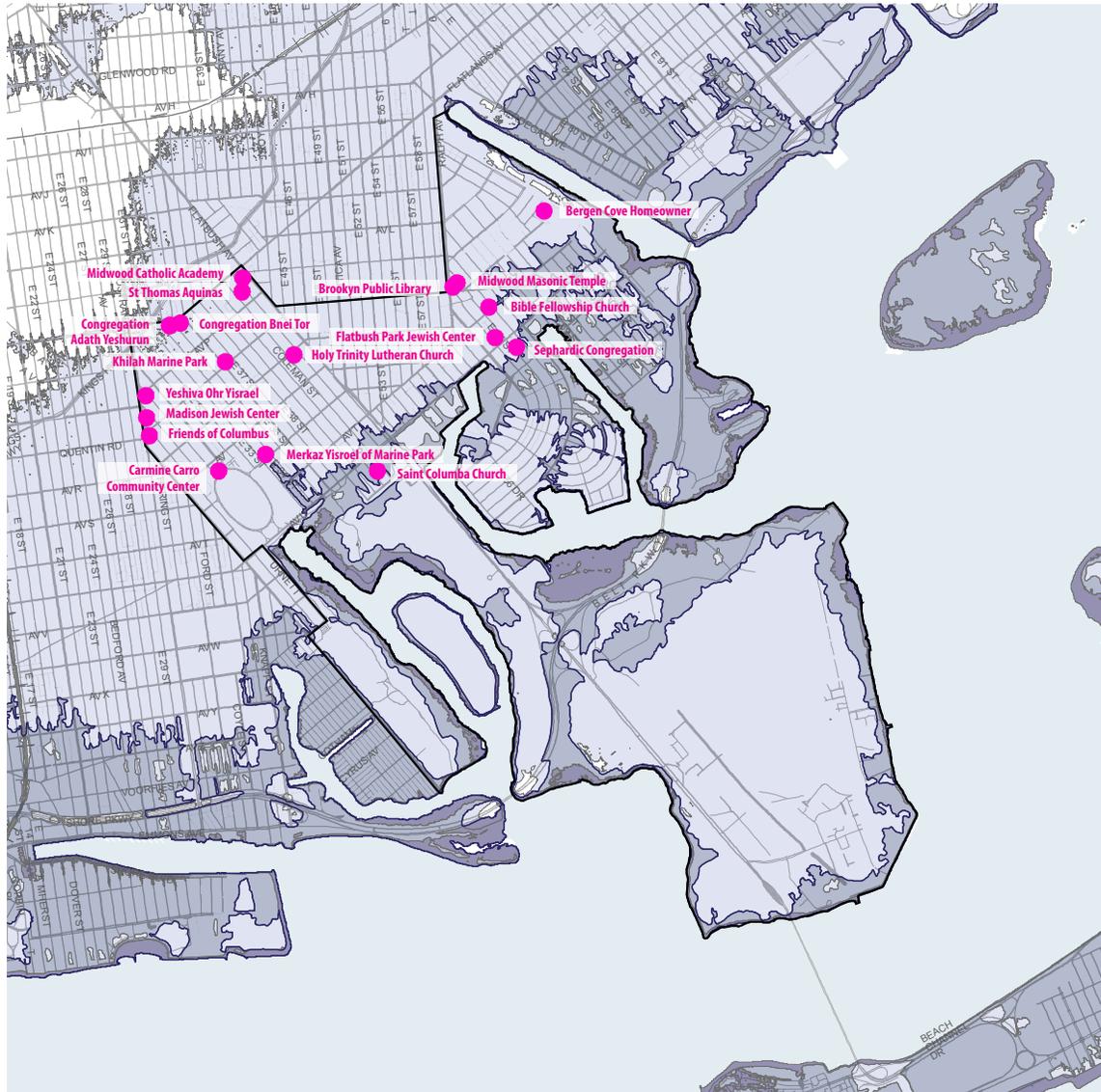
This project would fund the creation of Recovery Community Centers (Centers) to house the distribution of emergency services following a disaster, such as access to power, food, water, basic medical services, and information. Centers would be large community spaces outside of the floodplain, equipped with backup power, where supplies and services could be distributed. As such, the program would not just provide funding to organizations for programming, but also for building-level capital improvements, such as backup power installation.

The array of services to be provided by Centers could include:

- Access to food, water, heating and cooling, and basic supplies;
- Access to power and charging stations for cellphones;
- Information about citywide emergency response activities and local efforts;
- Non-urgent medical services (e.g., first aid, mental health services); and
- Social services (e.g., legal or financial counseling, childcare).

Centers would be housed within existing

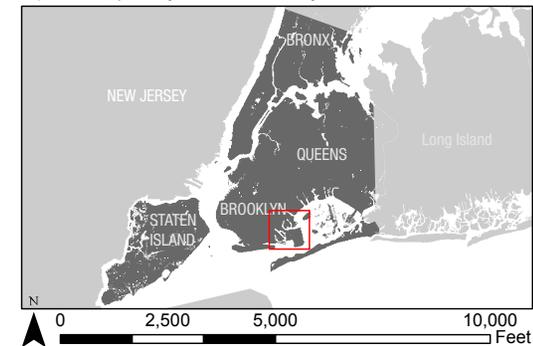
Figure IV-5: Potential Locations of Recovery Community Centers



NY Rising Community Reconstruction Program
Southeast Brooklyn Waterfront Planning Area

- Planning Area
 - Extent of High & Extreme Risk Areas
- NYSDOS Risk Areas**
- Moderate
 - High
 - Extreme

Source: New York State Department of State (DOS) Risk Assessment Areas; New York City Department of City Planning, MAPPluto v13.1; Buildings; Street Centerlines



buildings and organizations that provide year-round community services. Eligible sites and participating organizations would be selected through a competitive bidding process. This process would prioritize organizations both with a past history of running community programming in the Planning Area, and with sufficient organizational and facility capacity to administer the program.

In selecting organizational facilities for housing Centers, the program would prioritize the following physical criteria:

- Capacity for reliable source of power and heat/cooling;
- American with Disabilities Act (ADA)-compliance, or capacity to be made compliant;
- Potable water system;
- Restrooms;
- Large space on ground floor;
- Ease of approachability and accessibility from street;



Recovery Community Centers would collect and distribute food and supplies to community members, as did the Flatlands Volunteer Ambulance Corps after Superstorm Sandy. *Photograph by Steve Solomonson.*

- Location near an evacuation route; and
- Location outside of the floodplain

Based on needs identified by the Southeast Brooklyn NYRCR Planning Committee (Committee), the ideal host organization would exhibit some or all of the following criteria:

- Active in post-Superstorm Sandy response efforts;
- History of community engagement and strong community ties;
- Regular community programming and capacity to provide emergency-related programming;

- Demonstrated ability to conduct outreach to vulnerable populations;
- Capacity to provide social and/or health services;
- Long-term occupancy agreement or ownership of the building;
- Business continuity plan in place;
- Financial stability; and
- Ability to fund the purchase of basic emergency supplies and equipment, including radios or push-to-talk phones, or fuel for backup generators (which cannot be funded with the Community's Community Development Block Grant-Disaster Recovery (CDBG-DR) funding allotment).

Cost Estimate

\$1.5 MILLION

Each center is estimated to cost between \$500,000 and \$700,000, depending on the level of capital upgrades needed to harden the building and make it ADA-compliant, as well as the number of people the center is anticipated to serve. This cost estimate includes (over 2 years):

- Backup power: \$200,000-\$300,000;

- Accessibility upgrades: \$0-\$100,000;
- Salary and benefits for one full-time equivalent program manager and part-time equivalent program support staff: \$240,000; and
- Programming and materials: \$60,000.

The total project cost is scalable, depending on the number of Centers the Committee would like to fund. The Committee ultimately decided to allot funding for two to three Centers, at a total amount of \$1,500,000.

Benefit/Co-Benefits Health and Social Benefits

By bolstering a number of existing buildings to serve as Centers, this project would improve the ability of community organizations to operate during an emergency. The network would coordinate and share information about the location and availability of critical social and health services and could also provide on-site medical and legal counseling, and other services to residents.

Cost-Benefit Analysis

Enhancing accessibility and organization of relief activities has been cited as a primary need in the Community. In helping to meet this need for the

53,000 residents throughout the Planning Area, this project would carry substantial risk reduction benefits—and at the low project cost of \$28 per resident.

Providing a distributed network of supportive services also would increase access to these services for vulnerable populations. This includes the approximately 3,700 residents over the age of 75 (7% of the population) and the approximately 10,500 residents under the age of 18 (20% of the population).

The creation of Centers additionally would bolster the financial and professional capacity of host CBOs and promote their continued service to the Community. For host organizations that may have informally provided relief services out of their own operations budgets in the aftermath of Superstorm Sandy, this project now would provide financial support for offering related services and programming, as well as creating one full-time equivalent job and one part-time equivalent job. By funding the installation of backup power supply, the project would additionally prevent disruptions in organizational activity due to power outages.

Anticipated Risk Reduction

A Recovery Community Center network would reduce risk to residents by providing publicly

accessible backup power, a centralized source for information, social and support services, and food and supplies. For the entire Community, formalizing a network of locations to provide coordinated relief supplies and support services would reduce risks to health and safety following a disaster. Specifically, Centers could reduce the risk of:

- Sickness, discomfort, injury, or death related to lack of access to medical attention, food, water, power, and other necessities;
- Emotional or psychological distress; and
- Displacement of children, relatives, and friends who might need to relocate to receive services.

Vulnerable populations such as seniors and physically impaired residents stand to benefit the most, given that they are most likely to need assistance, yet less likely to have reliable and convenient access to critical supplies and services.

The project would also reduce vulnerability and increase the operational capacity of CBOs that provide resiliency programming. Backup power would allow these organizations to

continue to operate in the wake of emergency events, thereby reducing business interruption. Further, the funding provided by this program would increase the capacity of CBOs to conduct emergency preparedness outreach and planning, and their overall ability to support the Community.

Timeframe

Once the project has been formally initiated, it would take approximately 1–2 years to implement. The key issues that could impact the timeframe are: (1) the length and format of the selection process; and (2) physical challenges that may emerge with building-level improvements.

Project implementation would begin with a competitive bidding process, inviting local organizations that meet certain criteria—including those mentioned above—to apply to participate in the program. This process would take into account existing conditions, emergency planning efforts, organizational capacity, and other community characteristics. It is estimated that this process—from initial survey of existing conditions to the release of the solicitation—would take approximately 2–4 months. Subsequently, a program manager would be hired and implementation of capital improvements would begin. Depending on the scope of work, this construction phase could take up to 6 months.

Regulatory Requirements

Implementation would require permitting from the New York City Department of Buildings (NYC DOB) and coordination with several additional entities, including the Fire Department of New York, Consolidated Edison, National Grid, and the Bureau of Electrical Control. New York City Office of Emergency Management would be consulted to ensure coordination with city-wide emergency preparedness efforts.

Jurisdiction

The jurisdictional requirements for this project would vary, depending on whether centers were located in publicly- or privately-owned facilities. Any capital improvements for publicly-owned facilities could fall under the jurisdiction of agencies like the New York City Department of Parks and Recreation, New York City Department of Design and Construction, and New York City Department of Education. For private facilities, there would be no further jurisdictional requirements other than compliance with New York City laws.

Critical Facility Upgrades Program

Proposed Project

STRATEGY
Enhance emergency preparedness and response

Recovery Support Functions



Health & Social Services



Community Planning

Cost
\$1 MILLION

Timeline (in years)

0
1
2
3

During both Superstorm Sandy and its aftermath, health and social service providers in the Southeast Brooklyn Waterfront NYRCR Planning Area (Planning Area) experienced service disruptions due to lack of backup power and structural damage from flooding. This project would aim to prevent these disruptions by helping health and social service providers make building-level capital upgrades.

Project Description

This project would fund building-level capital improvements at critical health and social services facilities. Providers could include medical clinics, hospitals, voluntary emergency/ambulance organizations, and senior living facilities, among others. These organizations may face service disruption as a result of power outages or structural damages brought upon by a severe weather-related event. Funding for resiliency improvements would help to avoid a disruption in the critical services these organizations provide.

Potential capital improvements may include:

- Backup power, with priority on natural gas-powered backup generators due to lower cost (in comparison to solar/hybrid-powered); and
- Floodproofing measures, such as elevating mechanicals and applying waterproof

coatings to the basement and ground floor, among other measures.

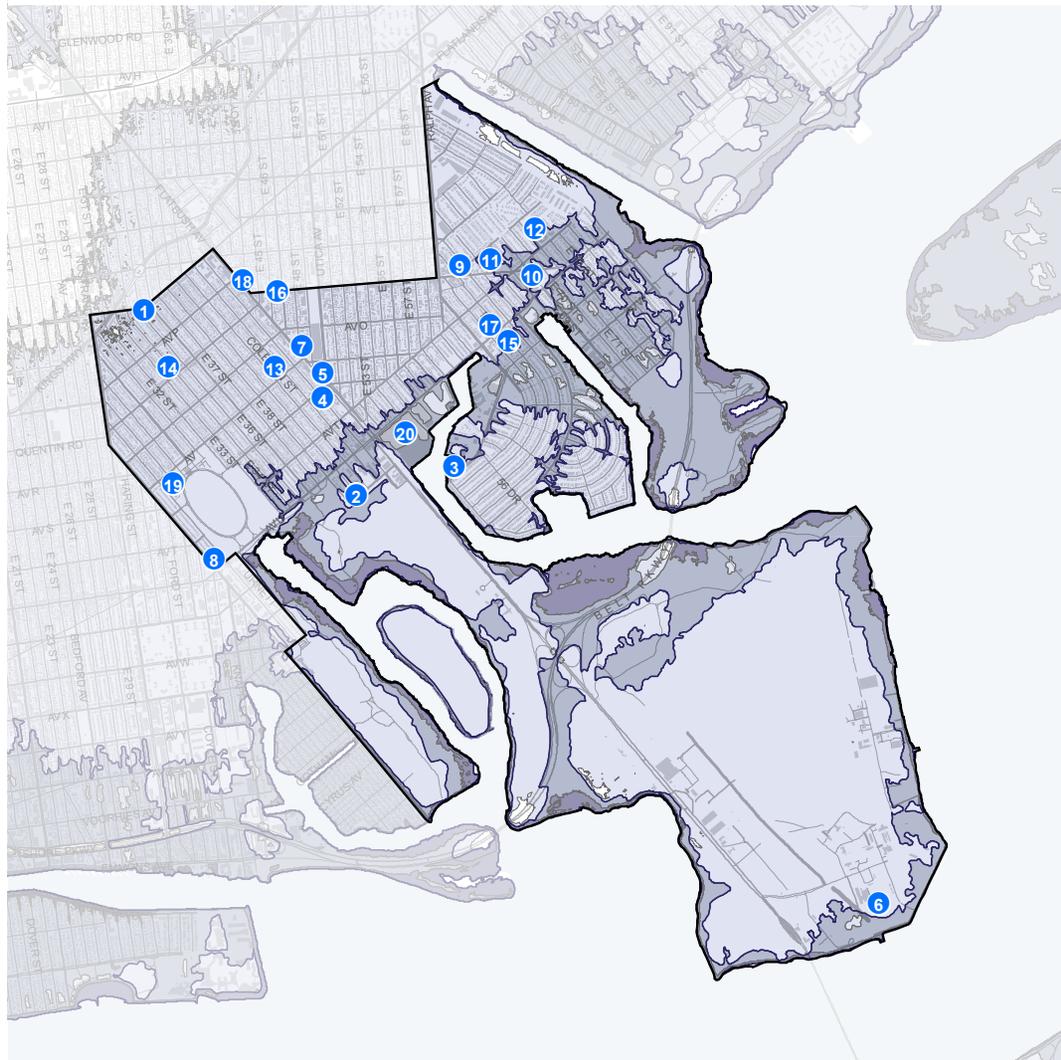
To receive funding, the facility/organization would need to demonstrate past involvement in community disaster recovery and make a formal commitment to providing such services in the future.

Cost Estimate
\$1 MILLION

The cost estimate for this Proposed Project is scalable, depending on the type of improvements funded and level of financial support provided. The Southeast Brooklyn Waterfront NYRCR Planning Committee (Committee) has allotted \$1 million to this project, which could support 3–10 recipient organizations, depending on the type of upgrade(s), and level of support.

The purchase and installation of a generator is one example of a facility upgrade. A fixed generator for an approximately 5,000-square-foot building

Figure IV-6: Health and Social Services Asset Map

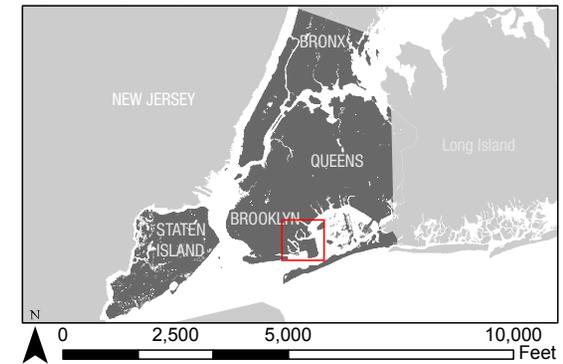


**NY Rising Community Reconstruction Program
Southeast Brooklyn Waterfront Planning Area**

- Planning Area
- Health, Social Service, and Emergency Response Assets
- Extent of High & Extreme Risk Zones
- NYS DOS Risk Areas**
 - Moderate
 - High
 - Extreme

- | | |
|---|--------------------------------------|
| 1 PHYSICARE FAMILY HEALTH CENTER | 19 JUNIOR HIGHSCHOOL 278 MARINE PARK |
| 2 SOUTH BROOKLYN NEPHROLOGY (DIALYSIS) CENTER | 20 KINGS PLAZA SHOPPING CENTER |
| 3 SUNRISE SENIOR LIVING CENTER | OUTSIDE OF THE PLANNING AREA: |
| 4 RITE AID PHARMACY | 21 CVS PHARMACY |
| 5 WALGREENS PHARMACY | 22 MADISON HIGH SCHOOL |
| 6 ARMED FORCES RESERVE CENTER | 23 PUBLIC SCHOOL 203 |
| 7 FDNY ENGINE 309, LADDER 159 | 24 PUBLIC SCHOOL 251 |
| 8 FDNY ENGINE 321 | 25 SOUTH SHORE EDUCATIONAL COMPLEX |
| 9 FDNY ENGINE 323 | 26 KINGS COUNTY HOSPITAL CENTER |
| 10 SAINT BERNARD OF CLAIRVAUX PARISH AND SCHOOL | 27 NY COMMUNITY HOSPITAL |
| 11 JUNIOR HIGH SCHOOL 78 ROY H MANN | 28 CONEY ISLAND HOSPITAL |
| 12 PUBLIC SCHOOL 312 (BERGEN BEACH) | 29 MOUNT SINAI BETH ISRAEL HOSPITAL |
| 13 PUBLIC SCHOOL 207 ELIZABETH G LEARY | |
| 14 PUBLIC SCHOOL 222 KATHERINE R SNYDER | |
| 15 PUBLIC SCHOOL 236 (MILL BASIN) | |
| 16 FLATLANDS VOLUNTEER AMBULANCE CORPS | |
| 17 HATZOLAH OF MILL BASIN | |
| 18 JCC OF MARINE PARK | |

Source: New York State Department of State (DOS) Risk Assessment Areas; New York City Department of City Planning, MAPPluto v13.1; Buildings; Street Centerlines



is estimated to cost \$200,000 to \$300,000. This estimate is based on engineering experience with projects of similar scope and scale, and would likely vary as the project is further developed and refined. It is based on the assumption that electrical equipment is conducive to required alterations and connections, and that there is excess available space in the facility for the installation of new equipment.

Floodproofing measures are estimated to cost \$50,000–\$60,000 for a small facility of the same size as above. These could include, depending on the facility’s flood risk, applying waterproof coatings to the basement and ground-floor, elevating mechanicals, and installation of flood barriers at ground-floor entrances.

Benefit/Co-Benefits
Health and Social Benefits

This project would ensure that critical providers have power and are more floodproof in order to continue serving local residents during and after emergencies, improving access to health and social services.

Economic Benefits

This project would reduce economic loss after a disaster by enabling selected providers to continue operations.



Example of fixed backup generators. Flickr user Jemimus.⁶

Cost-Benefit Analysis

This program could benefit 3-to-10 health and social service providers in the Southeast Brooklyn Waterfront NYRCR Community (Community) that serve residents throughout the Planning Area. With no major hospitals located within the Planning Area, health clinics, senior living facilities, and voluntary ambulance services fill a vital gap. For a minor project cost of \$18.80 per

resident, these critical health and social services providers could avoid service disruptions during and after an extreme weather event, as well as minimize expenditures on critical operations budgets. In the end, this would help to ensure continuity of vital services, particularly during and after severe events when residents often need such services.

Anticipated Risk Reduction

This project would result in decreased vulnerability to power loss and structural damage in several key health and social services facilities. Promoting continuity of operations for these key service providers in the Community would reduce adverse health impacts among residents that may be caused by service disruptions, and help to facilitate quick recovery for the Community.

Timeframe

Implementation would begin with a competitive bidding process for organizations meeting certain established criteria in order to select the most appropriate organizations and facilities to receive support. This process could take 3–6 months. Appropriate flood proofing measures could be identified and performed within 3 months of facility identification, while a generator of the size specified above could be procured and installed within 1 year of site identification.

Regulatory Requirements

Implementation would require permitting from the New York City Department of Buildings (NYC DOB) and coordination with several additional entities, including the Fire Department of New York, Consolidated Edison, National Grid, and the Bureau of Electrical Control.

Jurisdiction

Through this program, capital improvements would be funded at privately-owned facilities, and as such, the project has no jurisdictional requirements other than compliance with New York City laws, including compliance with the NYC DOB building code.

Designation of Emergency Response and Recovery Centers

At the two initial Public Engagement Events, Community residents reported having limited access to City services and storm-related information immediately after Superstorm Sandy. This feeling of being disconnected from services and information was also a prominent and recurring theme at Planning Committee Meetings, at which Community Board and non-profit representatives reported difficulty in accessing City agencies to address constituent concerns in the storm's immediate aftermath. This lack of access was compounded by the temporary closure or inaccessibility of many of the social service organizations that would ordinarily fill this need. Many de facto response and recovery centers evolved organically in all four communities in response to this need, typically thanks to efforts from non-profits and community groups, like the Shorefront YM-YWHA in Brighton Beach. These centers offered supplies, food, information, and comfort to residents.

The project is intended to formalize and better organize this strong Community response to post-disaster needs. The response and recovery centers would provide local residents and business owners with a primary meeting space to obtain information, seek support, and receive services after a disaster. The project would develop siting criteria and perform feasibility analyses to designate potential center locations across the Peninsula. Subsequent project phases would include determining building retrofitting needs, hardening designated buildings to increase their resiliency, and training staff to work at these facilities in post-emergency situations.

Cost estimate:

The estimated cost of this project is \$980,000. This figure includes expenditures for siting and feasibility analyses, as well as installation of necessary equipment and operational features. Engineering, design, and construction management costs are included in the total estimate.



Toy distribution for local children impacted by Superstorm Sandy, Shorefront YM-YWHA¹⁴¹

Designation of emergency response and recovery centers

Project benefits:

Economic: The project would result in more efficient delivery of services and access to information in a post-disaster setting. With more services and supplies available locally, residential displacement may be limited. Therefore, the project would be useful in restoring and maintaining the confidence of local businesses and residents.

Health and social services: The project would benefit socially vulnerable households. These households may include individuals with limited English proficiency, households with children or elderly residents, and households of low or moderate income. The project would also benefit all residents of the Community, especially those within walking distance of the response and recovery centers.

Cost-benefit analysis:

The useful life of the facilities would be limited to the useful life of the host buildings. With regular maintenance, this period would be at least 30 years. If a center is sharing a facility, its activities must not impinge on the regular function of the host space. If the project is not implemented, the Community would remain vulnerable to the real and perceived issues with social service provision and information dissemination that were observed and reported after Superstorm Sandy. The expenditure of \$980,000 to develop response and recovery centers would yield a strong return on this initial investment, as it would allow more Community residents to access post-disaster information and services in an efficient, centralized manner.

Reduction of risk anticipated:

The project would lead to limited risk reduction to assets specifically selected for use as response and recovery centers.

The project would protect socially vulnerable populations by addressing a lack of communications, infrastructure, and localized information about the availability of post-disaster resources and services. Community residents broadly reported feeling disconnected from emergency response services and information during Planning Committee Meetings and Public Engagement Events.

Time frame for implementation:

Siting criteria could be developed and relevant feasibility studies completed within a 12-month timeframe. The timetable for activation of the recovery and response centers would depend on the availability of additional funding.

Local, State, and Federal regulatory requirements:

The following is a non-exhaustive list of applicable regulatory requirements: NYC Zoning Resolution, including the 2013 Flood Resiliency Zoning Text Amendment; NYC Mechanical Code; 2008 NYC Construction Code and all subsequent amendments; 1968 NYC Building Code and all subsequent amendments; NYC Fire Code; and the International Building Code, if applicable. The New York City Office of Emergency Management (NYC OEM) has also produced a list of siting criteria and considerations for Disaster Assistance Service Centers that is relevant to this project.

Project jurisdiction:

The project would be located in Brooklyn Community Districts 13 and 15, in Kings County in the City of New York.



Recovery Community Center

Proposed Project

STRATEGY
Build and Coordinate Local Capacity for Emergency Response

Recovery Support Functions



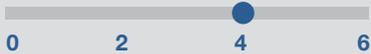
Community Planning



Health & Social Services

Cost
\$1 MILLION

Timeline (in years)



This project would establish a Recovery Community Center with resilient lighting and power, the ability to distribute supplies, coordinate efforts with government agencies, and host trainings and capacity building initiatives.

Project Description

In the wake of Superstorm Sandy, residents were unable to quickly locate resources and information. The Canarsie NYRCR Planning Committee (Committee) has budgeted \$1 million towards the partial funding of a retrofit to an existing building or space to become a Recovery Community Center. This Center would coordinate local relief services and supplies following a disaster.

It would also fund the salary of a Community Coordinator for a 2-year period. The Community Coordinator would develop and manage an emergency communications plan, which includes enhancing the local network of block associations and building the capacity of local community based organizations that can assist with recovery after an emergency. Expanding this community network would create mechanisms to efficiently and effectively extend information and supplies before, during, and after a disaster. The Coordinator would ensure

that community contact information is accurate and up-to-date, and would hold trainings at the Community Center for block associations and local organizations to help them improve communication, outreach, and emergency preparedness.

The array of services to be provided at the Recovery Community Center would include:

- Access to food, water, power, and basic supplies post disaster;
- Information about Federal, New York State and City, and local emergency response activities and efforts year-round;
- Non-urgent medical services including first aid post disaster, and ongoing mental health services year-round;
- Special services for seniors or other vulnerable populations year-round;



Supplies being distributed to Canarsie residents.

- Resiliency workforce training and development programs year-round; and
- Homeowner audits for retrofitting homes to decrease flood risk year-round.

The Recovery Community Center would be occupied and programmed by a not-for-profit organization, and staffed by the newly created and funded Community Coordinator. This organization would have a local presence that could take ownership of the day-to-day operations and maintenance of a building. To quickly serve the Canarsie NYRCR Community (Community) in an emergency, a number of physical requirements would be necessary in addition to those required by New York State and City regulations. These requirements include:

- Location outside of the floodplain or in a flood-proof structure;
- Reliable source of power and heating/cooling;
- Proximity to an evacuation route;
- Proximity to vulnerable populations and commercial centers;
- Reinforced building structure;

- Potable water system;
- Restrooms (ideally with showers);
- Parking lot or other large outdoor assembly area;
- Large space on ground floor; and
- American with Disabilities Act (ADA) accessibility.

To ensure rapid response and effective coordination during an emergency, the Community Coordinator would liaise with local organizations as well as Federal and New York State and City agencies. The Community Coordinator would manage disaster preparedness-related programming, which could include trainings and practice drills, “know your neighbor” events, and outreach to vulnerable populations. The Center could also host Community Emergency Response Team (CERT) or Ready New York trainings. This Center would position the Community to be a good candidate for a smaller scale version of the Emergency Management School currently operated by the New York City Department of Education to train youth in disaster recovery.

Site and organization selection would occur

through a competitive process based on the analysis of existing efforts in the Community, organizational capacity, facility capacity, proposed services, and potential to coordinate across the organizations operating after a disaster. Prior to securing a permanent building or space for the Recovery Community Center, the Canarsie NYRCR Planning Committee (Committee) would like the Community Coordinator to be located in an existing facility until the capital component of this project is complete.

Cost Estimate \$1 MILLION

To retrofit an existing building or to build out space in a building to establish the Recovery Community Center would cost approximately \$2.2 million.

The Committee has budgeted a portion of the funds required for this project at \$1 million. It is requested that the additional funds required for full implementation of this Recovery Community Center be secured through other funding sources.

The Community Center would require funding to cover two types of expenses:

- Capital funding: Capital costs associated

with this project would include the purchase of a building or leasing space in a building, resilient retrofitting, a fixed back-up generator, solar power, back-up hardened communications equipment, locker rooms and showers, meeting rooms, office space and community meeting space.

- The market value of a small commercial building along a commercial corridor in Central Brooklyn is estimated at around \$1.5 million. Office upgrades on average cost around \$70 per square foot, but this does not include resilient energy and power, ADA-accessibility, or locker rooms and showers. Overall, it is expected that the purchasing of a building along with the necessary renovation would cost around \$2 million.
- Operational funding: Funding would be used to support a full-time Community Coordinator to provide year-round emergency programming and capacity building for 2 years. It is estimated that the salary of one mid-level employee at a social service organization for 2 years would cost around \$200,000 including benefits and incidentals.



Residents supporting relief efforts after Superstorm Sandy. *Courtesy of Canarsie Courier.*

While the costs required for capital improvements would depend upon the final design, the condition of the building or space, and the size of the facility, retrofitting and build out of a relief center with 1,700 square feet of usable space could cost approximately \$2 million in capital expenses. The annual cost of the Community Coordinator and emergency preparedness programming (including overhead) could range from \$70,000 to \$90,000 annually, in addition to

\$10,000 to \$15,000 for materials used for outreach, coordination, and additional expenses. Therefore, the total operational cost would be nearly \$200,000 over the course of 2 years.

After 2 years, the identified non-profit would be responsible for the modest costs of emergency preparedness programming, maintenance of the building on an ongoing basis, and emergency supplies and equipment.

Benefit/Co-Benefits

Health and Social Benefits

Establishing a Recovery Community Center for the entire community would reduce the health and safety risks associated with a disaster or storm event. Specifically, the Center would reduce the risk of:

- Inaction or misdirected action due to confusion or lack of information across the Community;
- Sickness or discomfort related to lack of access to basic medical supplies, food, water, heat, and other necessities;
- Emotional or psychological distress;
- Displacement of children, relatives, and friends who might need to relocate to receive services.

Vulnerable populations stand to benefit the most, especially through building the capacity of the block associations. These populations are most likely to need assistance, yet less likely to have reliable and convenient access to critical supplies and services. Canarsie’s vulnerable populations include low-income residents, populations with special needs, non-native English speakers, and seniors.

Building a stronger network of block associations will improve the day-to-day function and social cohesiveness of the Community, particularly critical in times of emergency to create successful flows of information.

Economic Benefits

The Recovery Community Center is likely to support a full-time employee based within an existing not-for-profit organization to plan and build organizational capacity at the Center over the course of 2 years. Capital expenses associated with building retrofit would also create a small number of temporary jobs for construction. These jobs should be sourced locally to ensure investment and to develop local knowledge and expertise in the Community around resiliency issues.

More formally, by including training and workforce development programs at the Recovery Community Center, the Community’s capacity to respond to emergency events would improve. Residents who take part in the workforce development programs would also have increased access to jobs in resiliency-related fields.

Cost-Benefit Analysis

The Committee’s vision expresses a desire for the Community to become “self-reliant” and “a model of sustainability and resilience.” As a

community at-risk from future flooding events and other shocks, this project aligns well with this vision, enhancing the resiliency of Canarsie and ensuring a smoother recovery for its 88,800 residents.

It also would increase access to supplies for vulnerable populations, or groups that might not have convenient access otherwise. This includes the approximately 3,770 residents over the age of 75 (4% of the population) and the approximately 21,590 residents under the age of 18 (25% of the population).

The project would also bolster the financial and professional capacity of host non-profits to meet community needs. For host organizations that may have informally provided relief services out of their own operations budget in the aftermath of Superstorm Sandy, this project would now provide support for offering related services and programming.¹²

Anticipated Risk Reduction

A Recovery Community Center would reduce risk to Canarsie residents by providing a centralized source for information during an emergency and following a disaster. The Center would provide social and support services, guarantee publicly accessible backup power, and more reliable and robust recovery services.

Further, investment in a Recovery Community Center would reduce the vulnerability of the organizations that participate in the program by providing ongoing training and a stronger community network.

Timeframe

Once the project has been formally initiated, it would take approximately 2 to 4 years to implement.

Once participating organizations are identified, the programming would need to be tailored to Canarsie residents and capital improvements would need to be designed, engineered and constructed. Depending on the scope of the work, and taking into account the seasonality of construction, the construction phase could take 6 to 36 months. Programming can be implemented in a shorter time, ideally 3 to 6 months after the Community Coordinator is on board.

The key issues that could most affect the timeframe are the length and format of the selection process and the construction challenges that may emerge with retrofitting an existing building: installing backup power, flood proofing, or other capital improvements.

Regulatory Requirements

It is anticipated that no regulatory review

would be needed for the execution of this project, though all capital investments would be required to meet building codes, including modifications to construction in a flood zone.

It would be beneficial for the local not-for-profit organization to consult with the New York City Office of Emergency Management (NYC OEM) as they launch the program and to seek ongoing communications and coordination with NYC OEM on Citywide emergency preparedness efforts. Local organizations would also benefit from coordinating with other City agencies and other local programs to bolster information and programming over time.

Review and/or permitting by City agencies is anticipated for this project. Project implementation would require permits from and/or coordination with the New York City Department of Transportation and New York City Department of Buildings.

Jurisdiction

The identified project area falls within the jurisdiction of New York City.

Critical Facility Upgrades Program

Proposed Project

STRATEGY
Build and Coordinate Local Capacity for Emergency Response

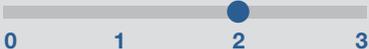
Recovery Support Functions



Health & Social Service

Cost
\$500,000

Timeline (in years)



0 1 2 3

This project would fund resilient retrofits for health and social service providers in Canarsie to ensure continuity of critical services. The organizations would also be required to provide assistance with recovery efforts after an emergency event.

Project Description

Superstorm Sandy affected the operations of a number of critical facilities in Canarsie. There are two adult-care centers and two providers that support residents with developmental disabilities located in the floodplain. Many of these providers were flooded and/or lost power during the storm. This Critical Facility Upgrades program would provide partial funding for backup power, and on-site capital improvements to organizations that provide support services year-round to vulnerable populations. The selected organizations would also be required to assist with recovery efforts after future storms. Potential capital improvements may include:

- Backup power, including hybrid/solar-powered generators; and
- Floodproofing, such as elevating mechanicals and applying waterproof coatings to

basement and ground floor, among other measures.

The Canarsie NYRCR Planning Committee (Committee) recommends a power source or backup power source that utilizes alternative energy, such as solar power, since it would minimize the carbon footprint and reduce dependency on fuel distribution systems that could be interrupted during an emergency.

Floodproofing, if needed, would likewise ensure that the organizations would be able to perform following a storm or flooding event without diminished quality of services.

This program could supplement the services provided to vulnerable populations at the Recovery Community Center post-disaster, employing a coordinated effort for a robust and comprehensive recovery. An eligible site and participating organization that provides

Back-up Generator

What generator is needed?

Generator sizing is based on a combination of factors including building size, building type, and existing electrical systems. Ultimately, determining generator sizing rests on which building activities and systems will be in use during an emergency.

Generator Size (kW):	50	100	150	200	250
Approx. Building Size (sf):	5000	10,000	12,000		

Generators can be powered by natural gas or diesel. Diesel generators will be coupled with storage tanks to ensure fuel is available in the event of an emergency.

Fuel Storage: (gallons) 4 days, 14 hrs	420	775	1270	1730	2135
Fuel Storage: (gallons) 8 days, 14 hrs	840	1550	2540	3460	4270

Generator Location

Considerations:

Generators must be placed above flood elevation. Generators can be placed on raised concrete mounts or on structurally sound rooftops. For diesel generators mounted to rooftops, fuel tanks will be placed on ground level with fuel pumped to the generator



What can this power?

Lighting



Cooling Systems



Building Systems



Food Preparation



Miscellaneous



Guidelines for generator sizing and fuel storage need to be considered.

year-round support services would be selected through a competitive bidding process. This process would prioritize an organization with a past history of serving vulnerable populations in the Canarsie NYRCR Planning Area (Planning Area), and with sufficient organizational and facility capacity.

Possible sites that could utilize this program include:

- Medical service providers;
- Libraries;
- Providers that serve residents with developmental disabilities;
- Schools
- Day cares; and
- Adult care facilities.

To receive funding for the purchase and installation of an alternative power source or floodproofing measures, organizations would need to make a formal commitment to provide recovery support in the future.

Cost Estimate

\$500,000

This cost includes partial grants for purchasing and installing 100-kilowatt generators for buildings assumed to be approximately 10,000 square feet in area, as well as provides additional capital funding for floodproofing measures. This estimate is based on engineering expertise and involvement with projects of similar scope and scale. The cost is based on the assumption that existing building systems are conducive to a generator hookup, and that there is available space in the facility for the installation of the equipment.

Additional considerations and potential infrastructure needs that could increase the cost include:

- Inclusion of solar-powered backup (would vary by site);
- Extensive hardening or elevating of the generator;
- Environmental testing and abatement for asbestos and other materials;
- Demolishing existing equipment;
- Altering existing building structures; and

- Removing walls, windows, or doorways.

Benefit/Co-Benefits

Environmental Benefits

This project would result in environmental benefits if a hybrid/solar generator system is designed and installed. While solar power is renewable and pollution free, these benefits would be realized only while the generator is in operation. A traditional generator that runs using petroleum gasoline would not be as environmentally beneficial.

Economic Benefits

This program would reduce economic loss after a disaster by allowing a health and social service provider to continue operations. Sustained operations would allow an organization to continue to serve the Canarsie NYRCR Community (Community) during and after a storm. Additionally, this project is estimated to create one full-time equivalent construction job over its projected timeframe.¹³

Health and Social Benefits

As previously mentioned, a major benefit of this project is ensuring that vulnerable populations are able to secure services during and after emergencies. Services provided at each facility could include basic physical and/or mental

healthcare, access to food and water, or a reliable power supply.

Cost-Benefit Analysis

Strengthening at-risk buildings with floodproofing and backup power aligns with the Committee’s vision to become a self-sufficient community. This project could help Canarsie achieve this vision and would provide the neighborhood, as well as New York City at-large, with an example of the kind of adaptability that is needed in these coastal communities.

While this project is currently scaled to serve only approximately 2 of the 20 community-based organizations in the Planning Area, its positive effects will be experienced by the many residents who utilize these services.

Anticipated Risk Reduction

This project would decrease the risk of power loss in the buildings that are awarded funds. The project’s main goal is to support vulnerable populations by providing access to power and services during and after an emergency, thereby reducing adverse health impacts and facilitating a quick recovery. This project would make up to two health and social service providers more resilient, and would protect vulnerable populations, including children and seniors. By awarding partial grants, two of the

four critical facilities in the floodplain could be supported with capital upgrades.

Timeframe

Once the project has been formally initiated, it would take approximately 1 to 2 years for capital improvements to be completed. The key issues that could most impact the timeframe are the length and format of the selection process and the physical challenges that may emerge with the installation of alternative power sources and floodproofing measures.

Regulatory Requirements

It is anticipated that no additional regulatory review would be needed for the execution of this project, although it will need to abide by all local laws and the New York City Building Code. The New York City Office of Emergency Management may be engaged to facilitate coordination with Citywide emergency preparedness efforts.

Jurisdiction

The identified project area falls within the jurisdiction of New York City.

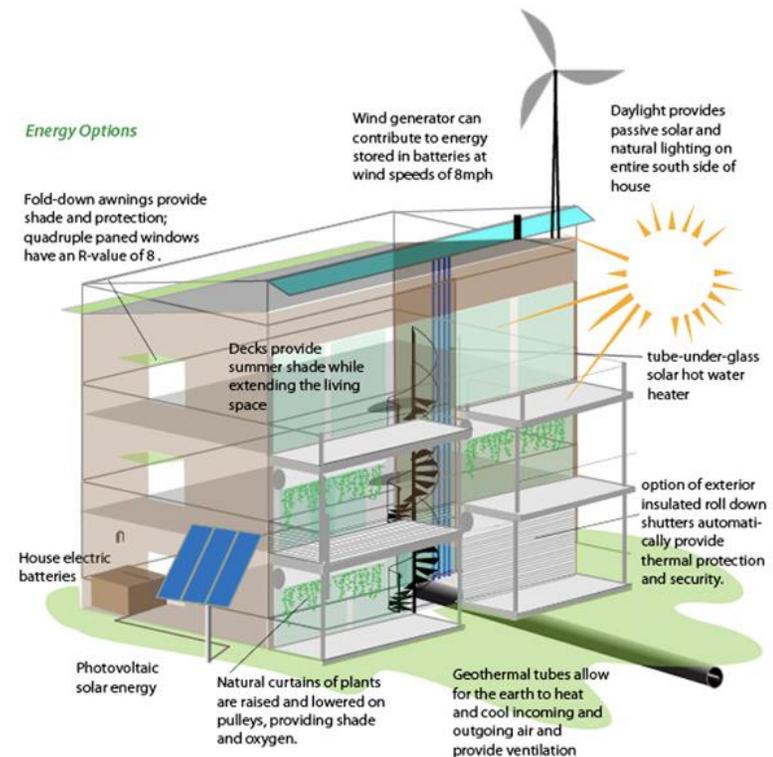
Identification and Retrofit of a Building for Use as an Emergency Response and Recovery Center in Sheepshead Bay (Proposed Project)

The hazard-resilient center would support training, preparedness, community outreach, and disaster response activities, and serve as a central point for information and supplies for residents in Sheepshead Bay.

Description

In the wake of Superstorm Sandy, Sheepshead Bay residents reported that they had only limited access to municipal services and information related to the storm. This feeling of being disconnected from services and information was a prominent and recurring theme at Committee meetings and Public Engagement Events, as attendees reported difficulty accessing municipal services in the storm's immediate aftermath. This lack of access was compounded by the temporary closure or inaccessibility of many of the social service organizations that would ordinarily fill these needs.

This project would identify suitable locations in existing buildings to use as a response and recovery center in Sheepshead Bay that would provide local residents and business owners with a primary meeting space to obtain information, seek support, and receive services after a disaster. An existing building would be retrofitted to create the response and recovery center, including the installation of green technologies for energy efficiency and power generation such as wind, solar, and if feasible, geothermal energy. In addition, the response and recovery center would include onsite power generation and storage, as well as sufficient space



Resilient building retrofit techniques and sustainable power generation equipment

Source: Green Building Council



Identification and Retrofit of a Building for Use as an Emergency Response and Recovery Center in Sheepshead Bay

for pre-disaster planning and post-disaster operations and storage of necessary supplies and equipment. Major project activities would include:

- Review existing lists of potential pre-identified potential locations;
- Conduct additional site suitability analyses to determine specific modifications needed and determine best methods of reducing hazard risks (such as flood barriers, hurricane-rated windows, upgraded roofs); and
- Prepare and issue a Request for Proposal (RFP) for building retrofit
- Develop lease, Memorandum of Understanding, or other arrangements for selected site to ensure longevity of use.

Cost estimate

The cost estimate for this project is \$2.4 million dollars. This cost is based on the upgrade of building facilities, installation of resiliency measures such as generators and solar paneling, installation of flood protection measures, installation of hurricane-rated doors and windows, and installation of other equipment needed to support 24-hour emergency response operations. Engineering and design, and construction management costs are included.

Benefits

Economic

This project would result in more efficient delivery of services and access to information in a post-disaster setting. With more services and supplies available locally, the displacement of residents may be reduced. The project would therefore be useful in restoring and maintaining local business and resident confidence. Furthermore, the facility would serve as a central point for pre-disaster preparedness training and community outreach. This project would be a significant support to the Featured Project titled "Supplemental Community-Driven Emergency Response Programs."

Health and social

This project would benefit all residents of Sheepshead Bay, including socially vulnerable households which include, but are not limited to, individuals with limited English proficiency, households with children or elderly residents, and households of low or moderate income.

Risk reduction

This project would lead to a reduction of risk for the building selected as a response and recovery center. The project also would fill a communications gap expressed by Community residents, who expressed feeling disconnected from emergency response activities before, during and after the storm. An emergency response and recovery center would provide a location for information sharing amongst Community residents and City and emergency personnel.

Cost-benefit analysis

The useful life of the facility is limited to the useful life of the building. With regular maintenance, this period would be no less than 30 years. If the response and recovery center is sharing a facility with another entity, the operations and programming of the recovery center must not impinge on the regular function of the host space.

If the project is not implemented, Sheepshead Bay will remain vulnerable to the real and perceived challenges regarding the provision of social services and post-disaster communications. This facility would provide a valuable resource to help better address the specific preparedness and response needs of Sheepshead Bay.

General time frame

This project is estimated to take 12 to 16 months to complete, including site selection, analysis of building modification requirements, preparation of RFP, design and engineering, and construction.

Local, State, and Federal Government regulatory requirements

The following is a partial list of applicable requirements: New York City (NYC) Zoning Resolution, including the 2013 Flood Resiliency Zoning Text Amendment; NYC Mechanical Code; 2008 NYC Construction Code, and all subsequent amendments; 1968 NYC Building Code, and all subsequent amendments; NYC Fire Code; and the International Building Code, if applicable.



Jurisdiction

The project is located in Brooklyn Community District 15, in Kings County, in the City of New York.



Installation of Backup Generators at Key Community Facilities (Proposed Project)

This project would provide onsite power generation and storage equipment to key facilities, including assisted living facilities and emergency shelters.

Description

Power outages during storms and other emergency events are a significant problem in Gerritsen Beach and Sheepshead Bay.

One full week after Superstorm Sandy, Con Edison reported that 2,326 of its customers in Gerritsen Beach, and 13,294 in Sheepshead Bay and Brighton Beach, were without power. Even a month after the storm, power had still not been restored to 223 residential customers in Gerritsen Beach.²⁸

Power outages at key community facilities reduced those facilities' ability to provide sheltering and medical services, and to serve as distribution points for basic supplies to residents. The Committee recognized that minimizing or eliminating sustained power outages at individual facilities would confer broad benefits on the wider Community. For each key facility that remains operational in the immediate aftermath of a disaster, the overall need for costly or disruptive alternative power service arrangements is reduced. As Con Edison and other utility providers make long-term improvements to their systems, the Committee recognized this project as a relatively low-cost, scalable option to mitigate risk to key facilities in the interim. In many instances, community facilities escaped major flood damage but were still taken out of service due to power loss and associated disruptions to key building systems such as lighting; heating, ventilation, and air conditioning (HVAC); plumbing; and elevators. In cases like these, redundant onsite power generation capacity would be an effective means of increasing resiliency by reducing vulnerability to



High-capacity power generator installed on building rooftop, above flood elevation

Source: AWMA Industries

Installation of Backup Generators at Key Community Facilities

future power outages. This project would provide onsite power generation and storage equipment to key facilities, including assisted living facilities, medical care facilities, and designated community shelters. Identified locations would store/install equipment above the base flood elevation. Elevation of equipment or placement in floodproofed enclosures would be required wherever feasible. The project assumes the installation of 100-kW generators, which are of sufficient capacity to power a sizable building; however, additional analysis of specific power requirements would be needed to select the optimal equipment.

Potential criteria for selection of specific facilities, which will be further defined during the project implementation phase:

- Facility located in an extreme- or high-risk flood zone;
- Limited to public facilities or private buildings that provide health and medical services, food and medical supplies, and critical needs to the community.
- Facility must have elevated space available, or have space available for construction of an enclosed area for the installation of generators protected from flooding

For non-public buildings, the property must be owned outright by the business operator or have a minimum lease period of 10 years.

Cost estimate

The cost estimate for this project is \$2,550,000. This cost is based on installation of 13 large-scale generator systems at key facilities, including the generator unit, fuel systems, and electrical components including switch gear for power transfer. The generators would be sited to limit (or if feasible, prevent) exposure to floodwaters.

Benefits

Health and social

The project is anticipated to provide specific benefits to Gerritsen Beach and Sheepshead Bay seniors and other socially vulnerable populations served by

adult living facilities and nursing homes within the Community. The project would also benefit socially vulnerable populations who rely on community facilities for provision of basic services or supplies, either on a permanent basis or on a provisional basis in the immediate aftermath of an emergency event.

Economic

The project may indirectly benefit local economic activity by providing continuity of critical services within the Community. The availability of these services may allow more residents to return to their homes relatively quickly after an acute event.

Cost-benefit analysis

This project would provide a long-term benefit to the operators of key community facilities through installation of means to provide reliable onsite power. Facility operators would have reduced post-emergency costs and have a better ability to perform necessary clean-up and repairs, while being better able to provide critical services to Community residents. The benefits of the project would continue for the useful life of the generators (estimated at 35 years).

Risk reduction

This project would reduce the risk that key community facilities will experience service outages due to a lack of power. Therefore, the project reduces risk to the population by promoting the greater availability of critical community services during and after acute events. By maintaining an onsite power supply, facility operators would be better able to reduce additional damages such as mold infestation due to lack of ventilation.

The useful life of this project is limited to the useful life of generation equipment. With regular maintenance and limited usage, the units would be expected to have a useful life of 35 years. Both maintenance and operation of these generators entail costs above and beyond the implementation costs described above.



Installation of Backup Generators at Key Community Facilities

If this project is not implemented, community facilities in Sheepshead Bay and Gerritsen Beach will remain susceptible to the sustained power outages that affected both neighborhoods following Superstorm Sandy.

General time frame

This project could be completed within 12 to 16 months from inception, which would include time for site analyses and evaluation of power requirements, design, permit application, preparation of bid documents, and installation of generator equipment.

Local, State, and Federal Government regulatory requirements

The following is a partial list of applicable requirements: New York City (NYC) Zoning Resolution, including the 2013 Flood Resiliency Zoning Text Amendment; NYC Mechanical Code; 2008 NYC Construction Code, and all subsequent amendments; 1968 NYC Building Code, and all subsequent amendments; NYC Fire Code; and the International Building Code, if applicable.

Jurisdiction

The project is located in the Gerritsen Beach and Sheepshead Bay neighborhoods of Brooklyn Community District 15, in Kings County, in the City of New York.

Relief Center Hub

Proposed project

A Relief Center Hub would provide the community with a central location to organize relief efforts, provide a safe haven for charging electronic equipment, distribute supplies and services, and provide a central communications hub during relief efforts. The Relief Center would provide technical assistance programs to the community to ensure effective recovery and relief efforts after future storm events.

To ensure that the Howard Beach Community is more aware and prepared for the next disaster event, the NY Rising Community Reconstruction (NYRCR) Howard Beach Planning Committee (the Committee) recommends developing a formalized community-led relief center network. This network would complement the emergency response and recovery activities of organizations such as the New York City Office of Emergency Management (NYC OEM), New York State Division of Homeland Security and Emergency Services (DHSES), Federal Emergency Management Agency (FEMA), and American Red Cross.

The project would provide funding to an existing community facility for on-site capital improvements, such as hardening. Additionally, funding would provide initial staffing costs to support coordinating a network of relief centers that provide physical and informational resources in the wake of a disaster. The project would also facilitate disaster preparedness coordination across community based organizations (CBO) in advance of an event.

The proposed relief center “hub” would be a community gathering space where logistics, communications, and supplies can be managed and distributed. It would have backup power and sufficient heat/cooling to provide for community needs when power is out elsewhere. The hub would serve as a neighborhood contact for government emergency workers and first responders and coordinate with smaller satellite locations throughout the community that serve as additional, localized distribution centers.

The array of services to be provided may include:

- Access to food, water, power, and basic supplies
- Information about citywide emergency response activities and local efforts
- Non-urgent medical services (first aid, mental health, etc)
- Special services for seniors or other vulnerable populations

Project Summary

Recovery Support Functions



Cost
\$3M

Risk Reduction

HIGH

Economic Benefits

MEDIUM

Health and Social Benefits

HIGH

Relief centers would be housed within existing buildings and organizations that provide year-round community services. The Committee developed criteria to identify potential hub locations within the community based on organizational capacity, facility capacity, proposed services, and potential to provide a cohesive network of support in conjunction with other selected sites.

The relief center hub building should meet the following physical requirements, based upon Committee discussions and national best practice building and siting criteria:

- Location outside of the floodplain or in a flood-proof structure
- Reinforced building
- Reliable source of power and heat/cooling
- Potable water system
- Restrooms (ideally with showers)
- Parking lot/car-accessible
- Large space on ground floor
- Assembly area
- Americans with Disabilities Act (ADA)-accessible

Based on needs identified by the Committee, the relief center hub host organization would exhibit the following characteristics:

- A history of community engagement and strong community ties
- Regular community programming
- Capacity to provide emergency programming
- Demonstrated ability to conduct outreach to vulnerable populations
- Capacity to provide a selection of social and/or health services
- A long-term occupancy agreement or ownership of the building
- A business continuity plan

- Financial stability

The relief center hub host organization would also designate a resiliency and emergency management program manager. The program manager would oversee resiliency capital investments and hub preparedness, build community and organizational capacity, and coordinate activities across the network. To ensure rapid response and effective coordination during an emergency, the program manager would be expected to maintain regular

Figure IV-9: Potential relief center hub program layout



contact and coordination with satellite sites and NYC OEM. The program manager would manage disaster preparedness-related programming, which could include trainings and practice drills, “know your neighbor” events, and outreach to vulnerable populations. The center can also host other related emergency preparedness and social resiliency programs, such as provide meeting space for emergency preparedness trainings.

Cost estimate

\$3 MILLION

The Committee wishes to allocate \$3 million to the development of a relief center hub. The relief center would require funding to cover two types of expenses:

- **Capital to harden existing building.** Key costs would likely include building hardening (including flood-proofing), and back-up power generation through a fixed source.
- **Operating support to build host organization’s capacity to support a part-time program manager.** This would also include providing year-round emergency programming and deploying and coordinating resources during an emergency, as necessary and appropriate.

After two years, the organization would be responsible for supporting the program services as well as any maintenance costs associated with the capital improvements.

It should also be noted that the operation of a relief center hub may require the purchase of items, such as medical supplies, extended shelf-life food, water, blankets, walkie-talkies, ham radios, or gasoline. The organization would need to identify alternative funding sources for these items.

Benefit/co-benefits

Health and social benefits

HIGH

The relief center hub would coordinate and share information about the location and availability of social and health services, as well as provide medical and legal services directly on site. Provision of these services would strengthen the social resilience of the Community on a regular basis and during times of crisis.

Vulnerable populations would benefit the most from this project, given that they are likely to require assistance, yet less likely to have reliable and convenient access to critical supplies and services.

Economic benefits

MEDIUM

The relief center hub would support a part-time employee embedded in the host organization to help plan and build organizational capacity at hubs and across satellites over the course of two years. Capital expenses associated with hardening community centers would create a small number of temporary jobs for construction and installation of resiliency building improvements. These jobs should be sourced locally to ensure investment in the community.

Cost-benefit analysis

This project would provide numerous public benefits to the Community in the event of a disaster, including reduced overall risk to all Howard Beach residents—especially vulnerable populations. The reduced vulnerability of all residents justifies the relatively modest cost of implementing this project.

The benefits of the network would be sustainable beyond the two-year funding period so long as the partnering organizations dedicate resources to maintaining emergency equipment, updating emergency plans, and maintaining communication with the other relief network locations as well as the City of New York. There would be no apparent negative externalities associated with the proposed project.

Risk reduction

HIGH

The relief center hub would reduce risk to Howard Beach residents by providing publicly accessible back-up power, a centralized source for information, social and support services, and more secure emergency and recovery services due to the redundancy inherent in a network of relief centers. Furthermore, investment in the relief center network would reduce the vulnerability of the organizations and community centers participating in the program. Organizations would be able to secure funding to make critical improvements such as flood doors, elevated electrical equipment, check valves and other resiliency measures to protect against future storm events.

Implementation timeframe

Once the project has been formally initiated, it would take approximately two years to implement.

Depending on the scope of the work, and taking into account the seasonality of construction, the capital improvement construction phase could take up to 18 months. Programming could be implemented in a shorter time, ideally three to six months after the project is initiated.

Regulatory requirements

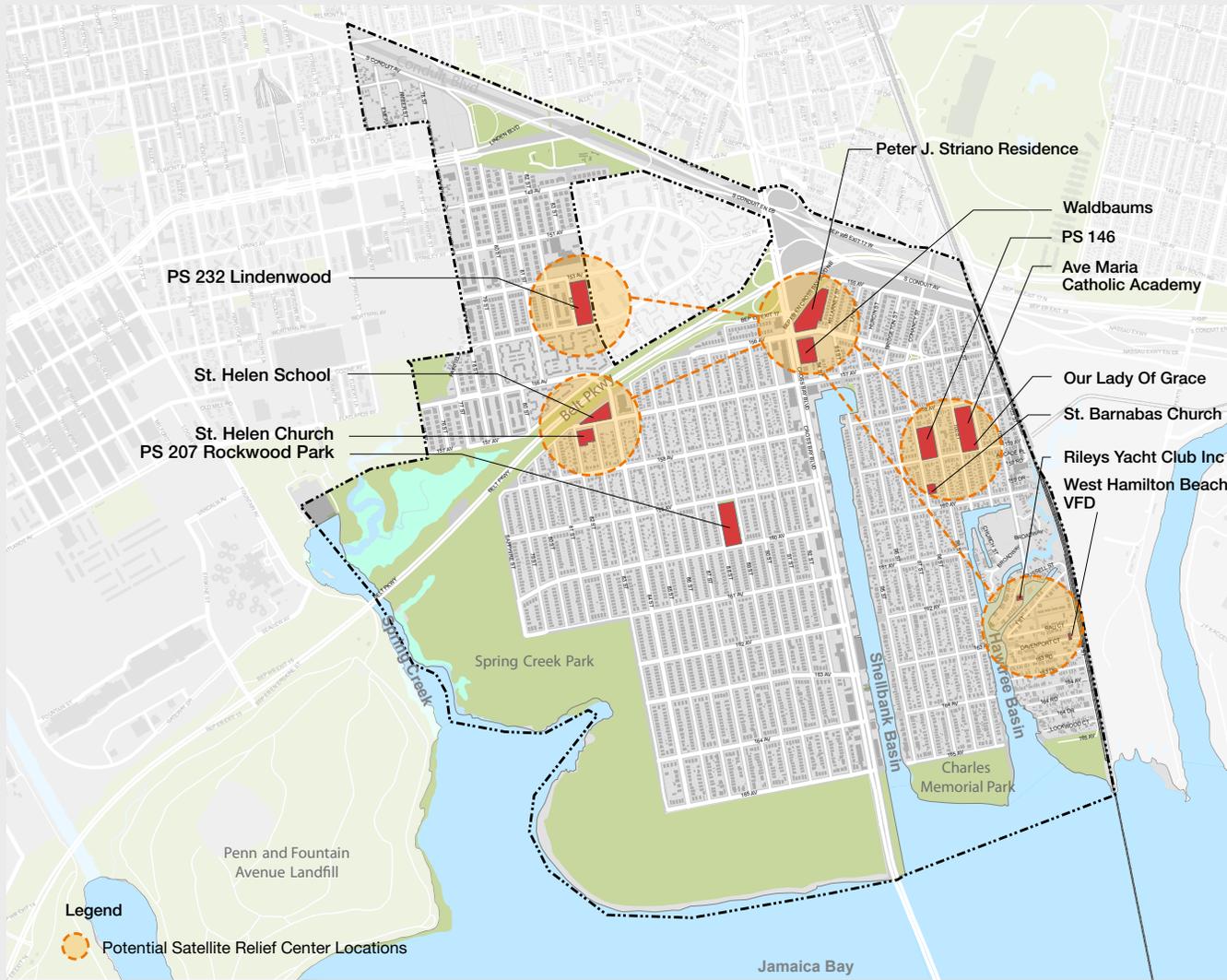
Regulatory reviews would likely not be required for the execution of this project, though all capital investments would be required to meet building codes, including any modifications to construction in a flood zone.

Because the sites would provide relief and would not function as formal shelters or evacuation centers they would not be held to Federal Emergency Management Agency (FEMA) regulations.

Jurisdiction

The relief center network would be located in Howard Beach and the development of the relief center network would fall under the jurisdiction of the City of New York.

Figure IV-10: Illustrative satellite relief centers



Satellite Relief Centers

Proposed project

Working with the relief center hub, satellite relief centers would serve as local neighborhood locations that people could access to charge electronic equipment, retrieve needed supplies and services, and get information from the larger relief network on relief efforts taking place throughout the community.

This project would fund the creation of a network of “satellite” relief centers to provide and coordinate local relief supplies and services following a disaster, such as provision of food, water, power, health, basic medical services, and information.

The project may provide funding to community facilities and organizations for the following:

- Capital improvements to harden the building
- Initial staffing expenses to develop and coordinate resiliency plans and programs

Local organizations interested in participating in the relief center network would apply to the program with a proposal, highlighting expected needs and level of engagement.

Relief centers would serve as local safe stations, whether serving as a cooling center during a heat wave or a supply distribution center after the immediate dangers of a hurricane have passed. Relief centers would leverage the local knowledge and trusted relationships of existing community based organizations (CBO) to provide essential

information to local residents and businesses, coordinate across multiple providers of community-based emergency health and social services consistent with a local Emergency Preparedness Plan, and evaluate community needs and efficiently distribute resources.

Satellite sites would serve a supporting role to the hub. Satellite sites should be physically distributed across the community and accessible within walking distance to large sections of the community. They would ideally have a parking lot (or other outdoor space) to accommodate relief vehicles or act as a service or assemblage area. Based on needs identified by the NY Rising Community Reconstruction (NYRCR) Plan Committee (the Committee), the ideal relief center host organization for satellite sites should exhibit the following characteristics:

- A history of community engagement and strong community ties
- Regular community programming and capacity to provide emergency programming

Project Summary

Recovery Support Functions



Health and Social Services



Community Planning and Capacity Building

Cost
\$1M

Risk Reduction

HIGH

Economic Benefits

LOW

Health and Social Benefits

HIGH

- Demonstrated ability to conduct outreach to vulnerable populations
- Capacity to provide a selection of social and/or health services
- A long-term occupancy agreement or ownership of the building
- A business continuity plan
- Financial stability

Relief centers should be housed within existing buildings and organizations that provide year-round community services. Selection of satellite sites and participating organizations would occur through a competitive process and be based on analysis of existing efforts in the Community, organizational capacity, facility capacity, proposed services, and potential to provide a cohesive network of support in conjunction with other selected sites.

Cost estimate

\$1 MILLION

The satellite program would fund two types of expenses:

- Capital to harden existing building. Key costs for facility improvements would include the following types of retrofits: flood-proofing (if

the building is located in the floodplain), back-up communications equipment, and back-up power.

- Operating support to build organization's capacity to provide year-round emergency programming and to deploy and coordinate resources during an emergency, as necessary and appropriate.

The exact costs of building upgrades would vary widely depending on the number of facilities selected to participate in the relief center network, the physical characteristics of those buildings and sites, and the programming planned for each site.

From a generic estimate, hardening a satellite site located in a 7,000-square-foot facility could cost approximately \$375,000, assuming the mitigation measures implemented provide a high degree of flood protection and sufficient back-up power. The annual cost of limited programming could be approximately \$20,000, for a total project cost of approximately \$40,000 over the course of two years for each satellite.

After two years, each participating organization would be responsible for supporting ongoing program costs. Building maintenance would not be included in this program and neither would the purchase of emergency supplies.

Benefits/co-benefits **Health and social benefits**

HIGH

By hardening existing buildings to serve as satellite relief centers, these community assets would be more likely to withstand extreme conditions to operate immediately after an emergency. The network would provide information about social and health services and, depending on the organizations, medical, legal, counseling, and other services directly on site.

Satellite relief centers would benefit vulnerable populations who are most likely to need assistance and have the lowest access to supplies and support networks.

The project would also reduce business interruption of the CBO operating each site, helping to ensure business continuity of small, local organizations. Furthermore, the program management funding would increase the capacity of the Community and participating organizations, building not only emergency preparedness capacity across the Community but building ongoing relationships and strengthening social resiliency for Howard Beach.

Economic benefits

LOW

The relief center network funding would be available to support part-time employees embedded in CBOs to help plan and build organizational capacity at satellites over the course of two years; however, funding staff would not be required. Capital expenses associated with hardening satellite sites would create a small number of temporary jobs for construction and installation of resiliency measures. These jobs should be sourced locally to ensure investment in the community.

Cost-benefit analysis

A Howard Beach relief center network would provide numerous benefits to the Community in the event of a disaster, including reducing overall risk to residents, and providing critical health and social services. Once the network is established, benefits would be sustainable, with little added cost.

The reduced vulnerability of all Howard Beach residents justifies the relatively modest per capita cost of implementing this project. There are no apparent negative externalities associated with the proposed project.

Risk reduction

HIGH

The proposed relief center network could result in risk reduction to residents of Howard Beach, and could also result in health and social benefits, as well as economic benefits.

Hardening relief centers would reduce risk of flood damage to the satellite locations selected, but more importantly, it would reduce risk to Howard Beach residents by providing publicly accessible back-up power, a centralized source for information, and support and social services distributed throughout the community.

Implementation timeframe

Once the project is formally initiated, it would take approximately one to two years to implement.

Project implementation would begin with a competitive bidding process, inviting local organizations that meet an established criteria to apply to participate in the relief network program. Organizations would submit proposals with their estimated resiliency capital and/or programming scope and costs. The proposal and selection process would take approximately three to six months.

Once participating organizations are identified, detailed programming and capital improvement plans would be implemented. Depending on the scope of the work, and taking into account the seasonality of construction, the capital improvement construction phase could take up to 18 months. Programming would be implemented faster, ideally three to six months after the program manager is on board.

Regulatory requirements

Regulatory reviews would not be likely for the execution of this project, though all capital investments would be required to meet building codes, including any modifications to construction in a flood zone.

Because the sites would provide relief and would not function as formal shelters or evacuation centers they would not be held to Federal Emergency Management Agency (FEMA) regulations. NYC OEM must also be engaged in facilitating coordination with citywide emergency preparedness efforts.

Jurisdiction

The relief center network would be located in Howard Beach and fall under the jurisdiction of the City of New York laws.

Project Overview

Recovery Support Functions



Health & Social Services



Infrastructure



Community Planning & Capacity Building

Cost

\$10–12M

Health & Social Benefits

HIGH

Economic Benefits

MEDIUM

Risk Reduction

HIGH

Timeline (years)



STRATEGY: ENSURE CBO CAPACITY TO DELIVER KEY SERVICES TO LOCAL POPULATIONS DURING EMERGENCY EVENTS

Community resource/recovery centers and CBO grant program

Proposed Project

This project would fund:

- (a) A network of hardened community resource/recovery centers, to be based out of existing community facilities and organizations; and
- (b) Grants to provide technical and financial assistance programs to community-based organizations (CBOs) to implement the functions of the community emergency preparedness plans.

Community resource/recovery centers

This project would fund the creation of community resource/recovery centers, which would house the coordination of emergency services following a disaster and facilitate emergency preparedness coordination across community-based organizations (CBOs) in advance of an event. Funding would be used for the following:

- Installation of backup power
- On-site capital improvements
- Initial staffing costs

Community resource/recovery centers are similar to New York City Office of Emergency Management’s (NYC OEM) Disaster Assistance Service Centers (DASC), but would be smaller in scale and community-driven. Community resource/recovery centers are not evacuation centers or shelters, which NYC OEM already operates during



Community resource/recovery centers would offer non-urgent medical care and other essential services to community members. Source: Flickr user Billy Brown, licensed under Creative Commons.



Hub sites would ideally feature large, flexible spaces capable of providing a diverse array of services to large numbers of community members. Source: Flickr user San José Library, licensed under Creative Commons.

disasters to direct people to a safe, dry place to stay on a temporary basis.

The proposed resource/recovery center network would be a “hub” and “satellite” model. The hub would be a large community space where logistics, communications, and supplies can be managed and distributed. The hub would serve as the primary neighborhood contact for NYC OEM and would coordinate with smaller satellite locations throughout the community that would provide additional distribution of supplies and information.

The resource/recovery center network model provides built-in redundancies and cooperation across local CBOs. Under the guidance of the local Community Emergency Preparedness Plan, the resource/recovery center network would formalize collaboration among hub and satellite sites. This format also allows organizations with different expertise and resources to contribute important relief support. For example, a CBO that has strong relationships with a segment of the population within the community might serve as a satellite site, while a CBO with a large facility and staff might serve as the hub.

The hub and satellites would offer both physical and programmatic resources for communities after emergencies. The hub, as the central coordination, relief, and distribution site, would have back-up power and develop programming to support coordination across multiple satellite sites and with citywide response and recovery efforts. Physical resources and programming at satellites may vary by location, but generally, satellites would also have back-up power, in order to support the resource/recovery center network following acute events. The array of services to be provided at both hub and satellites would include:

- Access to food, water, heating and cooling, and basic supplies
- Access to power and charging stations for cellphones
- Information about both citywide emergency response activities and local efforts
- Non-urgent medical services (e.g., first aid, mental health services);

IV-11 Implementation—Project profiles

- Social services (e.g., legal or financial counseling, food stamp aid, childcare); and
- Translation services (based on community needs).

Resource/recovery centers would be housed within existing buildings and organizations that provide year-round community services. A competitive process could select eligible sites and participating organizations based on an analysis of existing efforts in the community, organizational capacity, facility capacity and proposed services. The building that houses the resource/recovery center hub should meet certain physical requirements, described below, developed from Lower Manhattan Planning Committee discussions and criteria for siting DASCs and Red Cross Hurricane Evacuation Shelters. One or more satellite sites could serve a supporting role to the hub and would not necessarily need to meet all of the criteria below, since they would not be providing the full set of services that a hub would provide.

- Capacity for reliable source of power and heat/cooling
- Capacity to be made Americans with Disabilities Act (ADA)-accessible
- Potable water system
- Restrooms with showers
- Large space on ground floor

There are also important geographic considerations when selecting a hub site. Resource/recovery center hubs would be located outside of the high and extreme flood risk zone, yet close enough to it in order to be able to serve the communities in areas with the highest risk. They should

be located in proximity to: (i) vulnerable populations; (ii) an evacuation route or a road with quick, reliable access to the route; and (iii) commercial centers and corridors. The hub and satellite sites should be easy to access from the street. A parking lot or outdoor space would also be preferable to act as a service or assemblage area.

Based on needs identified by the Lower Manhattan Planning Committee, the ideal resource/recovery center host organization for both hub and satellite sites would exhibit the following characteristics:

- Year-round service to local vulnerable populations impacted by Sandy
- Active in post-Sandy response effort
- A long history of community engagement and strong community ties
- Regular community programming and capacity to provide emergency programming
- Demonstrated ability to conduct outreach to vulnerable populations
- Capacity to provide social and/or health services
- A long-term occupancy agreement or ownership of the building
- A business continuity plan
- Financial stability
- Ability to fund the purchase of basic emergency supplies and equipment, such as radios or push-to-talk phones, or fuel for emergency generators

A program manager would be embedded within the hub



Grants would enable CBOs to continue to offer services to community members in emergency events, including hot meals. Sources: GOLES (top); Two Bridges Neighborhood Council, Inc.

host organization. To ensure rapid response and effective coordination during an emergency, the program manager would maintain regular contact and coordination with satellite sites, local CBOs, NYC OEM and other city agencies. The program manager could also oversee disaster preparedness-related programming, such as trainings and practice drills, “know your neighbor” events, and outreach to vulnerable populations. This capability would be supported initially with Community Development Block Grant Disaster Recovery (CDBG-DR) funds for a part-time program manager for two years to build capacity and coordinate activities across the network. After two years, the hub organization would be responsible for supporting the employee on an ongoing basis, although responsibilities after the two-year period could possibly change based on organizational need.

CBO capacity-building grants

CBOs would play a key role in the resource/recovery center network, both as potential hub and satellite locations and as community-based partners for the network. To this end, this project would create a flexible grant program for CBOs to bolster existing or in-development resiliency-related programs and to participate as hubs or satellites within the community resource/recovery center network.

As CBOs’ needs, populations served, and missions vary throughout the Planning Area, the grant program would allocate funding to a wide array of eligible activities that enhance the resiliency of CBOs and their ability to serve the community during emergencies, ensuring their ability to communicate effectively with the resource/recovery center

network and public agencies, and maintain operations in order to continue serving the most vulnerable members of the community

Grants would be allocated for both capital expenditures and operational expenses, including:

- Resiliency staff and training, volunteer recruitment
- Multilingual outreach and education
- Vulnerable populations identification and tracking;
- Business continuity planning
- Professional consulting services to support disaster planning
- Building and systems hardening (e.g., fixed back-up generators)
- Redundant communication networks (e.g., WiFi networks, microgrid development) that provide back-up options to increase overall reliability
- Community-wide emergency communications networks within the Community Emergency Preparedness Plan
- Expansion of CBO geographic reach to meet needs of underserved areas
- Protocols for coordination with emergency response agencies and CBOs

**Cost estimate
\$10–12 MILLION**

Project Component	Cost Estimate
Community resource/recovery centers	\$3,750,000 to \$7,625,000
CBO grants	\$2,375,000 to \$8,250,000
TOTAL	\$10,000,000 to \$12,000,000

The proposed project would allocate \$10 to \$12 million to the development of a resource/recovery center network and CBO grant program.

Resource/recovery centers would require funding to cover two types of expenses: capital and operational.

- Capital to provide redundant power supply, harden the physical structure, and make communications redundant. Costs include a fixed generator and fuel storage tank, building upgrades, storage areas for supplies.
- Operating support to build the host organization’s capacity to provide year-round emergency programming, conduct outreach, host a full-time program manager, and to deploy resources during an emergency.

While the costs for required capital improvements depend upon the specific selected sites, capital costs for a hub with 10,000 square feet of usable space could range from between approximately \$350,000 to \$1,000,000. Upgrades to a satellite site in a 2,000-square-foot facility could cost \$200,000. Key costs for facility improvements would likely include fixed back-up power and fixed communications infrastructure. The exact costs may vary widely, depending on how many facilities ultimately participate in the resource/recovery center network, the physical characteristics of those buildings and sites, and the programming offered at each site.

Costs for a program manager and emergency preparedness programming at the hub could also vary widely, depending on the availability of funds and the needs identified in the community. The annual cost of the program manager and emergency preparedness programming (plus overhead) could cost around \$275,000, for a total project costing \$625,000 to \$1,275,000 or more for both capital and operational costs over the course of two years. Funding to support programming and outreach at satellite sites could cost approximately \$40,000.

Estimates based on generic building types within the Planning Area suggest at least six hubs could receive funding for capital and operational costs, or two per community district. For six hubs, the total cost of the resource/recovery center network would range between \$3.8 million and \$7.6 million.

CBO grants could range in size, but each might cover installation of a fixed generator and fuel storage tank,

redundant communications infrastructure, salary and benefits for one additional full-time staff person dedicated to emergency preparedness programming and outreach, and business-continuity planning services. A CBO grant might allocate a little over \$400,000 to the organization for these activities. The balance of the project, with a total allocation of up to \$12 million, would provide approximately \$2.4 million to \$8.3 million in CBO grants, and could therefore provide 5 to 15 direct grants to CBOs, depending on size and scope.

CBOs could receive grants to support their role as a satellite site, or for stand-alone capacity-building not as part of the network. In addition, because a priority of the Lower Manhattan Planning Committee is flexibility in grant allocations, CBO grants could fund specific initiatives.

After two years, the organizations with new program managers or staff persons would be responsible for supporting the salary (with a potential decrease in time commitment after resource/recovery center ramp-up during the first two years), as well as programming and maintenance costs on an ongoing basis.

It should also be noted that the operation of resource/recovery centers would likely require identifying additional funding sources to purchase supplies, including emergency radios, batteries, and food.

The conceptual-level cost estimate was developed based on current unit pricing and typical soft cost assumptions. Cost estimates would continue to be refined as more information is developed about the project.

Benefits

Health and Social Benefits

HIGH

By bolstering a number of existing buildings to serve as resource/recovery centers, this project would improve the ability of community organizations to operate during an emergency. The network would coordinate and share information about the location and availability of social and health services and may also provide on-site medical, legal, counseling, and other services.

For the entire community, formalizing a network of locations to provide relief supplies and support services would reduce risks to health and safety following a disaster. Specifically, resource/recovery centers would reduce the risk of:

- Sickness, discomfort, or injury related to lack of access to non-urgent medical attention, food, water, heat, and other necessities
- Emotional or psychological distress
- Displacement of children, relatives, and friends who might need to relocate to receive services

Vulnerable populations such as seniors and physically-impaired residents stand to benefit the most, given that they are most likely to need assistance, yet less likely to have reliable and convenient access to critical supplies and services. Assuming the Lower Manhattan Planning Area boundary as the catchment area, the resource/recovery center network would specifically benefit the following vulnerable populations:

- Low-income residents: Approximately 24,070 households (16.8% of total in 2005-2009) live below the federal poverty line²⁷
- Limited English Proficient (LEP) speakers: Approximately 57,244 residents (12.4% of the population in 2005-2009) speak English “not well” or “not at all”²⁸
- Senior population: Approximately 38,943 residents (12.4% of the population in 2010) are over the age of 65²⁹
- Additional vulnerable populations, including those who have limited mobility, limited communication skills, and/or a limited ability to control their environment.

When considering the Lower Manhattan Focus Area (high and extreme flood risk zone) as the catchment area, the resource/recovery center network would benefit the following vulnerable populations:

- Low-income residents: Approximately 9,261 households (21.8% of total) live below the federal poverty line³⁰
- Limited-English proficient residents : Approximately 14,214 residents (15% of the population) speak English “not well” or “not at all”³¹
- Senior population: Approximately 12,759 residents (12.5% of the population) are over the age of 65³²

The project would also increase the operational capacity of CBOs to provide services during emergency events. Emergency plans and back-up power would allow these organizations to continue to operate in the wake of

emergency events, thereby reducing business interruption. Further, the funding provided by this program would increase the capacity of CBOs to conduct emergency preparedness outreach and planning, and increase their ability to support their constituents overall.

Economic Benefits

MEDIUM

The resource/recovery center network is likely to support a full-time employee embedded in a CBO to help plan and build organizational capacity at hubs and across satellites over the course of two years. Capital expenses associated with hardening community centers would also create a small number of temporary jobs for construction and installation of resiliency building improvements.

Additionally, by protecting vulnerable populations, an emergency resource/recovery center supports diverse and thriving neighborhoods, which helps improve quality of life.

The resource/recovery center network would likely have a net-neutral or potentially net-positive impact on local government spending. The network would require agencies to coordinate during emergency events. The network could incrementally reduce government costs of emergency response and recovery in the future.

Cost-Benefit Analysis

This project would have broad public benefits and serve vulnerable populations—two key priorities of the Lower

Manhattan Planning Committee. A Lower Manhattan resource/recovery center network would reduce overall risk to the well-being of residents—especially vulnerable populations—and provide critical health and social services. In addition, the project would benefit the community year-round due to increased capacity and coordination among CBOs participating in the network. The reduced vulnerability of all Lower Manhattan residents justifies the relatively modest cost of implementing this project.

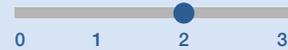
The benefits of the project would be sustainable beyond the two year CBDG-DR funding period so long as participating organizations dedicate modest resources to maintain emergency equipment, update emergency plans, and maintain communication with the other resource/recovery center network locations as well as the City. There are no apparent negative externalities associated with the proposed project.

Risk Reduction

HIGH

A resource/recovery center network and CBO grant program would reduce the vulnerability of participating CBOs and help to ensure business continuity. More importantly, the network would reduce risk to Lower Manhattan residents by providing publicly-accessible back-up power, a centralized source for information, social and support services, and more secure emergency services due to the redundancy inherent in a network of resource/recovery centers.

Timeframe for Implementation



Once the project has been formally initiated, it could take approximately one to two years to implement. The key issues that could most dramatically affect the timeframe are: (i) the length and format of the selection process, and (ii) physical challenges that may emerge with building resiliency improvements.

Project implementation would begin with a competitive bidding process, inviting local organizations meeting certain criteria—including those mentioned above—to apply to participate in this program. This process would take into account existing conditions, emergency planning efforts, organizational capacity, and other community characteristics. It is estimated that this process—from initial survey of existing conditions to the release of the solicitation—would take approximately four-to-six months. Subsequently, a program manager must be hired and implementation of capital improvements must begin. Depending on the scope of the work, this construction phase could take up to six months. Allocation of CBO grants may occur on a rolling basis, but would begin with the competitive bidding process described above.

Regulatory Requirements

It is anticipated that no regulatory review would be needed for the execution of this project; however, NYC OEM and NYS Department of Homeland Security and Emergency Services (NYS DHSES) must be consulted in implementing

this project to ensure coordination with citywide emergency preparedness efforts. Should alterations to a building be proposed, permits and approvals could be required from NYC Department of Buildings (NYC DOB).

Jurisdiction

The resource/recovery center network would be located in Lower Manhattan and the development of the network would fall under the jurisdiction of City agencies. Because the sites would provide relief, and not function as formal shelters or evacuation centers, they would not be subject to FEMA regulations.

Project Overview

Recovery Support Functions



Health & Social Services



Community Planning & Capacity Building

Cost

\$1.5–2M

Health & Social Benefits

HIGH

Economic Benefits

MEDIUM

Risk Reduction

MEDIUM

Timeline (years)



STRATEGY: IMPROVE EMERGENCY PREPAREDNESS THROUGH ENHANCED COORDINATION AND PLANNING

Community emergency preparedness program

Proposed project

To improve local coordination in emergency preparedness, response, and recovery efforts, this project would establish a Lower Manhattan-wide community coordinator and staff to serve as a central coordinating entity among community-based organizations (CBOs) and governmental agencies in emergency preparedness planning and implementation.

Local community emergency preparedness coordinators

The emergency preparedness coordinator would serve as a community-wide advocate, watchdog and coordinator for both publicly- and privately-led resiliency efforts in Lower Manhattan. The manager would track the allocations and expenditures for both publicly- and privately-led resiliency efforts, and as community advocate, report on those efforts to the community at large.

The manager and coordinators would be embedded within local organizations selected through a competitive process to administer the program. Organizations may either designate existing staff or recruit new staff to serve as the coordinators.

Acting as a resource for both government agencies and local residents, administrating organizations would act as



CBOs like Two Bridges Neighborhood Council hosted meetings with residents after Sandy to deliver important updates about neighborhood response and recovery efforts. Source: Courtesy of Two Bridges Neighborhood Council, Inc.

a central repository of resiliency information and resources, both by communicating with governmental emergency preparedness agencies including the New York Office of Emergency Management (NYC OEM), the New York State Division of Homeland Security and Emergency Services (NYS DHSES) and Federal Emergency Management Agency (FEMA), and by helping to disseminate that information to the community, using the hub-and-satellite network of resource/recovery centers throughout the area. Armed with this resiliency information, administrating organizations would develop educational and volunteer training programs.

Finally, these organizations would also seek private and public funding to increase the overall pool of funds supporting resiliency in Lower Manhattan, as well as bolster and sustain the coordinator positions beyond the initial two-year funding period.

Community emergency preparedness plans

Coordinators would spearhead the creation and execution of community emergency preparedness plans, community-driven plans to buttress the efforts of NYC OEM and other public agencies during emergencies, using the following planning elements:

- Emergency protocols
- Chain of communication
- Established distribution networks, in coordination with the resource/recovery

- Vulnerable populations preparedness programs (e.g. voluntary registries, access to medications during emergency events)
- Best practices to fill preparedness gaps (e.g. creation of a “buddy system” for vulnerable community members)
- Potential expansion of NYC OEM’s Community Emergency Response Team (CERT) programs

Cost estimate

\$1.5–2 MILLION

Project Component	Cost Estimate
Staffing	\$800,000 to \$1,300,000
Programming and Outreach	\$400,000
Technical assistance and planning services	\$300,000
TOTAL	\$1,500,000 to \$2,000,000

This project would allocate \$1.5 to \$2 million for this project over a two-year period. Of this amount, staffing for four positions (one program manager and three local coordinators) is expected to cost approximately \$800,000 to \$1,300,000 for the two years. Of the remaining amount,

\$400,000 would be allocated to programming, outreach, and program administration, and approximately \$300,000 would be allocated to outside technical assistance and planning services to support the program.

The conceptual-level cost estimate was developed based on assumptions for current staff salaries and benefits and programmatic costs. Cost estimates would continue to be refined as more information is developed about the project. Additional funds could be allocated to support any of the staffing, outreach and technical assistance activities described herein.

Benefits

While this project in and of itself would not reduce flood risk, it would bolster the resiliency of community members, especially vulnerable populations.

Health and social benefits

HIGH

By preparing community members, especially those most at risk among vulnerable populations, a community emergency preparedness plan would help Lower Manhattan community members find access to resources and information and better withstand extreme conditions during an emergency. Multilingual neighborhood-based coordinators would help deliver information to populations with limited English-speaking capacity.

For the entire community, creating a series of programs related to resiliency and an established set of protocols for

coordination during an emergency would reduce risks to health and safety following a disaster.

Vulnerable populations, such as seniors and physically-impaired residents, stand to benefit the most, given that they are most likely to need information and assistance in times of emergency, yet less likely to have reliable and convenient access to critical supplies and services.

Economic benefits

MEDIUM

The community emergency preparedness program is likely to support a full-time program manager, as well as three local recovery coordinators, each embedded in a community organization or local Community Board office, over the course of two years. Additionally, one of the goals of the recovery coordinator and staff is to leverage other public and private funding sources to increase the overall pool of funds supporting resiliency efforts in Lower Manhattan, as well as extend the tenure of these positions beyond the two-year funding window.

Cost-benefit analysis

There is substantial need for enhanced coordination among the wide number of CBOs, local neighborhood associations, government agencies, utilities, public and private planning agencies, and regulatory bodies that provide emergency services or information across the Planning Area. The \$1.5 to \$2 million cost of this project is modest when considering the potential to benefit the approximately 314,000 people who live in the Planning

Area, and particularly, the nearly 39,000 people who are over 65 years of age.

Risk reduction

MEDIUM

The community emergency preparedness program would reduce risk to Lower Manhattan residents by providing a coordinated set of widely-distributed educational and preparedness materials, and program staff who would ensure the execution of community-driven emergency preparedness plans in coordination with, and support of, relevant government agencies during emergencies.

Timeframe for implementation



Once the project has been formally initiated, it would take approximately one to two years to implement. The length and format of the selection process are the key issues that could most dramatically affect the timeframe.

Project implementation would begin with a competitive bidding process, inviting local organizations meeting certain criteria—including those mentioned above—to apply to participate in this program. This process would take into account existing conditions, emergency planning efforts, organizational capacity, and other community characteristics. After selection, each organization would

need to identify an emergency preparedness coordinator within the organization, or as a new hire. It is estimated that this process—from initial analysis to the release of the solicitation—would take approximately three to six months. Implementation of the emergency preparedness program would be covered by Community Development Block Grant – Disaster Recovery (CDBG-DR) funding for two years. After this time, organizations would need to identify other sources of funding to maintain the plan and coordination networks, or absorb the costs into their existing budgets. However, the cost of maintenance is likely to be significantly less than the initial \$1.5 to \$2 million in startup costs allocated here.

Regulatory requirements

It is anticipated that no regulatory review would be needed for the execution of this project. However, the New York City Office of Emergency Management (NYC OEM) and the New York State Division of Homeland Security and Emergency Services (NYS DHSES) must be consulted in implementing this project to ensure coordination with citywide and statewide emergency preparedness efforts.

Jurisdiction

The project would be located in Lower Manhattan. While the development of community emergency preparedness plans would be a community-based initiative, NYC OEM could help direct the process.

Project Overview

Recovery Support Functions



Community Planning



Health & Social Services

Cost

\$1.5M

Risk Reduction

HIGH

Health & Social Benefits

HIGH

Economic Benefits

MEDIUM

Timeline (years)



STRATEGY: STRENGTHEN COMMUNITY CAPACITY TO PREPARE FOR, RESPOND, AND RECOVER FROM EMERGENCIES

Relief center network

Proposed Project

This project would fund the creation of a network of relief centers to house the coordination of post-disaster relief services, such as food, water, power, medical services, and information. The project would provide funding to existing community facilities and organizations for building hardening, on-site capital improvements, and initial staffing costs. The network would provide both physical and informational resources in the wake of a disaster, and facilitate disaster preparedness coordination across community based organizations (CBOs) in advance of an event.

Project description

In the wake of Superstorm Sandy residents and business owners organized an immediate and local response system. Recovery services, such as distributing food, water, and supplies and going door to door to check on vulnerable populations, were provided locally and on a volunteer basis. This local response supplemented the response by government agencies and organizations such as NYC Office of Emergency Management (NYC OEM), NYS Division of Homeland Security and Emergency Services (DHSES), the Federal Emergency Management Agency (FEMA), and the Red Cross which provided critical, life-saving support throughout New

York City. The local response was an incredible feat and could be strengthened in the future by coordinating local efforts with NYC OEM and other entities prior to an event and clearly establishing roles and responsibilities for a specific operation.

The proposed relief center network would coordinate with NYC OEM and CBOs to provide relief services such as food, water, power, basic medical services, and information. Sites in the relief center network would be strengthened to reduce flooding, ensure power, and build community capacity prior to an event. Relief centers



In the wake of Sandy, PortSide NewYork set up a community aid station to help residents connect to resources. In the future a more formal network of relief centers operating through existing community centers could meet this need. Source: Carolina Salguero

would leverage the local knowledge and relationships of existing CBOs to coordinate across multiple providers of community-based emergency health and social services consistent with a local Emergency Preparedness Plan, and help to evaluate community needs and efficiently distribute resources.

The proposed relief center network would be a “hub” and “satellite” model. The hub would be a large community space where logistics, communications, and supplies can be managed and distributed. It would also have backup power, heating and cooling capabilities and allow for people to gather and connect with others. The center could also provide a regular meeting space

for emergency preparedness training programs such as Community Emergency Response Team (CERT) or Ready New York. The hub would serve as the primary neighborhood contact for NYC OEM and other emergency first responders and would coordinate with smaller satellite locations throughout the Community that provide additional distribution of supplies and information.

The relief center network model establishes formal collaboration between the hub and satellite sites and coordination with a local community-driven preparedness plan, increasing cooperation across CBOs in Red Hook. This structure can provide redundancies and also allow organizations with different expertise and resources to contribute important relief support—for example, a CBO that has strong relationships with a segment of the population within the Community might serve as a satellite site while a CBO with a large facility and staff might serve as the hub.

The relief centers in the network would not function as evacuation centers or shelters, but would instead offer services after the immediate dangers of an emergency have passed and community members return to start the recovery effort. They would function similarly to NYC OEM's Community Preparedness and Resource Centers, but would be smaller scale and community driven.

The hub and satellites would offer both physical and programmatic resources for communities after emergencies. Physical resources and programming at satellites may vary by location, but ideally satellites would also be bolstered with flood-proofing and backup power

in order to support the relief center network following acute events. The array of services to be provided across the hub and satellites would include:

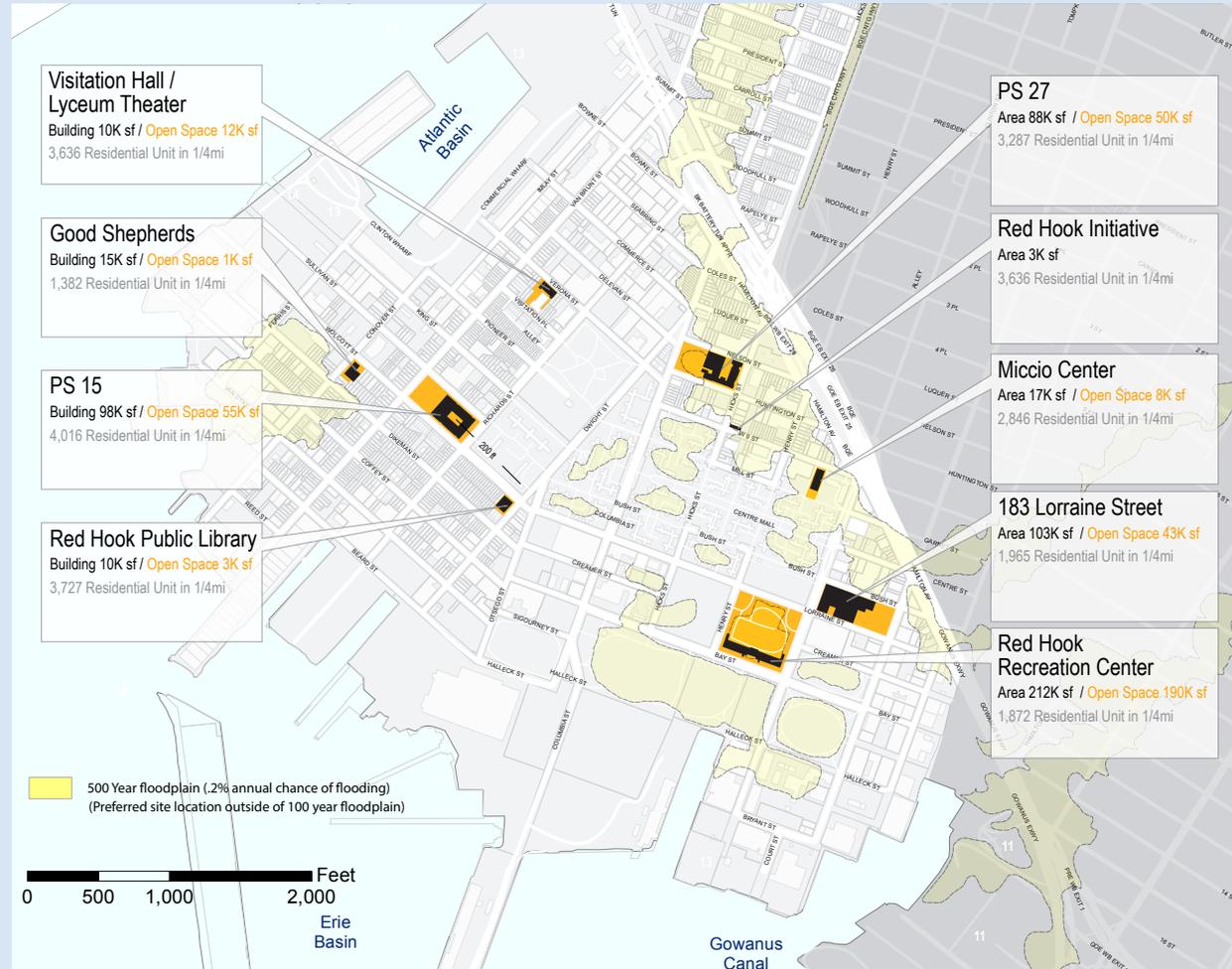
- Access to food, water, power, and basic supplies
- Information about both citywide emergency response activities and local efforts
- Non-urgent medical services (first aid, mental health, etc.)
- Social services (legal or financial counseling, food stamp aid, childcare, etc.)
- Translation services (based on community needs)
Power for cell phone usage / internet services

Because emergencies are unpredictable and irregular events, relief centers should be housed within existing buildings and organizations that provide year-round community services. Selection of sites and participating organizations would occur through a competitive process and be based on analysis of existing efforts in the Community, organizational capacity, facility capacity, proposed services, and potential to provide a cohesive network of support in conjunction with other selected sites.

The building that houses the relief center hub should meet certain physical requirements developed from Committee discussions as well as local and national best practice building and siting criteria, including:

- Location outside of the floodplain or in a flood-proof structure

Figure IV-1: Illustrative potential relief center sites



- Reinforced building (e.g., constructed to withstand heavy loads)
- Reliable source of power and heat/cooling
- Restrooms with showers
- Access to large outdoor space (e.g., parking lot) that can provide a staging area for relief services
- Large space on ground floor
- Size and services able to accommodate surrounding population expected to use services
- ADA-accessible

This project would fund capital improvements to help the hub meet these physical requirements. There are also important geographic considerations when selecting a hub site. The relief center hub should be located on a site in Red Hook situated outside of the extreme flood-risk zone and if possible should be in proximity to an evacuation route or a road with quick, reliable access to the route, vulnerable populations, commercial centers and corridors. The hub as well as satellite sites should be easy to access from the street and may have a parking lot (or other outdoor space) to accommodate relief vehicles or act as a service or assemblage area.

Satellite sites would serve a supporting role to the hub and therefore do not need to meet all of the physical requirements as the hub. Satellite sites should be physically distributed across the Community so that residents can access one within walking distance.

Based on needs identified by the Committee, the ideal relief center host organization for both hub and satellite sites would exhibit the following characteristics:

- Long history of community engagement and strong community ties
- Regular community programming and capacity to provide emergency programming
- Demonstrated ability to conduct outreach to vulnerable populations
- Capacity to provide a selection of social and/or health services
- Ability to fund the purchase of basic emergency supplies and equipment, such as radios or push-to-talk phones, or fuel for emergency generators
- Long-term occupancy agreement or ownership of the building
- Business continuity plan
- Financially stability

Embedded within the hub host organization would be a program manager. To ensure rapid response and effective coordination during an emergency, the program manager would be expected to maintain regular contact and coordination with satellite sites, NYC OEM, and others. The program manager would also manage disaster preparedness-related programming, which could include trainings and practice drills, “know your neighbor” events, and outreach to vulnerable populations. This staffing capability may be supported initially with the available funds, in the form of a part-time program manager for

two years to build capacity and coordinate activities across the network. After two years, the hub organization would be responsible for supporting these services on an ongoing basis, although responsibilities after the two-year ramp-up period may diminish to maintaining coordination channels and keeping the plan up to date. The program manager at the hub location would be responsible for ensuring the facility has basic emergency supplies and ready equipment, such as radios or push-to-talk phones, and fully functional backup power sources; this would likely require identifying other sources of funding.

Cost

\$1.5 MILLION

Approximately \$1.5 million could fund the development of a relief center network comprised of one hub and one or more satellite sites.

Relief centers would require funding to cover two types of expenses:

- **Capital to harden existing buildings.** Hardening costs would include backup power and floodproofing measures (the latter if the facility must be located in a floodplain).
- **Operating support to build participating CBOs' capacity** to support a part-time program manager to build capacity and deploy resources during an emergency over a two year period.

This estimate is based on engineer experience and assumptions based on generic building types and typical operating costs for projects of similar scope and scale. The exact costs of this would vary widely depending on how many facilities are ultimately selected to participate in the relief center network, the physical characteristics of those buildings and sites, and the programming planned for each site.

Key costs for facility improvements would likely include building hardening (including flood-proofing), backup communications equipment, and backup power. Fairly extensive floodproofing would be undertaken at the hub site in particular since the facility must be secure from flood damage. Interventions may include flood door barriers, elevated mechanicals, exterior and interior waterproof coating, check-valves etc. Backup power costs may include the cost of a fixed backup gas-powered generator. Solar-powered backup power is a more environmentally friendly option which could be pursued depending on the desired price range and the site.

While the costs for required capital improvements would depend upon the specific sites ultimately selected, a relief center hub with 12,000 square feet of usable space could cost approximately \$450,000 - \$650,000. A satellite site in a 7,000 square foot facility could cost \$400,000 - \$450,000. These cost estimates assume the mitigation measures implemented provide a high degree of flood protection since the majority of Red Hook is in the floodplain.

Costs for a program manager and emergency preparedness programming at the hub could also vary widely, depending on the availability of funds and the needs identified in the Community. The annual cost of the program manager and emergency preparedness programming (plus overhead) could range from \$20,000 - \$60,000, for a total project cost of \$40,000 - \$120,000 over the course of two years. Satellite sites might also receive a discretionary amount of funding for programming.

After two years, the organization would be responsible for supporting the program manager salary (with a potential decrease in time commitment after relief center ramp-up during the first two years), as well as programming and maintenance costs on an ongoing basis.

Each organization may opt for different supplies depending on its needs and capacity, but these additional supplies could include medical supplies, extended shelf-life food, water, blankets, walkie-talkies, ham radios, surge protectors, or fuel reserves. Participating organizations would need to identify alternative funding sources for these items.

Benefits

Health and social benefits

HIGH

A relief center network would ensure the continued provision and coordination of health and social services after a storm. The network would provide publicly accessible places with backup power where residents can receive temporary relief and can be directed to the

appropriate resources and locations to address health and social services needs. Through provision of supplies and coordination of information a formalized relief center would reduce the health and safety risks associated with a disaster for the entire Red Hook community.

Specifically, a relief center would reduce the risk of:

- Sickness or discomfort related to lack of access to basic medical supplies, food, water, heat, and other necessities
- Emotional or psychological distress
- Displacement of children, relatives, and friends who might need to relocate to receive services

Vulnerable populations such as seniors and physically impaired residents stand to benefit the most as they are more likely to need assistance, yet less likely to have reliable and convenient access to critical supplies and services. Assuming the Red Hook Planning Area boundary as the catchment area, the relief network would specifically benefit the following vulnerable populations:

- Low-income residents: Approximately 5,000 residents (38% of the population) live below the federal poverty line²
- Non-native speakers: Approximately 1,600 residents (13.2% of the population) speak English “not well” or “not at all”³
- Senior population: Approximately 1,100 residents (9% of the population) are over the age of 65⁴

The project would also reduce vulnerability and limit business interruption for community organizations operating each hub. Emergency plans, floodproofing, and backup power would allow these organizations to continue to operate business in the wake of emergency events. Further, the funding provided by this program would increase the capacity of the organization to conduct emergency preparedness outreach and planning and increase the organization’s ability to support its constituents overall.

Economic benefits

MEDIUM

The relief center network is likely to support a part-time employee embedded in a CBO to help plan and build organizational capacity at hubs and across satellites over the course of two years. Capital expenses associated with hardening community centers would also create a small number of temporary jobs for construction and installation of resiliency building improvements.

Additionally, by protecting vulnerable populations, an emergency relief center supports diverse and thriving neighborhoods, which helps improve quality of life, a strategy in line with the New York City Regional Economic Development Council’s Strategic Plan.

The relief center network would benefit NYC OEM and other local government agencies, likely saving them money by enabling them to respond to emergency events more efficiently with fewer resources going to coordination efforts. By increasing the Community’s capacity to respond

to local needs and coordinate effectively with NYC OEM, both local organizations and regional emergency response entities would benefit. NYC OEM would need to dedicate minimal resources to maintain coordination with the relief center network but these would be far outweighed by long-term efficiencies.

Cost-benefit analysis

This project has broad public benefits and particularly serves vulnerable populations—key priorities of the Committee. A Red Hook relief center network would provide numerous benefits to the Community in the event of a disaster, including reducing overall risk to the well-being of residents—especially vulnerable populations—and providing critical health and social services. In addition, the project would benefit the Community year-round due to the increased capacity and coordination among CBOs participating in the network.

The reduced vulnerability of all Red Hook residents justifies the relatively modest cost of implementing this project.

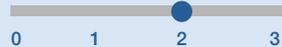
The benefits of the network would be sustainable beyond the two-year Community Development Block Grant - Disaster Recovery (CDBG-DR) funding period so long as the partnering organizations dedicate modest resources to maintain emergency equipment, update emergency plans, and maintain communication with the other relief network locations as well as the City. There are no apparent negative externalities associated with the Proposed Project.

Risk reduction

HIGH

A relief center network would reduce the risk of flood damage for the two to four facilities participating in the program. More importantly, the network would reduce risk to Red Hook residents by providing publicly accessible back-up power, a centralized source for information, social and support services, and more secure emergency services due to the redundancy inherent in a network of relief centers.

Timeframe for implementation



Once the project has been formally initiated, it would take approximately one to two years for capital improvements to be completed. Operations would continue for two years. The key issues that could most dramatically affect the timeframe are the length and format of the selection process and the physical challenges that may emerge with backup generator installation, flood-proofing, or other capital improvements.

Regulatory requirements

It is anticipated that no regulatory review would be needed for the execution of this project. However, NYC OEM must be involved in implementing this project to facilitate coordination with citywide emergency preparedness efforts.

Project implementation would begin with a competitive bidding process that would invite local organizations meeting certain criteria—including those mentioned

above—to apply to participate in this program. This process would take into account existing conditions, emergency planning efforts, organizational capacity, and other community characteristics. It is estimated that this bidding process—from initial survey to the release of the solicitation—would take approximately two to four months.

Subsequently, a program manager must be hired and implementation of capital improvements must begin. Depending on the scope of the work, and taking into account the seasonality of construction, this construction phase could take 6-18 months. Programming can be implemented in a shorter time, ideally three to six months after the program manager is on board.

Jurisdiction

The relief center network would be located in Red Hook and the development of the relief center network would fall under the jurisdiction of New York City laws. Because the sites would provide relief and not function as shelters or evacuation centers they would not be held to FEMA regulations.

Project Overview

Recovery Support Functions



Community Planning & Capacity Building



Health & Social Services

Cost

\$6–9.4M

Health & Social Benefits

HIGH

Economic Benefits

MEDIUM

Risk Reduction

HIGH

Timeline (years)



STRATEGY: BOLSTER COMMUNITY RESILIENCY

Relief center network

Proposed Project

Create a network of relief centers to coordinate relief and recovery following a disaster or major event.

Project description

This project would fund the creation of a network of relief centers, to provide and coordinate local relief services and supplies following a disaster, such as provision of food, water, power, health, medical services, and information. The project would provide funding to community facilities and organizations for construction and building hardening. It would also support staffing costs to develop and manage resiliency plans and programs.

Relief centers would leverage the local knowledge and trusted relationships of existing CBOs to provide essential information to residents and businesses; coordinate across community-based emergency health and social services; and help to evaluate community needs and efficiently distribute resources.

The proposed relief center network would be a “hub” and “satellite” model. The hub would be a large community

space where logistics, communications, and supplies can be managed and distributed. The hub would serve as a local neighborhood contact for government emergency workers and first responders and would coordinate with smaller satellite locations throughout the Community that serve as additional, localized distribution centers. To meet the needs of the entire Rockaway East population, the Planning Committee proposes two hub locations: one in Far Rockaway and one in Arverne.

The array of services to be provided across the hub and satellites would include:

- Access to food, water, power, and basic supplies
- Information about both citywide emergency response activities and local efforts
- Non-urgent medical services (first aid, mental health, etc.)



The Relief Center Network project would help formalize and organize residents and organizations to be better prepared for events and disasters. Source: Flickr User laryosan, licensed under Creative Commons.



Many organizations opened their doors and organized relief after Sandy. Source: With permission from Leslie Mullings

- Special services for seniors or other vulnerable populations

Because emergencies are unpredictable and irregular events, relief centers should be housed within existing buildings and organizations that provide year-round community services.

A relief center hub should meet physical requirements developed from Planning Committee discussions as well as local and national best practices, including:

- Location outside of the floodplain or in a flood-proof structure
- Reliable source of power and heat/cooling

- Proximity to an evacuation route
- Proximity to vulnerable populations and commercial centers
- Reinforced building structure
- Potable water system
- Restrooms (ideally with showers)
- Parking lot or other large outdoor assembly area
- Large space on ground floor
- ADA-accessibility

Satellite sites would not need to meet all of the physical requirements as the hub but should be physically distributed across the Community so that residents can access one within walking distance.

A program manager would be embedded within the hub host organization. To ensure rapid response and effective coordination during an emergency, the program manager would coordinate with satellite sites and NYC OEM. The program manager would also manage disaster preparedness-related programming, which could include trainings and practice drills, “know your neighbor” events, and outreach to vulnerable populations. The center could also host CERT or Ready New York trainings.

Selection of sites and participating organizations would occur through a competitive process based on analysis of existing efforts in the Community, organizational capacity, facility capacity, proposed services, and potential to provide a cohesive network of support in conjunction with other selected sites.



The Relief Center Network would help ensure supplies are managed and distributed to the satellite centers as needed. Source: Flickr User jaydensonbx, licensed under Creative Commons.

Based on needs identified by the Committee, ideal relief center host organizations for both hub and satellite sites would exhibit the following characteristics:

- A history of community engagement and strong community ties
- Regular community programming and capacity to provide emergency programming
- Demonstrated ability to conduct outreach to vulnerable populations
- Capacity to provide a selection of social and/or health services

- A long-term occupancy agreement or ownership of the building
- A business continuity plan
- Financial stability

Cost

\$6–9.4 MILLION

Approximately \$6 to \$9.4 million would fund the development of a relief center network in Rockaway East.

Relief centers would require funding to cover two types of expenses: capital and operational.

- Capital to harden existing buildings. Key costs for facility improvements could include: flood-proofing (if the building is located in the floodplain), back-up communications equipment, and back-up power.
- Operating support to build the host organization's capacity to support a part-time program manager to provide year-round emergency programming, and to deploy and coordinate resources during an emergency.

Estimates based on generic building types assume that two hubs and several satellite sites could receive funding for capital and operational costs. Based on a rough estimate, a relief center hub with 12,000 square feet of usable space could cost approximately \$1.3 to \$1.5 million. A satellite site in a 7,000 square foot facility could cost \$800,000 to \$1 million. These estimates assume fairly substantial floodproofing (for a few locations in the

floodplain) and costly solar power; exact costs would vary widely depending on how many facilities are selected, the physical characteristics of those buildings and sites, and the programming planned for each site.

Costs for a program manager and emergency preparedness programming at the hub could also vary widely, depending on the availability of funds and the needs identified in the Community. The annual cost of the program manager and emergency preparedness programming (plus overhead) could range from \$20,000 to \$60,000, for a total project cost of \$40,000 to \$120,000 over the course of two years. Satellite sites might also receive a discretionary amount of funding for programming. All interested parties would apply to the relief network program with a proposal for their respective needs and scope.

After two years, each participating organization would be responsible for supporting programming as well as building maintenance costs. It should also be noted that the operation of relief centers could require the purchase of supplies including medical provisions, extended shelf-life food, water, blankets, walkie-talkies, ham radios, surge protectors, or gasoline. Participating organizations would need to identify alternative funding sources for these items.

Benefits

Health and social benefits

HIGH

For the entire Community, formalizing a network of relief centers would reduce the health and safety risks associated with a disaster or event. Specifically, the relief centers would reduce the risk of:

- Sickness or discomfort related to lack of access to basic medical supplies, food, water, heat, and other necessities
- Emotional or psychological distress
- Displacement of children, relatives, and friends who might need to relocate to receive services
- Inaction or misdirected action due to confusion or lack of information across the Community

Vulnerable populations such as seniors and physically impaired residents stand to benefit the most, given that they are most likely to need assistance, yet less likely to have reliable and convenient access to critical supplies and services. Assuming the Rockaway East Planning Area boundary as the catchment area, the relief network would specifically benefit vulnerable populations, including low income residents, non-native English speakers, and seniors.

Economic benefits

MEDIUM

The relief center network is likely to support a part-time employee embedded in a CBO to help plan and build organizational capacity at hubs and across satellites over the course of two years. Capital expenses associated with hardening community centers would also create a small number of temporary jobs for construction and installation of resiliency building improvements. These jobs should be sourced locally to ensure investment in the Community.

Additionally, by protecting vulnerable populations, an emergency relief center supports diverse and thriving neighborhoods, which helps improve quality of life, a strategy in line with the New York City Regional Economic Development Council’s Strategic Plan.¹³

Cost-benefit analysis

A Rockaway East relief center network would provide numerous public benefits to a Community in the event of a disaster, including reducing overall risk to the well-being of residents—especially vulnerable populations. The reduced vulnerability of all Rockaway East residents justifies the relatively modest cost of implementing this project.

The benefits of the network would be sustainable beyond the two-year CBDG-DR funding period so long as the partnering organizations dedicate modest resources to maintain emergency equipment, and update emergency plans. There are no apparent negative externalities

associated with the Proposed Project. In addition, a year-round co-benefit to the community would be the increased capacity and coordination among CBOs participating in the network.

Risk reduction

HIGH

A relief center network would reduce risk to Rockaway East residents by providing safe havens in an emergency, ensuring publicly accessible back-up power, a centralized source for information, social and support services, and more secure emergency and recovery services. Further, investment in a relief center network would reduce the vulnerability of the organizations and community centers participating in the program.

Timeframe for implementation



Once the project has been formally initiated, it would take approximately one to two years to implement.

Project implementation would begin with a competitive bidding process that would invite local organizations meeting established criteria to apply to participate.

Organizations would submit proposals with an estimated resiliency capital scope and cost as well as a proposed approach to resiliency programming. The proposal and selection process would take approximately three to six months.

Once participating organizations are identified, organizations would create detailed plans to implement programming and capital improvements. Depending on the scope of the work, and taking into account the seasonality of construction, the capital improvement construction phase could take six to eighteen months. Programming can be implemented in a shorter time, ideally three to six months after the program manager is on board.

The key issues that could most dramatically affect the timeframe are: the length and format of the selection process and the construction challenges that may emerge with installing back-up power, flood proofing, or other capital improvements.

Regulatory requirements

It is anticipated that no regulatory review would be needed for the execution of this project, though all capital investments would be required to meet building codes, including modifications to construction in a flood zone.

It would be beneficial for the local CBOs to consult with NYC OEM as they launch the program and to seek ongoing communications and coordination with NYC OEM on citywide emergency preparedness efforts. Local CBOs would also benefit from coordinating with other city agencies or local programs to bolster information and programming over time.



Source: Flickr User jaydensonbx, licensed under Creative Commons.

Jurisdiction

The relief center network would be located in Rockaway East and fall under the jurisdiction of New York City. Because the sites would provide relief and not function as formal shelters or evacuation centers they would not be held to Federal Emergency Management Agency (FEMA) regulations.

Project Overview

Recovery Support Functions



Health & Social Services



Community Planning & Capacity Building

Cost

\$6–9M

Health & Social Benefits

HIGH

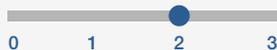
Economic Benefits

MEDIUM

Risk Reduction

HIGH

Timeline (years)



STRATEGY: STRENGTHEN COMMUNITY RESILIENCY

Relief center network

Proposed Project

This project would fund the creation of a network of relief centers, to house the coordination of relief services following a disaster.

Project description

This project would fund the creation of a network of relief centers to provide and coordinate local relief services and supplies following a disaster, such as provision of food, water, power, basic medical services, and information. The project would provide funding to community facilities and organizations for construction and building hardening. It would also support staffing costs to develop and manage resiliency plans and programs.

Relief centers would leverage the local knowledge and trusted relationships of existing community-based organizations (CBOs) to provide essential information to residents and businesses; coordinate community-based emergency health and social services; and help evaluate community needs and efficiently distribute resources.

The proposed relief center network would be a “hub” and “satellite” model. The hub would be a large, centrally located

community space where logistics, communications, and supplies could be managed and distributed. It would serve as a local contact for government agencies and first responders and would coordinate with smaller satellite locations throughout the Community serving as additional, localized distribution centers. The hub would also ensure that local emergency plans are in place to support vulnerable populations.

The array of services that could be provided across the hub and satellites include the following:

- Access to food, water, power, and basic supplies
- Information about both citywide emergency response activities and local efforts
- Non-urgent medical services (first aid, mental health, etc.)



Residents and volunteers help with cleanup and distribution efforts post-Sandy. Source: Flickr user Restore_the_Rock, licensed under Creative Commons..

- Special services for seniors or other vulnerable populations

Because emergencies are unpredictable and irregular events, relief centers should be housed within existing buildings and organizations that provide year-round community services. A relief center hub should meet the following physical requirements, based on best practices as well as Rockaway West Planning Committee (Committee) discussions:

- Location outside of the floodplain or in a flood-proof structure
- Reliable source of power and heat/cooling
- Proximity to an evacuation route
- Proximity to vulnerable populations and commercial centers
- Reinforced building structure
- Potable water system
- Restrooms (ideally with showers)
- Parking lot or other large outdoor assembly area
- Large space on ground floor
- ADA-accessibility

This project would fund capital improvements to help the hub meet these physical requirements, including flood-proofing and back-up power.

Satellite locations do not need to meet all of the physical requirements as the hub, but should be physically distributed across the Community so that all residents can access one within walking distance. Ideally satellites would also be bolstered with flood-proofing and back-up power in order to support the relief center network following acute events.

Selection of sites and participating organizations would occur through a competitive process based on analysis of existing efforts in the Community, organizational capacity, facility capacity, proposed services, and potential to provide a cohesive network of support in conjunction with other selected sites.

Based on needs identified by the Committee, ideal relief center host organizations for both hub and satellite sites would exhibit the following characteristics:

- A history of community engagement and strong community ties
- Regular community programming and capacity to provide emergency programming
- Demonstrated ability to conduct outreach to vulnerable populations
- Capacity to provide a selection of social and/or health services
- A long-term occupancy agreement or ownership of the building



Sandy volunteers distribute free food and beverages. Source: With permission from Danny Ruscillo.

- A business continuity plan
- Financial stability

Embedded within the hub host organization would be a program manager. To ensure rapid response and effective coordination during an emergency, the program manager would coordinate with satellite sites and NYC Office of Emergency Management (OEM). The program manager would also manage disaster preparedness-related programming, which could include trainings and practice drills, “know your neighbor” events, and outreach to vulnerable populations. The center can also host events such as Community Emergency Response Team (CERT) or Ready New York trainings.

This program management capacity may be supported initially with Community Development Block Grants-Disaster Recovery (CDBG-DR) funds for a part-time resource for up to 2 years to design programs, oversee resiliency capital investments, build community and organizational capacity, and coordinate activities across the network. After 2 years, the hub organization would be responsible for maintaining and supporting these services on an ongoing basis.

Cost

\$6–\$9 MILLION

The \$6 million to \$9 million cost would cover two hubs and—depending on the scale and needs of the buildings or organizations—a series of satellite locations.

Relief centers would require funding to cover two types of expenses: capital and operational.

- Capital would be utilized to harden existing buildings. Key costs for facility improvements could include: flood-proofing if the building is located in the floodplain, back-up communications equipment, and back-up power.
- Operating support would help build host organization’s capacity to support a part-time program manager to provide year-round emergency programming and to deploy and coordinate resources during an emergency.

Estimates based on generic building types suggest that this allocation could fund capital upgrades and operational costs of one to two hubs and four to six satellite sites. Based on a rough estimate, a relief center hub with 12,000 square feet of usable space in the floodplain could cost approximately \$1.4 to \$1.6 million. A satellite site in a 7,000 square foot facility could cost \$900,000 to \$1.1 million. These estimates assume fairly substantial flood-proofing and costly solar power; exact costs would vary widely depending on how many facilities are selected, the physical characteristics of those buildings and sites, and the programming planned for each site.

The annual cost of the program manager and emergency preparedness programming could range from \$20,000 to \$60,000, for a total project cost of \$40,000 to \$120,000 over the course of two years, depending on the needs of the Community. Satellite sites might also receive a discretionary amount of funding for programming. All interested parties would respond to a competitive solicitation with a proposal for their respective needs and scope.

After two years, each participating organization would be responsible for supporting the program as well as building maintenance costs. It should also be noted that the operation of relief centers could require the purchase of supplies including medical supplies, extended shelf-life food, water, blankets, walkie-talkies, ham radios, surge protectors, or gasoline. Participating organizations would need to identify alternative funding sources for these items.

Benefits

Health and social benefits

HIGH

For the entire Community, formalizing a network of relief centers would reduce the health and safety risks associated with a disaster or event. Specifically, the relief centers would reduce the risk of:

- Sickness or discomfort related to lack of access to basic medical supplies, food, water, heat, and other necessities
- Emotional or psychological distress
- Displacement of children, relatives, and friends who might need to relocate to receive services
- Inaction or misdirected action due to confused or lacking information across the Community

Vulnerable populations such as seniors and physically impaired residents stand to benefit the most, given that they are most likely to need assistance, yet least likely to have reliable and convenient access to critical supplies and services.

The program would also strengthen the overall social resiliency of Rockaway West by building not only emergency preparedness capacity but also ongoing relationships and collaboration.



Volunteers distribute supplies at YANA Occupy Sandy. Source: Flickr user Melissa Segal, licensed under Creative Commons.

Economic benefits

MEDIUM

The relief center network would support a part-time program manager plan and build organizational capacity over the course of two years. Hardening community centers would also create a small number of temporary jobs for construction and installation of resiliency building improvements. These jobs should be sourced locally to ensure investment in the Community.

Additionally, by protecting an at-risk New York City community, an emergency relief center supports thriving neighborhoods, which helps improve quality of life, a strategy in line with the New York City Regional Economic Development Council's Strategic Plan.

The relief center network would benefit NYC OEM and other local government agencies, likely supporting effective resource allocations by these agencies by enabling them to respond to emergency events more efficiently with fewer resources going to coordination efforts.

Cost-benefit analysis

A Rockaway West relief center network would provide numerous public benefits to the Community in the event of a disaster, including reducing overall risk to the well-being of residents—especially vulnerable populations. The reduced vulnerability of all Rockaway West residents justifies the relatively modest per capita cost of implementing this project. The benefits of the network would be sustainable beyond the two-year CBDG-DR funding period so long as the partnering organizations dedicate modest resources to maintain emergency equipment and update emergency plans. There are no apparent negative externalities associated with the Proposed Project. In addition, a year-round co-benefit to the Community would be the increased capacity and coordination among CBOs participating in the network.

Risk reduction

HIGH

The relief center network would reduce risk to Rockaway West residents by providing safe havens in an emergency ensuring accessible back-up power, a centralized source for information, social and support services, and more secure emergency and Recovery services. Further, investment in a relief center network would reduce the vulnerability of the organizations and community centers participating in the program.

Timeframe for implementation



Once the project has been formally initiated, it would take approximately one to two years to implement.

Project implementation would begin with a competitive bidding process that would invite local organizations meeting established criteria to apply to participate. Organizations would submit proposals with an estimated resiliency capital scope and cost as well as a proposed approach to resiliency programming. The proposal and selection process would take approximately 3 to 6 months.

Once participating organizations have been identified, organizations would create detailed plans to implement programming and capital improvements. Depending on the scope of the work, and taking into account the seasonality of construction, the capital improvement construction phase could take 6 to 12 months. Programming can be implemented in a shorter time, ideally 3 to 6 months after the program manager is on board.

The key issues that could most dramatically affect the timeframe are: the length and format of the selection process and the construction challenges that may emerge with installing back-up power, flood-proofing, or other capital improvements.

Regulatory requirements

It is anticipated that no regulatory review would be needed for the execution of this project, though all capital investments would be required to meet building codes and obtain building permits, including any modifications to construction in a flood zone. Because the sites would provide relief and not function as formal shelters or evacuation centers they would not be required to meet FEMA regulations.

It would be beneficial for the local CBOs to consult with NYC OEM as they launch the program and seek ongoing communications and coordination with NYC OEM on citywide emergency preparedness efforts. Local CBOs would also benefit from coordinating with other city agencies or local programs to bolster information and programming over time.

Jurisdiction

The relief center network would be located in Rockaway West and would fall under the jurisdiction of New York City laws. Because the sites provide relief and do not function as formal shelters or evacuation centers they would not be held to FEMA regulations.

D1: Staten Island ‘Community Emergency Resource Center’ Location and Feasibility Study [Proposed Project]

This initiative aims to study the feasibility of and potential locations for a year-round resource center for Staten Island residents and for disaster response and recovery organizations. During Superstorm Sandy, some residents did not know where to turn for resources or information, especially given communications networks which were dismantled due to lack of power. This facility, a repeated suggestion during public outreach meetings, would provide a year-round venue for information on emergency preparedness, social services, and state or federal programs prior to hazardous weather events.

The facility would also include storage for Community Response Team (CERT) equipment and training space, as well as meeting space for community preparedness. During After a disaster, the resource center could provide residents with a one-stop location for recovery resources, function as a central command center, enabling residents access to a reliable power supply, phone charging stations, food and supplies; as well as obtain post-disaster financial assistance. Serving as a distribution location rather than a shelter, this command center would then become a hub for FEMA, New York State, New York City, and local organizations to administer disaster recovery programs. This project corresponds with the recommendation for reliable power supplies, as it would be a key location for a micro-grid or other independent source of power. The facility would be maintained by a non-profit organization affiliated with the Staten Island Community Organizations Active in Disaster

(COAD) that would coordinate with the NYC OEM and for emergency management and preparedness.

The total cost of the project is estimated to be \$250,000 which includes an identification, analysis, programming, and review of potential building sites and funding sources. The study would consider various types of disasters and how the needs for disaster response may change depending on the type and scale of the event. It would seek to ensure that the recommended Community Resource Center does not conflict with any existing location for post-disaster response, and should be ADA compliant. Community outreach, coordination with disaster officials and the conceptual design is also included in the cost estimate.

Cost Estimate

Low Cost (approximately \$250,000)

Benefits or Co-Benefits

Economic Benefits

This project could create an estimated 3 full-time equivalent jobs. This project can have cost savings in terms of being able to limit the cost of having multiple command centers. An effective single center could provide both cost savings and be an effective management platform for disaster situations.

Environmental Benefits

The study would evaluate the efficacy and feasibility of a year-round resource center for Staten Island residents to provide space for disaster response and recovery organizations.

As such, this project would not directly protect natural or cultural resources.

Health and Social Benefits

The proposed project has the potential to impact all of Staten Island, which has a population of 472,038. This project does not secure a specific health and social services facility.

Cost-Benefit Analysis

Superstorm Sandy demonstrated a need for a central community resource center on the Island that would provide disaster preparedness resources during clear weather and serve as a one-stop resource center following disaster events. The total proposed project cost of \$250,000 is a modest investment that can yield high returns by improving the efficiency of emergency response operations, reducing government expenditures for future storm events.

Anticipated Reduction of Risk

This project, while not reducing the risk of assets from flooding and storm activity, would reduce the *vulnerability* of residents and visitors in Staten Island by providing a recovery center for residents and for disaster response and recovery organizations.

This project is expected to provide a reduction of risk to all residents living in Staten Island by providing a central location where residents can obtain recovery resources following a disaster and get education and disaster preparedness resources year-round. According to data from

Staten Island East & South Shores

census blocks in the area, this is a population of 472,038. Specific characteristics of the population can be found in the health and social benefits subsection above.

Timeframe of Implementation

Immediate (<2 years)

Regulatory Requirements

No permits should be required. Coordination with emergency management officials including NYC OEM, NYS DHSES and FEMA, as well as communities will be necessary.

Entity with Jurisdiction

New York State Division of Homeland Security and Emergency Services (DHSES)