

Breezy Point Community Reconstruction

Conceptual Plan
October 2013



This document was developed by the Breezy Point Planning Committee as part of the NY Rising Community Reconstruction (NYRCR) Program within the Governor's Office of Storm Recovery. The NYRCR Program is supported by NYS Homes and Community Renewal, NYS Department of State, and NYS Department of Transportation. Assistance was provided by the following consulting firms: HR&A Advisors, Parsons Brinckerhoff, Beyer Blinder Belle, Mathews Nielson, OpenPlans, and Hammes Company. All photographs were taken by the planning team unless otherwise noted.

Foreword

The New York Rising Community Reconstruction (NYRCR) Program was established by Governor Andrew M. Cuomo to provide additional rebuilding and revitalization assistance to communities damaged by Superstorm Sandy, Hurricane Irene, and Tropical Storm Lee. This program empowers communities to prepare locally-driven recovery plans to identify innovative reconstruction projects and other needed actions to allow each community not only to survive, but also to thrive in an era when natural risks will become increasingly common.

The NYRCR Program is managed by the Governor's Office of Storm Recovery in conjunction with New York State Homes and Community Renewal and the Department of State. The NYRCR Program consists of both planning and implementation phases, to assist communities in making informed recovery decisions.

The development of this conceptual plan is the result of innumerable hours of effort from volunteer planning committee members, members of the public, municipal employees, elected officials, state employees, and planning consultants. Across the state, over 102 communities are working together to build back better and stronger.

This conceptual plan is a snapshot of the current thoughts of the community and planning committee. The plans will evolve as communities analyze the risk to their assets, their needs and opportunities, the potential costs and benefits of projects and actions, and their priorities. As projects are more fully defined, the potential impact on neighboring municipalities or the region as a whole may lead to further modifications.

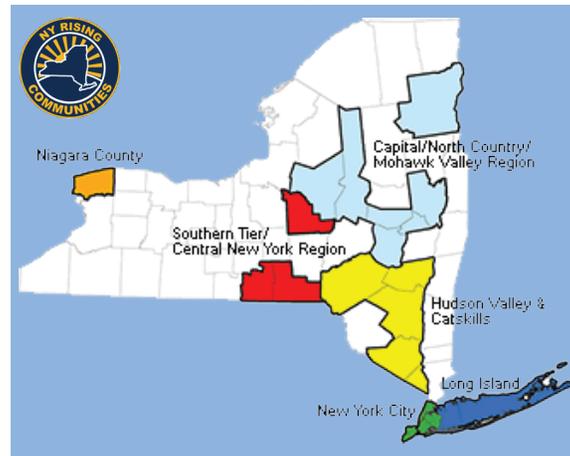
In the months ahead, communities will develop ways to implement additional strategies for economic revitalization, human services, housing, infrastructure, natural and cultural resources, and the community's capacity to implement changes.

Implementation of the proposed projects and actions found in this conceptual plan is subject to applicable federal, state, and local laws and regulations. Inclusion of a project or action in this conceptual plan does not guarantee that a particular project or action will be eligible for Community Development Block Grant – Disaster Recovery (CDBG-DR) funding. Proposed projects or actions may be eligible for other state or federal funding, or could be accomplished with municipal, nonprofit or private investment.

Each NYRCR Community will continue to engage the public as they develop a final plan for community reconstruction. Events will be held to receive feedback on the conceptual plan, to provide an understanding of risk to assets, and to gather additional ideas for strategies, projects and actions.

October 31, 2013

New York Rising Communities



Find out more at:

StormRecovery.ny.gov/Community-Reconstruction-Program



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I. Introduction

NY Rising Community Reconstruction Program

The NY Rising Community Reconstruction (NYRCR) Program was established to provide additional rebuilding and revitalization assistance to communities severely damaged by Superstorm Sandy, Hurricane Irene, and Tropical Storm Lee. It will enable communities to identify reconstruction and resiliency projects that address current damage, future threats and economic opportunities. In connection with the program, New York State has allocated funds for community planning in 50 communities across the State, 10 of which are in New York City.

New York State has allocated up to \$19.5 million to Breezy Point in Community Development Block Grant Disaster Recovery (CDBG-DR) funding from the U.S. Department of Housing and Urban Development (HUD). These funds can be used for a wide variety of short and long-term recovery and resiliency projects, and Breezy Point will be eligible to receive additional project funding from federal, state, and local sources. Regional coordination with other Jamaica Bay and Rockaway Peninsula communities will be considered and may increase eligibility for additional funding.

As shown on the next page, this process will include five steps:

1. Identify **Assets, Risks, Needs and Opportunities**
2. Define **Community Vision**
3. Identify, Evaluate, and Prioritize **Projects and Actions**
4. Identify **Funding Sources** and Develop **Implementation Plan**
5. Create Final Community Reconstruction Plan

The plan will focus on needs, opportunities, and projects that address six recovery functions: Community Planning and Capacity Building, Housing, Economic, Health and Social Services, Infrastructure Systems, Natural and Cultural Resources.

Each NY Rising Community is led by a Planning Committee made up of community leaders and residents. The Planning Committee is taking the lead in developing the content of the plan. Breezy Point’s Planning Committee consists of: Denise Neibel (Chair), Tom Bach, Joanne Fogarty, Steven Greenberg, Marty Ingram, Kathleen McEnroe, Pete Mulholland, Arthur Smith, and Robert Taikina.

The State has also provided each NY Rising Community with a planning team to help prepare a plan. The New York State planning team includes:

Regional Leads Claudia Filomena and Chelsea Muller; NYC Lead Planner Steve Ridler; and Breezy Point Community Planners Fred Landa and Ken Smith. The planning consultanting team is led by HR&A Advisors (project management, community planning, economic development and housing analysis) and Parsons Brinckerhoff (planning, coastal protection, infrastructure engineering, and natural/coastal management). They are being supported by Beyer Blinder Belle (urban design), Mathews Nielsen (landscape architecture), OpenPlans (participatory mapping), and Hammes Company (healthcare).

The planning process will produce two deliverables for public review:

Conceptual Plan (this document):

- Community Context
- Storm Impacts and Risk
- Rebuilding and Resiliency Planning
- Additional Considerations: Regional Perspectives and Existing Plans
- Preliminary Strategies, Projects, and Actions

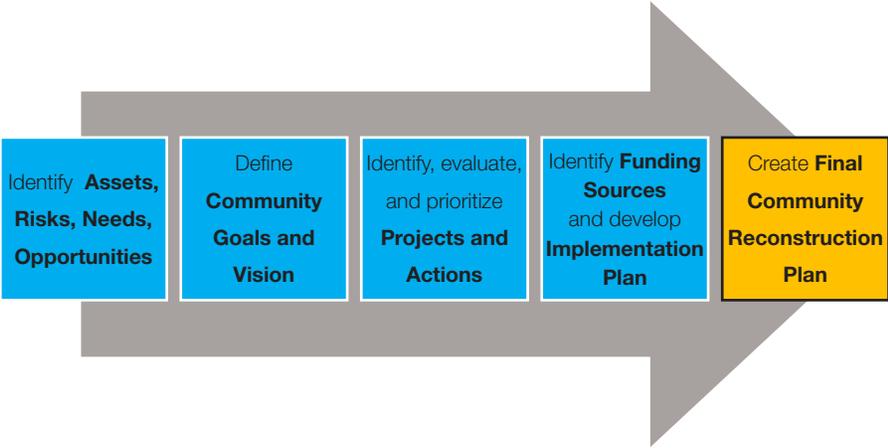


NYRCR Work Schedule

- Planning Committee Meeting
- Public Meeting
- Deliverable Due Date

Deliverables	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Work Plan		●					
Vision, Assets & Risk Assessment	1	●					
Conceptual Plan		2	1	●			
List of Strategies			2	3	●		
List of Priority Projects					●		
Community Reconstruction Plan						4	3
						5	4
							●

5-Step Process



NY Rising Communities in New York City





Final Community Reconstruction Plan (Spring 2014): The second report will include a more in-depth discussion of the below:

Overview

- Geographic Scope of Plan
- Description of Storm Damage
- Critical Issues
- Community Vision
- Relationship to Regional Plans

Assessment of Risk and Needs

- Community Assets
- Assessment of Risk to Assets
- Assessment of Risk to Systems
- Assessment of Needs and Opportunities

Reconstruction Strategies

- Community Planning and Capacity Building
- Economic Development
- Health and Social Services
- Housing
- Infrastructure
- Natural and Cultural Resources

Implementation Schedule

- Schedule of Implementation Actions

Appendices

- List of Planning Committee Members
- Description of Public Engagement Process
- Description of Priority Projects and their Costs and Benefits
- Inventory of Assets

Approach to Public Outreach

Because NYRCR is a community driven process, informing people of the program and encouraging maximum involvement is essential. Both outreach and community engagement are critical to identifying needs and priorities, setting direction, and ensuring the success of the final plan.

Outreach

The Breezy Point Planning Committee’s public outreach strategy focuses on leveraging Breezy Point’s robust community distribution channels, including: the Breezy Point Cooperative (website, mailing list, and monthly bulletin), the Rockaway Point News, and the Roxbury, Rockaway Point, and Point Breeze Associations (mailing lists). The Committee has taken the lead in sending out flyers and other outreach materials to community members, with support from the State and the consulting team as needed. As the presidents of each association sit on the Planning Committee, the group is well-positioned to identify and harness additional distribution channels to ensure maximum

outreach and engagement, particularly with regards to vulnerable populations.

Maintaining engagement over the eight month program will require ongoing outreach, and the Committee will continue to evolve its approach to communicate key NYRCR information as broadly as possible.

Public and Committee Meetings

There will be a total of four public meetings before the finalization of the Community Reconstruction Plan, one of which has been held to date. The meetings will cover the following subjects:

- **Public Meeting #1 (October 2, 2013)** – Program Scope, Goals, and Timeline; Feedback on Vision, Community Assets, and Needs and Opportunities
- **Public Meeting #2 (November 2013)** – Contents of Draft Conceptual Plan; Gather feedback on Strategies, and Projects
- **Public Meeting #3 (January 2014)** – Analysis and Prioritization of Strategies, Projects, and Actions
- **Public Meeting #4 (February 2014)** – Final Plan

Each public meeting is designed to maximize interaction between members of the public, the Planning Committee, and the consulting team. Members of the public are also welcome to attend the five (minimum) Planning Committee meetings that will occur by March 31, 2014.



Online Engagement

The **NYRCR homepage** is a valuable online resource, located at <http://stormrecovery.ny.gov/community-reconstruction-program>. Each community in the Program has a dedicated page, which includes notices for all meetings and houses all meeting materials. It also includes links for visitors to review information about the program, directly contact NYRCR staff, and visit the program's Facebook page. The Breezy Point page is located at <http://stormrecovery.ny.gov/nyrcr/community/breezy-point>.

Residents can submit comments via the website or email: info@stormrecovery.ny.gov. All public input will be incorporated into the plan in progress.

The public may also provide input via the online interactive mapping tool which can be accessed at <http://nyrisingmap.org/>.

The online map will allow users to click on assets in the community and provide three types of input:

- Confirm important **community assets** and information
- Identify **recovery and resiliency needs**
- Provide Ideas for **rebuilding and resiliency**

The Conceptual Plan and Final Community Reconstruction Plan will include public input on:

- Community **asset information**
- Analysis of storm **recovery and resiliency needs** identified by the community to help to identify common threads and issues
- Ideas for **projects and actions** for rebuilding and resiliency will be assessed in order to draft a priority list in the final plan



Breezy Point Public Meeting 1, October 2, 2013



II. Community Context

Geographic Scope

The Breezy Point planning area was defined by the Planning Committee according to multiple factors, where damage resulted from Sandy, local understanding of community boundaries, areas where assets are most at risk, and where reconstruction or future construction should be encouraged. The planning area includes the neighborhoods of Breezy Point, Rockaway Point, and Roxbury. The map on this page indicates the planning area designated by the Planning Committee.

Breezy Point is located on the westernmost end of the Rockaway Peninsula in Queens. It includes an Atlantic Ocean-facing beach and a shoreline on Jamaica Bay. Breezy Point Tip, at its westernmost end, is part of the U.S. National Park Service's Gateway National Recreation Area. To the east of the planning area are two major recreational beach destinations, Fort Tilden (also part of Gateway Park) and Jacob Riis Park, as well as the Marine Parkway Bridge, a major route connecting the western end of the Rockaway Peninsula to southern Brooklyn.

Breezy Point Planning Area



Two views of Breezy Point's housing stock



Community Overview

The Breezy Point Cooperative owns the entire 500-acre community and maintains infrastructure, public space, sidewalks and roadways, streetlights, and its own buildings. Residents own their homes and hold shares in the cooperative. All of the 2,837 homes in the community are single-family homes.

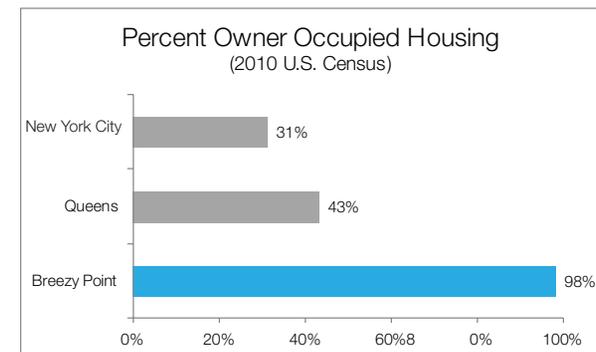
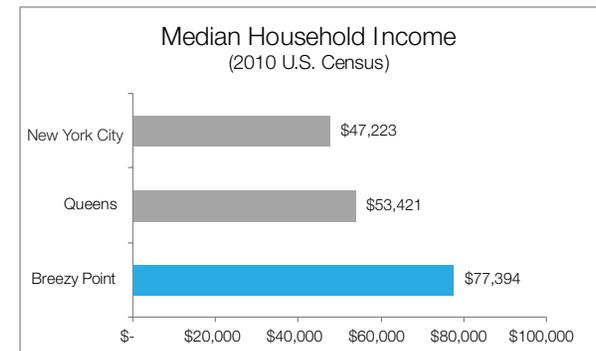
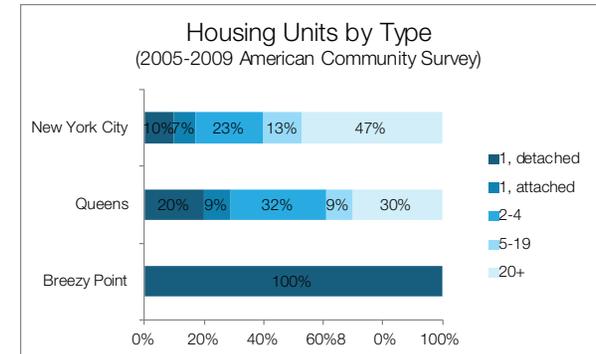
Breezy Point serves as both a year-round place of residence as well as a summer getaway. The 2010 U.S. Census indicated that Breezy Point contained 4,300 year-round residents and approximately 12,000 summer residents; however, these numbers are likely to have fallen since the storm.

While incomes vary, Breezy Point residents have relatively higher incomes than residents in the rest of the City, with a median household income of \$77,000 in 2012.

According to the Census, the median age of permanent residents in Breezy Point in 2010 was 49.3 years, as compared to 35.5 in New York City as a whole and 37.2 for Queens. Excluding younger summer residents could suggest an even larger component of aging population. As such, it is important to consider the accessibility challenges related to rebuilding and resiliency planning for Breezy Point's senior population.

The housing stock and lot formation in Breezy Point makes it vulnerable to natural disasters and other emergencies. While lower than the citywide average, 49 percent of homes were built before 1960, and many are constructed of combustible materials. Further, the lot sizes and proximity of the homes make them harder to access in an emergency. These characteristics were associated with greater damage from Sandy's impacts; the NYC Mayor's Office's Special Initiative for Rebuilding and Resiliency (SIRR) report found that 95 percent of buildings in New York City tagged by the NYC Department of Buildings as red (for structural damage) or destroyed were built before 1961.

(Sources: U.S. Census 2010; American Community Survey 2005-2009; ESRI 2012 Population Estimates; NYC Mayor's Office SIRR Report)





III. Storm Impacts and Risk

Summary of Storm Impacts

The combination of high tide, a full moon, and Superstorm Sandy created a massive surge of water that devastated many of the exposed coastal communities of the Rockaways. Beyond the storm and the emergencies in its immediate aftermath, all residents have been affected in some way by building damage, extended power and utility outages, lasting transportation disruptions, displacement, and financial hardship.

Situated at the far end of the Peninsula, the beachfront community of Breezy Point was hit hardest. High-velocity waves struck directly from the ocean side, lifting the first row of houses off their foundations and onto those behind. Ocean water punched through the dunes along beach access walkways and flowed onto Breezy Point's main street. The force of ocean waves, reaching record-breaking heights, also pushed significant volumes of sand up into these communities. Meanwhile, rising waters in Jamaica Bay poured into the community and the ocean met the bay.

Because water flooded Breezy Point from both sides, literally no home was left untouched. Flood waters soaked properties, filling basements, and in many cases, rising several feet into ground floors. The market building in Roxbury, two waterfront commercial buildings, and the Breezy Point security barracks were destroyed. Sandy damaged Breezy's roadways and sidewalks. In

addition, the community's ball fields—a gathering place for residents to root for local softball teams—were inundated.

By damaging electrical power systems, the storm also sparked fires that rapidly spread between homes and burned through the night. Flooding prevented emergency responders from reaching the fires, which eventually consumed 135 homes. The spread of the fire was also facilitated by the concentration of wood frame, densely packed homes. Overall, a total of 355 homes were lost as a result of Sandy, more than 10 percent of the community's 2,800 houses.

Critical bridges and roadways that provide the primary access in and out of the Rockaways were severely impacted. The Marine Parkway-Gil Hodges Memorial Bridge and Cross Bay Veterans Memorial Bridge closed in advance of Sandy. Residents who did not evacuate were stranded without services for several days until the bridges reopened. While less critical for mobility in Breezy Point, the storm knocked out the A train subway line, breaking public transit connections to the area.

Other major infrastructure outages affected power, natural gas, and water supplies. Damages to the Long Island Power Authority (LIPA) power system left Breezy Point residents without power for weeks. National Grid's natural gas system

was impaired and not fully online until spring 2013, and the water supply system had to be repaired and flushed. Residents were advised to not drink the water for a period after the storm until the NYC Department of Health declared it safe.

Local volunteer fire departments were also affected. The Rockaway Point Fire Department lost all equipment, and the Point Breeze Fire Department lost a utility vehicle.

Jacob Riis Park, to the east of the Breezy Point communities, suffered significant damage to the parking lot and bathhouse; and the dune protection system fronting Fort Tilden was lost to the storm.

Recovering from the Storm

Rebuilding homes is cited by the community as an urgent issue. In the days after the storm, contractor vans and trucks filled the streets of Breezy as homeowners began to repair their homes. While some homeowners have recovered from Sandy damage, many houses remain damaged or under repair and many residents are still unable to return to their homes. Permitting and funding are both challenges in the rebuilding process. And while the City is running a comprehensive program to rebuild destroyed homes and rehabilitate damaged ones, the process has been slower than expected.

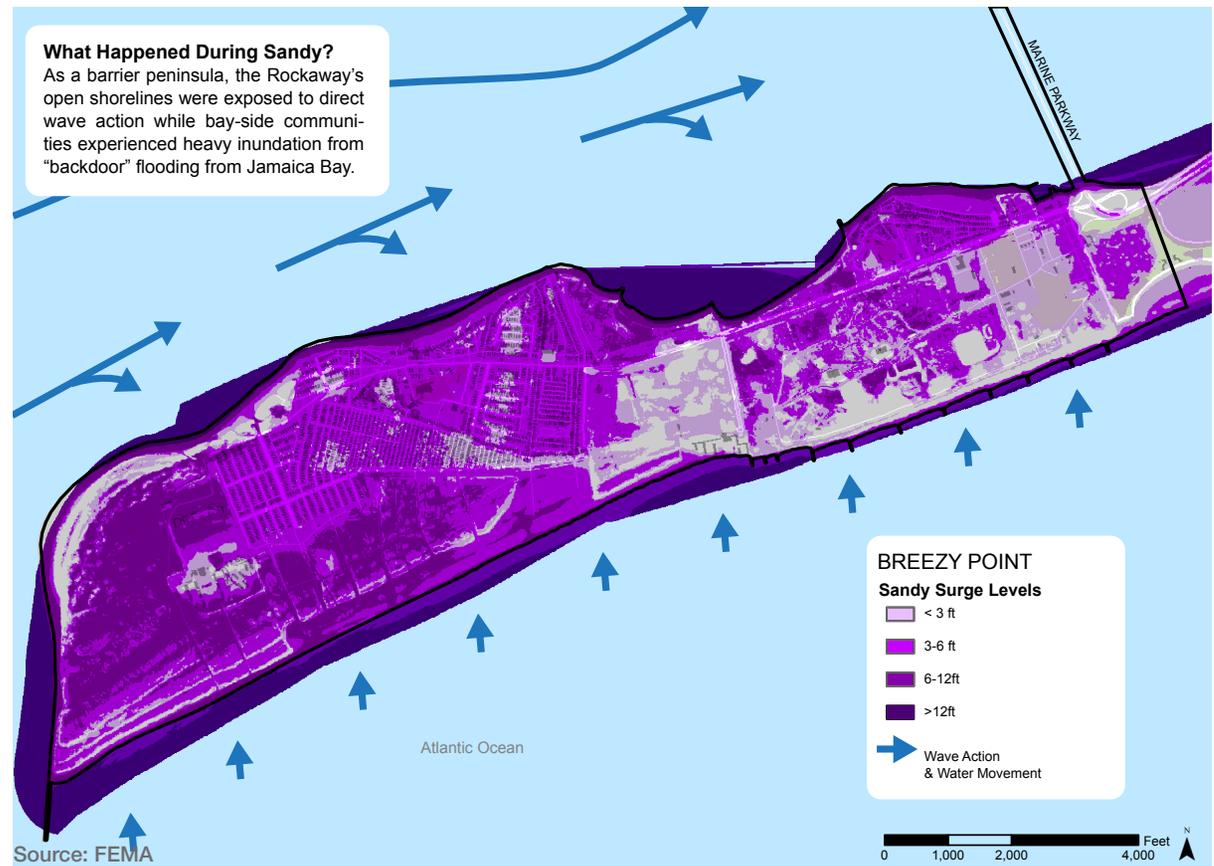


Further, many residents are concerned about rising flood insurance rates.

All roads and most sidewalks have been repaired, as have the community's gas mainlines. Because of the damage to the A train, temporary ferry service was put in place between the Rockaways and Manhattan roughly two weeks after the storm hit. The ferry service is popular but currently is planned to run only through January 2014. A train service was restored at the end of May 2013, after the causeway that connects the Peninsula to Howard Beach was repaired. MTA New York City Transit is investing in a sea wall to prevent future destruction of the embankment.

The Breezy Point Cooperative has also been highly active in the recovery of the community. The community cheered as its softball fields were repaired in time for summer 2013 league play. The Coop recently began a small section of a potential long-term comprehensive dune project, built with its own funds and staff. It continues to explore additional recovery and resiliency projects.

What Happened During Sandy?



The Breezy Point "fire zone" after Sandy

Photo sources: Flickr, John Brandt; Flickr, Sarah Gross



U.S. Army Corps of Engineers personnel survey the damage



Future Risk

Located at the tip of the Rockaway Peninsula, Breezy Point is highly exposed to multiple risks from coastal storms. On the Atlantic side, the community is exposed to heavy wave action. While less subject to wave action, storm surge from the Rockaway Inlet side of the Peninsula is nevertheless a major threat as well. Risk of coastal flooding will continue to increase with rising sea levels. The majority of the Breezy Point planning area lies in the extreme and high risk zones according to New York State Department of State (NYS DOS) risk analysis.

New York State Department of State Risk Zones

While FEMA's flood insurance rate maps incorporate detailed analysis of possible storm scenarios, they do not consider future factors such as sea level rise. In order to map and assess risk, taking into account sea level rise and differences in exposure of the landscape, NYS DOS developed its own Risk Assessment Area Mapping tool that takes additional factors into account. In addition to the FEMA flood zones, these factors include: a sea level rise estimate of three feet, areas expected to be inundated by a category 3 hurricane, areas subject to shallow coastal flooding, and areas of the coast subject to shoreline erosion. Considering these factors, the state established three risk assessment areas:

- **Extreme:** Areas currently at risk of frequent inundation and vulnerable to erosion and heavy wave action (in the FEMA V-Zone,

meaning the area is subject to hazards associated with storm-induced waves over 3 feet), subject to shallow coastal flooding (within the National Weather Service's shallow coastal flooding advisory threshold), or likely to be inundated in the future due to sea level rise (assumption of 3 feet).

- **High:** Areas outside the Extreme Risk Area that are currently at risk of infrequent inundation (in the FEMA A-Zone, meaning there is a 1 percent annual chance of flooding) or at future risk of shallow coastal flooding with sea level rise (assumption of 3 feet).
- **Moderate:** Areas outside the Extreme and High Risk Areas but currently at moderate risk of inundation from infrequent events (in the FEMA shaded X-Zone, meaning there is a 0.2 percent annual chance of flooding) or at risk of being in the 100 year floodplain with sea level rise (assumption of 3 feet), and any areas expected to be inundated by a category 3 hurricane.

A more detailed description of the State's Risk Assessment Area Mapping Methodology can be found on the NY Rising website, as can a link to an online viewer for the risk assessment area maps, at <http://stormrecovery.ny.gov/community-reconstruction-program>.



IV. Rebuilding and Resiliency Planning

Process Overview

The NY Rising Community Reconstruction Program contains five key steps for rebuilding and resiliency planning. This section summarizes the outcomes of the two steps of the NYRCR process that have been completed thus far: Identifying Assets, Needs and Opportunities, and Defining Community Goals and Vision.

Through a series of Planning Committee and Public Meetings, the Breezy Point community:

- **Identified community assets and risks, noting** places or resources within the

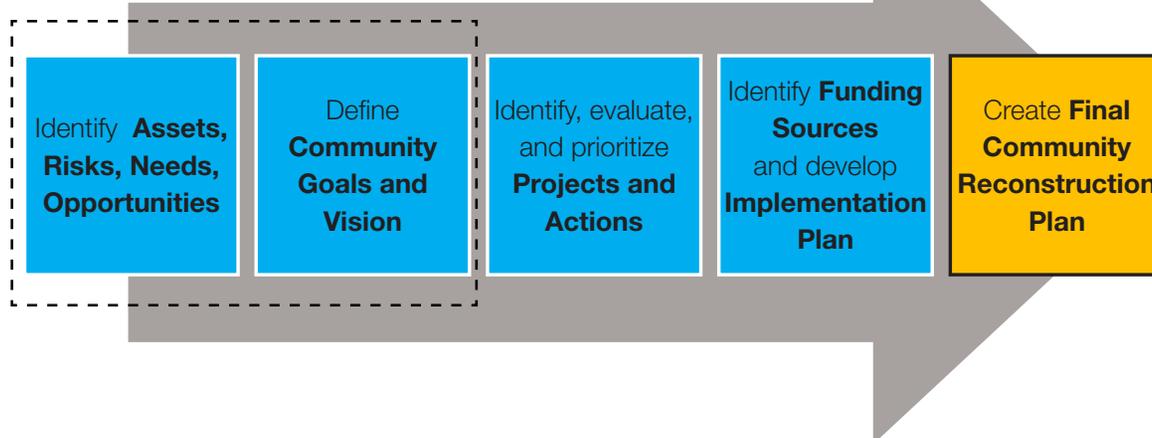
community that residents value and/or deem at risk.

- **Defined community needs and opportunities by evaluating the issues and challenges** as well as the resources presented by the unique landscape, housing, economies, demographics, and services within the community. These recovery and resiliency needs and opportunities may be associated with a specific asset or apply to a community as a whole.

- **Established short and long-term goals** and an overall vision for resiliency and recovery in the Breezy community.

The results of this collective work will support the next steps in the rebuilding and resiliency planning process, starting with drafting strategies and identifying potential projects in November 2013. Content completed in the first two steps will evolve through the process and revised content will be presented in the Final Community Reconstruction Plan delivered at the end of March 2014.

Steps Completed





Community Assets

Assets include a variety of places and resources within a community. They may facilitate economic and social activities in a community, or may refer to critical infrastructure required to support those activities. Assets may also be part of the built or the natural environment.

The goal of the asset inventory process is to assemble a complete description of the assets located within a community, targeting assets whose loss or impairment due to flood and storm events would compromise essential social, economic, or environmental functions or critical facilities of a community. The inventory aims to include sufficient information to assess risk to the assets under current and future conditions.

The Breezy Point asset inventory has been developed based on a combination of public data and input from the Planning Committee and the public. The first draft of an asset inventory was presented at the first Planning Committee Meeting. The inventory was organized according to the six key NYRCR recovery functions: Community Planning and Capacity Building, Economic Development, Health and Social Services, Housing, Infrastructure, and Natural/Cultural Resources.

The inventory and associated map were initially generated using publicly available land use and infrastructure data to identify assets within the planning study area. (The primary data source used was the New York City Department of City Planning's MapPluto data, release 13v1.) The building class values in the MapPluto data were

assigned to the appropriate asset class categories defined in the NYRCR Program guidance.

The maps were refined with input from the Committee and then presented at the first Public Meeting, where residents identified any missing assets and identified priorities. The Committee then reviewed and confirmed the inventory.

Additional public input on assets will be captured through an online community asset map. This interactive map will be available online throughout the NYRCR process, at <http://www.nyrisingmap.org>.



Beachfront homes



A playground rebuilt after the storm



A view of Rockaway Inlet from Breezy Point

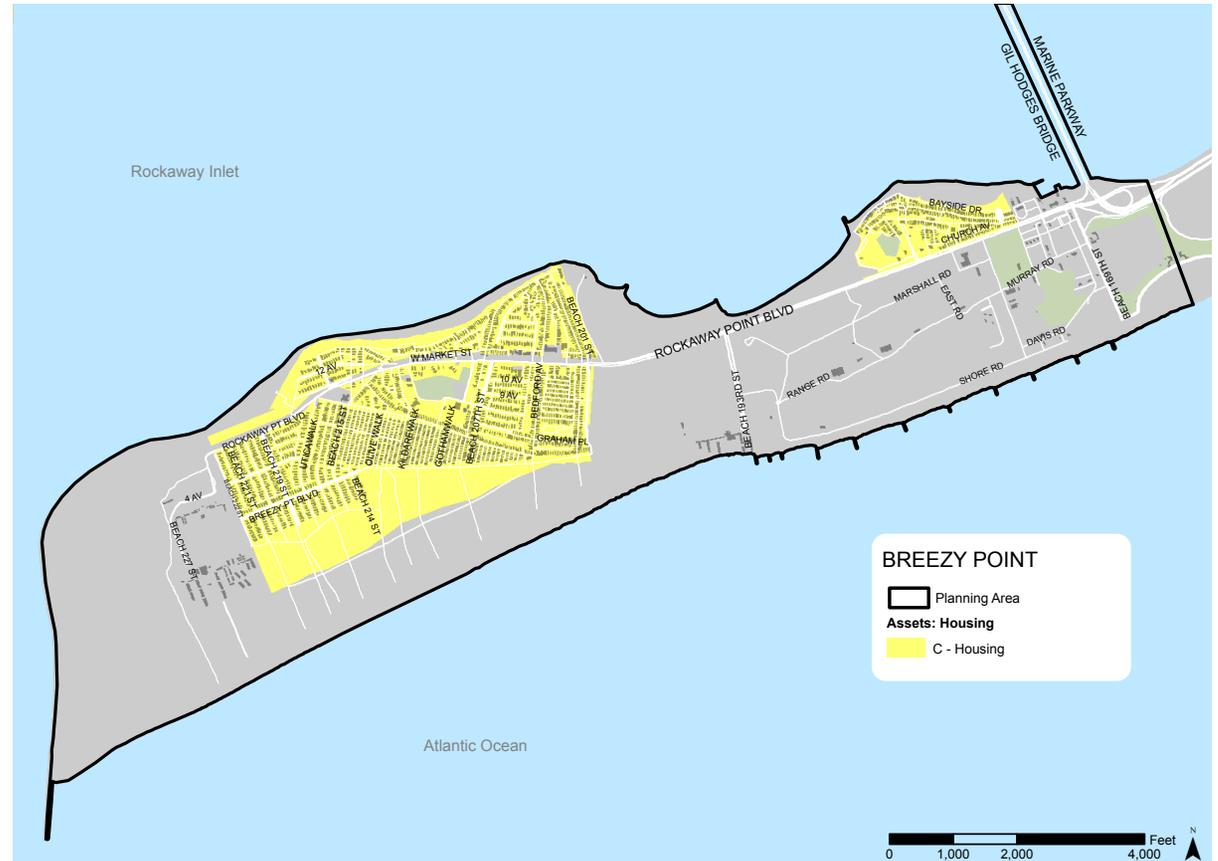


Housing Assets

Breezy Point residents identified housing assets as more critical than any other asset.

Hundreds of homes across Breezy Point, Rockaway Point, and Roxbury were destroyed as a result of Superstorm Sandy, but all homes were flooded and many continue to be at high risk going forward.

Housing Asset Map



Source: NYC Department of City Planning MapPluto, 13v1



Housing, the community's most valued asset

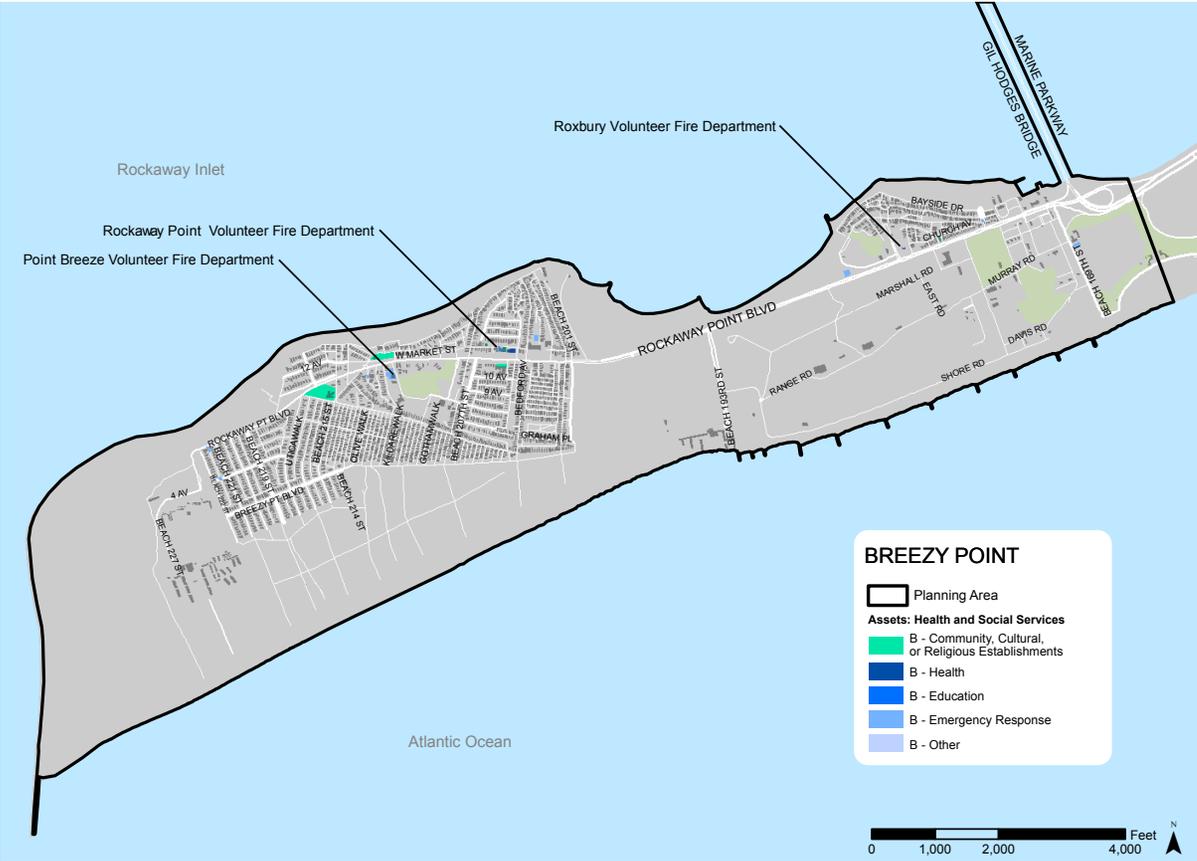


Health and Social Service Assets

Overall, the Breezy Point communities do not have many health or social services on site, and many residents travel to reach such services. However, unlike most communities across New York, the Breezy Point Cooperative provides basic services in addition to or instead of City-administered services. These include the **Point Breeze Volunteer Fire Department, Rockaway Point Volunteer Fire Department, and Roxbury Volunteer Fire Department**, which were also identified as critical.

Further, houses of worship were identified as important community gathering places and although there was general concern about the lack of health services immediately available on the Peninsula, the existing medical facility was not considered a high-priority asset.

Health and Social Service Asset Map



Source: NYC Department of City Planning MapPluto, 13v1



Infrastructure Systems Assets

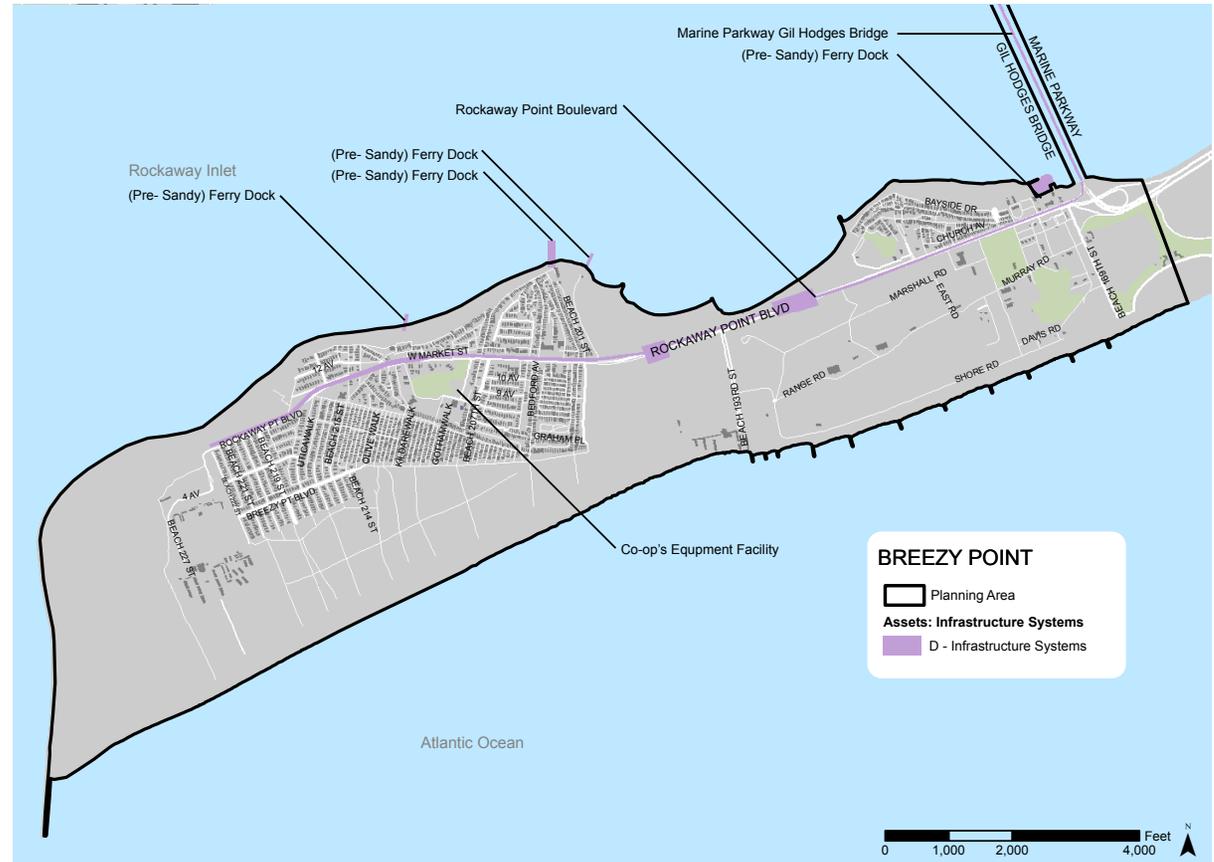
There are a number of critical infrastructure assets in Breezy. Given the community's small size and constrained connections to other areas, its critical infrastructure lacks redundancy, making the area more vulnerable.

Rockaway Point Boulevard is the only access route to Breezy Point and the Marine Parkway-Gil Hodges Memorial Bridge connects the western portion of the Rockaway Peninsula to Brooklyn. Both of these assets were compromised during Sandy and deemed critical by the community.

The LIPA transmission lines, the New York City water supply system, and the National Grid natural gas mains along Rockaway Point Boulevard were also identified as critical and at high risk. **Communications infrastructure**, which currently lacks redundancy, was highlighted as critical for emergency notification as well as personal communications.

The community called attention to **four docks** that existed before Sandy that could provide critical access for emergency relief after a disaster. **The Breezy Point Cooperative maintenance equipment facility**, which stores the equipment needed for cleanup after a storm, and was also deemed critical.

Infrastructure Systems Asset Map



Source: NYC Department of City Planning MapPluto, 13v1



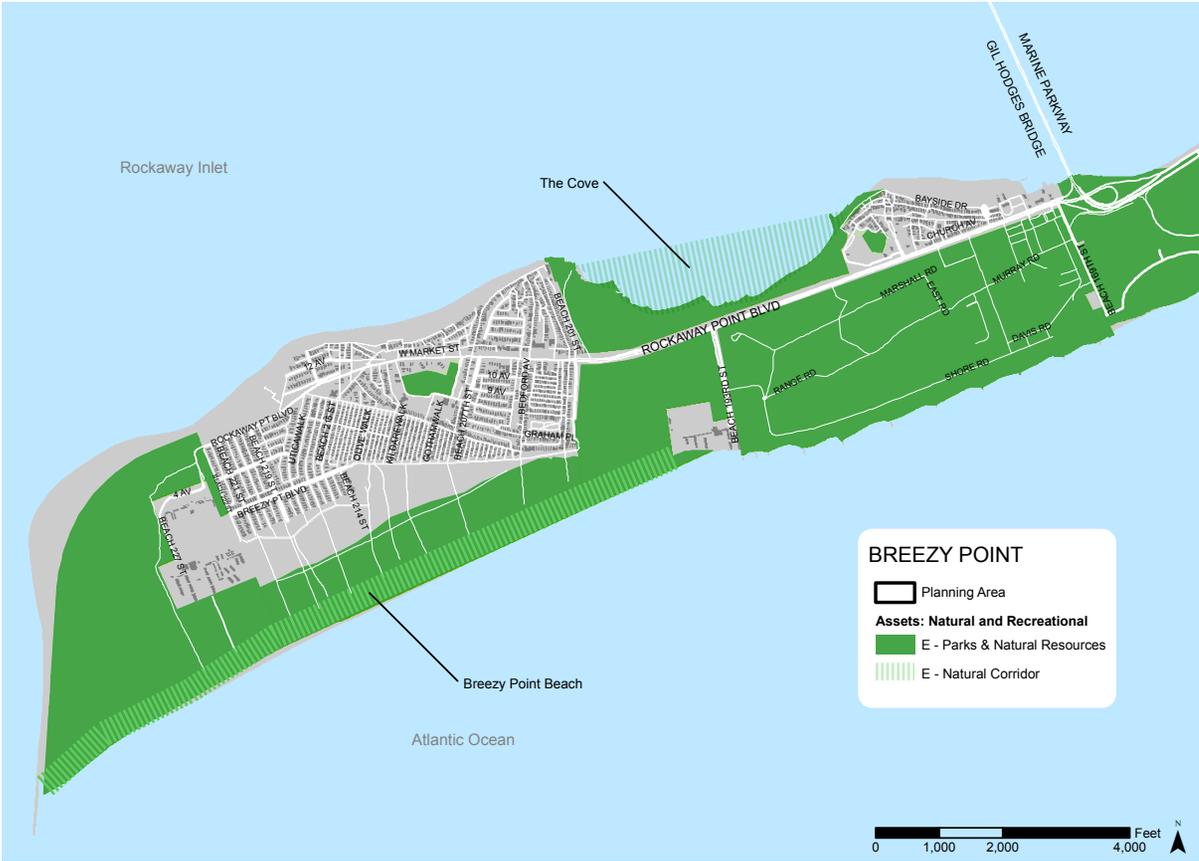
Natural and Cultural Resource Assets

The Breezy Point beaches were identified as critical because they serve a dual role of providing recreational areas and protecting against future storms.

The Cove was also deemed critical in that it is an important access point to the community and further erosion to the Cove could compromise Rockaway Point Boulevard—the only road in and out of the community.

Breezy has a number of other recreational and cultural amenities, such as sports fields, a lighthouse, and a 9/11 memorial. These assets may not be considered critical assets in the face of a life-threatening storm; however, the community highly values them and would like to protect them as part of larger community resiliency projects.

Natural and Cultural Resource Assets



Source: NYC Department of City Planning MapPluto, 13v1



Needs and Opportunities

This section identifies Breezy Point's needs and opportunities. This includes what it **needs** to be safe and sustainable in the face of extreme events, emergencies, and impacts of climate change. It also identifies **opportunities** that exist within the community that can be taken advantage of to better address the community's resiliency goals—such as underutilized assets, vacant land, or other existing resources.

Identifying these needs and opportunities is an important part of the NY Rising Community Reconstruction process because it reflects the community's knowledge of risks, challenges, unmet demands, and untapped potential across the neighborhoods in the community.

The Planning Committee drafted an initial list of needs and opportunities based on risks, the asset inventory, and its first-hand experiences. The list, categorized by the six recovery functions, was then vetted and updated by community residents at Public Meeting 1. The table on this page presents the summary of needs and opportunities for Breezy Point, categorized by asset type, and notes the number of times the public mentioned each. The detailed suggestions from the Committee and the community can be found in the following page.

Through aggregating the list of comments from the public and Planning Committee into categories and quantifying the number of times these categories were mentioned at the public meeting, a clear

Needs and Opportunities Summary

Asset Category	Needs & Opportunities	Times Mentioned
OVERALL	Hardening edge	20
INFRASTRUCTURE	Resilient power and utilities	12
	Improved water/sewer systems	8
	Accessibility, roads, circulation	7
HOUSING	Protection of physical structures	12
	Financial stability	7
HEALTH & HUMAN SERVICES	Improved health services	2
	Strengthened emergency services	1
NATURAL & RECREATION	Beach/bay amenities and facilities	7
ECONOMIC DEVELOPMENT	Commercial building protection	7

hierarchy of needs and opportunities for Breezy Point begins to emerge.

Strengthening the Edge

By a considerable margin, Breezy Point residents identified strengthening the edge as their number one priority. Whether it be through the construction of a bay wall, sand replenishment and erosion protection in Roxbury, or an extension of the dune project currently being undertaken by the Coop, Breezy Point residents' most immediate concern is keeping water out of their community in order to protect all assets. Because the edge does not stop at the boundary of the community, any solutions will require coordination with the adjacent National Park Service, the broader peninsula, and

Jamaica Bay. For example, land owned by the National Park Service separates Roxbury from the rest of Breezy Point, meaning that the full edge of the community cannot be strengthened without coordination.

Resilient Housing and Utilities

The need to make the community's most important assets, housing and vital infrastructure, more resilient was the second most mentioned category of needs and opportunities. These include the need for "protection of physical (housing) structures" and ensuring "resilient power and utilities" within infrastructure assets. In other words, resiliency measures should be incorporated into housing and infrastructure systems, especially



Public Meeting 1: Representative Comments on Needs and Opportunities

OVERALL

Strengthening edge

"Protection - dune system"
 "Seawall around the entire bay"
 "Sand replenishment along bayside throughout Roxbury"

INFRASTRUCTURE

Resilient power and utilities

"Solar power lights that don't depend on the grid."
 "Wind generated power to offset infrastructure costs"
 "Wind farm for power generation"
 "Central control for emergency gas/elec shutdown"
 "Rebuild electrical underground."
 "Look into solar panels to support pumping system. (Solar engineer co advice needed) or diesel or propane backup."
 "Take BP off grid through solar or wind generation site"
 "Solar farm potentially over parking areas"
 "Wind mills to generate electricity for emergency"

INFRASTRUCTURE

Improved water/sewer systems

"Drainage around the community/attenuation"
 "Drainage issues for regular rain events – flooding"
 "Roxbury to hook into existing sewer trunk line on main road"
 "Hook into City sewer system"
 "Improve drainage around housing"
 "Raise houses and put in a sewer system"
 "Drainage but not sure how you'd do it. Pumping system?"

INFRASTRUCTURE

Accessibility, roads, circulation

"Seasonal sea wall/access to beach walks"
 "Assess safety and condition of sidewalks."
 "Raise grade for Old Rockaway Pt. area"
 "Address gravel parking lots which have become DUSTBOWLS & VERY POOR air quality"
 "Need beach access over dunes for beach cleaning truck & garbage from the beach."
 "How will emergency & beach cleaning vehicles access ocean beach if there is a continuous dune line"
 "Raise all sidewalks"

HOUSING

Protection of physical structures

"Raising homes"

HOUSING

Financial stability

"Cost prohibitive regulation [to] prevent elevation of houses above flood zone."
 "Cost of flood insurance too expensive in future?"

HEALTH & HUMAN SERVICES

Improved health services

"Need for a hospital"

HEALTH & HUMAN SERVICES

Strengthened emergency services

"Bigger emergency care centers"

HEALTH & HUMAN SERVICES

Beach/bay amenities & facilities

"Bigger emergency care centers"
 "Replace docks not only recreation but serve as emergency evac by boat."
 "Raise grade of ballfield & recreation areas"
 "Elevated boardwalk (cement) near new dunes"

ECONOMIC DEVELOPMENT

Commercial building protection

"Protect commercial areas from flooding"
 "Grants available to business & local establishments"
 "Move all commercial buildings outside gated area"



in case the first line of defense at strengthened bay and ocean edges is breached. Protecting these assets is important not just in an immediate surge event, but also in case the water level remains elevated for an extended period of time.

Improved Water/Sewer Systems

Improving the ability to better manage water in the community is another major concern for Breezy Point. This entails everything from creating systems to pump water in (e.g. for fires) or out (e.g. standing flood water) in an emergency to the need for overall “Improved water/sewer systems.” Unlike most of New York City, Breezy Point does not have an integrated sewer system, but rather relies on septic systems that are compromised by a rising water table. Regardless of whether the edge is protected or other measures are put in place to protect built infrastructure, the Committee raised overall water and sewer management as a critical need.

Accessibility, Roads, Circulation

Other categories consistently cited include the need for improved accessibility, roads, and circulation; beach/bay amenities and facilities; and commercial building protection. Accessibility is particularly important, as only one major thoroughfare exists—Rockaway Point Boulevard—to connect these communities to the

rest of the Peninsula. This road is vulnerable, as it is adjacent to land that is eroding in the Cove. Further, because some of the roads and pathways that lead to neighborhoods are small and unpaved, the community needs improved emergency access to and from individual homes.

New and/or improved “beach/bay facilities” and “commercial building protection” round out the most-frequently mentioned needs and opportunities. Some of the beach and bay facilities named support emergency operations and evacuation. Commercial building protection was cited as important to providing vital supplies and allowing the community to be temporarily self-sufficient in the wake of a storm or flood.

Financial Stability

The financial stability of Breezy Point’s important assets, housing and small businesses, is at risk given rising insurance rates and the cost of rebuilding. Homeowners and business owners both expressed concerns about the high costs of investing in resiliency measures compared to insurance costs. There was also overall concern about the changing incentives for businesses to invest and grow in the Rockaways. For homeowners, the unaffordability of newly-defined flood insurance rates is a major concern—for both homes damaged by Sandy as well as those at

risk. As risk on the Peninsula is reassessed, certain areas that used to be considered in the 500-year floodplain are now understood to be in the 100-year floodplain and may face higher premiums reflecting this increased risk. This is occurring at the same time as insurance subsidies for some properties in the floodplain are being phased out—meaning that insurance premiums will be higher at a time when more properties are entering the higher risk zone.

Improved Health Services

Health care facilities and providers of services for residents were mentioned, but not frequently cited, echoing comments from the Planning Committee that medical facilities were not the most important assets in the community. Deficiencies in these areas could be addressed through other needs or strategies, such as improved accessibility or having medical equipment in fire houses and other community facilities.

Protecting Vulnerable Populations

Breezy Point recognizes that seniors in the community are particularly vulnerable. Special attention should be paid to issues such as accessibility of raised homes, access to health services, and evacuation procedures that take into account the needs of this population.



Community Goals and Vision

The final objective in this stage of the NYRCR process has been to establish overarching short-term (2–5 years) and long-term (5–10 years) resiliency and recovery goals for Breezy.

Setting targets and aspirations for the future helps to think beyond the current state and begins to paint the picture of a more resilient, sustainable community. By looking at assets and needs and setting goals and a vision, the community can then begin to devise strategies to reach those goals.

Goals help define particular objectives that the community hopes to achieve over the near- and long-term. They can range from small, simple goals to more complex multi-pronged ambitions. Overall, goals should be action-oriented and aspirational in nature.

The community vision is an overarching umbrella statement that encapsulates a collective sense of purpose and direction

and aspirations for the future. Much like the determination of assets and needs, the preliminary goals and vision have been established from two sources: Planning Committee deliberation and input at the first Public Meeting. This feedback has been organized to create a consolidated summary goals and a draft vision statement.

Goals

Short-Term (2-5 years)	Long-Term (5-10 years)
<ul style="list-style-type: none"> • Improve coastal protection • Rebuild damaged homes • Strengthen emergency preparedness • Support commercial recovery and redevelopment • Improve short-term water management and drainage • Protect and meet the needs of seniors and other vulnerable populations 	<ul style="list-style-type: none"> • Strengthen the edge (ocean and bay) • Protect all homes across the communities • Create sustainable drainage/water management systems for the long-term • Strengthen overall infrastructure and surface area • Become self-sufficient in emergencies • Leverage green technologies and systems in reconstruction

Vision Statement

Through the NY Rising process, Breezy Point intends to strengthen, protect, and improve the overall readiness and capacity of its communities. Breezy Point will be able to prepare for, respond to, and quickly recover from emergency events and natural disasters. With the use of modern and green technologies, our community will be able to build more secure structures and barriers to foster a better future for all our residents, no matter what age, background, or financial situation. Breezy Point intends to meet our needs to maintain self-sufficiency for an extended period of time.



V. Additional Considerations

Regional Perspectives

Jamaica Bay and Rockaway Peninsula Overview

Connected hydrologically and ecologically, Jamaica Bay is a unifying feature tying together six NY Rising community planning areas: Breezy Point, Rockaway West, Rockaway East, Broad Channel, New and Old Howard Beach, and Gerritsen Beach/Sheepshead Bay. A seventh planning area, Brighton Beach, Coney Island, Manhattan Beach, and Sea Gate, is also within close proximity to the mouth of the bay. With their shared shoreline, these communities share climate change-related risks, and collaboration can produce solutions that address recovery and resiliency needs affecting the bay as a whole.

Regional Resiliency Issues

Situated on land that originally made up a series of barrier islands and marshland, these Jamaica Bay communities have a similar geomorphology and feature soft, marshy soil. At the lowest elevation of any area in New York City, many of them are located at sea level, making some vulnerable to flooding even during normal high tides. Broad Channel, New and Old Howard Beach, and Hamilton Beach feature housing and important commercial corridors adjacent to the waterways or on piers and are protected by varying types of built bulkheads, barrier walls, and stilts. The bay feeds into inlets and basins in New and Old Howard Beach that can be a regular source

of flooding in addition to posing serious risk during elevated tides and emergencies. Sheepshead Bay and channels bordering Gerritsen Beach were also sources of flooding during the storm.

Communities along the bay side of the 11-mile-long Rockaway Peninsula are also at risk. Some communities sit directly on open beaches and others are buffered by open space and marshland, but the bulk of the bayside is protected by a seawall which was overtopped during Sandy. Many natural and constructed protective features around the bay are insufficient, aging, or inadequately maintained, leaving significant flooding risk for all of these communities.

On the ocean side, the Rockaway Peninsula faces risks due to its extensive unobstructed coastline. While much of the coastline contains beaches, many lack extensive protective features and experience regular erosion. At the same time, the Rockaway Peninsula provides valuable protection to communities within the bay, acting as a barrier island and reducing surge and wave heights within the bay itself. The beach nourishment and dune-building efforts being undertaken by the United States Army Corps of Engineers (USACE) on the Rockaway Peninsula therefore have risk-reducing impacts for all communities on the bay.

All of the Jamaica Bay communities suffered significantly during Superstorm Sandy, some from flooding or surge and some from wave action damage. According to an assessment conducted by NYC Department of Buildings, 37 percent of the buildings destroyed during Hurricane Sandy were located in this region. Homes, businesses, beaches and parklands, schools, roadways, and mass transit were all damaged; the area also endured one of the most extensive and long-lasting power outages in the City.

Flooding risks are likely to be exacerbated by projected sea level rise associated with climate change. According to FEMA's Preliminary Work Maps, the 100-year floodplain in the area has expanded for the borough of Queens by 40 percent since 1983, and floodplain expansion has been especially dramatic for the Jamaica Bay/South Queens area.

Many Jamaica Bay communities also face insufficient emergency access. In multiple locations throughout the Rockaway Peninsula, including Breezy Point, Belle Harbor, and Rockaway Beach Boulevard, fires started due to the interaction of seawater and electrical infrastructure. Fire trucks were unable to reach these areas due to extensive flooding. Single access routes to communities such as Breezy Point and Broad Channel and certain parts of Old Howard Beach, including bridges

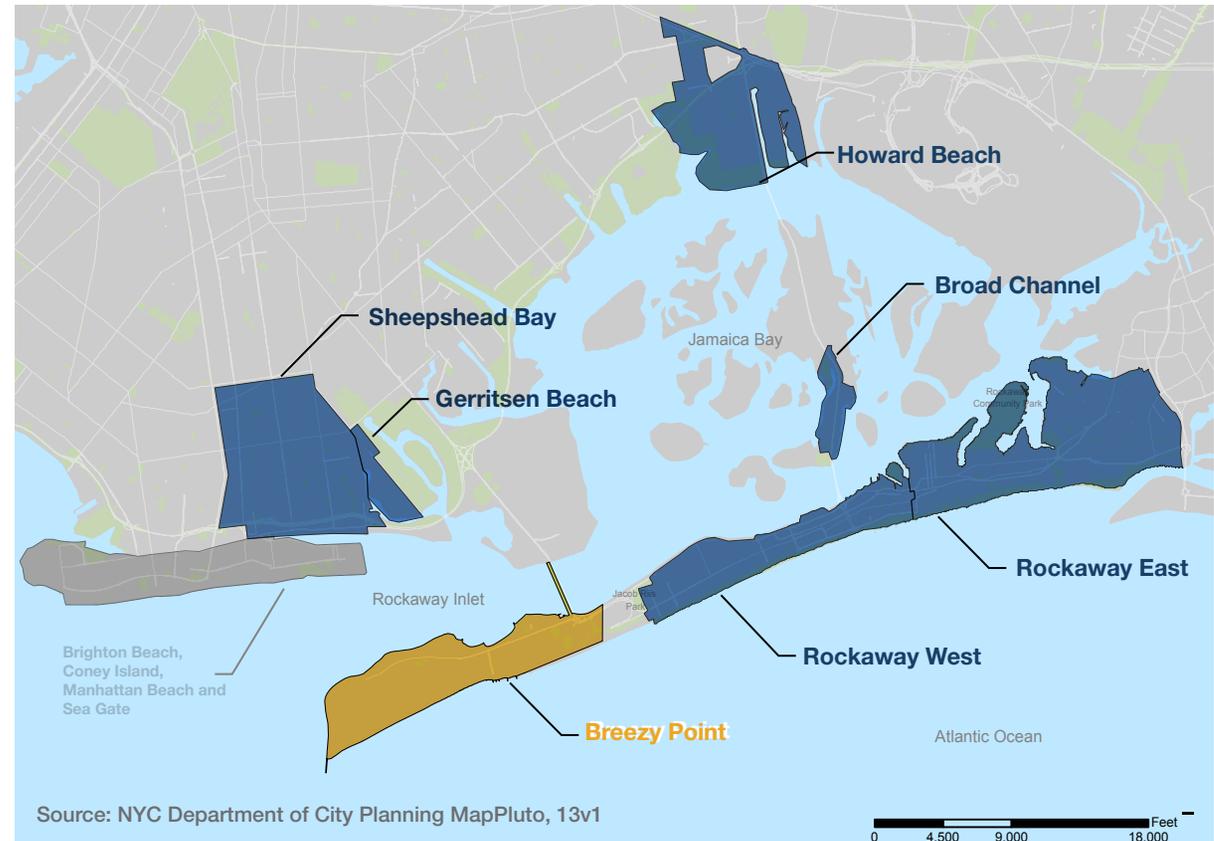
and roadways that were damaged or flooded, also constrained emergency response and hindered evacuation.

There are also ecological factors to consider: Jamaica Bay is a tidal estuary. Though severely degraded over the 19th and 20th centuries, it is still a dynamic ecosystem providing critical habitat to a variety of species, including a number of protected and threatened birds and other species who inhabit both the beach and bay. Habitat loss and degradation of the bay's chemical, physical and biological environment has largely been due to human activities, although initiatives by the City and federal agencies over the last two decades have yielded dramatic improvements in the bay's water and habitat quality.

In this hydrologically connected system, projects and interventions in one area of the bay can have ecological and coastal protection ramifications across the estuary. The cumulative impact of individual projects implemented in different locations around the bay can be greater than the sum of their individual impacts. At the same time, interactions between projects can sometimes have negative effects including, though rarely, induced wave or surge activity.

Because of these interdependencies, the six NY Rising bay communities will form a Jamaica Bay NYRCR Working Group. The group will review respective Conceptual Plans and assess opportunities to strategically protect their communities in concert. These regional

Planning Areas in Jamaica Bay



strategies will be included in the Final Community Reconstruction Plans.

To maximize benefits and minimize risk, coordination among efforts by NY Rising communities as well as the various City, State and Federal agencies active within the bay will be needed. The newly formed Jamaica Bay Resiliency Institute, established through an initiative to be led by CUNY in partnership with New York

City, the National Parks Service (NPS), and Trust for Public Land, among other organizations, is a potential partner and presents an opportunity for NY Rising communities in Jamaica Bay to collaborate with other organizations and agencies.



Existing Plans, Studies, and Projects

In order to avoid duplication of plans and to best identify how the NY Rising Community Reconstruction Program may fill existing gaps, the planning team has reviewed past and ongoing plans, studies, and projects in Breezy Point and surrounding areas.

This includes resiliency and Sandy recovery plans, as well as other plans such as hazard mitigation, waterfront, and sustainability plans. The analysis and recommendations included in these plans can contribute valuable information and ideas to the NY Rising Community Reconstruction planning process.

Key takeaways from review of existing plans, studies, and projects that specifically address Breezy Point include:

- Breezy Point has powerful community planning capacity, and the community has proactively organized to begin to develop plans for its future which should be considered in this planning process.
- Planning for natural resources around Jamaica Bay, including Fort Tilden Park, is already being carried out, led by NPS and USACE.

Based on review of existing plans and initial engagement, existing gaps in planning include:

- Availability of funding for protection of second

homes or private beaches

- Challenges to neighborhood rebuilding posed by significant elevation requirements for new housing versus substantial existing housing below base flood elevation
- Access to funding and support programs for repairs and mitigation
- Community social services and evacuation plans

Major existing plans, studies, and projects in Jamaica Bay and citywide are described below. Relevant plans are also described in more detail in the below matrix indicating the organization leading the planning process, key analysis and proposed initiatives, the Recovery Functions these initiatives address, and the status of the plan, study, or project.

Jamaica Bay Initiatives

NYC Department of Environmental Protection’s Jamaica Bay Watershed Protection Plan. Authorized in 2005 and initially published in 2007, the plan is intended to support restoring and maintaining the water quality and ecological integrity of the bay. A number of ongoing initiatives driven by this plan include wastewater treatment upgrades, green infrastructure and other stormwater management improvements and a variety of ecological improvements and pilot projects.

Gateway National Park General Management Plan. The majority of the undeveloped land in and around the bay is part of Gateway National Recreation Area, one of the nation’s few urban national parks, encompassing 26,607 acres in Brooklyn, Queens, Staten Island and New Jersey. Given this large presence, the National Parks Service will be an important player in resiliency efforts in the bay. The park is currently updating the General Management Plan, which has been prepared over the last four years and will guide future management of the park. The public comment period for the plan’s Environmental Impact Statement concluded on October 22, 2013.

USACE Efforts. The USACE is also a major player in both coastal protection and restoration efforts within Jamaica Bay. In addition to the emergency beach nourishment and dune construction projects completed and ongoing on the Rockaway Peninsula, the USACE has a number of ongoing studies and projects in the bay which could provide resiliency benefits for NY Rising communities. These include studies that pre-dated Superstorm Sandy as well as post-Sandy updates to the previous plans and studies.

Hudson Raritan Estuary (HER) Comprehensive Restoration Plan (CRP). Adopted in 2009, The HER-CRP was developed in collaboration with federal, state, municipal, and non-governmental organizations as well as other regional stakeholders. It sets forth a consensus vision, master plan and



strategy for ecosystem future restoration in the New York/New Jersey Harbor. In Jamaica Bay, the plan identified 39 potential restoration sites. Some of these restoration projects have been acted upon, but most have not.

Jamaica Bay, Marine Park and Plumb Beach, New York Ecosystem Restoration Feasibility Study. The study is a joint undertaking of the USACE and the NYC Department of Environmental Protection and is intended to provide an expedited limited reevaluation of USACE restoration projects in the bay to address post-Sandy changes. The interim draft report identified 8 priority restoration sites (550 acres) from the HRE-CRP recommendations, 6 of which are in NY Rising Communities: Dead Horse Bay, Paerdegat Basin, Fresh Creek, Spring Creek, Hawtree Point, Bayswater State Park, Dubos Point, and Brand Point. In addition, the feasibility study will look at Marsh Island Restoration Projects and two other restoration projects being undertaken under the USACE's Continuing Authorities Program – Gerritsen Creek and Upper Spring Creek, as well as ongoing USACE Storm Reduction Studies and Navigation projects in area.

East Rockaway Inlet to Rockaway Inlet (Rockaway Beach) - Reformulation Study. This project is a reevaluation of the recommendations of the existing USACE plan for the area in light of the impacts of Sandy. Phase 1, for which the draft report should be completed this fall looks at Beach Nourishment and additional erosion control and/or storm damage risk reduction measures on the ocean side of the Rockaway Peninsula. Phase 2,

for which the draft report is expected in October of 2015, will investigate flooding on the Jamaica Bay side of the Peninsula and evaluate potential coastal storm risk management reduction measures.

Additional Citywide Initiatives

Special Initiative for Rebuilding and Resiliency. On June 11th Mayor Michael Bloomberg announced the release of “A Stronger, More Resilient New York,” (SIRR Report) forming New York City's plan for rebuilding post-Sandy and ensuring resiliency into the future. The plan contains actionable recommendations both for rebuilding communities in the City impacted by Sandy and for increasing the resiliency of buildings and infrastructure city-wide. All NY Rising communities within the City will need to coordinate their proposed projects with the initiatives proposed in the City's Plan. Specific initiatives for Breezy Point proposed in the SIRR Report are summarized in the following section, “Existing Plans and Projects.” More broadly, the plan lays out numerous city-wide initiatives to improve resiliency for systems including coastal protection, buildings, insurance, utilities, liquid fuels, healthcare, telecommunications, transportation, parks, water and wastewater and other critical networks which NY Rising communities will need to coordinate with their own proposals.

Future Updates to the Building and Zoning Code. The City's Building Resiliency Task force identified 33 recommendations to the City Council. Many of these recommendations are still in various states of review by the council, but five initiatives have been passed. In addition, the Department

of City Planning's Flood Resilience Zoning Text Amendment was approved by city council on October 9th. The report and latest updates on implementation can be found on the SIRR website: <http://www.nyc.gov/html/sirr/>.

NYC Recovery Program. In addition to resiliency, the City has launched several initiatives to help residents across the five boroughs recover from the damaged caused by Sandy. The City's “Build it Back” program seeks to assist homeowners, landlords, and tenants whose homes were damaged by Sandy. The NYC Recovery Program is also offering business loans and grants to small business owners damaged by Sandy. Most of these recovery programs support resiliency investments and will help improve individual homes and businesses in the communities surrounding Jamaica Bay. More information on the NYC Recovery program can be found here: <http://www.nyc.gov/html/recovery/>.

FEMA Flood Maps and Flood Risk Assessment. The Federal Emergency Management Agency (FEMA) describes its assessment of flood risk through flood maps referred to as Flood Insurance Rate Maps (FIRMs). These maps are used by the National Flood Insurance Program (NFIP) to set flood insurance rates. When Superstorm Sandy hit New York City, the FIRMs in use were based on information from 1983. Sandy inundation extended well beyond what these maps estimated would be the 100 year floodplain, calling attention to the fact that an update to these maps was needed. In fact, before Hurricane Sandy, FEMA had begun a coastal



flood study to update Flood Insurance Rate Maps (FIRMs) for portions of New York and New Jersey using improved methods and data to better reflect coastal flood risk.

After Sandy, FEMA first released Advisory Base Flood Elevation (ABFE) maps based on the partially completed flood study for certain communities which were designed to help in rebuilding and recovery efforts. In June of 2013, FEMA released preliminary work maps for New York City, including the full results of the coastal flood study. The preliminary work maps are based on the same underlying data as the earlier ABFE maps, but include the results of a more refined analysis of shoreline conditions, including the effects of erosion and wave runup. The maps are a “draft” product that FEMA shared in advance of the preliminary FIRMs, which are expected to be released by the end of 2013. The final updated FIRMs are anticipated to be released in 2015. These final FIRMs will guide new Flood Insurance rates for homeowners and businesses in the floodplain.

FEMA’s flood maps do not take into account future conditions and thus do not factor in potential sea level rise. The New York City Panel on Climate Change (NPCC) is continuing to analyze potential climate change impacts on New York City, namely sea level rise. The NPCC released a report “Climate Risk Information 2013: Observations, Climate Change Projections, and Maps” in conjunction with the SIRR Report and provides New York City’s estimates for sea level rise over various time frames. They are expected to update these estimates in the

near future. In addition, New York City has hired the Steven’s Institute of Technology to map flood zones with added sea level rise for future decades. This is being done within the NPCC framework and will be reported and released through NPCC this winter.



Elevation of a Breezy Point home



Detailed List of Plans and Projects

Plan/Project Name	Lead Organization(s)	Initiative Description	6 Recovery Functions						Sub-Category (if applicable)	Status (Pre-Planning, Planning, In Construction, Complete/In Operation)
			Community Planning & Capacity Building	Economic Development	Health & Social Services	Housing	Infrastructure	Natural & Cultural Resources		
Projects										
Post-Storm Protection Project	Breezy Point Cooperative	Self-funded dune construction, drainage improvements, and other measures to improve protection of Breezy Point community				x		x		Ocean-side dunes completed, other projects in planning
Programs and Plans										
Build It Back	NYC Recovery	Rebuild of homes significantly damaged in storm				x			Social Services	As of Monday, September 30th, more than 22,000 New Yorkers have registered for NYC Build it Back, including 9,400 registrants from Queens, nearly 7,000 from Brooklyn and 5,000 from Staten Island.
A Stronger More Resilient New York (SIRR Report)	Office of Long Term Planning and Sustainability	Call for United States Army Corps of Engineers to develop an implementation plan to mitigate inundation risks through Rockaway Inlet, exploring a surge barrier and alternative measures						x	Coastal Protection	Published
A Stronger More Resilient New York (SIRR Report)	Office of Long Term Planning and Sustainability	Raise bulkheads in low-lying neighborhoods across the city to minimize inland tidal flooding						x	Coastal Protection	Published
A Stronger More Resilient New York (SIRR Report)	NYC Economic Development Corporation/Office of Long Term Planning and Sustainability	Develop an implementation plan to address frequent tidal inundation in Broad Channel and Hamilton Beach, incorporating international best practices						x	Coastal Protection	Published
A Stronger More Resilient New York (SIRR Report)	NYC Economic Development Corporation	Call for NYC Economic Development Corporation to develop Game Changers Competition		x					Retail and Employment	NYC Economic Development Corporation has developed the program; see #
A Stronger More Resilient New York (SIRR Report)	NYC Department of City Planning	Zoning changes to meet updated flood standards						x	Coastal Protection	Published
A Stronger More Resilient New York (SIRR Report)	Office of Long Term Planning and Sustainability	Complete short-term dune improvements on the Rockaway Peninsula						x	Coastal Protection	Published
A Stronger More Resilient New York (SIRR Report)	NYC Department of Parks and Recreation	Complete short-term dune improvements on the Rockaway Peninsula; Continue to work with the United States Army Corps of Engineers to complete emergency beach nourishment on the Rockaway Peninsula						x	Coastal Protection	Published
A Stronger More Resilient New York (SIRR Report)	NYC Department of Parks and Recreation	Continue to work with the United States Army Corps of Engineers to complete existing studies of the Rockaway Peninsula and implement coastal protection projects						x	Coastal Protection	Published



NY Rising Community Reconstruction Program

Plan/Project Name	Lead Organization(s)	Initiative Description	6 Recovery Functions						Sub-Category (if applicable)	Status (Pre-Planning, Planning, In Construction, Complete/In Operation)
			Community Planning & Capacity Building	Economic Development	Health & Social Services	Housing	Infrastructure	Natural & Cultural Resources		
A Stronger, More Resilient New York (SIRR Report) / Comprehensive Restoration Plan for the Hudson Raritan Estuary	NYC Office of Long Term Planning and Sustainability/Department of Parks and Recreation/ United States Army Corps of Engineers/National Parks Service	Call on and work with the United States Army Corps of Engineers to study and install primary and secondary dune systems in vulnerable Rockaway Peninsula neighborhoods (such as Breezy Point) - CRP SITE 103 & 805. Breezy Point					x		Coastal Protection	Published
A Stronger, More Resilient NY	NPS & City of NYC	Establish a center for resiliency and restoration efforts in the Jamaica Bay-Rockaway Parks								Published
Comprehensive Restoration Plan for the Hudson Raritan Estuary	United States Army Corps of Engineers (US Army Corps of Engineers)	The entire New York/New Jersey Harbor region is working towards common restoration goals to create habitat, improve water and sediment quality, and provide access and recreational benefits to the region.						x		Ongoing
NYC Housing and Neighborhood Recovery Donors Collaborative Grantee	Supportive Housing Network of NY	Research and report on best practices in disaster response plans to supportive housing providers and government partners; clarify government agency roles and protocols as they apply to supportive housing during disasters				x				Ongoing
NYC Housing and Neighborhood Recovery Donors Collaborative Grantee	NYC Energy Efficiency Corporation	Incorporation of additional resiliency and energy saving analysis into Physical Needs Assessment (PNA), Develop a model for PNA reports that includes energy efficiency and resiliency					x			Ongoing
NYC Housing and Neighborhood Recovery Donors Collaborative Grantee	Legal Services NYC	Technical assistance to homeowners and training on insurance and mortgage issues				x				Ongoing
NYC Housing and Neighborhood Recovery Donors Collaborative Grantee	Furman Center for Real Estate and Urban Policy	Identify promising retrofit strategies for three common affordable, multi-family housing building types; Prepare and publicize three case studies and engineering analysis and a white paper on findings and recommendations to reduce regulatory barriers				x				Ongoing
NYC Housing and Neighborhood Recovery Donors Collaborative Grantee	Enterprise Community Partners	Strengthen disaster preparedness capacity, physical resilience and climate adaptation capacity of multi-family affordable housing properties	x							Ongoing



Plan/Project Name	Lead Organization(s)	Initiative Description	6 Recovery Functions						Sub-Category (if applicable)	Status (Pre-Planning, Planning, In Construction, Complete/In Operation)
			Community Planning & Capacity Building	Economic Development	Health & Social Services	Housing	Infrastructure	Natural & Cultural Resources		
NYC Housing and Neighborhood Recovery Donors Collaborative Grantee	Center for NYC Neighborhoods and Local Initiatives Support Corporation	Central coordination of grantees and other organizations providing direct assistance to Sandy-impacted homeowners, training resources, and information sharing among grantees, other community organizations providing similar services and City agencies.	x						Coordination	Ongoing
NYC Housing and Neighborhood Recovery Donors Collaborative Grantee	Association for Neighborhood and Housing Development and NY Mortgage Coalition	Outreach to connect community based organizations with homeowners, community based organization capacity building & training, information dissemination				x			Outreach	Ongoing
NYC Housing and Neighborhood Recovery Donors Collaborative Grantee	Queens Public Library	Develop community emergency resource guide and engage the community in disaster preparedness activities.	x						Emergency Response	Ongoing
Getting Back to Business Addressing the Needs of Rockaway Businesses Impacted by Superstorm Sandy	APA-NY Metro Chapter; RDRC	Provision of a staffed, mobile office to educate and provide technical assistance to businesses applying for grants, loans, and other resources and funding opportunities.		x					Retail	Ongoing
Army Corps Reformulation Study	United States Army Corps of Engineers (US Army Corps of	Studying long-term approach to reformulation of Rockaway Peninsula					x		Coastal Protection	Ongoing, to be completed in 2015
Gateway General Management Plan	National Park Service & NYCDPR	New management plan reflecting joint programming with city and integration into neighborhoods						x		EIS currently open for public comment



VI. Preliminary Strategies and Projects

Preliminary Strategies, Projects, Actions

The Breezy Point Planning Committee represents a well-organized community that launched studies of resiliency projects before the NYRCR program began. The strategies proposed here build on the community's efforts to date and align with ideas generated through NYRCR.

As outlined above, the needs and goals of the Breezy Point communities include: **strengthening the edge; protecting the most important assets—housing and power/utilities; roads and accessibility; water management; emergency preparedness and self-sufficiency; and rebuilding and protecting economic and community assets.**

The community has started to discuss strategies and initiatives to meet their short- and long-term goals and overall vision, which may include:

1. Keep water from entering by strengthening the edge. Projects supporting this strategy are already underway in Breezy Point, reflecting their importance to the residents and Committee. Short-term projects may include the expansion of these efforts, including harvesting sand to construct a dune on the ocean front. A long-term project might include redesigning the Cove to prevent erosion or hardening the boundaries of the community – an idea identified within the Coop's Land Management Plan for coastal protection. Analysis of options

should consider implications for flood insurance rates.

2. Protect the most important assets in the community during flooding, especially housing. In the near-term, the community and the State can evaluate whether there are gaps in the City's rebuilding program, as well as any other programs. In the long-term, the community may establish a broader strategy for elevation and other housing resiliency measures.

3. Adapt the community's utility systems—power, water, and sewer—to be more resilient. While comprehensive power and utility strategies may rely on long-term initiatives, short-term projects could include procurement of smaller-scale alternative energy sources, such as lighting powered by solar cells. The community could bolster its supply of generators and gasoline to ensure back-up power exists in key locations. Long-term projects might include a solar field that meets or exceeds energy needs. The community will evaluate alternative energy options and determine what may best serve its needs.

For water and sewer management, a short-term project could include a planning and engineering study to evaluate surface area materials and projects to improve drainage management. Long-term solutions could include improving the water

and sewer systems to remove water after flooding, prevent flooding under normal conditions, and ensure adequate waste capacity in the case of water table rise. Another long-term project could be constructing two dedicated water hydrant lines.

4. Strengthen emergency preparedness of the community and expand emergency equipment and supplies. The community may want to pursue immediately implementable projects, such as expanding emergency vehicle capacity by purchasing 4-wheel drive and all-terrain vehicles, purchasing emergency and medical supplies for fire departments, storing fire apparatuses outside of the flood zone, providing medical kits to households, or purchasing additional generators to equip key community spaces. The community could also create an emergency preparedness and response plan based on recent experiences. This plan could call for funding for additional transportation for seniors, emergency sand bag provision, etc.

Over the next two months, the community will refine strategies and potential projects, evaluate financial and regulatory feasibility, and prioritize a final list of projects to propose for funding. The table below organizes preliminary strategies and initiatives. These are not formal proposals, and they are not ordered by priority. This list is intended to be comprehensive, and is not limited to strategies which could be funded through NYRCR funding.



**PROTECT
THE EDGE**

**REBUILD AND
PROTECT HOUSING**

Strategy	Short-Term Goal	Long-Term Goal	Potential Initiatives
Minimize rising water’s entry into Breezy Point by strengthening the ocean and bay edges	Address any immediate coastal protection risks with respect to both the ocean and bay edges	Strengthen the edge by creating hard and soft edges to maximally protect all of the neighborhoods across Breezy Point	<ul style="list-style-type: none"> • Identify vulnerabilities in the bay wall and identify short-term remediation measures where feasible • Pursue project to fortify the Cove • Determine any gaps in current beachfront plans and determine short- and long-term projects to address them • Evaluate opportunities to protect the community’s edges along adjacent parklands to west and east
Rebuild and protect housing, the most important assets within the community	Rebuild and strengthen damaged homes	Protect and make resilient all homes in Breezy Point, including both primary and secondary homes	<ul style="list-style-type: none"> • Evaluate scope of existing housing recovery programs and any other rebuilding programs, determine gaps, and create a proposal to address remaining rebuilding and protection needs—for both primary and secondary homes • Create program to help all primary and secondary homeowners assess technical housing needs, understand insurance rates and other financial considerations, etc. • Create a grant or low-cost loan program to help all people invest in the resiliency of their homes • Investigate implications of coastal protection measures on flood rates



INFRASTRUCTURE AND UTILITIES

Strategy	Short-Term Goal	Long-Term Goal	Potential Initiatives
<p>Strengthen power/utilities/communications/water management infrastructure to ensure sustainability and endurance at all times</p>	<p>Identify and implement short-term improvements to strengthen power/utilities/communications/water management infrastructure</p>	<p>Invest in long-term upgrades to utilities and infrastructure, creating a regional model for sustainability and energy independence</p>	<ul style="list-style-type: none"> • Pursue short- and long-term efforts to create resilient, green, alternative energy sources across Breezy Point • Evaluate short-term opportunities to improve water drainage or pumping • Improve overall water infrastructure (including sanitary systems) to ensure long-term functionality and sustainability • Evaluate surface areas across the community and create strategies to minimize pooling, maximize drainage, and find opportunities for multi-use sites and materials that support this • Pursue back-up “hard-wired” communications networks to serve as redundant system for cellular towers • Pursue secondary means of access and egress (especially for emergencies); e.g., via rebuilt docks, new roadways via park



EMERGENCY PREPAREDNESS

ENSURE ECONOMIC SUSTAINABILITY

Strategy	Short-Term Goal	Long-Term Goal	Potential Initiatives
<p>Pursue measures to strengthen Breezy’s ability to contend with and recover from large-scale natural disasters and emergency events</p>	<p>Increase emergency preparedness</p>	<p>Become self-sufficient in emergencies and also increase connections to New York City</p>	<ul style="list-style-type: none"> • Upgrade and strengthen alarm system • Bolster existing emergency services, such as providing ATV/4-wheel drive vehicles, emergency supplies, connecting to FDNY communications system, new dedicated fire hydrant lines, etc. • Create community preparedness plan and training program, with focus on supporting more vulnerable residents • Identify and fortify key locations that can serve as safe, central centers during an emergency, ensuring power with emergency generators • Ensure that vulnerable populations, including seniors, are adequately served
<p>Strengthen and protect commercial areas to protect and sustain economic health and vibrancy</p>	<p>Rebuild businesses and support commercial recovery and redevelopment</p>	<p>Enable sustainable economic viability across Breezy Point</p>	<ul style="list-style-type: none"> • Evaluate scope of existing business recovery plans, determine gaps, identify best practices in other small business communities affected by Sandy, and create a proposal rebuild or protect retail assets • Expand low-cost loan programs to rebuild businesses and help make businesses more resilient • Create Rockaway business-to-business program to learn about opportunities, share ideas, and collectively help improve Breezy Point's small business economy (as well as the Rockaways overall)



Next Steps

The next steps in this planning process will be to develop a more comprehensive list of strategies and potential projects and actions. The Planning Committee and public will then, using the technical expertise of their consulting team, begin to evaluate and prioritize projects and actions. This will depend on consideration of the risk assessment, the combined benefits of a project or action, cost and availability of resources, value to the community, timing in coordination with other construction or capital improvements, and availability of funding. Next steps include:

Identification of strategies by November 30, 2013:

- Identify comprehensive list of potential strategies to achieve rebuilding, resiliency, and economic growth
- Conducted through Planning Committee, public meetings, and online outreach

Identification of projects and actions by January 2014:

- Conducted through Planning Committee, public meetings, and online outreach

Alternatives evaluation and prioritized list by March 31, 2014:

- Assess feasibility, cost, risk reduction, co-benefits, funding availability, and degree of public support, and conduct cost-benefit analysis

Implementation Planning

After defining priority projects and actions, the Committee will utilize the expertise of its planning team to identify a path towards implementation.

The goal for the implementation plan will be to achieve actionable results for the community which focuses on four core components: **regulation, funding, complementary programs, and building capacity to implement.**

The plan will identify:

- Order-of-magnitude project costs associated with implementing an infrastructure resiliency project
- Potential funding sources for projects
- Detailed work plan outlining activities to implement proposed actions including regulatory actions and program development

as well as infrastructure investment

- Responsible parties for each of the activities to be conducted in accordance with the recommended project
- Target goals, timelines and project budget for each responsible party
- Process for amending the work plan should timeline lapse or costs exceed projected budgets

To accomplish certain infrastructure resiliency projects, regulatory and legislative changes may be required. In these instances, the plan will include the process for which these changes can be achieved. Regulatory and legislative changes could include changes to current zoning and/or permitted uses in a specific area. The implementation plan will identify the regulatory and legislative entities that will be engaged to initiate the changes as well as the community representative who will champion and push for the appropriate regulatory or legislative change.

The implementation plan will consider Breezy Point's resources and identify if implementation can be achieved with existing resources or if additional staff will be required, and if so, the mechanisms for securing and managing the additional resources.

