

# Rockaway West Community Reconstruction

Conceptual Plan  
October 2013



This document was developed by the Rockaway West 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.

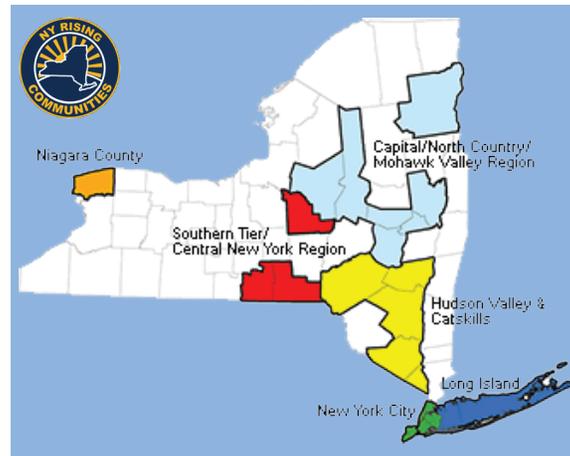
In the months ahead, communities will develop ways to implement additional strategies for economic revitalization, human services, housing, infrastructure, natural and cultural resources, and the community's capacity to implement changes.

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](http://StormRecovery.ny.gov/Community-Reconstruction-Program)



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# I. Introduction

## NY Rising Community Reconstruction Program

**The NY Rising Community Reconstruction 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 the communities’ 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 \$21.3 million to Rockaway West in Community Development Block Grant Disaster Recovery (CDBG-DR) funding** from the US 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 Rockaway West 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 page 4, 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. Rockaway West’s Planning Committee consists of: Noreen Ellis (Co-Chair), Joanne Smith (Co-Chair), Amanda Agoglia, Stacey Amato, John Cori, Hank Iori, Philip McManus, Dolores Orr, Karen Slone-Payne, Steve Stathis, Keith Sullivan, Maureen Walsh, Danny Ruscillo, Eddy Pastore, Liz Smith-Breslin, and Lou Caucig.

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 Rockaway West Community Planners Fred Landa and Ken Smith. The planning consulting 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).

By the end of the planning process, two deliverables will have been produced for public review:

**Conceptual Plan** (this report):

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



**Final Community Reconstruction Plan** (Spring 2014) – The second report will include 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



**Single-family homes in Rockaway West**

- Description of Priority Projects and their Costs and Benefits
- Inventory of Assets

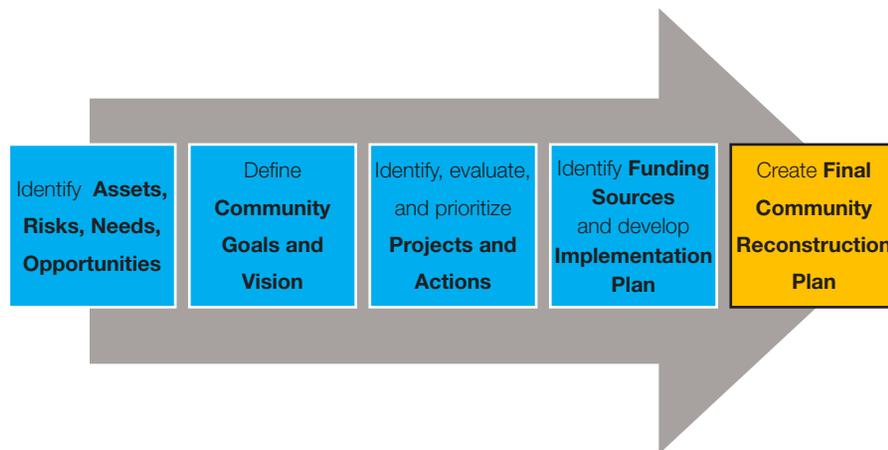


## NYRCR Work Schedule

- Planning Committee Meeting
- Public Meeting
- Deliverable Due Date

Deliverables	Sept.	Oct.	Nov.	Dec.	Jan.	Fen.	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





## 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 Rockaway West Planning Committee has worked closely with the State and consulting teams to get the word out about NY Rising. To date, the teams have posted notices in The Wave, disseminated information via local elected officials, and relied on the Committee's robust community distribution channels. An email distribution list, generated from participants in meetings, will also start to communicate key program updates and meetings.

Maintaining engagement over the eight month program will require ongoing outreach. The Rockaway West Committee will explore additional strategies—such as food delivery boxes and menus, schools, or church bulletins—and will continue to evolve its approach to communicate key NY Rising information as broadly as possible.

### Public and Committee Meetings

There will be a minimum 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** (September 9, 2013) – Program Scope, Goals, and Timeline; Feedback on Vision, Community Assets, and Needs and Opportunities
- **Public Meeting #2** (November 2013) – Contents of Conceptual Plan; Feedback on Strategies, and Projects
- **Public Meeting #3** (January 2014) – Analysis and Prioritization of Strategies, Projects, and Actions
- **Public Meeting #4** (February 2014) – Final Community Reconstruction 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 NY Rising homepage is a valuable online resource, located at <http://stormrecovery.ny.gov/community-reconstruction-program>.** Each community in the NYRCR 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 the NYRCR staff, and visit the Program's Facebook page. The Rockaway West page is located at <http://stormrecovery.ny.gov/nyrcr/community/rockaway-west>.

Residents can submit comments via the website or email: [info@stormrecovery.ny.gov](mailto:info@stormrecovery.ny.gov). Comments provided are combined with other feedback from the public and incorporated into the plan in progress.

**Another valuable source of public input will be 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



## II. Community Context

### Geographic Scope

The Rockaway West planning area is made up of five communities: Neponsit, Belle Harbor, Rockaway Park, Hammels, and Rockaway Beach. The Rockaway West Planning Area map delineates this large and diverse planning area.

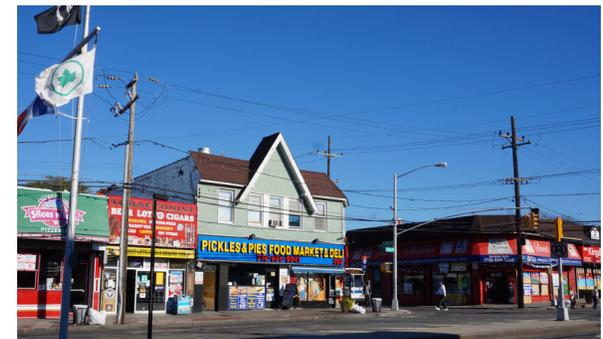
The Rockaway West planning area was defined by the Planning Committee through the consideration of multiple factors, which include: data on damage resulting from Sandy, local understanding of community boundaries, and areas where assets are most at risk, where reconstruction or future construction should be encouraged, and where key investments to improve the local economy can be made.

Rockaway West is located at the midsection of the Rockaway Peninsula in Queens. The planning area includes an Atlantic Ocean-facing beach and a shoreline on Jamaica Bay, and is bounded by Jacob Riis Park to the west and by Beach 73rd/74th Street to the east (the boundary partially extends to Beach 73rd Street based on census tract boundaries).

### Rockaway West Planning Area



Source: NYC Department of City Planning MapPluto, 13v1



Rockaway West Beaches and Retail. Photo source (left): Flickr, Sukh Chander



## Community Overview

**Rockaway West is predominantly residential, but includes various commercial pockets and the Rockaway Beach.** Overall, it is denser than many other neighborhoods surrounding Jamaica Bay. According to the 2010 U.S. Census, the area contained approximately 32,000 residents and 14,000 housing units. However, much like many of the communities affected by Sandy, the population may have decreased since.

**While incomes vary, the median income in Rockaway West was close to the citywide average of \$51,000 in 2012.** The community contains a mix of homeowners and renters; the homeownership rate is 40 percent, higher than the citywide average, but lower than many other Rockaway Peninsula and Jamaica Bay communities.

**Rockaway West contains a diverse housing stock.** Neponsit and Belle Harbor are comprised primarily of older single-family homes. While lower than the citywide average, 52 percent of homes were built before 1960, and many are small homes constructed of combustible materials, making them more vulnerable to extreme weather and other emergencies. Rockaway Park, Hammels, and Rockaway Beach comprise a mix of older single family homes and high- and medium-rise buildings, whose mechanical systems faced their own challenges during flooding.

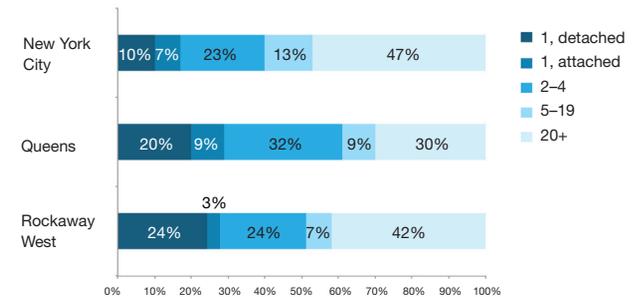
**Retail is primarily concentrated along a few neighborhood commercial corridors.** The Beach 116th Street corridor spans two blocks and serves as a small main street lined with small businesses and intersected by other retail corridors, including Beach Channel Drive and Rockaway Beach Boulevard. Rockaway Beach Boulevard from Beach 108th Street to Beach 88th Street consists of retail, services, and dining establishments, which in the years prior to Sandy had been growing. Other retail corridors include Beach 108th Street and Beach 129th Street.

**The area relies heavily on A and S train service,** with stops at Beach 90th, Beach 98th, Beach 105th, and Beach 116th Streets. The Rockaway West area is limited in access points to the city and depends heavily on the Marine Parkway-Gil Hodges Memorial Bridge and Cross Bay Bridges for access to the mainland, a vulnerability in emergency evacuations. On the Peninsula, vehicular traffic is limited to two primary east-west thoroughfares: Rockaway Beach Boulevard and Beach Channel Drive.

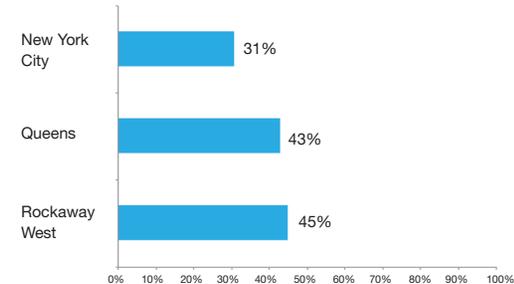
The Rockaway Beach Boardwalk, as well as nearby Fort Tilden and Jacob Riis Park, are invaluable recreational amenities and important economic drivers which attract visitors from throughout New York City and beyond.

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

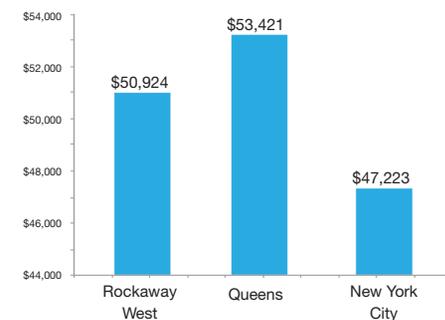
**Percent of Housing Units by Units in Structure**  
(2005-09 American Community Survey)



**Percent Owner Occupied Housing**  
(2010 U.S. Census, ESRI)



**Median Household Income**  
(2010 U.S. Census, ESRI)





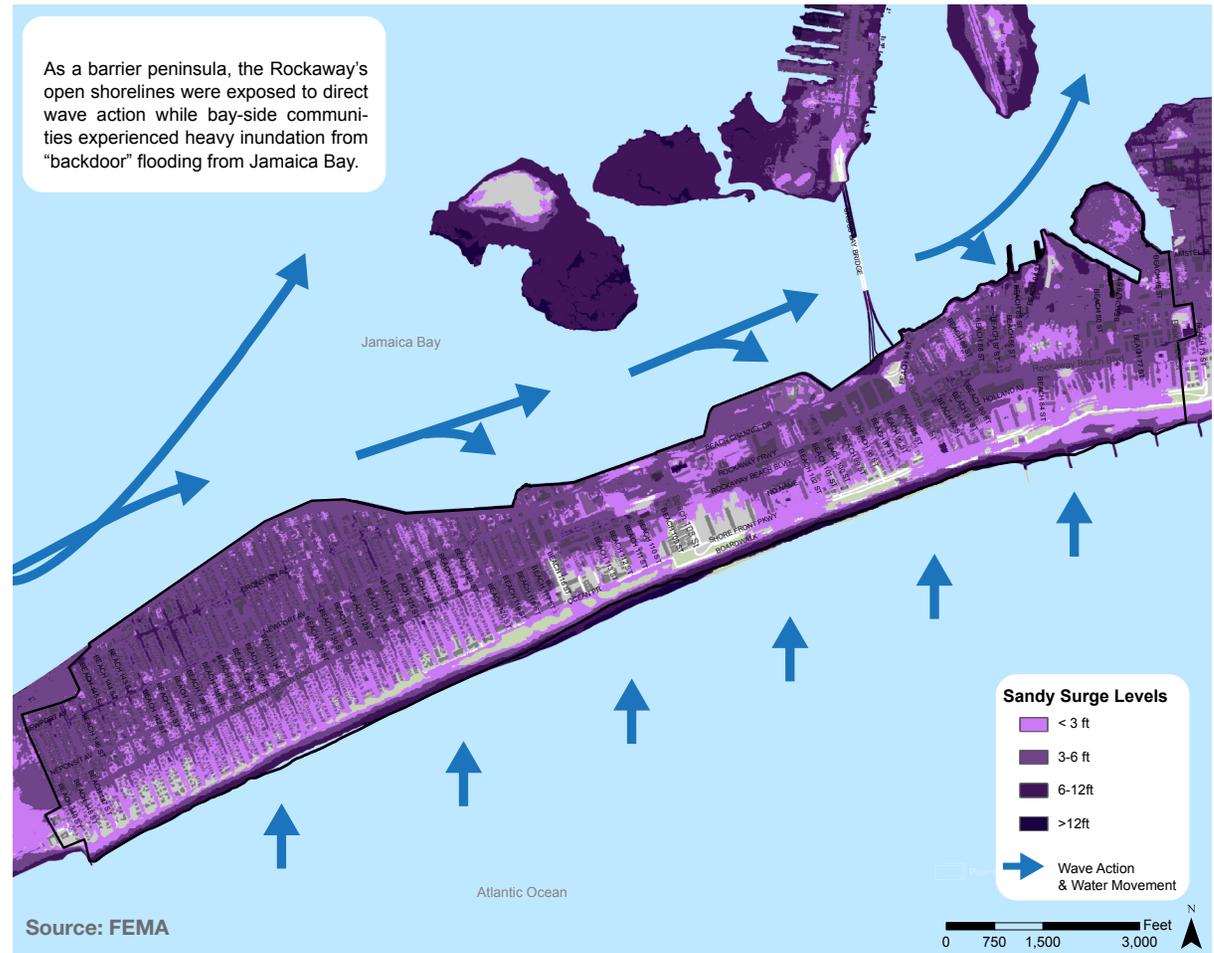
### III. Storm Impacts and Risk

#### Summary of Storm Impacts

The combination of high tide, a full moon, and Superstorm Sandy slamming into New York City created a massive surge of water that devastated many of the exposed coastal communities of the Rockaways. Wave action from the ocean damaged structures and inundated streets and properties, while Jamaica Bay surge waters flooded the peninsula from the other side. Beyond the storm and the emergencies in its immediate aftermath, all residents have been affected in some way by building damage, extended power outages, lasting transportation disruptions, displacement, and financial hardship.

Rockaway West was one of the hardest-hit areas in New York City, where the Atlantic Ocean met Jamaica Bay on land. In fact, due to the dunes on oceanfront areas, flooding was more extreme on the bay side of the peninsula. In Belle Harbor and Neponsit, wave action from the ocean damaged single-family homes and inundated streets and properties. Meanwhile, Jamaica Bay surge waters reached as high as ten feet, spilling over existing seawalls. Small single-family homes were most exposed to the flooding and suffered extensive damage as a result. In addition to the small homes damaged in Rockaway Park, Hammels, and Rockaway Beach, medium- and high-rise buildings experienced ground level damage, and many residents found themselves..

#### What Happened During Sandy?



trapped during and after the storm due to power outages and flooding that knocked out electrical and mechanical systems for entire buildings.

This had especially dire consequences for vulnerable populations, including seniors, who were stranded with limited access to vital services. In addition, health professionals who normally



provide elder care services were unable to reach their job sites. Once the situation became clear, the

already desperate community came together to aid these residents.

**Sewage overflow compounded the damage to homes and created an immediate health challenge.** The Rockaway Wastewater Treatment Plant was inundated and rendered inoperative. Sewage overflow mixed with flood waters and seeped into homes, creating a pollutive mix that would linger for days and weeks to come.

**Critical bridges, roadways, and public transportation were severely impacted.** The Marine Parkway and Cross Bay Bridges closed in advance of Sandy, and residents who did not evacuate were stranded without services or power for several days until the bridges reopened. Portions of the A train railway between Howard Beach and the Rockaway Peninsula were washed away, leaving riders without subway service. While the City and MTA made accommodations with shuttle and ferry services, full service along the A line was not restored for seven months.

Intra-Peninsula arteries were blocked or damaged as well. The Shorefront Parkway, Rockaway Beach Boulevard and other internal roads were buried in sand. Combined with impaired communication channels, the lack of mobility created dangerous obstacles to vital supplies, such as clean water, food, and medicine.

**Other outages left Rockaway West residents without power for weeks.** The substations of the Long Island Power Authority (LIPA) were knocked out of service by floodwaters, and LIPA was unable to regenerate its grid for a couple of weeks. A significant number of homes were without power substantially longer.

**Finally, the beaches and boardwalk, iconic community amenities, were decimated.** They washed up into the streets and across properties, causing additional widespread damage and leaving the ocean front bare and more vulnerable.

## Recovering from the Storm

**Issues surrounding rebuilding homes and rehousing displaced residents have been persistent since the storm, and rebuilding homes is cited by the community as an urgent issue.** While some homeowners have recovered from Sandy damage, many houses remain off-limits or are under repair, keeping people out of their homes. For houses under repair, mold remediation – as a result of effluent seepage into the buildings – has posed a challenge. Many homeowners continue to experience challenges with navigating funding, regulations, and insurance rates. Rising flood insurance rates creates additional concerns and uncertainty among homeowners.

**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 is currently planned to run only through January 2014.

The A train service was restored at the end of May 2013, after the causeway that connects the Peninsula to Howard Beach was repaired. MTA NYC Transit has invested in a sea wall to prevent future destruction of the embankment.

**Long-term plans for strengthening the coastline are also underway.** The US Army Corps of Engineers is currently leading a two-phased emergency beach renourishment project. The first phase of this project is complete, while the second phase (1B), which will deposit 3 million cubic yards on the beach from Beach 149 to Beach 19, will be completed by Memorial Day 2014. In addition, they are conducting a longer term reformulation study for greater coastal protection, including the ocean and bay edges of the Peninsula, to be completed in 2015.

**A combined dune and boardwalk system is in construction,** being led by the NYC Department of Parks and Recreation, the NYC Economic Development Corporation, and the US Army Corps of Engineers. This plan will serve both to “harden” the protective infrastructure along parts of the Peninsula’s oceanside and to provide a scenic pedestrian and recreational path for residents.

Finally, a merchant association has been created focusing on the Beach 116th Street corridor and is actively coordinating with City and Federal agencies to rebuild and promote this retail corridor.



## Future Risk

The physical factors that led to the tremendous damage caused by Superstorm Sandy remain vulnerabilities in the community, and risks may increase in the future due to sea level rise.

**The majority of the Rockaway West planning area lies in extreme and high risk zones according to the New York Department of State (NYS DOS) risk analysis.** Located in the mid-section of the Rockaway Peninsula, Rockaway West 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, the Jamaica Bay side of the peninsula is at risk of inundation. Risk of coastal flooding will continue to increase with rising sea levels.

**Erosion may also have effects on future risks.** Located on a barrier island, the shoreline of the Peninsula has shifted significantly over time and is still a dynamic and changing landscape. Portions of the shoreline are subject to erosion, while other portions of the ocean side continue to receive sand deposits. Planning coastal projects in such a dynamic environment will continue to be a challenge.

## New York 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

## NY Department of State Risk Zones



Damage Photo sources: Flickr, Dulouz Cats (left); Flickr, Stephen Mallon (right)



of the landscape, NYS DOS developed its own Risk Assessment Area Mapping which takes additional factors into account. This includes 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, as well as the FEMA flood zones, 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), subject to shallow coastal flooding, 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 frequent inundation (in the 100 year floodplain, the FEMA A-Zone) 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 500 year floodplain) 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>



Beach 116th Street. Photo source: Flickr, cgc76



# IV. Rebuilding and Resiliency Planning

## Process Overview

As previously mentioned, 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.

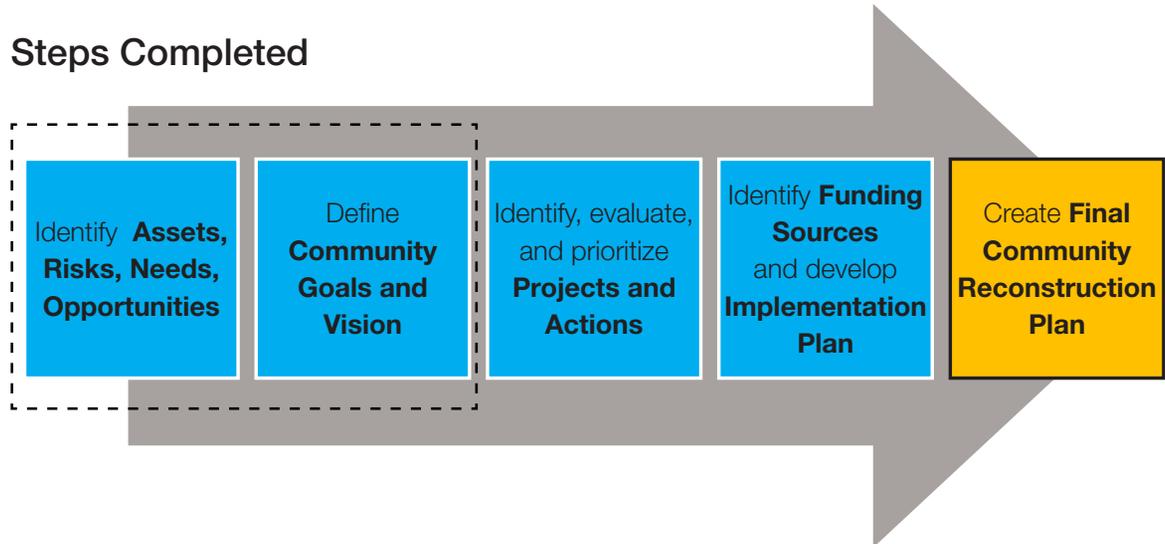
Through a series of Planning Committee and Public Meetings, the community:

- **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 Rockaway West

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.





## Community Assets

### Overview

**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.

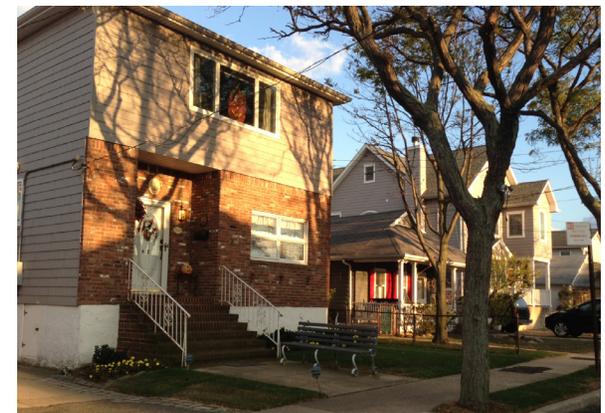
**The asset inventory has been developed based on a combination of public data and input from**

**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 in line with the key recovery functions framing the NYRCR Program: 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 NYC Department of City Planning's MapPluto data, release 13v1.) The building class values in the MapPluto data were assigned to the respective asset class categories defined in the NYRCR guidance. The maps were then refined by input from the Committee.

The maps were subsequently presented to the public at the first public meeting, where community residents identified any missing assets and priorities. The Committee then reviewed and refined the inventory, highlighting the priority assets for the community. The following map identifies the initial list of these priorities –a table showing the complete list of assets identified for Rockaway West can be found in the Appendix.

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



Beaches and housing - important assets of Rockaway West



### Housing Assets

The Rockaway West Planning Committee determined that all housing in the area should be protected, as the most important asset in the community, but identified several specific issues that merited particular focus. Given the variety of housing stock across these neighborhoods, special attention must be paid to the various needs of these critical assets.

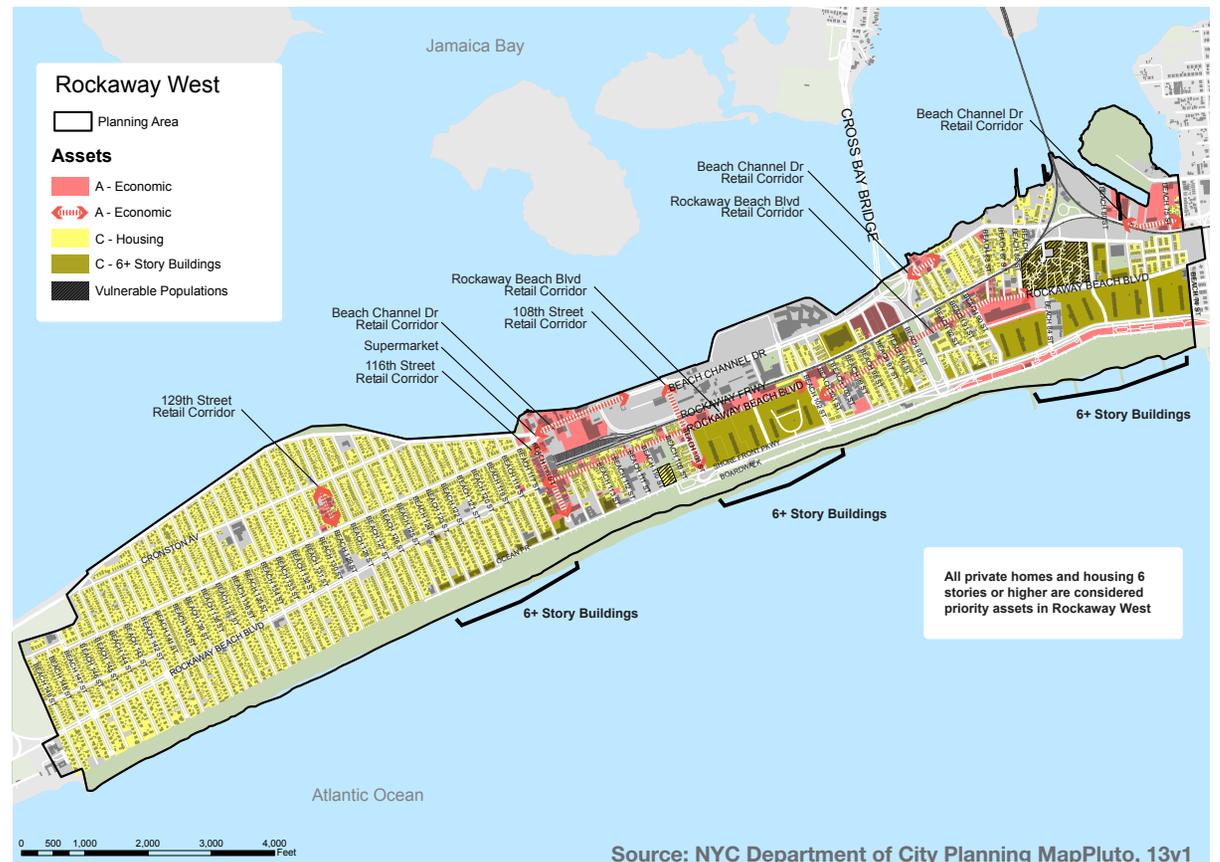
Single-family or small owner-occupied multi-family homes face different risks and have different needs than the large multi-family mid- to high-rise buildings. The latter includes private market co-op and rental buildings, government regulated co-ops, and public housing. It will be important to identify opportunities to protect all of these important housing assets.

### Economic Assets

Key economic corridors are located throughout Rockaway West. Generally speaking, all retail areas are important to rebuild and protect to ensure the sustainability and resiliency of the community. Further, the community identified specific commercial assets that provide essential goods and services, especially in an emergency, as a high priority. These assets include supermarkets, gas stations, and banks.

Commercial nodes exist along Beach 116th Street and Beach 129th Street, with more distributed but significant stretches along Rockaway Beach Boulevard and Beach Channel Drive. Beach 116th Street serves as a

### Housing and Economic Asset Map



Source: NYC Department of City Planning MapPluto, 13v1

key commercial corridor in the area with a variety of restaurants and everyday services such as a drugstore, hardware store, and dry cleaner. While this strip is the focus of many planning efforts, it still exhibits lingering effects from Superstorm Sandy, with vacant storefronts and a bank temporarily relocated to the other side of the street. Other stretches of retail include Rockaway Beach Boulevard, notably between Beach 108th

and Beach 84th Streets and includes the semi-active Dayton Plaza Mall, and Beach 129th Street. While smaller, the one-block business district at Beach 129th Street provides banking, restaurants, and other basic services to Belle Harbor and Neponsit, but it is largely disconnected from other neighborhoods in Rockaway West.



### Health and Social Service Assets

The Rockaway West community contains various health and social service assets, including schools, emergency response services, and community groups, but lacks most types of health care services.

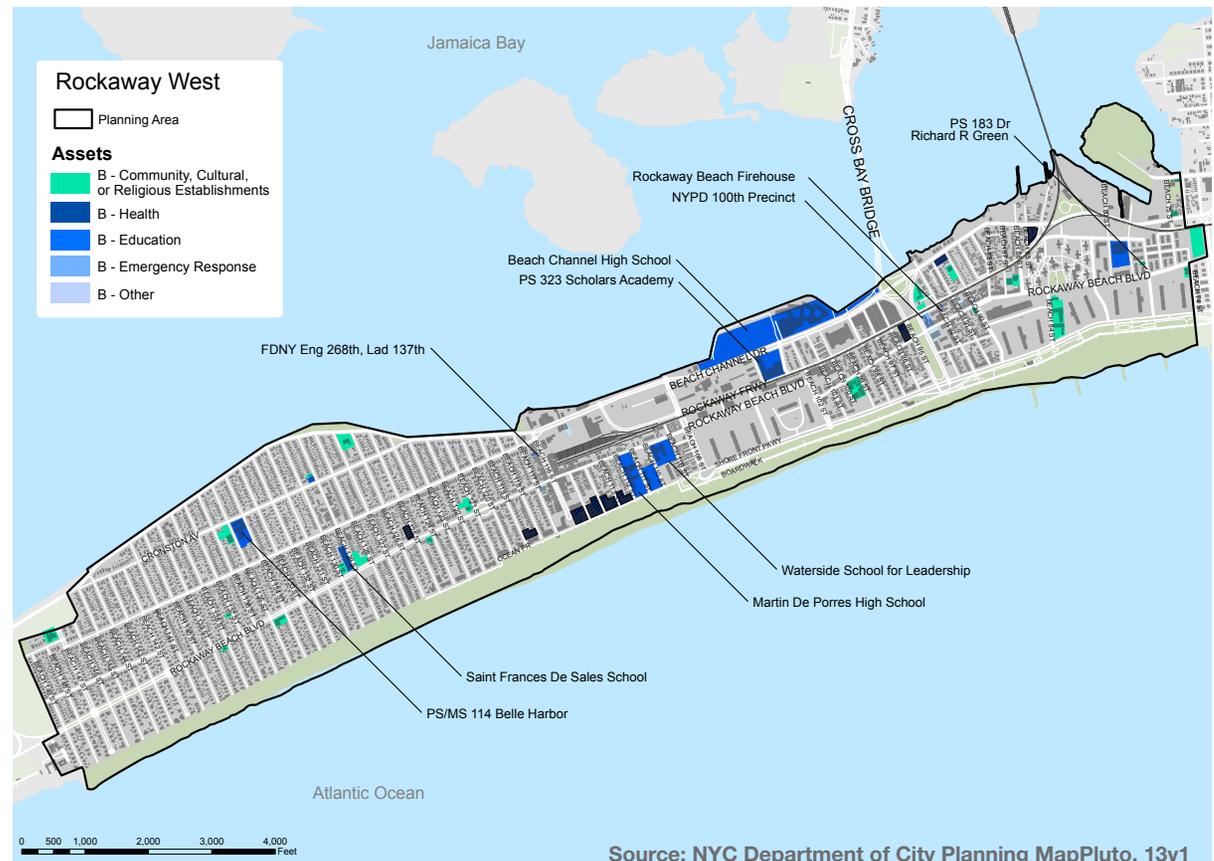
The area’s emergency response services and schools were identified as priority health and social service assets. Rockaway West houses a number of first responder emergency service providers, all of which are important: FDNY’s engine company 268/ ladder company 137 on Beach 116th Street, the Rockaway Beach Firehouse on Rockaway Beach Boulevard, and the NYPD 100th Precinct. Both the public and private schools are also important, not just for education, but during emergencies - various private schools served as emergency community gathering and distribution centers after the storm.

St. John’s Hospital is the only large health facility on the Peninsula and it is located outside of the planning area in Far Rockaway. In addition to its distance from the Rockaway West communities, it lacks a trauma center, so residents must travel to Brooklyn and other parts of Queens for many health services. While an ambulatory center is planned for the courthouse at Beach 84th Street, and a Doctors of the World free clinic is opening on Beach 102nd Street, these projects are not complete and the area still lacks urgent care services.

### Infrastructure Systems Assets

Rockaway West has some of the most significant infrastructure systems on the

### Health and Social Service Asset Map



Source: NYC Department of City Planning MapPluto, 13v1

**Peninsula, including the Rockaway Wastewater Treatment Plan and the A/S Subway.** Water and sewer management will be important to bolster to ensure safety and resiliency of the community. The Rockaway West Wastewater Treatment Plant is currently being studied by NYCDEP for potential repurposing but will continue to be an important asset to maintain. \$8 million in FEMA funding will be

used to make needed repairs to the plant from the effects of Superstorm Sandy.

**Given its relationship to the mainland, transportation is critical to Rockaway West. This includes the bridges, temporary ferry service, and four MTA Subway stations, several of which are in the immediate planning**



community, but all of which the community relies heavily on. The subway stations are served by the A train in the direction of peak travel during commuting hours and served by the Shuttle S train to Broad Channel during all other times. The commuter ferry, although scheduled to end in January 2014, is seen as a major asset, and is a fast, pleasant, and affordable connection from the Peninsula to Manhattan. The Cross Bay and Marine Parkway-Gil Hodges Bridges are a primary means of everyday access for the Rockaways, making sections of Southern Brooklyn and Queens directly accessible.

While they are also important national and recreational resources, the beach and the bay are considered to be the most important assets for providing the first line of defense for the community in the event of a storm. The soon-to-be-rebuilt boardwalk will also serve as a protective infrastructure asset and recreational amenity.

### Natural and Cultural Resource Assets

The natural and cultural resources of Rockaway West bring millions of visitors to the Rockaways every year, and the beaches and bay are valued as the defining feature of the community. Jamaica Bay offers the potential for increased recreational potential but suffers from limited access, while the beach is well-used by surfers and sun-dwellers alike and has potential for expanded recreational options. It will be important to consider multifaceted resiliency strategies that

## Infrastructure and Natural and Cultural Resource Asset Map



Source: NYC Department of City Planning MapPluto, 13v1

help strengthen the edges of the community while also enabling and encouraging continued access to the beach and the bay.

In addition to the beach and the bay, the community has a number of parks, memorials and other amenities that, while not deemed critical in the face of a life-threatening event, are important to

the community. Finally, the community's houses of worship are important and many of them served as valuable emergency recovery sites after Sandy.



## Needs and Opportunities

**This section identifies Rockaway West's needs and opportunities.** This includes what it **needs** to be safe and sustainable in the face of extreme events, emergencies, and climate change. It also identifies **opportunities** that exist within the community which 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 NYRCR 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 the opposite page presents the summary of Needs and Opportunities for Rockaway West, categorized by asset type, and notes the number of times the public mentioned each need. The detailed suggestions from the Committee and the community can be found in the following pages.

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 hierarchy of needs and opportunities for Rockaway West begins to emerge.

### Strengthening the Edge

**Overall, Rockaway West residents identified minimizing storm and flooding impacts on the community as their number one priority.**

Whether it be through further elevation of the bay edge, bolstering protective wetlands, replenishing sand and guarding against erosion on the ocean side, or implementing larger endeavors, residents' most immediate concern is minimizing surge and flooding in the community. Strengthening the edge of the community encompasses the protection of all asset categories, as it protects housing, infrastructure, natural and cultural resources, etc. throughout the five Rockaway West neighborhoods. Additionally, because the edge does not stop at the boundary of the community, any solutions will require coordination with the adjacent National Park Gateway Park land, the broader Rockaway Peninsula, and Jamaica Bay. Various projects are underway to increase the strength and resiliency of the edge, but Rockaway West needs to pursue a strategy for the edge that ensures it is thoroughly bolstered.

### Transportation and Accessibility

**Making Rockaway West more connected and accessible, both with the rest of the City and across the peninsula, is one of the community's greatest needs.** Accessibility to the Rockaways is

reliant on a few key transportation links, and there is very little redundancy in the system. During Sandy, all of these links were down and residents did not have alternate means to evacuate or even travel to other parts of the peninsula. Rockaway West needs improved and expanded transportation networks to not only improve day to day transit, but also to ensure increased access in and out of the area during emergencies.

In addition to improving existing transportation networks, there are opportunities to create new transportation services, such as Bus Rapid Transit or other water-based services. For example, a low-fare ferry service to the Rockaways launched in early 2013, primarily as a means of providing access from the peninsula to Manhattan while repairs were being made to the A train subway line. This service has been very popular and there is a strong interest in potentially expanding and making it permanent. The community sees value in doing so not only for ease of commuting, but also to expand visitation and increase economic vibrancy. In addition to permanent ferry service, there is a need for permanent landing infrastructure. There is also an opportunity for economic development near the current ferry landing at the large, vacant, National Grid site at Beach Channel Drive and Beach 108th Street.

Within the peninsula, there is an opportunity to evaluate existing road networks, especially with the goal of improving east-west connections.



### Emergency Preparedness

**While the Rockaway West community quickly organized to meet emergency needs and provide safe havens in the aftermath of the storm, there is a need to strengthen its ability to be more prepared, resilient, and responsive to the next major emergency.** Among numerous needs, the following key needs have been highlighted thus far: ensure emergency service providers have sufficient emergency response equipment and supplies; identify and prepare common community spaces that can serve as emergency centers; ensure key commercial providers are resilient and can provide goods and services after an emergency; require multi-family building owners to create and enforce emergency plans; and focus on identifying and being prepared to help vulnerable populations.

Increased and improved medical services are also an important need during an emergency as well as in general in Rockaway West. The community has the opportunity to evaluate health care service gaps and pursue a strategy that expands necessary services.

### Improved Infrastructure and Utilities

**The infrastructure of the Rockaways is seen as both one of the most vital elements to recovery after a storm as well as one of its greatest vulnerabilities.** Shore Front Parkway, as an example, has particularly limited drainage, with catchbasins and back-flow valves frequently clogging and creating flooding during normal rainfall.

### Needs and Opportunities Summary

Recovery Function	Needs & Opportunities
COMMUNITY PLANNING & CAPACITY BUILDING	<ul style="list-style-type: none"> <li>Community coherence</li> <li>Coordinated emergency response</li> <li>Improved communications</li> </ul>
INFRASTRUCTURE	<ul style="list-style-type: none"> <li>Accessibility to rest of NYC</li> <li>Strengthened edge</li> <li>Improved water/sewer &amp; drainage</li> <li>Resilient power &amp; utilities</li> <li>Improved internal circulation</li> </ul>
HEALTH & SOCIAL SERVICES	<ul style="list-style-type: none"> <li>Broadened education opportunities</li> <li>Protected vulnerable populations</li> <li>Access to medical facilities &amp; services</li> </ul>
NATURAL & RECREATIONAL	<ul style="list-style-type: none"> <li>Beach &amp; Recreation Amenities</li> </ul>
ECONOMIC DEVELOPMENT	<ul style="list-style-type: none"> <li>Redevelopment of National Grid site</li> <li>Increased economic development</li> </ul>
HOUSING	<ul style="list-style-type: none"> <li>Financial assistance for homeowners</li> <li>Protection of physical structures</li> </ul>

Additionally, the Rockaway Wastewater Treatment plant was damaged during the storm and needs to be strengthened to ensure it stays functional and safe during an emergency.

Communication and power were compromised during Sandy, leaving many people isolated and disconnected. There are opportunities to not only strengthen existing power and communication structures, but to expand the technologies and create alternate and redundant sources of power and telecommunications.

### Economic and Recreation Sites

**Rockaway West has the most vibrant economy on the peninsula, and it needs to be protected and fostered.** There are opportunities to expand commercial, tourist, or other activities in Rockaway West, given the increasing popularity of its beaches as well as underdeveloped and vacant land that could accommodate new commercial uses in key locations.



# Public Meeting 1: Representative Comments on Needs and Opportunities

COMMUNITY PLANNING & CAPACITY BUILDING

**Community coherence**

*“Connectivity with all Rockaway Groups”  
“Family engagement - recreational, educational, cultural”*

COMMUNITY PLANNING & CAPACITY BUILDING

**Coordinated emergency response**

*“Central command emergency center”  
“Need coordinated emergency response effort”  
“Water vehicles, boats for rescuers, fire, and police”  
“Access to emergency food supply”  
“Faster cleanup”  
“Ferry - emergency landing”*

COMMUNITY PLANNING & CAPACITY BUILDING

**Improved communication**

*“Communication systems”  
“Emergency cell communication”  
“State of the art siren/lights and solar powered system”  
“Resilient/redundant communication, education on emergency plan”*

INFRASTRUCTURE

**Accessibility to rest of NYC**

*“Ferry service into JFK, 1/2 hour frequency, 24/7”  
“Need transpo hub that will bring people from Manhattan and region”  
“24/7 transportation access”  
“Ferry dock - 108th St”  
“Ferry service - low cost!”  
“Promote transportation in Rockaway with better/cheaper transportation”  
“Open up discussion with Racino to improve train (express) service to Manhattan”*

INFRASTRUCTURE

**Strengthened edge**

*“Rock jetties for beaches”  
“Raise/strengthen seawall”  
“Multi-use baywall and bikeway”*

INFRASTRUCTURE

**Improved water/sewer & drainage**

*“Clear catchbasins (but check stability)”  
“Creative sewers (a la Arverne by the Sea)”  
“Do something about the horrible smell of the WWPC plant”  
“Jamaica Bay Water Treatment needs upgrade”*

INFRASTRUCTURE

**Resilient power & utilities**

*“Wind + solar generation”  
“Push AT&T/Verizon to have back-up for service or bring in mobile cell tower”  
“Co-benefits - waste digester”  
“LIPA grid for Rockaway only”*

INFRASTRUCTURE

**Improved internal circulation**

*“Need intelligent traffic lights”  
“Traffic circle on north side of B 116th”  
“Connect/improve bonds between groups/areas east to west”*

HEALTH & HUMAN SERVICES

**Broadened educational opportunities**

*“Need a college specializing in science or science institute”  
“Swim/aquatic center to teach our kids to swim (near Riis park”  
“Science and resilience center and ferry @ vacant lot”*

HEALTH & HUMAN SERVICES

**Protect vulnerable populations**

*“Systems in place for the elderly in a disaster”  
“Need to know where vulnerable populations live”  
“Publicity/education about shelters”  
“Mental health services”*

NATURAL & RECREATIONAL

**Beach & recreation amenities**

*“Kayak access on B125-130”  
“Bay esplanade for entire peninsula”  
“Increase accessibility to beaches for disabled and seniors”*

ECONOMIC DEVELOPMENT

**Redevelopment of National Grid site**

*“Build a culture hall on vacant lot”  
“Build ‘higher ground’ refuge”  
“Build outlets at National Grid”*

HOUSING

**Homeowner assistance & affordability**

*“Keeping housing affordable”  
“Help homeowners to raise homes”  
“Help out homeowners with repairs”*



## Planning Committee: Representative Comments on Needs and Opportunities

### COMMUNITY PLANNING & CAPACITY BUILDING

#### Community coherence

- Balance needs of less dense neighborhoods of the peninsula with more dense neighborhoods – want to spread funding and ideas throughout the Rockaways, thinking of the community as a whole
- Identify supportive housing that is adding to community and those that are not

### COMMUNITY PLANNING & CAPACITY BUILDING

#### Coordinated emergency response

- Emergency power
- Hospital and trauma center
- Generators to gas stations
- Amphibious fire trucks

### COMMUNITY PLANNING & CAPACITY BUILDING

#### Improved communication

- Siren system

### INFRASTRUCTURE

#### Accessibility to rest of NYC

- Cross bay light rail to Jamaica
- Make ferry service permanent

### INFRASTRUCTURE

#### Strengthened edge

- Protection is the first priority of the community
- Want to implement measures that help to lower flood insurance rates.
- Develop plan for protection of Bayside: uniform bulkheads

### INFRASTRUCTURE

#### Improved water/sewer & drainage

- Storm water management
- Shore Front Pkwy as centerpoint of infrastructure improvements
- Water treatment improvements

### INFRASTRUCTURE

#### Resilient power & utilities

- Backup generators, raised, and providing power to community
- Power issues are central to recovery

### INFRASTRUCTURE

#### Improved internal circulation

- East - west connection
- Parking lots

### HEALTH & HUMAN SERVICES

#### Protect vulnerable populations

- Back-up generators for vulnerable areas/buildings
- Redefine vulnerable to include whole peninsula
- Asbestos remediation
- Move nursing homes off peninsula, nothing to sustain them in emergency

### HEALTH & HUMAN SERVICES

#### Access to medical facilities & services

- Hospitals & health care for the peninsula need to be considered.

### HEALTH & HUMAN SERVICES

#### Increased economic development

- Struggling retail on Rockaway Beach Blvd
- 116th St and 129th St retail (“Beach town center”)
- Protection on west end
- Key Food site is central to , and can be valuable to the community
- Filming movies and tech industry in Rockaways

### NATURAL & RECREATIONAL

#### Beach & recreation amenities

- Esplanade along bay
- Boardwalk as aesthetic asset and potential flood protection

### ECONOMIC DEVELOPMENT

#### Redevelopment of National Grid site

- National Grid-owned property near Beach 108th Street identified as an opportunity site that could include retail
- Opportunity site for floating ferry terminal, resiliency center for city, Citibike connection

### HOUSING

#### Rebuilding & adapting damaged & vulnerable housing

- Rebuild and protect homes from flooding



## Community Goals and Vision

The final key 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 Rockaway West. Setting targets and aspirations for the future can help the community to think beyond existing conditions and imagine a more resilient and sustainable future. By looking at assets and needs, and then setting goals and a vision, the community can then devise strategies to reach those goals.

Goals help define particular objectives that the community hopes to achieve over the short and long term. They can range from small, specific goals to much more complex, multi-pronged ambitions. Overall, they are action-oriented and aspirational in nature.

The community vision is an overarching umbrella statement that encapsulates a collective sense of purpose and direction and maximum potential 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 on short- and long-term goals and collective vision and a work station at the first public meeting. From these two inputs, the team organized summary goals and a draft vision statement, which the Committee reviewed and finalized.

### Goals

Short-Term (2–5 years)	Long-Term (5–10 years)
Address any immediate risks to both the ocean and bay edges	Create hard and soft edges to maximally protect all of the communities in Rockaway West
Rebuild and strengthen damaged homes	Protect and ensure all homes in West Rockaway are made resilient
Improve and extend transit service and access to existing infrastructure	Improve transportation infrastructure and connectivity of Rockaway West
Strengthen emergency preparedness	Enable self-sufficiency during and after emergencies
Identify and implement short-term improvements to strengthen utilities, communication, and water management	Create long-term upgrades to existing infrastructure to be a regional model for sustainability, resiliency and energy independence
Improve immediate health and social service challenges	Seek sustainable models for health and social service provision for the community
Support commercial recovery and redevelopment	Expand broader economic development and economic activity throughout the community
Identify short-term projects to improve the boardwalk and expand beachfront and bayside activity	Maximize waterfront use and access along the bay and the beach

### Vision Statement

*Rockaway West seeks to be stronger and more resilient, not only to be better prepared for future natural disasters or large-scale emergencies, but also to bolster and grow our robust natural, economic, and social ecosystems.*



## 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 in close proximity at 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 bay side 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 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 USACE on the 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 the NYC Department of Buildings, 37 percent of the buildings destroyed during Superstorm 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.** On 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



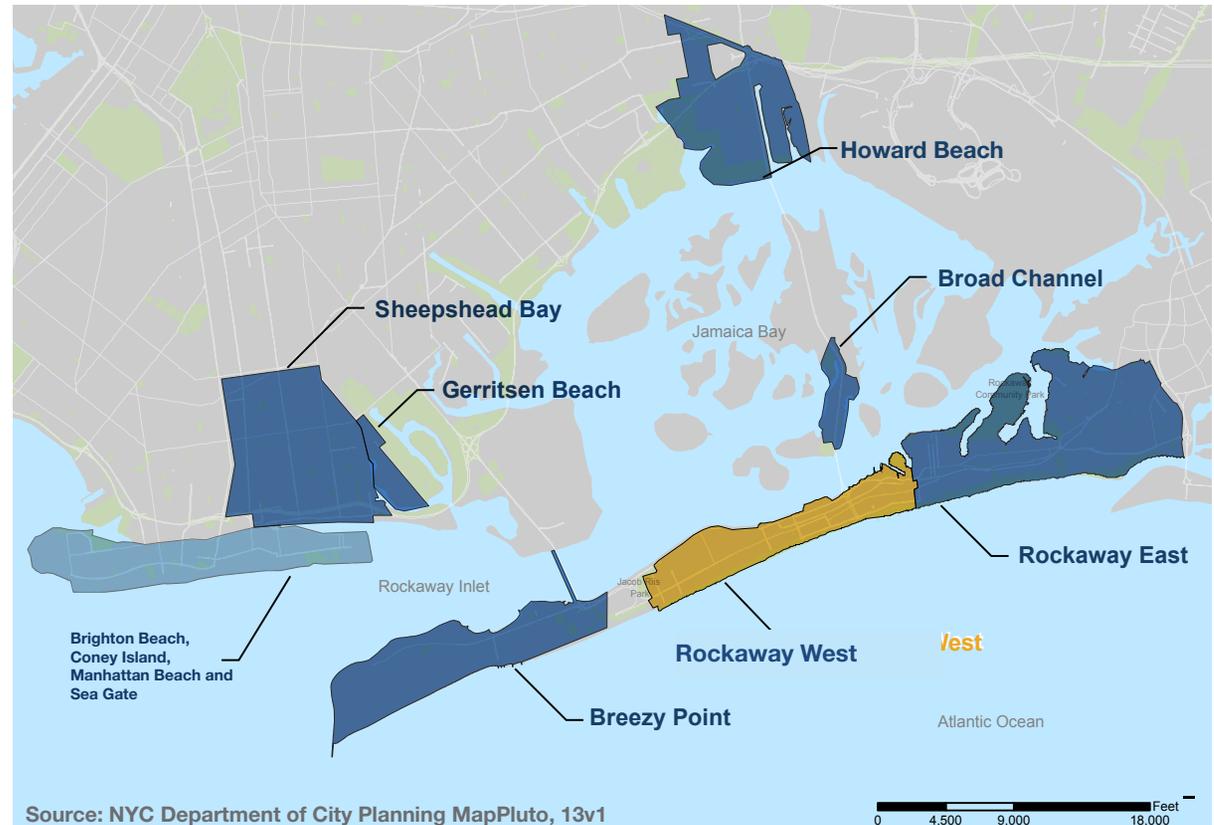
as Breezy Point and Broad Channel and certain parts of Old Howard Beach, including bridges and roadways that were damaged or flooded, also constrained emergency response and hindered evacuation.

**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 efforts 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 NYRCR bay communities will form a Jamaica Bay NYRCR Working Group.** The

## Planning Areas in Jamaica Bay



group will review respective Conceptual Plans and assess opportunities to strategically protect their communities in concert. These regional strategies will be included in the Final Community Reconstruction Plans.

**To maximize benefits and minimize risk, coordination among efforts by NYRCR 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 NYC, 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 NYRCR Program may fill existing gaps, the consulting team has reviewed past and ongoing plans, studies, and projects in Rockaway West and surrounding areas.** Major existing plans, studies, and projects in Jamaica Bay and citywide are described below. Relevant plans are also described in more detail in the matrix that follows.

### 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, 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 EIS 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-date 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 NYCDEP 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 HER-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 by 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 Rockaway West 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.

**Particularly relevant to NY Rising communities are ongoing and potential 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 damages 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 whose businesses were 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 as the 100 year floodplain, calling attention to the fact that an update to these maps was needed. In fact, before Superstorm 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 also 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 with 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.



## 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		
<b>Projects</b>										
Ferry Service	NYC Economic Development Corporation	Temporary ferry service from B 108 Street to Wall Street/Pier 11 in Manhattan		x					Transportation	Ferry funded to run until January 2014
NYC Department of Environmental Protection Programs	NYC Department of Environmental Protection	Pilot program to remotely monitor flows inside the sewer system					x		Utilities	In operation
NYC Department of Parks and Recreation Capital Project	NYC Department of Parks and Recreation, CH2MHILL	Post-Sandy beach & boardwalk restoration work					x		Coastal Protection	Community Board 14 reviewed & approved the following elements of the plan on 10/8/2013: Boardwalk elevation, baffle walls, dune planting, concrete boardwalk materials. Construction to begin Winter 2014.
Port Authority of NY & NJ Capital Projects	Port Authority of NY & NJ	\$450M to rebuild and enhance Port Authority Facilities					x		Transportation	Various stages of completion
Sandy Recovery and Resilience Division	Metropolitan Transit Authority	Repair of A line from Howard Beach to Rockaways					x		Transportation	Completed
United States Army Corps of Engineers Capital Project	United States Army Corps of Engineers	Emergency Dredging and Beach Nourishment for the Atlantic Coast of New York City, Rockaway Beach / Continue to work with the USACE to complete emergency beach nourishment on the Rockaway Peninsula					x		Coastal Protection	Phase I complete: 600,00 cubic yards placed on beach from B 149-89 Street. Phase II to be completed by June 2014: Additional 3 million cubic yards of sand on beach from B 149-19th
United States Army Corps of Engineers Capital Project	United States Army Corps of Engineers	Jacob Riis Park Restoration						x	Public Realm	In construction
Installation of Trunk Water Main in B.94th Street, Rckwy Bch Blvd, B90-B94 St	NYC Department of Environmental Protection	Install storm and sanitary sewers, and water main: Rockaway Beach Boulevard between Cross Bay Boulevard and Beach 88th Street; Beach 91st Street between Beach Channel Drive and Holland Avenue; Beach Channel Drive between Beach 88th and Beach 91st Street; Holland Avenue between Beach 94th and Beach 90th Streets; along with additional adjacent streets.					x		Stormwater management	In construction
Street resurfacing	NYC Department of Transportation	Roadway resurfacing with 2" asphalt/concrete wearing course, installation of pedestrian ramps at designated streets, and installation of new curbs and sidewalks where directed.					x		Transportation	In construction
Reconstruction of Shore Front Pkwy	NYC Department of Transportation	Roadway reconstruction on Shore Front Parkway from Beach 73rd to Beach 108th Street with potential longer-term reconfiguration					x		Transportation	Planning



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		
Rockaway Courthouse Medical Center	NYC Economic Development Corporation	Redevelopment of vacant courthouse site into medical center			x					Pre-construction
Baywall Repair and Reconstruction	NYC Department of Transportation, NYC Economic Development Corporation	B143 <sup>rd</sup> -130 <sup>th</sup> St Baywall Repair					x			In construction. Economic Development Corporation managing rehabilitation (through Skanska) including substructure repair and replacing sheet pile wall.
	NYC Small Business Services, NYC Economic Development Corporation	B130-125 Street Baywall Repair					x			Complete. Economic Development Corporation managed reconstruction with new baywall and revetment.
	NYC Department of Transportation, NYC Economic Development Corporation	B125-116 Street Baywall Repair					x			Next phase of construction as a part of the Skanska contract.
	NYC Department of Parks and Recreation, NYC Economic Development Corporation	B112-108 Street Baywall Repair					x			NYC Department of Parks and Recreation. Economic Development Corporation to manage 100% rebuild. Designed and have a low bidder, waiting for DEC approval to proceed.
Rockaway Wastewater Treatment Plant Hardening/Conversion	NYC Department of Environmental Protection	Feasibility study for conversion of the plant into a pumping station and other alternatives					x			\$8 million for repairs from Sandy in Federal Emergency Management Agency funding procured in September, 2013. Study for alternatives currently in procurement .
<b>Programs and Plans</b>										
A Stronger, More Resilient NY	National Park Service & City of NYC	Establish a center for resiliency and restoration efforts in the Jamaica Bay-Rockaway Parks								Consortium to be lead by City University of NY (announced 8/12/2013). Initial resiliency symposium held 10/18/2013. Jamaica Bay - Rockaway Parks Conservancy established 8/12/2013 to be funded by public-private partnership.
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.
Comprehensive Restoration Plan for the Hudson Raritan Estuary	United States 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
Greater Rockaways: 2020 Waterfront Vision Plan	Rockaway Waterfront Alliance	Improve Bike & Ped Network, Enhance Boardwalk, Concessions, Accessible waterfront	x				x		Transportation/Public Realm	Ongoing



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		
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
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	American Planning Association - NY Metro Chapter; Rockaway Development & Revitalization Corporation	Provision of a staffed, mobile office to educate and provide technical assistance to businesses applying for grants, loans, and other resources and funding opportunities.							Retail	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		
Army Corps Reformulation Study	United States Army Corps of Engineers	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 & NYC Department of Parks and Recreation	New management plan reflecting joint programming with city and integration into neighborhoods						x		Environmental Impact Study currently open for public comment
Rockaway Crossings Master Plan and Resiliency Needs	Metropolitan Transit Authority/Triborough Bridge and Tunnel Authority	Engineering study of various long-term capital investment strategies for reconstruction & resiliency measures for Gil Hodges Memorial Bridge and Cross Bay Veterans Memorial Bridge to guide future capital investment					x		Transportation	Study currently in procurement
National Grid Site Redevelopment on B 108th St	National Grid	Redevelopment of remediated National Grid sites as outline in the WAVES 2020 Comprehensive Waterfront Plan		x						Published



## VI. Preliminary Strategies and Projects

### Preliminary Strategies, Projects, and Actions

As outlined in the preceding sections, Rockaway West's major needs and goals include: strengthening the edges; rebuilding and protecting housing; increasing accessibility; improving emergency preparedness; strengthening infrastructure; expanding health and social services; encouraging economic vitality; and increasing natural and recreational opportunities.

Based on the above, the community has started to discuss strategies and potential initiatives to meet their short- and long-term goals and overall vision for Rockaway West. This section highlights and organizes these preliminary strategies and initiatives in order to share the ideas generated thus far from the process and meetings. **This is not a set of formal proposals, nor is the table ordered in any particular hierarchy.** As described in the next section, the ideas listed in the following table will evolve over the next two months.



Jacob Riis Bathhouse restoration. Photo source: Flickr, NPS-Wickersty



**INFRASTRUCTURE:  
STRENGTHEN THE EDGE**

**HOUSING:  
REBUILD AND PROTECT**

Strategy	Short-Term Goal	Long-Term Goal	Initiatives
<p>Protect the Rockaway West communities and minimize flooding by strengthening the ocean and bay edges</p>	<p>Address any immediate risks to both the ocean and bay edges</p>	<p>Create hard and soft edges to maximally protect all of the communities in Rockaway West</p>	<ul style="list-style-type: none"> <li>• Identify vulnerabilities on the bay side and identify short term remediation projects where needed and feasible</li> <li>• Evaluate opportunities to standardize and permanently strengthen the bay seawall</li> <li>• Determine any gaps in current beachfront plans and identify short- and long-term projects to address them</li> <li>• Evaluate strategies and opportunities to protect community edges adjacent to federally owned and managed areas</li> <li>• Coordinate with larger bay planning to create regional plans and projects</li> </ul>
<p>Rebuild and protect all types of housing, the most important asset to the community (including single-family, mid-rise, and high-rise, renter- and owner-occupied, and both regulated and market rate)</p>	<p>Rebuild and strengthen damaged homes</p>	<p>Protect and ensure all homes in Rockaway are made resilient</p>	<ul style="list-style-type: none"> <li>• Evaluate scope of the City’s Build it Back program, determine gaps, and create a proposal to address other needs to rebuild or protect housing</li> <li>• Create program to help homeowners assess technical housing needs, provide counseling on insurance issues, rebuilding, etc.</li> <li>• Create a grant or low-cost loan program to help people make homes more resilient, ensuring this includes co-ops as well as single-family homes</li> <li>• Create resiliency standards for 6+ floor multi-family buildings, for both private and regulated housing</li> </ul>



**INFRASTRUCTURE:  
POWER, UTILITIES, & WATER**

Strategy	Short-Term Goal	Long-Term Goal	Initiatives
<p>Strengthen all utilities and communications infrastructure to ensure endurance at all times</p>	<p>Identify and implement short-term improvements to strengthen utilities, communication, and water management</p>	<p>Create long-term upgrades to existing infrastructure to be a regional model for sustainability, resiliency and energy independence</p>	<ul style="list-style-type: none"> <li>• Ensure the wastewater treatment plant is safe and fully operational in the short-term, especially in an emergency, and is upgraded in a resilient, sustainable way to accommodate the increased population, and additional global changes in the long-term</li> <li>• Install backflow valves along the bay side to prevent overflow and contamination</li> <li>• Harden LIPA substation</li> <li>• Implement back-up 'hard-wired' communications networks to serve as redundant system from mobile services</li> <li>• Implement emergency communication system</li> <li>• Create incentive program for implementing alternative energy sources across the community (e.g. solar, wind) that could provide back-up power in emergencies</li> <li>• Implement green infrastructure projects (to mitigate stormwater runoff and sewer overflows)</li> </ul>



**INFRASTRUCTURE:  
EXPAND TRANSPORTATION**

**COMMUNITY PLANNING:  
EMERGENCY PREPAREDNESS**

Strategy	Short-Term Goal	Long-Term Goal	Initiatives
<p>Improve and expand transportation networks for the communities across Rockaway West to ensure ongoing connectivity and multiple access redundancy</p>	<p>Improve and extend transit service and access to existing infrastructure</p>	<p>Improve transportation infrastructure and connectivity of Rockaway West</p>	<ul style="list-style-type: none"> <li>• Expansion of ferry service to a permanent transportation option</li> <li>• Create emergency transportation plans to ensure safe and sufficient transport off/onto the peninsula before and after a major storm</li> <li>• Evaluate opportunities to expand transportation network for the community (e.g. Bus Rapid Transit, other ferry opportunities, etc.)</li> <li>• Consider project to raise roadways, especially along the perimeter of the peninsula</li> <li>• Ensure bridges, roadways and trains are strengthened to withstand extreme weather events</li> </ul>
<p>Pursue measures to strengthen Rockaway West’s ability to contend with and recover from large-scale weather events</p>	<p>Strengthen emergency preparedness</p>	<p>Enable self-sufficiency during and after emergencies</p>	<ul style="list-style-type: none"> <li>• Identify and bolster key locations (e.g. private school, open spaces) across the community to serve as safe, emergency/evacuation centers and potential temporary sites for pop-up centers. Determine needs, locations and sources (e.g. food, medical, sleeping supplies) and create emergency management plans</li> <li>• Pursue requirements for multi-family building owners to create, communicate, and ensure adherence to evacuation and emergency planning and recovery, including identifying and assisting seniors, ensuring back-up electricity systems, etc.</li> <li>• Pursue a strategy to create similar emergency plans for single-family home neighborhoods, especially for vulnerable community residents</li> </ul>



**HEALTH & SOCIAL SERVICES:  
EXPAND SERVICES**

Strategy	Short-Term Goal	Long-Term Goal	Initiatives
<p>Pursue strategies to expand health and social services in Rockaway West, especially during and after emergencies</p>	<p>Improve immediate health and social service challenges</p>	<p>Seek sustainable models for health and social service provision for the community</p>	<ul style="list-style-type: none"> <li>• Create resiliency plans for schools to create safe emergency centers during and after a storm and to ensure a quick recovery</li> <li>• Bolster all emergency service providers (e.g. police, fire, hospital) to ensure readiness in a large weather-related event</li> <li>• Evaluate and pursue opportunities to create and expand health services in Rockaway West, especially emergency walk-in centers</li> <li>• Evaluate risks to vulnerable populations in the V-Zone and determine new guidelines on future construction in high-risk areas</li> <li>• Create a 'Coastal Commissioner' who governs waterfront issues and projects and helps bridge issues across government entities</li> </ul>



**ECONOMIC DEVELOPMENT:  
ENSURE VIABILITY & SUSTAINABILITY**

Strategy	Short-Term Goal	Long-Term Goal	Initiatives
<p>Strengthen commercial corridors to protect and sustain economic health during and after storms and to maintain overall vibrancy of the community</p>	<p>Support commercial recovery and redevelopment</p>	<p>Expand broader economic development and economic activity throughout the community</p>	<ul style="list-style-type: none"> <li>• Consider regulations for basic emergency preparedness and recovery standards for businesses, especially critical services like food, water, banks, and gas (e.g. back-up generators, emergency supplies, etc.)</li> <li>• Pursue strategy to expand and retain commercial vibrancy of all commercial corridors</li> <li>• Evaluate scope of the City's business recovery plans, determine gaps, and create a proposal to address other needs to rebuild or protect retail corridors</li> <li>• Finalize and pursue strategy to redevelop National Grid Site</li> <li>• Expand low-cost loan programs to help make businesses more resilient</li> <li>• Pursue business incentive programs to draw more businesses to Rockaway West</li> <li>• Identify and pursue warehouse type locations for use</li> </ul>



**NATURAL & CULTURAL RESOURCES:  
CONNECTION TO WATER**

Strategy	Short-Term Goal	Long-Term Goal	Initiatives
<p>Expand the access and opportunities presented by the water, the nucleus of the Rockaway communities</p>	<p>Identify short-term projects to improve the boardwalk and expand beachfront and bay-side activity</p>	<p>Maximize waterfront use and access along the bay and the beach</p>	<ul style="list-style-type: none"> <li>• Create plan to expand recreation and other opportunities that complement the new plans for the boardwalk</li> <li>• Pursue strategies to utilize the bay for recreation (e.g. private boating or commercial outfits - kayaking, windsurfing, sailing, etc.)</li> <li>• Seek opportunities to make Rockaway West more of a destination (e.g. outdoor performing theater)</li> <li>• Create and implement a comprehensive plan to maximize community engagement with both the ocean and the bay, which aligns with resiliency protection, but enables full access, recreation, and economic development along the water</li> </ul>



## Next Steps and Implementation Planning

### 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:

- Assessment of risks to key assets and systems
- Projects and actions to restore and increase the resiliency of key assets.
- Protection of vulnerable populations
- Projects with economic growth co-benefits
- Regional coordination
- 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 a 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 Rockaway West'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.



# Appendix: Complete Asset Inventory

The following tables contain the complete list of assets for Rockaway West, with additions from the Planning Committee and public.

## Health & Social Services Assets:

Asset Name	Asset Subcategory	Address
ARVERNE PILGRIM CHURCH	Community Centers	74-16 BEACH CHANNEL DRIVE
BELLE HARBOR YACHT CLUB	Community Centers	533 BEACH CHANNEL DRIVE
JERUSALEM TRUE BAPTIST CHURCH	Community Centers	216-20 BEACH 87 STREET
KNIGHTS OFCOLUMBUS 2672	Community Centers	3-35 BEACH 90 STREET
YMCA (FUTURE)	Community Centers	207 BEACH 73 STREET
BELLE HARBOR JEWISH CENTER	Cultural or Religious Establishments	134-03 ROCKAWAY BEACH BLVD
BETHEL AME CHURCH	Cultural or Religious Establishments	2-15 BEACH 77 STREET
COMMUNITY CHURCH OF GOD	Cultural or Religious Establishments	3-51 BEACH 74 STREET
COMMUNITY MIKVAH/B.H.	Cultural or Religious Establishments	505A BEACH 129 STREET
CONGREGATION BAIS Y/B	Cultural or Religious Establishments	2-29 BEACH 137 STREET
CONGREGATION MERCAZHA	Cultural or Religious Establishments	124-01 ROCKAWAY BEACH BLVD
FIRST CONGREGATIONAL CHURCH - ROCKAWAY BEACH	Cultural or Religious Establishments	320 BEACH 94 STREET
HAVEN MINISTRIES	Cultural or Religious Establishments	1-88 BEACH 84 STREET
NAKASH FAMILY FOUNDATION	Cultural or Religious Establishments	138-05 ROCKAWAY BEACH BLVD
NEW HOPE BAPTIST CHURCH	Cultural or Religious Establishments	219 BEACH 86 STREET
SAINT ROSE OF LIMA SCHOOL	Cultural or Religious Establishments	1-31 BEACH 84 STREET
ST CAMILLUS CHURCH & SCHOOL	Cultural or Religious Establishments	99-13 100 STREET
ST FRANCIS DE SALES CHURCH	Cultural or Religious Establishments	216 BEACH 130 STREET
ST FRANCIS DE SALES RECTORY	Cultural or Religious Establishments	218 BEACH 129 STREET
ST JOHN BAPTIST CHURCH	Cultural or Religious Establishments	74-05 ROCKAWAY BEACH BLVD
TEMPLE BETH EL	Cultural or Religious Establishments	464 BEACH 136 STREET
TEMPLE BETH EL ROCKAWAY	Cultural or Religious Establishments	201 BEACH 121 STREET
GLORIA'S MANOR	Daycare and Eldercare	143 BEACH 118 STREET
NEW PARK INN HOME FOR ADULTS	Daycare and Eldercare	115-02 OCEAN PROMENADE
OCEAN PROMENADE NURSING CENTER	Daycare and Eldercare	112-12 OCEAN PROMENADE
PARK NURSING HOME	Daycare and Eldercare	114-02 OCEAN PROMENADE
PROMENADE REHABILITATION AND HEATH CARE CENTER	Daycare and Eldercare	140 BEACH 114 STREET
SURFSIDE MANOR HOME FOR ADULTS	Daycare and Eldercare	95-02 ROCKAWAY BEACH BLVD
FDNY ENG 268TH, LAD 137TH	Emergency Operations / Response	2-59 BEACH 116 STREET
NYPD 100ST PRECINCT	Emergency Operations / Response	92-20 DE SOTA ROAD

Asset Name	Asset Subcategory	Address
ROCKAWAY BEACH FIREHOUSE	Emergency Operations / Response	92-20 RCKWY BEACH BLVD
USPS ROCKAWAY BEACH	Government and Administrative Services	90-14 ROCKAWAY BEACH BLVD
USPS ROCKAWAY PARK	Government and Administrative Services	113-25 BEACH CHANNEL DRIVE
MEDICAL CENTER (FUTURE, FORMERLY OLD COURTHOUSES)	Healthcare Facilities	90-01 BEACH CHANNEL DRIVE
PENINSULA QUEENS PUBLIC LIBRARY	Libraries	92-25 ROCKAWAY BEACH BLVD
SEASIDE QUEENS PUBLIC LIBRARY	Libraries	116-17 ROCKAWAY BEACH BLVD
BEACH CHANNEL HIGH SCHOOL	Schools	100-00 BEACH CHANNEL DRIVE
BOARD OF EDUCATION (FORMERLY TEMPLE SCHOOL)	Schools	445 BEACH 135 STREET
MARTIN DE PORRES HIGH SCHOOL	Schools	140 BEACH 112 STREET
MERCAZ HATORAH OF BELLE HARBOR	Schools	505 BEACH 129 STREET
PS 183 DR RICHARD R GREEN	Schools	245 BEACH CHANNEL DRIVE
PS 323 SCHOLARS' ACADEMY	Schools	320 BEACH CHANNEL DRIVE
PS/MS 114 BELLE HARBOR	Schools	134-19 CRONSTON AVENUE
SAINT FRANCIS DE SALES SCHOOL	Schools	237 BEACH 129 STREET
ST. JOHN'S RESIDENCE & SCHOOL FOR BOYS	Schools	110-06 BEACH 110 STREET
WATERSIDE SCHOOL FOR LEADERSHIP	Schools	190 110 BEACH STREET
WEST END TEMPLE NURSERY SCHOOL	Schools	147-02 NEWPORT AVENUE
BELLE HARBOR MANOR	Supportive Housing	209 BEACH 125 STREET
SERVICES FOR THE UNDERSERVED	Supportive Housing	318 BEACH 85 STREET



**Economic Assets:**

Asset Name	Asset Subcategory	Address
108TH STREET RETAIL CORRIDOR	Downtown Center	
116TH STREET RETAIL CORRIDOR	Downtown Center	
129TH STREET RETAIL CORRIDOR	Downtown Center	
ROCKAWAY BEACH BOULEVARD CORRIDOR	Downtown Center	
BEACH CHANNEL DRIVE RETAIL CORRIDOR (116th BEACH- 110th BEACH)	Downtown Center	
BEACH CHANNEL DRIVE RETAIL CORRIDOR (74th BEACH-75th BEACH)	Downtown Center	
BEACH CHANNEL DRIVE RETAIL CORRIDOR (92nd BEACH-93rd BEACH)	Downtown Center	

**Housing Assets:**

Asset Name	Asset Subcategory	Address
ALL PRIVATE HOMES	Housing	
HOUSING 6+ STORY BUILDINGS	Housing	

**Natural & Cultural Assets:**

Asset Name	Asset Subcategory	Address
BEACH 88 STREET PARK (FUTURE)	Parks and Recreation	BEACH 88 ST & BCH CHANNEL DR
DOG PARK	Parks and Recreation	BCH 80 ST & BCH CHANNEL DR
DOUGHBOY MONUMENT	Parks and Recreation	BCH 94 ST & RKWY BCH BLVD
FLIGHT 587 MEMORIAL	Parks and Recreation	BCH 116 ST & OCEAN PROMENADE
GWIRTZMAN TRIANGLE	Parks and Recreation	BEACH 144 ST & CRONSTON AVE
JAMAICA BAY	Waterbodies	
PATRICIA A BRACKLEY PARK	Parks and Recreation	BEACH 124 ST & CRONSTON AVE
ROCKAWAY BEACH	Parks and Recreation	
ROCKAWAY BOARDWALK	Parks and Recreation	
TRIBUTE PARK	Parks and Recreation	BEACH CHANNEL DRIVE
VERNAM BARBADOES PENINSULA	Parks and Recreation	AMSTEL BOULEVARD
VETERANS MEMORIAL CIRCLE	Parks and Recreation	120/121 ST & RCKWY BCH BLVD

**Infrastructure Assets:**

Asset Name	Asset Subcategory	Address
EAST RIVER PETROLEUM	Liquid Fuels	112-01 BEACH CHANNEL DRIVE
GAS STATION	Liquid Fuels	100-01 101 STREET
GAS STATION	Liquid Fuels	112-10 BEACH CHANNEL DRIVE
GAS STATION	Liquid Fuels	115-05 BEACH CHANNEL DRIVE
GAS STATION	Liquid Fuels	115-20 BEACH CHANNEL DRIVE
GAS STATION	Liquid Fuels	441 BEACH 129 STREET
LIPA	Power Supply	BEACH CHANNEL DRIVE
LIPA TRANSFER STATION	Power Supply	67 ROCKAWAY BEACH BLVD
MARKETSPAN GAS CORPORATION	Power Supply	108-03 BEACH CHANNEL DRIVE
BAYWALL	Stormwater	BEACH CHANNEL DRIVE
NY TELEPHONE CO	Telecommunications	80-18 ROCKAWAY BEACH BOULE
A TRAIN LINE	Transportation	BEACH 96 STREET
BEACH 90 STREET MTA SUBWAY STATION	Transportation	BEACH 90 STREET
BEACH 98 STREET MTA SUBWAY STATION	Transportation	BEACH 98 STREET
BEACH 105 STREET MTA SUBWAY STATION	Transportation	BEACH 105 STREET
ROCKAWAY PARK - BEACH 116 ST MTA SUBWAY STATION	Transportation	BEACH 116 STREET
CROSS BAY VETERANS MEMORIAL BRIDGE	Transportation	
FERRY LANDING	Transportation	BEACH 108 & BEACH CHANNEL DR
GIL HODGES BRIDGE	Transportation	
ROCKAWAY BEACH	Parks and Recreation	
ROCKAWAY BOARDWALK	Parks and Recreation	
ROCKAWAY WASTE WATER TREATMENT PLANT	Wastewater	BEACH CHANNEL DRIVE

