



Southern Brooklyn Peninsula Conceptual Plan



New York Rising
Community Reconstruction Program

**Brighton Beach, Coney Island, Manhattan Beach,
and Sea Gate**

October 2013

This document was developed by the Southern Brooklyn Peninsula 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:

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FOREWORD

The New York Rising Community Reconstruction (NYRCCR) 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 NYRCCR 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 NYRCCR 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.

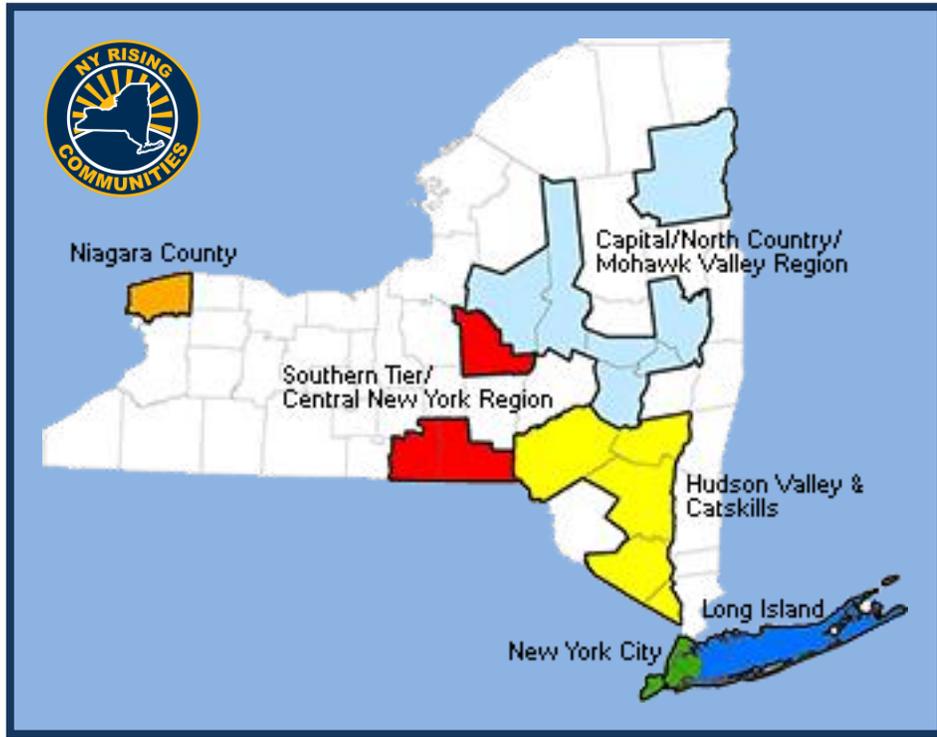
Implementation of the proposed projects and actions found in this conceptual plan is subject to applicable federal, state, and local laws and regulations. Inclusion of a project or action in this conceptual plan does not guarantee that a particular project or action will be eligible for Community Development 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 NYRCCR 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



Preface

The Southern Brooklyn Peninsula is home to more than 78,000 residents¹ in the diverse communities of Brighton Beach, Coney Island, Manhattan Beach, and Sea Gate. The Southern Brooklyn Peninsula was once a true barrier island, but over the past century, property owners and New York City have filled in the marshlands and waterways that separated the barrier island from the mainland.

Superstorm Sandy hit the Southern Brooklyn Peninsula hard in October 2012. Virtually the entire area was flooded, and almost all of the residents and businesses were affected. The four communities are recovering and rebuilding is under way, but much remains to be done.

This document is the Conceptual Plan for the development of the Southern Brooklyn Peninsula New York Rising Community Reconstruction (NYRCCR) Plan. The Conceptual Plan consists of background on the communities, a summary of the damage from Superstorm Sandy, a description of the community assets the community seeks to protect, the level of flooding risk, the needs and opportunities for rebuilding that have been identified to date, preliminary rebuilding strategies, and the process that will be followed to implement the strategies.

Development of the plan will involve input from residents, community leaders, business leaders, and representatives of community-based organizations. The Southern Brooklyn Peninsula NYRCCR Plan is anticipated to be completed by March 2014.

An NYRCCR Planning Committee has been established to oversee the development of an NYRCCR Plan for Brighton Beach, Coney Island, Manhattan Beach, and Sea Gate. The committee consists of residents of the Southern Brooklyn Peninsula and representatives of community organizations and businesses.

¹ 2010 U.S. Census.



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1 Introduction and Background

The New York Rising Community Reconstruction (NYRCR) Program was established to provide rebuilding and revitalization assistance to communities severely damaged by Superstorm Sandy, Hurricane Irene, and Tropical Storm Lee. The NYRCR Program enables communities to identify resilient and innovative reconstruction projects and other needed actions based on community-driven plans that consider current damage, future threats, and the community's economic opportunities.



Southern Brooklyn Peninsula looking east (courtesy, Butch Moran)

Communities will use the process to develop NYRCR Plans that will address repairing damage from the storms, mitigating future threats to the community, and fostering their economic future. In a manner consistent with the National Disaster Recovery Framework, NYRCR Plans will include the needs, risks and opportunities related to assets in six Recovery Support Functions: Community Planning and Capacity Building, Economic Development, Health and Social Services, Housing, Infrastructure, and Natural and Cultural Resources.

The NYRCR Plan for the Southern Brooklyn Peninsula communities of Brighton Beach, Coney Island, Manhattan Beach, and Sea Gate will:

- Assess the communities' vulnerability to the adverse effects of future natural disasters
- Assess the need for economic development
- Identify where funds should be used to repair or reconstruct critical facilities and essential public assets damaged or destroyed by Superstorm Sandy
- Identify projects that will increase the communities' resilience, provide protection to vulnerable populations, and promote sound economic development by protecting the communities' assets

Communities successfully completing a NYRCR Plan will be eligible to receive funds to support the implementation of projects and actions identified in the plan. The Southern Brooklyn Peninsula communities will be eligible for up to \$19.3 million in Community



Development Block Grant Disaster Relief (CDBG-DR) funding through the State of New York to implement projects in the final NYRCR Plan. The plan will identify other potential funding sources for project implementation, that range from Federal agency grants and low-interest loans, State funding sources, foundation grants, and private sector contributions.

1.1 Planning Committee

Development of the Southern Brooklyn Peninsula NYRCR Plan will be led by a Planning Team consisting of the NYRCR Planning Committee and will include extensive input from the public. The NYRCR Planning Committee includes members of the community and community representatives listed on page iv.

1.2 Geographic Scope

The NYRCR Planning Committee determined the geographic scope of the Southern Brooklyn Peninsula NYRCR Plan based on a review of Superstorm Sandy inundation maps, maps of the geographic areas of the four Southern Brooklyn Peninsula communities, and the initial NYRCR area developed as part of the NYRCR Program. The geographic scope, also referred to as the NYRCR planning area, is shown in Figure 1.

The geographic scope comprises the entire Southern Brooklyn Peninsula, which includes the communities of Brighton Beach, Coney Island, Manhattan Beach, and Sea Gate. Brighton Beach, Coney Island, and Sea Gate are Brooklyn Community Board 13 communities, and Manhattan Beach is a Brooklyn Community Board 15 community.

The planning area also includes the Metropolitan Transportation Authority (MTA) Coney Island Rail Yard and Coney Island Hospital parcel because the rail yard and hospital are significant assets that are adjacent to the planning area and are important to the four communities.

The communities of Gerritsen Beach and Sheepshead Bay, which are adjacent to the planning area, are also developing an NYRCR Plan. The NYRCR Planning Committee for the Southern Brooklyn Peninsula has emphasized the need to coordinate closely with the NYRCR Planning Committee in the adjacent NYRCR Planning Area and to coordinate with regional entities on transportation, health and social services, and economic issues during the development of the Southern Brooklyn Peninsula NYRCR Plan.





Figure 1: Geographic scope of the Southern Brooklyn Peninsula NYRCR Plan



1.3 Community Overview and Existing Development

The Southern Brooklyn Peninsula is home to four diverse communities that have differing needs and opportunities but that also have common concerns following the devastation of Superstorm Sandy. The demographics of the four communities are listed in Table 1.

Table 1: Southern Brooklyn Peninsula Demographic Profile

Demographic	Brighton Beach	Coney Island	Manhattan Beach	Sea Gate
Population	26,643	42,565	4,633	4,386
Race/Ethnicity				
White	80.9%	58.2%	97.9%	94.8%
African American	1.4%	28.1%	0.6%	4.5%
American Indian / Alaskan Native	0.6%	0.2%	0.0%	0.0%
Asian	11.6%	5.5%	0.4%	0.5%
Hawaiian, Pacific Islander	0.0%	0.0%	0.0%	0.0%
Other	3.5%	6.4%	0.7%	0.0%
Two or more races	2.0%	1.7%	0.4%	0.2%
Hispanic of any race	14.7%	6.4%	1.8%	8.2%
Median Age	46.4	46.5	45	42.8
Income				
Median household Income	\$44,000	\$33,300	\$80,800	\$78,650
Poverty rate (families)	20.0%	17.0%	10.7%	11.0%
Housing				
Total number of households	12,229	17,972	1,549	1,617
Owner-occupied housing units	2,779	3,478	1,124	832
Renter-occupied housing units	9,450	14,494	425	785
Average household size	2.18	2.37	2.99	2.71
Median owner-occupied home value	\$497,000	\$310,900	\$953,000	\$624,000

Source: 2011 American Community Survey

Note: Race/Ethnicity figures do not add to 100% because the Census Bureau classifies Hispanic origin as an *ethnic* identifier. The other categories above are classified as *racial* identifiers. The Census Bureau asks respondents to classify themselves both *racially* and *ethnically*.



Brighton Beach

As shown in Table 1, Brighton Beach is home to more than 26,000 residents in approximately 12,000 households. It is separated from Coney Island by Ocean Parkway.

There is a wide range of housing types, from recently built luxury condominiums that face the beach to older, relatively dense urban neighborhoods of single- and multi-family houses.



Coney Island

With a population of approximately 42,000, Coney Island is the largest of the four communities on the Southern Brooklyn Peninsula. It is characterized by a blend of residential, commercial, institutional, and industrial uses, and is commonly associated with amusement and entertainment facilities.

Coney Island has more than 40 high-rise residential towers, including public housing projects and the Mitchell-Lama towers.



The Coney Island amusement area has experienced periods of growth and decline. The implementation of both the Coney Island Revitalization Plan and a neighborhood rezoning in 2009, which also covered the amusement area and adjacent blocks, has stimulated an economic resurgence in parts of the community, including key business corridors.

Manhattan Beach

Manhattan Beach is a small community of approximately 4,600 and is generally more affluent than the rest of the Southern Brooklyn Peninsula. The housing stock consists primarily of large, detached single-family homes on relatively large lots. The community includes

Kingsborough Community College, Leon Goldstein High School, and Manhattan Beach Park, which draws thousands of visitors every summer.



Sea Gate

Sea Gate is a gated community developed as a planned community in the early 1890s.² The community has its own beach club, community park, and community association building. The community is unusual in that the streets and some of the utility infrastructure are co-owned by residents and New York City. Most of the more than 800 homes are single-family residences. Before Superstorm Sandy, the population of the mixed-income community was approximately 4,400, but property damage from the storm surge associated with Sandy was severe, and many homes and bulkheads along the shoreline were destroyed or substantially damaged, displacing residents.



2 Summary of the Effects of Superstorm Sandy

Superstorm Sandy struck New York on October 29, 2012, bringing a storm surge of 9 to 12 feet above normal tide levels from Kings Point on the western end of Long Island Sound to the Battery on the southern tip of Manhattan.³

Superstorm Sandy is the largest storm in New York’s recorded history to land ashore and the effect was devastating, causing widespread damage to lives, homes, businesses, core infrastructure, government property, and an economy just beginning to recover from a financial crisis. The storm caused 53 fatalities,⁴ destroyed an estimated 305,000 homes,⁵ affected more than 2,000 miles of roads, produced catastrophic flooding in subways and tunnels, and damaged major power transmission systems. Economic losses in New York

² City of New York, *A Stronger, More Resilient New York*, Special Initiative for Rebuilding and Resiliency (2013). Available at <http://www.nyc.gov/html/sirr/html/report/report.shtml>.

³ National Hurricane Center. *Tropical Cyclone Report Hurricane Sandy (AL182012) 22-29, October 2012* (February 12, 2013). Available at http://www.nhc.noaa.gov/data/tcr/AL182012_Sandy.pdf. Accessed October 2013.

⁴ Centers for Disease Control and Prevention. “Deaths Associated with Hurricane Sandy, October – November 2012.” *Morbidity and Mortality Weekly Report*. (May 24, 2013). Available at <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6220a1.htm>. Accessed October 2013.

⁵ National Hurricane Center. *Tropical Cyclone Report Hurricane Sandy (AL182012) 22-29, October 2012* (February 12, 2013). Available at http://www.nhc.noaa.gov/data/tcr/AL182012_Sandy.pdf. Accessed October 2013.



as a result of Superstorm Sandy are estimated to be between \$30 and \$50 billion, with an estimated \$10 to \$20 billion in insured losses.⁶

Economic and property losses in New York City were estimated to be at least \$19 billion, and thousands were displaced.⁷ Homes and businesses were severely damaged by water inundation, and some were knocked off their foundations from the effects of the storm surge.

Average flood levels of 3 to 5 feet, and higher in some areas, such as along Neptune Avenue where floodwaters reached a height of 10 feet,⁸ covered most of the Southern Brooklyn Peninsula (see Figure 2). Backwater inundation came from Gravesend Bay and Sheepshead Bay, creeks, and the oceanside storm surge. Residents who did not evacuate were forced to go to the second story.



Courtesy: Butch Moran

Several adult care and nursing home facilities were damaged and lost functionality. Disruptions to heat and electrical systems in the Southern Brooklyn Peninsula's many high-rise buildings, such as the Mitchell-Lama towers and public housing, persisted for weeks or months. Flooding damaged or destroyed structures, building contents, and vehicles. Numerous cultural centers, social meeting places, and houses of worship were damaged.

⁶ EQECAT. "Post-Landfall Loss Estimates for Superstorm Sandy" (November 1, 2012).

<http://www.eqecat.com/catwatch/post-landfall-loss-estimates-superstorm-sandy-released-2012-11-01/>.

⁷ City of New York, *A Stronger, More Resilient New York*, Special Initiative for Rebuilding and Resiliency (2013). Available at <http://www.nyc.gov/html/sirr/html/report/report.shtml>.

⁸ Ibid.



Business activity on many of the Southern Brooklyn Peninsula’s commercial thoroughfares was hampered by flood damage and the temporary displacement of customers, even months after the storm.

Sandy caused significant damage to the New York Aquarium, which attracted more than 750,000 annual visitors before the storm. Flood damage and interruption to the aquarium’s life support systems caused damage estimated at approximately \$75 million. The aquarium partially reopened in May

2013 but will not be fully reopened until 2016. The Coney Island entertainment district adjacent to the aquarium incurred significant damage to rides and electrical systems.

The storm damaged more than 12 public schools across the Southern Brooklyn Peninsula, and damage was catastrophic at many buildings. The Coney Island Library sustained significant damage, including destruction of the building’s electrical systems, many of its computers, and more than 35,000 books and DVDs. The library reopened in October 2013.

Coney Island Hospital, a major regional medical service provider, sustained devastating flooding damage. The storm destroyed the hospital’s electrical systems and forced the total suspension of emergency services for several months. The impact of the service disruption was doubly acute because the hospital is one of the largest employers in southern Brooklyn.

The areas of Sea Gate without bulkheads took a direct hit from wave action. Areas with substandard bulkheads were destroyed because the bulkheads provided little protection during the height of the storm.⁹ The police department and community association buildings were both destroyed. According to the U.S. Department of Housing and Urban Development (HUD), more than 80 percent of non-seasonal housing units in some Census Block Groups in Coney Island and Sea Gate incurred some degree of damage.¹⁰

Today the reminders of the storm include structural damage, building foundations on empty lots, boats sunken and strewn in Coney Island Creek, and damage to homes and businesses that has yet to be repaired.



Courtesy: Butch Moran

⁹ Ibid.

¹⁰ U.S. Department of Housing and Urban Development, “Sandy Damage Estimates by Block Group” (n.d.). Available at http://www.huduser.org/maps/map_sandy_blockgroup.html. Accessed October 2013.

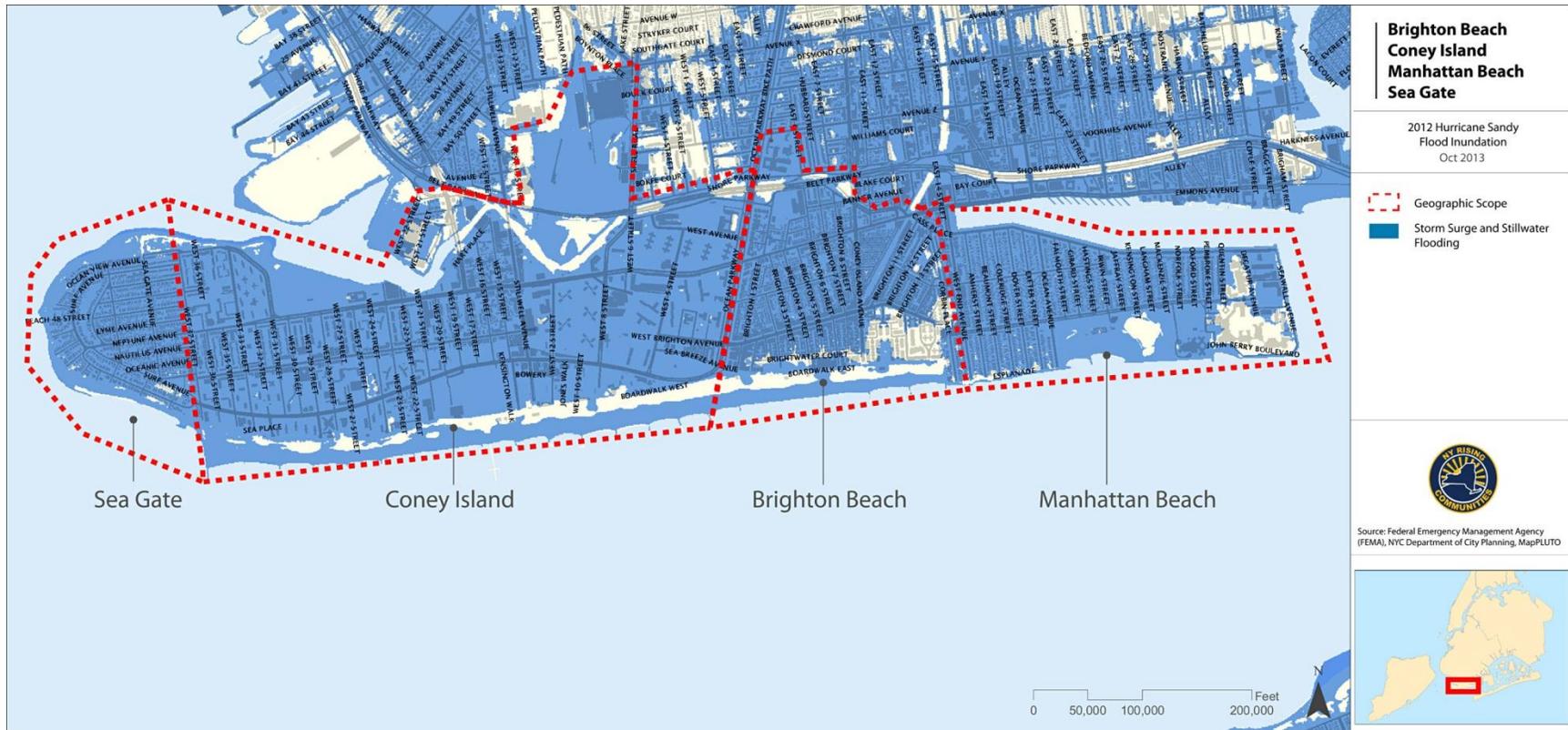


Figure 2: Southern Brooklyn Peninsula flood inundation map

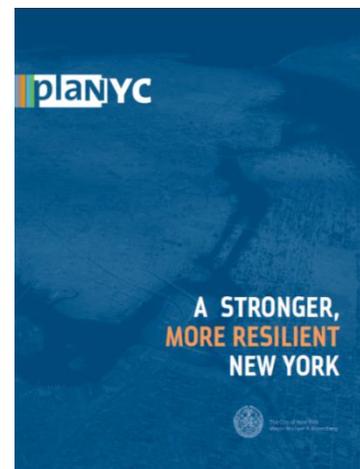


According to *A Stronger, More Resilient New York*, as of June 2013, “local businesses remain slow to recover...” The report also points out concern that “Although the USACE [U.S. Army Corps of Engineers] plans to restore the beach along Coney Island and Brighton Beach [previously nourished by the USACE, which helped buffer the two communities], replenishing the roughly 272,000 cubic yards of sand that were washed away or pushed inland during Sandy – all of Southern Brooklyn is expected to be subject to future risks from storm surge, rising sea levels, and increased storms and precipitation resulting from climate change.”¹¹

3 Summary of Relevant Existing Plans and Studies

To enhance its understanding of the Southern Brooklyn Peninsula’s assets, opportunities, and constraints, and to avoid duplication of effort, the Planning Team has conducted a review of plans and studies that are relevant to the Southern Brooklyn Peninsula. The plans that have been reviewed are summarized in Appendix A.

Existing plans with direct or indirect connections to the Southern Brooklyn Peninsula were reviewed to identify community goals and ongoing or proposed projects. Some of the plans were at least 4 years old and did not address the lingering financial effects of the recession that began in 2008 or the effects of Hurricane Irene in 2011 or Superstorm Sandy in 2012. Significant work related to planning since Superstorm Sandy has been completed, and several documents related to the storm and post-storm recovery have been developed by New York City. *A Stronger, More Resilient New York*¹² provides the most detailed analysis of all the documents completed to date.



This document puts the damage in the Southern Brooklyn Peninsula area into the context of the storm impact on New York City and provides information on risks, initiatives, and priorities.

The priorities discussed in the New York City document *A Stronger, More Resilient New York* that are relevant for the Southern Brooklyn Peninsula Planning Area include:

¹¹ City of New York, *A Stronger, More Resilient New York*, Special Initiative for Rebuilding and Resiliency (2013). Available at <http://www.nyc.gov/html/sirr/html/report/report.shtml>.

¹² Ibid.



- Addressing coastal vulnerabilities for residential, commercial, and public properties, and civic facilities
- Providing additional coastal/shoreline protection from wave action, beach erosion, and oceanfront vulnerabilities
- Adding protection from “back-door” inundation that can lead to flooding of inland areas
- Focusing on infrastructure inadequacy, particularly stormwater drainage, power, and transportation
- Improving communications during and following emergency situations
- Addressing the lagging recovery of housing, social services, and businesses along key commercial corridors¹³

These priorities have been discussed in NYRCR Planning Committee meetings and will be assessed further.

4 Community Vision Statement

At the NYRCR Planning Committee meeting on September 30, 2013, attendees were guided through a visioning exercise in which they were asked to list key words, terms, and phrases that relate to the NYRCR communities and their desired sustainability and resiliency outcomes. The attendees then separated into several breakout groups and developed draft vision statements using the key words and phrases. Three vision statements were drafted from which the NYRCR Planning Committee selected key words and phrases to generate a consensus-based draft Vision Statement. The draft Vision Statement, without the word “unified” included, was posted for review at the first Public Engagement Meeting on October 22, 2013, and based on the feedback from the meeting the following emerged:

Vision Statement

Our vision is to empower and rebuild the diverse communities of the Southern Brooklyn Peninsula to be prepared, vibrant, unified, and resilient in facing the common economic, social, physical, and environmental challenges in our coastal neighborhoods.

¹³ Ibid.



5 Description of Assets and Risks

This section describes the progress that has been made to date on the identification of community assets and the risk assessment of the Southern Brooklyn Peninsula.

5.1 Identification of Assets

The Community Asset Inventory will highlight the community assets (including critical facilities) that, if impaired as a result of hazard events, would compromise the essential social, economic, or environmental functions of the community. Critical facilities are defined as facilities that are crucial to emergency response functions following natural disasters, such as shelters, fire and police stations, health facilities, and vital infrastructure assets.

The Planning Team has identified a preliminary list of community assets in five of the six Recovery Support Functions (Economic Development, Health and Social Services, Housing, Infrastructure, and Natural and Cultural Resources) and mapped their locations, and the NYRCR Planning Committee has reviewed them. The initial mapping of the locations of socially vulnerable populations was delayed because of the Federal shutdown, which included the shutdown of the U.S. Census website. This information will be obtained and reviewed later in the planning process.

An example of an Asset Inventory Map (economic assets) is shown in Figure 3. Appendix B contains the asset maps that have been completed to date. The maps show the locations of the community assets that are included in the preliminary list of assets.

A summary of the preliminary list of community assets is as follows:

- **Economic Development:** The amusement and entertainment district houses many of the Southern Brooklyn Peninsula’s major economic assets. In 2010, 12.8 million people visited the public beaches in Coney Island and Brighton Beach, and many of them also visited the area’s other major tourist amenities:¹⁴ the new Luna Park theme park in Coney Island drew almost 650,000 customers in 2011,¹⁵ the New York Aquarium attracted approximately 750,000 in 2011,¹⁶ and the Brooklyn

¹⁴ Thomas P. DiNapoli, An Economic Snapshot of Coney Island and Brighton Beach (July 2011), Report 8-2012, Office of the New York State Comptroller. Available at <http://www.osc.state.ny.us/osdc/rpt8-2012.pdf>. Accessed October 28, 2013.

¹⁵ Conor Febos and Erin Durkin, “Tourists Flock to Coney Island’s New Amusement Parks.” New York Daily News, February 7, 2012. Available at <http://www.nydailynews.com/new-york/brooklyn/towners-flock-coney-island-new-amusement-parks-article-1.1016763>. Accessed October 28, 2013.

¹⁶ The Wildlife Conservation Society, “WCS’s New York Aquarium Slated for Partial Reopening in the Late Spring of This Year,” Press Release, February 25, 2013. Available at <http://www.wcs.org/press/press-releases/nya-partial-reopening.aspx>. Accessed October 28, 2013.



Cyclones (minor league baseball team) have drawn almost 250,000 fans to MCU Park every summer since 2010.¹⁷

Although these large-scale amenities provide local jobs and generate significant economic activity, most local businesses are small. According to the Census Bureau, approximately 70 percent of the businesses in the 11224 ZIP code (the ZIP code for Coney Island and Sea Gate) had fewer than five employees in 2011.¹⁸ Major employers include health and social services institutions such as Coney Island Hospital, Shorefront Jewish Geriatric Center, Sea Crest Health Care Center, and Saints Joachim and Anne Nursing and Rehabilitation Center.¹⁹ According to the Census Bureau's longitudinal employer-household dynamics data, 60.1 percent of the 17,833 primary jobs in the NYRCR Planning Area were in the Health Care and Social Assistance sector.²⁰

The Southern Brooklyn Peninsula's principal commercial corridors include Surf and Mermaid Avenues in Coney Island, Neptune Avenue in Coney Island and Brighton Beach, and Brighton Beach Avenue in Brighton Beach. Riegelmann Boardwalk in Coney Island and Brighton Beach also houses a variety of ocean-front uses, which include amusements, retail shopping outlets, and bars and restaurants.

- **Health and Social Services:** Coney Island Hospital is the largest medical service provider in Southern Brooklyn. The facility, which has approximately 2,900 employees and 371 beds, had more than 300,000 outpatient visits annually.²¹ The NYRCR Planning Area is also home to six senior centers, five residential health care facilities, five residential adult care facilities, and three community residences for people with developmental disabilities. A range of nonprofit organizations also provide health and social services to the Southern Brooklyn Peninsula communities.

The nine public elementary schools in the NYRCR Planning Area, including one charter school, serve nearly 5,200 pupils. Five public high schools serve an

¹⁷ Ballpark Digest, "2012 Baseball Attendance by Average" (September 24, 2012). Available at <http://www.ballparkdigest.com/201209245609/attendance/news/2012-baseball-attendance-by-average>. Accessed October 28, 2013.

¹⁸ U.S. Census Bureau, 2011 ZIP Code Business Patterns, Table CB1100CZ21. Available at http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=BP_2011_00CZ2&prodType=table. Accessed October 28, 2013.

¹⁹ Thomas P. DiNapoli, An Economic Snapshot of Coney Island and Brighton Beach (July 2011), Report 8-2012, Office of the New York State Comptroller. Available at <http://www.osc.state.ny.us/osdc/rpt8-2012.pdf>. Accessed October 28, 2013.

²⁰ U.S. Census Bureau, Longitudinal Employer-Household Dynamics. Data generated using OnTheMap tool. Available at <http://onthemap.ces.census.gov/>. Accessed October 28, 2013.

²¹ New York City Health and Hospitals Corporation, "Coney Island Hospital Again Receiving Ambulances," Press Release, February 22, 2013. Available at <http://www.nyc.gov/html/hhc/html/pressroom/press-release-20130222-coney-island-ambulances.shtml>. Accessed October 28, 2013.



additional 4,900 students. Nearly 20,000 students attend the Kingsborough Community College.²²

The 60th Police Precinct, Police Transit District 34, and Mounted Troop E are headquartered in Coney Island. The Sea Gate Police Department is headquartered at the Surf Avenue entrance to the neighborhood. The planning area is also home to two New York City fire stations and one emergency medical services station.

- **Housing:** The 33,367 occupied housing units in the NYRCR Planning Area include a high density of public and subsidized housing, particularly in Coney Island. An additional 2,526 housing units were vacant as of the 2010 U.S. Census.²³ Coney Island’s nine public housing developments encompass 40 medium- and high-rise buildings and 4,473 apartments.²⁴ The planning area also includes three Mitchell-Lama developments and a number of privately managed high-rise apartment or condominium developments. Detached single-family structures predominate in Manhattan Beach and Sea Gate.

²² New York City Department of Education, School Search Tool. Available at <http://schools.nyc.gov/default.htm>. Accessed October 28, 2013.

²³ New York City Department of City Planning, NYC Census FactFinder. Available at <http://maps.nyc.gov/census/>. Accessed October 28, 2013.

²⁴ New York City Housing Authority, “NYCHA Housing Developments.” Available at <http://gis.nyc.gov/nycha/im/wmp.do>. Accessed October 28, 2013.



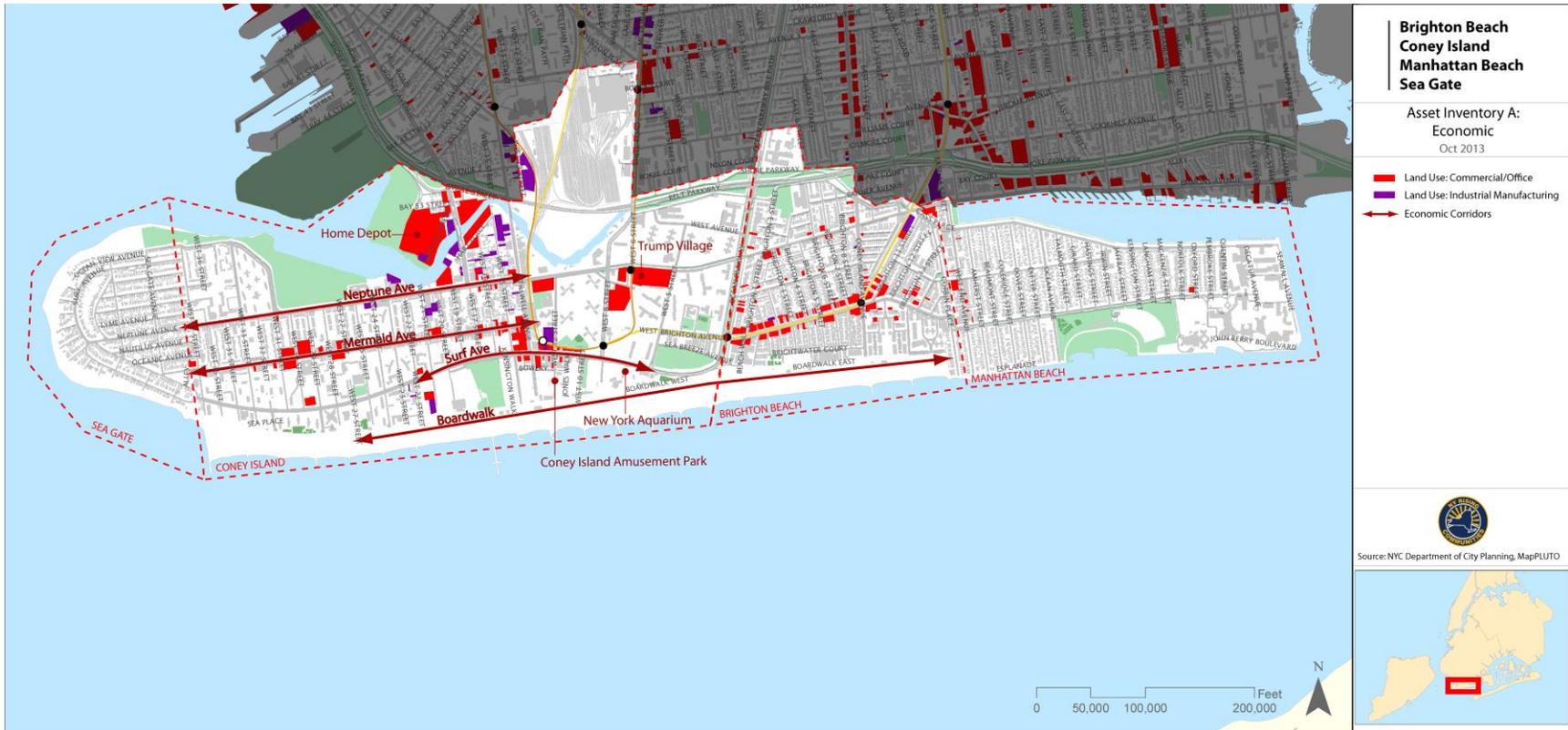


Figure 3: Example of an Asset Inventory Map (Economic Assets)



- **Infrastructure:** The NYRCR Planning Area is served by eight local bus lines, five subway lines, and two express bus lines. There are five elevated subway stations, and the busiest, Coney Island – Stillwell Avenue, handled 4.7 million riders in 2012.²⁵ The Coney Island Rail Yard is the largest transit yard in the MTA system, handling regular maintenance operations for a fleet of nearly 800 subway cars. Ocean Parkway provides the major artery in and out of the Southern Brooklyn Peninsula Planning Area. The limited access highway at the northern end of the planning area, the Belt Parkway, carries approximately 140,000 private vehicles per day.²⁶
- **Natural and Cultural Resources:** The planning area was historically characterized by marshlands and wetlands, but development has significantly degraded many of these assets. To assist with stormwater management and enhance public recreation and access opportunities, the City is working to remedy many of the most severe environmental issues along Coney Island Creek.

Additionally, natural and culture features such as the Coney Island beaches and Boardwalk serve important mitigation and storm surge attenuation functions. These features are supplemented by a variety of structural features, including jetties, sea walls, and bulkheads. The quality and condition of these features is highly variable throughout the Southern Brooklyn Peninsula.

The New York Aquarium is an important cultural institution on the peninsula, administered by the non-profit Wildlife Conservation Society. The planning area has two branch libraries. One of them, the Coney Island Library, was closed for almost a year because of damage from Superstorm Sandy. Many venues, including Kingsborough Community College, host public cultural events, including concerts and theatrical productions.

Cultural memorials, such as the 9-11 Memorial Wall and the 9-11 Memorial Square, are located in Asser Levy Park. The Holocaust Memorial Park, overlooking Sheepshead Bay, was damaged during Superstorm Sandy and was only recently repaired. The Boardwalk is also an important cultural and historical asset to the Southern Brooklyn Peninsula.

Once the list of assets has been finalized, detailed information about each asset, landscape attributes in the vicinity of the asset, and the vulnerability of the asset to flood damage will be collected for the Community Asset Inventory. Assets will then be prioritized based on

²⁵ Metropolitan Transportation Authority, “Annual Subway Ridership.” Available at http://www.mta.info/nycct/facts/ridership/ridership_sub_annual.htm. Accessed October 28, 2013.

²⁶ New York State Department of Transportation, Traffic Data Viewer. Available at <https://www.dot.ny.gov/tdv>. Accessed October 28, 2013.



factors such as importance to the NYRCR communities, the probability of being affected by flooding, and restoration time.

5.2 Identification and Understanding of Risk

The existing Risk Assessment Map (see Figure 4) shows that most of the Southern Brooklyn Peninsula is in an Extreme or High Risk flooding area. The primary hazard that drives the extent of extreme and high risk categories on the Southern Brooklyn Peninsula is storm surge.

Following the finalization of the Conceptual Plan, a risk assessment to determine the potential impact of hazards on community assets will be conducted. The results will help guide the selection of proposed strategies, such as infrastructure improvements and changes in the building environment, and the proposed projects will be subjected to a cost-benefit analysis. The risk assessment will help the community choose mitigation options to reduce future risk. Input from the NYRCR Planning Committee with extensive input from the public on areas with the highest risk of flooding will be used to supplement the Risk Assessment Map.

The NYRCR Planning Committee will finalize the risk assessment of the planning area by March 31, 2014.

The New York State Department of State risk areas were developed based on Table 2.

Table 2: New York State Department of State Risk Areas

Extreme Risk Area	High Risk Area	Moderate Risk Area
FEMA Coastal V Zones	FEMA 1% (100-year) annual flood risk (FEMA Zone V and Zone A)	FEMA 0.2% (500-year) annual flood risk
NWS advisory thresholds for shallow coastal flooding	Areas within 3 feet of elevation of NWS advisory thresholds for shallow coastal flooding	Areas within 3 feet of elevation of FEMA 1% annual flood risk (base flood elevations)
Areas within 3 feet of elevation of mean higher high water shoreline from the National Oceanic and Atmospheric Administration		Area bounded by National Hurricane Center's Sea, Lake, and Overland Surges from Hurricanes (SLOSH) Category 3 hurricane storm surge inundation zone
Areas prone to erosion		

Source: New York State Department of State

FEMA = Federal Emergency Management Agency

NWS = National Weather Service

SLOSH = Sea, Lake, and Overland Surge from Hurricanes



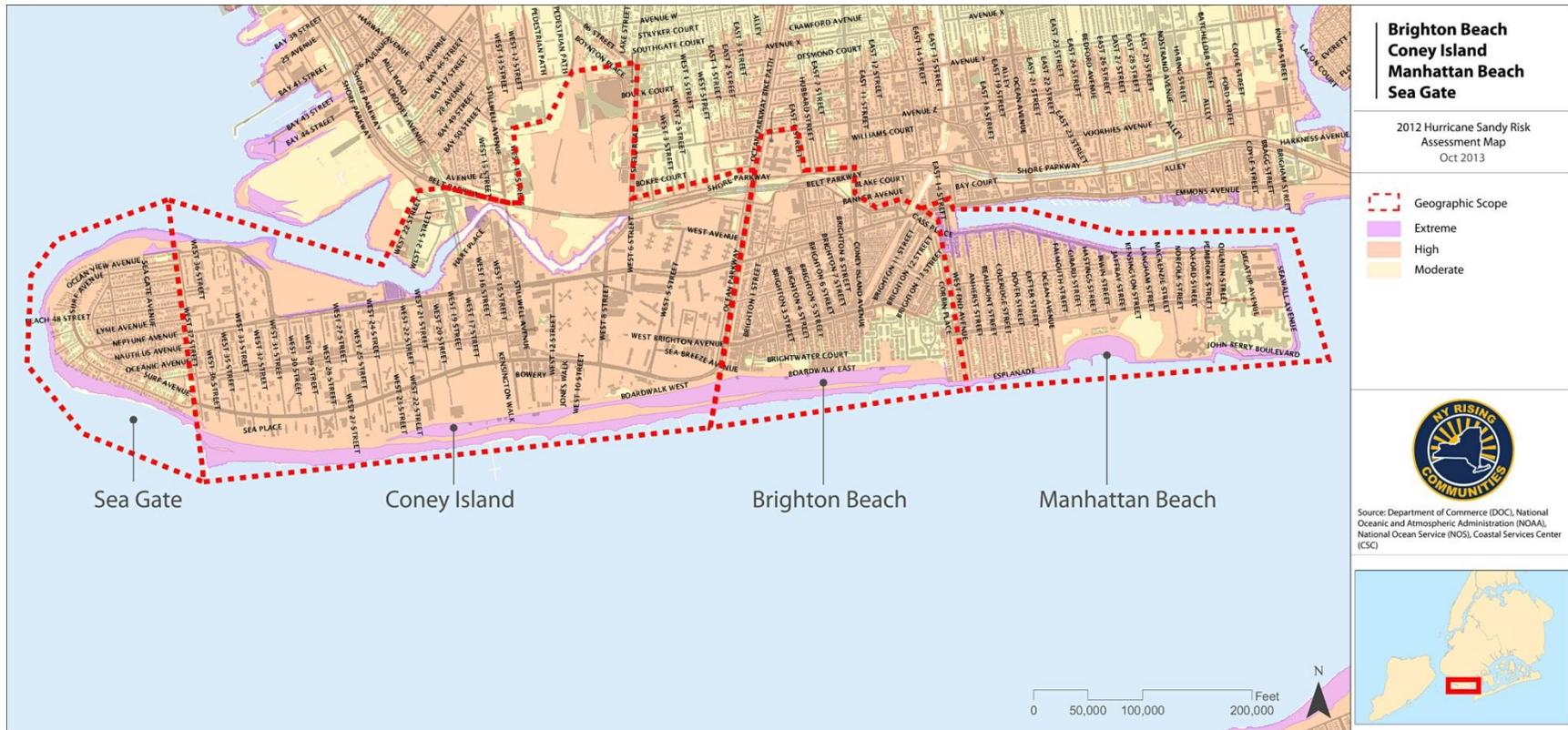


Figure 4: Risk Assessment Map for the Southern Brooklyn Peninsula



6 Public Engagement Process

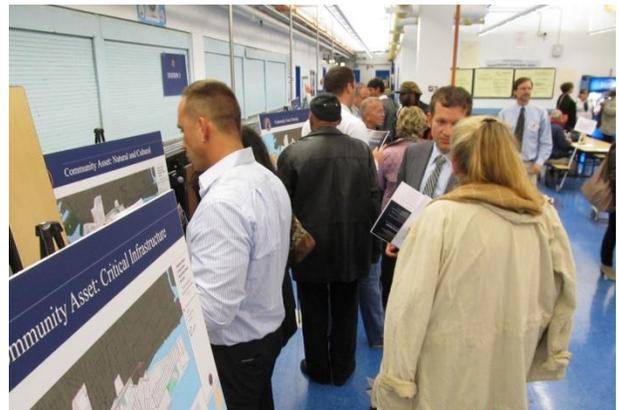
The first Public Engagement Meeting for the Southern Brooklyn Peninsula NYRCR Plan took place on October 22, 2013. The NYRCR Planning Committee obtained comments and suggestions from the attendees, which have been incorporated into this



document. Further public comment and input will be solicited as the project progresses, and the information gleaned from public outreach will be reflected in the final NYRCR Plan.

To date, the following methods have been used to engage the community and solicit feedback for the development of the Southern Brooklyn Peninsula Conceptual Plan and the planning process for the NYRCR Plan:

1. Flyers were provided in English, Russian, Urdu, Spanish, and Chinese.
2. A poster containing the flyers in the different languages (collage of all languages) was created, and each NYRCR Planning Committee member received five posters for posting in the following locations:
 - a. Mitchell-Lama building lobbies
 - b. New York City Housing Authority (NYCHA) building lobbies
 - c. Kingsborough Community College entrance
 - d. Coney Island Hospital entrance/lobby
 - e. Subway stations
 - f. Senior centers/rehabilitation facilities
3. Electronic PDF versions of the flyers were provided to each NYRCR Planning Committee member (in all languages) for distribution as follows:



- a. Mailing lists/posting on websites/Facebook pages (events calendar/announcements) of any location accessible to NYRCCR Planning Committee members
 - b. Nonprofit and community groups
 - c. Brooklyn Community Boards 13 and 15
 - d. Public libraries
 - e. Houses of worship
 - f. Homeowners' associations
4. Flyers were posted by NYRCCR Planning Committee members to locations such as:
 - a. Subway stations
 - b. Supermarkets
 - c. Senior centers
 - d. Boardwalk
 - e. Food kitchens/pantries
 - f. Special needs service providers
 - g. Brooklyn Community Boards 13 and 15
 - h. Offices of local elected officials
 5. An official media alert was distributed to the following local papers/local news outlets:
 - a. Sheepshead Bites (Internet news blog)
 - b. *The Brooklyn Paper*
 - c. *The Russian Bazaar*
 - d. NYCHA newsletter
 - e. *Bay News*

7 Identification of Needs, Opportunities, Strategies, and Potential Projects

Mitigating the risk of damage from future storms to increase resilience will require Federal, State, regional, and local action. Development of the NYRCCR Plan will include



identifying local and regional issues and also local issues with the potential to be addressed regionally.

This section describes the issues and resilience/redevelopment opportunities that have been identified to date from the review of relevant plans and studies (Section 3), the four NYRCR Planning Committee meetings held in September and October of 2013, and the Public Engagement Meeting on October 22, 2013.

The NYRCR Planning Committee has not finalized the identification of needs and opportunities. Finalization is anticipated to occur by March 31, 2014. The needs and opportunities that have been identified so far are described in the following sections and are listed by NYRCR category.

The NYRCR Planning Committee initially discussed the key strategies and projects at a meeting on October 9, 2013. The committee has also undertaken initial discussions on the need to assess the status of projects that are already planned but that may be behind schedule. Additional discussions following future Public Engagement Meetings and NYRCR Planning Committee meetings will be used to develop this section further.

The NYRCR Planning Committee will finalize the evaluation of potential actions and projects to implement the strategies by March 31, 2014.

The committee will prioritize the strategies under consideration during the development of the final NYRCR Plan using knowledge gained from the visioning process, information in the Community Asset Inventory, the needs and opportunities assessment, the risk assessment, and agreed-upon metrics such as cost, time frame, and others identified through the community-based planning process.

Strategies may include bricks-and-mortar projects, policy decisions, regulatory changes, political cooperative efforts, or other actions. Actions will be discussed in terms of community benefits, support for the project, estimated project cost, funding, feasibility assessment, implementation, regional and outside agency coordination, project impact, and alternatives. The process will also include a cost-benefit analysis for recommended capital projects and a suitable equivalent analysis for non-capital projects.

The result will be a prioritized list of projects, investments, and initiatives that includes detailed project descriptions, a list of potential funding sources, and a ranking for implementation.

Implementation of the strategies will follow the three-step process shown in Figure 5.



Strategy Implementation

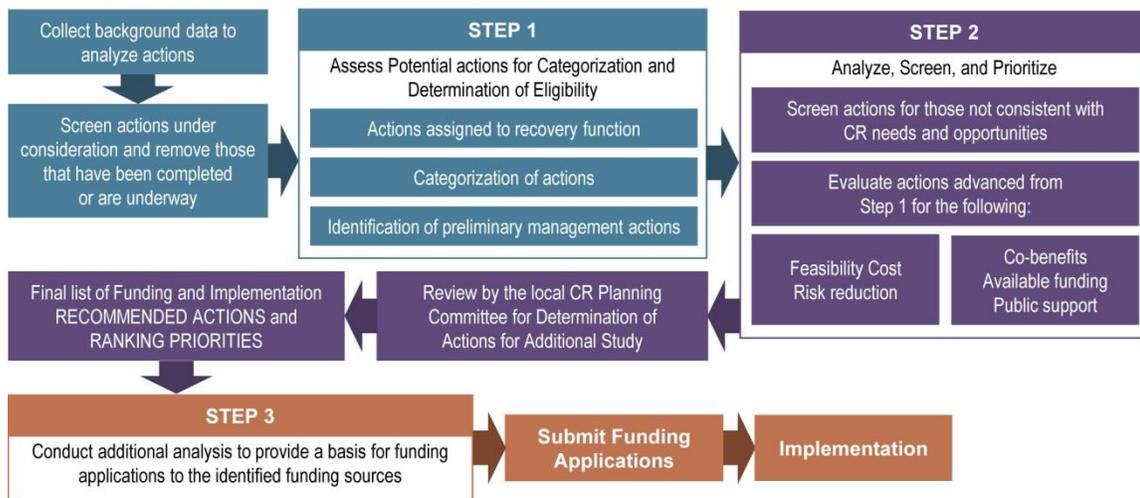


Figure 5: Strategy implementation

The needs and opportunities, strategies, and potential projects that have been identified to date are listed in the following subsections according to the six Recovery Support Functions: Community Planning and Capacity Building, Economic Development, Housing, Health and Social Services, Infrastructure, and Natural and Cultural Resources.

7.1 Community Planning and Capacity Building

This section focuses on the methods the Southern Brooklyn Peninsula wants to pursue to restore and/or enhance the ability to organize, plan, manage, and implement recovery.

Needs

- Many civic groups and other nongovernmental organizations suffered physical damage that compromised their ability to provide vital services and to communicate important information to residents and constituents in the weeks and months following the storm.
- Although many of the Southern Brooklyn Peninsula’s civic groups and not-for-profits provide valuable services to their constituencies, these groups may lack experience in collaborating across neighborhood lines and other boundaries.
- Although a local Community Emergency Response Team (CERT) is active in the south Brooklyn area, community participation is low, and its members are not fully representative of the diverse communities in the planning area. During the storm, there was a lack of properly trained community emergency responders.



Opportunities

- The storm and its effects are still fresh in the minds of residents and business owners. Consequently, interest in participating in recovery and resiliency planning is high.
- A variety of public and private funding programs exist to stimulate recovery planning and complement this planning effort.
- Resources may be available for training additional emergency responders.

Strategies

- Implement improvements that will help civic groups and nongovernmental organizations function better in a future emergency situation.
- Create social infrastructure and build the capacity of social and health services by using multi-functional spaces for meetings and gatherings.
- Enhance existing not-for-profit groups by providing targeted public support.
- Enhance responsiveness to emergencies by developing and enhancing emergency protocols and communication(s).

Potential Projects

- Create new public gathering spaces that are multi-purpose, resilient, and engaging to visitors and community residents, including the diverse immigrant communities that live and work in specific neighborhoods.
- Utilize existing citywide programs to expand CERT capacity by expanding training opportunities and increasing the number of emergency responders from the diverse communities in the Southern Brooklyn Peninsula NYRCR Planning Area.
- Build capacity to community-based organizations to be responsive to emergency needs in the planning area including those adversely affected by Superstorm Sandy.
- Revise emergency response plans for the Southern Brooklyn Peninsula communities to reflect lessons learned post-Sandy. Identify the most vulnerable populations throughout the communities to facilitate evacuation and provide support to vulnerable populations that shelter in place.

7.2 Economic Development

This section details the methods the Southern Brooklyn Peninsula will use to return economic and business activities to a healthy level and to improve the communities' economic well-being by developing new economic opportunities.



Needs

- Unemployment is high in areas throughout the Southern Brooklyn Peninsula.
 - The local workforce needs skilled trades training to enhance its competitiveness and attractiveness to employers.
 - The local business support infrastructure is inadequate to support business expansion or relocation to the Southern Brooklyn Peninsula.
- The Southern Brooklyn Peninsula relies on an overtaxed road network and on limited, sometimes unreliable, connections to the City’s mass transit system
- Flood insurance premiums are expected to increase as the FEMA Flood Insurance Rate Maps are updated to reflect current risks, creating financial hardships for residents and businesses.
- Local merchants and business owners need better access to City, State, and Federal financial and technical assistance programs that have been developed since Superstorm Sandy.

Opportunities

- New York City is undertaking efforts to organize merchants and other small business owners to support commercial revitalization.
- New York City has designated many of the key corridors on the Southern Brooklyn Peninsula as targets for Neighborhood Retail Recovery and other incentive programs.
- The New York City Industrial Development Agency is providing incentives to industrial business owners to enhance resiliency of their buildings and physical plants.
- The recent success of the Coney Island amusement area revitalization can be leveraged to support additional economic development.
- New York City is advocating that Congress and FEMA take steps to protect homeowners by delaying or modifying the implementation of some provisions of the new National Flood Insurance Program, until measures are in place to ensure that flood insurance stays affordable for low and middle income families.

Strategies

- Increase the appeal of the four communities to residents and visitors by:
 - Identifying or creating new training opportunities in areas that would enhance regional resiliency and recovery capacity, including emergency services and green construction, to stimulate job growth.



- Identifying or creating additional funding programs to support business rebuilding and reopening, and communicating relevant information to merchants and business owners.
- Support New York City’s ongoing efforts to organize merchants.
- Create value-added opportunities through potential expansion of the Coney Island entertainment district and associated enhancements throughout the Southern Brooklyn Peninsula.
 - Identify and promote financial and planning support options that are potentially available through the NYRCR Program and alternative sources.
- Create additional incentives for businesses and employees to return to the Southern Brooklyn Peninsula.
- Improve mass transit service to key retail and employment areas.
- Improve job training and employment services related to resilient rebuilding and mitigation projects and techniques.
- Explore opportunities to expand economic activities on underutilized land along Coney Island Creek and other areas in the planning area.
- Accelerate existing and proposed infrastructure enhancement projects.
- Develop vacant land into facilities that support current economic assets on the Southern Brooklyn Peninsula.

Potential Projects

- Encourage citywide training initiatives across the Southern Brooklyn Peninsula.
 - Provide emergency medical services/technicians, rapid response teams, paramedics, and physician assistants training to residents.
 - Create a small business entrepreneurship program on the Southern Brooklyn Peninsula.
- Increase new business opportunities on the Southern Brooklyn Peninsula.
 - Explore ways to improve public transit options to the area for visitors and residents, including express subway service and expanded private and public express bus routes.
 - Advance tourism opportunities by promoting new hospitality services and hotels within the Southern Brooklyn Peninsula.



- Create a workforce training program focused on residents of the Southern Brooklyn Peninsula.
- Investigate the potential for new Business Improvement Districts or merchants associations on the Southern Brooklyn Peninsula.
- Create and implement measures targeted at small businesses' resilience.
- Implement flood mitigation measures to protect small businesses that do not exclusively rely on structure elevation above the 100-year floodplain level.

7.3 Housing

This section focuses on how the Southern Brooklyn Peninsula will meet the demand for affordable housing, promote affordability to those displaced by the storm, and encourage the provision of disaster-resistant housing for all income levels.

Needs

- Emergency backup power systems are needed to keep high-rise buildings habitable for residents following future disaster events. Many of the public housing projects and private high-rises do not have such systems and lack the flood-resilient features that could have minimized flood damage.
 - Disruptions to heating, electrical systems, elevators, and provision of potable water in many of the high-rise buildings caused major problems for residents and management following Superstorm Sandy.
- Many single- and multi-family structures suffered significant flooding damage to ground floors and basements, which caused disruptions to power service and destroyed critical building systems, displacing residents partially or entirely.
- Superstorm Sandy exacerbated historic maintenance and repair issues at NYCHA facilities and private sector multi-family housing projects; the storm also exacerbated issues with respect to State and New York City oversight of Mitchell-Lama buildings.



Opportunities

- Institute resilient construction methods, emergency practices, and recovery programs to reduce damage to homes and structures, increase safety, and allow residents who have to evacuate to return to their homes sooner after future severe storm events.
- Reduce or minimize the potential for service disruptions by continuing to retrofit public housing and Mitchell-Lama buildings, whose residents may be particularly vulnerable to the economic impacts of service disruption.
- Continue to ensure that the Inclusionary Housing Program is used to promote the development of affordable housing units.
- Update building and zoning codes to encourage resiliency.

Strategies

- Get residents back into their homes as quickly as possible (top priority).
 - Protect existing housing stock by making it more flood resilient.
- Implement mitigation measures to improve the resilience of NYCHA and Mitchell-Lama public housing projects. Develop alternatives to promote affordable housing for seniors, including shared housing options.
- Consider solutions to address issues related to diverse immigrant populations, the undocumented population, and unregistered housing stock.
- Explore opportunities for development of additional affordable and resilient housing options and mixed use space in the Southern Brooklyn Peninsula.

Potential Projects

- Improve underutilized properties.
 - Convert abandoned buildings into affordable housing units.
 - Utilize vacant lands to build resilient homes (link rebuilding to enhancing local workforce and job opportunities).
- Conduct housing surveys throughout the Southern Brooklyn Peninsula to determine the extent of single- and multi-family, owner-occupied, and rental housing stock that has been lost post-Sandy and to identify those units that still require substantial repairs.
- Encourage back-up power systems and green power, such as solar panels or micro-grid power alternatives, to maintain an adequate level of electrical power for both public and private sector high-rise buildings throughout the Southern Brooklyn Peninsula.



- Improve the resilience of future buildings and major renovations.
 - Ensure that new construction and major renovations follow guidelines for elevating homes above projected flood elevations, promote other hazard mitigation measures, such as wet and dry flood proofing techniques, and use local contractors, whenever possible.
 - Update zoning codes to include flood resilience requirements.

7.4 Health and Social Services

This section addresses how the community will restore and improve essential health and social services, particularly to vulnerable populations.

Needs

- The resilience of assets that serve everyone, especially vulnerable populations such as seniors and disabled residents, needs to be enhanced.
 - Coney Island Hospital, a major regional medical services provider and employer in south Brooklyn, sustained devastating flood damage from Superstorm Sandy, which forced residents in the region to go elsewhere for medical services, including emergency services. Flood-resilient construction techniques should be used during long-term hospital reconstruction or future renovations/expansion.
 - Senior centers, community centers, mental health facilities and nonprofit groups providing behavioral health care services to the community have been struggling to provide adequate care since Superstorm Sandy.
- A number of adult care and nursing home facilities were damaged and lost functionality, creating significant issues for vulnerable populations. Vulnerable populations with specific emergency response needs include not only the elderly but those with mobility issues, developmentally disabled, and acute chronic medical conditions.
- Improved resilience is needed for the New York City Police Department Service Area 1 building on West 23rd street. Backwater inundation and the resulting significant damage forced services to be relocated outside the neighborhood.
- Improved resilience is needed for public, private, and parochial schools and public facilities across the Southern Brooklyn Peninsula.
 - Many schools were significantly damaged, and damage was catastrophic at many locations.



- The Coney Island Library lost its electrical system, many of its computers, and more than 35,000 books and DVDs. The library reopened just before the 1-year anniversary of the storm.
- Many neighborhoods have vulnerable populations and a high density of individuals with access and functional needs.

Opportunities

- Improve the resiliency of vital assets on which the community depends that are located in the floodplain.
 - Retrofit hospitals, adult care and day-care facilities, nursing homes, schools, and libraries to be flood resilient.
 - Increase community capacity and organization.
 - Support repair and reconstruction of social gathering and meeting places.
 - Enhance resiliency of facilities associated with social service providers so they can be attentive to expanding service needs and provide more effective support during future disaster events.

Strategies

- Increase the understanding of the scope of mental health needs and other social services in the Southern Brooklyn Peninsula communities.
 - Reach out to existing organizations in the Southern Brooklyn Peninsula communities to determine existing health and social service needs.
 - Identify vulnerable populations with mental health issues.
 - Engage local hospital administrators to determine the best approach to address the social service needs of the communities.
- Develop programs or solutions to address homeless populations.

Potential Projects

- Survey damaged buildings to ensure that mold issues have been properly addressed.
- Rebuild and reinvest in resilient community facilities.
 - Create new or enhance community centers for seniors, children, and youth.
 - Consider constructing bricks-and-mortar arts and cultural centers to support community needs and provide opportunities for youth.
 - Restore the Ida G. Israel Medical Center’s health-related services.



- Encourage creation of a technical high school that focuses on building and construction trades.
- Encourage additional Cornerstone Programs for adults and youth at NYCHA Community Centers.

7.5 Infrastructure

This section considers how the Southern Brooklyn Peninsula will restore, repair, and manage the essential infrastructure provided by local government.

Needs

- Communities in the Southern Brooklyn Peninsula need reliable communications and access to information during an emergency.
- Upgrades are needed to essential infrastructure damaged as a result of flooding or susceptible to flooding again in the future.
 - Upgrades are needed to the electrical system—both public and private.
 - Upgrades are needed to the storm drainage infrastructure.
 - Flooding on the Belt Parkway needs to be alleviated. Revetments protecting the Belt Parkway were also damaged.
 - The Belt Parkway, which is the main artery through the region, was overtopped in many locations. Travelers had to find alternative routes through neighborhoods that were often themselves flooded or impassable as a result of downed trees or flood debris.
 - Streetlights need to be replaced or upgraded.
 - Many streetlights were knocked out of service by Superstorm Sandy, and many still remain out of service.
 - The MTA Coney Island Rail Yard facility is highly vulnerable to flooding, having been built on former marshlands, below the 100-year flood elevation.

Opportunities

- Encourage construction or expansion of facilities that are less susceptible to flooding and the potential resulting damage.
 - Increase protection of the shoreline from wave action and flood inundation and mitigate future storm impacts.



- Improve the resiliency of the Belt Parkway and the MTA Coney Island Rail Yard facility.
- Continue to work on reducing combined sewer overflows by using green infrastructure practices.
- Build out a neighborhood wifi network, connected to a reliable power source, to ensure connectivity during times of emergency.
- Floodproof and windproof local cell towers and/or connect cell towers to reliable power sources, such as battery backup systems or to a micro-grid network
- Complete planned drainage improvements in Coney Island.
- Utilize alternative power technology to take advantage of the solar, wind, wave, and tidal exposure on the Southern Brooklyn Peninsula, where the most optimal conditions for its use occurs in the metropolitan region.

Strategies

- Protect the shoreline and coastal communities through structural shoreline protection enhancements.
- Replace, repair, and upgrade existing infrastructure throughout the Southern Brooklyn Peninsula to improve its resilience to future storm events.
 - Replace, repair, and upgrade the infrastructure of sewer/water/waste handling systems to improve their capacity during storm events.
 - Repair and improve roads.
 - Protect the MTA Coney Island Rail Yard facility to minimize potential service disruption and damage.

Potential Projects

- Replace, repair, and upgrade essential infrastructure.
 - Repair/restore/build seawalls/bulkheads, jetties, sand dunes and sea grass, beaches (beach replenishment), sewers, water and waste handling, and the electric system.
 - Repair road deterioration, including sinkholes and poor pavement conditions, and replace street trees lost in the storm.
- Make infrastructure improvements to increase resilience to Belt Parkway and Ocean Parkway to mitigate flooding and vulnerability to storm surge.



7.6 Natural and Cultural Resources

This section addresses the management of natural and cultural resources from a risk reduction and economic development perspective.

Needs

- Natural and cultural resources need to be repaired, replaced, or mitigated.
 - Electrical systems throughout the Southern Brooklyn Peninsula, including the entertainment and business districts, suffered significant damage.
 - Numerous cultural centers, meeting places, and places of worship were damaged by Superstorm Sandy.
 - Natural areas, such as wetlands, are vulnerable to future development.
- Beaches, boardwalks, and esplanades along the Southern Brooklyn Peninsula are an important natural and cultural resource that should be protected and preserved
- The diversity of immigrant and religious communities should be recognized and understood.

Opportunities

- Educate local residents and visitors about the importance of natural and cultural resources within the Southern Brooklyn Peninsula.
- Educate first responders, national and local volunteer organizations, and government entities about the diverse needs of the immigrant and religious communities during an emergency response, such as language barriers and food restrictions.
- Restore wetlands and/or construct a tidal protection barrier at the Coney Island Creek inlet.
 - New York City is investigating the feasibility of wetland enhancement and flood protection at this location.
- Enhance public open spaces on the Southern Brooklyn Peninsula so that they will be more resilient to future storms.



Strategies

- Repair damaged existing cultural resources and incorporate resiliency design elements.



- Evaluate opportunities where non-structural natural shoreline protection measures could be implemented, such as wetland restoration, re-establishment of a natural dune system, and dune grass plantings.
- Educate locals and visitors about the importance of natural and cultural resources.
- Support ongoing initiatives of religious and cultural institutions to address unmet needs in the communities.

Potential Projects

- Complete repairs to cultural sites, using resiliency-focused best practices.
- Restore the Manhattan Beach Bath House or repurpose it as a year-round community center, whichever is feasible.

8 Regional Perspectives

The NYRCR Planning Committee has discussed a number of ideas that merit regional coordination.

The importance of regional coordination is already reflected in many non-Sandy-related efforts that are relevant to southern Brooklyn, the Regional Planning Association’s Fourth Regional Plan, and New York City-wide policy and planning initiatives that include PlaNYC and Vision 2020.



Coney Island Creek Concept Plan (source PlaNYC)

Although all four communities in the NYRCR Plan fall under the jurisdiction of New York City, each community is affected differently by a range of ongoing or future citywide and regional planning initiatives. Consequently, the importance of regional coordination cannot be understated. Coordination with *Gerritsen Beach and Sheepshead Bay NYRCR Planning Committee* on regional flooding issues has been initiated during several committee meetings. A member of the consultant team working with that committee participated in a Southern Brooklyn Peninsula NYRCR Planning Committee meeting to discuss regional coordination issues between these two adjacent planning areas. Representatives of the Manhattan Beach community have attended Gerritsen Beach and Sheepshead Bay NYRCR meetings.

The Committee's planning efforts will be coordinated with a variety of stakeholders with a citywide or regional presence:

- FEMA
- U.S. Army Corps of Engineers
- MTA and MTA New York City Transit
- Brooklyn Community Boards 13 and 15
- New York City agencies and departments, and local economic development organizations and other non-governmental entities whose area of geographic focus expands beyond the boundaries of the NYRCR Plan.

Stakeholders may be contacted for information about the status of proposed and ongoing regional or citywide capital projects with potential implications for the Southern Brooklyn Peninsula. Perhaps more significantly, potential projects and strategies identified through this planning process may require buy-in and active collaboration from the relevant stakeholders.

Potential regional-focused strategies and projects include the following:

- Taking measures to protect the MTA Coney Island Rail Yard facility
- Implementing hazard mitigation measures and minimize flooding on the Belt Parkway
- Focusing emergency medical services/technician training opportunities that are already available in New York City at the NYRCR neighborhood level
- Creating of regional incentives for businesses to return to the area
- Focusing a small business entrepreneurship program for youth in New York City at the NYRCR neighborhood level
- Focusing workforce training programs—including construction and mental health services—to NYRCR communities and their local workforces (rather than outsourcing)
- Educating locals and visitors about the importance of natural and cultural resources



9 Implementation Structure

The Southern Brooklyn Peninsula NYRCR Plan will include an implementation schedule that will summarize the strategies and actions and list the target dates for implementation, and identify the responsible implementing parties (New York City, individuals, or organizations) and potential funding sources. Table 3 is a sample implementation schedule.

Table 3: Sample Implementation Schedule

Community Reconstruction Category	Strategy	Action	Target Date	Responsible Parties	Potential Funding
Community Planning and Capacity Building					
Economic Development					
Housing					
Health and Social Services					
Infrastructure					
Natural and Cultural Resources					



Appendix A: Summary of Reviewed Existing Plans and Studies

Table A-1: Summary of Reviewed Existing Plans and Studies

No.	Reviewed Plan/Study	Date	Relevant Information
1	New York City Natural Hazard Mitigation Plan (HMP)	2009 ⁽²⁾	<p>This plan contains geographic and demographic information about New York City: profiles of natural hazards, including coastal erosion, coastal storms, drought, earthquakes, extreme temperatures, flooding, windstorms/tornadoes, and winter storms; and specific actions the City is taking or could take to protect people and property from the effects of those natural hazards. The New York City Office of Emergency Management is currently collaborating with the New York City Department of Community Planning to complete an amended HMP that will be published in 2014.</p> <p>http://www.nyc.gov/html/oem/html/planning_response/planning_hazard_mitigation.shtml</p>
2	Plan New York City [PlaNYC]	2007 ⁽¹⁾⁽²⁾	<p>This plan describes New York City initiatives to incorporate resiliency into comprehensive citywide planning initiatives. Although dated, the plan continues to govern municipal agency activities and is used as the basis for new plans and initiatives. New York City continues to produce annual progress reports describing progress in obtaining plan objectives. The Special Initiative for Rebuilding and Resiliency (SIRR) report (described below) neither replaces nor supplants PlaNYC. Rather, it provides a list of projects and recommendations specific to the goal of rebuilding from Superstorm Sandy and increasing citywide resiliency against future storm/flooding events.</p> <p>http://www.nyc.gov/html/planyc2030/html/theplan/the-plan.shtml</p>



No.	Reviewed Plan/Study	Date	Relevant Information
3	Plan New York City [PlaNYC: A Stronger, More Resilient New York]	2013	<p>The City of New York issued this document on June 11, 2013. Mayor Bloomberg created the SIRR to address how to create a more resilient New York City in the wake of Superstorm Sandy, with a long-term focus on preparing for and protecting against the impacts of climate change.</p> <p>It includes citywide initiatives and discussions, including the following sections: Sandy Impact, Climate Analysis, Citywide Infrastructure and the Built Environment including Coastal Protection & Buildings, Economic Recovery (Insurance, Utilities, Liquid Fuels, and Healthcare), Community Preparedness and Response (including Telecommunications, Transportation & Parks), Environmental Protection & Remediation (including Water & Wastewater, other critical networks), Specific Rebuilding & Resiliency plans (for Brooklyn and Queens waterfront, east and south shores of Staten Island, South Queens, Southern Brooklyn, and Southern Manhattan), Funding, and Implementation.</p> <p>Chapter 17 of this document covers Southern Brooklyn (pages 336-364) and addresses all four of the communities in this NYRCR Planning Area, in addition to other adjacent communities that were severely affected by Superstorm Sandy. The chapter includes a brief history of this portion of Brooklyn and includes discussions on the area characteristics, a damage assessment, citywide initiatives for increasing resiliency, and most importantly for this planning area, a number of specific project recommendations.</p> <p>http://www.nyc.gov/html/sirr/html/report/report.shtml</p>
4	Sustainable Communities: Climate Resilience Studies – Urban Waterfront Adaptive Strategies	2011 ⁽²⁾	<p>Urban Waterfront Adaptive Strategies is a resource to help guide planners and policy makers in New York City and beyond in identifying and evaluating potential coastal protection strategies. The report identifies a range of potential adaptive strategies, including interventions inland, at the shoreline, and in the water, and analyzes each for its ability to protect waterfront communities by reducing flooding from storm surge and high tides or absorbing destructive wave forces. This study was funded through a Department of Housing and Urban Development (HUD) Sustainable Communities Regional Planning Grant to the New York-Connecticut Sustainable Communities Consortium. New York City was represented on the Consortium by the New York City Department of City Planning, the primary author of this study. (Recommendations from this document were incorporated into the <i>A Stronger More Resilient New York</i> document.)</p> <p>http://www.nyc.gov/html/dcp/html/sustainable_communities/sustain_com7.shtml</p>



No.	Reviewed Plan/Study	Date	Relevant Information
5	Sustainable Communities: Climate Resilience Studies – Designing For Flood Risk	2013	<p>This report identified key design principles to guide flood-resistant construction in urban areas. It provides an overview of regulatory requirements for construction in flood zones under the National Flood Insurance Program, and explores the effects of flood-resistant construction standards on built form and the creation of a vibrant streetscape and public realm. The report also lays out recommendations for how zoning can incorporate these principles to enable more versatile and desirable design solution for flood-resistant construction. (Recommendations from this document were incorporated into the A Stronger More Resilient New York document).</p> <p>http://www.nyc.gov/html/dcp/html/sustainable_communities/sustain_com6.shtml</p>
6	Consolidated Plan [New York City HUD Application]	2013	<p>The 2013 Consolidated Plan is the City of New York’s annual application to HUD for the four Office of Community Planning and Development entitlement programs: Community Development Block Grant (CDBG), HOME Investment Partnership (HOME), Emergency Solutions Grant (ESG – formerly the Emergency Shelter Grant), and Housing Opportunities for Persons with AIDS (HOPWA). The change in the Emergency Shelter Grant program’s name reflects the change in the program’s federally mandated focus from addressing the needs of homeless people in emergency or transitional shelters to assisting families and individuals to quickly regain stability in permanent housing after experiencing a housing crisis and/or homelessness. The 2012 Plan represents the fourth year of a 5-year strategy for New York City’s Consolidated Plan years 2010 through 2014. The 5-year strategy was articulated in Volume 2 of the 2010 Consolidated Plan.</p> <p>http://nyc.gov/html/dcp/html/pub/conpln2013_amend.shtml</p>
7	Vision 2020: New York City Comprehensive Waterfront Plan	2011 ⁽²⁾	<p>Authored by the New York City Department of City Planning, this City-wide plan addresses a range of coastal zone development, preservation, and enhancement goals. Plan recommendations relevant to this Planning Area are in the sections describing Brooklyn Reach 15, 3.b for Calvert Vaux Park, and Reach 16 for Coney Island to Sheepshead Bay. Reaches refer to specific segments along the shoreline and are presented on page 150.</p> <p>http://www.nyc.gov/html/dcp/html/cwp/cep_2.shtml</p>
8	2013 Community Development Block Grant Disaster Recovery Action Plan and Amendments	2013	<p>This Action Plan details how the City plans to spend the \$1.7 billion grant from HUD for eligible Superstorm Sandy disaster recovery and rebuilding activities. The Action Plan, including amendments, describes how the City will use this funding to help New Yorkers rebuild their homes, businesses, and communities and addresses housing, business, infrastructure, and resiliency programs. Based on continued outreach and planning, the Action Plan may be amended and will undergo a review and approval process described in the Citizen Participation Plan.</p> <p>http://www.nyc.gov/html/cdbg/html/plan/read.shtml</p>



No.	Reviewed Plan/Study	Date	Relevant Information
9	New York City Hurricane Sandy After-Action Report	2013	This after-action report is a high-level summary of recommended improvements to the New York City's operations before, during, and immediately following Superstorm Sandy and was developed by the Mayor's Office with input from the many City agencies that responded and continue to participate in the City's recovery from the storm. The report includes discussions on health care, public safety, sheltering, response and recovery, and ongoing activities. http://www.nyc.gov/html/recovery/downloads/pdf/sandy_aar)5.2.13.pdf
10	Coney Island Revitalization Plan, New York City Department of City Planning	2009 ⁽²⁾	The Coney Island Revitalization Plan establishes a framework for the revitalization of the Coney Island amusement area and the surrounding blocks. The plan builds upon the few remaining amusements to create a 27-acre amusement and entertainment district that will reestablish Coney Island as a year-round, open, and accessible amusement destination. Outside of the amusement area, the plan provides new housing, and neighborhood services. The plan covers 19 blocks bounded by the New York Aquarium to the east, West 24th Street to the west, Mermaid Avenue to the north, and the Riegelmann Boardwalk to the south. On July 29, 2009, the City Council adopted the Coney Island rezoning with modifications. The zoning text and map amendments are now in effect. http://www.nyc.gov/html/dcp/html/coney_island/coneyisland2.shtml
11	Waterbody/Watershed Facility Plan: Coney Island Creek	2009 ⁽²⁾	The Department of Environmental Protection prepared this plan as the first step toward development of a long-term control plan for Coney Island Creek. One objective is to reduce combined sewer overflow discharges to the creek through a variety of infrastructure improvements and strategies. Improvements include renovating a local pumping station, constructing two new force mains, and monitoring water quality post-construction. Although New York City states that restoring the creek to pre-urbanization conditions is not possible, implementing this plan would allow the creek to support secondary contact recreation fishing as a Class I waterbody.

(1) Pre-2008 Recession – Vital because the economic outlook, assumptions, and expectations have changed significantly since this time.

(2) Pre-2012 Sandy – Any information pre-Sandy likely does not anticipate the level of destruction, disruption, and change that has taken place from Sandy despite the knowledge that a significant event could be devastating to the community.



Appendix B: Asset Inventory Maps

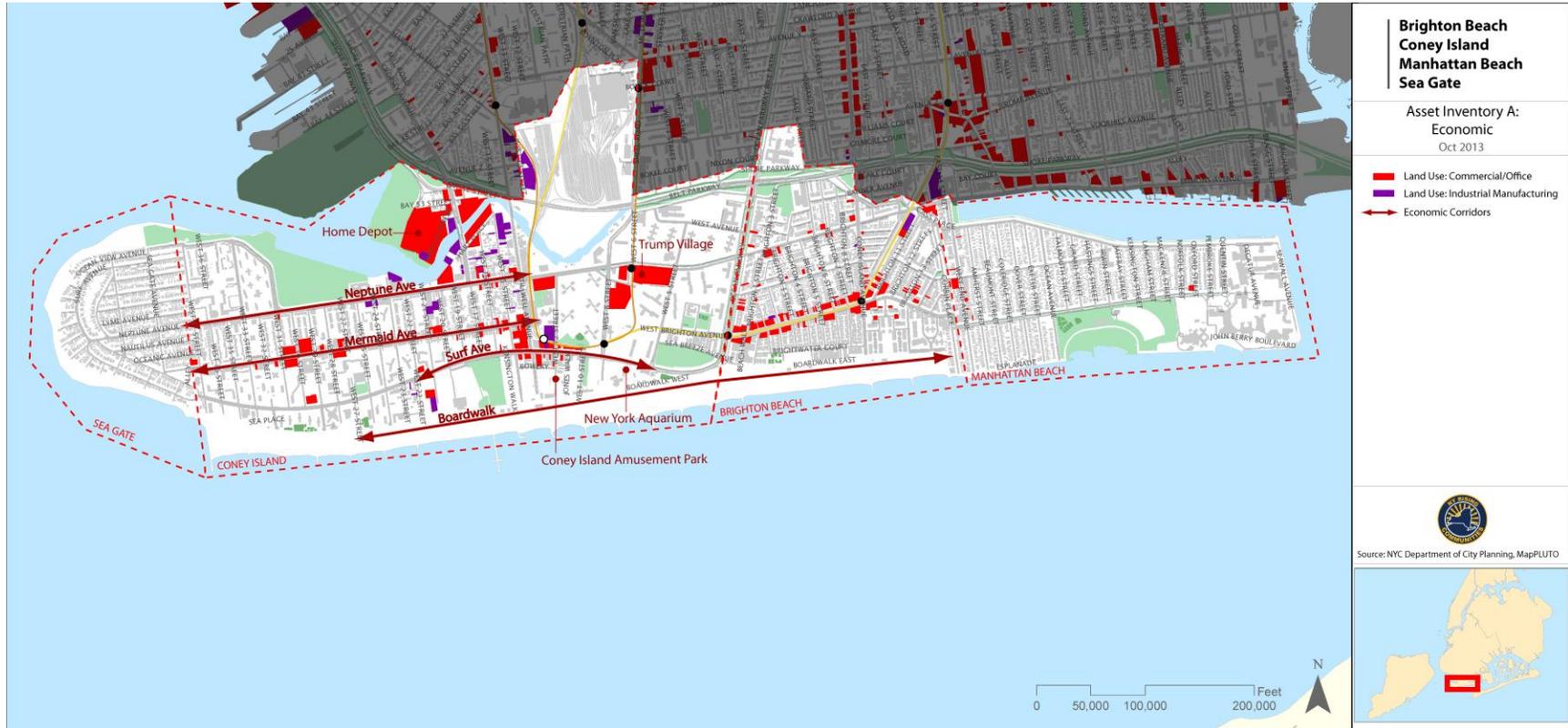


Figure B-1: Economic Asset Inventory Map



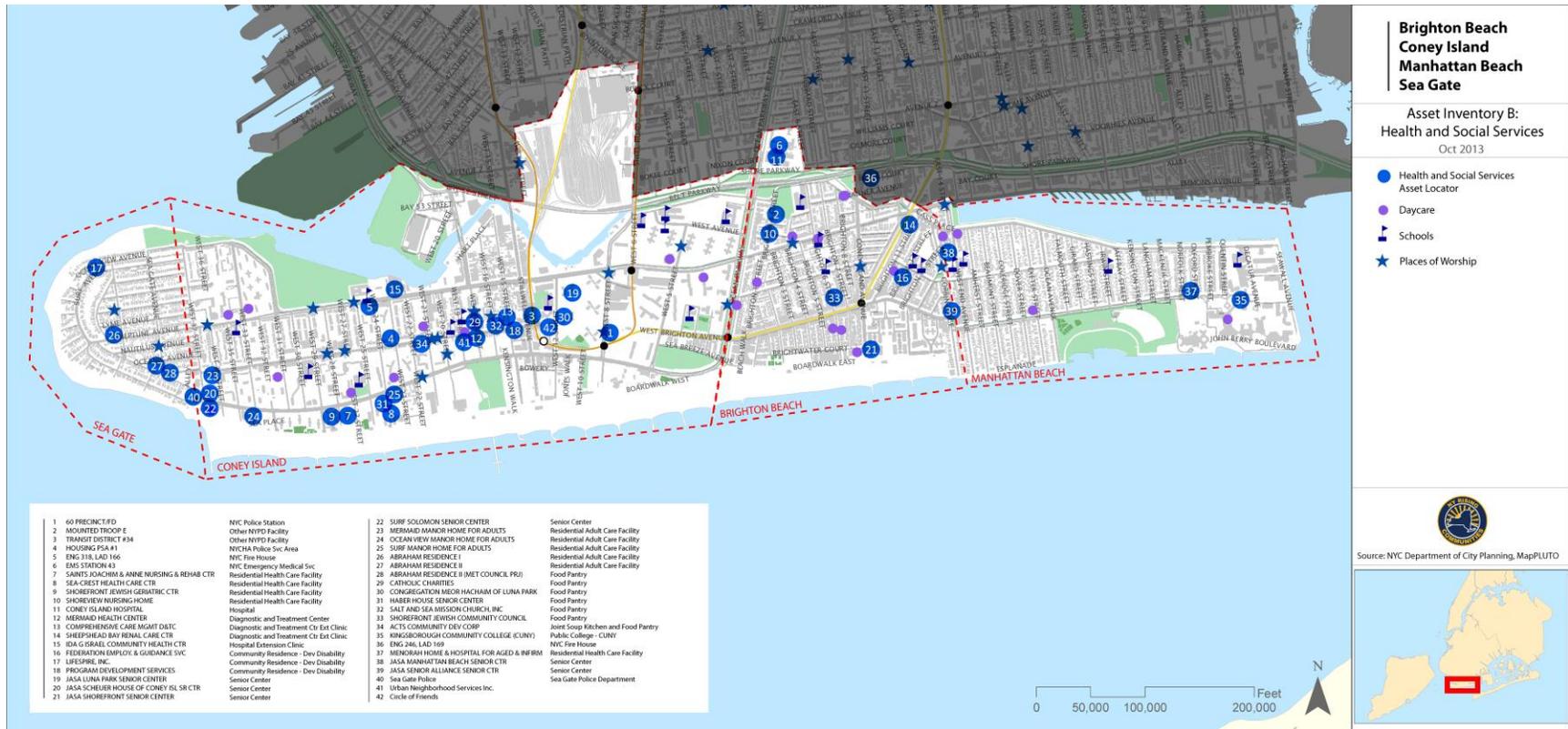


Figure B-2: Health and Social Services Asset Inventory Map



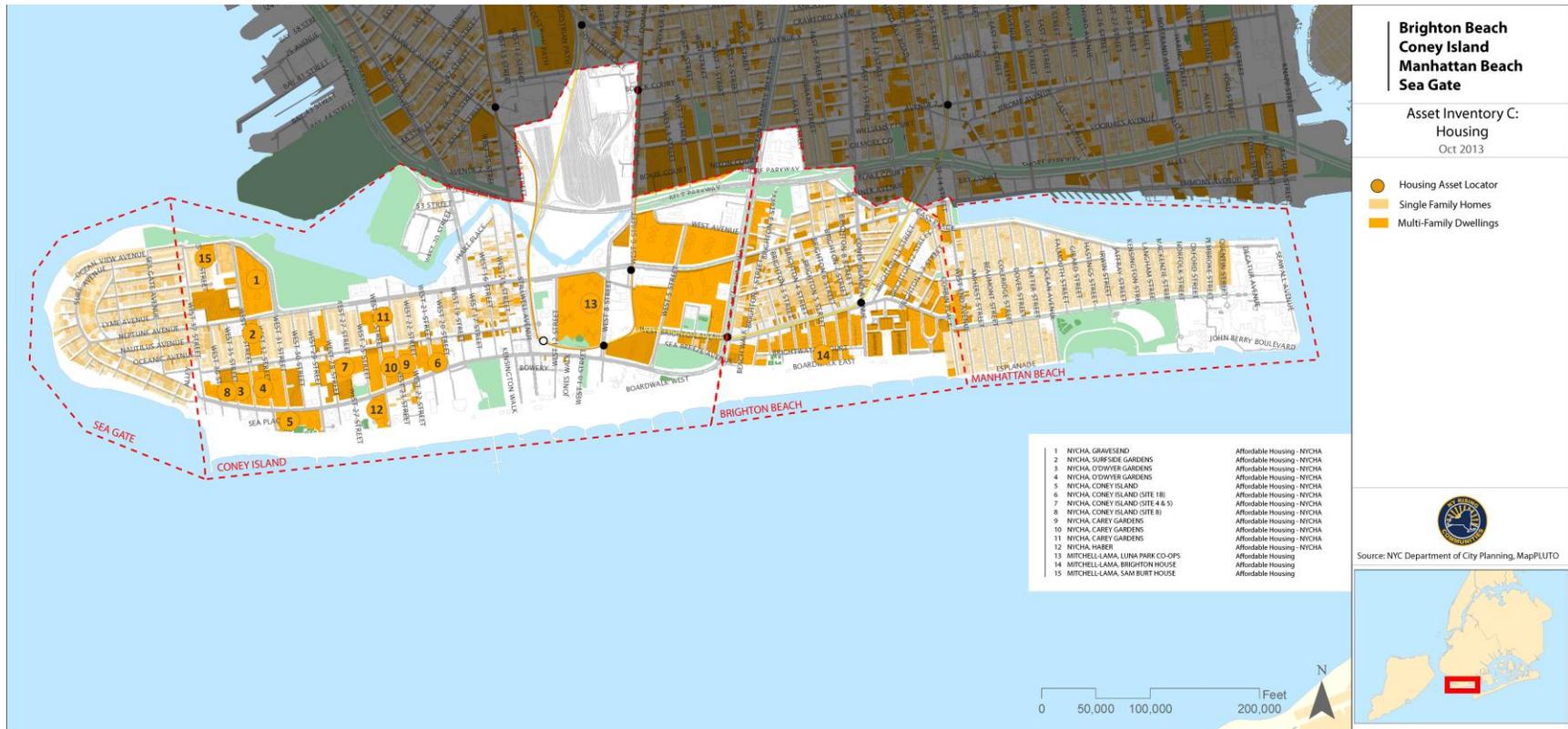


Figure B-3: Housing Asset Inventory Map



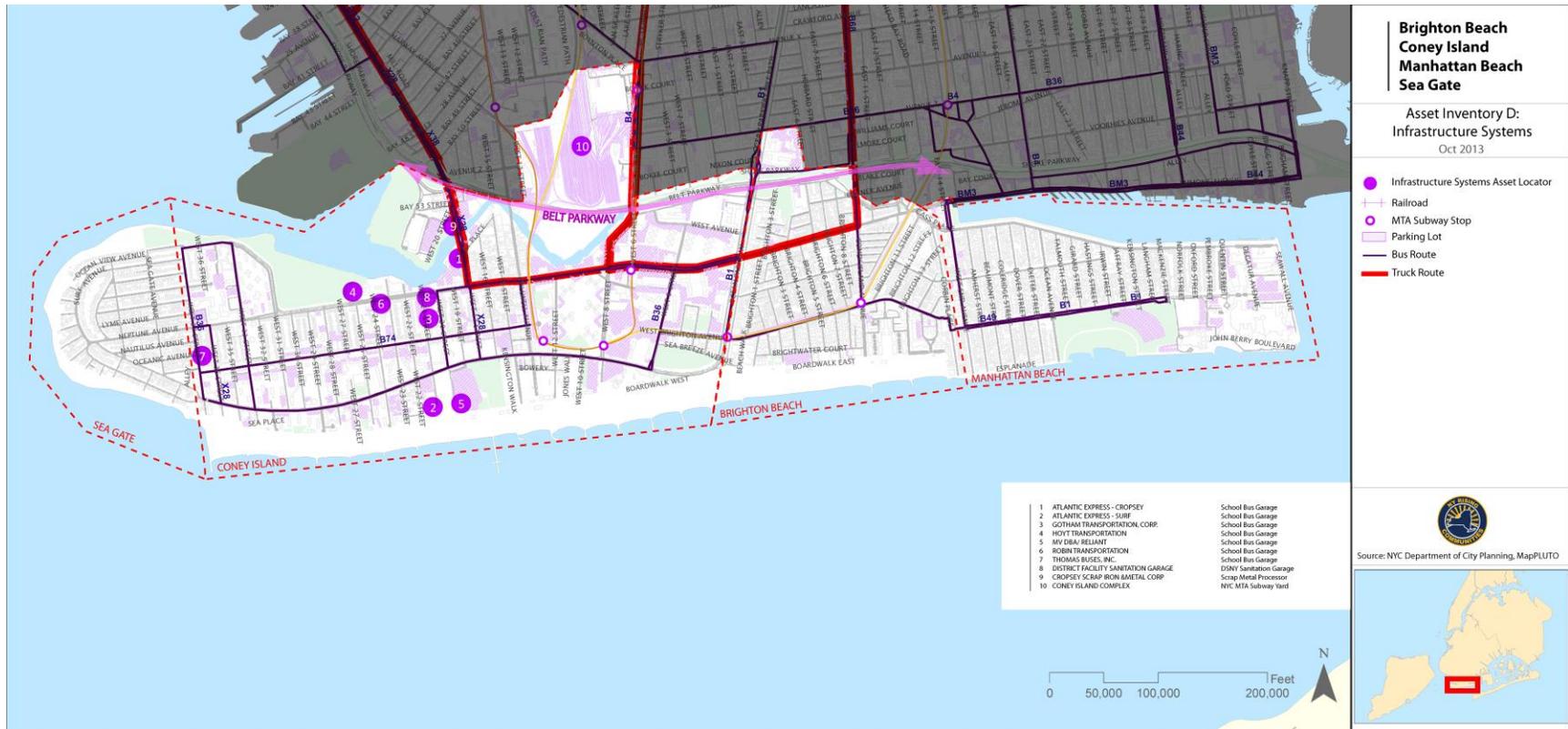


Figure B-4: Infrastructure Systems Asset Inventory Map





Figure B-5: Natural and Cultural Resources Asset Inventory Map

