

Red Hook Community Reconstruction

Conceptual Plan
Needs and Opportunities Assessment
October 2013



This document was developed by the Red Hook Planning Committee as part of the New York 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, Cooper, Robertson, & Partners, W Architecture, 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.

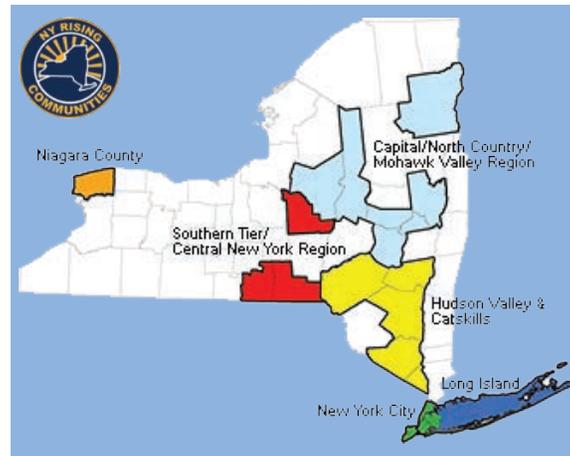
In the months ahead, communities will develop ways to implement additional strategies for economic revitalization, human services, housing, infrastructure, natural and cultural resources, and the community's capacity to implement changes.

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



Contents

I. Introduction—2

New York Rising Community Reconstruction Program	2
Approach to Public Outreach	4

II. Community Context—6

Geographic Scope	6
Community Overview	6

III. Storm Impacts and Risks—8

Summary of Storm Impacts	8
Recovering from the Storm	8
Future Risk	10

IV. Rebuilding and Resiliency Planning—12

Process Overview	12
Community Assets	13
Needs and Opportunities	20

V. Additional Considerations—28

Regional Perspectives	28
Existing Plans, Studies, and Projects	28

VI. Next Steps & Implementation Planning—29

Next Steps	29
Implementation Planning	29

VII. Appendix - Existing Plans—30



I. Introduction

New York Rising Community Reconstruction Program

The New York Rising Community Reconstruction (NYRCR) Program was established to provide additional rebuilding and revitalization assistance to communities severely damaged by Superstorm Sandy, Hurricane Irene, and Tropical Storm Lee. It will enable communities to identify reconstruction and resiliency projects that address current damage, future threats and the communities' economic opportunities. In connection with the program, the 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 \$3 million to Red Hook 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 Red Hook will be eligible to receive additional project funding from federal, state, and local sources.

As shown in the opposite page, this planning process will include 5 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 an **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, and Natural and Cultural Resources.

Each NYRCR community is led by a Planning Committee made up of community leaders, businesses, and residents. The Planning Committee is taking the lead in developing the content of the plan. Red Hook's Planning Committee consists of: Gita Nandan (Co-Chair), Ian Marvy (Co-Chair), Adam Armstrong, Carolina Salguero, Dannelle Johnson, Elizabeth Demetriou, Dorothy Shields, Florence Neal, John Bowie, Jim Tampakis, John McGettrick, Julia Rhodes-Davis, Mickey Reid, Mike DiMarino, and Victoria Hagman.

The State has also provided each NYRCR community with a planning team to help prepare a plan. The New York State planning team includes: Regional Leads Chelsea Muller and Alex Zablocki; NYC Lead Planner Steve Ridler; and Red Hook Community Planners DeGaetano and Bonnie Devine. Leading the state team is 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 Cooper Robertson Partners (urban design), W Architecture and Landscape Architecture (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 - Needs and Opportunities Assessment (this document)

- Community Context
- Storm Impacts and Risk
- Rebuilding and Resiliency Planning
- Additional Considerations: Regional Perspectives and Existing Plans

Final Community Reconstruction Plan, Spring 2014 - This document will include more in-depth discussion of the above, as well as:

Overview

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



Assessment of Risk and Needs

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

Reconstruction Strategies

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

Implementation Schedule

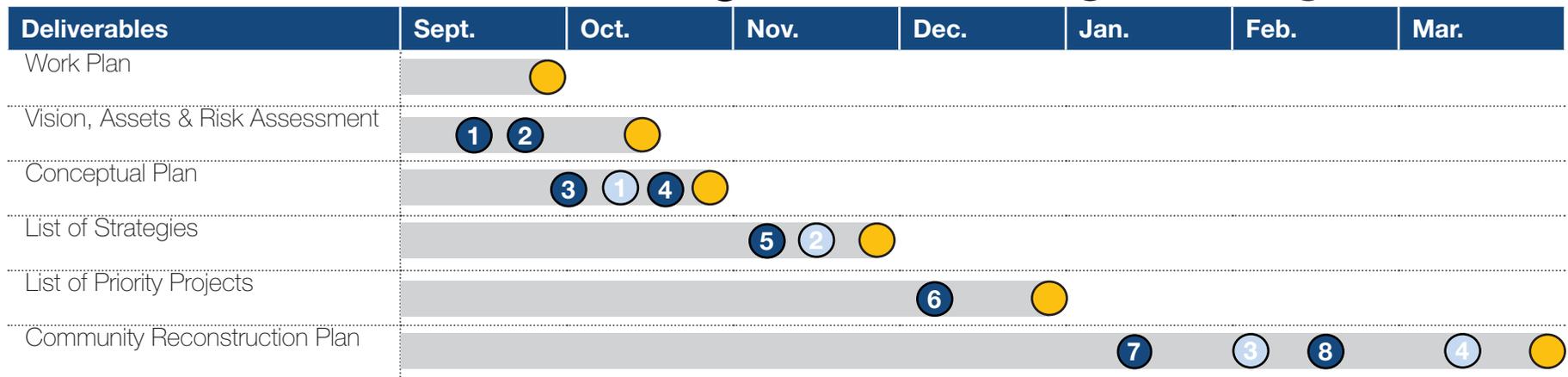
- Schedule of Implementation Actions

Appendices

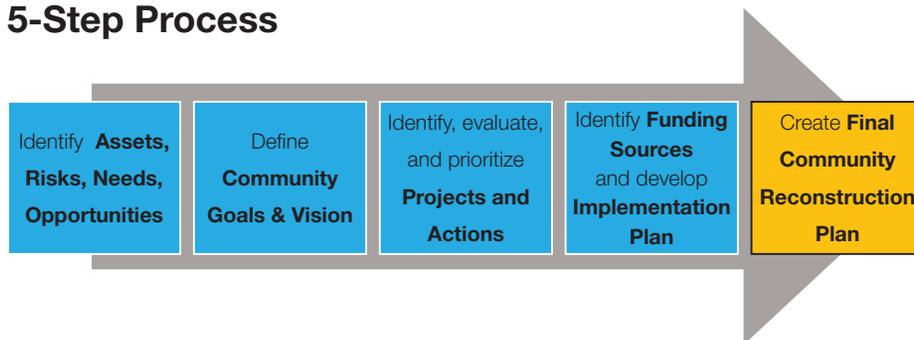
- List of Planning Committee Members
- Description of Public Engagement Process
- Description of Priority Projects and their Costs and Benefits
- Inventory of Assets

NYRCR Work Schedule

● Planning Committee Meeting
 Public Meeting
 ● Deliverable Due Date



5-Step Process





Approach to Public Outreach

Public and Committee Meetings

Both outreach and community engagement are critical to identifying needs and priorities, setting direction, and ensuring the success of the final plan. In Red Hook, the Planning Committee's public outreach strategy focuses on leveraging the network of organizations and communications that formed in the wake of Superstorm Sandy, along with an outreach strategy that the Red Hook Coalition has been developing. To date, Committee members, in cooperation with the Coalition, have employed digital outreach strategies via a Committee blog, listservs and email announcements, as well as distribution of over 1,700 flyers and palm cards to personal contacts and local institutions. These efforts have been supplemented by public advertising in local papers.

Subsequent phases of outreach will focus on direct outreach to the membership of organizations throughout Red Hook, with Committee and consultant team members attending neighborhood meetings to provide information about the NYRCR Program, solicit input, and invite ongoing involvement.

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

- **Public Meeting 1** (October 15, 2013) – Reviewed program scope, goals, and timeline; gathered feedback on vision, community assets, and needs and opportunities
- **Public Meeting 2** (November 2013) – Review contents of the needs and opportunities assessment; discuss and gather feedback on strategies, projects, and actions
- **Public Meeting 3** (January 2014) – Review analysis and prioritization of strategies, projects, and actions
- **Public Meeting 4** (February 2014) – Review of the 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.

As with all NYRCR communities, a notice for each public meeting will be posted on the Storm Recovery website. Meeting materials will also be posted on the Storm Recovery website after each event.

Online Outreach and Collaborative Mapping

Another valuable source of public input will be the online interactive mapping tool which can be accessed from the NYRCR Program Red Hook page: <http://stormrecovery.ny.gov/nycrcr/community/red-hook>.

The online map allows users to click on assets in the community and provide three forms of input:

- Confirm important community assets and information gathered about them
- Identify recovery and resiliency needs
- Provide ideas for rebuilding and resiliency

All community input is visible to all other map users, the Red Hook Planning Committee, the planning team, and the NYRCR team. It includes links for visitors to review information about the program, directly contact the NYRCR staff, and visit the program's Facebook page. Comments provided via the website are combined with other feedback from the public and incorporated into the plan in progress.



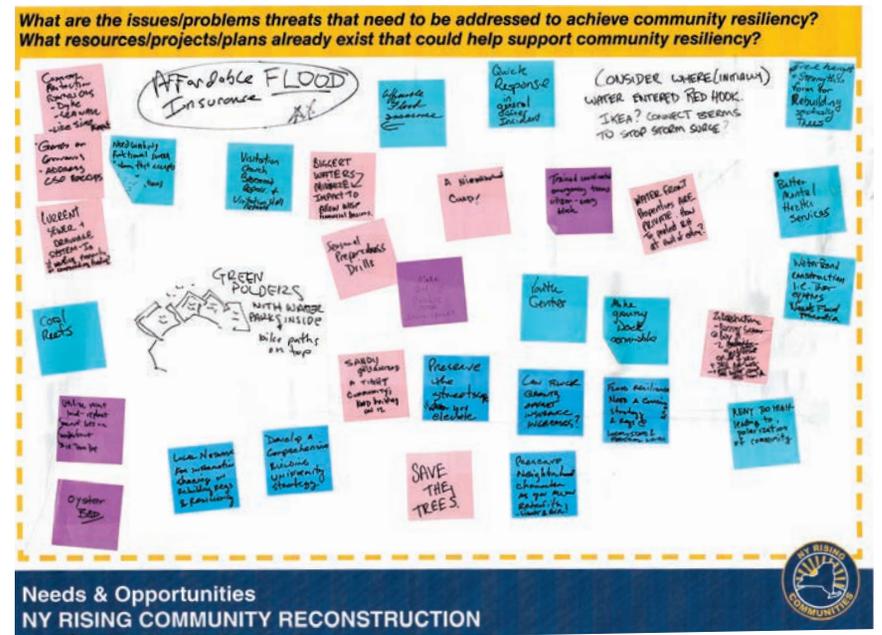
Red Hook Public Meeting #1, October 2013



Red Hook Public Meeting #1, October 2013



Planning Committee Meeting #3, October 2013



Community comments from Red Hook Public Meeting #1, October 2013



II. Community Context

Geographic Scope

The Red Hook planning area was defined by the Planning Committee based on multiple factors, including data on damage resulting from Superstorm Sandy, local understanding of community boundaries, areas where assets are most at risk, where reconstruction should be encouraged, and where key investments to improve the local economy can be made. The map on this page indicates the planning area designated by the Planning Committee.

Red Hook is located on the Brooklyn waterfront, approximately two miles from the Brooklyn Bridge and slightly southeast of Governors Island. Red Hook is bounded by the water bodies of Buttermilk Channel/Upper Bay (west), Gowanus Bay (south), and Gowanus Canal (east). The Gowanus Expressway serves as the northeastern boundary for the majority of the planning area. The northwest portion of the planning area includes the area between Hicks Street and Buttermilk Channel, south of Degraw Street.

Red Hook Planning Area



Source: NYC Department of Planning MapPluto, 13v1

Community Overview

Red Hook is a mixed-use community in Southern Brooklyn whose identity is shaped by its proximity to water and roadways. Surrounded by water on three sides, Red Hook has been a center



Red Hook Container Terminal. Source: Flickr F. Trainer



Red Hook Houses



of maritime industry for decades. The Gowanus Expressway forms the northeastern border of the neighborhood and provides transportation access to support industrial and commercial activities. Its construction also separated Red Hook from the rest of Brooklyn, which simultaneously isolated residents and businesses from the Brooklyn economy and contributed to Red Hook’s strong neighborhood identity.

The Red Hook planning area covers a 1.3 square mile area with a population of approximately 12,400 people according to the 2010 Census. Red Hook Houses, the second largest public housing projects in New York City and largest in Brooklyn, houses around 6,000 residents and comprises nearly half of the Red Hook planning area population. Both of these figures are reported by local residents to be under-counted since they may not capture individuals in informal living situations.

The residential population of Red Hook is diverse. About 40% of Red Hook residents identify as White, 36% as Black, 3% Asian, and 40% report Hispanic ethnicity. Income and associated resources varies significantly across Red Hook. As of 2010, median income within Red Hook Houses was 33% of the New York City median, rising to 47% of citywide median income in the balance of the neighborhood.

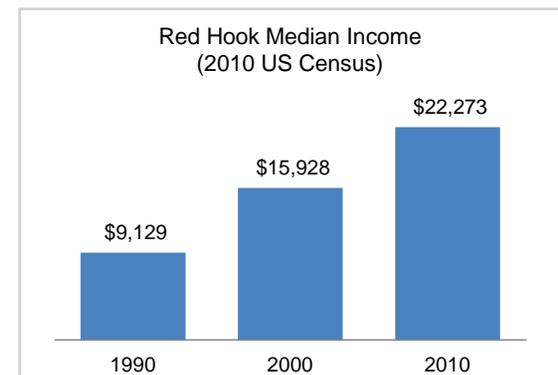
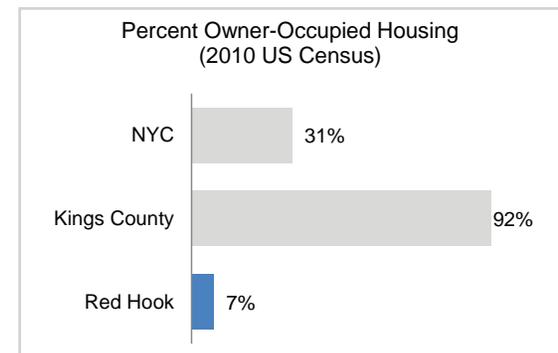
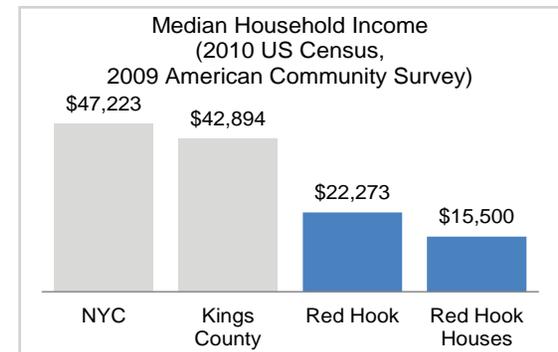
The vast majority of Red Hook residents rent their homes. Only 7% of housing units in Red Hook are owner-occupied. While this is driven by

the prominence of Red Hook Houses within the housing stock, the home ownership rate remains at 25% across the balance of the neighborhood, as compared with 31% citywide and 92% in Kings County. The residential building stock is similarly diverse. While 60% of all units (including those within Red Hook Houses) are in medium to large apartment buildings, about 36% are in row houses containing two or more units, with the remainder comprised of single-family homes. Red Hook’s building stock is notably historic with 80% of units built before 1960.

Yet residential uses comprise only 10% of Red Hook’s land area. **Industrial and manufacturing make up 30% of the total land area;** retail, office, open space, parking/transportation/utility uses each occupy approximately 10% of the area; and the remaining 20% of the land is occupied by vacant land and other uses.

Van Brunt Street is the main retail corridor and hosts an array of small, local restaurants and retail establishments, mostly occupying 3-story mixed-use buildings. Other mixed-use retail corridors include Columbia Street, Lorraine Street, and Clinton Street. A few larger retail establishments, notably IKEA and Fairway Supermarket, pull shoppers from the larger region.

The largest employers in Red Hook are in maritime and maritime support services, retail and restaurants, industrial, construction, and craft manufacturing sectors. Over half of Red Hook residents leave the neighborhood for work.



(Community Overview Sources: U.S. Census 2010; 2005-2009 American Community Survey; NYC Department of City Planning MapPluto; New York City Housing Authority)



III. Storm Impacts and Risks

Summary of Storm Impacts

The flood from Superstorm Sandy resulted in significant building damage, power outages, and transportation disruptions, creating tremendous hardship for many residents and businesses. While Red Hook's location within New York Harbor afforded some protection from wave action, stillwater flooding came from multiple water bodies, including the contaminated Gowanus Canal, which overflowed during Sandy. With the exception of a few elevated blocks in the vicinity of Coffey Street in the south, a half block of central Van Brunt Street, and Hamilton Avenue in the north, nearly all areas within Red Hook experienced flooding as a result of Sandy, in some cases exceeding 6 feet. In many cases, ground floors and basements were fully submerged, resulting in prolonged, month-long power outages for entire buildings and displacement for residents and businesses on the lower levels. Areas within Red Hook that regularly experience flooding during more frequent storms, such as Pioneer Street and Richards Street, experienced particularly high flood levels. Storm sewer backups compounded the coastal flooding, sending sewage into the streets and basements.

Both residents and businesses were hard hit by Sandy. The Red Hook Houses, New York City Housing Authority's (NYCHA) largest development in Brooklyn with 2,873 apartments that house around 6,000 residents, were especially hard-hit

by Sandy. Most of the buildings in the complex were without heat and power for weeks, and some units were without running water for a week. This posed significant challenges for residents, especially the elderly and those with disabilities. Retail establishments in Red Hook suffered greatly as a result of Sandy. On Van Brunt Street—a key retail corridor in Red Hook—the ground floors of buildings were severely damaged by flooding. Flood waters shut the Fairway Supermarket at the southern tip of Van Brunt for four months. Yet nearly half of all businesses affected were industrial, with disruptions impacting production, storage and distribution of goods.

Key community facilities and critical infrastructure also experienced significant damage and prolonged lapses in service due to the storm. PS 15 and the PAVE Academy Charter School were both closed for multiple weeks following Sandy, and students attended school at other locations while the necessary repair work was completed. The Red Hook Recreation Center had to close for several weeks, as a result of water damage to its structural and mechanical systems. The Red Hook Senior Center on Wolcott Street was inundated by more than five feet of water, forced to abandon its home of over 21 years. Significant flooding of the Hugh L. Carey Tunnel (formerly the Brooklyn-Battery Tunnel) resulted in the closure of this vital transportation link between Brooklyn and

Manhattan for nearly three weeks. Most local streets in Red Hook were inundated and the storm sewer system was overwhelmed by the floodwaters. Numerous residents and businesses complained of sewer backup and flooded basements.

Recovering from the Storm

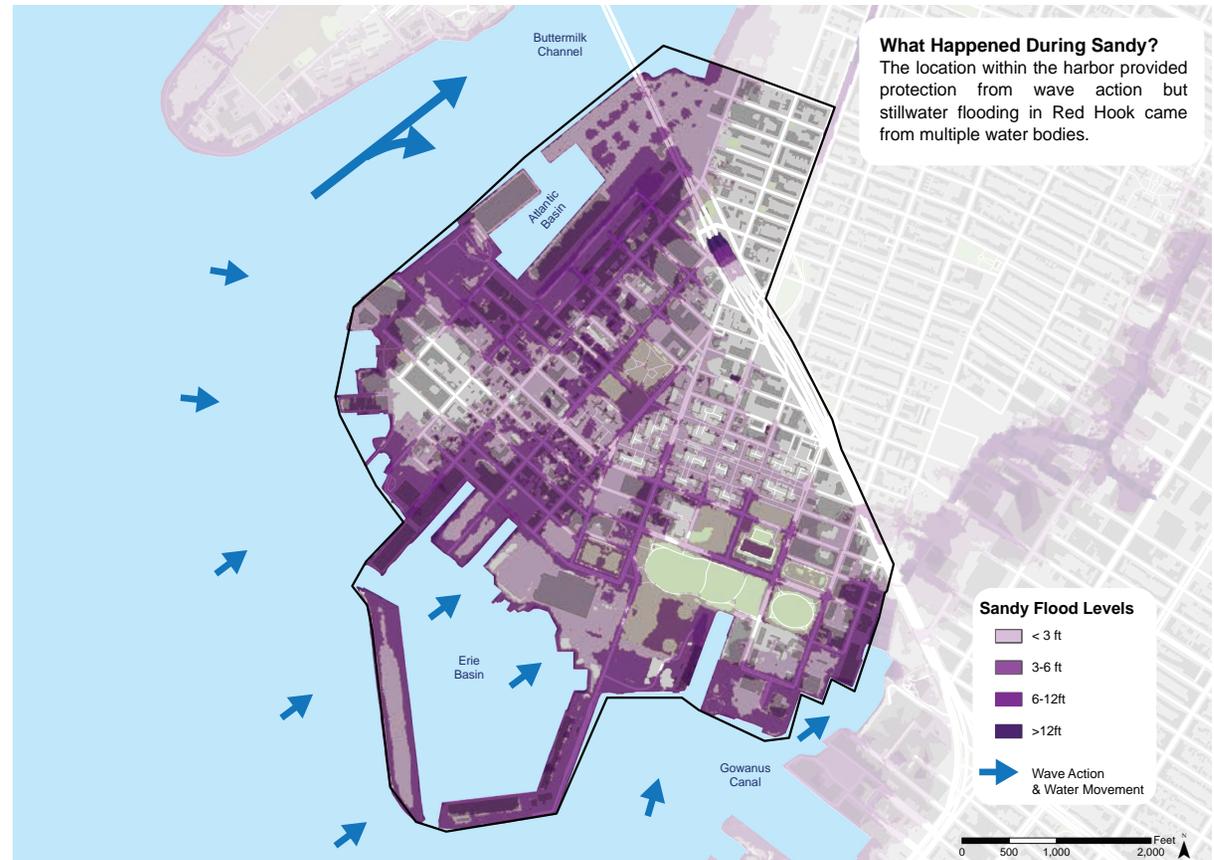
In response to the devastation caused by Sandy, volunteer and community-based organizations in Red Hook, as well as individual residents and businesses, mobilized to support the neighborhood. Well-established organizations such as Red Hook Initiative, PortSide New York, the Southwest Brooklyn Industrial Development Corporation (SBIDC), and the Added Value Community Farm used their resources and leadership to provide vital goods and services for the affected residents and businesses of Red Hook, as did a number of local religious institutions. Other organizations, such as Occupy Sandy, Restore Red Hook, and the Red Hook Volunteers were formed explicitly in response to Sandy for the purpose of helping those in need following the storm. In addition to serving as a clearinghouse for information about the broader recovery effort, these community organizations offered shelter, food, medical assistance, and other basic necessities to those who suffered as a result of the storm. A number of locations in Red Hook served as community gathering places following the storm,



such as PS 15, PS 27, and the Miccio Community Center. The support of these organizations supplemented extensive informal assistance offered by individual neighbors and businesses. There are countless stories of citizens stepping up to direct traffic, local businesses opening their doors to serve as community hubs, and other examples of informal social networks providing essential community support. Larger businesses helped too. IKEA turned into a major recovery partner, contributing funding and furniture to Red Hook households and institutions, and opening its facilities to provide shelter and services.

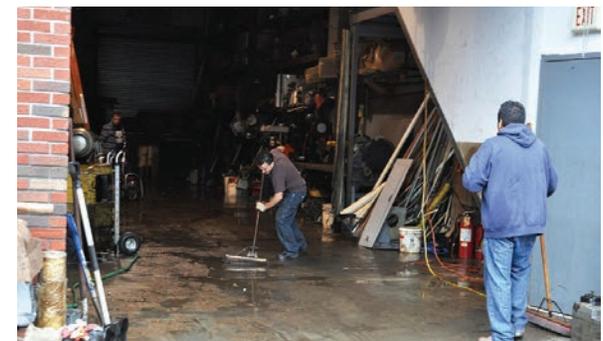
These informal, community-led recovery efforts were bolstered by the multi-pronged official response by New York City in the wake of the storm. During and following the storm, the two FDNY stations in Red Hook provided vital emergency response services throughout the neighborhood. NYCHA staff worked to restore the damaged buildings in Red Hook West and East. Since the Red Hook Community Center was forced to abandon its home on Wolcott Street due to excessive flooding, NYCHA provided it with temporary space at the Miccio Center, where it will remain until relocating to its new permanent location, with funding for renovations being provided by the City Council. Furthermore, in an effort to help businesses bounce back after Sandy, the City and other funding sources supported a New York Water Taxi stop at Van Brunt Street to supplement the stop at IKEA.

What Happened During Sandy?



Source: FEMA

Despite these complementary efforts to assist with recovery in the immediate aftermath of the storm, **there is much that remains to be done to rebuild and ensure the long-term resiliency of the neighborhood.** While the ongoing recovery from the storm demonstrated the unwavering strength of the community, it has also brought to light significant challenges that remain.



Clean-up of waterfront commercial building after Sandy.

Source: Flickr Michael Fleshman



Future Risk

As a low-lying neighborhood, Red Hook will continue to be at risk of flooding from three sides. Risk of coastal flooding will continue to increase with rising sea levels. The factors that led to the tremendous damage caused by Superstorm Sandy remain vulnerabilities in the community, and risks may arise in the future.

A water-oriented community with a history of maritime trade as well as an active working and recreational waterfront, many of Red Hook's economic and infrastructure assets are concentrated along its shoreline, placing them at particularly high risk of flooding and wave damage. This active waterfront also means that waterfront coastal protection measures will have to balance and be integrated with the ongoing waterfront activities in the community.

The overall low-lying nature of the area makes comprehensive coastal protection a challenge. Almost all of the planning area lies below the Base Flood elevations currently identified by FEMA; there is no "high ground". In a 100 year storm (a storm with a one percent annual chance of occurring) most of the planning area would be inundated, including all areas identified by the New York State Department of State (NYDOS) in its risk assessment area maps as extreme or high risk.

Risk Assessment Areas

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

Extreme: Areas currently at risk of frequent inundation and vulnerable to erosion and heavy wave action (in the FEMA V zone, meaning the area is subject to hazards associated with storm-induced waves over 3 feet), subject to shallow coastal flooding (within the National Weather Service's shallow coastal flooding advisory threshold), or likely to be inundated in the future due to sea level rise (assumption of 3 feet).

High: Areas outside the Extreme Risk Area that are currently at risk of infrequent inundation (in the FEMA A Zone, meaning there is a 1 percent annual chance of flooding) or at future risk of shallow coastal flooding with sea level rise (assumption of 3 feet).

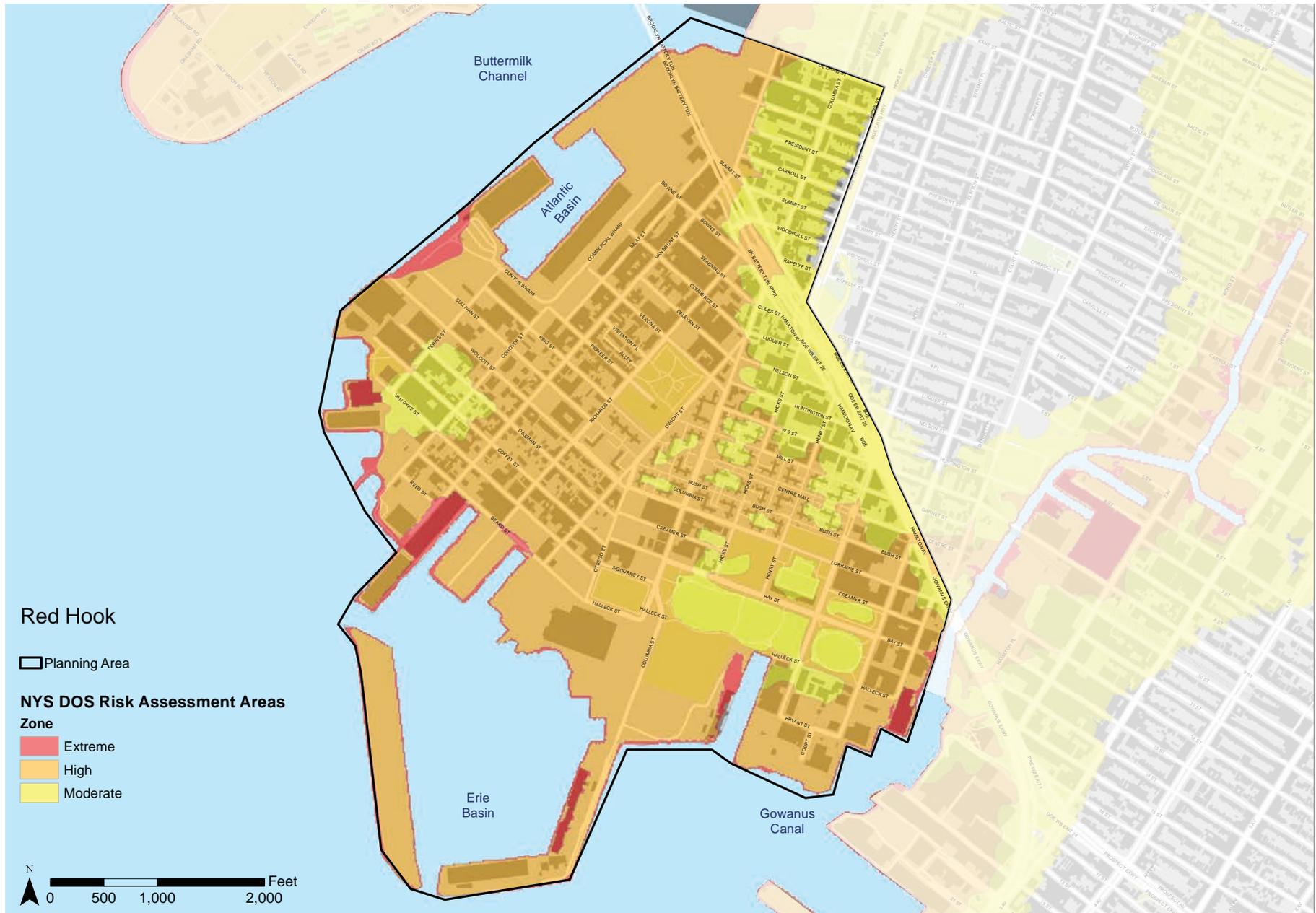
Moderate: Areas outside the Extreme and High Risk Areas but currently at moderate risk of inundation from infrequent events (in the FEMA shaded X zone, meaning there is a 0.2 percent annual chance of flooding) or at risk of being in the 100 year floodplain with sea level rise (assumption of 3 feet),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

According to the NYDOS Risk Assessment Area Maps, **the majority of the Red Hook planning area is at high risk from coastal flooding.**

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



NY Department of State Risk Zones



Source: NY Department of State



IV. Rebuilding and Resiliency Planning

Process Overview

The New York Rising Community Reconstruction Program contains 5 key steps for rebuilding and resiliency planning. This section summarizes the outcomes of the two steps of the NYRCR Program process that have been completed thus far: Identifying Assets, Needs and Opportunities, and Defining a Community Vision.

Through a series of Planning Committee and Public meetings, the Community has:

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

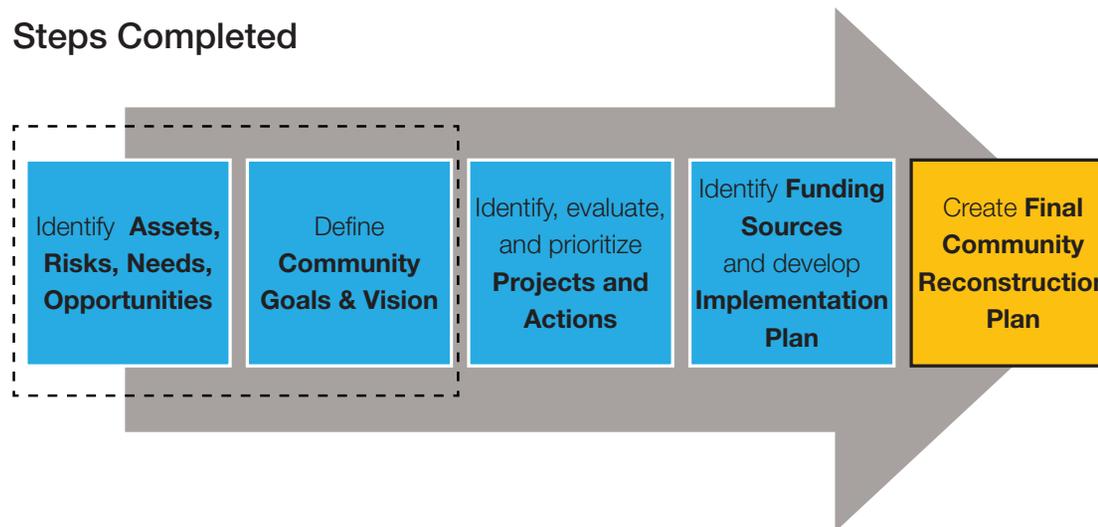
community that residents value and/or deem to be at risk.

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

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

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

Steps Completed





Community Assets

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

The goal of the asset inventory process is to assemble a complete description of the assets located within the community, with particular emphasis on assets whose loss or impairment due to flood and storm events would compromise essential social, economic or environmental functions or critical facilities of the 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 publicly available 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 by key NYRCR asset types: Community Planning and Capacity Building, Economic Development, Health and Human Services, Housing, Infrastructure, and Natural and Cultural Resources.

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

the categories and subcategories defined in the NYRCR Program guidance.

The maps were refined with input from the Committee.

The refined maps were then presented to the public at the first public meeting, where community residents identified any missing assets and identified their priorities.

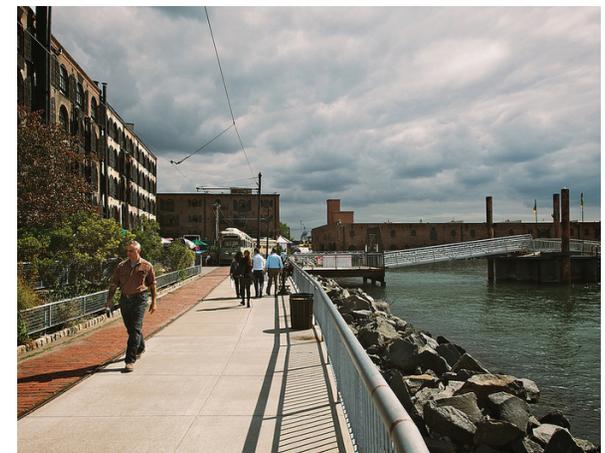
Additional public input on assets are being captured through an online interactive community asset map located at <http://redhook.nyrisingmap.org/>. This interactive map is available as an online reference through the beginning phase of the New York Rising Community Reconstruction Program process.



Red Hook Houses



Mixed-use buildings along Van Brunt Street



Waterfront industrial uses and the Fairway Supermarket



Economic Assets

Economic assets, including industrial, retail and other commercial uses, are located throughout the Red Hook planning area, with commercial and industrial property comprising 44% of the community's land area. While over 90% of residents leave the neighborhood for work, there are approximately 6,000 individuals from within and outside the community employed in Red Hook, providing essential services to neighborhood residents, and contributing to the production of goods for distribution throughout the region.

Consistent with Red Hook's maritime history, **many of its economic assets are concentrated along the waterfront, which is home to a number of large-scale maritime and industrial uses.** These include but are not limited to the southern portion of the Red Hook Container Terminal on Pier 10, the Brooklyn Cruise Terminal on Pier 12, the Erie Basin Barge Port, and the Gowanus Bay Terminal. Other notable economic assets on or near the waterfront include the IKEA, the Fairway supermarket, and historic warehouses and other industrial properties accommodating artisanal and food production, storage and distribution uses.

The Planning Committee and members of the public also highlighted commercial and mixed-use corridors that serve the community and regional visitors. The Committee identified the Van Brunt Street corridor as a priority economic

asset, along with other mixed-use corridors along segments of Lorraine, Clinton and Columbia Streets. These corridors are comprised of small and larger-scale businesses that include dry goods retailers, grocery/food suppliers, restaurants, bars, and other services. Businesses along these corridors suffered in the wake of Sandy, with key retail corridors and adjacent side streets experiencing significant flooding.

Housing Assets

The Red Hook planning area includes a variety of housing conditions and building types. Single- and multi-family residences, mixed-use housing, supportive housing and affordable housing are all found in Red Hook. Housing is provided in a variety of building types including townhomes, apartments over ground-floor retail, tenements of four or five stories, and high-density apartment buildings, along with live-work and residential space within illegally converted manufacturing buildings

A significant number of residents live in the NYCHA Red Hook East or Red Hook West housing developments, which collectively comprise the largest NYCHA development in Brooklyn. Located on more than 33 acres east of Dwight Street between Lorraine Street and West 9th Street, Red Hook East has 27 buildings with 2,528 apartments that house over 5,000 residents. Just west of Red Hook East, Red Hook West is located on approximately 6 acres between Dwight Street and Richards Street and has three buildings

with 345 apartments that house more than 800 residents.

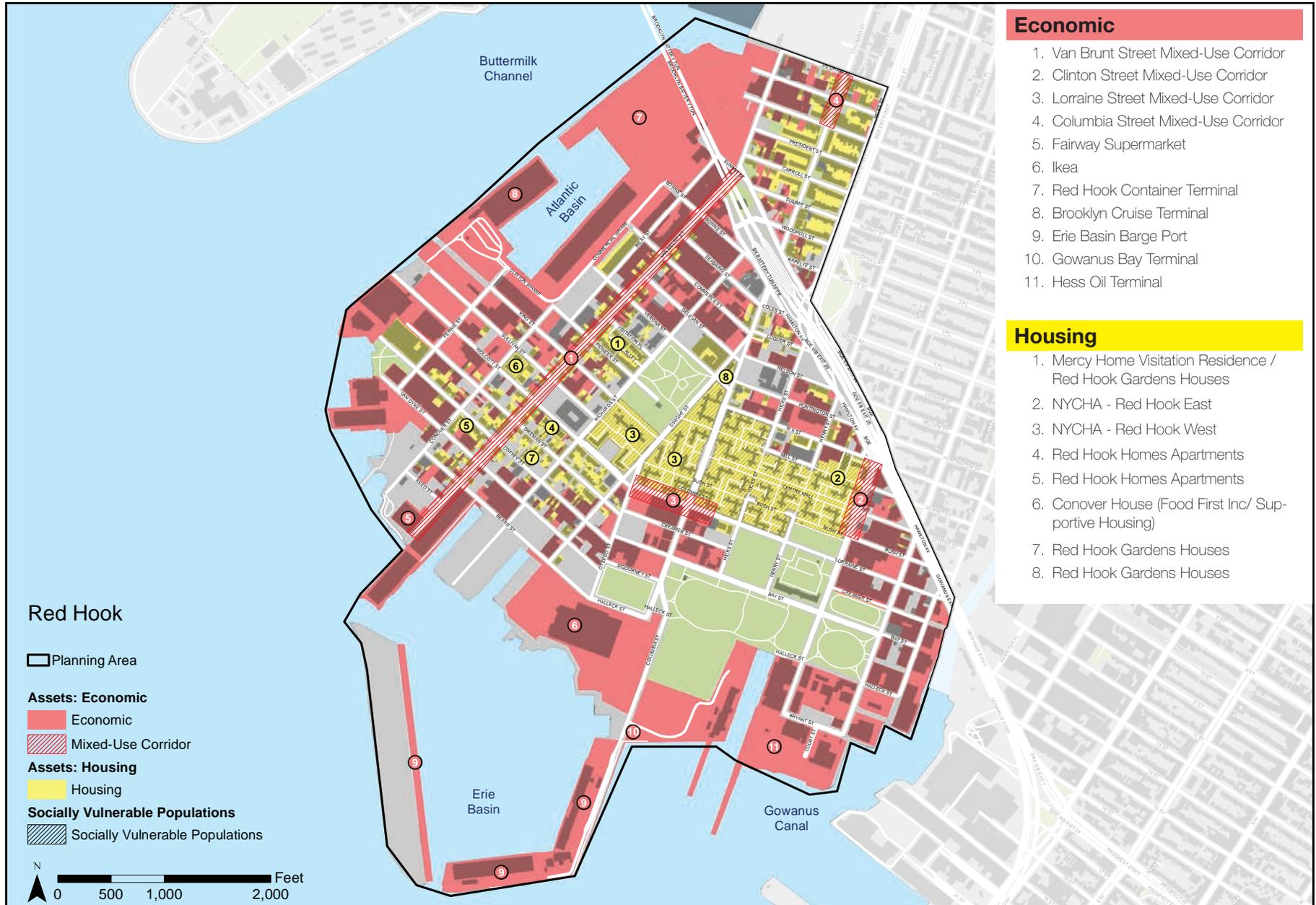
Throughout the neighborhood, housing assets—especially those with ground-floor and/or basement units—were adversely affected by flooding caused by Sandy's storm flood waters. As most of the housing assets in Red Hook are located in low-lying areas, few residences were unscathed by flooding in the wake of Sandy; the homes on Pioneer Street and Richards Street, as well as the NYCHA developments, were particularly hard-hit by the impacts of the storm.

Several housing assets in the Red Hook planning area serve socially vulnerable populations, comprised of people with disabilities, low and very-low income populations, the elderly, young children, homeless and people at risk of becoming homeless. The NYCHA housing developments of Red Hook East and Red Hook West are the largest of the housing assets that serve socially vulnerable populations. Other housing assets that serve socially vulnerable populations include the Red Hook Gardens Houses, the Mercy Home Visitation Residence, and the Conover House.

(Sources: NYC Department of City Planning MapPluto data; U.S. Census 2010; New York City Housing Authority)



Economic and Housing Assets Map



Source: NYC Department of City Planning MapPluto, 13v1



Health and Social Service Assets

Health and social services assets dominated the list generated by the Planning Committee and members of the public, including non-profit and religious organizations that played a key role in the post-Sandy recovery effort.

These assets include schools, healthcare facilities, daycare and eldercare facilities, government and administrative services, public works facilities, emergency operations/response, cultural or religious establishments, community centers, libraries, and non-profit/ community organizations.

The Planning Committee and members of the public highlighted many non-profit/community organizations and religious establishments as crucial neighborhood assets due to their provision of essential shelter, food, supplies, information, and medical assistance to local residents and businesses in the aftermath of Sandy. Organizations emphasized included—but were not limited to—Occupy Sandy, PortSide New York, the Red Hook Coalition, the Red Hook Initiative, Red Hook Volunteers, SBIDC, and Visitation of the Blessed Virgin Mary Church. While most of these organizations have physical headquarters, it was the actions and services they provide throughout the community at multiple locations, rather than

services provided at their headquarters, that were stressed by the Committee and public as the defining feature of these assets. Moreover, while many of these assets might also be considered cultural assets, in the context of resiliency, their role in providing key community services during and after an emergency was emphasized. They were thus categorized during the planning effort as health and social service assets.

Other health and social service assets that the Committee identified as playing an important role in the recovery effort included the Miccio Community Center, PS 15, and the Red Hook Library. **These locations served as community gathering places in the wake of Sandy.** The two FDNY stations in Red Hook—at 252 Lorraine Street and 29 Richards Street—provided vital **emergency response services for the community during and following the storm.**

While located outside the planning area, there are three emergency evacuation centers that are near the Red Hook neighborhood: New York City Technical College (300 Jay Street); Brooklyn Tech High School (29 Fort Greene Place); and John Jay High School (237 7th Avenue).

Natural and Cultural Resource Assets

Various natural and cultural resources are located throughout the Red Hook planning area, including a number of parks and recreation assets. Waterfront parks suffered the most direct adverse effects from Sandy, but assets located inland were not spared from the storm. For instance, the Red Hook Recreation Center closed for several weeks due to water damage to its structural and mechanical systems.

Some of these assets played a key role in the post-Sandy recovery effort, particularly as locations for gathering. Added Value Community Farm assisted with distribution of food and supplies in the aftermath of Sandy, and Coffey Park served as a useful gathering place for residents. The Planning Committee and members of the public identified both of these as priority assets, in addition to other natural and cultural resources such as the Red Hook Recreation Center and the PS 15 playground and recreation area.



Natural, Cultural, Health, and Social Services Assets Map



Source: NYC Department of City Planning MapPluto, 13v1



Infrastructure Systems Assets

The Red Hook planning area encompasses a number of infrastructure assets pertaining to transportation, liquid fuels, and wastewater treatment.

Transportation assets provide essential connections between Red Hook and surrounding communities, and are at severe risk from future storms. The Hugh L. Carey Tunnel (formerly the Brooklyn-Battery Tunnel), whose eastern terminus is located within the Red Hook planning area, is a critical vehicular connector between Brooklyn and Lower Manhattan and was particularly hard hit by the impacts of Sandy, with flooding resulting in its closure to the public for nearly three weeks. The closest subway station to the Red Hook Planning area is at Smith and 9th Street. While the station itself is elevated, its

entrance is low, and access to the station over low-lying roads and sidewalks could be compromised by future storms.

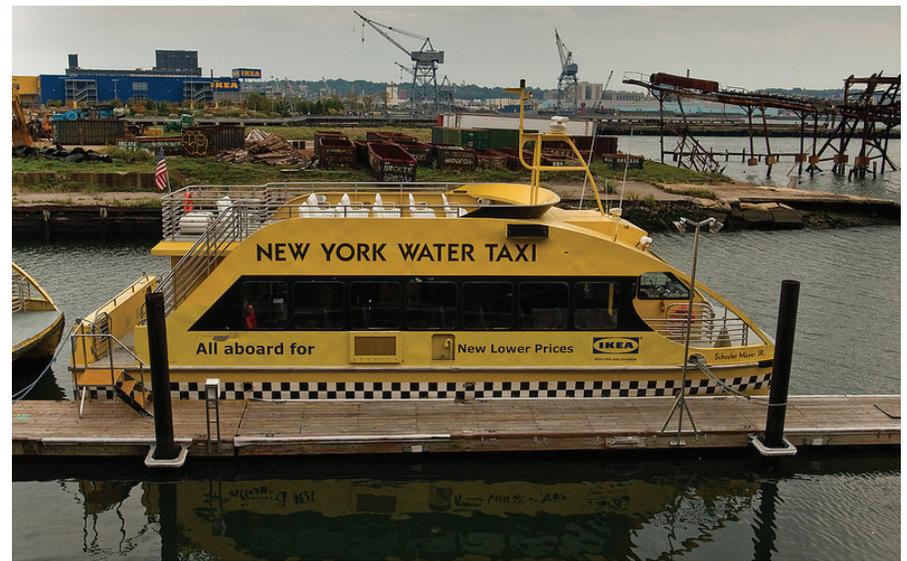
Maritime transportation is another key asset in Red Hook; a large percentage of the area's waterfront is comprised of working piers. The Port Authority of New York and New Jersey owns two facilities associated with the operation and maintenance of the Red Hook Container Terminal and Brooklyn Cruise Terminal at Atlantic Basin. The marine infrastructure maintained by the Port Authority supports the activity of both of these facilities, which are key economic assets for the area.

Infrastructure to manage stormwater and wastewater comprises another critical asset

within Red Hook. Red Hook's wastewater is treated at the Red Hook Water Pollution Control Plant, which is located outside the planning area but in the Brooklyn Navy Yard, which is also at risk during storm events. The New York City Department of Environmental Protection (NYCDEP) operates a wastewater pumping station at the intersection of Conover and Beard Streets, which residents report regularly floods during heavy rainfall. The neighborhood is served by sanitary and storm sewer systems, but like most of the city, many combined sewers remain. Superstorm Sandy overwhelmed the storm sewer system as the neighborhood was underwater. Residents also reported flooding in low-lying locations and basements during less severe but more frequent storm events, particularly when they happen in conjunction with high tides.



Hugh L. Carey Tunnel (formerly Brooklyn-Battery). Source: Flickr J. Bary

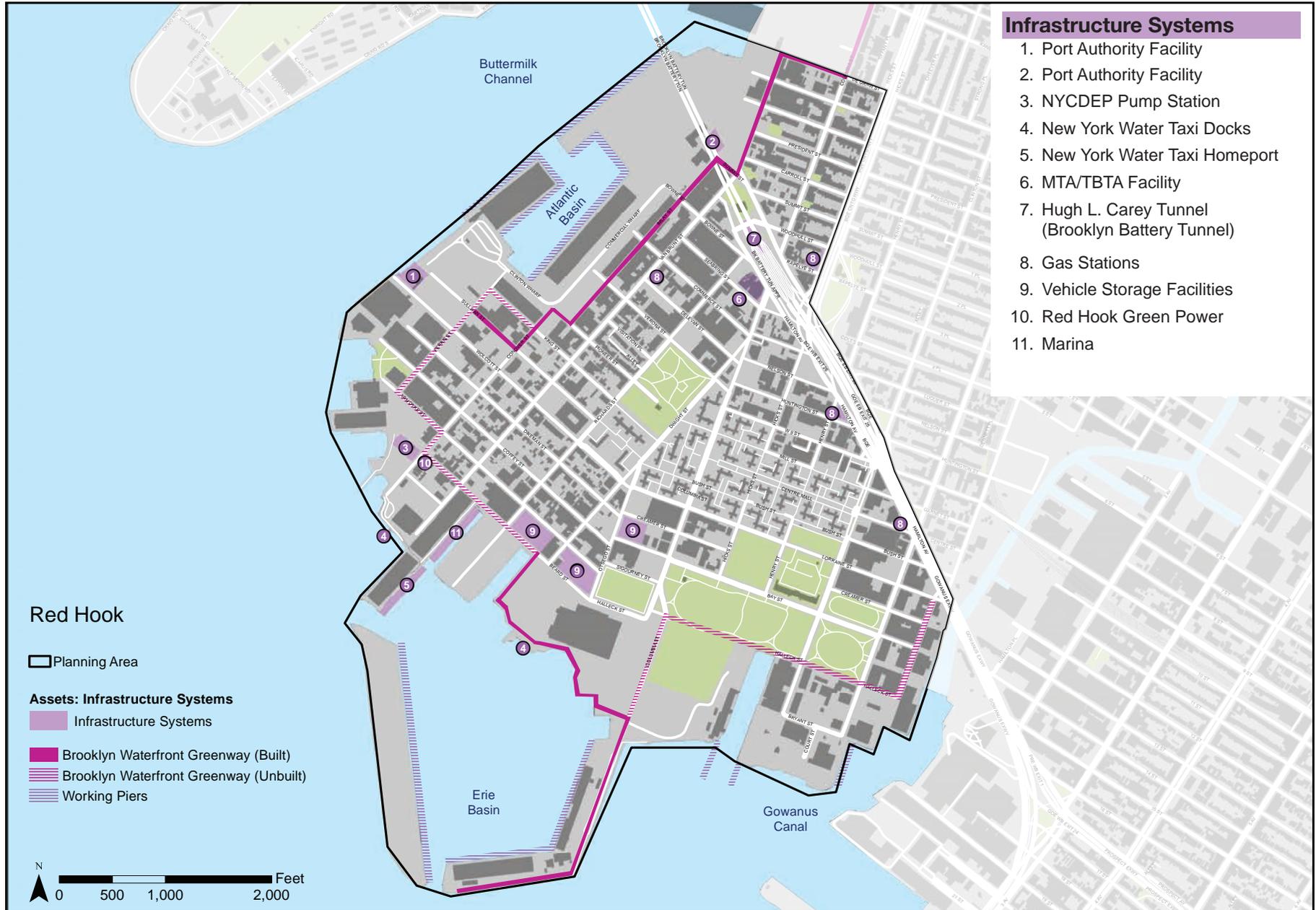


New York Water Taxi provides waterborne transportation options.

Source: Flickr "Retrofresh"



Infrastructure Assets Map



Source: NYC Department of City Planning MapPluto, 13v1



Needs and Opportunities

Needs and opportunities represent **what a community needs to be safe and resilient to weather-related** events and from the impacts of ongoing climate change, as well as **opportunities that exist within a community that could be taken advantage of or more fully developed to better address the community’s resiliency goals**, such as underutilized assets, land or other resources.

Identifying these needs and opportunities is an important part of the NYRCR process because the list reflects the community’s opinions regarding known or discovered risks, issues or challenges, unmet demands, as well as untapped potential or resources across the neighborhoods and networks of the community.

Through a series of discussions and work sessions the Planning Committee generated an initial list of needs and opportunities. A short, illustrative list of needs and opportunities, organized by recovery function, was displayed at the public meeting in order to spur public thinking and share a sampling of the Committee’s initial ideas.

Public attendees provided input on needs and opportunities by placing comments on interactive boards. The combined input from the public and Committee members are provided on the following pages.

Recovery Function	Needs and Opportunities
ECONOMIC DEVELOPMENT	Preserve, expand, and increase resiliency of diverse commercial and industrial uses
	Support job creation and economic opportunity
	Leverage funding opportunities to rehabilitate and increase resiliency of historic buildings
HOUSING	Increase resiliency of Red Hook Houses
	Preserve and expand affordable and insurable housing
	Provide funding, guidance, and policy for restoration and resiliency of low-lying homes
HEALTH & HUMAN SERVICES	Increase resilience of healthcare
	Ensure resilient food supply
	Prevent pollution release during flooding
NATURAL & CULTURAL RESOURCES	Expand and solidify community cultural and recreational resources and organizations
	Repair and increase public access to the waterfront
	Increase vegetation resiliency
INFRASTRUCTURE	Improve drainage and reduce flooding from sewer back-up
	Provide coastal flood protection
	Improve and increase resilience of pedestrian and transportation options, and mitigate negative transportation impacts
	Ensure resilient and redundant sources of power
COMMUNITY PLANNING & CAPACITY BUILDING	Leverage organizational capacity formed in the wake of Sandy
	Improve emergency preparedness, response, and communication strategies



Economic Development

Public and Committee members identified a strong need to **preserve, expand, and increase the resiliency of diverse commercial and industrial uses**. Businesses need clearer information about what rehabilitation options are available to them, along with the financial support to pursue capital-intensive resiliency measures. Many commercial establishments are located in historic buildings, which face unique rehabilitation challenges. Identifying and **leveraging funding opportunities to rehabilitate and increase the resiliency of historic buildings** is an important aspect of ensuring the long-term resiliency of Red Hook. Such assistance coupled with possible development of vacant and underutilized land needs to be deployed in a way that supports Red Hook's unique blend of industrial and retail uses, ideally combined with efforts to strengthen the market for both. Increases in the cost of flood insurance is a significant and pervasive concern among business owners.

Residents voiced a need to **support job creation and economic opportunity** in Red Hook, strengthening individuals and promoting unity across Red Hook community members at all income levels. Support and services to establish and grow micro-businesses—informal companies, hand-made goods—particularly amid NYCHA residents, are opportunities community members wish to explore.

Housing

Committee members and the public emphasized that **Red Hook Houses needs to become more**

resilient. Vulnerability of electrical and HVAC systems in Red Hook Houses was repeatedly cited as a problem that needs to be addressed. Many people recommended elevation of these systems and provision of a permanent, flood-resistant back-up generator on site.

Preserving and expanding insurable, affordable housing potentially on currently vacant land is a critical need in Red Hook, sustaining the community's diverse population in the face of rising housing costs. Residents cited a dual interest in preserving the sense of "open sky" associated with Red Hook's low density character, with some also expressing interest in seeing increased density at a mix of incomes to support more vibrant retail. **Mitigating the financial burden that higher flood insurance costs will have on property owners** is one feature of preserving affordability. Another component of housing affordability is the need for **funding, guidance, and regulations that support rehabilitation of low-lying homes** damaged by Sandy and at risk from future storm events. Presently many homeowners and renters lack clear information and the financial resources needed to implement resiliency measures for their properties.

Health & Human Services

Residents identified **access to healthcare** and a **resilient food supply** as essential for ensuring the health of the community after storm events. Community members also underscored a need to **prevent pollution release during flood events**, a public health concern in Red Hook due to the

prevalence of industrial uses and vehicle storage at grade, and to concerns regarding contamination in the Gowanus Canal.

Natural & Cultural Resources

Red Hook's expansive waterfront and ample open space are important assets that residents value highly and wish to preserve and enhance. Community members identified **increased public access to the waterfront, and repair and maintenance of existing waterfront facilities** for a combination of maritime, economic, and recreation uses as a key element of the community's long-term vitality and resiliency of the community. The waterfront also provides opportunities for waterborne emergency response efforts and distribution, enhancing resiliency.

The importance of community ties is cited frequently in Red Hook, along with the need to **strengthen and expand community cultural and recreational resources**. Many identified a need for more and better community gathering space, with specific expressions of need for a community center that can provide space for youth and adult programming and serve as a central location for emergency support and coordination before, during, and after a storm. Others identified the need to repair existing facilities, like Visitation Church Hall, that have historically hosted community events but remain damaged by Sandy. Improved facilities for the Red Hook Recreational Area, which is a well-used recreational resource for surrounding neighborhoods, was also identified as a need. Still others focused less on the need for space and



more on the need to strengthen the organizations that provide these services and resources in space already available in Red Hook.

Red Hook’s waterfront and its institutions are part of the community’s identity, as is the unique character of its streetscape. This suffered from tree die-off in the wake of Sandy, particularly among plane and sycamore trees. There remains a need to **increase the resiliency of Red Hook’s vegetation**, potentially through planting of salt-resistant trees and other vegetation that can survive future flood events.

Infrastructure

Flooding during Sandy occurred via flood waters from the Bay, but sewer back-up and drainage system failures were also identified as an issue. The need for **integrated flood protection** to guard against flooding from the coast and the Gowanus Canal, and the need to address **sewer back-up and poor drainage**, are amongst the most strongly voiced concerns in the community. The latter concern highlights challenges that long predate Sandy. Among a variety of potential strategies for addressing these challenges, the Committee discussed opportunities to **leverage the proposed Brooklyn Greenway route**, potentially elevating it as part of an integrated coastal protection plan. The public also voiced interest in integrating **green infrastructure** into resiliency planning and projects, at the building or district level.

Committee members and the public underscored the need for **more resilient transportation**

options—particularly better transportation connections to Manhattan and improved pedestrian connections throughout the neighborhood and under the Gowanus Expressway. Enhanced transportation systems will support the long-term vitality of the neighborhood, as well as options open to residents before and after future storm events.

Finally, residents and businesses alike focused on the **need to shorten the duration of power outages** after a storm event through improved emergency planning and more resilient infrastructure. Community members identified pursuit of alternative energy strategies such as tidal, wind, solar, or geothermal energy generation as both a need and a possible strategy for addressing power outages and a lack of redundancy of energy systems.

Community Planning & Capacity Building

Future emergency preparedness and response are critical concerns in Red Hook. Community members emphasized needs for better coordination amongst local, state, and federal emergency response entities, and for more resources to be readily available for emergency response and immediate recovery. A **flood-proof emergency center** is needed as part of this system to serve as the central coordination and response center and provide a location for critical supplies to be stored.

A more effective education strategy and a more resilient communication platform are additional essential components of emergency

preparedness for which community members identified a need. Residents cited a need for a community-wide flood preparedness program to promote preparation in advance of future storms, and/or a Civilian Emergency Response Team. Residents also noted an opportunity to expand the Red Hook Initiative’s wifi network project to support future communication.

Community members acknowledge the **significant community capacity that formed in the wake of Sandy** and are interested in leveraging that energy to organize and educate the public on disaster preparedness, response, and recovery, as well as future community and land use planning.



Red Hook Initiative provided critical support after Sandy. Source: Flickr R Deletto



Needs and Opportunities Community Comments

ECONOMIC DEVELOPMENT

Preserve, expand, and increase the resiliency of diverse commercial and industrial uses

- “Rezoning to acknowledge flood base plane”
- “More diverse businesses”
- Make industrial buildings more resilient
- Better use of Atlantic Basin waterspace and lease adjacent sheds so they relate to waterborne uses
- Better use of Brooklyn Cruise Terminal shed and parking lot, and Atlantic Basin parking lot
- Work to streamline environmental regulations so that Red Hook can rebuild piers
- Encourage small and local business development
- Explore options for increasing demand
- Leverage vacant lots for new development
- Help businesses utilize ongoing flood mitigation educational workshop and programs (e.g. SBIDC, NYC Planning)
- Explore infill retail in Red Hook Houses

Leverage funding opportunities to rehabilitate and increase resiliency of historic buildings

- Pursue landmark status for historically significant buildings
- Make use of State Historic Preservation Office (SHPO) grant to restore historic buildings damaged by Sandy

Support job creation, economic opportunity, and equity

- “Job creation & neighborhood investment.” “Create a strong economic foundation for community.”
- “Empower young people to build wealth”
- “Help to bridge class divide between projects and rest of the neighborhood”
- Build a produce market and retail market
- Leverage PortSide New York and Harbor School as possible incubators for maritime industry and education
- Provide job training

HOUSING

Provide funding, guidance, and policy for rehab and resiliency of low-lying homes

- “Funds & plans to maintain current housing to be flood ready.” “Retrofits to accommodate/address risks.”
- “Local network for information sharing on rebuilding regs & resiliency”
- “Green building incentives”

Increase resiliency of Red Hook Houses

- “Increase budget for NYCHA infrastructural repairs”
- “Retrofitted boilers for NYCHA”
- “Move NYCHA boiler to roof”
- “Leverage assets of Red Hook Houses (creative uses, empowered residents)”
- Empower Red Hook Houses residents to invest in apartment improvements

Preserve and expand affordable and insurable housing

- “Affordable housing - built with green building design.” “Rent too high - leading to polarization of community.” “Funding for low income/affordable housing.”
- “Affordable flood insurance.” “Roll back increased flood insurance rates.” “Biggest Waters [Flood Insurance Reform Act of 2012]: minimize impact to allow wise financial decisions”
- Explore ways to offset insurance increases
- “Rezoning so more mixed income (especially affordable) housing can be built and generate more pedestrian traffic”
- Mitigate financial hardship from flood insurance rate increase
- Leverage undeveloped residentially zoned lots for mixed-income housing
- Leverage vacant lots
- Explore Floor Area Ratio (FAR) bonuses
- Address needs of residents still displaced after Sandy

Note: Comments in quotes reflect direct quotes from Committee members and the public. Those not in quotes are paraphrased from conversations at Planning Committee and Public Meetings.



Needs and Opportunities Community Comments

HEALTH & HUMAN SERVICES

Ensure resilient food supply

- Explore Added Value Farm potential contribution to resilient food supply plan

Improve access to healthcare services

- “Need Hospital”
- “Health center and better system for sharing information”
- “Better mental health services”
- Ensure public safety

Prevent pollution release during flooding

- Reinforce laws and regulations controlling storage of toxic materials

NATURAL & RECREATIONAL RESOURCES

Repair and increase public access to the waterfront for economic and recreational uses

- “Soften ‘hard’ waterfront with a softened, natural coastline- invites expansion of present Brooklyn waterfront parks”
- Make use of large, easily accessible waterfront
- Expedite regulatory review for pier repairs

Expand and solidify community cultural and recreational resources and organizations

- “Community center”: “Cultural, education center”
- “Youth center”
- “Sustainable home for local non-profits”
- “Repair & use for youth of Visitation Church basement”
- “More 24/7 public social spaces”
- “A neighborhood corps!”
- “Community boathous[e] with experienced maritime rescue team”
- Better utilize existing school and church facilities for adult and youth activities
- Take advantage of existing training opportunities and resources
- Stabilize existing cultural nonprofit resources

Increase vegetation resiliency

- “A lot of our trees are now dying. In addition to salt-tolerance, let’s also take into account scale as we replace them. No super-tall trees/weak forms near buildings.”

COMMUNITY PLANNING & CAPACITY BUILDING

Leverage strong community capacity developed in wake of Sandy

- “Sandy galvanized a tight community; keep building on it”

Improve emergency preparedness response and communication strategies

- “Seasonal preparedness drills”
- “Quick response in general after incident”
- “Trained coordinated emergency teams citizen - every block”
- “Need a coordinated strategy & regs at local, state & federal levels”
- “Inter Red Hook communication networks”: “Stable communication platform (redhookwifi is a start)”
- Explore Hess management change as an opportunity to negotiate for emergency diesel provision

Provide access to flood-proof emergency center

- “Shelter/evacuation center with food supply, medical etc.”
- “Warehouse locale for generators...a stockpile of ready gas.”
- Raised lots at Home Depot (could be used for Emergency response in the future)
- Various vacant lots could be used to locate a new safe house
- Adjacent neighborhoods have ample high ground

Note: Comments in quotes reflect direct quotes from Committee members and the public. Those not in quotes are paraphrased from conversations at Planning Committee and Public Meetings.



Needs and Opportunities Community Comments

INFRASTRUCTURE

Improve drainage and reduce flooding from sewer back-up

- “Improve drainage/stormwater drainage: “Sewage treatment smell & danger of leakage & flooding” “Address [combined sewer overflow] CSO backups”
- Address/fix pump at Van Brunt and Reed and identify who is responsible for upkeep of it
- Citywide green roof/storm-water retention/green streets pilot programs
- Alley between Pioneer and Visitation provides opportunity for green infrastructure pilot project

Provide coastal flood protection

- “Seawalls” “Coastal protection barriers. Dykes. Seawall” “Increased seawall/ breakwater at Richards St., Van Brunt, and Gowanus facing streets.”
- “Privately owned property on waterfront to participate in protecting interior of neighborhood”
- “Gates on Gowanus”
- “Green polders with water parks inside & bike paths on top”
- “Oyster bed”
- Leverage the Brooklyn Greenway route in planning for coastal resiliency

Improve and increase resilience of pedestrian and transportation options, and mitigate adverse vehicle impacts

- “Better transportation throughout”
- “Improve & expand ferry service: “Need more waterborne transportation”
- “Need a bus into Lower Manhattan via the tunnel now!! At regular fare”
- Improve pedestrian and bicycle network
- Improve pedestrian connections under Brooklyn-Queens Expressway (BQE)
- Develop streetcar loop
- Coordinate with existing plans and projects
- Address transportation related nuisances such as bus traffic, fumes, fast tractor-trailer speeds, truck traffic along neighborhood streets, and bus storage
- Calm truck traffic on Van Brunt Street

Ensure resilient and redundant sources of power

- “Solar power”
- “Distributed power preferably via renewable sources”
- “Tax incentives & grants for green initiatives such as green roofs, solar power, and storm water collection on residential buildings”
- “Wind turbines/microturbine”
- “Tidal power”
- “Coral reefs”
- “Community based back-up power & phone/internet”
- Address frequent ConEd outages
- Enhance ConEd emergency plan/ provisions
- Shorten duration utilities are out after a flood event

Note: Comments in quotes reflect direct quotes from Committee members and the public. Those not in quotes are paraphrased from conversations at Planning Committee and Public Meetings.



Community Goals & Vision

The final key objective in this stage of the NYRCR process has been to establish overarching short-term and long-term resiliency and recovery goals for Red Hook.

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

Goals help define particular objectives that the community hopes to achieve over the near and long term. They can range from small, simple goals to 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 were established from Planning Committee discussion and input at the first public meeting. The Planning Committee also engaged in a visioning exercise whereby they adopted the perspective of a variety of Red Hook populations and brainstormed goals from these outlooks. The feedback from these activities were organized to create consolidated summary goals and Committee members drafted a vision statement.

Short-Term Goals	Long-Term Goals
<ul style="list-style-type: none"> • Increase emergency preparedness and response capabilities • Support commercial recovery and long-term viability • Repair and improve resiliency of NYCHA properties • Improve resiliency of low-lying housing and businesses • Provide and protect dedicated community space and recreation resources and organizations • Strengthen community unity • Embrace green infrastructure • Improve transportation connections 	<ul style="list-style-type: none"> • Increase economic and social integration and equity • Expand and protect Red Hook’s mix of residential, commercial, industrial and maritime uses • Create sustainable water management systems (e.g. sewer and drainage) • Provide coastal flood protection • Address utility and energy redundancy needs



Vision Statement

The Planning Committee prepared the following preliminary vision statement, which will continue to be refined throughout the New York Rising Community Reconstruction Program process:

Empowered by the spirit of unity that helped the Red Hook community survive Hurricane/Superstorm Sandy, our vision for a resilient and **thriving** future is to work as a holistic community to strengthen the **historic waterfront** Red Hook peninsula by minimizing differences and maximizing **cooperation** among all who live and work here. Mindful of the growing climate-related risks to our **beloved** community and the immediate need for improved emergency preparedness measures, our actions will serve to help to develop measures that will protect our neighborhood from flood inundation, **increase the safety** of our citizens, and move towards a resilient community. We are committed to maintaining and expanding **affordable housing** and increased economic activity with an emphasis on **local job development**, recognizing the importance of their interdependence. Our re-building efforts towards a resilient and sustainable community are focused on a sincere triple bottom line **integration of environment, economy, and community**, which will require substantial improvement to our long-neglected infrastructure including sewers, transportation, communications, power and energy provision, and education.



V. Additional Considerations

Regional Perspectives

A number of regionally significant transportation and industrial assets are located in Red Hook. The Hugh L. Carey Tunnel (formerly Brooklyn-Battery Tunnel) is a critical connector between Brooklyn and Manhattan that is vulnerable to flooding. Though flooding during Superstorm Sandy came from the Manhattan side of the tunnel, increasing the resiliency of the tunnel entrance is critical to Red Hook as well as the larger metro region.

Red Hook’s Erie Basin and Atlantic Basin provide important economic, industrial and transportation services and are part of the larger Port of New York and New Jersey. The Red Hook Container Terminal located between Atlantic Basin and Atlantic Avenue is one of several container handling facilities in the Port of NY-NJ and the only such facility in Brooklyn. It serves as a critical point in the metropolitan distribution chain. The Brooklyn Cruise Terminal is located at Atlantic Basin and is one of only two cruise terminals in New York City.

With so much of its waterfront devoted to an active maritime economy, Red Hook stands to benefit from initiatives by the Port Authority and other regional agencies looking to protect their port and shipping facilities. In addition, Red Hook faces a series of issues that are critical for the city and the region, from ongoing port activities including dredging of the surrounding basins and

channels, to the need to balance active maritime uses with new development, to the challenges presented by historic industrial sites including the adjacent Gowanus Canal Superfund site which is set to undergo remediation by the Environmental Protection Agency. These issues are exacerbated by the threat of rising sea levels and increased frequency and intensity of storm events. At the nexus of many of these regional issues, Red Hook is frequently an area of study for associated efforts and stands to benefit from increasing attention and funding for regional research and pilot projects.

Existing Plans, Studies, and Projects

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

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

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

- Red Hook’s transportation needs have been studied in several past reports and ongoing initiatives, including the feasibility of expanded ferry, new streetcar service, and bus service from Red Hook to Manhattan.
- Local community organizations have documented the response of residents and organizations in the wake of Sandy, and groups have begun planning and visioning processes aimed at galvanizing a more unified and active community.

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

- Assessment of electrical and water management systems (e.g. sewer/drainage)
- Strategies for promoting resiliency at the building level
- Community social services and evacuation plans.

Existing plans, studies, and projects are summarized in the below matrix indicating the organization leading the planning process, key analysis and proposed initiatives, and the Recovery Functions these initiatives address.

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



VI. Next Steps & Implementation Planning

Next Steps

The next steps in this planning process will be to develop a comprehensive list of strategies and potential projects and actions which will be released after this report. The Planning Committee and public will then, using the technical expertise of their planning 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 a comprehensive list of potential strategies to achieve rebuilding, resilience, and economic growth
- This will be conducted through Planning Committee, public meetings, and online outreach

Identification of priority projects and actions by January 2014

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

Alternatives evaluation and prioritized list by early 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. **This will be documented in the Final Community Reconstruction Plan, due March 31, 2014.**

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

The plan will identify:

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

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

To accomplish certain infrastructure resiliency projects, regulatory and legislative changes may be required. In these instances, the plan will include the process for which these changes can be achieved. Regulatory and legislative changes could include changes to current zoning and/or permitted uses in a specific area and/or state policies regarding construction and repair of waterfront infrastructure. The implementation plan will identify the regulatory and legislative entities that will need to 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 Red Hook's resources and identify if implementation can be achieved with existing resources or if additional staff will be required. It will also identify the mechanisms for securing and managing the additional resources.



VII. Appendix - Existing Plans

Plan/Study Name	Lead Organization(s)	Initiative Description	6 Recovery Functions						Sub-Category
			Community Planning & Capacity Building	Economic Development	Health & Social Services	Housing	Infrastructure	Natural & Cultural Resources	
Special Initiative for Rebuilding and Resiliency (SIRR) Analysis - Environmental Justice Alliance	Sandy Regional Assembly, Environmental Justice Alliance (NYC-EJA)	Report analyzes proposals made by the SIRR Report and provides supplemental recommendations aimed at addressing environmental justice and social justice issues. Proposals relevant to Red Hook include providing funding for the Red Hook Significant Maritime Industrial Area (SMIA), expediting the remediation of the Gowanus Canal, and establishing a Community Resilience Center.	X	X	X	X	X	X	Environmental and Social Justice
Recovery, Adaptation, Mitigation, and Planning (RAMP) Studio	Pratt Graduate Studio	Pratt Institute's Programs for Sustainable Planning and Development (PSPD) developed a suite of studios, classes, and workshops that address resiliency issues. A summer course, "Repositioning in Place: Strategies for a Resilient Red Hook," analyzed resiliency challenges in Red Hook and conducted research of social and physical characteristics of the neighborhood.	X	X	X	X	X	X	Comprehensive Resiliency Study
Red Hook Summit	Red Hook Coalition	The Red Hook Coalition convened a summit aimed at articulating a vision for Red Hook, catalyzing change, developing a strategy, and engaging a core group of new community voices in leadership.	X						Community Vision, Resiliency
Red Hook Small Business Hazard Mitigation Case Study Findings Report	Southwest Brooklyn Industrial Development Corporation (SBIDC) and Dewberry	The report presents findings from an analysis of three businesses in Red Hook that were impacted by Sandy. Both physical and operational aspects of the businesses and their recovery needs are addressed. Supplementing the report are the Small Business Storm Preparedness Plan and a list of national funding opportunities for hazard mitigation.		X					Small Business Support
Brooklyn Waterfront Greenway - A Plan for Community Boards 2 & 6	Brooklyn Greenway Initiative (BGI) and Regional Plan Association (RPA)	The Brooklyn Greenway Initiative (BGI) is aimed at building a 1.3-mile trail along the waterfront. The Plan for Community Boards 2 & 6 assessed feasibility, progress, and needed actions to progress this effort. Portions of the Greenway in Red Hook are underway.					X	X	Transportation
Red Hook Transportation Needs Study	New York City Department of City Planning (DCP)	Strategies to improve connections between Red Hook and the rest of Brooklyn are under review by the Department of City Planning's (DCP) Transportation Planning Department.					X		Transportation



Plan/Study Name	Lead Organization(s)	Initiative Description	6 Recovery Functions						Sub-Category
			Community Planning & Capacity Building	Economic Development	Health & Social Services	Housing	Infrastructure	Natural & Cultural Resources	
Brooklyn Streetcar Feasibility Study	New York City Department of Transportation (DOT), URS Corporation	URS Corporation and NYC Department of Transportation (DOT) examined the feasibility of a streetcar loop through Brooklyn neighborhoods, including Red Hook.						X	Transportation
Comprehensive Citywide Ferry Study	New York City Economic Development Corporation (NYCEDC), NYHarborWay, Waterfront Vision and Enhancement Strategy (WAVES)	The study analyzes market demand and potential ridership from sites throughout New York City using research into public meetings, the existing ferry network, and costs and funding sources.						X	Transportation
Historic Landmarks and Flood Risk Study	New York City Department of City Planning (DCP)	The study aims to determine the impact to and risks faced by historic landmarks in New York City and to identify retrofitting strategies for increasing the resilience of historic structures while maintaining their historic integrity. The study summarizes the policy implications of changes to the National Flood Insurance Program (NFIP).		X			X		Historic Preservation
Southwest Brooklyn Waterfront Dredge Feasibility Pilot Project	Port Authority of New York and New Jersey (PANYNJ) and Nautilus	The study aims to determine the feasibility of using dredge to extend the coastline and potentially increase coastal protection. A demonstration project will be pursued.						X	Coastal Protection
Columbia University, Historic Preservation Graduate Program	A Preservation Plan for Red Hook Brooklyn	The graduate student report provides information on existing conditions and locations of key historic assts.		X			X		Historic Preservation
Red Hook: A Plan for Community Regeneration (197-a Plan)	Community Board 6	A comprehensive neighborhood plan from Community Board 6 that includes recommendations for transportation, housing, open space, economic development, community facilities, and services.	X	X	X	X	X	X	Comprehensive Neighborhood Plan



Plan/Study Name	Lead Organization(s)	Initiative Description	6 Recovery Functions						Sub-Category	
			Community Planning & Capacity Building	Economic Development	Health & Social Services	Housing	Infrastructure	Natural & Cultural Resources		
A Stronger More Resilient New York - Special Initiative for Rebuilding and Resiliency (SIRR) - Select Projects	Office of Long-Term Planning and Sustainability (OLTPS)	A suggestion to install an integrated flood protection system in Red Hook.						X	Coastal Protection	
	New York City Economic Development Corporation (NYCEDC)	A recommendation for the Port Authority to continue a study of innovative coastal protection measures using clean dredge material in Southwest Brooklyn.						X	Coastal Protection	
	Office of Long-Term Planning and Sustainability (OLTPS)	Advocacy for and work with the United States Army Corps of Engineers (USACE) to develop an implementation plan and preliminary designs for a local storm surge barrier along the Gowanus Canal.						X	Coastal Protection	
	New York City Department of Transportation (DOT)	Efforts to improve connections between Red Hook and the rest of Brooklyn. The New York City Department of Transportation will create a new connection at Mill Street and will install lighting for improved pedestrian conditions at Hamilton Ave and West 9th Street.						X	Transportation	
	New York City Department of Transportation (DOT)	A call for the Metropolitan Transportation Authority (MTA) to explore Red Hook-Lower Manhattan bus connections.						X	Transportation	
	New York City Economic Development Corporation (NYCEDC)	Free summer weekend ferry service from Manhattan to Red Hook was expanded in 2013. Results of this program are under review.						X	Transportation	
	New York City Economic Development Corporation (NYCEDC)/ New York City Housing Authority (NYCHA)	A recommendation to create and implement a revitalization strategy for targeted retail and community spaces within Red Hook Houses.	X	X	X					Retail
	New York City Economic Development Corporation (NYCEDC)	A call to implement planned upgrades to vulnerable City-owned, industrial properties.						X		Industrial

