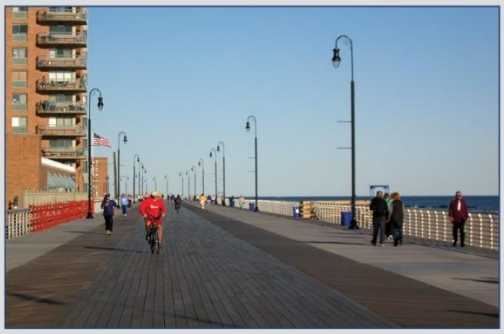


New York Rising
Community Reconstruction Program

Long Beach Conceptual Plan

October 2013

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.

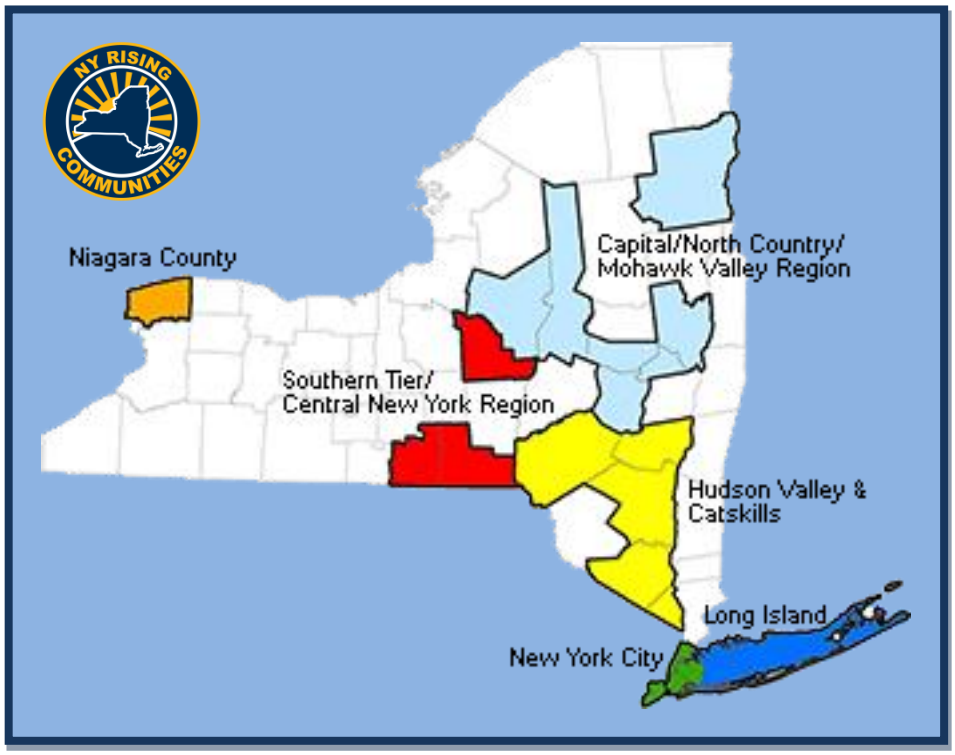
In the months ahead, communities will develop ways to implement additional strategies for economic revitalization, human services, housing, infrastructure, natural and cultural resources, and the community's capacity to implement changes.

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



StormRecovery.ny.gov/Community-Reconstruction-Program

Preface

The City of Long Beach, NY, is on a barrier island on Long Island's South Shore and a 50-minute train ride from New York City. With approximately 33,275 residents year round and over 55,000 in the summer,[1] Long Beach has the feel of a seaside getaway and includes a dynamic mixture of long-time residents and tech-savvy relative newcomers. Residents are dedicated to sustainability and resiliency, interested in the arts and culture, and fitness oriented (e.g., surfing). It attracts young professionals and its economy is largely dependent on the summer visitor season.

Long Beach was devastated by Superstorm Sandy in October 2012. Virtually the entire City was flooded, and all of the residents and businesses were affected. The City is in the process of recovering and has already completed many rebuilding projects.

The State of New York has launched the New York Rising Community Reconstruction (NYRCR) Program, an innovative post-disaster planning process. Long Beach is taking advantage of the program to create a more resilient City as it continues to recover, rebuild, and protect vital City assets.

This document is the Conceptual Plan for the development of the Long Beach NYRCR Plan, which will be based on the NYRCR Program requirements and reflect rebuilding progress. The Conceptual Plan consists of background on the City of Long Beach, a summary of the damage in Long Beach caused by Superstorm Sandy, a preliminary list of community assets that need to be protected, the level of flooding risk in Long Beach, 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, including evaluation of available funding sources.

Following the completion of the Conceptual Plan, the following steps will occur:

- A second Public Engagement Meeting will be held to receive public input on the Conceptual Plan. The input from this meeting and the final two Public Engagement Meetings, likely to occur in 2014, will be considered for incorporation into the final Long Beach NYRCR Plan.
- The community asset inventory, which will include a vulnerability evaluation using Risk Assessment and historical data, will occur in November 2013.
- From the list of prioritized key strategies and potential actions found in Section 8 of this Plan, projects will be developed. These projects will then be analyzed with

[1] 2010 U.S. Census. http://quickfacts.census.gov/qfd/states/36/3643335.html Accessed October 2013

consideration to cost, benefits, and collateral impacts. Section 9 outlines the type of details collected for the projects and Section 11 identifies the evaluation process for identified projects.

- The Long Beach NYRCR Committee (referred to in this report as the "Planning Committee") will review, evaluate, and prioritize the results of the projects once they are analyzed in terms of costs, benefits, and priorities.

The Long Beach NYRCR Plan will be completed by March 2014. The plan will incorporate input from residents, community leaders, business leaders, and representatives of community-based and religious organizations.

This document was developed by the Long Beach 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: URS Corporation, Sustainable Long Island, the LiRo Group, AIM Development, Jamie Caplan Consulting LLC (JCC), and Planning4Places, LLC.

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1 Introduction and Background

The State of New York has developed the New York Rising Community Reconstruction (NYRCR) Program, an innovative post-disaster planning process, to help communities rebuild better and safer.

Communities will use this process to develop NYRCR Plans that will address repairing existing damage, mitigating future threats to the communities, and fostering the economic future of the communities. Consistent with the National Disaster Recovery Framework, NYRCR Plans will address the needs, risks, and opportunities related to six Recovery Support Functions: Community Planning and Capacity Building, Economic Development, Health and Social Services, Housing, Infrastructure, and Natural and Cultural Resources.

NYRCR Plans will also help identify funding opportunities for communities to implement the plans.

The NYRCR Plan for the City of Long Beach will:

- Assess the community's 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 essential public assets damaged or destroyed by Superstorm Sandy
- Identify, strategies, projects, and actions that will increase the communities' resilience, provide protection to vulnerable populations, and promote sound economic development by protecting the community's assets

The Boardwalk in Long Beach, NY (source: Sustainable Long Island)

Approximately $25 million has been allocated to the City of Long Beach by the State of New York for reconstruction. The NYRCR Plan will identify other potential funding sources.

1.1 Conceptual Plan for the Long Beach Community Reconstruction Plan

This document is the Conceptual Plan, which is an early outline for developing the Long Beach NYRCR Plan that is being led by the Planning Committee and includes input from the public. The Conceptual Plan includes strategies, actions and potential projects that will evolve during the NYRCR planning process with community input and in part based

on program eligibility and applicable regulations. The final list of projects and actions will be listed in the final NYRCR plan which will be finalized in March 2014.

The Planning Committee consists of the following community representatives:

- Co-Chair **Joel Crystal**, educator, former president of the Long Beach City Council
- Co-Chair **John McNally**, member of the Energeia Partnership at Molloy College
- **Karen Adamo**, real estate professional, member of the Long Beach Historical Society
- **Helen Dorado Alessi**, educator, member of the Long Beach Latino Civic Association and member of the City of Long Beach Ethics Commission
- **Franklin Alvarado**, real estate management consultant, member of the Long Beach Latino Civic Association
- **John Bendo**, engineer, President of the West End Neighbors Civic Association
- **Michael Kerr**, business owner, President of the Long Beach Chamber of Commerce
- **Stephen Kohut**, former educator, liaison to the Nassau County Department of Health, former chief of the Long Beach Lifeguards
- **Crystal Lake**, member of the Long Beach Environmental Advisory Board
- **Larry Moriarty**, member of the Long Beach Surfers Association, Chair Surfrider Foundation Central Long Island
- **Sean Pastuch**, business owner
- **Mary Ellen Pollina**, Director of the West End Beatification Association

The Canals in Long Beach's East End (source: Planning 4Places, LLC)

Jack Schnirman, the Long Beach City Manager; **Michael Robinson**, Long Beach Director of Community Development; **Jim LaCarrubba**, Commissioner of Public Works; and **Patricia Bourne**, Director of Economic Development also serve on the Committee as ex-officio members. The Planning Committee will partner with planning experts from

the New York Department of State, the New York State Department of Transportation, the New York State Homes and Community Renewal, and the Planning Team.[2]

1.2 Geographic Scope of the Long Beach Community Reconstruction Plan

The Planning Committee identified the municipal boundary of the City of Long Beach as the geographic scope of the Long Beach NYRCR Plan. The map in Figure 1 shows both the geographic scope of the NYRCR Plan and the storm surge extent of Superstorm Sandy.

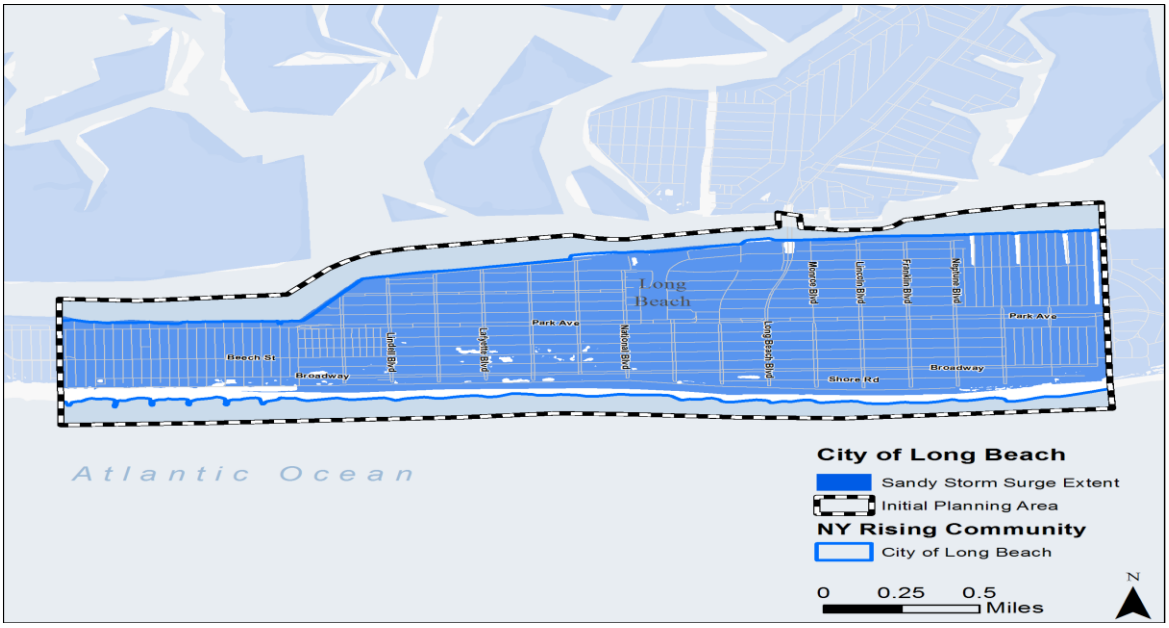

Figure 1: The storm surge extent of Superstorm Sandy in the City of Long Beach and the City boundary (identified as the geographic scope of the Long Beach NYRCR Plan) (source: New York Department of State)

1.3 Community Overview

The City of Long Beach (City) is located in Nassau County, NY, south of Long Island. The City is on Long Beach Barrier Island, the westernmost of the outer barrier islands off Nassau County's South Shore. Reynolds Channel borders the City on the north side of Long Beach Barrier Island, and the Atlantic Ocean is to the south. The City is less than 1 mile from north to south and approximately 3.5 miles from east to west and has a total area of approximately 2.0 square miles (5.2 square kilometers).

[2] The Planning Team, which consists of staff from URS Corporation, Sustainable Long Island, the LiRo Group, Planning4Places, , Jamie Caplan Consulting LLC (JCC), and AIM Development was hired through a State process administered by New York State Homes and Community Renewal through its Office of Community Renewal and the Housing Trust Fund Corporation.

The City shares the island with Atlantic Beach and East Atlantic Beach to the west and Lido Beach and Point Lookout to the east. The Long Beach Bridge, which is a drawbridge, connects the City to Island Park on the mainland of Long Island. To the west, the Atlantic Beach Bridge connects the island to Lawrence on the mainland of Long Island as well as the John F. Kennedy airport and New York City. The Loop Parkway, located to the east along the Lido Beach and Point Lookout borders, connects the island to Jones Beach, the Meadowbrook Parkway and southern Long Island.

The City was incorporated in 1922 and had a population of 33,275 in 2010.[3] The demographic profile is provided in Table 1.

Table 1: City of Long Beach Demographic Profile

Demographic	Number	Percentage
Population	33,275	—
Race/Ethnicity		
White	25,123	75.5%
African American	2,130	6.4%
American Indian / Alaskan Native	100	0.3%
Asian	898	2.7%
Hawaiian, Pacific Islander	0	0.0%
Two or more races	765	2.3%
Hispanic of any race	4,597	14.1%
Persons Per Square Mile	15,023	—
Income		
Median household Income	$79,546	—
Poverty rate (persons)	—	10.0%
Housing Units	16,450	
Number of households	14,756	—
Homeownership rate		57.6%
Persons per household	2.18	
Median home value of owner-occupied units	$517,000	—

Source: 2010 U.S. Census State and County Quick Facts

1.4 Existing Development

The City is divided into the West End, the Central District, and the East End and includes the following neighborhoods: the West End, Westholme, the Walks, the Central District, North Park, the East End, the Canals, and the Presidents Streets. The City contains a mixture of density, plot sizes, architectural styles, and family type housing. The West End

[3] U.S. Census.

is the narrowest part of the City. The City includes three main commercial areas: the central area along W. Park Avenue near City Hall, the West End, and the East End.

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.[4]

Superstorm Sandy is the largest storm in New York's recorded history to land ashore and Superstorm Sandy's 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,[5] destroyed an estimated 305,000 homes,[6] affected more than 2,000 miles of roads, produced catastrophic flooding in subways and tunnels, and damaged major power transmission systems. Fourteen counties in New York State were declared Federal disaster areas.[7] Economic losses in New York as a result of Superstorm Sandy were estimated to be between $30 and $50 billion, with an estimated $10 to $20 billion in insured losses.[8] New York State Governor Andrew Cuomo stated that storm damage would cost New York State nearly $42 billion, with the vast majority of damage centered on New York City and Long Island.[9]

Sandy devastated Long Beach, causing damage to homes, businesses, and key infrastructure just as the economy was beginning to recover. The City was completely inundated by the storm (see Figure 1). Damages were estimated at approximately $200 million.

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4 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

5 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

6 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

7 State of New York. State of New York Action Plan for Community Development Block Grant Program Disaster Recovery. Prepared by the New York Homes and Community Renewal Office of Community Renewal. Federal Register Docket No. FR-5696-N-01. April 2013.

8 EQECAT. Post-Landfall Loss Estimates for Superstorm Sandy. November 1, 2012. Available at http://www.eqecat.com/catwatch/post-landfall-loss-estimates-superstorm-sandy-released-2012-11-01/. Accessed October 2013.

9 Kaplan, T. and R. Hernandez, "Cuomo Cites Broad Reach of Hurricane Sandy in Aid Appeal", New York Times (November 26, 2012). Available at http://www.nytimes.com/2012/11/27/nyregion/governor-cuomo-says-hurricane-sandy-was-worse-than-katrina.html. Accessed October 2013.

The storm damaged sewer and water plants, roads, electrical systems, government facilities, bulkheads, dunes, and the historic 2.2-mile Boardwalk, which was originally constructed in 1907. Streets were flooded with 3 to 10 feet of water and covered by 4 to 6 feet of sand in the streets. There was 14 feet of sand at the dunes in some locations.

As water came from the Atlantic, the bayfront also flooded. Residents were without electricity, drinking water, and sewer for more than a week, and fires broke out across the City.

Sixty-eight percent of Long Beach's housing stock sustained heavy or strong damage related to Superstorm Sandy (10,554 housing units).[10] Heavy damage is defined as more than 50 percent of damage to the unit and strong damage is defined as 20 to 50 percent damage. In the City, 10,331 housing units were flooded; 1,337 units had greater than 4 feet of flooding and 3,908 units had between 1 and 4 feet of flooding.[11]

Damage from Superstorm Sandy in Long Beach, NY, October 2012 (source: Long Beach Community Reconstruction Committee)

3 Existing Conditions: Summary of Relevant Existing Plans and Studies and City Actions Since Superstorm Sandy

This section contains a summary of the Planning Team's review of plans and studies that are relevant to Long Beach and the actions the City has taken since Superstorm Sandy as part of the recovery from the storm.

3.1 Review of Existing Plans and Studies

The Planning Team reviewed more than 25 local and regional plans and studies with direct or indirect connections to Long Beach. Most of the documents are at least 4 years

[10] FEMA Fact Packs and FEMA Individual Assistance data analyzed by the U.S. Department of Housing and Urban Development.

[11] Ibid.

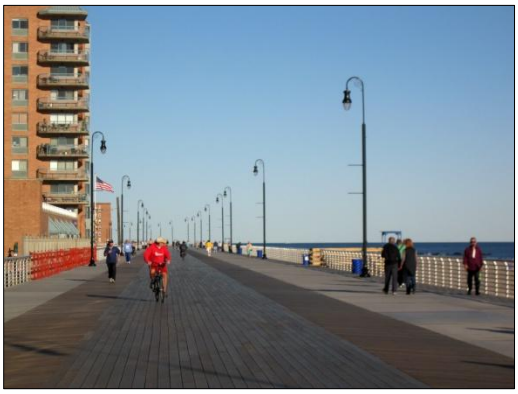
old and do not address the lingering financial effects of the recession that began in 2008 or the effects of Hurricane Irene in 2011 or Superstorm Sandy in 2012.

The regional plans include ideas that may be useful to Long Beach in a general sense but do not apply directly to the conditions in Long Beach. Some of the older plans include relevant project ideas, such as remediating the brownfield on the North Shore, that could be reanalyzed for viability and feasibility in view of the current conditions. Section 7 details the key issues from the plans that are relevant in 2013. Appendix A provides a list of the plans that were reviewed.

3.2 City Actions Since Superstorm Sandy

Since Superstorm Sandy, the City has undertaken the actions listed below to help make the community more resilient and prosperous:

- The City improved three lift stations on Roosevelt Avenue, New York Avenue, and Indiana Avenue.
- The City completed the Boardwalk reconstruction project, which was funded by the Federal Emergency Management Agency (FEMA) and the State of New York with Community Development Block Grant – Disaster Recovery (CDBG-DR) funds, ahead of schedule in October 2013 and held a grand reopening ceremony on October 25, 2013. Most of the boardwalk was open by late July 2013. The reconstruction included a wave break wall installed beneath the Boardwalk to protect it.



Rebuilt Boardwalk in September 2013 (source: Sustainable Long Island)

- The City is matching the Dune Reconstruction Program, which was established by the U.S. Army Corps of Engineers (USACE) and received permits from the New York State Department of Environmental Conservation. The East End has been completed, and the West End should be completed in November 2013. Dune grass planting events are scheduled for late October and early November 2013. The remaining dunes for the central part of the city will be developed by the USACE.
- The City completed a Bulkhead Condition Study for the North Shore.

- The City Council established a program to provide assistance for bulkhead replacement on private property. Approximately $500,000 has been set aside for the program, with a large portion of that coming from the Federal Emergency Management Agency. The City will bond the projects and will be repaid. The City is searching for additional grants to expand the program. Funding for bulkhead replacement on the north shore has been requested through grant applications.
- The City received a grant to increase the number of building code officials to assist with post-Sandy NY Rising residential reconstruction needs.
- The City has begun roadway resurfacing and repairs on Grand Boulevard.
- The City initiated construction and redevelopment of Leroy Conyers Park, which will include new park facilities, equipment, and fencing. The park should reopen by Memorial Day of 2014.
- The City developed a $400,000 capital plan for curb rehabilitation and replacement on the center mall area on Park Avenue.
- The City purchased new municipal vehicles. Four new sanitation trucks should be available by the end of October 2013. Four new buses and two new paratransit vehicles should be available by January 2014.
- The City made sewer line improvements that are normally made when road improvements are taking place. The City will continue making necessary improvements as road projects are initiated.
- The City adopted the Complete Streets Program to improve traffic congestion, traffic circulation, traffic calming, bicycle routes, reduce vehicle-pedestrian conflicts, and parking. Funding is being sought from the U.S. Department of Transportation (DOT) TIGER grant and the New York State Energy Research and Development Authority (NYSERDA).
- Elevation of LIPA power substations on Long Beach.

4 Community Vision Statement

The Planning Committee selected the key words shown in Figure 2 to develop a City of Long Beach Vision Statement, shown below, using a consensus-based approach.

City of Long Beach Vision Statement

Develop a vibrant, resilient, sustainable and green community that protects and enhances the safety, health, environment, diversity, culture and economy of current and future residents and guests of Long Beach.

Figure 2 was presented to the public at the Public Engagement Meeting (see Section 6) when feedback on the Vision Statement was solicited.

Figure 2: Selected key words used in the development of the City of Long Beach Vision Statement

5 Description of Assets and Risks

This section describes the progress made to date on the identification of community assets and the risk assessment of Long Beach.

5.1 Identification of Assets

The Planning Committee has not finalized a list of community assets. The list will be finalized by March 31, 2014.

However, the Planning Committee has completed a preliminary identification of community assets. Assets in the following Recovery Support Functions are listed below: Economic, Infrastructure Systems, Housing, Health and Social Services, Natural and Cultural Resources, and Socially Vulnerable Population Assets. Also see the Community Assets Map in Appendix B.

- Beachfront area and Boardwalk from New York Avenue to Neptune Boulevard
- Bulkheading on the North Shore
- Cell towers
- City Hall and other government facilities
- City library
- Hess and Mobil gas stations and Williams/Transco High Pressure Gas Pipeline
- Georgia Street and Clark Street Splash Parks
- Historic structures
- Hotels
- Houses of worship
- Kennedy Plaza and Veterans Memorial Park
- Long Beach Ice Arena, Long Beach Recreation Center, and Bayfront Esplanade
- Long Beach Medical Center
- Long Island Railroad Station
- Magnolia Senior/Community Center
- Magnolia, Pacific Street, and Leroy Conyers Playgrounds
- Long Beach Boulevard Bridge
- Major undeveloped parcels, such as the Foundation Block and Super Block
- Martin Luther King, Jr. Community Center
- Sherman Brown basketball courts and tennis and handball courts
- North shore brownfield /former industrial area and other brownfield sites for economic redevelopment
- Police and fire stations
- Post office
- Power supply infrastructure
- Pump and lift stations
- Major arterial roadways including Beech, Broadway, and Park
- Schools
- Senior/affordable housing locations
- Sewage treatment plant
- Stormwater management systems and other drainage facilities
- Three key commercial districts: Park Avenue, the West End, and the East End
- Long Beach Boulevard Gateway area
- Water treatment plant and wells
- Reynolds Channel

Once the list of assets has been finalized, detailed information about each asset, landscape attributes in the vicinity of the asset, and vulnerability of the asset to flood damage will be collected for the Community Asset Inventory. Assets will then be prioritized based on factors such as importance to the City, probability of being affected by flooding, and restoration time.

Park Avenue Commercial District (source: Sustainable Long Island)

5.2 Identification and Understanding of Risk

The Planning Committee has not finalized the risk assessment. The assessment will be finalized by March 31, 2014.

The existing Risk Assessment Map (Figure 3) shows that almost the entire City is in an Extreme or High Risk Area for flooding.

Following the finalization of the Conceptual Plan, the Planning Team will conduct a risk assessment to determine the potential impact of hazards on community assets. The results will help guide the selection of proposed strategies, such as utility 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 City choose mitigation methods to reduce future risk. Input from the Planning Committee and the public on areas with the highest risk of flooding will be used to supplement the Risk Assessment Map.

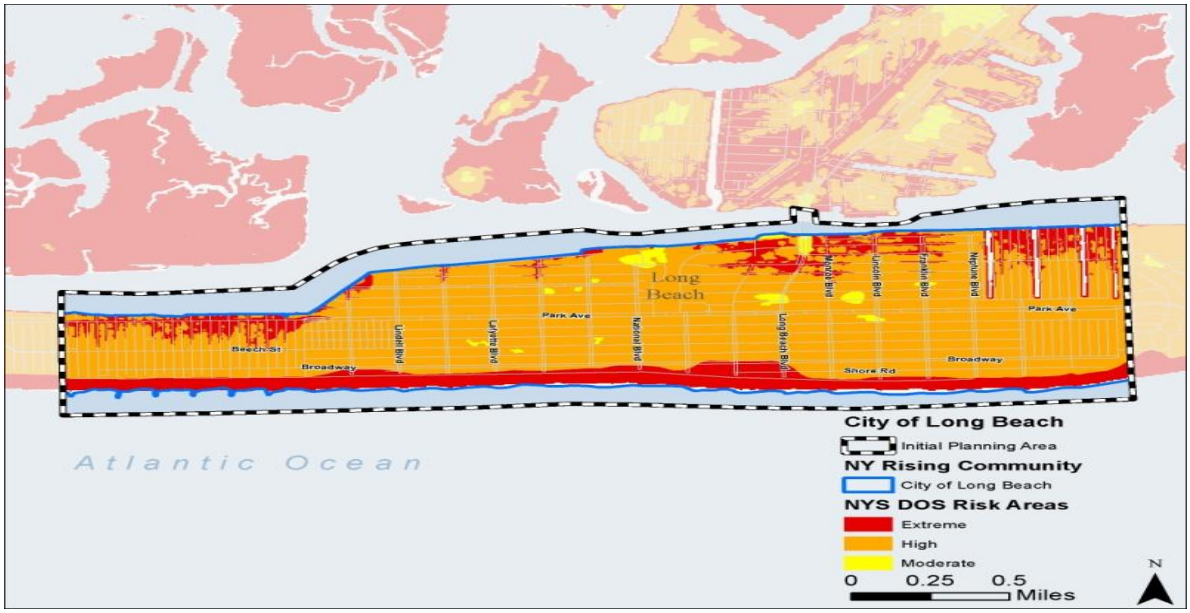


Figure 3: Risk Assessment Map for Long Beach

New York State Department of State risk areas (shown in Figure 3) were developed based on the information listed in 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 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 SLOSH Category 3 hurricane 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

6 Public Involvement Process

Long Beach has a long history of active resident participation in community meetings. More than 500 residents attended the Boardwalk visioning and redevelopment process meetings after Superstorm Sandy.

Long Beach Public Engagement Meeting, October 10, 2013 (source: Long Beach NYRCR Planning Committee)

The NYRCR Planning Committee meetings on September 18, September 26, October 3, October 14, and October 24, 2013, were open to the public and audience participation was encouraged through questions at the end of the meeting and public comment cards.

The first Public Engagement Meeting was held on October 10, 2013, and was attended by more than 100 residents. The meeting opened with an overview of the NYRCR planning process and the City's progress in implementing projects. The overview was presented by the committee co-chairs, the City, and the Planning Team. Most of the meeting involved a facilitated breakout session during which participants were asked for feedback on the Vision Statement, needs and opportunities, key strategies, and community assets. The feedback helped guide the Planning Committee and has been incorporated into the needs and opportunities and key strategies of this Conceptual Plan. Spanish-speaking interpreters were provided.

The methods used to notify the public of the Public Engagement Meeting and the NYRCR planning process are as follows:

1. The New York State and Long Beach "New York Rising Community Reconstruction Program" Facebook pages provide information, documents, meeting dates, and answers to questions that are posted. The Facebook page is shared with local groups that are also on Facebook.
2. Information and flyers have been distributed electronically to the following entities:
    a. City of Long Beach official website, City's Facebook page, and LongBeachListens.com listserv (880 people on October 1, 2013)
    b. Long Beach Chamber of Commerce, Public Library, Public School Board, and the Parent-Teacher Association

c. Long Beach COAD

d. Media outlets such as the *Long Beach Herald*, Patch, News 12, Fios, and *Newsday* (the appearance of articles in the *Long Beach Herald* and *Newsday* has been confirmed)

e. Local civic associations

f. Houses of worship

g. Long Beach Latino Civic Association and Circulo de la Hispanidad (translated into Spanish)

h. Martin Luther King, Jr. Community Center and Magnolia Senior Center

i. Long Beach Reach, FEGS Health and Human Services, and Project Hope

j. Individuals who are active in their community

k. Farmers' Market

l. Long Beach High School/Nike alternative school program

m. Long Beach bus depot/shelters

3. An official press release describing the work before and after the Public Engagement Meeting was distributed to local papers

4. The Public Engagement Meeting was publicized at the Long Island Rail Road (LIRR) Long Beach station and bus shelters via Street Teams

5. An online survey was developed to obtain feedback on resiliency planning from residents unable to attend focus groups will be used in future meetings

6. Official city robocalls will be used to notify residents of future meetings

The second Public Engagement Meeting will include public comment on the Conceptual Plan. The third Public Engagement Meeting will involve a review of the initial projects and actions in consideration of the findings of the risk assessment and importance of the assets. The final Public Engagement Meeting will solicit additional input on the implementation strategies and projects presented in the draft NYRCR final plan.

7 Identification of Needs and Opportunities

Mitigating the risk of damage from future storms to increase resiliency will require regional as well as local actions. Therefore, the plan development process will involve identifying local and regional issues and also local issues with the potential to be addressed regionally.

This section describes the needs and resiliency and/or redevelopment opportunities that have been identified to date, primarily from the review of relevant plans and studies (Section 3); the meeting on September 10, 2013, that included the Planning Committee Co-Chairs, State Planners, and Planning Team; the five Planning Committee meetings in September and October of 2013; and the Public Engagement Meeting on October 10, 2013.

The Planning Committee has not finalized the identification of needs and opportunities. Finalization will occur by March 31, 2014. The needs and opportunities that have been identified thus far are described in the following sections by reconstruction category.

7.1 Community Planning and Capacity Building

Needs

- A February 2013 community survey identified storm protection as the primary concern of residents. Since Superstorm Sandy, there has been renewed support for a dune replacement project by the USACE. Financial support for the City's portion of this project would be necessary.
- Bayfront revitalization and waterfront usage is important, but there are boundary issues related to land at the Reynolds Channel waterfront and along the Canals where the City limits extend to the centerline of Reynolds Channel. The Town of Hempstead owns the submerged land in the channel, so coordination with the Town would be necessary to facilitate their review and issuance of permits for structures that extend into the channel.
- The City's ongoing beachfront and bayfront redevelopment initiatives could benefit from the adoption of a Local Waterfront Revitalization Program, which would provide additional coordination and potential funding opportunities for the City.
- The City lacks neighborhood community centers to act as emergency hubs / gathering places for residents in times of crisis.

Opportunities

- A significant number of commuters in Long Beach bike or walk to the train station. There is even more potential for transit-oriented development around the LIRR station as well as enhance pedestrian and bicycle accessibility and safety.
- The post-Sandy reconstruction period offers an opportunity to increase public involvement in Long Beach. The City has helped bring the community together through its Boardwalk visioning sessions, websites, and the Public Engagement Meeting as part of the NYRCR process.

- The post-Sandy reconstruction period offers an opportunity to educate the public and create a shared effort in mitigating future storm effects.
- Open multiuse community centers can serve as social hubs and anchors for economic development and, in times of crisis, as disaster response centers for response, dissemination of news, and mutual support of residents.
- The City is a participant in the National Flood Insurance Program (NFIP) Community Rating System (CRS). CRS provides a reduction in flood insurance premiums for flood policyholders when a community accrues enough credit points for approved flood reduction activities. The City is currently Class 8, which provides a 10 percent discount in insurance premiums. If the City accrues 1,000 additional CRS points, the discount would be 20 percent.

7.2 Economic Development

Needs

- A segment of the bayfront area is zoned for industrial use and is currently underutilized, with several vacant lots, a sewage treatment plant, and a metering station. The area also includes several brownfields and two demolished incinerators. Waterfront assets are not being utilized to their full potential.

Boardwalk, Superblock, and Foundation Block (source: Planning4Places, LLC)

- Small businesses continue to struggle post-Sandy and need help with infrastructure, financial assistance, and rebuilding their customer base, especially as up to 25 percent of the city's residents are not yet in the homes.
- Inadequate parking capacity in parts of the City could limit redevelopment and economic development efforts. Also, there is a need for improved traffic flow.
- The City lacks a diversity of uses, including non-food/beverage retail space, and larger office space for innovative businesses.
- Businesses need to develop continuity of operation plans and backup systems.
- The three main commercial areas of Long Beach were hit hard after Sandy and businesses, especially restaurants, need help to rebuild and reach full potential.
- Business struggles during the 'off' season.

- Long Beach Boulevard Gateway potential not reached and the super block and foundation block are underutilized real estate parcels.

Opportunities

- There are several large-scale redevelopment opportunities in the City along the beachfront, including the Superblock and Foundation Block areas. The City of Long Beach should seek to establish design guidelines in relation to new development in particular along the boardwalk and in larger scale development projects in other areas of the city.
- The NYRCR Plan should consider opportunities for redevelopment in the bayfront area, including applying for assistance from New York State's Brownfield program to help revitalize properties in this part of the City. Additional economic development opportunities exist in the other vacant industrial areas and brownfield sites in the City (in addition to the area near the sewage treatment plant) and in other lands owned by the City and schools.
- Efforts should be made to enhance gateways to the City.
- Marketing support that was initiated by the City in the spring of 2013 should continue and expand to help rebuild the customer base and attract new customers. Revenue generating events should be brought to the beach and waterfront areas. A tourism information booth should be set up at the LIRR station and promotional material should be provided at area airports for tourists visiting New York.
- The NYRCR Plan should include funding opportunities to assist the City's ongoing initiative to become more of a year-round visitor destination.
- Continue and expand marketing efforts to bring New York City residents to Long Beach for festivals and events.
- The NYRCR Plan should encourage development opportunities along the Boardwalk area. The privately owned Foundation Block and Superblock are key parcels.
- Food and retail concessions should be expanded to enhance the newly completed Boardwalk.
- The NYRCR Plan should include opportunities to install more public art work to develop the arts community.
- Additional workforce training and green business training, especially for the underserved populations that were particularly hard hit by Sandy, should be provided.
- The NYRCR Plan should include development of improved transportation infrastructure both to the City and within it.

- The NYRCR Plan should address development of additional parking capacity and retail space.
- Zoning and building codes should be updated to reflect current priorities: visual attractiveness, affordability, accessibility, sustainability, and mixed use.
- Adequate public facilities (e.g., restrooms) should be installed to accommodate visitors and wider sidewalks should be installed to facilitate pedestrian traffic and street retail opportunities.

7.3 Housing

Needs

- Homeowner financial and reconstruction assistance is needed. Many residents remain displaced and need assistance in developing options.
- Flooding on the oceanside and bayside affected almost every home in the City. Insurance and FEMA funding is insufficient to cover expenses for rebuilding, and many residents are struggling to rebuild and return home.

Kerrigan Street and E. Pine Street (source: Planning4Places, LLC)

- Many residents do not have sufficient funds for mitigation, including elevating their homes. FEMA Hazard Mitigation Grant Program (HMGP) funding is being sought and the program will need to be promoted once an application is designed.
- Second-story additions and raised building elevations have altered the neighborhood scale of the City. For example, new two-story elevated homes are being built adjacent to one-story bungalow homes, creating an inconsistent streetscape.
- More rental and affordable housing is needed in the City. Rehabilitated houses could be used to fill this need. Where appropriate, additional housing should be evaluated to help increase the tax base and attract young professionals.

Opportunities

- The NYRCR Plan should help promote the City's pursuit of HMGP funds to elevate homes as a mitigation measure where appropriate.

- The NYRCR Plan should identify and create access to as many housing-related financial resources as possible and explain how best to make the information available to the public.
- The NYRCR Plan should consider how to protect the visual aspect of neighborhoods and balance that goal with the need to elevate homes to reduce flood risk. Elevation of replacement buildings will have to be done thoughtfully with an eye toward maintaining the pedestrian-friendly character of the neighborhood.
- Building and home owners should be encouraged to seek opportunities to increase energy efficiencies and sustainability as business and homes are rebuilt.
- The City should work with State and Federal agencies to simplify the grant application process by having a single application or a clearinghouse for all government grant programs.

7.4 Health and Social Services

Needs

- The bayfront includes the Long Beach Medical Center, a critical community asset that is currently closed because of Superstorm Sandy damage. Consequently, residents must travel a long distance off the barrier island to the next closest hospital, South Nassau Communities Hospital, which is a hardship for those needing emergency care.
- The Martin Luther King, Jr. Community Center was flooded and then reopened in early September 2013. It may require mitigation to prevent future flooding.
- Resources are needed to relocate emergency generators to upper floors in key facilities to maintain power and functionality during future hazard events.
- Police, auxiliary police, fire departments, and school buildings were damaged by Superstorm Sandy and need rehabilitation, mitigation, and/or new facilities.
- The City, key facilities including elderly care facilities, and businesses need to revise and update their emergency preparedness plans based on lessons learned during Superstorm Sandy. There is a need to create an emergency response plan.
- A backup mitigated power supply is needed for vital assets and businesses.

Opportunities

- The NYRCR Plan should help identify ways the Long Beach Medical Center and other health facilities can be more resilient than they were before Superstorm Sandy.

- The NYRCR Plan should help evaluate mitigation opportunities for key health and social service facilities.
- The City should seek grants to move generators to upper floors.
- The City should establish neighborhood community centers that can serve as crisis response centers in time of emergency.

7.5 Infrastructure

Needs

- The Long Beach Sewage Treatment Plant and water tower are aging facilities that need flood protection and updating. The sewage treatment plant was flooded and forced off line during Superstorm Sandy. The restoration of the Long Beach Sewage Treatment Plant is a major reconstruction project being undertaken by the City and FEMA.

Flooding from Hurricane Irene on Pine Street (source: Long Beach NYRCR Planning Committee)

- There are stormwater management issues resulting from aging infrastructure, the amount of impervious surface, and tidal water entering stormwater outfall pipes.
- The water tower is vulnerable to wind damage.
- There was flooding on the oceanside and the bayside during Superstorm Sandy. Bulkheads along the bayfront are discontinuous and have variable elevations. Bulkhead replacements, upgrades, and similar type protection measures, including innovative ideas like a manmade marsh on a hardened shoreline, are needed.
- The Long Beach Water Purification Plant was flooded during Sandy, resulting in boil-water advisories for approximately 1 week, and needs protection.
- Aging water and sewer lines need to be replaced throughout the City.
- Backup power systems located on ground floors in parts of the City were rendered inoperable by flooding.
- Critical facilities, utilities, and infrastructure should plan for larger peak volumes during storms and should be elevated to mitigate flooding.

- Some City assets vital to City operations are susceptible to flooding and are in need of major updating and upgrading.
- Some roads, including emergency escape routes, are susceptible to flooding, even in heavy rain, which can limit evacuations.

Opportunities

- The NYRCR Plan should evaluate existing information about the feasibility of connecting the Long Beach Sewage Treatment Plant to Bay Park and evaluate the potential funding opportunities for such a project.
- The USACE has an ongoing dune project that will help facilitate dune construction to mitigate flooding. The NYRCR Plan should evaluate whether additional dune restoration and/or enhancement is needed.
- There should be coordination with the USACE on a bayside reconnaissance-level study.
- The City has included Tideflex valves on storm drain outfalls and inflatable dams in its current capital improvements plan and has applied to FEMA, through the Hazard Mitigation Grant Program, for funding to install floodgates at canal entry points on the east side of the City.
- The City should develop a plan and seek funding for backup power and telecommunications systems in local government-owned critical facilities. Associated with this effort, the City should implement a smart grid infrastructure and relocate utilities to enhance the resiliency of the power grid.
- The City should develop a basic maintenance plan to periodically inspect storm drains/outfalls, bulkheads, and tide-flex valves to ensure they remain fully functional at all times.
- Repairs and reconstruction after Sandy offer the opportunity for the City to implement stormwater best management practices and introduce green infrastructure, such as bioswales, porous paving, and rain gardens, to assist with stormwater management.
- Comprehensive planning should include a detailed review of traffic congestion, traffic circulation, traffic calming, bicycle routes, pedestrian, parking, and economic development issues. The City has adopted Complete Streets policies.

7.6 Natural and Cultural Resources

Needs

- Recent efforts to replenish beach sand and build a dune and berm should be continued to make the beachfront area both a more effective storm barrier and a continual draw for visitors.

- Open space and natural areas where stormwater can be absorbed are needed.
- Private properties encroach on the public greenways on four canals.
- Environmental stresses have deteriorated the water quality in the vicinity of the City. The habitat for fish, shellfish, fowl, and animals has deteriorated, and shellfishing beds are deteriorated and are no longer viable. The deteriorated water quality limits recreational use of Reynolds Channel.
- The City lacks artistic and performance space.
- Natural and cultural resources are not being utilized as economic development tools.

Opportunities

- The NYRCR Plan should consider options for improving the water quality in Reynolds Channel to improve habitat and facilitate recreational use and should identify potential funding programs for this type of activity.
- The City should evaluate the possibility of extending the bayfront esplanade on the North Shore for additional recreational opportunities.
- Dunes should be restored and beach renourishment should be implemented.
- Long Island has an island-wide goal of attaining 10 percent open space buffer; this goal will help inform resiliency and landscaping guidelines. The City should also consider ways to incorporate open space resources in new development projects for better resiliency.
- The City and residents should work together to restore the City's tree canopy with appropriate species during post-Sandy restoration to enhance community character. The City has applied to be a 'Tree City' with Arbor Day Foundation and is actively pursuing funding to obtain additional trees and to create a tree maintenance program.
- The City should continue to promote the use of beaches and waterways for festivals, competitions, and other events to drive economic growth.
- The City should partner with neighboring communities to market and promote regional natural and cultural attractions.

8 Key Strategies and Potential Actions to Implement Strategies

Priority strategies and actions, as determined by the NYRCR Planning Committee, are indicated with an arrow (►).

8.1 Community Planning and Capacity Building

Overarching Strategy – Increase the City's capacity to facilitate and foster actions that lead to greater resiliency and sustainability.

1. Establish a Memorandum of Understanding (MOU) with local cellular carriers to ensure better response after storms (e.g., expanded and faster access to mobile cell phone towers after a storm).
2. Establish a local Office of Emergency Management.
3. Increase residents' household readiness (e.g., evacuation plan, meeting point, emergency bag).
4. Promote sign-up for the Reverse 911 System and Long Beach Response, an always-available emergency communications service, and promote quarterly tests of the system.
5. Raise awareness of resiliency measures to protect homes and businesses against future storms.
6. Continue revising the building code to build on the progress that has been made in flood mitigation and energy efficiency.
7. Continue revising the zoning code to align land use decisions with ongoing planning initiatives.
8. Update post-Sandy and complete the Local Waterfront Revitalization Plan.
9. Update the Comprehensive Plan to include climate adaptation and resiliency strategies.
10. Continue accruing CRS points (NFIP) to reduce flood insurance premiums.
11. Educate residents about the NFIP and the CRS.
12. Evaluate dual-use for existing infrastructure (e.g., create a stormwater detention area on the bus turnaround at the Ohio/Beech intersection, grass medians).

8.2 Economic Development

Overarching Strategy – Implement measures to make economic generators more resilient while also facilitating enhancement to key areas and redevelopment of underutilized areas to stimulate economic growth.

1. Leverage Long Beach's active wired community to attract young technical entrepreneurs who value a small community in a beautiful setting with quick access to New York City.

2. Expand retail and food concessions to enhance the newly completed Boardwalk.

3. Protect and then redevelop the North Shore (bayfront) area for multiuse, including brownfield remediation on former industrial sites. Multiple potential uses include:

    - Resiliency measures include bulkheading along the shoreline, which would protect existing critical assets, such as the sewage treatment plant, the drinking water system, utilities, and adjacent neighborhoods. The addition of a retention basin or a sponge park could help mitigate stormwater flooding.
    - Economic redevelopment in this area (e.g., restaurants and shops that could be elevated) could spur jobs and growth and could be leveraged to assist in the funding of the resiliency measures.
    - Additional benefits include the potential for an extended bayfront esplanade for recreation (cyclists, joggers and walkers), a boat dock/marina for water-dependent uses, educational centers (e.g., aquarium or science center), and a performing arts facility (e.g., open air amphitheater).

4. Expand tourism and visitor marketing by increasing the number of events (e.g., triathlon, beach events) and festivals held in the City and appealing to a wider range of guests, including surfers, cyclists, runners, and those looking for a quick escape from the City to the ocean.

5. Install a fiber-optic network to develop maximum bandwidth for a community-wide wireless network and encourage internet based businesses.

6. Restore and enhance the businesses in the three commercial districts (e.g., maximize use of the area around the LIRR station).

7. Encourage appropriate development along the Boardwalk, including the privately owned Foundation Block and Superblock.

West End Commercial District (source: Sustainable Long Island)

8. Encourage and assist small businesses and non-profits with restoring infrastructure, obtaining financial assistance, developing business continuity plans, and rebuilding customer bases.

9. Enhance gateways to Long Beach and install more public art on commercial streets.

10. Expand the cultural and arts community.

11. Expand green energy generation ideas where feasible.
12. Identify the greatest local (reasonable commuting distance) workforce needs and create job training, including training for green business opportunities, entrepreneur training, and job matchmaking programs to fill those needs.
13. Establish local green building program with zoning and tax incentives.

8.3 Housing

Overarching Strategy – Encourage and facilitate housing resiliency and sustainability measures while striving to maintain the character of Long Beach.

1. Implement rain barrel and rain garden program for residents.
2. ▶ Encourage the elevation of homes as a mitigation measure while maintaining streetscapes by instituting design guidelines (addressing massing and height issues of elevated homes).
3. Publicize model home designs and/or a build a demonstration home that features risk reduction and energy efficiency techniques.
4. Develop a partnership with a university or college that can provide technical resources to help homeowners conceive and implement appropriate green techniques on homes (education expos, workshops, and technical helpline).
5. ▶ Restore and protect senior housing.
6. Restore and protect affordable housing.
7. Evaluate whether the existing housing stock is adequate to meet the demand or more options are needed.
8. Consider and implement additional programs that offer retrofitting techniques for single- and multi-family residential units that achieve both risk reduction and energy efficiency.

8.4 Health and Social Services

Overarching Strategy – Protect critical health and social services assets and increase capacity to provide needed services before, during, and after disasters.

1. ▶ Restore and protect fire, ambulance, and police facilities.
2. ▶ Restore and protect schools and daycare facilities to allow schools to be operable quickly after storms.

3. Relocate emergency generators to upper floors, and harden where necessary, in key facilities such as schools, healthcare facilities, and public buildings to maintain power and functionality during future hazard events.
4. Develop response teams to check on and assist populations on a continuous basis until power is restored.
5. Facilitate the bulkheading of medical and health care centers.
6. Enhance the resiliency of key social service facilities, including the Martin Luther King, Jr. Community Center.
7. Repurpose public buildings to create refuge centers during and after major storms.
8. Protect facilities with critical government services to maintain continuity of operations after major storms.
9. Prepare a list of disaster recovery services vendors for the City and enter into MOUs.

8.5 Infrastructure

Overarching Strategy – Employ appropriate techniques to mitigate ocean and bay storm surge and stormwater flooding to protect Long Beach's infrastructure.

1. Expand the capacity of the stormwater management system by adding Tideflex valves where needed, installing a force main system to increase conveyance, constructing underground retention basins, and exploring the feasibility of water impoundment systems, including retention areas (potentially at a redeveloped brownfield site on the North Shore) and/or injection wells (if stormwater can be injected a safe distance from a drinking water aquifer; this also helps resist saltwater intrusion into the aquifer).
2. Coordinate with the USACE to maximize the dune and/or ocean barrier system along the entire Long Beach oceanfront, including the Boardwalk.
3. Continue bulkheading along the entire North Shore to provide coastal storm protection, which includes explaining the City's current loan program to private property owners.
4. Install flood barriers at canal entrances.
5. Protect critical facilities and major utilities from flooding and high winds of coastal storms by making system-wide improvements, including elevating critical mechanical systems, hardening outer structures, constructing ring walls or berms, elevating vulnerable key components, providing back up power, and updating sewage treatment plant to improve water quality in Reynolds Channel and the marshes.

6. Introduce green infrastructure, such as bioswales in road medians, porous paving in parking areas, and rain gardens, to assist with stormwater management.
7. Enhance the Complete Streets Program to reduce traffic congestion; improve traffic circulation, traffic calming, and bicycle routes; reduce vehicle-pedestrian conflicts; and improve parking. Improvements may include more bicycle stands and lanes. It will also provide a means to reduce flooding with rain gardens, and holding basins for the water. The City has applied for a Tiger grant for this purpose.

8.6 Natural and Cultural Resources

Overarching Strategy – Restore and enhance natural resources for both resiliency and recreation purposes while also protecting important cultural resources.

1. Coordinate with the Town of Hempstead and Nassau County to restore marsh and wetlands off Long Beach to protect the water quality and assist in the natural protection against storms.
2. Protect beaches and build up dunes.
3. Restore and protect water quality and marshes in Reynolds Channel and the bay.
4. Evaluate methods to protect the facilities of religious organizations from flooding.
5. Protect historical landmarks.
6. Initiate a tree trimming program to reduce downed trees during high-wind events and coordinate a tree restoration program.

8.7 Socially Vulnerable Populations

Overarching Strategy – Provide outreach and services to socially vulnerable populations to assist them before, during, and after disaster events.

1. Set up special needs registration so that vulnerable people (elderly, bilingual, disabled, low income) can identify themselves and receive needed services during emergencies (e.g., assistance with evacuation, transportation to inland hospitals if on a respirator).
2. Develop response teams to check on and assist populations on a continuous basis until power is restored.
3. Develop MOUs with food assistance groups (e.g., Island Harvest, Long Island Cares, Meals on Wheels) to arrange for assistance for the elderly in walk-up buildings when the power is out.
4. Protect senior housing/centers and housing for other vulnerable populations.

▶ 5. Balance future redevelopment needs with Environmental Justice concerns.

9 Potential Key Projects Ready to Go

The Planning Committee has not finalized the identification of all the potential key projects. Key projects that are ready to go are listed in Table 3. Once the Conceptual Plan is completed, the Planning Team will identify additional projects from the priority key strategies and potential actions shown in Section 8. Finalization will occur by March 31, 2014.

The Planning Committee discussed projects that are underway (in or close to construction phase) and ready to go (submitted application, securing funding, or will start soon). From the list of key strategies and potential actions, the Planning Team will present additional project ideas for the Planning Committee's consideration following completion of the Conceptual Plan. Once the Committee prioritizes these projects, the Planning Team will add greater detail and outline an approach to pursue these projects. The Planning Committee will present these prioritized project ideas in the Public Engagement Meetings occurring in 2014.

Following a final determination of prioritized key projects, project descriptions will be developed and will include the following information:

- Project sponsor
- Project name and location
- Categorization according to the six Recovery Support Functions
- Brief project description
- Community benefits
- Sustainability factors detailed as part of a regional sustainability plan
- Economic impacts
- Environmental benefits
- Health and social benefits
- Support for project (high, medium, and minimal)
- Estimated project cost
- Potential sources of funding
- Initial feasibility assessment
- Status of implementation
- Implementation timeline: immediate (less than 2 years), intermediate (within 2 to 5 years), long-range (more than 5 years)
- Regional coordination
- Coordination with outside agencies
- Project impact
- Alternatives
- Context map

Table 3 is a preliminary list of potential key projects that are ready to go.

Table 3: Potential Key Projects Ready to Go

Project Name	Reconstruction Category	Description
Tideflex Valve Installation	Infrastructure	Flex valves that have been damaged or lost will be replaced. A bid to complete the work will be issued in the fall of 2013; a complete bayside assessment will be conducted over the winter of 2013 and into the spring of 2014. The City has a capital budget of $125,000 for this project. **Additional Project Information: Community benefits include stormwater flood mitigation. Related to Superstorm Sandy. The City has applied for a $150,000 grant from the Hazard Mitigation Grant Program (HMGP).**
Flood Gates in Canals Neighborhood	Infrastructure	The City has applied for a hazard mitigation grant. **Additional Project Information: Community benefits include stormwater flood mitigation. Related to Superstorm Sandy. The City has applied for a $31 million HMGP grant.**
Brownfield Redevelopment and Revitalization	Economic Development Natural/Cultural Resources	The City has been awarded a Phase I study and will apply for a Phase II study. The identified area is the old incinerator plant in North Park. **Additional Project Information: Application being developed. Cost of study likely not high. Community benefits include resiliency, environmental and economic benefits as the site could be used for future redevelopment. Not related to Superstorm Sandy or disaster. Funding from Federal and State sources. High level of public support.**
Streetscape Enhancements and Complete Streets Program	Infrastructure	The City would like to implement a "Complete Street" policy/plan that incorporates enhancing streetscapes, generating economic development, promoting traffic safety, and installing drainage improvements. The City is targeting the Central Business District (CBD) and the West End. The City has applied for funding from several sources but has not received any awards. Kennedy Plaza would be an offshoot of this initiative. Interconnectedness to other projects/systems: Connected to streetscape programs, citywide economic development, and citywide drainage improvements. **Additional Project Information: Community benefits include infrastructure improvements and economic development. The City has applied for $5 million from NYSERDA.**
Drainage Improvements	Infrastructure	Projects include bioretention areas and a forced main system, which pushes water back to the bay. Interconnectedness to other projects/systems: Connected to enhancing streetscapes, promoting economic development, and the installation of rain gardens and bioretention basins. **Additional Project Information: Not directly related to Superstorm Sandy, as there was a need before Sandy, but the sense of urgency has increased since Sandy. Community benefits include stormwater flood mitigation. The City has applied for a $110 million grant from the HMGP.**

Project Name	Reconstruction Category	Description
Green Infrastructure	Infrastructure	The City would like to install rain gardens in the CBD and bioretention basins in the center mall. Permeable pavement and additional street trees would be installed where feasible. Interconnectedness to other projects/systems: Connected to drainage improvements, streetscape enhancements, and economic development. **Additional Project Information: Community benefits include stormwater flood mitigation, natural resource enhancement, and economic development with improved aesthetic appeal to streetscape. The City has applied a $5 million NYSERDA grant and a $32 million US DOT TIGER grant.**
Low Impact Development (LID) Plan	Infrastructure	A New York University Wagner Capstone project was approved for the 2013–2014 academic year. Second-year urban planning students have been assigned to Long Beach to identify stormwater mitigation issues and propose area and site-specific Low Impact Development (LID) techniques throughout the City. The parameters of the project are tailored for the City. **Additional Project Information: Community benefits include community planning, stormwater flood mitigation, and natural resource enhancement. Not related to Superstorm Sandy and reflects City priority to become more green.**
Boardwalk Visioning Process – Phase II	Community Planning	The City will begin this process in late fall or early winter of 2013. **Additional Project Information: Community benefits include economic development. Related to Superstorm Sandy.**
Resilience-Planning Initiative	Community Planning	The City is updating its comprehensive plan to include climate adaption and resiliency strategies as well as an economic development analysis for the north shore. It is also looking to update the draft LWRP post-Sandy. Funds have requested form NYS DOS and NYSERDA for $75,000 and $187,500, respectively.
Residential Resilience	Housing	The City has created a program to assist homeowners implement resiliency measures and requested $25 million from HMGP.
Bulkheading	Infrastructure	North shore protection of major infrastructure. The City has requested $7.7 million of HMGP funds for this project.

10 Regional Perspectives

Although the City of Long Beach is an incorporated City in Nassau County and has many of its own capabilities and authorities, it is still dependent on other entities, including utility companies (e.g., power and natural gas) and the LIRR, for services. In some cases, it is also in the City's best interest to collaborate with neighboring municipalities and jurisdictions to develop projects and coordinate resources. Some issues discussed in the NYRCR Plan cross political jurisdictions and need to be coordinated on a regional basis. For the Long Beach NYRCR Planning Area, the greater region to consider includes the entire barrier island, Nassau County, as well as greater Long Island. The City needs to consider moving certain key infrastructure to facilitate economic development, especially at a time when funds may be available.

Neighboring municipalities and communities on the barrier island include the Village of Atlantic Beach and the unincorporated areas of East Atlantic Beach, Lido Beach, and Point Lookout, which are part of the Town of Hempstead. Coordination with these communities and those across Reynolds Channel (e.g., Village of Island Park, Oceanside) may help provide economies of scale to obtain needed resources for stormwater protection projects, road maintenance, emergency services, and potential alternative power generation. The City of Long Beach could also consider intergovernmental agreements with these communities related to disaster response.

Coordination with Nassau County and other communities would be beneficial for developing green stormwater infrastructure, such as permeable pavement, bioswales, rain gardens, and gray water reclamation. Opportunities exist to coordinate with Nassau County to address sewage treatment issues, including the future of the Long Beach and Bay Park Sewage Treatment plants. In addition, the City needs to coordinate with the Town of Hempstead and Nassau County on restoring marsh and wetland areas already affected by storms.

Partnering with the Long Island Regional Economic Development Council is an opportunity to implement small-business revitalization programs to support local businesses getting back on their feet so they are able to contribute to the local economy.

Power and natural gas is supplied by substations and a pipeline that are located and originate outside of the Long Beach jurisdiction. Coordination with National Grid and the power utility in place at the time of the writing of this plan, Long Island Power Authority (LIPA), is necessary to secure backup power sources and protect transmission and distribution facilities. In addition, the City can work with LIPA to install smart meters on homes and businesses to better monitor energy usage and to build a smart grid.

The LIRR is a vital link for residents from Long Beach to New York City and the rest of Long Island. The City needs to coordinate with the LIRR to ensure that train service remains operational. In addition, there is an opportunity to protect the Long Beach Station and its track leading up to Long Beach.

There is an opportunity for further coordination with the USACE on dune reconstruction projects on the oceanfront, as well as for developing a plan for resiliency on the bayfront.

The City should further discuss coordination with cell phone carriers on implementing a plan to ensure uninterrupted service and better response when signals are lost during a storm or emergency.

There is an opportunity to develop a regional emergency radio broadcast system to facilitate communication with residents when telecommunications, the internet and the media may not be able to broadcast.

11 Process for Evaluating Potential Actions and Projects to Implement Strategies

The Planning Committee has not finalized the process for evaluating potential actions and projects to implement the strategies. The process is anticipated to be finalized by March 31, 2014.

The Planning Committee will prioritize the strategies under consideration during the development of the final NYRCR Plan using knowledge gained from the visioning process, public input, 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, as identified through the outreach process.

Strategies may include bricks-and-mortar projects, policy decisions, political cooperative efforts, or other actions. Actions will be discussed in terms of reconstruction category, 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 include detailed project descriptions, a list of potential funding sources, and ranking for implementation.

Implementation of the strategies will follow the three-step process shown in Figure 4.

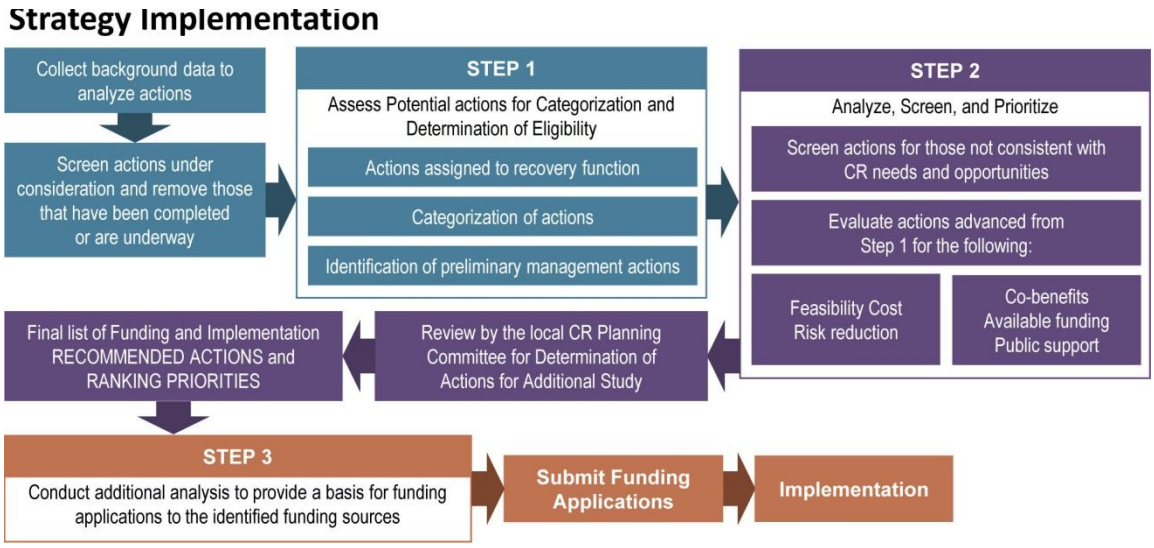


Figure 4: Strategy Implementation Steps

12 Implementation Structure

The NYRCR Plan will include an implementation schedule that will summarize the strategies and actions and list the target dates for implementation, responsible implementing parties (individuals or organizations), and potential funding sources. Table 4 is a sample schedule format.

Table 4: Sample Implementation Schedule

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: Reviewed Plans and Studies Relevant to Long Beach

Reviewed Plan / Study	Date	Relevant Information
City of Long Beach Comprehensive Plan: Technical Memorandum – Existing Conditions Issues and Opportunities (Draft of Local Waterfront Revitalization Program [LWRP])	May 2005[1][2]	Community planning/capacity building, economic development, health and social services, housing, infrastructure, natural and cultural resources – *Plan not adopted*
Long Beach Comprehensive Plan	April 2007[1][2]	Community planning/capacity building, economic development, health and social services, housing, infrastructure, natural and cultural resources
Long Beach Comprehensive Plan Environmental Assessment	April 2007[1][2]	Economic development, health and social services, housing, infrastructure, natural and cultural resources
Nassau County Hazard Mitigation Plan	2007[1][2]	Infrastructure
Coastal Protection Study LB – Oceanside Shore Protection Plan	November 2009[2]	Community planning/capacity building, infrastructure, natural and cultural resources
Coastal Protection Study LB – Bayside Flood Protection Plan	November 2009[2]	Community planning/capacity building, infrastructure, natural and cultural resources
Long Beach Environmental Resources (LWRP Draft)	November 2007[1][2]	Infrastructure, natural and cultural resources
Long Beach Existing Land and Water Uses (LWRP Draft)	November 2007[1][2]	Community planning/capacity building, economic development, housing
Long Beach Brownfield Opportunity Areas Study	February 2009[2]	Community planning/capacity building, economic development, housing, infrastructure, natural and cultural resources
USACE LB Jones Inlet to East Rockaway Inlet Hurricane and Storm Damage Reduction Reevaluation Report and summary review memo	February 2006 (MSC Approval Date: January 11, 2008); (Last Revised November 15, 2012) [1][2]	Community planning/capacity building, economic development, housing, infrastructure, natural and cultural resources
USACE Jones Inlet to East Rockaway Inlet Feasibility Report	February 1995[1][2]	Community planning/capacity building, infrastructure, natural and cultural resources
Nassau County Infill Redevelopment Feasibility Report	May 2013	Community planning/capacity building, economic development, housing, infrastructure
Nassau County Stormwater Runoff Impact Analysis – Procedures Manual		Infrastructure
Long Island's South Shore Bayway Strategic Implementation and Marketing Plan	April 2009[2]	Natural and cultural resources

Reviewed Plan / Study	Date	Relevant Information
Nassau County Drainage Requirements		Infrastructure
Long Island South Shore Estuary Reserve Comprehensive Management Plan	April 2001[(1)(2)]	Infrastructure, natural and cultural resources
Long Island Comprehensive Economic Development Strategy: Supplementary Information	August 2012[(2)]	Infrastructure
Cleaner Greener Long Island Regional Sustainability Plan	April 2013	Community planning/capacity building, economic development, health and social services, housing, infrastructure, natural and cultural resources
Progress and Promise: The Strategic Economic Development Plan For Nassau and Suffolk Counties	2012 Update - Building a Foundation for Long Island's Future[(2)]	Infrastructure
Draft Long Beach Sewage Treatment Plant Alternatives Feasibility Study	2009[(2)]	Infrastructure
Long Beach Stormwater Management Plan	2012[(2)]	Infrastructure
Long Beach Capital Improvements Plan	2012[(2)]	Infrastructure, community planning/capacity building, economic development
City of Long Beach Zoning Ordinance –	2009, with revisions as of 2011[(2)]	Community planning/capacity building
Strong Island: The Story of a Region's Recovery and Resurgence: Long Island Regional Economic Development Council	2013 Update	Community planning/capacity building, economic development, health and social services, housing, infrastructure, natural and cultural resources

(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 Superstorm Sandy despite the knowledge that a significant event could be devastating to the community

Appendix B: Community Assets Map

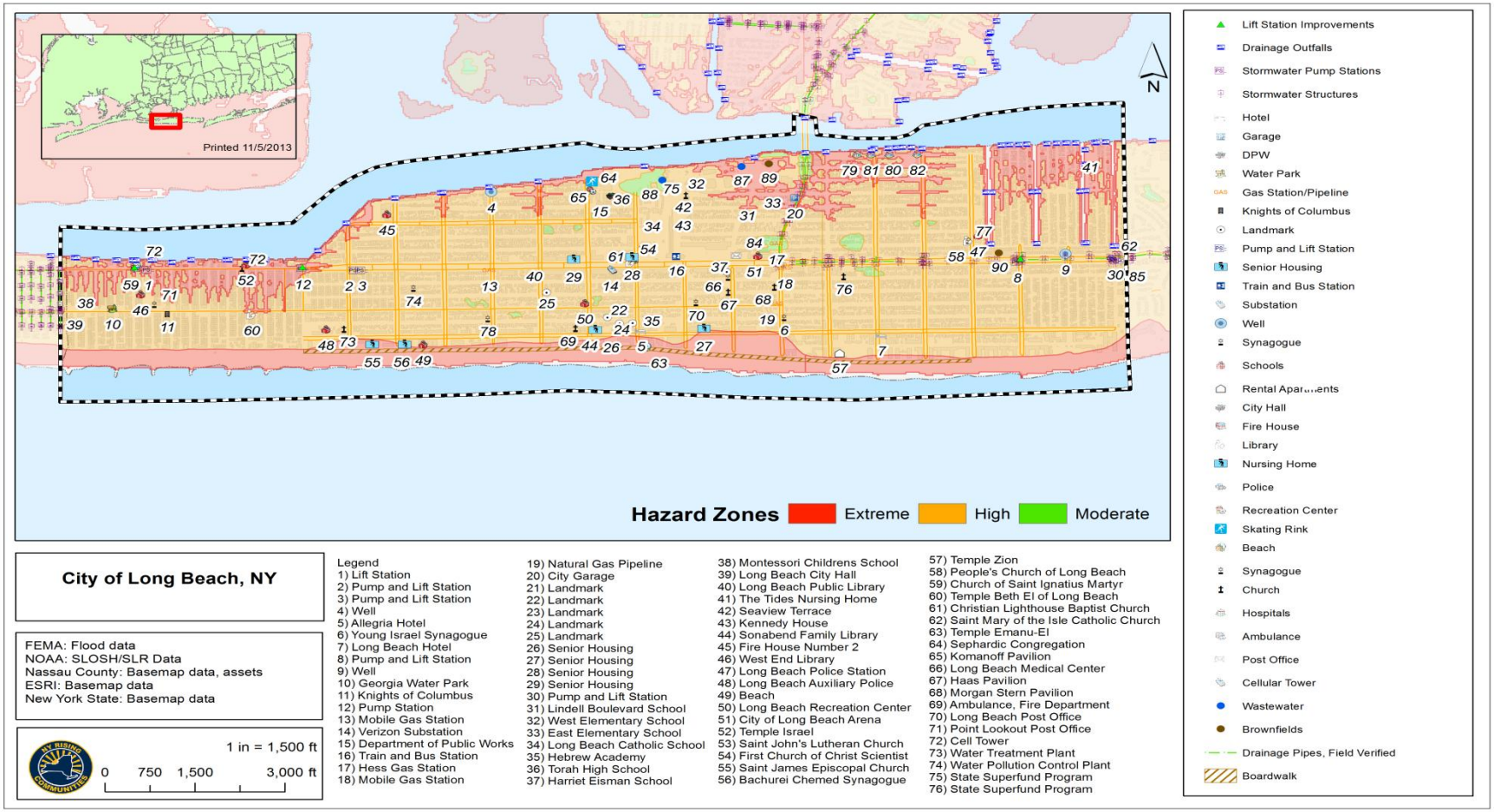


Figure B-1: Long Beach Community Assets Map