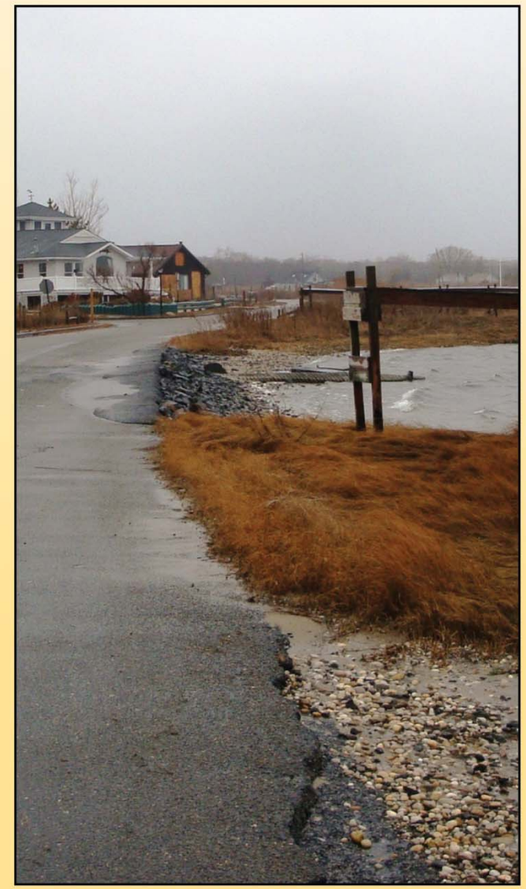
NY Rising Community Reconstruction Program

Recover from yesterday, plan for tomorrow

Conceptual Plan -
MASTIC BEACH AND SMITH POINT OF SHIRLEY



OCTOBER 2013

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- *Jacobs*
- *Cameron Engineering & Associates, LLP*

Mastic Beach and Smith Point of Shirley NYRCR Committee		
Role	**Name**	**Position**
Co-Chair	Kerri Rosalia	Director, Mastic/Moriches/Shirley Community Library
Co-Chair	Jim Wisdom	IBEW Local 25 Electricians, Mastic Beach Village Zoning Board member
Member	Frank Cappiello	Past President, Osprey Park Civic Association
Member	Paul Casciano	Superintendent, William Floyd School district
Member	Nicole Christian	Business Adviser, Stony Brook SBDC
Member	Dean Denninger	Mastic Beach Chamber of Commerce
Member	Frank Fugarino	President, Pattersquash Creek Civic Association (Chris Ricciardi, alternate)
Member	Tom Gross	Member, William Floyd School Board
Member	Mike Kobasiuk	Vice-President, Mastic Beach Property Owners Association; Employee, Town of Brookhaven IT Department
Member	Mike Leonardi	Mastic Beach Fire Commissioner; Former Town of Brookhaven Town Council staff member
Member	Lenny Levy	Employee, Mastic/Moriches/Shirley Community Library
Member	Evan Proios	President, Osprey Park Civic Association
Member	John Sicignano	President, Mastic Park Civic Association
Member	John Siebert	Member, Tri-Hamlet Leadership Council; Part of VOAD; Friends of Long Island
Member	Maura Spery	Director, Mastic Beach Property Owners Association
Member	Mike Trotta	Vice-President; Smith Point Homeowner Association; tour guide volunteer for the Fire Island National Seashore
Member	Beth Wahl	William Floyd Community Summit, Inc.
Municipal Representative	Bill Biondi	Mayor, Mastic Beach Village
Municipal Representative	Nicholas Busa	Mastic Beach Village
Municipal Representative	Gail Cappeillo	Trustee, Mastic Beach Village
Municipal Representative	Alan Chasinov	Mastic Beach Village
Municipal Representative	Bob Marrow	Trustee, Mastic Beach Village
Municipal Representative	Dorian Dale	Director of Sustainability, Suffolk County
Municipal Representative	William Doyle	Chief of Staff, State Senator Zeldin
Municipal Representative	Bill Faulk	Executive Assistant in the Department of Planning
Municipal Representative	Lauretta Fischer	Environmental Analyst, Suffolk County
Municipal Representative	Ed Hennessey	Member, New York State Assembly
Municipal Representative	Josh Slaughter	Office of Leg Kate Browning, Suffolk County
Municipal Representative	Diana Weir	Director, Housing & Human Services, Town of Brookhaven

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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 (DOS). 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.

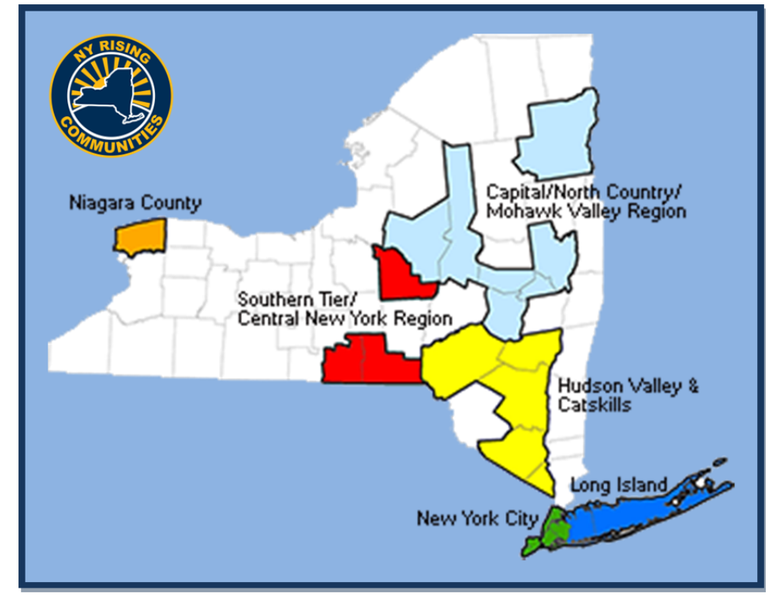
In the months ahead, communities will develop ways to implement additional strategies for economic revitalization, human services, housing, infrastructure, natural and cultural resources, and the community's capacity to implement changes.

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:

http://www.stormrecovery.ny.gov

Table of Contents

1. PROGRAM OVERVIEW 1

Description of the Program 1
Planning Process Timeline 2
Elements of a Successful Plan 2

2. COMMUNITY OVERVIEW 3

Historic Context 3
Present Day 3
Community Reconstruction Planning Area Demographic Overview 5

3. OVERVIEW OF SUPERSTORM SANDY EFFECTS 7

4. GEOGRAPHIC SCOPE & PRIOR STUDIES 10

Geographic Scope 10

5. REGIONAL PLANS AND STUDIES 11

Local Plans and Studies 12

6. COMMUNITY VISION 13

7. COMMUNITY ASSETS 14

Initial Asset Inventory 14
Risk Assessment 14
Initial Asset Inventory: NYRCR Committee and Public Outreach Contributions 16

8. NEEDS, OPPORTUNITIES, AND STRATEGIES 26

Housing 26
Community Planning and Capacity Building 28
Infrastructure 28
Natural and Cultural Resources 30
Economic Development 31
Health and Social Services 34

9. PRELIMINARY PROJECTS 35

Sewer Downtown Mastic Beach 35
Connect the Downtown to the Waterfront 35
Acquire Properties for Stormwater/Public Use 36
Acquire Violet's Cove Property for Recreational Use 36
Improve Emergency Evacuation Options 37

10. POTENTIAL REGIONAL ISSUES AND CONCERNS 38

Community Planning & Capacity Building 38
Infrastructure 38
Natural and Cultural Resources 38

11. OVERVIEW OF PUBLIC ENGAGEMENT TO DATE 39

Public Engagement Strategy 39
Outreach Techniques for Disseminating and Receiving Information 39
Requests for Information 40
Website 40
Print and Broadcast Media 40
Outreach Techniques for Receiving Input 40

12. NEXT STEPS 42

Strategies and Projects 42
Consideration of the Implementation Structure 42
Technical Support 42
Recent and Upcoming Events 43

1. Program Overview

Description of the Program

The New York Rising Community Reconstruction (NYRCR) Program is intended to empower the communities most affected by the storms to develop and implement locally-created and state- and federally-funded strategies for rebuilding, strengthening, and making their respective communities more resilient against future weather events. The intent of the NYRCR Program is to assist communities to rebuild better and safer based on locally derived plans that consider current damage, future threats to community assets, as well as the economic future of the community.

A Final Plan will be generated by the NYRCR Program in March 2014, in accordance with the US Federal Emergency Management Administration (FEMA) National Disaster Recovery Framework. The National Disaster Recovery Framework (NDRF) is a guide that enables effective recovery support to disaster-impacted states, tribes, territorial and local jurisdictions.

This framework provides a flexible structure that focuses on how best to restore, redevelop, and revitalize the health, social, economic, natural and environmental fabric of the community and build a more resilient nation. The NDRF is consistent with Presidential Policy Directive (PPD)-8, related to National Preparedness. Excerpted from FEMA National Disaster Recovery Framework (http://www.fema.gov/national-disaster-recovery-framework). The NYRCR Final Plan will consider the needs, risks, and opportunities related to assets in the following recovery support function categories:

- Community Planning and Capacity Building
- Economic Development
- Health and Social Services
- Housing
- Infrastructure Systems (Transportation and Utilities)
- Natural and Cultural Resources

New York State designated 102 communities for Community Reconstruction Program assistance. Of these, the 10 communities noted below make up the eight NYRCR Committees in Suffolk County.

- Village of Amityville/Copiague
- Village of Lindenhurst
- Village of Babylon/West Babylon
- West Islip
- Oakdale/West Sayville
- Mastic Beach and Smith Point of Shirley
- West Gilgo to Captree
- Fire Island

The successful completion of a NYRCR Final Plan, will allow each participating community to be eligible to obtain funds to support the implementation of resilient and innovative reconstruction projects and other needed actions identified in their respective Plan.

Description of the Planning Process

As part of the NYRCR planning process, communities will assess their vulnerabilities to future natural disasters as well as their needs for economic development. The planning process will also help to identify where funds should be used to repair or reconstruct critical facilities and essential public assets damaged or destroyed by these storms. Lastly, the planning process will facilitate the identification of projects that will increase resilience while also protecting vulnerable populations and promoting sound economic development.

Elements of the planning process are as follows:

- *Public Engagement:* Providing opportunities for public involvement and input at key milestones in the planning process
- *Asset Inventory:* Compiling an inventory of the community's social, economic, and natural resource assets that have been or have the potential to be affected by coastal or riverine hazards
- *Risk Assessment:* Assessing risk to key community assets based on the following three contributing factors to risk: (1) Hazard, the likelihood and magnitude of anticipated storm events; (2) Exposure, local landscape characteristics that typically increase or decrease storm effects; (3) Vulnerability, the capacity of an asset to return to service after an event
- *Needs and Opportunities Assessment:* Determining needs and opportunities to improve local economic growth and enhance resilience to future weather events
- *Strategies for Investment:* Developing strategies and the projects and actions needed to implement the strategies; prioritizing projects and actions; conducting cost benefit analysis of chosen projects and actions as well as identifying potential funding sources
- *Implementation Schedule:* Preparing an implementation schedule of the actions needed to implement the strategies

Role of the Committee

Each participating community has established a NYRCR Planning Committee ("Committee") that accurately reflects the community's populations and represents both the needs of the community and its members' various talents. Committee co-chairs have been selected by the State in consultation with the participating communities.

The composition of the remaining committee members varies, but typically includes Town, Village, and County representatives, elected legislative representatives, the County, local residents as well as established business leaders and community organizations.

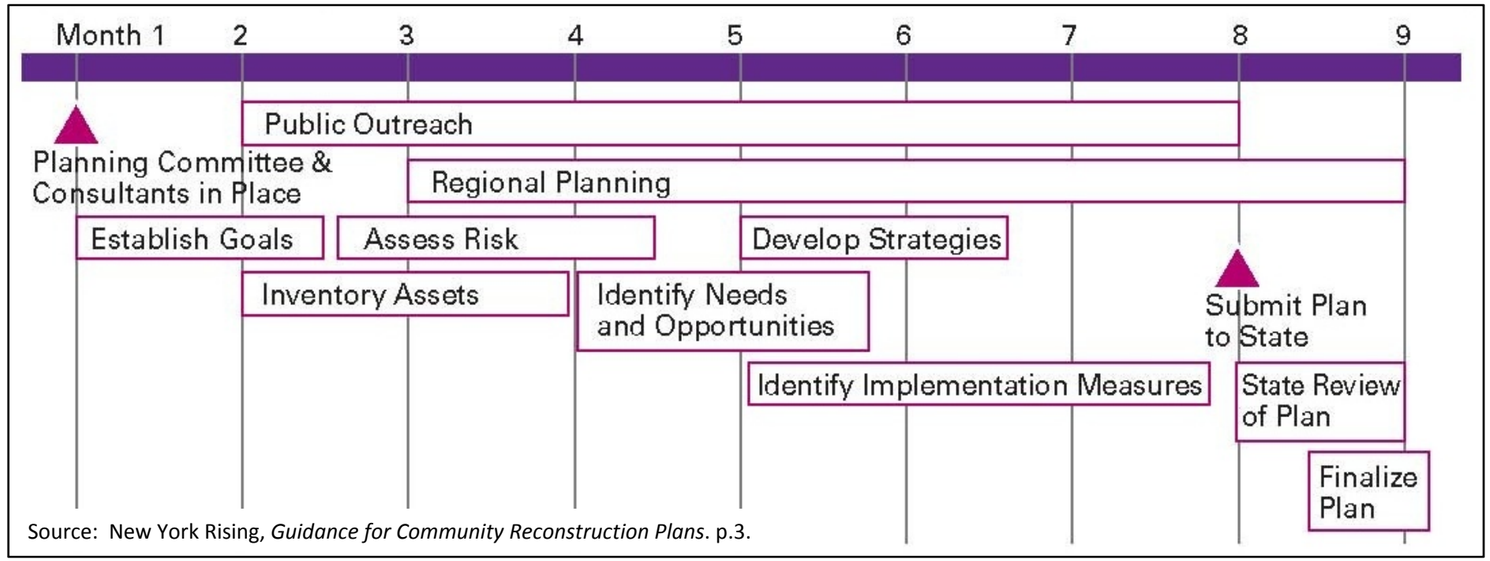
NYRCR Planning Committees meet frequently and are charged with building consensus among local residents and stakeholders for a locally-based reconstruction plan. Committee tasks range from the development of a Community Vision Statement to identifying critical assets and future projects. The Committee is also tasked with developing a public outreach plan to both inform and involve residents of the NYRCR Program (see section "Overview of Public Engagement to Date."

Planning Process Timeline

The NYRCR planning process lasts approximately eight months. Key study milestones in the planning horizon (e.g., public outreach, risk assessment, identification of needs and opportunities) are shown in the adjacent graphic. This Conceptual Plan highlights the progress of the Committee for the one-year anniversary of Sandy and next steps for the completion of a final plan in March 2014.

Elements of a Successful Plan

A successful NYRCR Final Plan will describe projects and actions needed for the community to rebuild a more resilient and economically strong locality. A successful NYRCR Final Plan, which would qualify communities to receive



Source: New York Rising, *Guidance for Community Reconstruction Plans*. p.3.

funding and grants to implement projects and actions identified in their plans, must contain the following components:

- ***Assessment of risk to key assets and systems.*** This inventory of vulnerable key assets and systems is required in order to prioritize projects and actions.
- ***Projects and actions to restore and increase the resilience of key assets.*** This plan element addresses the restoration of key assets as well as actions that will make local assets more resilient to future threats (e.g., wetlands, dunes, modifications to land use regulations, other improvements in community systems).
- ***Protection of vulnerable populations.*** Development of new measures to protect vulnerable persons through housing decisions and other services. Vulnerable populations include people with disabilities, low and very-low income populations, elderly, young children, homeless and people at risk of becoming homeless. Measures to protect these populations may include siting new facilities in lower risk areas, requiring back up power systems for critical facilities like hospitals and nursing homes, and improving communications systems to ensure that vulnerable persons are not left without aid.
- ***Projects with economic growth co-benefits.*** This characteristic of a successful plan relates to projects that will improve the future of the local economy but also enhance the community's resilience. Illustrative projects may include a transportation infrastructure improvement project that may result in the ancillary growth of a main business corridor. Similarly, an investment in open space could potentially serve a dual purpose as both a recreational space/community destination and also as a coastal flooding buffer protecting against storm damage.
- ***Regional Coordination.*** While designated NYRCR communities in Suffolk County have specific local needs, reconstruction and resiliency efforts must also relate to regional issues that arise across Long Island. As such, NYRCR Final Plans should also address long-term regional objectives across Long Island.
- ***Detailed implementation agendas.*** Each NYRCR Final Plan should include a concise description of the tasks it will take to implement the plan. This includes assigning responsibility for specific actions to specific entities or individuals and establishing timelines for each action, as appropriate.

2. Community Overview

Mastic Beach and Smith Point of Shirley are located on a peninsula in the southern portion of the Town of Brookhaven, surrounded by Bellport Bay, Narrow Bay and Moriches Bay. The Village of Mastic Beach is approximately 4.8 square miles with elevations ranging from zero to approximately 35 feet (NAVD 88). Neighboring communities include the hamlets of Mastic and Moriches and the northern portion of the hamlet of Shirley.

Historic Context

Mastic Beach and Smith Point of Shirley were originally developed in the 1920s as affordable summer home communities designed for New York City's working class. Several years later, the existing pattern of development began to take shape when Walter T. Shirley purchased approximately 10,000 acres of undeveloped land and created large-scale subdivision development plans. From 1945 to 1962, Shirley filed over 45 subdivision maps, which played a major role in developing the existing road network and pattern of circulation.

Present Day

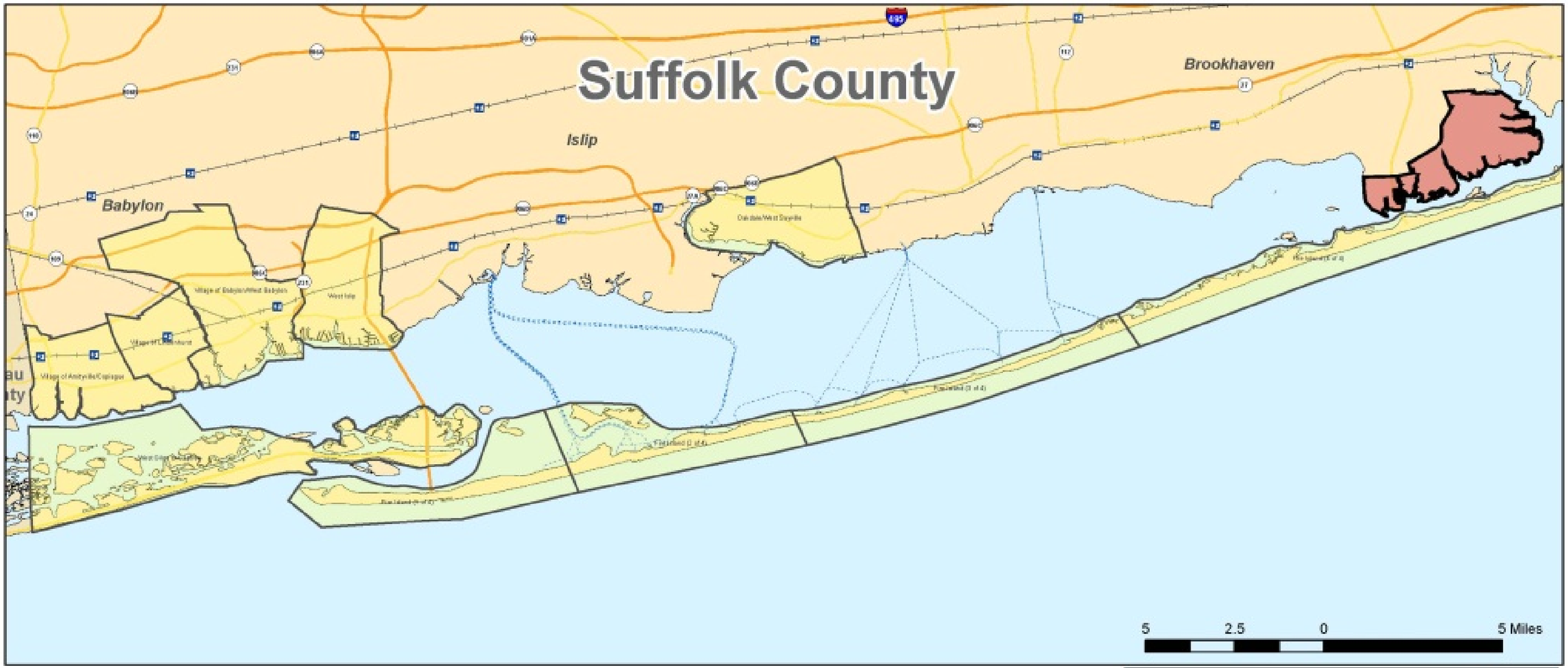
The Village of Mastic Beach was incorporated in November 2010. The Village was established based largely upon local resident's desire to enact and implement their own land use decisions, to remedy the disconnect between the Town's zoning districts and the actual pattern of land uses in the Village, to protect and preserve community identity, and to obtain the authority to guide future development. Prior to incorporation as a Village, Mastic Beach was a hamlet within the Town of Brookhaven.

Land use in the area is predominately low-density residential. There are approximately 150 commercial properties in the area. Detached single-family homes account for over 90% of the total acreage within the Village of Mastic Beach. The remaining land includes mixed-use, business, and waterfront development districts. There are no industrially-zoned parcels or industrial uses within the Mastic Beach and Smith Point of Shirley NYRCR area.

The community's primary commercial areas include Commack Road, Mastic Road, Mastic Beach Road, and Neighborhood Road. Approximately 150 commercial properties account for nearly 50 acres of development within the Village of Mastic Beach. Perhaps the greatest barrier to commercial development in Mastic Beach is the lack of sewers within the commercial districts. The lack of sewers means that restaurants and businesses are limited in the number of customers they can serve, which, in turn, limits the number and type of businesses that Mastic Beach can attract.

The natural environment of the Mastic Beach and Smith Point of Shirley community can play a large role in its future growth and development. Residential development and historic land management measures altered the wetlands and adjacent areas. Houses were built in the wetlands prior to floodplain and environmental regulations. As a result, they are not only highly vulnerable to storm surge inundation, but must also contend with high groundwater, which makes wastewater management near impossible and severely impairs drainage.

NYRCR: Mastic Beach and Smith Point of Shirley
Planning Area Location



Legend

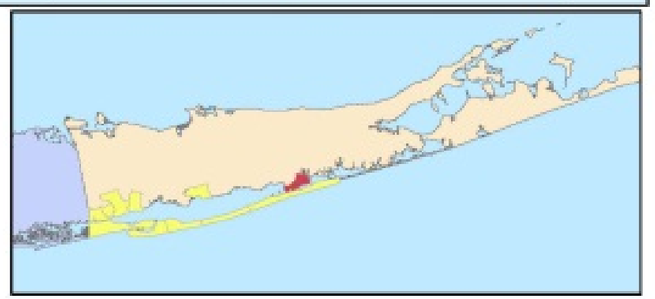
- Mastic Beach and Smith Point of Shirley Planning Area
- Other NYRCR Planning Areas
- Long Island Railroad Station

Roads

- Interstate
- Highways
- Ferry
- Long Island Railroad

Counties

- Nassau
- Suffolk
- Municipal Boundary



Community Reconstruction Planning Area Demographic Overview

Geographic Area and Data

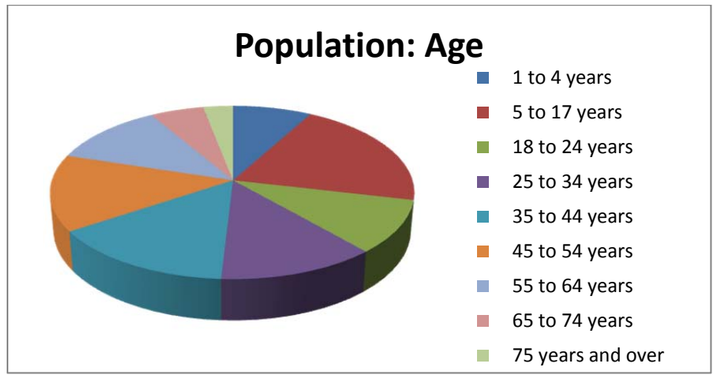
With the exception of data on ethnicity and race, all demographic data depicted below is taken from the US Census Bureau's American Factfinder at the CDP level, and reflects data from the most recent American Community Survey (ACS). Demographic data relating to ethnicity and race were derived from the 2010 Census in order to provide the most recent data available in those categories.

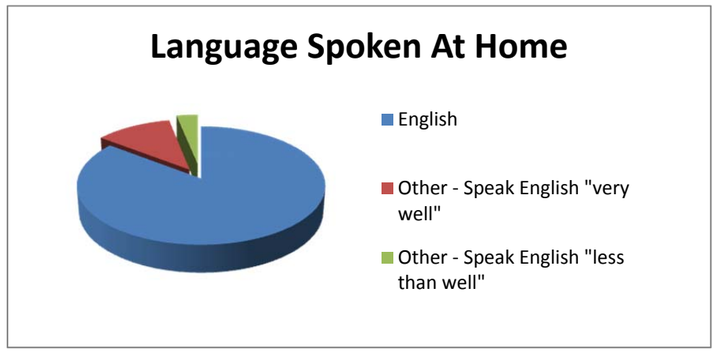
The CDP level was selected because the availability and detail of current Census data varies by geographic location and level of analysis (CDP, Census Tract, Census Block, etc.). The CDP level provided a uniform level of data detail and reporting period. It is acknowledged that the CDP data may include some areas that are not contained within the identified NYRCR planning area; however, across all CDPs in Suffolk County, the differences between the Census CDP boundaries and the NYRCR planning area definitions are not large. Additionally, the Census data's intended use in this report is to provide an overview of the composition and general habits of the community. It is unlikely that areas included in the CDP but excluded from the NYRCR would result in a substantial effect on the overview-level interpretation of the data or affect the identification of needs and opportunities or projects under the NYRCR program.

Mastic Beach & Smith Point of Shirley General Demographics

The age of the population in the Mastic Beach and Smith Point of Shirley NYRCR planning area shows a typical suburban distribution among the Census age groups, with about 30% of the population between 35 and 54 years old, 50% under 35 years old, and 20% over 55 years old.

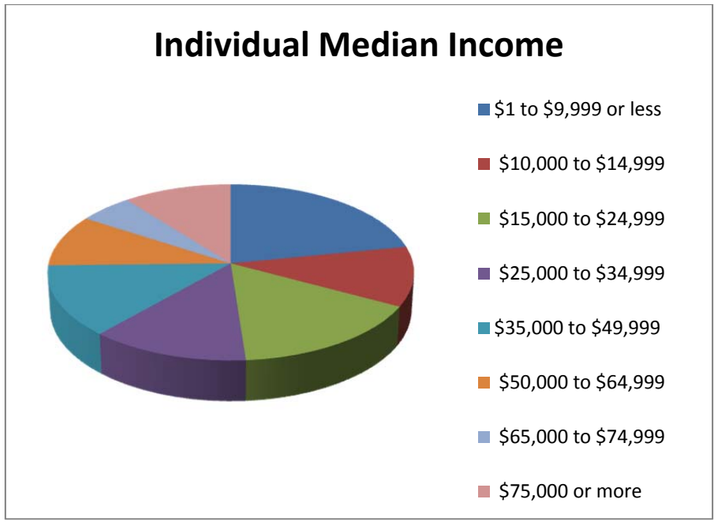
The community is 81% White, with 10% of the population being African American, 1% Asian, and the remainder classified as 4% other and 4% two or more races. About 16% of the population is Hispanic or Latino. The residents report that although the majority in the community either speak English as the only language at home or rate their English proficiency as "very good," there is a substantial population of Spanish-only speakers, many of whom are not reflected in the census data. This information is important for the identification of needs and opportunities as the non-English speaking population represents a community of concern that may not have easy access to important life safety information.





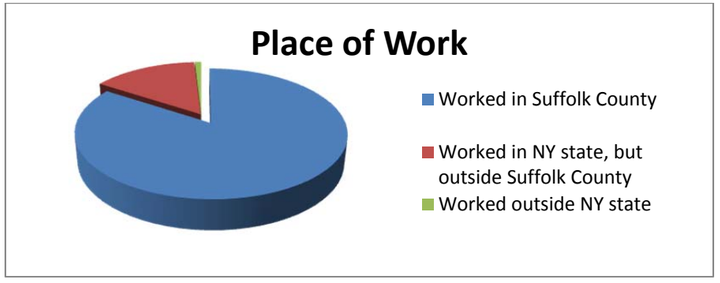
Income and Poverty

The community includes a range of individual wage earnings; however, more than half earn less than $35,000, while only 10% earn $75,000 or more. More than 20% earn less than $10,000; similarly more than 20% of the population is under 150% of the poverty level, indicating that the population reporting individual income under $10,000 may be individuals or families who represent an economically disadvantaged population.



Employment and Journey to Work

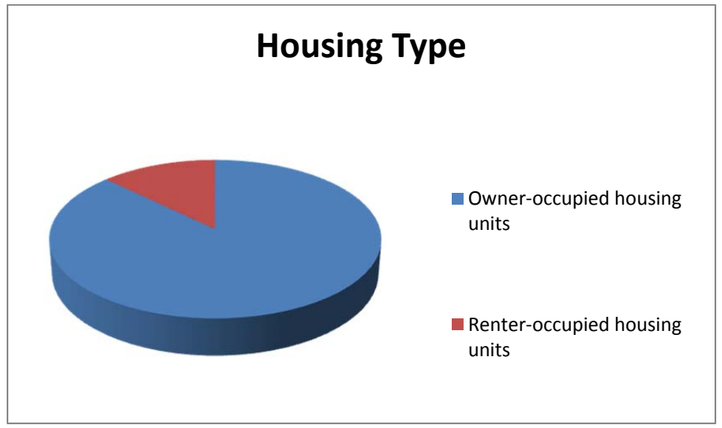
Understanding the general character of the communities' workforce helps identify needs and opportunities and prioritize projects to maintain, restore, and enhance the economic vitality of the community. More than 80% of the residents in Mastic Beach work within Suffolk County, and nearly all of the residents work somewhere within New York. More than 90% of workers drive alone to work or carpool. The next largest means of travel to work is by bus, but the percentage of bus commuters as a portion of all commuters is only 3%. As would be expected, the percentage of zero-car households is less than 2%, with more than half having 3 or more vehicles.

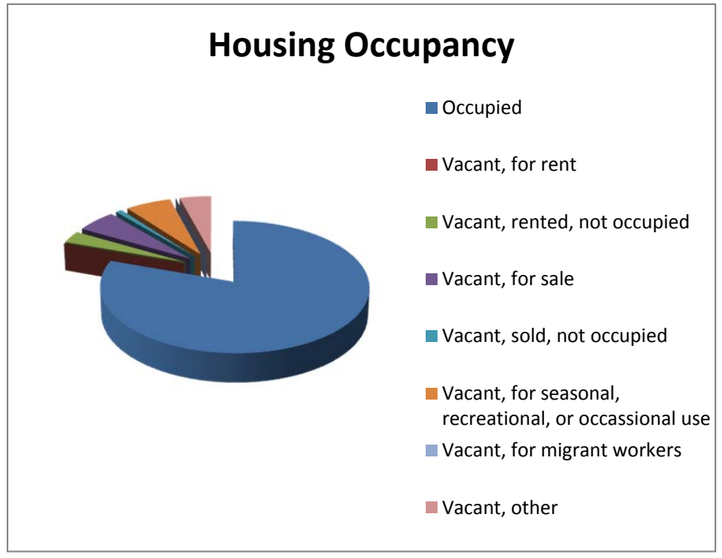


While workers residing in the community support a diverse array of industries, educational services, retail trade, and real-estate and related services, compose more than half of all industries represented.

Housing

The Census data suggests that a majority of housing units are owner-occupied In Mastic Beach and Smith Point of Shirley. There are however, many rental units that are not reported. About 20% of the reported units are vacant, with the most common reasons being that the property is for sale or it is seasonally used.





Guidance and Insight from Demographic Analysis

The demographic analysis indicates a few important trends and characteristics that may help shape the identification of needs, opportunities, and projects for the Mastic Beach and Smith Point of Shirley NYRCR planning area. One of the first observations is that schools and similar educational facilities are critically important. Not only are they important public facilities that provide a necessary service in terms of education, the schools themselves are major employers. Ensuring the resiliency of educational facilities is therefore a goal strongly suggested by the Census data.

Additionally, the journey to work data indicated that most of this NYRCR community's workers commute by car. This reinforces the need for adequate and resilient roadways for travels to work. While hardening transit facilities are important from a transit provider's regional network connectivity perspective (that is, disruptions in the network in one place may affect service to a location more transit-dependent), from this NYRCR community's perspective, roads are more important than railways.

Housing type and occupancy census data likely do not reflect actual conditions in Mastic Beach and Smith Point of Shirley. The community has many rental units that are not reported to the Census or to the municipalities. Many of these units are substandard and occupied by vulnerable populations, many of whom remain in the shadows. They include the poor, recent immigrants, the elderly, and the disabled. These units can turn over frequently. These residents are especially vulnerable during a major storm event as they may not receive electronic notifications, may fear notifying authorities of their presence, or simply be out of communication. Many do not have cars and most have limited options for relocation within their community.

These findings will be incorporated into the ongoing dialogue with the Mastic Beach and Smith Point of Shirley NYRCR community and reflected in the work of the Committee as they go forward with the identification of projects to help ensure their community's resilience.

3. Overview of Superstorm Sandy Effects

On October 29, 2012, Superstorm Sandy slammed into the Mastic Beach and Smith Point of Shirley community, bringing rain, wind, and record-high storm surge that flooded a significant portion of the community. Overnight the Mastic peninsula faced record devastation. In addition to flooding, trees were downed, power was lost, and homes damaged. Mastic Beach First Assistant Fire Chief Carlo Grover reported that over 100 emergency rescues were made as flood waters inundated the community. The Village's aging population, which includes many residents with disabilities, presented additional concerns during the initial response to the storm. Village officials reported that some senior citizens were trapped in their homes for days following the storm.

The community was fortunate to have a team of experienced first responders and emergency service personnel to protect and assist those in harm's way. Suffolk County Legislator Kate Browning reported that more than 100 Mastic Beach evacuees sought shelter in nearby shelters in the days following the storm.

Residents and other members of the community quickly organized to help those in need and offer assistance throughout the recovery. Local civic associations mobilized to provide food, shelter, and key items throughout the community. Despite widespread community devastation, many residents volunteered their time to help in any way possible.

Following the initial emergency response to the storm, the community began to assess the storm's impacts on residences, businesses, and infrastructure. Suffolk County reported that between 60 and 80 homes in Mastic Beach and Smith Point of Shirley were deemed either unlivable or condemned in the wake of the storm due to structural damage. Many hundreds more were substantially damaged, displacing residents from their homes and out of their community. Many of these displaced residents will likely never return to their homes. Residents who do return are faced with the extremely costly and difficult process of rebuilding, which often introduces significant health and safety issues such as contamination from septic systems, fuel oil, and mold.

Local businesses were also devastated by Superstorm Sandy. While Mastic Beach does not have a large, central commercial district, it is home to many small businesses including marinas. Marinas lost many of the vessels that were berthed there. They also suffered significant damage to docks, bulkheads, and buildings. One of the marina owners reported that it will cost over $800,000 to repair and reopen the facility.

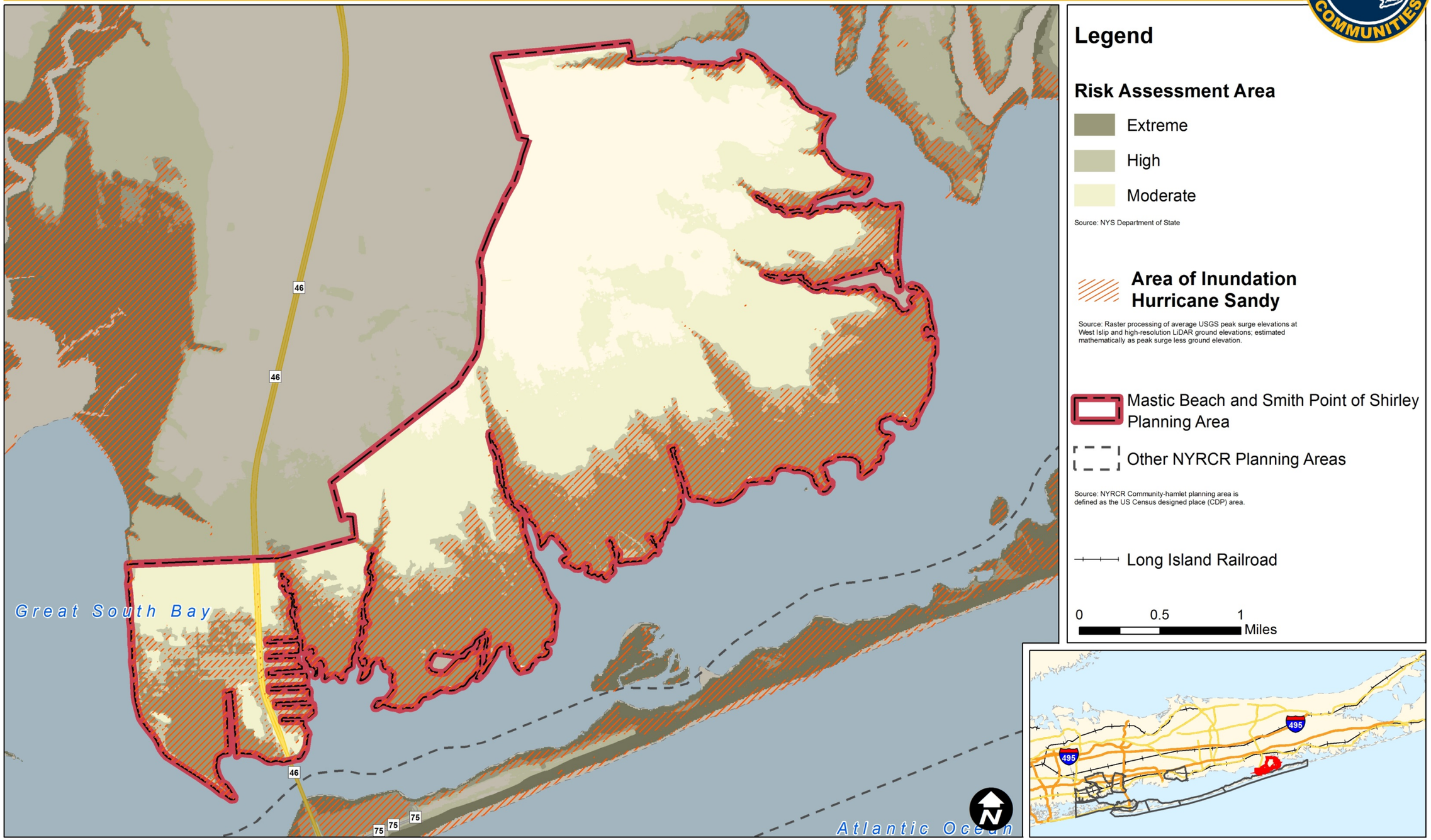
Storm impacts left much of the community's infrastructure damaged or unusable. Since Mastic Beach and Smith Point of Shirley are unsewered, flood waters wreaked havoc with residential on-site wastewater systems. The inundation of septic systems rendered many inoperable – presenting significant health and safety issues for the community. Not only were these systems not functioning, they were also releasing thousands of gallons of raw untreated wastewater into the community and local waterways.

Today, residents continue to report issues with on-site wastewater systems, particularly along the waterfront residential areas. Residents south of Quail Road, for example, cannot use their wastewater systems during higher-than-normal tides or during a normal rain event.

In addition to wastewater and septic issues, the community faced a serious problem with fuel oil tanks breaking free and spilling during the storm. Without natural gas service in many areas, residents rely on outdoor fuel oil tanks to provide heating fuel. Many of the fugitive tanks burst or ignited, leaving thousands of gallons of fuel oil throughout the community. Matters were made worse when a strong winter storm hit the area the following week, as thousands were left without power or heat.

NYRCR: Mastic Beach and Smith Point of Shirley

Risk Assessment & Hurricane Sandy Inundation Areas



4. Geographic Scope & Prior Studies

Geographic Scope

The identification of a geographic scope for each NYRCR Final Plan is of paramount importance as it helps to develop parameters and inform the extent of the planning effort. As such, establishing a geographic scope is a crucial responsibility that is undertaken by the Committee. Properly scoping the NYRCR Final Plan includes meeting federal guidelines for the appropriate use of reconstruction funds. The NYRCR Final Plans are intended to address the damage directly resulting from Superstorm Sandy, Hurricane Irene, and Tropical Storm Lee. As a result, communities seeking to implement projects indirectly impacted by those storms will need to demonstrate how such projects and/or policies would help to mitigate the risk of potential storm damage in the future. New York State provided guidance for establishing the geographic scope of a NYRCR Final Plan that includes asset and floodplain location and risk assessment areas.

Community assets most likely to be at risk due to future weather events are typically located in extreme, high, and moderate risk areas of the community. However, a review of current and historical storm damage may necessitate the inclusion of other areas in the geographic scope.

The geographic scope of the NYRCR Final Plan includes areas: where assets are most at risk; where future construction or reconstruction of existing development should be encouraged or discouraged; or where key investment to improve the local economy can be instituted. The identification of more resilient areas for future development can later be reinforced in municipal comprehensive plans as well as other local regulatory requirements.

Initially, the geographic scope of this area was defined as the Incorporated Village of Mastic Beach. The Committee recognized, however, that the risk area extended across the Mastic peninsula from the Forge River on the east to the Carmans River on the west. The Committee therefore added the western portion of the peninsula outside the incorporated Village that was identified as Smith Point of Shirley.

The inclusion of Smith Point of Shirley was important not only from a risk perspective, but also from a cultural, natural resource, and economic standpoint. Smith Point of Shirley is the eastern edge of the Carmans River and the federal Wertheim Wildlife Preserve, an important natural resource and visitor attraction. Suffolk County's Smith Point Marina has been identified by the community as a potential visitor attraction and economic asset that could feature a marina, fishing pier, and restaurant. The geographic scope was extended west and north into Smith Point of Shirley to include the Manor at St. George, a cultural resource on the west side of the peninsula that is bookended by the William Floyd Estate on the east side of the peninsula.

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Refinement of the geographic scope of the Reconstruction Area is vital to the identification of critical assets and to the subsequent steps in the reconstruction process.

5. Regional Plans and Studies

A number of regional planning studies have been completed that discuss issues that may be pertinent to Mastic Beach and Smith Point of Shirley. The following studies were reviewed for background information:

- **Smart Growth Policy Plan for Suffolk County**, Suffolk County Department of Planning- 2000
- **Shopping Center and Downtowns**, Suffolk County, May 2006
- **Draft Local Waterfront Revitalization Plan for Mastic Beach and Shirley**, 2006
- **Hazard Mitigation Plan**, October 2008 (update scheduled)
- **Suffolk Country Demographic, Economic and Development Trends**, August 2009
- **Land Available for Development and Population Analysis Western Suffolk Country**, October 2009
- **Comprehensive Master List Update-2012**: Proposed Open Space Acquisitions, Suffolk County NY, December 2012
- **Suffolk Country Demographic, Economic and Development Trends, 2008 (2013 update),** Suffolk County Department of Planning
- **Long Island's Dynamic South Shore A Primer on the Forces and Trends Shaping Our Coast,** New York Sea Grant, 2012"

The Jacobs/Cameron team (NYRCR Consulting Team) will continue to identify pertinent technical studies and will work to integrate the findings and conclusions of these studies into the planning work where appropriate. Some of the key regional plans are discussed below.

Long Island's Future Economy - The Long Island Regional Economic Development Council issued this report in 2011 as part of a State initiative to revive the regional economy. The plan contains six major strategies that cover a broad spectrum of economic and quality of life issues. The Executive Summary of the Plan describes the strategies as follows:

- *Create a cohesive education and workforce training strategy through partnerships among a range of stakeholders – business, trade groups, labor, government agencies, educational institutions, parents and students – with the goal of ensuring that workers from all of Long Island's communities are prepared to take advantage of new job opportunities in key economic growth sectors.*
- *Develop innovation and industry clusters in transformative locations across the region including downtowns, brownfields and university, research and medical centers by integrating the smart growth principles of transit-oriented development and vibrant community life.*
- *Enhance and develop multi-faceted, interdisciplinary facilities aimed at incubating and accelerating the commercialization of innovative products generated at the region's premier research institutions, by linking scientists, engineers, health and medical professionals to entrepreneurs and small businesses.*
- *Reinvigorate Long Island's manufacturing sector through continued transformation from traditional defense and aerospace work to advanced technology products, creating skilled, high-value jobs and a network of nimble companies that can develop synergistic partnerships with companies in other regions of the state.*
- *Produce a new generation of sustainable, good-paying jobs in the legacy sectors of agriculture, aquaculture, fisheries and tourism by expanding export opportunities, infrastructure, recreation facilities, research partnerships and workforce training.*
- *Rebuild and expand infrastructure to improve job access, revitalize downtowns and transit hubs, speed trade, and attract and retain dynamic regional businesses and highly skilled workforce*.

Regional Comprehensive Sustainability Plan – The Long Island Regional Planning Council issued its report in 2010. The plan noted the inability of Long Island to sustain itself fiscally, environmentally, and socially based on current governance methods and policies. The plan suggested that fundamental change is necessary to alter the course of the Island's future, noting, "*Despite these challenges, Long Island has a tremendous opportunity to redefine what it means to live in a sustainable 21st century suburban community, recognizing it is possible for Long Island to be affordable and prosperous, bringing a return to economic growth and strength. Our ability to act today –and leave behind the status quo -will have a tremendous impact on the future of the region*."

Fire Island Inlet to Montauk Point (FIMP) Reformulation Study - This 2009 U.S. Army Corps of Engineers plan is in progress. The study will identify, evaluate, and recommend long-term solutions for hurricane and storm damage reduction for homes and businesses within the floodplain along the ocean and bay shoreline from Fire Island Inlet to Montauk Point. The planning area extends across the bays to the mainland of Long Island (all in Suffolk County). In some locations, the study area extends northward to Sunrise Highway. Recent media reports indicate that the study will be completed in the near future. Upon approval, funding will become available to complete projects recommended by the study. It is expected that this will include increasing the height and width of the primary dune on the ocean side of the island and widening the beach face. There are also components of the plan that will affect the South Shore and Mastic Beach and Smith Point of Shirley. Possible projects that have been reported include raising houses and roads and buy-outs of certain highly vulnerable properties. Details are expected when the study is completed.

Comprehensive Water Resources Management Plan – This plan is in progress by the Suffolk County Department of Health. It will update a similar study completed in 1987. The study has involved the collection and testing of extensive groundwater samples as well as the mapping of land uses and build-out projection. The purpose of the study is to ascertain if the County is meeting water quality standards that are necessary to ensure a safe drinking water supply. Since Suffolk County's 1.5 million residents rely on groundwater as their sole source of drinking water, the quality and quantity of groundwater water is critical. There are no surface public water supplies (reservoirs) in the County.

Long Island South Shore Estuary Reserve Comprehensive Management Plan - This 2001 plan was prepared by the Long Island South Shore Estuary Reserve Council for the New York State Department of State. The plan includes the Great South Bay and the other bays that are part of the estuary that lies between much of mainland Long Island and the barrier beach. The plan includes recommendations for management of the estuary in a holistic manner and in contrast to the multitude of municipal, county, and state jurisdictions that divide the estuary. The plan addresses, "improving water quality, restoring and protecting living resources, expanding public use and enjoyment, sustaining the estuary–related economy and increasing public education, outreach and stewardship…" Both the Mastic Beach and the Smith Point of Shirley are bay-front communities that are inextricably tied to the estuary both economically and environmentally. The South Shore Estuary Reserve Council is assisted by the New York State Department of State.

Suffolk Country Comprehensive Plan 2035 - The Suffolk County Planning Commission issued this report in 2011 as the first volume of a series that will cover all aspects of the Suffolk County environment, economy, sustainability and resource protection. Volume One began the process by presenting updated information on demographics and socio-economic information, development trends, as well as a summary of prior regional and local plans.

Local Plans and Studies

Several studies have been completed that focused specifically on Mastic Beach and Smith Point of Shirley or communities in the immediate vicinity.

Narrow Bay Floodplain Protection and Hazard Mitigation Plan - With a Hurricane Hazard Mitigation Grant from the state, the Suffolk County Department of Planning prepared a local pre- and post-hurricane property acquisition plan for parcels vulnerable to coastal flooding. The April 1997 document analyzed coastal hazards, delineating the 100-year tidal floodplain, the area that would be flooded by hurricanes, wetlands, and the area where the groundwater was less than five feet below grade. The report speaks to the threat of storm surge inundation, and increased tidal range from storm-derived inlets and increased inlet size. It addresses the large number of vulnerable developed and undeveloped properties in the floodplain and makes recommendations for the 196 properties owned by Suffolk County at the time. It recommended that existing and future vacant parcels adjacent to parks and preserves acquired through tax lien procedures be incorporated into the parks and preserves. To limit future development of substandard size lots, it recommended sale of County acquired properties to adjacent property owners. Other County-acquired properties were recommended for use in land swap program. County-acquired properties upland of the floodplain were to be made available to owners of property in the 'Coastal Environmental Hazard Zone' as a swap.

Tri-Hamlet Comprehensive Plan - This June 1995 plan was prepared by the Suffolk County Department of Planning for inclusion in an update of the Town's 1987 Comprehensive Plan. The Plan was developed with a survey and extensive input from multiple community-based committees and set out the following goals:

- Create strong economic activity to provide jobs and an adequate tax base.
- Develop appropriate zoning regulations to ensure proper development.
- Bring zoning into compliance with the Tri-Hamlet Comprehensive Plan.
- Enforce existing codes and ordinances
- Provide open space and recreational facilities
- Concentrate activity whenever possible to encourage public transportation.
- Support appropriate roadway improvements to serve adjacent land use. Ensure that improved roadways are aesthetically attractive.
- Maintain affordable housing for all population segments, particularly seniors.
- Eliminate deterioration and obsolescence.

Most of these goals are still relevant today. The Plan reviewed the existing land uses, demographics and housing, and the zoning in place at the time. It addressed environmental issues including wetlands and flooding, spoke to the need for more parks, discussed schools, emergency planning, and transportation.

A Community-Based Vision and Revitalization Plan for Neighborhood Road & Mastic Road, Mastic Beach - This study was completed in November 2006 by the Town of Brookhaven Department of Planning, Environment & Land Management. It included an analysis of existing conditions in what was and still is considered the 'downtown.' A Montauk Highway Commercial Market Analysis was included to evaluate the potential for new business in the Mastic Beach downtown. The effort was characterized by an extensive public process led by Vision Long Island. The effort resulted in 33 recommendations including Downtown Redevelopment Design Standards developed by ADLIII Architecture. Many of the recommendations developed by this community-based effort are still valid and will be incorporated into this NY Rising Community Reconstruction Plan.

Tri-Hamlet Renaissance Project - First Year Progress Report - The Tri-Hamlet Renaissance Project is a collaboration between all levels of government and civic organizations to develop an implementable plan for Mastic, Shirley, and Mastic Beach. A 'Proposal Book' was issued on April 29, 2012 that described the challenges to be addressed by the initiative. Elected officials and community leaders formed the following Working Groups: a) infrastructure, b) economic development, c) real estate, d) quality of life, e) public safety, and f) marketing. The Working Groups together issued their 'First Year Progress Report' in May 2013. The document describes the specific recommendations made by each of the Working Groups and progress made toward implementation.

6. Community Vision

An early part of the Committee's work involved the creation of a vision statement that would illustrate the community's livability, uniqueness, appeal, and aspects that could be improved or maintained for future generations. The vision statement serves as a bellwether throughout the planning process. Strategies and projects identified later will be checked against the vision statement to ensure that recommended actions do not detract from or hinder the community from achieving its goals.

Committee members had little difficulty with this exercise as many had been involved in planning efforts for some time and had had discussions of community goals and objectives for some time. The Committee quickly identified their cultural and natural resources as assets that are vital to the resilience of the community. They recognized that the redevelopment of their downtown was important to the local economy, to the retention of their young people, and to the health and well-being of their residents. The Committee understood that, like other older suburbs, their community could benefit from an expansion of housing choices and a greater focus on a mix of land uses centered in the downtown.

As one of the lowest-lying communities of the south shore, Mastic Beach and Smith Point of Shirley residents were keenly aware of their vulnerability to storms even before Irene and Sandy and a more vulnerable future due to climate change. Rising sea level and more frequent and intense storms underline the need for adaptation and mitigation in Mastic Beach and Smith Point of Shirley.

The Committee approved the following Vision Statement:

> *The Mastic Beach community wishes to protect and enhance the safety and quality of life of its residents. We want to develop a sustainable local economy that is built on our natural and cultural resources. We need to protect our assets by increasing our resilience to climate change and our capacity to withstand future storms.*
>
> *To achieve our vision, we will:*
>
> - *Utilize our natural and cultural resources as economic assets to retain and attract young people, visitors, and appropriate businesses.*
> - *Revitalize our downtown by expanding housing and retail choices and increasing its function as a village center.*
> - *Protect our housing stock, infrastructure, and other critical assets from future storms and the effects of climate change.*

The Committee's Vision was enhanced by an exercise at the first public engagement event. Attendees were asked to provide a word or words that described, "What is great about your community." The themes expressed in the responses supported the Vision Statement. Words included reference to the community's many cultural and natural resources, its institutions, its recreational opportunities, and its people. Following are the words that were identified by the community.

Mastic Beach and Smith Point of Shirley Word Cloud

• The Wetlands	• Osprey Pointe
• The Wildlife	• Poospatuck Reservation
• Nature Preserves	• Colonial Youth & Family Services
• Waterfront & Beaches	• Tri Hamlet News
• Close to Ocean	• School Sports
• Wertheim Wildlife Refuge	• Tri-Hamlet Sports Club
• Manor at St. George	• Mastic Sports Club
• William Floyd Estate	• YMCA Skate Park
• The Library	• Fishing & Boating
• William Floyd Schools	• Caring Community
• Our History	• Hard Working People
• The Village	• Great Families
• Wm. Floyd Community Summit	• Beautiful People
• MB Property Owners Association	

The Community Vision sets the stage for the Reconstruction Plan. It helps in the identification of needs and opportunities and leads to the formulation of strategies. From the strategies come the projects and from those, the full Reconstruction Plan.

7. Community Assets

One critical element of the NYRCR Final Plan is to ensure that both reconstructed assets and new construction post-storm are more resilient against future storms. This begins with the preparation of a community asset inventory for each NYRCR planning area. The purpose of the inventory is to compile a comprehensive description of the assets located within as well as beyond the planning area (*i.e.,* a resource that is physically located outside of the NYRCR planning area but whose service area encompasses the NYRCR) whose loss or impairment due to weather events and/or flooding would put critical facilities and essential social, economic or environmental functions of the community at risk.

Generally, community assets include places or entities where economic, environmental, and social functions of the communities occur in addition to critical infrastructure required to support those functions. These assets consist of public and privately-funded facilities and services such as schools, hospitals, and medical facilities, as well as emergency services including fire and police protection. Typically, critical community resources promote the health, safety, and general welfare of the communities within which they are located. Aside from structures or services, another important community asset class relates to infrastructure and/or physical systems. These range from electric and gas utilities to key transportation routes that provide access to and within a community (*i.e.,* roadways and rail systems). Concentrations of land uses such as those that would comprise a downtown commercial district were also noted.

Numerous data sources were reviewed and local community and Committee feedback used to identify assets within each NYRCR planning area. Assets were organized based on their location relative to risk area designations/flood hazard regions, classified as critical or non-critical, and assigned an asset class from guidance provided by the New York Rising Community Reconstruction Program reference document (*The Process for Inventory, Risk Assessment in Coastal Areas and the Assessment of the Effectiveness of Flood Reduction Actions in Riverine Areas*).

Initial Asset Inventory

The identification of assets is an important step in developing strategies to improve the resiliency of the community. The mapping effort is intended to supplement the work of the Mastic Beach and Smith Point of Shirley Committee. Maps identify resources that may be inaccessible to the public but regulated by a public agency (such as undeveloped parklands and marshes), as well as those that may hide in plain sight. Those are assets that are vital to the community's health and resilience that go unnoticed because they only become obvious when they fail. They might include small roadway bridges and more obscure government service offices. The assets identified through the mapping effort will be combined with the asset data provided by the NYRCR Committee and community residents during committee and public workshop sessions. The result will be a complete picture of not only the physical assets themselves but also their value as perceived by the community.

The thematic maps in this section illustrate various assets located within the NYRCR planning area. Map data is sourced primarily from geodatabase and shape-file resources provided by the New York State Department of State and supplemented by data readily available to the public through the New York State Department of Environmental Conservation. Some data sources were cross-referenced with the US Federal Emergency Management Administration (FEMA) HAZUS data sets for New York to verify the accuracy of the federal data, although in most cases, NYSDOS data was presented.

Risk Assessment

Understanding which areas have been and will be affected by storms and other threats such as sea level rise is the first step toward understanding what is at risk in the planning area. The three risk assessment areas – extreme, high, and moderate – depict geographic areas at risk from coastal hazards according to differences in the exposure of the landscape. Assets located in the extreme risk area are currently at risk of frequent inundation, vulnerable to erosion in the next 40 years, or likely to be inundated in the future due to sea level rise. Assets located in the high risk area are currently at infrequent risk of inundation or at future risk from sea level rise. Assets located in the moderate risk area are currently at moderate risk of inundation from infrequent events or at risk in the future from sea level rise.

Risk Assessment Area data is included to convey graphically the risk level to various government services and community resources and suggest issues for further consideration in the development of strategies and projects. The tables on this page summarize the preliminary findings, listing the assets and the risk assessment area where they are located.

1. Cultural, Natural, and Recreational Resources

The South Shore of Long Island has historically been and continues to be a natural and recreational resource. The area along the coastline is also the location most likely to be inundated during a storm event, but for undeveloped natural coastal resources, their location provides protective detention capacity lessening the impact of storm surges on inland locations. Many of these resources are relatively large in geographic area and span multiple risk assessment areas.

Cultural and Recreational Resources are named according to the data set provided by the responsible government agency. Natural features that are elements of the landscape and not given place names by an agency are not named or listed individually. When wetlands are associated with a waterbody, they are named as associated with that waterbody.

The southeastern and western edges of the Mastic Beach and Smith Point of Shirley NYRCR area are buffered from the Great South Bay by tidal wetlands and undeveloped Suffolk County parkland (on the western side) and the Fire Island National Seashore wetlands (part of the William Floyd estate) on the eastern side. The creeks that flow north to south through the NYRCR area are tidal estuaries that are tributaries of Narrow Bay, itself a part of the larger Great South Bay.

The Mastic, Moriches, Shirley Community Library, at 407 William Floyd Parkway in Shirley is outside the NYRCR area, but a very important cultural asset in the greater Mastic Beach and Smith Point of Shirley community.

Parkland Resources

Asset/Resource	MB/NY*	Risk Assessment Zone(s)
Smith Point County Park North (undeveloped)	MB/NY	Moderate, High, and Extreme
Smith Point Boat Ramp	MB	Extreme
Johns Neck Tidal Wetlands	MB/NY	High and Extreme
Fire Island National Seashore	MB/NY	Extreme, High, Moderate
Osprey Park	MB	Extreme and High
Bayview Park	MB	Moderate
MBPOA Stick Docks	MB	Extreme
MBPOA Marinas	MB	Extreme

*MB = asset identified by Community
NY = asset identified in New York State database

Natural Resources

Asset/Resource	MB/NY*	Risk Assessment Zone(s)
Freshwater wetlands of Pattersquash Creek, Johns Creek, and Lawrence Creek	MB/NY	Extreme, High, Moderate
Tidal wetlands	MB/NY	Extreme and High

*MB = asset identified by Community
NY = asset identified in New York State database

Cultural Resources

Asset/Resource	MB/NY*	Risk Assessment Zone(s)
Nathaniel Woodhull Cemetery	MB	Moderate
Manor of Saint George	MB	Moderate
Outside of NYRCR Area		
Mastic, Moriches, Shirley Community Library	MB	Outside Risk Zones

*MB = asset identified by Community
NY = asset identified in New York State database
One National Register-Listed resource is located in this NYRCR. The William Floyd House and grounds are part of the Fire Island National Seashore.

National Register Listed Historic Resources

Asset/Resource	MB/NY*	Risk Assessment Zone(s)
William Floyd House	MB/NY	Extreme, High, Moderate

*MB = asset identified by Community
NY = asset identified in New York State database

2. Health and Social Services: Life Safety

Health and Social Services: Life Safety includes fire protection, police services, hospitals, and emergency operations facilities.

There are five Emergency Operations Facilities in Suffolk County. These facilities would coordinate emergency services during an emergency. Two of these facilities are along the South Shore of Long Island: the Babylon Town Civil Defense facility is located directly north of the Village of Lindenhurst NYRCR and the Islip Public Safety facility is located between the West Islip and the Oakdale/West Sayville NYRCRs.

The Mastic Beach and Smith Point of Shirley NYRCR does not have a police station within it. The Suffolk County Police Department provides police services for the NYRCR area. The community does have a one primary Fire Station within the NYRCR area, as well as the Mastic Beach Ambulance Company. Both facilities are located in the moderate Risk Assessment Zone. There are no hospitals within the Mastic Beach and Smith Point of Shirley NYRCR area. Brookhaven Memorial Hospital Medical Center is located in Patchogue, 11 miles to the west.

Fire Stations and Ambulance Companies

Asset/Resource	MB/NY*	Risk Assessment Zone(s)
Mastic Beach HQ Fire Station	MB/NY	Moderate
Mastic Beach FD Garage	MB	Moderate
Mastic Beach Ambulance Company	MB	Moderate

*MB = asset identified by Community
NY = asset identified in New York State database

3. Health and Social Services: Administration and Education

Community assets reviewed in this category serve a variety of public functions, from health treatment facilities to general purpose shelters in public schools, and post offices to town halls. During a storm event, these facilities may potentially serve as critical disaster response and recovery centers, the identification of which is essential to future disaster management and preparedness.

The Saint Andrews School is located in a moderate risk zone in the central portion the NYRCR on Birch Road at the Saint Andrew's Episcopal Church facility. The William Floyd School District, which includes one high school, two middle schools and five elementary schools, is located outside of the NYRCR area and Risk Assessment Zones.

Schools

Asset/Resource	MB/NY*	Risk Assessment Zone(s)
Mastic Beach Hebrew Center	MB	Moderate
Outside of NYRCR		
WM Floyd School District	MB	N/A

*MB = asset identified by Community
NY = asset identified in New York State database

Five religious institutions are located within the Mastic Beach and Smith Point of Shirley NYRCR area. Four are located in the moderate risk zone.

Religious Institutions

Asset/Resource	MB/NY*	Risk Assessment Zone(s)
Saint Jude's Church	MB/NY	Moderate
Saint Andrew's Episcopal Church	MB	Moderate
Mastic Beach Hebrew Center	MB	Moderate
Bayview Baptist Church	MB	Moderate
Grace Lutheran Church	MB	N/A

*MB = asset identified by Community
NY = asset identified in New York State database

An Office for Persons with Developmental Disabilities facility is located in a moderate risk zone in the central portion of the NYRCR area on Birch Road.

State and Federal Buildings and Properties

Asset/Resource	MB/NY*	Risk Assessment Zone(s)
NYS Office for People With Developmental Disabilities	NY	Moderate
US Post Office	MB	Moderate

*MB = asset identified by Community
NY = asset identified in New York State database

4. Infrastructure: Transportation

The only transportation infrastructure of note within the Mastic Beach and Smith Point of Shirley NYRCR area is the William Floyd Parkway. The area encompassing the William Floyd Parkway north of Saint George Drive is in a Moderate risk assessment area; the area south of Saint George Drive to the Great South Bay is designated in a High area. A review of available state data did not identify any other transportation-related infrastructure within this NYRCR Community.

5. Infrastructure: Utilities

Other than a small commercial district, the Mastic Beach and Smith Point of Shirley NYRCR area is comprised almost entirely of residential development and natural areas. There are no large-scale utilities. Water, electric and gas systems are well-distributed throughout the developed portions of the planning area. They have not however been mapped or quantified.

Infrastructure Resources

Asset/Resource	MB/NY*	Risk Assessment Zone(s)
5 flood control properties	NY	Extreme
3 flood control properties	NY	High
3 flood control properties	NY	Moderate
1 small drinking water well)	NY	Moderate

*MB = asset identified by Community
NY = asset identified in New York State database

6. Housing

The 5,114 single-family homes comprise nearly all of the 5,263 at-risk residential structures in the Mastic Beach and Smith Point of Shirley planning area; the remaining at-risk residential structures consist of two- and three-family residences. There are no large, multi-family structures within the planning area. Approximately 60, 23 and 17 percent of the residential structures are located in Extreme, High, and Moderate Risk Assessment Areas, respectively.

Housing Resources

Asset/Resource	MB/NY*	Risk Assessment Zone(s)
873 single-family, 23 two-three-family structures	NY	Extreme
1,163 single-family, 32 two-three-family structures	NY	High
3,078 single-family, 94 two-three-family structures	NY	Moderate
Fairfield Senior Housing	MB	N/A
Outside of NYRCR		
150-Unit Senior Housing (Colony Preserve)	MB	Moderate/N/A

*MB = asset identified by Community
NY = asset identified in New York State database

7. Economic Centers

There are approximately 18 commercial properties in the Mastic Beach and Smith Point of Shirley Risk Assessment Zones. Less than half are located along William Floyd Parkway, an important arterial in the planning area. The remaining at-risk commercial properties are distributed in various locations along the shoreline and Neighborhood Road and other clusters within the planning area.

Economic Resources

Asset/Resource	MB/NY*	Risk Assessment Zone(s)
3 commercial properties	NY	Extreme
15 commercial properties	NY	Moderate

*MB = asset identified by Community
NY = asset identified in New York State database

8. Regional Assets

In addition to assets identified within the Mastic Beach and Smith Point of Shirley NYRCR area, the community identified several key regional assets located outside of the NYRCR boundary.

Regional Assets

Asset/Resource	MB/NY*	Risk Assessment Zone(s)
Smith Pt. Park; Flight 800 Mem.	MB	Extreme, High, Moderate
Fire Island National Seashore	MB	Extreme, High, Moderate
Brookhaven Lab	MB	N/A
Dowling College (Brookhaven)	MB	N/A
SUNY Schools	MB	N/A
Mastic-Shirley LIRR Station	MB	N/A
Poospatuck Reservation	MB	N/A
US Fish & Wildlife Regional Ctr.	MB	N/A
Trans-Atlantic Fiber Optic Cable	MB	N/A

*MB = asset identified by Community;
NY = asset identified in New York State database

Initial Asset Inventory: NYRCR Committee and Public Outreach Contributions

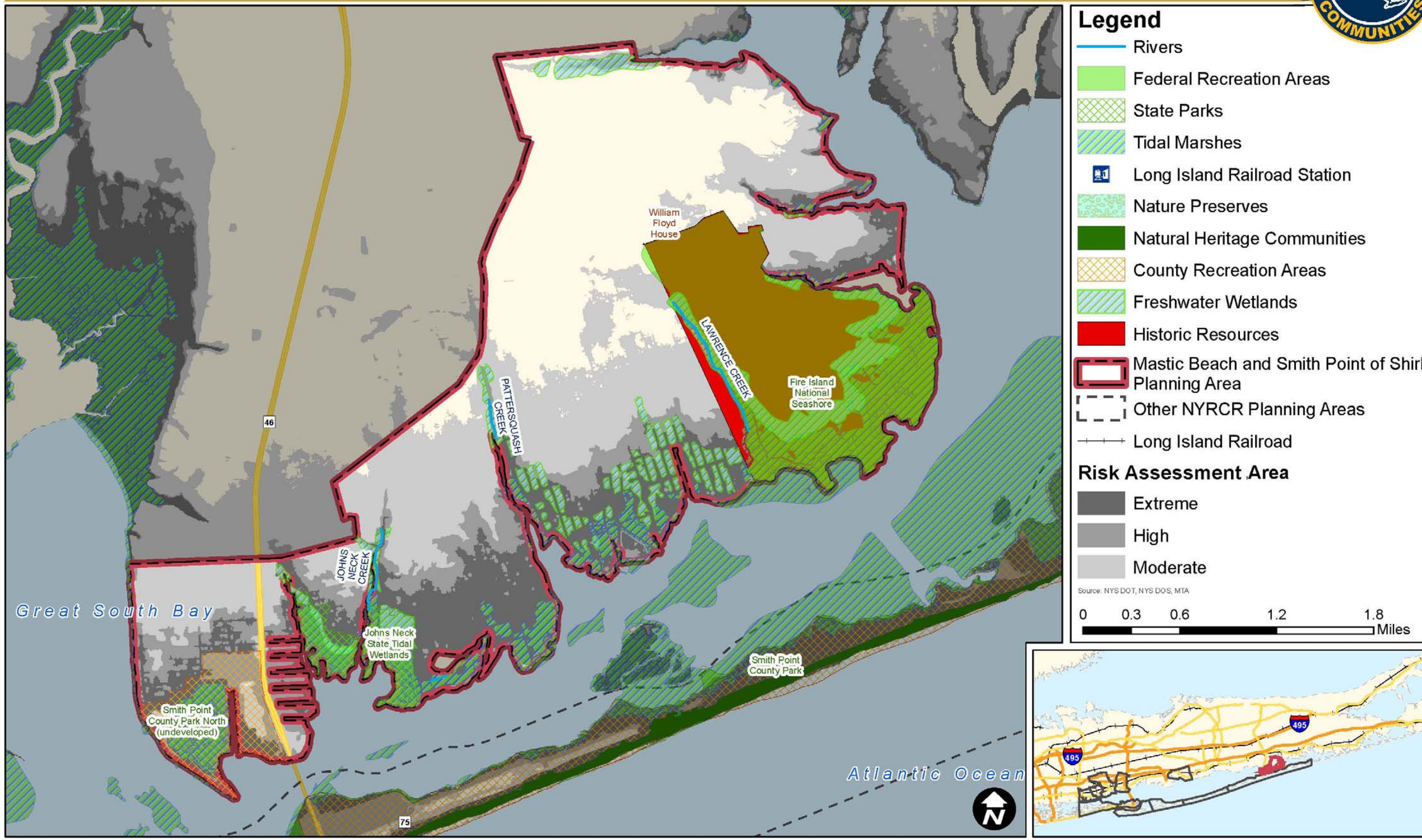
The initial plan was to have the GIS data driven maps discussed previously serve as a base for the asset inventory work of the NYRCR Committees and community residents; however, the urgency of the New York Rising Community Reconstruction Project required that the NYRCR committees begin assessing their community's needs and opportunities before the GIS data was available. The results of this approach proved to be beneficial: without a basemap of pre-identified assets, the NYRCR committees and community residents felt free to identify all manner of assets that were vital to the functioning and identity of their community. As a result, the NYRCR Committee and community input maps call out typical assets, such as police and fire stations, but also important community features, such as popular restaurants and meeting halls that serve as community centers.

This latter category is vitally important, as the services of these community centers, such as VFW (Veterans of Foreign Wars) halls and other civic organization headquarters, have established themselves as resources during times of crisis, centers for normalizing and stabilizing community identity in the aftermath, and places of celebration during good times.

The NYRCR Committee and community input maps of assets are shown on the following pages. This data will be reconciled with the GIS data to complete the whole picture of assets, needs, and opportunities in the NYRCR planning area.

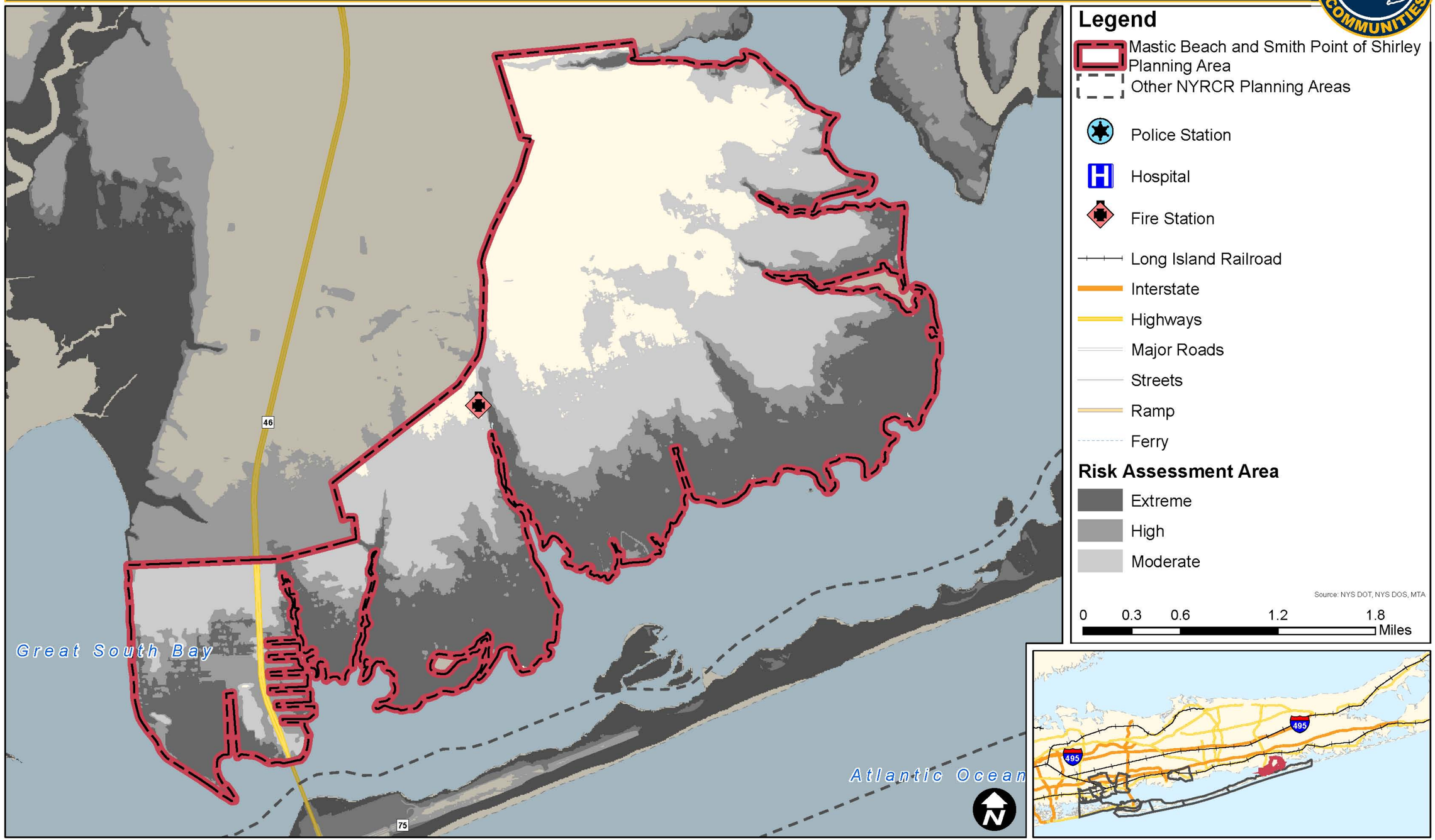
NYRCR: Mastic Beach and Smith Point of Shirley

National Register Historic Resources, Natural Resources, and Recreational Areas



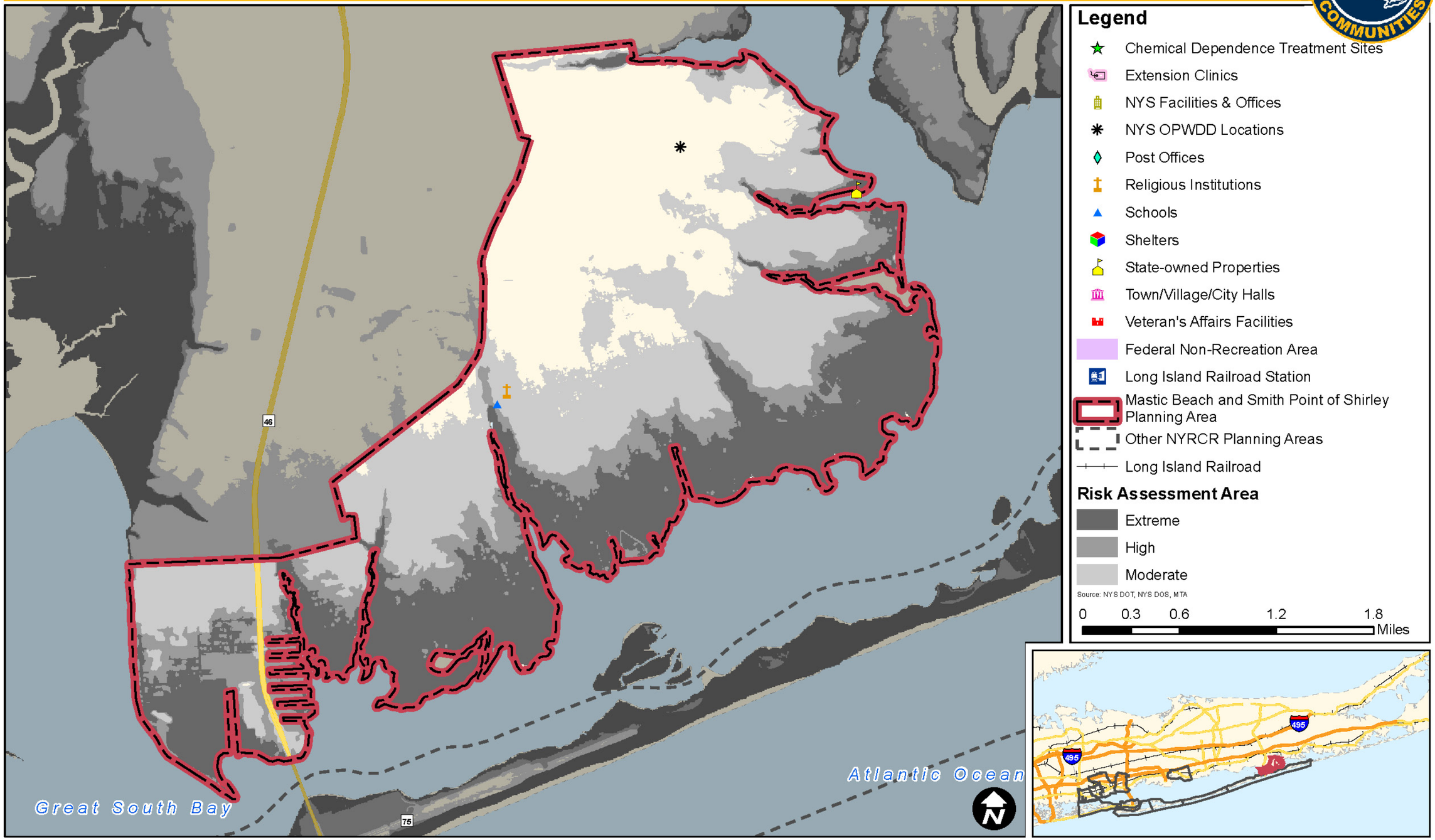
NYRCR: Mastic Beach and Smith Point of Shirley

Emergency Services



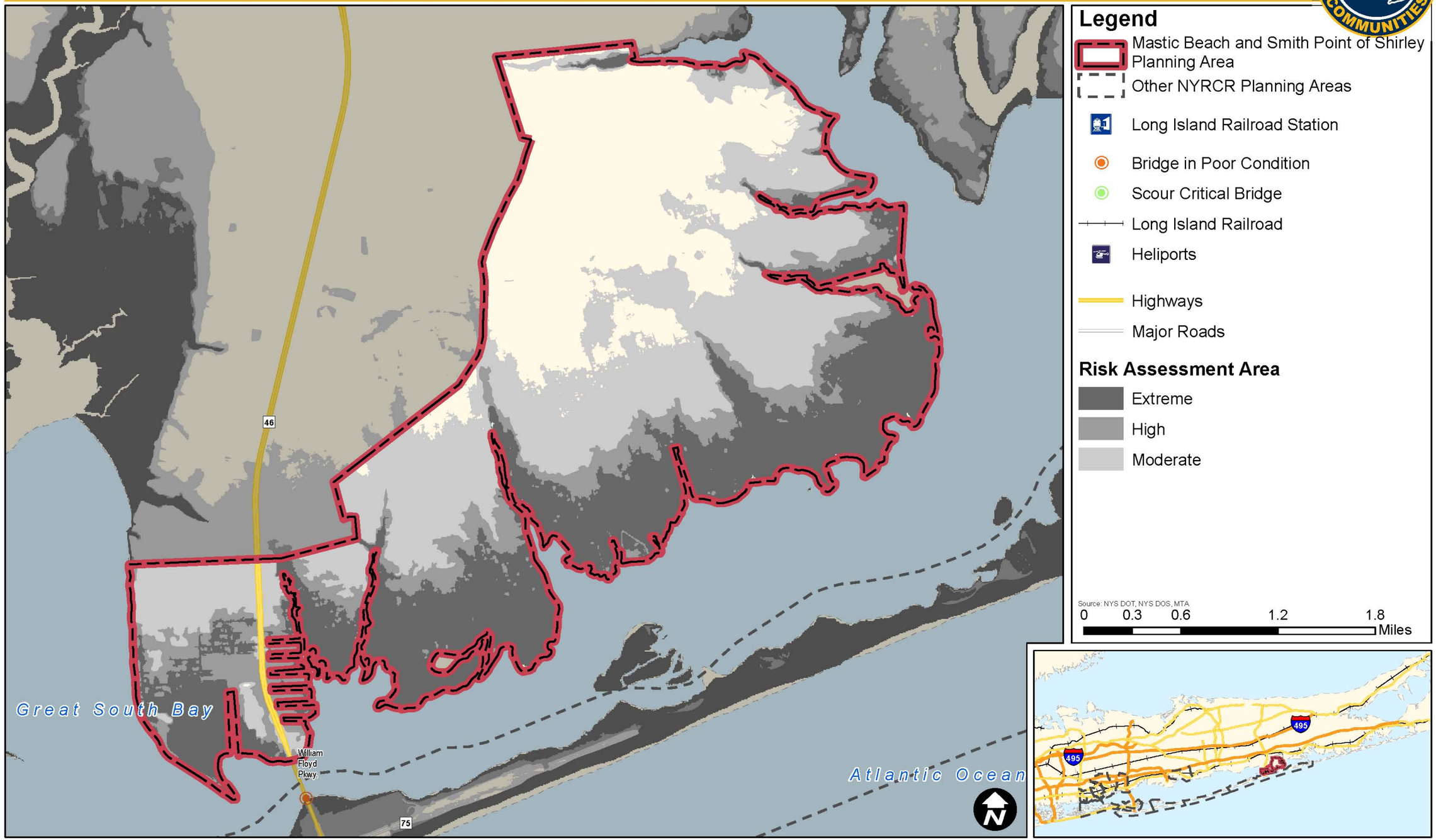
NYRCR: Mastic Beach and Smith Point of Shirley

Health and Social Services: Adminstration and Education



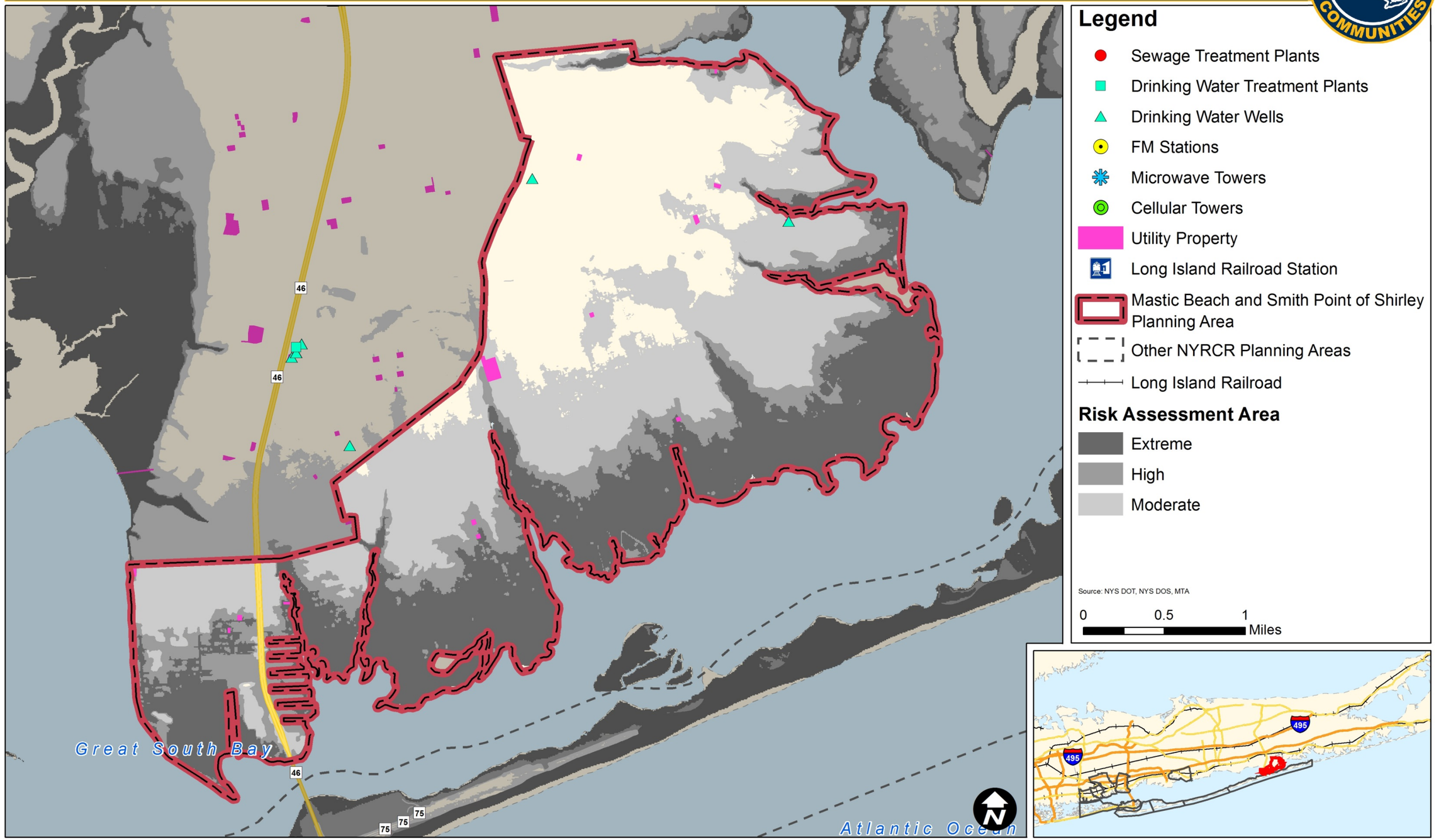
NYRCR: Mastic Beach and Smith Point of Shirley

Transportation Assets



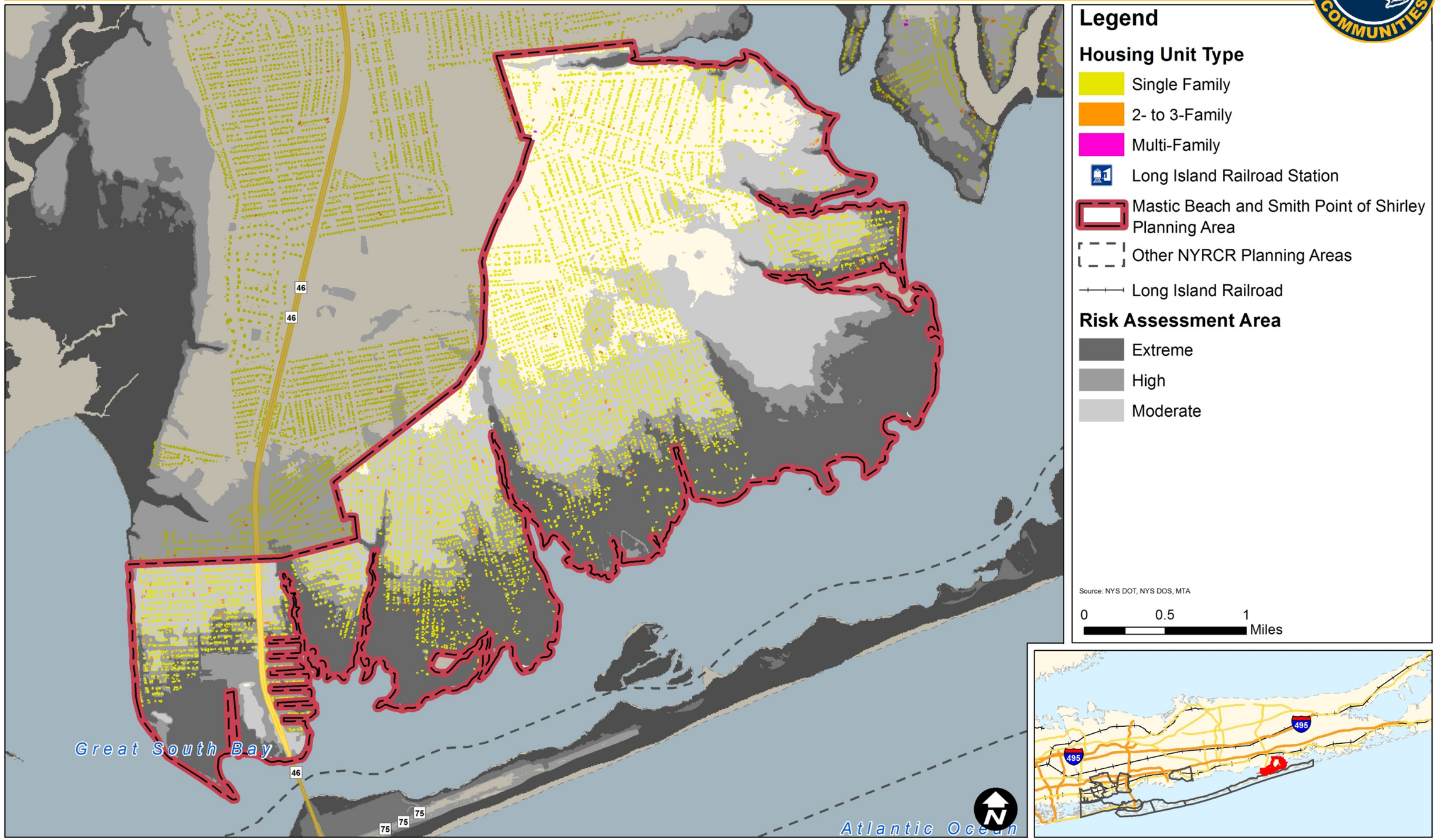
NYRCR: Mastic Beach and Smith Point of Shirley

Utilities



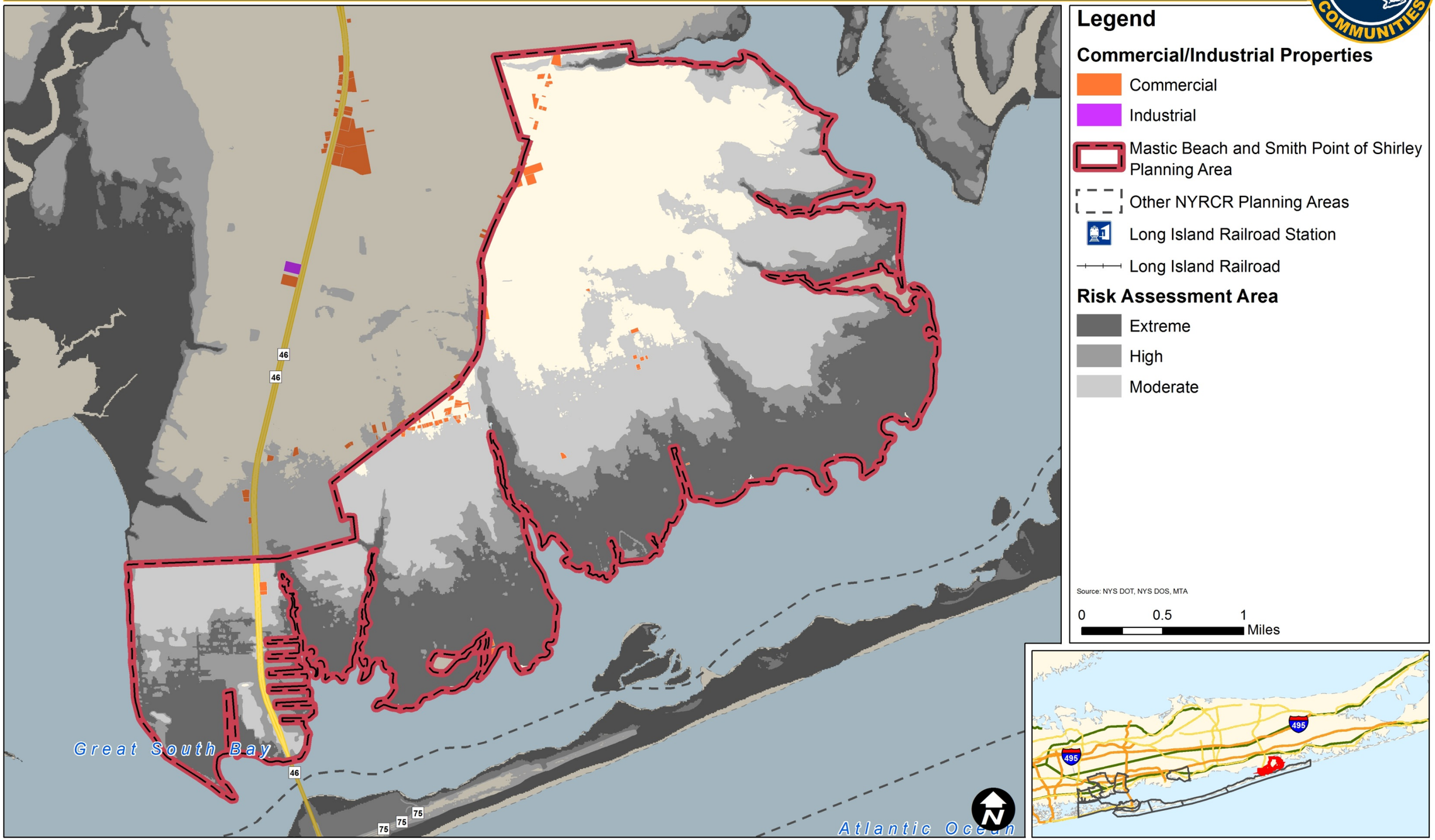
NYRCR: Mastic Beach and Smith Point of Shirley

Housing: Single- and Multi-Family



NYRCR: Mastic Beach and Smith Point of Shirley

Economic Assets: Commercial and Industrial Properties



NYRCR: Mastic Beach and Smith Point of Shirley

Committee-and Community-Identified Assets in the Extreme Risk Area

NYRCR: Mastic Beach and Smith Point of Shirley

Committee-and Community-Identified Assets in the Extreme and High Risk Areas

8. Needs, Opportunities, and Strategies

The goals of the NYRCR Final Plan are threefold: define the rebuilding strategy, achieve resilience, and spur economic development. The development of needs and opportunities is in direct response to the community assets developed earlier by the Committee. The Plan is then developed based on the needs and opportunities identified by the community. It lays out specific actions in the short-, mid-, and long-term to achieve reconstruction and economic growth objectives. The Plan *must* be realistic. It cannot be simply a wish list of uncoordinated projects unrelated to the realities of funding, financing, existing zoning and building codes, and the political process. Needs and opportunities may relate to repairing or relocating assets (in appropriate locations) that were damaged by recent storms; redirecting or expanding the local economy; making assets more resilient for the future; and other activities that relate to protecting the health and safety of the community. The development of implementation strategies is guided by at least the following factors:

- Risk assessment
- Combined benefits
- Critical facilities
- Value to the community
- Coordination with other improvements
- Life-cycle costs
- Availability of funds

Priority strategies are those that reduce risk to critical assets that serve the greatest number of residents or a large population of vulnerable individuals will be given priority. Actions that simultaneously protect the built environment while preserving natural and cultural resources are preferred.

There is opportunity in disaster to rebuild better and safer. Although residents and businesses need to rebuild quickly to get back into their homes and reopen their businesses, there are longer term needs and opportunities that can be addressed as part of the recovery process. Many impacted communities were already suffering from the economic downturn before the storm.

The issues for a number of Long Island communities are the same: employers leaving the region, inadequate supply of affordable ownership and rental housing for Long Island's workforce; retail competition from large format stores, malls, and online shopping; an aging population and an out migration of 18-35 year olds.

Businesses in Mastic Beach and Smith Point of Shirley were directly affected by the storm. They lost business while closed for rebuilding and reopened in some cases to a smaller customer base. Many took loans to rebuild, which added to debt they may have had from the recession. Many rebuilt quickly to reopen and are as vulnerable today as they were before the storm. In many cases, commercial property owners left improvements to their tenants. In other cases, businesses closed permanently.

Municipalities saw real estate and sales tax revenues decline during the recession while many other costs rose. Superstorm Sandy generated large infrastructure repair and replacement bills for the NYRCR communities. Although FEMA will reimburse municipalities for most of those costs, completed repairs created deficits. Municipal officials are reluctant to raise taxes as Long Island property owners who already pay high taxes. Municipal services and staff have declined to balance budgets.

The NYRCR Final Plan is built around the six recovery support functions outlined in the State's *Guidance for Community Reconstruction Plans*. The following section describes the needs and opportunities identified by the Mastic Beach and Smith Point of Shirley Committee. Strategies and some preliminary projects are also identified.

The next step is to engage experts in the various fields relevant to each need and to narrow down and prioritize the possible strategies based on a variety of considerations, including effectiveness at reducing risk, contribution to community resiliency, anticipated benefits, life-cycle costs, availability of resources, timing relative to other existing projects, and regional projects.

Housing

Housing lots were first offered for sale in Mastic Beach and Smith Point of Shirley in the 1920s. According to the 1995 Tri-Hamlet Comprehensive Plan (see Section 4, Prior Studies), approximately one half of the housing units in the area were constructed before 1969, primarily by Walter Shirley's development companies. One third of the units were constructed in the second wave of development, the 1970s. The size, condition, regulatory and zoning status of the housing stock is related to its age and the fact that many homes were built as summer bungalows and not for year-round use.

Long Island's economic sustainability is dependent on retaining and even attracting young workers. Yet the region is experiencing a change in housing preferences as young workers look for communities in which to live. Single-family housing may not be the preferred housing choice for this generation. Many prefer rentals for economic and social reasons. Many also prefer those rentals in active downtowns, hamlet centers, or beach communities. Long Beach, a community 50 miles to the west in Nassau County, with numerous rentals, is popular for younger people for all those reasons.

Communities like Long Beach that recognize the needs and desires of this generation will thrive. Others will stagnate or worse. Because Long Beach is rather unique, rental and ownership housing prices there have climbed. The storm exacerbated this trend as many rental and ownership units were removed from the market. Housing was lost from many of the other Sandy impacted communities forcing displaced families into whatever rental housing was available and driving up rates. Housing was difficult for low and even middle income families before the storm as the housing values plummeted, jobs were lost, and foreclosures increased. Many individuals and families have yet to recover from the recession.

Attractive and affordable housing for young workers is often a prerequisite for companies that seek to expand or move to Long Island. Businesses with an interest in locating or expanding in hamlet centers and downtowns need to be assured of a sufficient customer base. Thus, housing must come first. The Village of Patchogue is one of Long Island's recent successes – they encouraged new mixed use development in their downtown and have now attracted new restaurants and shops.

Sandy created new challenges for Mastic Beach and Smith Point of Shirley housing. Some displaced homeowners anxious to return to their homes rebuilt damaged homes quickly. Some of those homes are no more resilient than they were before the storm. Few property owners have yet to elevate their homes. Elevation and new foundation construction is costly with estimates ranging from $80,000 to $120,000 and more depending on the size and construction of the home. Housing strategies are needed that will protect existing and future housing from the inevitable effects of future storms. Clear construction guidelines are available from FEMA that help protect homes from flooding and wind damage. The NYRCR Committee identified housing needs and opportunities and associated strategies identified on the following page.

Develop a Plan to Address Vacant and Abandoned Homes

The Village is encouraged to continue partnering with local housing organizations (*e.g.*, Community Development Corporation, Long Island Housing Partnership) and Suffolk County to acquire properties for rehabilitation and sale as affordable housing. Properties in the flood risk zone must be reconstructed according to guidelines appropriate to the particular risk zone. Those guidelines should be based on FEMA documents and should satisfy NFIP requirements.

Improve Ownership and Rental Housing Conditions

The Village is developing measures to expand their housing inspection and enforcement program. While avoiding onerously high fees, they should set permit fees high enough to help pay for code enforcement personnel.

Acquire Properties in Extreme Risk Area

The Committee recognized that certain properties should not be built on. These will be identified in the next phase of the NYRCR planning process. The Village is encouraged to collaborate with Town and County agencies to acquire these properties or their development rights and demolish the structures.

The properties should then be put into public recreational use or restored as part of a larger preserve. Alternatively, the Village, Town, or County could offer tax abatement in exchange for a life estate deed with the appropriate municipality as owner at death. The structure would be demolished at the death of the life tenant.

Arrange Property Swaps From Extreme Risk Area

Special pricing might be negotiated for purchase of foreclosed residential properties outside the extreme risk area by property owners in the extreme risk area. The Town or County might offer the right of first refusal for tax-defaulted properties outside extreme risk flood area to property owners in the extreme risk flood area. The Village could work with the Town, County or local housing organizations to establish procedures.

Alternatively, the Village might participate in the Pine Barrens, Town's, or County's Transfer of Development Rights (TDR) program. The Village could designate properties in extreme risk area as 'sending areas' and work with the TDR program to establish 'receiving areas' in less vulnerable areas. The Village would work with the appropriate TDR manager to establish procedures.

Require Resilient Reconstruction and New Construction

Some damaged residential structures are located where reconstruction is appropriate. These should be rebuilt according to clearly defined requirements that make them more resilient in the face of future storms and flooding. Those requirements, including elevation and elimination of basements, should be established by Village and Town ordinance. Similarly, new construction should follow strict requirements established by code. Houses reconstructed or constructed according to established rules should receive a 'Resilient Housing Certificate' from the Village and be listed in a GIS database. Such a certificate would be valuable at sale.

Establish 'Resilient Housing Trust Fund'

A special fund should be established to help pay for required improvements for income qualified residents. The fund would make loans secured by the property and repaid through Village taxes or at sale through repayment of the lien. Seed funding could be secured from outside sources and possibly through a real estate transfer tax. The program could be run by the Village, Town, County, or a non-governmental entity such as the CDC of LI or the LIHP.

Expand Housing Choices

Mastic Beach and Smith Point of Shirley is a community of primarily single-family homes. Although there are numerous rentals, many were not constructed for that purpose and are not permitted. The Committee recognized the need for greater choices in housing types such as duplexes, townhouses, and apartments over commercial uses in the downtown. These housing types would require a change of zoning for portions of Mastic Beach and Smith Point of Shirley. Apartments in a revitalized downtown could help retain and attract younger residents and possibly artists. The Village should adopt a zoning code similar to the Town's J6 Main Street Business zoning code for Neighborhood Road and the 'downtown' triangle. The success of such a zoning change will depend in part on the Village's ability to control illegal and substandard housing.

There are some summer rentals in the community. With expansion of outdoor recreational opportunities, it may be possible to attract more summer residents, who would in turn help support the local economy. The Village should ensure that its zoning code allows for and encourages summer rentals. The NYRCR Consulting Team will provide examples of resort community zoning codes for Village officials' review.

Community Planning and Capacity Building

Communities that are represented by local governments have an advantage in terms of land use planning and emergency preparedness. The Mastic Beach and Smith Point of Shirley NYRCR area includes both an incorporated village and an unincorporated part of the Town of Brookhaven. Planning and actions for the area inside the Village boundary fall to Village officials and staff. Plans and strategies for the properties in Smith Point of Shirley fall to Town officials and staff and in some cases to community organizations. The NYRCR Final Plan includes many strategies usually found in comprehensive plans. Some require new or amended zoning codes to improve economic vitality, reduce risks, and incentivize resilience.

Develop a Community-Wide Emergency Preparedness Plan

The Mastic Beach and Smith Point of Shirley community will flood again. It needs to prepare for that eventuality by developing an emergency preparedness Plan. The Village should be sure that its relatively new code requires specific mitigation activities in the defined risk areas that are consistent with FEMA guidelines. The Village's Plan should include a public education campaign on storm preparedness.

The Committee recommended that the Village establish a social media network (*e.g.* twitter) for use during emergencies with block captains as information disseminators (tweeters). One option may be expansion and promotion of the successful mobile phone application in use by the Mastic Beach and Smith Point of Shirley, Moriches, Shirley Community Library.

Require Use of Resilient Materials

The use of resilient materials can help reduce the damage caused by flooding. For properties in the highest risk areas, the Village should make the issuance of building permits contingent on use of materials identified as resilient.

Participate in the NFIP Community Rating System

The National Flood Insurance Program (NFIP) Community Rating System (CRS) awards insurance premium discounts to property owners in municipalities that have incorporated specific proscribed mitigation measures in their code. Participation now is especially important as the federal government eliminated NFIP subsidies and is raising premiums to market rates beginning in 2013. The CRS identifies 18 strategies that participating municipalities can take to make property owners eligible for the discounts. The Village should participate to the maximum extent possible in the CRS to achieve flood insurance premium discounts for its constituents of up to 45 percent.

Develop Plan to Address Non-Conforming Uses

As much of the Mastic Beach and Smith Point of Shirley community was constructed decades ago, a number of its properties do not conform to permitted uses in the current zoning districts. The Village must decide how it will address these non-conforming uses. Options include; 1) permit indefinite non-conforming use; 2) update Village code to require conformance after a certain period of years; or 3) update Village code to require conformance when a building permit is requested.

Infrastructure

Much of the infrastructure in Mastic Beach and Smith Point of Shirley was constructed in the building booms of the mid-20th century. It is old and not designed to today's standards. Stormwater systems may be undersized for the decline in pervious areas and increased development. Many of the systems also discharge to sensitive waterbodies degrading natural systems. Today, stormwater management is guided by EPA regulations and State oversight that prefer 'green infrastructure.' Green infrastructure systems are more natural, and absorb and recharge rainwater closer to where it falls. The NYRCR Final Plan should address stormwater management and the potential for increased flooding due to climate change. The NYRCR Final Plan should incorporate green infrastructure into the landscape (*e.g.*, rain gardens, bio-retention areas).

There were problems across the south shore of Long Island in all of the unsewered areas. One of the worst affected areas was the Mastic Beach and Smith Point of Shirley community. There, wastewater is collected and minimally treated in onsite systems (*i.e.,* cesspools and septic systems). Elevations in the southern half of the Mastic Beach and Smith Point of Shirley-Shirley peninsula are very low and flooding was widespread. In addition to the severe flooding, onsite systems were inundated and in some cases released their contents. Some of the onsite systems are the older and less efficient cesspools that are no longer permitted in Suffolk County. The Town and County have discussed sewering of the Mastic Shirley peninsula for some time; however, it would be costly and difficult with a conventional approach.

The Mastic Beach and Smith Point of Shirley community has hardened shoreline including bulkheads, piers, and docks. Some of these structures worked well to protect and preserve shore-side facilities, while others may have accelerated erosion and sand loss and led to the loss of tidal wetlands.

Infrastructure also includes roads and facilities for communication, transportation, and government operations. Many of these facilities are under the control of other entities (*e.g.,* state and county roads, private communications equipment), but their functions are critical to the community.

Protect the Environment and Human Health from Wastewater Pollution

The Committee and the public recognize that wastewater is inadequately managed in Mastic Beach and Smith Point of Shirley. They understand that a longer-term solution is needed. The Village, Town, and County have studies underway to identify the best approach to wastewater collection and treatment. The municipally-funded plans should evaluate different collection systems, treatment technologies and locations.

Sewer the Downtown First

The Village should ensure that the revitalized 'downtown' is sewered first. The low-lying, high groundwater area should be the next priority. The study should determine the existing and potential wastewater generation to identify the collection and treatment system capacity needs. It should examine potential treatment system locations including the Town of Brookhaven airport.

Consider Alternative Wastewater Collection Systems

Wastewater collection with conventional gravity systems is difficult in low-lying high groundwater areas. Alternatives should be considered, including pressure or vacuum collection systems that are completely sealed, thus minimizing the chances of raw sewage discharges to the environment. Vacuum equipment can be located in sealed or otherwise hardened vaults with generator backup power. The Village of Patchogue installed a pressure system in their low lying residential district south of Montauk Highway.

Consider Community-Based Collection and Treatment Systems

Large centralized collection and treatment systems are expensive. The Village should work with the Town and County to evaluate the feasibility and comparative costs of various community sewering options. Different treatment technologies are available from various private companies that could be as effective as conventional treatment plants. The Village might consider working with the Town or County to construct a collection system that delivers wastewater to a publically owned parcel for treatment. It might then issue a request for proposals for a performance-based treatment contract with private vendors.

Protect the Environment and Properties from Fuel Spills

Much of the Mastic Beach and Smith Point of Shirley-community heats their homes and businesses with oil. Fuel oil tanks were inadequately secured during the storm and many leaked. The Village should work with the gas utility to bring natural gas to its homes and businesses. The Village should amend its building code to require oil tanks to be properly secured.

Provide Parking Areas for Vehicle Storage

The Committee suggested making parking areas available that automobiles could be relocated to in advance of a storm. The Village could utilize the parking lots it will construct for its downtown (see Economic Development section).

Elevate Key Roadways for Emergency Evacuation

Emergency evacuation was difficult in Mastic Beach and Smith Point of Shirley as most roadways in the southern portion of the peninsula were flooded. Roadway elevation is expensive and could exacerbate flooding in adjacent properties. Although evacuation should be mandatory in the extreme risk area, emergency responders do need access to roadways. Village emergency responders should identify these key roadways as candidates for elevation.

Improve Roadway and Street Lighting

The Committee suggested that certain roadways require greater lighting. They recognized, however, that although lighting is needed for safety, it can also detract from the allure of dark skies. The Village should identify and prioritize roadways needing lighting and balance the need for safety with aesthetics in its recommendations. It should utilize LED (Light Emitting Diode) lamps and solar power where appropriate.

Provide Better Connections to Regional Transportation

Connections to major roadways, the train station, major employers, and the nearest hospital are difficult and inadequate during disasters. The Village should work with the railroad, the Town, County, and State to add additional at-grade railroad crossings for evacuation and additional access to Sunrise Highway. Signage should be added identifying emergency evacuation routes and routes to the nearest hospital (Brookhaven Hospital).

Install or Enhance Protective Infrastructure

Shoreline stabilization techniques are available to help reduce erosion and to provide a measure of upland protection. Complete protection of upland structures from tidal inundation and storm surge, however, is dependent on achieving protective elevations. Other measures such as use of resilient materials (see housing strategy) can offer some degree of protection. The Committee suggested that a levee along the northern portion of the County's Marina property might protect the adjacent residential properties. The Village should initiate a study to determine those areas where the use of structural measures would be feasible and appropriate.

Improve Stormwater Management

As discussed in the Natural and Cultural Resources section, proper stormwater management will help protect wetlands and preserve or even improve water quality. Stormwater management is also important to flood control. High intensity rain events require adequate stormwater storage. The Village should acquire properties for stormwater storage, particularly those that could double as parks or public plazas during dry weather. Locations for green infrastructure such as swales, wetlands, and infiltration areas should be identified. Areas requiring stormwater collection that are not appropriate for green infrastructure should be considered for piped collection systems.

Encourage Use of Renewable Energy

Committee members and the public agreed that Mastic Beach and Smith Point of Shirley should encourage the generation of renewable energy such as solar photovoltaics (PV) and wind. The Village should adopt the solar PV code developed by LIPA for rapid permitting and should develop a code for wind installations. Installation of a community owned solar and/or wind facility could make it possible for multiple property owners to invest in clean energy. Another alternative to individual purchase of solar PV is the solar lease. The Village could incentivize the location of a solar energy company in the revitalized downtown by leasing it Village-owned space at below market rates. In exchange for the incentive, the company might be required to offer discounted installations or leases to local customers.

Institute Tree Maintenance Program

Many of the local power outages were due to trees falling on power lines. The Village should institute a tree maintenance program to protect aboveground power lines from future damage. Work should be documented in a Village GIS.

Ensure Provision of Gasoline/Diesel Fuel during Emergencies

Gasoline and diesel supplies are essential during emergencies not only for residents, but for emergency service providers and key Village personnel. Fuels are essential for vehicles, generators, and power equipment. The Village should install emergency fuel storage tanks for use during disasters.

Natural and Cultural Resources

It was clear from Hurricane Katrina that natural systems play a critical role in the protection of coastal communities. Vast acres of Gulf coast wetlands were lost in the decades before the storm and the protection they offered New Orleans and the other communities was severely degraded. Long Island faces a similar situation. Some of Long Island's south shore communities were constructed on former wetlands. Portions of the coastline have been hardened by bulkheads causing wetlands to diminish and in some cases disappear. Space must be available for landward migration for wetlands to survive rising seas or they will 'drown'. Wetland migration is not possible along bulkheaded shores and in areas where no natural buffer exists between the homes and the water. It may be prudent in some areas to replace degraded bulkheads with more natural shoreline treatments. Green infrastructure can help mitigate the effects of stormwater on coastal resources and can provide storage that doubles as public or green space.

Natural and cultural resources can play a very large role in the future of Mastic Beach and Smith Point of Shirley. They are important during storms as they reduce the velocity of waves and thereby lessen inland damage. Wetlands also filter the stormwater that runs off the peninsula, cleansing it before it enters the Great South Bay. But the wetlands of Mastic Beach and Smith Point of Shirley offer more than storm protection and the treatment of runoff.

The wetlands and the creeks and coves they share are also what make this shoreline beautiful and attractive to residents and visitors alike. The Committee and public share the understanding that the waterfront is what makes this community special. It is also the asset that could drive an economic revival. Many of the community's needs and opportunities and the strategies that derive from them revolve around their natural resources. They are described below.

Restore and Protect the Wetlands, Creeks, and Beaches

As key environmental and economic assets, the waterfront must be protected. Areas that have been damaged by storms, flooded by sea level rise, and overtaken by invasive plants must be restored and then protected. Wetlands should be replanted with native non-invasive species. A strategy should be developed for the management of ditched wetlands. Sand should be restored to the beaches. Wetlands are protected by State law and managed by the NYS Department of Environmental Conservation.

Acquire Key Extreme Risk Area Parcels Adjacent to Wetlands

The Village should identify properties for potential acquisition that are adjacent to State-regulated wetlands and inside the extreme risk area. These should be placed into public ownership or conservation easement for wetland expansion, flood protection, public access, or specific recreational use.

Restore Beaches

Additional water access should be provided that is protective of wetlands. Boardwalks can be constructed over wetlands that connect to piers in open water. These can offer both passive and active recreational opportunities.

Enhance Public Access to and Uses of the Waterfront

The waterfront is not only an important environmental asset, but an economic asset as well. The Village should identify and acquire title to, developments rights or easements for key properties that would increase public access to the waterfront for water dependent recreation such as fishing, swimming, kayaking, and other boating. Such properties could create a 'green zone' along the waterfront (6.5 miles of shoreline plus adjacent public parcels) for environmental preservation and outdoor recreation. A 'green zone' trail network could then be established along the waterfront through the wetlands and along the coves and creeks of Mastic Beach and Smith Point of Shirley. Such a trail could ultimately connect the Wertheim Preserve on the west to the William Floyd Estate on the east. Development rights purchased in the green zone could be utilized to incentivize development in the downtown.

Develop a Network of Kayak Trails

The creeks and wetlands of Mastic Beach and Smith Point of Shirley are ideal for kayaking. So too is the Carmans River and the creeks of the Forge River. Such a 'blueway trail' could connect to other water trails under development in Great South Bay.

Develop a Network of Bicycle Trails

The Mastic Beach and Smith Point of Shirley area is quite flat and experiences minimal automobile traffic. As such it is ideal for bicycle use. The Village should identify safe, interesting, and attractive on-road and off-road bicycle routes. These should be connected to destinations like Wertheim National Wildlife Refuge on the west and the William Floyd Estate on the east.

Acquire Parcels to Support Recreational Uses

Other parcels should be acquired to provide parking for bicyclists, kayakers, and other recreational users. One or more parcels should also be acquired for use as a camper park. These facilities are very popular and can be developed to have minimal impact on the environment and surroundings. If properly selected, some of these recreational support parcels could also function as stormwater storage locations during storm events.

Dredge Creeks and Canals

Creeks and canals should be dredged and their banks stabilized preferably with non-structural measures. Leaf fall and sediment deposition from stormwater runoff have accumulated in these waterbodies. Anoxic sediments, reduced flushing, and high temperatures from shallow water depths have degraded water quality. Dredging can improve water quality and at the same time improve navigation and restore recreational uses. The Village should prioritize the canals and creeks for dredging.

Reduce Stormwater Pollution in Local Waterways

Proper stormwater collection and treatment are critically important to the protection of the wetlands and open waters of the peninsula. The Village should construct green and engineered stormwater collection and treatment systems (see infrastructure).

Acquire Properties for Stormwater Storage

The Village should identify potential stormwater storage locations to reduce flooding by increasing infiltration. Some of these areas might be used for outdoor recreation and as gathering places during dry weather. Tidal flow check valves should be installed in the piped stormwater system to prevent back flow onto streets during storms and high tides.

Reduce Wastewater Pollution in Local Waterways

Cesspools and septic systems (onsite wastewater treatment systems - OWTS) are utilized throughout Mastic Beach and Smith Point of Shirley. Many of these were installed long before current County Health Department regulations were put into place. Installation of these systems in low elevation, high groundwater locations is problematic. Pathogenic bacteria and high nitrogen loads from these systems enters groundwater and travels to creeks, coves, and the open waters of Narrow Bay, the Forge River, and the Carmans River for discharge. Pathogenic bacteria are a public health concern for swimming and shellfish harvesting. The nitrogen degrades water quality.

The Committee identified sewering as a high priority solution to these issues. The Village has taken the first step by engaging an engineering firm to study sewering options. Sewering is discussed further in the infrastructure section.

Acquire or Lease and Restore Key Historic Structures

Mastic Beach and Smith Point of Shirley was settled first in the 1920s and 1930s. Some of those structures are still standing and could be restored as museums, for commercial use, or as bed and breakfast establishments. The Village should map these structures in a GIS and assist their owners identify funding for their restoration or adaptive use.

Integrate Key Historic Properties into the Local Economy

Mastic Beach and Smith Point of Shirley are fortunate to have two significant historic properties that reflect the area's heritage. The 616-acre William Floyd Estate is part of the Fire Island National Seashore and is located on the east side of the community. The 113-acre Manor at St. George is owned by the Town of Brookhaven and managed by the trustees of the Smith estate. It forms the northwestern edge of the community.

The Committee identified an opportunity to better utilize these properties to draw visitors to the Mastic Beach and Smith Point of Shirley area for cultural tourism. They also suggested that the sizes of these properties might make them suitable for other activities like crafts fairs that would generate revenue for the sites and attract visitors to the area. The additional revenue would help ensure that these cultural landmarks are maintained. The additional visitors could help sustain the local economy.

Utilize Parks for Waste Management Following Storm Events

Solid and hazardous waste management is important for storm recovery. Specific parks should be designated for such use prior to an event as part of a disaster management plan (see appropriate section).

Develop Community Gardens

Community gardens are a well-developed mechanism for preserving and enhancing community cohesiveness and helping to ensure the provision of healthy food to residents. The Village should acquire, swap, or lease one or more properties for a community garden. A member of the Committee suggested the use of a portion of the Bayview Hospital property.

Construct a Community/Cultural Center

Many communities utilize their schools or libraries as community centers. A separate facility dedicated to community functions and cultural activities can become a valuable asset. The same facility if constructed according to FEMA guidelines could serve as a community shelter (see Infrastructure section). Such a facility should be located in the 'downtown' to activate the area and help support the business community. Residents attending events in the community center might patronize food establishments before or after an event. They might purchase gifts for event participants. The Village should identify the requirements and functions of such a center and try to locate it in the downtown.

Economic Development

A number of the communities experienced economic downturns during the recession. Most, like Mastic Beach and Smith Point of Shirley had not recovered when the Sandy struck. The NYRCR Final Plan is an opportunity for these communities to plan a strategy for economic recovery that addresses core economic issues like workforce development, business retention, attraction of new business, land use and zoning regulations, and the infrastructure needed to support economic development.

Economic strategies are perhaps the most critical element of a successful recovery. Communities rely on area businesses for employment, for goods and services, and for the tax revenue they bring to support municipal and school district services. Communities also depend on their local businesses for the recreational and cultural life that comes with an active and thriving downtown.

Mastic Beach and Smith Point of Shirley has a commercial district along Neighborhood Road and Mastic Road. The Committee and the public recognized that successful local economic development requires an identifiable 'downtown.' Specific types of businesses can be concentrated in a downtown to attract people and other businesses. Specialty businesses unique to 'downtown' Mastic Beach will attract visitors and other businesses that rely on foot traffic.

Adopt a Downtown Zoning Code

The 2008 Town of Brookhaven *Community-Based Vision and Revitalization Plan for Neighborhood Road & Mastic Beach and Smith Point of Shirley Road* (see Section 4, Prior Studies) identified Neighborhood Road from William Floyd to and including the Commack Road/Neighborhood Road/Mastic Road triangle as a 'Main Street Business District.' The NYRCR Committee and public confirmed that this area remains the best location for a 'downtown.' The Village should adopt a zoning code for the parcels in this district that would permit a mix of land uses similar to the Town's J6-Business District.

Improve the Appearance of the Downtown

Visitors and residents alike are attracted to a visually pleasing downtown. The pedestrian experience must be safe, easy, and unique. A façade improvement program should be instituted to encourage a theme with materials, colors, textures, and other architectural features. The Village should adopt architectural design guidelines for the downtown. Signage should be managed by code.

Provide Development Bonuses through TDR Purchases

New downtown development will be realized more quickly if incentives or bonuses are offered. The Village should initiate a Transfer of Development Rights (TDR) program (see Natural & Cultural Resources section) that incentivizes downtown development and 'green zone' preservation. Development rights purchased from 'green zone' properties would be transferred to 'downtown' parcels. Developers purchasing TDR credits would be allotted bonuses. These bonuses would be defined in the Village code and could include additional density, height, parking or setback requirement relaxation, or other incentives.

Direct New Commercial Activity to Downtown

Downtown revitalization will be more successful if new businesses are directed to the downtown by code and incentives. The downtown must compete with Montauk Highway businesses and regional commercial centers. The Mastic Beach downtown must therefore be unique and physically concentrated in a single area to encourage visitors and residents to park their cars and browse the stores. Mastic Road should be developed for commercial uses other than 'neighborhood businesses' so as not to compete with a revitalized 'downtown' (see below).

Designate William Floyd Parkway and Mastic Road as 'Transitional Zones'

The Town of Brookhaven recognized that successful development of downtowns and hamlet centers requires directing development away from strip and highway commercial. The Town created the J Business District for 'transitional' uses that would "*serve as scenic gateways to the business districts of...communities.*" Typical uses would be offices, community or daycare facilities, religious institutions, schools, non-profit centers, farm stands, two-family dwellings, etc. The Village should develop a 'transitional zone' code for Mastic Road and should work with the Town to similarly rezone portions of William Floyd Parkway. It should also adopt architectural design guidelines for the 'transitional zone.'

Identify Viable New Business Types for the Downtown

It is important to understand which types of businesses might be successful in a revitalized Mastic Beach downtown. A market study should be prepared that identifies the types of commercial uses that could locate successfully in the downtown. The study would factor in area demographics, disposable income, existing and existing commercial activity to determine the right mix for the downtown.

The study might also suggest potential commercial uses for various vacant properties such as the Associated Supermarkets building and others. The market study described above should be expanded to include an examination of niche business opportunities and creation of Mastic Beach and Smith Point of Shirley 'brand.'

Develop Unique Attractions and a Market Niche

What makes a place special is what makes it unique. People want to go to places that offer attractions unavailable elsewhere and a comfortable and attractive ambiance that has a different and identifiable character.

Unique attractions were discussed including hot air balloon rides, which are unavailable anywhere else on Long Island, would offer a spectacular view, and would have minimal or no environmental impacts. Permitting of food trucks at key waterfront locations would be appealing to many visitors. An affordable seaside community like Mastic Beach and Smith Point of Shirley could attract artists. The Village should consider zoning a portion of the community to permit the kind of live/work units that would be attractive to artists.

Develop Entry Zone to the Downtown

The entry to downtown Mastic Beach is ill defined. A revitalized downtown needs a distinctive entry to welcome visitors. The Village should develop a plan for the triangle of properties formed by William Floyd Parkway, Neighborhood Road, and Havenwood Road. The Neighborhood Road segment could be abandoned leaving Havenwood Road as the primary entry to the community.

Provide Additional Downtown Parking

Adequate parking is a requirement for a successful downtown. Large fields of asphalt, however, are not attractive. Numerous smaller lots, on-street parking, and shared lots can be solutions. The Village should conduct a parking and pedestrian/vehicular circulation study to identify the needs and opportunities for municipal and shared parking and recommend parking requirements for the new Main Street Business District. Parking relaxation incentives should be included in the study.

Provide Space for Public Events and Gatherings

The downtown should also be the place where residents and visitors gather. Public spaces should be provided for events, gatherings, and just sitting. Events could include farmers' markets, craft fairs, etc. The Village should identify and acquire properties for such uses. It should also provide attractive wide sidewalks to draw pedestrians.

Connect the Downtown to the Waterfront

The downtown and the waterfront are critically important to each other. Visitors enjoying waterfront recreation and natural features will want to shop and dine in the downtown. Downtown visitors will want to take advantage of the natural and cultural attractions of Mastic Beach and Smith Point of Shirley.

The first step would be to connect the downtown along Neighborhood Road to the headwaters of Pattersquash Creek. A park at this location could then connect to a pedestrian and bicycle corridor along the Creek to the green zone of the waterfront.

Integrate the Historic Attractions

The downtown is located between two significant historic attractions – the William Floyd Estate and the Manor at St. George. These attractions should be promoted in the downtown and elsewhere. Downtown businesses might sponsor events at these attractions and if possible, downtown business information made available at the two attractions.

An additional entrance to and exit from the William Floyd Estate could be constructed onto Neighborhood Road to make it easier to access the downtown commercial district from the historic site. The Village should work with the National Park Service to implement this access way.

Connect Visitors to Fire Island

Visitors would come to Mastic Beach and Smith Point of Shirley to connect to the ocean beaches of Fire Island. The Village should explore the economic feasibility of restoring a ferry connection to Fire Island to stimulate tourism. Ferry service may only be economically viable after other efforts have proven successful in attracting tourists to the area.

Explore the Feasibility of a Shellfish Hatchery

The Great South Bay was a very productive source of oysters and especially clams for decades through the 1970s. The decline in shellfish populations since then is unexplained. A public or private shellfish hatchery would be an appropriate waterfront use if and when production returns. The hatchery could provide seed for a shellfish aquaculture grow-out program on bay bottom leased from the Town. A hatchery could also be part of a nature center that would function as a tourist and educational attraction. The Village should investigate the viability of such a use and potential locations such as Violet's Cove and the Suffolk County Marina property.

Develop an Attraction on the County's Smith Point Property

The Committee and public agreed that the County's Smith Point Park would be an ideal location for a public marina, nature center, and restaurant with catering. It could also support boat and kayak rentals. The Village should work with the County to explore this opportunity.

Develop a Waterfront Restaurant and Marina at Violet's Cove

Violet Cove remains as one of the few locations on the waterfront that may be appropriate for a new restaurant and marina. It is important to the successful use of the waterfront that this location is developed in a manner consistent with the Village's vision for the waterfront. The Village should therefore acquire the property at Violet's Cove and lease it to a private venture with stipulations for its use, appearance, and maintenance.

Acquire Parcels for Waterfront Recreation

The Mastic Beach and Smith Point of Shirley waterfront is and should remain primarily natural. However, there are already disturbed parcels along the waterfront that could be utilized for public access and recreation. Access is important for residents (especially young people) and visitors alike. The Village should identify and acquire parcels appropriate for uses such as fishing, swimming, and boating access.

Promote Natural, Recreational, and Historic Attractions

Visitors will come to the attractions of Mastic Beach and Smith Point of Shirley, but only if they are aware of them. The Village should develop a marketing campaign to attract day visitors, vacationers, and city second home owners to the peninsula. A portion of the campaign should be devoted to attracting young Long Islanders to an affordable area for visits, vacations, and even residence. The Village should coordinate with the Fire Island National Seashore, the William Floyd Estate, the Town of Brookhaven and Suffolk County to create a package of visitor information and incentives for distribution on Long Island and at local businesses.

Encourage Establishment of Bed and Breakfasts

There are older homes in the community that might be converted into unique bed and breakfast establishments. These might encourage overnight visitation to the area to explore waterfront recreation, Fire Island, and the historic properties of the peninsula. The Village should incorporate bed and breakfast use and requirements into the Village zoning code. It might consider a graduated tax abatement to encourage these businesses.

Health and Social Services

One year post-Sandy, health and social service needs have not been completely restored. Many agencies and organizations that serve vulnerable populations suffered damage to their facilities. Others that may have been spared found their services and supplies severely taxed by the needs of storm survivors. Promoting the long-term health and wellbeing of Sandy impacted populations requires an examination of the services currently available to communities including its most vulnerable populations. Health and social service providers should be able to continue to provide services during and especially after future storm events. Adequate services should be available to all communities.

Expand Medical and Emergency Services

The nearest hospital is Brookhaven Memorial Hospital Medical Center located 11 miles from the center of Mastic Beach in Patchogue. The Medical Center operates the South Brookhaven Health Center East on Montauk Highway in Shirley. The Health Center is operated as a Community Health Partnership between the Medical Center and the Suffolk County Department of Health Services. It offers primary health services. The Committee and public felt that additional and closer medical and emergency services would be beneficial. The Village could attract a medical clinic or office to Mastic Road by offering tax incentives or by leasing Village-acquired property at below market rates.

Increase Resiliency of Essential Health and Social Services

Residents must be provided with safe emergency shelter and essential services during and after future storms. The Village should identify locations for one or more community storm shelters. These must be constructed or reconstructed to meet FEMA and Red Cross requirements. One of the William Floyd School District buildings might be adapted for use as a shelter, although it is inside the moderate risk area and outside the Mastic Beach and Smith Point of Shirley NYRCR area. The Committee also suggested that the 'Links' might be a location for a shelter. The Village should pursue potential shelter options and may be able to secure FEMA funding for construction.

Develop Community Parks, Playgrounds, and Gathering Places

Places for gatherings and play are important not only to the economy of the community, but also to its health and wellbeing. There are vacant properties in the community that might be appropriate for these uses. There are also abandoned homes, properties in foreclosure and bank ownership and others in municipal ownership due to unsatisfied tax liens. The Village should identify and acquire sites throughout the community that would be appropriate as pocket parks, plazas, and playgrounds. The identification process should be coordinated with the effort to identify properties for stormwater storage and treatment (see discussion in Infrastructure and Economics sections). The Army Corps of Engineers has also identified properties in the extreme risk area that it will acquire for risk reduction purposes. Some of those properties should be examined for their suitability as public parks, playgrounds, or plazas.

Provide Procedures and Standards for Mold Remediation

In the days and weeks following the storm, mold proved to be a serious health issue. Committee members relayed stories of mold covered walls covered with new sheetrock in the hurry to rebuild. It is vitally important to public health that Health Department approved procedures are mandated for mold remediation. The Village should include a requirement for a mold remediation inspection for structures applying for a building permit for after flood damage.

Improve Communication During and After a Storm Event

The public and Committee agreed that communication was a critical requirement during and after the storm. The Committee suggested identifying and publicizing a message center location would be valuable. The Village should consider whether its new Village Hall might serve such a function or whether another location would be more suitable. The Village should also acquire a phone messaging and texting system to quickly communicate with its residents. It should also establish a system where 'block captains' can report very local conditions during an emergency.

Stage Vital Emergency Supplies within the Community

Emergency supplies were difficult to acquire immediately following the storm. The Village could stockpile ready-to-eat meals, drinking water, and other emergency supplies for use by emergency workers and the most vulnerable in the community. The Village should work with local non-profits, such as the Red Cross, to identify these supplies.

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This preliminary list of strategies will be refined in the coming months as the planning process continues. Some strategies may be expanded, others changed or deleted. All remaining strategies will be associated with one or more projects.

9. Preliminary Projects

The next critical step in the planning process is the identification of potential projects. The Committee will ultimately consolidate the list of strategies to those that are most needed and best suited for Mastic Beach and Smith Point of Shirley. Building on the assets, needs and opportunities identification effort undertaken earlier, the Committee will develop a complete list of projects from those core strategies. As of this writing, the Committee identified the following preliminary projects based on discussions of assets, needs and opportunities. The projects previewed here appear to have broad agreement among Committee members. Inclusion of these projects in the Conceptual Plan does not guarantee their recommendation in the final plan. Nor does it preclude the inclusion of alternative or additional projects going forward. The strategies and projects contained herein are preliminary and will continue to be developed, expanded upon, or in some instances, eliminated from consideration. The Committee will continue to refine its list of strategies and resiliency projects in the coming months. Projects will be identified in each of the recovery functions.

Sewer Downtown Mastic Beach

Project Categories: Infrastructure; Economic Development

Project Location: Parcels adjoining Neighborhood Road from William Floyd to and including the Commack Road/Neighborhood Road/Mastic Road triangle.

Project Description: Designate a 'Main Street Business District' as the downtown where new businesses will be directed. Rezone the downtown to allow a mix of uses and sufficient density to attract new development. Conduct an engineering study to determine future wastewater flows based on the zoning chosen for the downtown. Prepare an engineering design for a collection system and treatment plant to serve the properties of the Main Street Business District. Design the treatment plant for sufficient capacity to incorporate flow from the low-lying, high groundwater residential areas and key commercial properties. A sewer district would need to be formed that included at least the downtown if not all of the southern portion of the Mastic peninsula. The project (and the sewer district) should be coordinated with the other area sewering efforts.

Project Benefits: Sewering of the Mastic Beach downtown will allow the kind of uses and densities necessary to attract developers. Certain uses such as cafés, restaurants, pubs, apartments, medical clinics, and bed and breakfasts generate wastewater flows that exceed the capacity of onsite systems and therefore require sewers. These are the types of uses needed to stimulate the development of Mastic Beach's downtown. The downtown is important to local residents as well as the tourists the community wishes to attract. A successful downtown will also help generate the tax revenue the Village needs to provide and maintain the public services that will draw tourists and additional businesses.

Implementation Time Line: A zone change and the associated SEQRA process could be completed within a year. A feasibility study for this project could be completed within 12 to 18 months. The engineering design would require another 18 to 24 months. Implementation may require as much as another three to five years due to the approvals required.

Next Steps: As strategies and projects are refined, the Committee will begin to prioritize potential projects. Once a firm direction is established a more detailed feasibility assessment, scope and funding strategy for the project will be developed along with potential costs. A cost benefit analysis will be undertaken and based on the outcome as well as it's comparison to other potential projects, the Committee will determine whether to proceed with this project or not.

Connect the Downtown to the Waterfront

Project Categories: Natural & Cultural Resources; Economic Development

Project Location: Neighborhood Road to the headwaters of Pattersquash Creek at Bayview Park and along one side of the Creek to public properties along the waterfront.

Project Description: The sidewalks east of the firehouse should be widened to match those to the west and improve the pedestrian experience. The downtown can then connect to a new passive park at the headwaters of Pattersquash Creek (south side of Neighborhood Road). The park should be a passive park that highlights the native vegetation, topography, and aquatic environment. The park would connect to a pedestrian along the east side of the Creek and then to a pedestrian and bicycle trail along the unpaved portion of West Riviera Drive at Dogwood Road. From there the trail would continue along the waterfront ultimately all the way to the William Floyd Estate on the east side of the mastic peninsula.

Project Benefits: The downtown and the waterfront are critically important to each other. Visitors enjoying waterfront recreation and natural features will want to shop and dine in the downtown. Downtown visitors will want to take advantage of the natural and cultural attractions of Mastic Beach and Smith Point of Shirley.

Implementation Time Line: A conceptual design for the project could be completed within 6 to 12 months. Engineering design would require another 9 to 12 months. Permitting and approvals would be required prior to construction. The implementation schedule will depend on property acquisition and easements and on the type of trail selected (*i.e.,* natural, gravel, paved, other). The project could be completed in phases.

Next Steps: As strategies and projects are refined, the Committee will begin to prioritize potential projects. Once a firm direction is established a more detailed feasibility assessment, scope and funding strategy for the project will be developed along with potential costs. A cost benefit analysis will be undertaken and based on the outcome as well as it's comparison to other potential projects, the Committee will determine whether to proceed with this project or not.

Acquire Properties for Stormwater/Public Use

Project Categories: Infrastructure; Natural & Cultural Resources

Project Location: Selected parcels throughout the community.

Project Description: This project can provide one solution for two issues. Mastic Beach and Smith Point of Shirley would benefit from neighborhood pocket parks, larger Village-wide parks, and downtown plazas or public spaces. These same parcels could also provide stormwater storage during rain events if specifically designed to do so. There are numerous vacant parcels in the community that might be well positioned as both parks/plazas and storage facilities. Rain gardens and bio-retention areas can be designed as aesthetically pleasing attractions that also provide stormwater storage, treatment, and infiltration. Public plazas can serve as gathering places and during storms as storage areas. When properly designed, stormwater will dissipate in less than 24 hours.

Project Benefits: An active downtown needs gathering places and public plazas for events such as farmers' markets and art/craft fairs. These spaces would be used by residents and visitors alike. Neighborhoods need parks for children to play and their grandparents to gather. The community as a whole also needs spaces to store rainwater during storm events to reduce flooding.

Implementation Time Line: A conceptual design for the project could be completed within 6 to 12 months that identified appropriate parcels for potential acquisition along with park or plaza concepts. Acquisition would require funding and legal work. Following acquisition, the engineering design timeline would depend on the number of parcels involved, but would likely require 12 to 18 months. Permitting and approvals would be needed prior to construction. The project could be completed in multiple phases.

Next Steps: As strategies and projects are refined, the Committee will begin to prioritize potential projects. Once a firm direction is established a more detailed feasibility assessment, scope and funding strategy for the project will be developed along with potential costs. A cost benefit analysis will be undertaken and based on the outcome as well as it's comparison to other potential projects, the Committee will determine whether to proceed with this project or not.

Acquire Violet's Cove Property for Recreational Use

Project Categories: Infrastructure; Natural & Cultural Resources

Project Location: Violet Road at Violet's Cove

Project Description: The property at Violet's Cove could be a unique waterfront restaurant and public marina with the potential for a small nature center and or shellfish hatchery, kayak and boat rentals. There may be an additional opportunity to introduce a passenger ferry to Fire Island. The proposed pedestrian and bicycle trail from Bayview Park along Pattersquash Creek could stop at the site, creating a connection to the downtown. The property includes a marina, a large main building and out buildings, all of which require updating. The Village might be able to acquire the property through a combination of grants and low interest financing and then lease it to an experienced concessionaire.

Project Benefits: This developed waterfront property is an economic opportunity for Mastic Beach and Smith Point of Shirley to attract tourists and residents to a waterfront restaurant and public marina with other water dependent and related recreational activities. A public purchase and lease arrangement could create a long-term revenue stream for the Village.

Implementation Time Line: A market analysis is needed to determine the economic potential for the facility as a restaurant and marina with amenities that might draw tourists. The analysis would help determine the value of the site to a potential operator. Assuming that an acceptable purchase price could be negotiated and a potential lessee found, the implementation would be dependent the availability of grant and loan financing. The success of such a facility will be enhanced as other improvements are made to the natural areas of the waterfront including beach and wetland restoration.

Next Steps: As strategies and projects are refined, the Committee will begin to prioritize potential projects. Once a firm direction is established a more detailed feasibility assessment, scope and funding strategy for the project will be developed along with potential costs. A cost benefit analysis will be undertaken and based on the outcome as well as it's comparison to other potential projects, the Committee will determine whether to proceed with this project or not.

Improve Emergency Evacuation Options

Project Categories: Infrastructure; Community Planning & Capacity Building

Project Location: Several locations within and outside the NYRCR

Project Description: Flooded roadways made emergency evacuation difficult in Mastic Beach and Smith Point of Shirley. Key roadways in the extreme and high risk areas should be elevated while avoiding exacerbating flooding in adjacent properties. Evacuation by residents and access by emergency responders must be improved.

Additional railroad crossings should be added and existing crossings improved to facilitate more rapid evacuation and easier access to the community by emergency responders. Access to the nearest hospital (Brookhaven Medical Center) would also be improved. Signage should be added identifying emergency evacuation routes and routes to the nearest hospital.

Project Benefits: Better access to the community and out of the community is critically important during storm events and other disasters. Visitor access would also be improved. Travel to and from work by residents would be shorter.

Implementation Time Line: A transportation analysis is needed to determine the most appropriate locations for evacuation routes, road elevations, connections to area arterials, and additional rail crossings. Such an evaluation could be completed in 12 months. The implementation timeline would be dependent on the various state, county, and railroad approvals needed, whether additional right of way is needed and available funding.

Next Steps: As strategies and projects are refined, the Committee will begin to prioritize potential projects. Once a firm direction is established a more detailed feasibility assessment, scope and funding strategy for the project will be developed along with potential costs. A cost benefit analysis will be undertaken and based on the outcome as well as it's comparison to other potential projects, the Committee will determine whether to proceed with this project or not.

10. Potential Regional Issues and Concerns

Many of the Island's hamlets and villages share similar challenges and opportunities relative to their resilience to climate change and future storm events. To obtain input regarding larger issues important to the community, a sampling of potential town-wide and regional issues was presented to the community during public outreach events. Community members were asked to agree or disagree with some regional project ideas. The public indicated their preference by placing a thumbs-up or thumbs-down sticker on large display boards. NYRCR Committees were also asked to provide feedback related to regional projects. Following are regional issues under consideration in the Mastic Beach and Smith Point of Shirley community.

Community Planning & Capacity Building

Update Regional Hazard Mitigation Plan to Address Local Issues

The Suffolk County Hazard mitigation Plan will be updated in the next one or two years. The Plan should include references to the major needs and opportunities and strategies/projects of the NYRCR communities.

Publicize the Services of the Suffolk County Office for the Aging

The elderly are often the most vulnerable residents of the community. The Suffolk County Office for the Aging has a service that allows the elderly or their care givers to register their locations so that they can be provided services during an emergency. The Villages, Towns, and libraries should include information on this service in their newsletters.

Infrastructure

Bury Key Utilities

Major roadway improvements to ensure emergency vehicle access and functioning evacuation routes

Expand Availability of Natural Gas Service

Natural gas connections should be expanded into new areas to decrease the reliance on fuel oil for heating. Such an effort could eliminate many aboveground and underground storage tanks that were found to leak during storm events.

Bury Key Utilities

Priority electric lines should be identified for burial. Those would be lines that supply power to critical facilities and those that house vulnerable populations. Examples of critical facilities would include police and fire stations, village and town halls, and schools that serve as shelters. Electric lines that supply power to nursing homes and hospitals might also be buried.

Harden Key Utility Infrastructure

The Smarter Grid Research, Innovation, Development, Demonstration & Deployment (SGRID3) initiative is a collaboration between Stony Brook University and Brookhaven National Laboratory. It initially focused on the development and deployment of new smart grid technologies as a mechanism to reduce energy and associated costs to consumers. The focus of the effort changed in the wake of Superstorm Sandy to autonomous control capabilities that when employed would make Long Island's grid more resilient during and after storm events.

Protect Potable Water Wells

Drinking water supplies must be protected. Thus, the wells, pumps, and electric panels that are part of the water supply must be protected from flooding.

Provide Resilient Cellular Service

Loss of cellular phone service during and after the storm was a serious and even dangerous problem. Cellular service providers should be required to provide backup power to their antenna sites that are vulnerable to storms. On-site emergency generators should be required and all electrical equipment should be located well above base flood elevation.

Investigate the Feasibility of Movable Inlet Barriers

Even with a completely restored dune system, the ocean inlets provide an entry for ocean surge during storms. The inlets could be closed just in advance of storms to keep the surge out of the Great South Bay and Shinnecock Bay. Such barriers are in place in other parts of the country and the world. Although such barriers would be expensive, they would protect billions of dollars of economic assets. A hydrologic, engineering, and economic feasibility study should be initiated to determine whether such a system of movable barriers across the five ocean inlets of Long Island would be cost effective in protecting the south shore of Long Island.

Natural and Cultural Resources

Dredge and Maintain Moriches Inlet

Moriches Inlet is critically important to the health of Great South Bay and to its recreational and commercial use. Tidal exchange between the Bay and the ocean is needed to maintain water quality. Dredging increases the volume of water that can be exchanged in a single tidal cycle.

Dredging is also important to boating. Dangerous currents are more common in a shallower inlet. This is a serious problem for both recreational vessels and the commercial vessels that utilize the inlet. The inlet is used by pleasure craft as well as commercial fishing vessels. An inadequately maintained inlet also makes it dangerous or impossible for rescue vessels to pass during normal weather and especially during bad weather.

Restore the Barrier Island Dune System

Long Island's barrier islands protect the south shore from storms. That protection is severely diminished when the dune system is inadequate. The dunes must be sufficiently tall and wide to withstand the most severe storms. The system must be unbroken between inlets or storm water will pass through the breaks. The Mastic Beach and Smith Point of Shirley Committee supports the efforts of the Army Corps of Engineers to restore the dunes from Fire Island to Montauk Point (FIMP project).

11. Overview of Public Engagement to Date

Public Engagement Strategy

A significant component of the NY Rising Community Reconstruction Program involves the exchange of information between the Committee, the NYRCR Consulting Team, and the public to identify appropriate strategies and projects that are likely to carry community support. The public includes area residents, employees, civic groups, neighborhood and homeowner associations, environmental and other interest groups, business interests, governmental agencies, educational, medical, religious, and other institutions, the media and elected / appointed officials.

The Public Engagement Strategy will:

- Establish means, engage, and facilitate information-sharing with the public throughout the development of the NYRCR Final Plan.
- Educate the public and elicit public comments and suggestions regarding all aspects of the Plan within the NYRCR planning area.
- Employ outreach techniques that will allow for collection and coordination of public communication and comments.
- Reach out to groups that might normally be underrepresented in a planning study, such as minorities, Spanish-speaking residents, low-income residents, seniors, youth, and the disabled.

Outreach Techniques for Disseminating and Receiving Information

Committee Members/Meetings

All Committee meetings are open to the public. Meeting dates and times are posted on the NY Rising website, which can be found at http://stormrecovery.ny.gov/community-reconstruction-program. For each committee meeting, notifications are sent and meeting materials are prepared. They include agendas, sign-in sheets, minutes, comment log, PowerPoint presentations, graphics/boards, and handouts. The Public can comment on the work of the Committee by filling out a comment form available at each Committee Meeting. Minutes are prepared for all meetings and copies distributed to Committee Members and New York State. Minutes of the Committee Meetings and public engagement events are available on the state's website.

Public Engagement

While the Committee represents the interests of many, it is important to provide opportunities for the public to participate in the development of the NYRCR Final Plan. While the primary vehicle is public engagement events, additional outreach opportunities for comment are provided at different venues in the Planning Area and through the NY Rising website - http://stormrecovery.ny.gov/community-reconstruction-program.

Public Engagement Events

Each public engagement event includes a presentation of work done to date and an opportunity for attendees to provide feedback. The NYRCR Consulting Team provides the following for each meeting: public notice (including press releases, announcements, individual mailings, and other appropriate means), outreach to underserved communities and displaced stakeholders, information gathering from those attending, and the collection and inclusion of feedback into the ongoing planning process. A summary of each public engagement event is available in hard copy and electronically.

Public meetings are scheduled to coincide with major milestones. A good public involvement process educates, or brings people along, during the development of the Plan, so when it is time to implement the Plan, the public and the elected decision-makers have had an opportunity to participate in the decision-making process. Members of the public who are informed and engaged in the process are more likely to support a recommended course of action. Sign language interpreters can be provided upon request at public engagement events to accommodate the hearing impaired. Meeting materials are available in English and if requested, in Spanish.

Presentation materials are developed for each meeting that illustrate the key points of the information presented using plain language, graphics, simulations, etc. These are available following the meeting on the NY Rising website for download. An annotated summary of meetings are prepared and available for public distribution.

The process includes a series of four public engagement events:

1. To define the Community Vision prior to November 1, 2013
2. To report the asset inventory and assessment of risk to community assets prior to November 1, 2013
3. To present the conceptual NYRCR Final Plan prior to November 20, 2013
4. To present the investment and action strategies prior to January 31, 2014

Outreach for public engagement events: posting on state NYRCR webpage and other electronic media; ads in weekly print media when time and budget allows; flyers and posters at strategic locations throughout the community including libraries, community centers, and other centers of activity; e-mails and/or texts to lists available from chambers, civics, school district, churches, synagogues, and other community organizations. Outreach also includes requests to community organizations to post information on their websites. Phone calls are made to: elected officials and other key players in the local residential and business community and calls to each committee member to assist them with their outreach effort (e.g. calls/e-mails to their contacts and announcements at their meetings).

Each public engagement event is formatted as an open house that the public can attend during any part of the allotted three-hours. Stations are positioned around the room for the various topics. Committee members, municipal representatives, State planners and the NYRCR Consulting Team

staff each station to provide opportunity for the community to exchange ideas in a comfortable setting. This structure provides an opportunity for each attendee to work within their own schedule and comment on all or some of the specific aspects of the process in a meaningful way.

As the project progresses, the public is presented with maps, a geographic scope, community assets, and a vision statement, needs and opportunities, strategies and projects that have been vetted and/or created by the Committee. The desired outcome of each public engagement event is to obtain the public's reactions and feedback to the Committee's work in order to incorporate their input. These comments will be compiled by the NYRCR Consulting Team and provided to the Committee in a clear and comprehensive manner. The Committee will review the public's feedback and incorporate it into the NYRCR Final Plan.

Although the meetings are advertised as events for the NYRCR planning process, community members attend who are more interested in assistance with individual property concerns. To accommodate these individuals at each public engagement event, tables are available in a separate area for State, FEMA, and NGO staff from the various intake centers to provide individual assistance. These community members are subsequently encouraged to participate in the NYRCR planning process.

Requests for Information

All requests for information will be acknowledged by the NYRCR Consulting Team within a week with a letter or email accompanied by the materials requested or by a referral to the state's website where the material can be downloaded. If a response to the request requires more than a week, the individual making the request will be contacted with an estimate of the anticipated delivery date. An offer will always be made to provide further assistance should it be necessary.

Website

The NY Rising website will serve as a repository for downloadable versions of all public information, meeting and event notifications. Posted materials include an overview of the planning process, reports, maps, and documents, summaries of public engagement events, notices of public engagement events, and contact information.

The website includes an area to accept public comment, as well as a section for Frequently Asked Questions (FAQs). All materials and information on the website is kept up to date.

Print and Broadcast Media

Study information is also disseminated through selected local, print, radio, and TV media to keep the community informed and to respond to media inquiries. A particular effort will be made to include publications, radio, and TV stations that target minority populations.

Outreach Techniques for Receiving Input

An important component of the outreach program is to understand public sentiment and to be able to answer questions and address public concerns. Several methods are provided for the public to make comments and ask questions. The NYRCR Consulting Team uses these comments to enhance and improve the NYRCR Final Plan. The team documents all comments received and adds them to the record. Comments are also reviewed by the Committee and the NYRCR Consulting Team.

Surveys (Optional)

A web-based survey tool may be used to gauge public opinion over a range of issues. The advantage of a survey is its potential reach to individuals that cannot or choose not to attend public engagement events. Surveys are restricted to one per email address to limit 'ballot stuffing.' The survey is an opportunity to get feedback on very specific questions. Surveys completed by the public that might not come to meetings can help balance the opinions of those that do attend.

Study Team Communication

The Study Team is also available to directly answer specific questions and receive comments. The primary contact for the Study Team is Vanessa Lockel, Community Reconstruction Program Suffolk Lead, New York Rising Community Reconstruction Program. Ms. Lockel can be reached at vlockel@stormrecovery.ny.gov.

E-Mail

E-mail comments and requests for information can be sent to the State's e-mail address at: info@stormrecovery.ny.gov. This email address is prominently displayed on all materials and the website so that it is widely disseminated and available for public use. The NYRCR Consulting Team monitors the e-mails and incorporates input and/or respond, as appropriate. The team will work with New York State to post comments or questions (with responses) that appear repeatedly to the FAQ page on the state's website.

Comment Forms

Comment forms are available at committee meetings and public engagement events/open houses and on the state's website to provide an opportunity for the public to contribute their thoughts, which are then passed along to the Committee and the NYRCR Consulting Team.

12. Next Steps

Strategies and Projects

The process undertaken by the Committee has focused on building towards the final development of a specific plan of projects and implementation strategies that will make Mastic Beach and Smith Point of Shirley more resilient. The strategies and projects presented in this NYRCR Conceptual Plan are in the early stages of development. They require input from specialists in several planning areas and input from the public in order to begin the process of narrowing down the options to the most feasible, most appropriate, most needed, as well as most desirable to the public.

A final list of strategies will be submitted to the State by November 30, 2013. The NYRCR Consulting Team will work with the Committee to expand the strategies with the greatest potential into projects, including detailed descriptions, cost estimates, and cost/benefit analyses. A final list of potential projects will be submitted to the State by December 31, 2013.

Consideration of the Implementation Structure

Project implementation will depend on its complexity, the institutional coordination required, and the necessity for environmental permitting. The intent of this program is to identify a range of projects, some of which that could be implemented within six months; others that could be implemented within three years; and still others that could be implemented over the long-term. Programmatic projects could be implemented quickly. Other projects could be implemented in phases based on risk, community desire, and relationship to critical asset. Mastic Beach and Smith Point of Shirley may be able to access a variety of funding sources if they address multiple resiliency issues or can provide benefits to multiple community assets. As projects are better defined and prioritized by the Committee and through public engagement, an implementation schedule will be developed to encourage the quickest and most efficient expenditure of resources for the Mastic Beach and Smith Point of Shirley community.

Technical Support

At present, the NYRCR Consulting Team is developing a format to engage multiple experts to discuss strategies and projects that would be most suitable for Suffolk County in general, as well as for each NYRCR community in particular. Based on Mastic Beach and Smith Point of Shirley's identified needs and preliminary list of strategies, expertise in the specified areas may be sought from the following entities (in addition to the specialist available on the NYRCR Consulting Team):

- Suffolk County Emergency Management
  - Evacuation routes
  - Fire prevention
  - Emergency management plans
- Suffolk County Police
  - Post-event public safety and looting protection
- Suffolk County Economic Development & Planning
  - Downtown development
  - Property acquisition
- Suffolk County Public Works
  - Flood mitigation on roads and from creeks and canals
  - Bulkheading and other shoreline structures
- Suffolk County Department of Health Services
  - Tidal wetland management
- Brookhaven Hospital
  - Post-event physical and mental health role in community
- FEMA Hazard Mitigation
  - Hardening of critical facilities
  - Methods to increase resilience of homes
- National Grid/PSEG
  - Expansion of natural gas connections
  - Information on clean energy alternatives
- Verizon/Other Telecommunication Utilities
  - Hardening of critical facilities
- NYS Department of Conservation
  - Permit streamlining
- US EPA
  - Green infrastructure stormwater management
- US Housing and Urban Development
  - Relocation out of hazard zones

NYRCR Final Plans will be refined as community needs evolve and as information is received from the organizations listed above and others. As potential projects and strategies are refined, engineers, planners, and other experts on the project team will be tapped to discuss the feasibility and cost of projects. Additional next steps may include an Island-wide webinar to address regional issues.

Recent and Upcoming Events

Rebuild by Design, Nassau/Suffolk Counties, New York: The Rebuild by Design event took place in early October 2013. This event provided an opportunity to showcase Long Island and to explore the potential for innovative projects in the area. Design teams from across the nation and the Netherlands toured Nassau County extensively and also spoke with first responders from Suffolk County. The experts felt that the feedback from Suffolk's first responders was invaluable in terms of strengthening their knowledge of resilient post-storm design as well as designing for practical and emergency situations.

Community Reconstruction Event, Albany, New York: Suffolk County communities were featured at this October 23rd event in Albany. Mastic Beach and Smith Point of Shirley Committee members and other Suffolk County NYRCR representatives were in attendance. The conference with Governor Cuomo was a unique opportunity to hear from State officials and other NYRCR communities.

Public Event #2: The NYRCR Consulting Team is currently engaged in organizing the format, logistics, and materials for the second public engagement event, tentatively scheduled for the second week of November. The event will offer an opportunity for the community to review and provide feedback on the contents of this conceptual plan.

Upcoming Milestones

- Complete public engagement events for presentation of Conceptual NYRCR Plan (November 2013)
- Submit final NYRCR Committee-accepted list of strategies to the State (End of November 2013)
- Complete public engagement event for investment and action strategies (End of January 2014)
- Submit final NYRCR Committee-accepted list of project and actions to the state (End of March 2014)
- Provide NYRCR Final Plans to State for review and approval (End of March 2014)

Photo Credits

All photos contained in this Conceptual Plan have been sourced from the NYRCR Consulting Team or Committee members with the following exceptions:
P. 1: Governor Cuomo photo provided by NYSDOS.
P. 7-8: Photos courtesy of the Mastics-Moriches-Shirley Community Library.

NY Rising Community Reconstruction Program