

The rest of Rockaway's commercial districts are limited to commercial overlays that limit commercial uses to those intended to draw from a more narrow, neighborhood level market area. These overlays are mapped in strips along major thoroughfares throughout Rockaway (see Map 4, inset).

Very little of Rockaway is zoned for manufacturing/ industrial use. These areas are limited to frontages along Jamaica Bay and adjacent to the transportation corridor leading eastward into Nassau County.

Rockaway also contains a large number of vacant properties. These properties are concentrated towards the eastern portion of the peninsula. Vacant properties range in size from small residential lots to large undeveloped parcels, including Arverne East, an 80+ acre site located between Beach 32nd and Beach 56th that is set for a large redevelopment process.

Residential & Mixed Use; Commercial; Industrial/MFG.

As can be seen in accompanying zoning map, the western half of the peninsula is zoned almost entirely for residential use, with industrial and commercial districts limited to the corridor around the A-train. Commercial and industrial land use reflects this zoning (or, perhaps, the zoning reflects this land use), as there is no industrial use and almost no commercial use west of Rockaway Park.

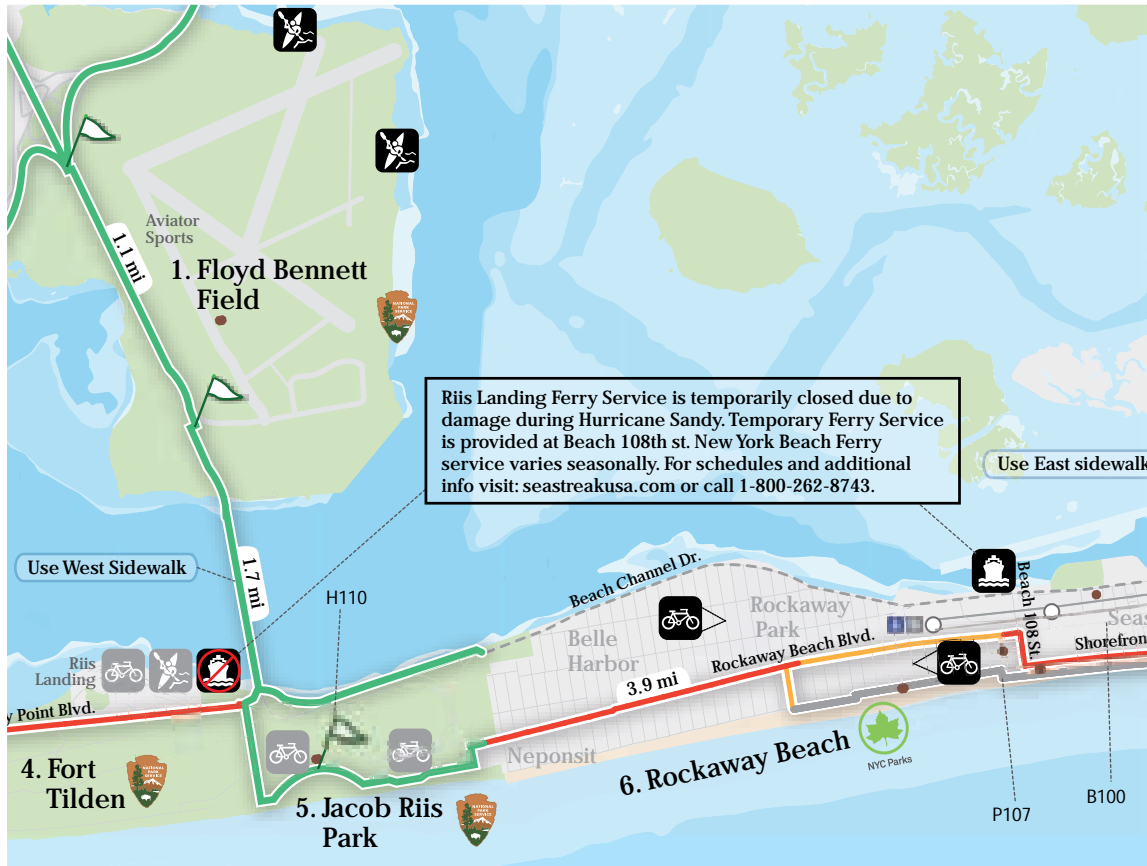
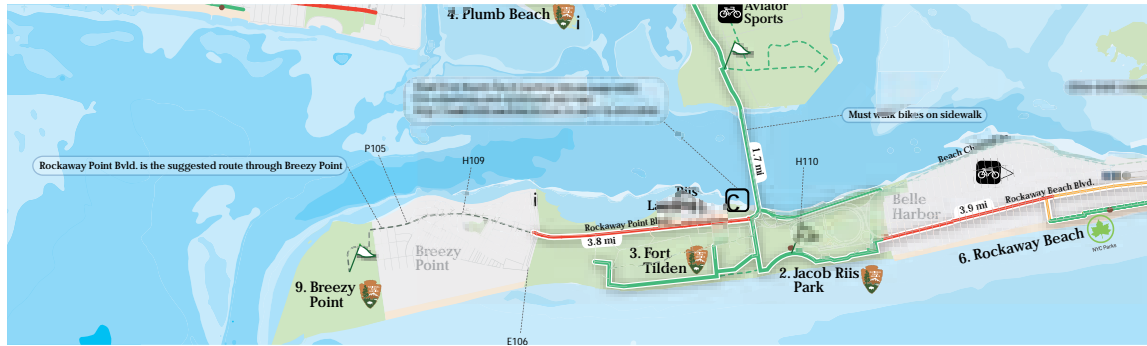
Parking Lots; Vacant Lots

Vacant land and parking lots are concentrated in the eastern half of the peninsula, particularly in Edgemere with the Arverne Urban Renewal Area

Figure 29:
The Rockaways: Map of parks & open space
(credit NYC DPR)



Figure 30:
 The Rockaways:
 Map of Jamaica Bay
 Greenway Before &
 After Sandy Highlighting
 Conditions of Boardwalk






and in the single-family home neighborhood immediately north of the A-train. This means that future development should be concentrated in this area, given that existing development impedes redevelopment in the western portion of the peninsula.

Building Typology

Within the Arverne area of Rockaway are four main housing types: historic and modern bungalows, garden apartments, Modernist style “tower-in-the-park” high rises, and mixed use low-rise brick buildings.

Generally speaking, Rockaway has a relatively low density of housing units. Most buildings have been developed with an FAR of less than 1.4, reflecting the preponderance of single-family homes on the peninsula. Included in this type of housing is the bungalow, a small, detached single-family home that is either single story or with a second story built into a sloping roof. The bungalow has been an iconic element of Rockaway’s building typology since the first units were constructed in the early 20th century. At the height of their popularity there were approximately 7,000 bungalows on Rockaway. Urban renewal programs in the 1960s led to the demolition of large swaths of these idyllic one-and-a-half story homes.





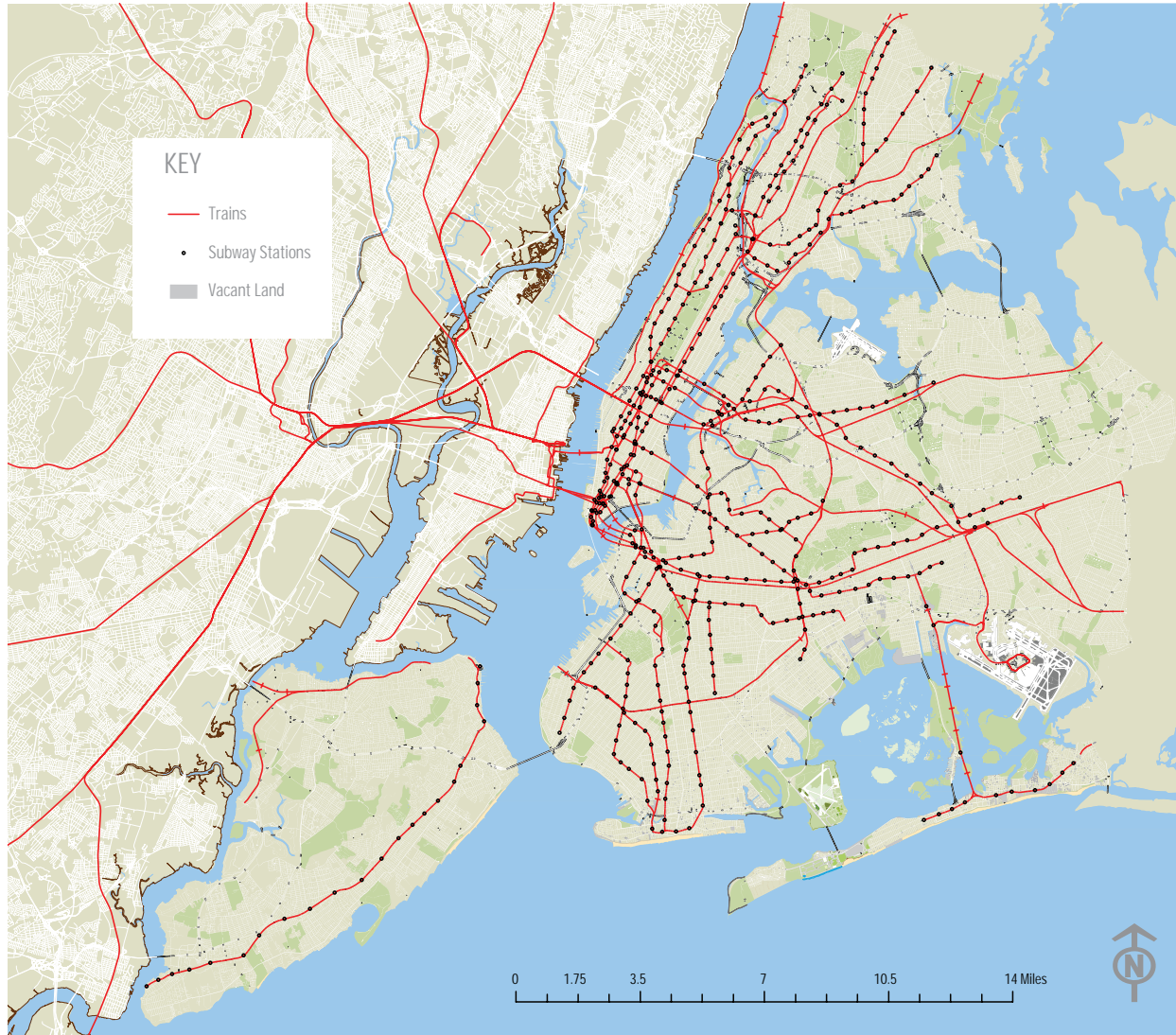
Today it is estimated that only 387 original bungalows remain. Many that remain have been renovated to include modern amenities. In addition to the bungalow, Rockaway contains large numbers of modern detached single-family houses. Constructed throughout the second half of the 20th century in a number of different architectural styles, these homes are found in higher proportions on western end of Rockaway, which is

defined by its low-rise and low-density development.

The density of housing units on Rockaway becomes greater as one moves eastward across the peninsula. Mixed-use low-rise buildings and garden apartments, constructed in the second half of the 20th century, begin to appear as one moves eastward, signifying the rise in housing densities. These mid-rise areas eventually give way to areas of much denser development where new multi-family developments and high-rise public housing projects developed during the urban renewal era of the 1950s and 1960s. (see History, above)

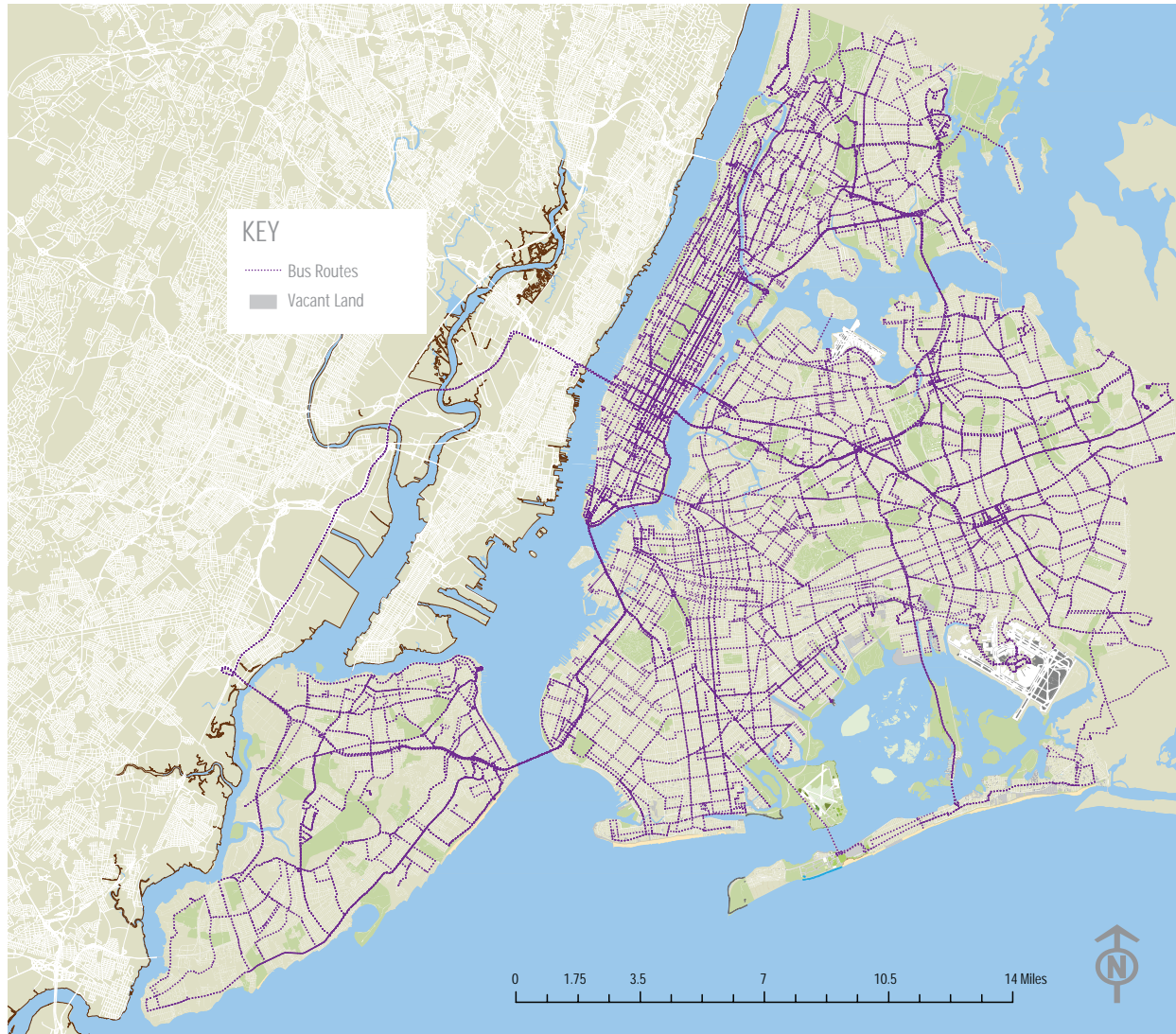
transversed throughout the eastern end of Rockaway are a number of new mid-rise and mid-density developments. As stated above, Arverne East, the

Figure 31:
The Rockaways: Map of Train Routes (regional)



subject site of an international design competition, is slated for a large, multi-phased redevelopment that will bring thousands of new residents to Rockaway. Stockholm-based architectural firm White Arkitekter's proposal "Small Means and Great Ends" was selected as the winning design solution for the vacant parcel.

Figure 32:
The Rockaways: Map of Bus Routes (regional)



Parks in Community District 14, Open Space system in Community District 3 & Green Infrastructure

Rockaway contains a large amount of open space. Rockaway has 120 acres of parkland per 1000 residents, making Rockaway a “well-served area” per City Environmental Quality Review standards. However, much of this open space is geared towards serving a regional population as opposed to Rockaway residents. Portions of Gateway National Recreation

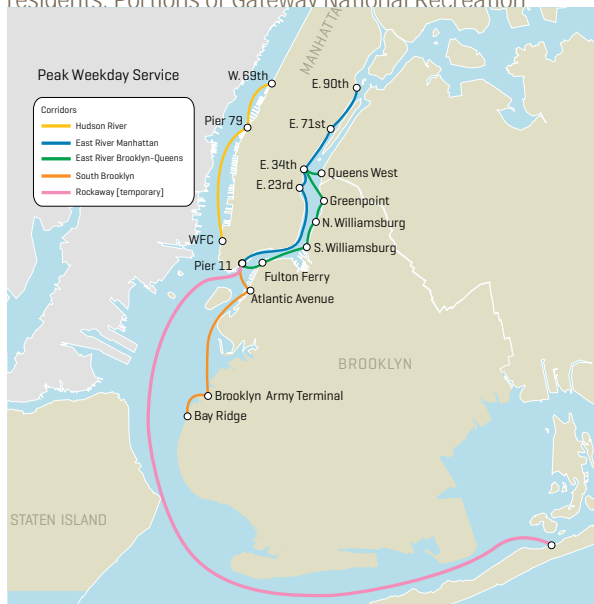


Figure 33:
The Rockaways:
Map of current
Ferry Route
(regional)



Ferry

Ferry service on Rockaway, albeit limited, is an alternative to the modes of transportation summarized above. The Seastreak ferry, with a fare of \$3.50, runs from Beach 108th Street and Beach Channel Drive on Rockaway, stops at the 58th Street Brooklyn Army Terminal in Sunset Park, Brooklyn, and then continues on to Wall Street in Lower Manhattan and East 34th Street in Midtown Manhattan before returning to Rockaway. The service allows some Rockaway residents to shave their commute time by nearly two-thirds.²⁴ However, the ferry terminal is located far enough from the Arverne, Edgemere, and Far Rockaway neighborhoods to make it challenging to commute via ferry. (Map of Route)

Field observations have shown that these areas are difficult to reach by public transportation for residents of the eastern portion of Rockaway, and connections between the areas are limited. In addition, current programming limits the utilization of these open spaces by the Rockaway populace.

In the Arverne area of Rockaway (see Map 2, inset), additional open spaces include Rockaway Community Park and the Rockaway Beach Boardwalk. Protruding into Jamaica Bay, Rockaway Community Park was constructed on the site of a former New York City Department of Sanitation landfill, and represents the highest point of elevation on Rockaway. The Rockaway Beach Boardwalk suffered near-total destruction during Hurricane Sandy, has yet to be completed at present, and is scheduled to be completed by 2017 at the earliest.²³

TRANSPORTATION UTILITIES AND PHYSICAL INFRASTRUCTURE

Commuting Patterns

For residents of Rockaway, transportation can be a major issue. As a barrier island, residents must either enter or exit over a bridge in order to get to Queens or the other boroughs. Despite reduced toll fares for residents it is very expensive for low-income earners to commute via automobile if they own one, and a lack of car ownership requires an arduous commute off the peninsula by public transportation.

There are three major modes of travel for the residents of Rockaway: car, subway, and bus. According to Census data collected on the residents of the Edgemere area of Rockaway, 27 percent of residents use their personal vehicle in order to reach their work destination, and 61

Figure RF-1:
Rockaway Freeway:
Section A

Section A

Beach 57th to Beach 36th
(and Rockaway Freeway)

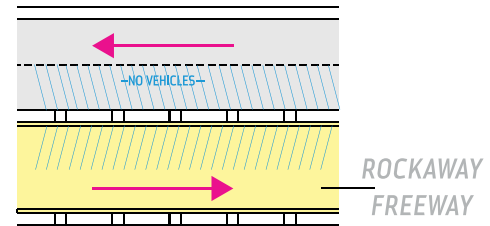
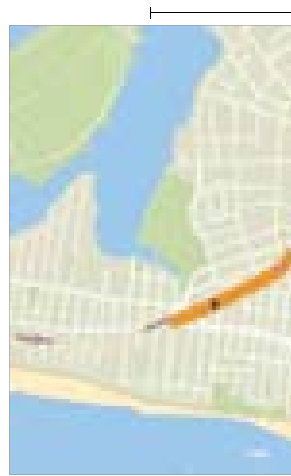
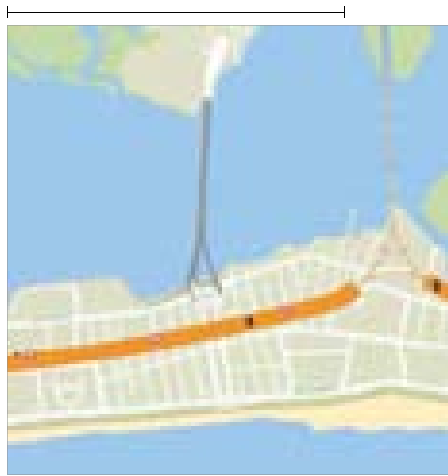


Figure RF-2:
Rockaway Freeway:
Section B

Section B

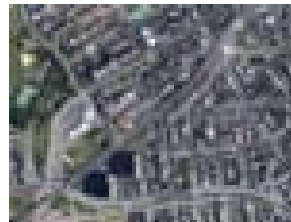
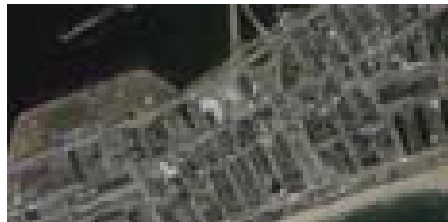
Beach 84th to Beach 105th
(and Rockaway Freeway)

Beach 25th to Beach 36th
(and Rockaway Freeway)



82

B. 79th to B. 81st
(Beach Channel Drive)



Intersection of Beach 25th and Rockaway Freeway

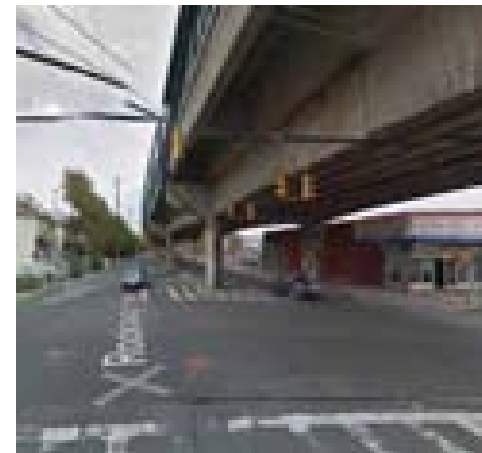


Figure RF-3:
Rockaway Freeway:
Section C

Section C

Beach 67th to Beach 62nd
(and A Train Route)



No Vehicular Traffic
Under A Train

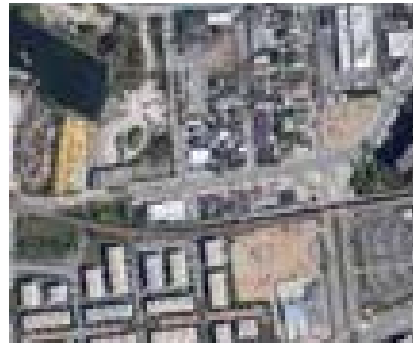


Figure RF-4:
Rockaway Freeway:
Section D

Section D

Beach 62nd to Beach 59th
(and Rockaway Freeway)



Figure RF-5:
Rockaway Freeway:
Section E

Section E

Between Beach 108th and ~Beach 107th

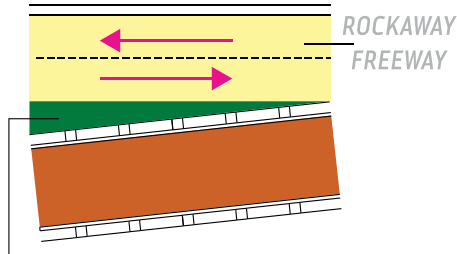


Figure RF-6:
The Rockaways:
Section F

Section F

Beach 81st to Beach 84th
(and Beach Channel Drive)

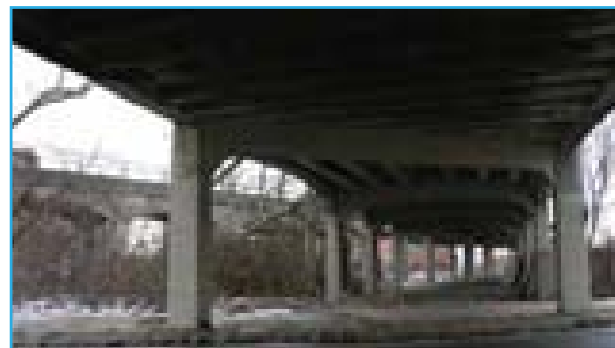
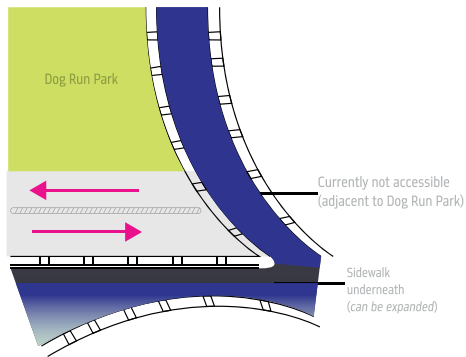
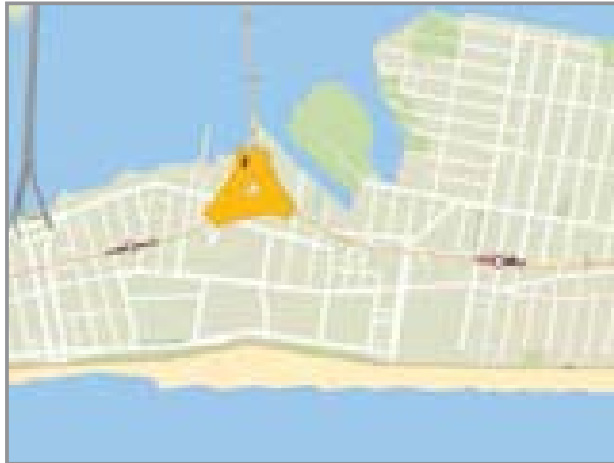
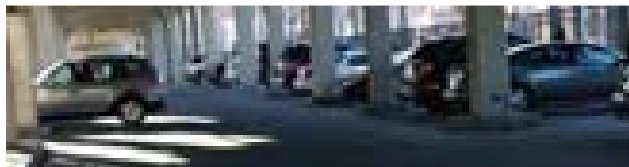
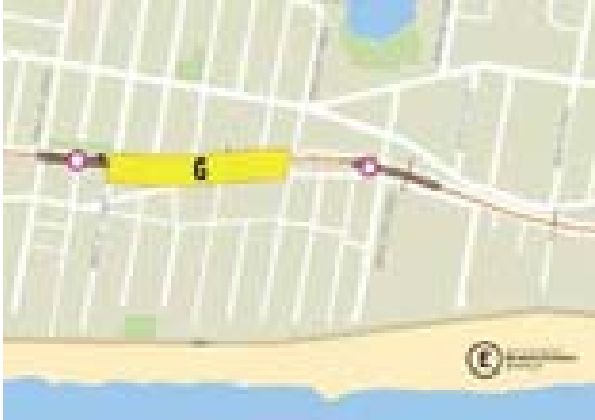


Figure RF-7:
Rockaway Freeway:
Section G

Section G

Beach 67th to Beach 62nd



percent of Edgemere residents use public transportation, with the remaining workers walking or carpooling to work.

Train

According to 2012 Census data the average commute

time for an Arverne resident is over half an hour (locally excluding commute to outer borough and Manhattan). A contributing factor for this figure is the absence of local employment for the majority of residents. The sole



Figure 35:
The Rockaways: Map of WWTP location
& National Grid site

Bus

There are nine city buses that travel to the Rockaways; however, there is only one local bus that travels the length of the peninsula from east to west, the Q22. The enormous amount of stops (~57) along the Rockaway peninsula can make express travel by bus difficult as well. A young adult of the Rockaways who lives in the Beach 40's of Arverne stated that he has sprinted in order to catch the Q22 in fear that the next bus would be a 40-minute wait.



Figure 39A:
The Rockaways: Senior Population

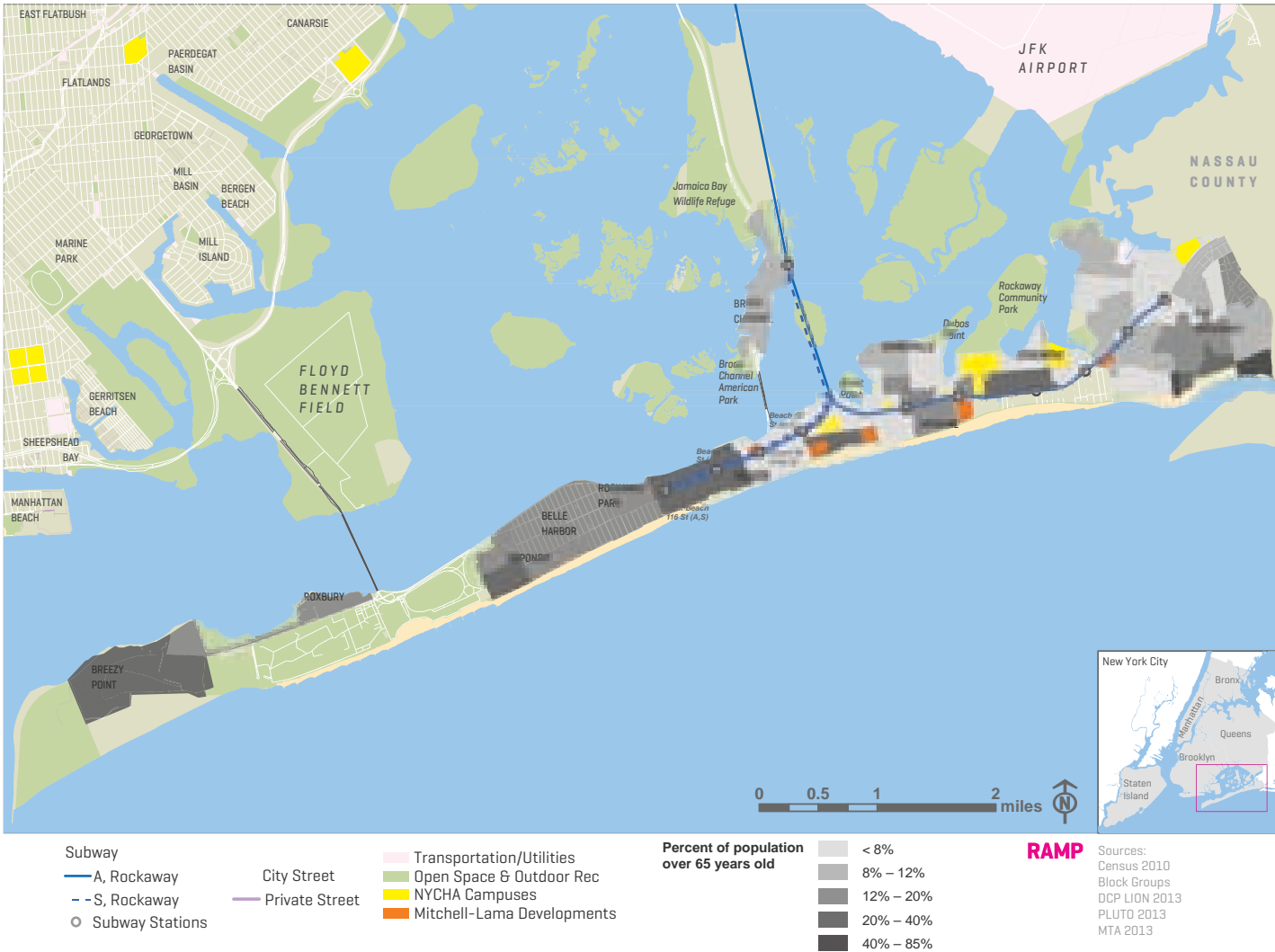
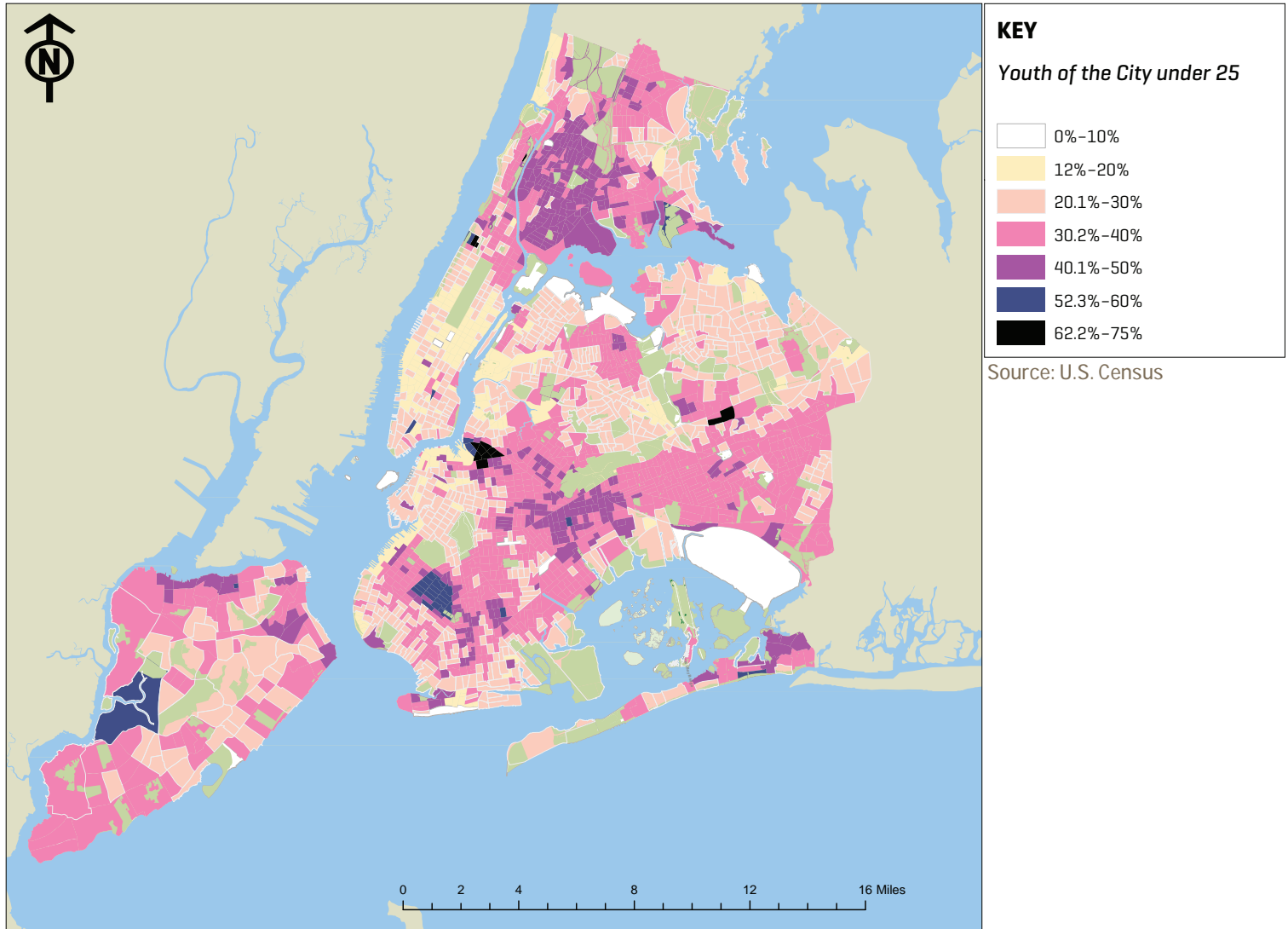


Figure 39B:
The Rockaways: Youth Population
under the age of 25



Bike Routes

Commuting on Rockaway by bicycle is similarly limited. The few existing cross-Rockaway commuter bike routes change rapidly in typology, shifting from dedicated bike-only lanes to with-traffic segments, raising the likelihood of a crash and discouraging their widespread use.

Rockaway Freeway

The road known as “Rockaway Freeway” was created from the old right-of-way of the Long Island Rail Road Rockaway Division and was part of the project to eliminate grade crossings within New York City. In the summer of 1956 the railroad line was elevated over the new automotive route, and was incorporated into the NYC MTA. The Rockaway Freeway, a cross-Rockaway route open to vehicular traffic, currently operates under the Metropolitan Transportation Authority (MTA) owned A-train overpass. The freeway disrupts north-south pedestrian travel along the peninsula, and has been identified as a redundant roadway during a number of site visits due to its comparably low usage to other cross-Rockaway vehicular routes, including

Rockaway Beach Boulevard and Beach Channel Drive. The overpass, which spans from Mott Avenue in the east to Beach 105th Street in the west, has been identified by various community groups, including the Rockaway Waterfront Alliance, as a location fit for repurposing. These community groups envision the area under the overpass supporting a multi-modal transportation network, including bike and pedestrian lanes. Although automotive vehicles utilize this space, pedestrians and bicyclists have frequently used it because it is sheltered from the elements. This presents an opportunity to imagine the “Rockaway Freeway” as a secondary spinal cord connecting Rockaway neighborhoods. As residents wait for the new boardwalk to make its full-fledged appearance in 2017, this space could benefit the residents in a remarkable way with recreation and connectivity.

Wastewater Treatment Plant

NYC has 14 wastewater treatment plants (WWTP), which serve the population of over eight million people. The wastewater treatment plant in the Rockaways serves a population of over 100,000 people. As a comparison to the Rockaway WWTP, the wastewater treatment plant of Newtown Creek serves a population of over 1,000,000 (See chart). Additionally, see infographic for a depiction of the treatment process (will insert). From screening to pumping to aerating to removing sludge and scum and then finally killing the bacteria,²⁵ the treatment process is involved and aromatic. When Hurricane Sandy hit, the Rockaway WWTP was inundated and inoperative.²⁶

NYC DEP's on-site engineers, construction management consultants, and construction contractor staff began working quickly to get the WWTP back online. However, the Rockaway WWTP discharged 36 million gallons of mostly untreated sewage and 165 million gallons of partially treated sewage during Hurricane Sandy.²⁷ Although there was a significantly higher discharge than normal due to Hurricane Sandy, the U.S. EPA also estimates that CSOs release approximately 850 billion gallons of untreated wastewater and stormwater each year.²⁷

There is also disease risk associated with exposure to sewage, which are bacteria, parasites and viruses. (examples: E. coli, salmonella can cause diarrhea, fever, cramps or vomiting.) Viruses can also include Hepatitis A or B as well as HIV.²⁸

National Grid Site: Background

The National Grid Site, an 8.8 acre piece of property that is located immediately south of Beach Channel Drive and north of the Rockaway Freeway, between Beach 108th Street to the east and Rockaway Freeway to the west on the Rockaway peninsula, was previously a Manufactured Gas Plant (MGP) and has been designated by New York State's Department of Environmental as a Superfund site in 2004.³⁰ It is often referred to as the "National Grid Site" or the "Rockaway Park MGP". On the Department of Environmental Conservation's database website, the Rockaway Park MGP had hazardous waste disposal between the years of 1894 to 1959 (a total of 65 years).³¹ (See Appendix 5.7 for DEC details)

The site was used to support recovery efforts from Hurricane Sandy. The full remediation of the site was completed in early 2012, so there is no risk of exposure to MGP-related residuals for commuters, which use the parking lot to ride the Seastreak Ferry.³² There have been proposals for the site to be mixed-use residential and retail, a multiplex theatre, and more.³³

ENVIRONMENTAL JUSTICE & CLIMATE CHANGE

The current reality on Rockaway Peninsula is a “Tale of Two Cities,” a microcosm of New York City divided. On one end, wealthy residents enjoy spacious yards, large homes, the freedom of automobile ownership and an ease of access to the peninsula’s best recreational opportunities. On the other, a population that is financially challenged and politically underserved struggles with high unemployment, long commute times, and a history of disinvestment.

What was once just a disparate set of neighborhoods on the city’s periphery is now a growing brand, a fashionable beach side community with cache and marketing appeal. The Rockaways renaissance has ushered in a burgeoning hospitality scene, with new drinking and dining establishments dotting both the boardwalk and bay.³⁴ And press and outside interest has started fueling local concern of gentrification, a concern now backed by demographic indicators of growing affluence. Gentrification is especially worrisome to the residents of Far Rockaway, who are financially vulnerable and constantly at threat of dislocation.³⁵

But greater than concerns of gentrification is the very real threat of climate change, most recently demonstrated in 2012 by Hurricane Sandy's powerful and lasting destruction. Sandy indiscriminately obliterated entire neighborhoods, causing fire, flooding, and widespread devastation that led to an unraveling of the local economy. Today, residents are continuing to rebuild in an effort to overcome Sandy's brute force. Residents are now empowered by a collective will to overcome climate change's challenges.³⁶ And now under the urban planning magnifying glass, the Rockaways is also the focus of governmental and philanthropic resiliency efforts. Through major interventions in coastal protection, building enhancements and infrastructure initiatives, the Rockaways is an experiment in the new understanding of resiliency planning – with a keen focus on reverting the hard infrastructure of the past into a softer, native, more natural affront to rising waters.³⁷

So as the Rockaway Waterfront Alliance looks to redesign the Rockaways as an improved and resilient version of itself, it must take into account the lessons of Hurricane Sandy: work with the water and natural context of the island, plan for future disaster through upgraded, resilient infrastructure, and create unity across the island in order to prepare and intervene, together.

Community Based Organizations Involved in Education of Climate Change & Risks

Broader Perspective: Eco-watchers

The group called, "The Eco-watchers", had been formed into an organization in 1998 as a response to the observations made of the deteriorating Salt water Marshes in Jamaica Bay.³⁸ Folks that range from backgrounds of fishermen to kayakers comprise this environmental activist organization. This activist group has also both organized and orchestrated conference events such as the one held on April 25, 2001, which was a panel of scientists, engineers, ecological consultants, and most of all the residents whom possess a wealth of local historic knowledge in order to discuss Jamaica bay's loss of salt water marshes. These groups also had representation from NYS DEC, NYC DEP, ACOE, private consultants and the local communities.

Dan Mundy Sr., who also serves as a member of Queens Community Board 14, is also the president of the Eco-watchers and has demonstrated leadership also in the face of Hurricane Sandy by forming the Jamaica Bay Task Force. The purpose of the task force is to inform the community of what the governmental organizations are proposing and working on in the bay in order to have the opportunity for opinions to be voiced. Similar to the round table discussions used in the past to discuss the loss of salt marshes, the task force meetings are informative and allow for dialogue to occur between agencies, stakeholders, and the community.

Waterfront Development

Arverne by the Sea

Benjamin-Beechwood LLC was selected by HPD to develop the 117-acre Arverne by the Sea portion of the Arverne Urban Renewal Area. Arverne by the Sea, when completed, will include up to 2,300 housing units, up to 270,000 square feet of retail, a new recreation center, and a new public school. Construction on the initial phase was completed in 2004, and construction and design for the remainder of the project are currently underway.³⁹ See accompanying map for the project sites for both Arverne East and Arverne by the Sea.

Arverne East

Arverne East is the second major development for the Arverne Urban Renewal area. Arverne East, as proposed, will have 1021 housing units to be constructed with a variety of designs, from row-houses to apartment buildings. The units will be pre-fabricated on-site and then moved into place. The development would require construction of new infrastructure, a requirement that makes the entire development more challenging. At present, 43 percent of the development's units will be affordable to households making no more than 130 percent of Area Median Income (AMI).⁴⁰ For 2014, \$83,875 is 100 percent of AMI, so 130 percent of AMI is \$109,037. The remainder of units will be market-rate. The recommendations section includes a more detailed analysis of Arverne East.

Summary of Agency and Private Plans/ Initiatives | Federal, State, City, & Local

National Disaster Recovery Framework

Moving forward from Hurricane Sandy, there are a number of federal initiatives that hope to mitigate future losses suffered by Rockaway residents due to storms and other disasters.

In 2009, President Obama charged the U.S. Department of Homeland Security (DHS) and the U.S. Department of Housing and Urban Development (HUD) to establish a long-term Disaster Recovery Working Group. Composed of more than 20 Federal departments, agencies, and offices, the Working Group developed the National Disaster Recovery Framework that provides for operational guidance and protocol for recovery organizations.

Figure 41:
Presidential
Task Force List of
Participants for
Sandy Recovery

TASK FORCE CHAIR	TASK FORCE MEMBERS		
U.S. Dept. of Housing & Urban Development [HPD] Shaun Donovan, Secretary	U.S. Dept. of the Treasury Jacob Lew, Secretary	U.S. Dept. of Homeland Security Janet Napolitano, Secretary	White House Council on Environmental Quality Nancy Sutley, Chair
	U.S. Dept. of the Interior Sally Jewell, Secretary	U.S. Environmental Protection Agency Regina McCarthy, Administrator	White House Office of Science and Technology Policy John Holdren, Director
	U.S. Dept. of Agriculture Tom Vilsack, Secretary	Small Business Administration Karen Mills, Administrator	White House Council of Economic Advisors Jason Furman, Chair
	U.S. Dept. of Commerce Penny Pritzker, Secretary	U.S. Army Corps of Engineers Jo-Ellen Darcy, Assistant Secretary of the Army [Civil Works]	White House Office of Public Engagement & Intergovernmental Affairs Valerie Jarrett, Senior Advisor to the President
	U.S. Dept. of Labor Thomas Perez, Secretary	White House Office of Management & Budget Sylvia Burwell, Director	White House Office of Cabinet Affairs Danielle Gray, Assistant to the President & Cabinet Secretary
	U.S. Dept. of Health & Human Services Kathleen Sebelius, Secretary	White House National Security Staff Lisa Monaco, Assistant to the President for Homeland Security & Counterterrorism	Task Force Executive Director Laurel Blatchford Chief of Staff of the U.S. Dept. HP
	U.S. Dept. of Transportation Anthony Foxx, Secretary	White House Domestic Policy Council Cecilia Muñoz, Director	
	U.S. Dept. of Energy Ernest Moniz, Secretary	National Economic Council Gene Sperling, Director	
	U.S. Dept. of Education Arne Duncan, Secretary		
	U.S. Dept. of Veterans Affairs Eric Shinseki, Secretary		

Both HUD and the Federal Emergency Management Agency (FEMA, a division of DHS) provide flexible grants to help cities, counties, and States recover from disasters, especially in low-income areas. Community Development Block Grants (CDBG-DR), created as part of the Housing and Community Development Act of 1974, are administered by HUD and fund critical large-scale recovery efforts such as restoring and improving the housing stock, rebuilding or replacing impacted public infrastructure, and activities that serve to address job losses, impacts to tax revenue, and impacts to businesses.⁴¹

FEMA provides supplemental funding through its Public Assistance Grants Program to state and local governments for debris removal, emergency protective measures, and the repair, replacement, or restoration of disaster-damaged publicly owned facilities and the facilities of certain private nonprofit organizations. This funding is coordinated and approved through Public Assistance Coordinators (PACs) that serve as on-the-ground liaisons to develop scopes of work and cost estimates, facilitate reviews and provide specialized technical assistance to communities. PACs also have the authority to approve project costs up to \$100,000.⁴²

Of the \$15.8 billion Congress appropriated for CDBG-DR, New York City has received \$3.2 billion in grants, second only to New York State, which received \$3.8 billion.⁴³ In addition, as of December 2013 FEMA has approved more than \$747 million in Sandy recovery assistance, representing 90 percent of expected costs. \$452 million has been allocated to Queens County for emergency efforts and rebuilding.⁴⁴

National Flood Insurance Program

In addition to the National Disaster Recovery Network, the National Flood Insurance Program (NFIP) is administered by FEMA, and works closely with nearly 90 private insurance companies to offer flood insurance to property owners and renters in at-risk locations. Congress established the NFIP in 1968, and it enables property owners in participating communities to purchase flood insurance if the community has adopted floodplain management ordinances and minimum standards for new construction. The NFIP covers more than \$1.3 trillion in assets and has more than 5.5 million policyholders.⁴⁵

In 2012, Congress passed the Biggert-Waters Flood Insurance Reform Act (BW-12). Key provisions of this legislation require the NFIP to raise rates to reflect true flood risk. The restructuring of subsidized policies through BW-12 allows the program to become more financially stable. However, this act requires premium rate increases for policyholders over time. As of January 1, 2013, owners of subsidized policies in vulnerable areas such as Rockaway are subject to a 25 percent increase annually until the rates reflect true risk (market rate).⁴⁶

On average only 14.4 percent of residents of Rockaway had flood insurance in 2012.⁴⁷ This is partly due to the large portions of Rockaway that are outside the boundaries of the floodplain according to the Flood Insurance Rate Maps (FIRMs), which may have led many residents to believe they were not at risk. Almost half of Rockaway residents live in multifamily buildings of five units or more where they may not have been required to buy a separate flood insurance policy if the building association had purchased insurance with sufficient coverage.

For Rockaway homeowners the premium per \$1,000 of flood insurance coverage ranges from \$1.17 to

more than \$6 across most census tracts, with an average premium of \$5.25. Flood insurance premiums can qualify for a subsidy if a given house was built prior to the establishment of the FIRMs in the late 1970s. Of the housing units on Rockaway that have flood insurance, 75 percent are pre-FIRM structures with insurance premiums subsidized by the NFIP.

However many pre-FIRM housing units are more vulnerable than those built to more recent construction standards.⁴⁸ If owners of these pre-FIRM houses were to be charged premiums reflecting their true risk, they would likely pay much more than they are currently charged.

A significant percentage of Rockaway residents are low to moderate income, which has made it difficult for them to recover financially from flood damage after Hurricane Sandy if they were uninsured. The designated poverty level for a family of three on Rockaway is \$19,500, and roughly a third of households in the area have an annual income of below \$20,000. If low-income families were required to purchase flood insurance in the future, the residents in these areas would likely be unable to afford the insurance premium.

In 2012, Arverne had approximately 1,100 homeowners with a mortgage out of a total of 2,586 occupied housing units. Median monthly homeownership costs, which include flood insurance and mortgage payments, are above \$2,500. Comparing monthly costs as a percentage of household income provides a clearer picture of how increased insurance rates would price many people out of the local housing market. Over 50 percent of Arverne homeowners pay a higher debt-to-income ratio than the conventional 28 percent considered by banks to be the threshold of affordability.⁴⁹

Communities that participate in the NFIP are required to adopt and enforce a set of minimum floodplain management ordinances to reduce future flood damage. However, there are opportunities to reduce flood damage to property and encourage communities to adopt a more comprehensive and coordinated approach to floodplain management. The Community Rating System (CRS) offers discounts to flood insurance premiums for communities that develop measures beyond the minimum floodplain management requirements of the NFIP. Currently, only 1,210 of the 21,000 communities in the United States that participate in the NFIP are active in the Community Rating System (CRS) program. Locally, only 28 of the 1,466 NFIP communities in New York State participate in

the CRS. This 1.9 percent participation rate is three times lower than the national average. Through responsible community planning, flood insurance policyholders can benefit from reduced insurance premium discounts as high as 45 percent. Across the nation, flood policyholders in active CRS communities receive about \$300 million in premium discounts annually.⁵⁰

In March 2014, Congress passed the Homeowner Flood Insurance Affordability Act. This bill restores the grandfathering of pre-FIRM subsidized properties and requires FEMA to reduce the number of policies offered where the annual premiums exceed 1 percent of the total coverage provided by the policy.⁵¹ The bill also establishes guidelines for alternative disaster mitigation efforts where traditional projects such as elevation controls are not practical. The bill was largely passed because of buyer's remorse on the part of Congress, which did not realize to what degree Biggert-Waters would anger constituents.

Lastly, FEMA will establish a Flood Insurance Advocate to answer policyholder questions about the flood mapping process and flood insurance rates as well as educating policyholders about their risk and options for choosing a policy.

Rebuild by Design (Federal: HUD)

The design competition known as “Rebuild by Design” was created as a response to Super-storm Sandy’s devastation in the region.⁵² The U.S. Department of Housing and Urban Development as well as the Presidential Hurricane Sandy Rebuilding Task Force initiated the competition at the federal level. President Obama passed an executive order on December 7, 2012, which was roughly a month and a half after Sandy, to create the Hurricane Sandy Task Force in order to ensure there was collaboration and coordination amongst multiple stakeholder agencies to help with long-term rebuilding as communities get back on their feet.⁵³ The Presidential Task Force⁵⁴ includes the following members:

The Task Force Advisory group included Governors from the five states that were deeply affected, New York, New Jersey, Connecticut, Maryland and Rhode Island as well as Daniel Shinnecock from the Shinnecock Indian Nation.⁵⁵ In 2013, the Task Force released their report Hurricane Sandy Rebuilding Strategy. An example of their recommendations include the promotion of resilient building, based on current and future risk, through innovative ideas by leveraging the

Rebuild by Design competition to deliver innovative, resilient rebuilding ideas to the Sandy-impacted region.⁵⁶ Other objectives include: Ensuring a regionally coordinated, resilient approach to infrastructure investment; Providing families safe, affordable housing options and protecting homeowners; and supporting small businesses and revitalizing local economies.

It was announced on June 2, 2014 that approximately \$920 million is being allocated to New York, New Jersey, and New York City from HUD to start the implementation of the winning projects from the Rebuild by Design competition. The idea of these projects would serve as a model that can be replicated throughout the region. Sadly out of the winning proposals none of them address the Rockaways. There have been \$2.5 billion dollars allocated of Community Development Block Grants-Disaster Recovery (CDBG-DR) for the Sandy affected region from HUD, but it is unclear how this money will be spent exactly. Some of the money (\$920 million to be exact) will be going into funding the winning projects.

National Park Service (Federal: DOI)

The Department of Interior, i.e. the National Park Service, owns a huge portion of Jamaica Bay's parkland. The areas that include Floyd Bennett Field, Canarsie Piers, Ft. Tilden, Jacob Riis Park, Breezy Point, Jamaica Bay Wild Refuge Center, Frank Charles Park, and Plumb Beach comprise of the Gateway National Recreation Area's Jamaica Bay unit.⁵⁷

There is a new joint management partnership for planning of Jamaica Bay and Rockaway Parks between NYC Department of Parks and Recreation with the National Park Service.⁵⁸ This new partnership can encourage people to visit the parks by promoting them in unity, which can increase tourism for the area as well as revitalize the communities economically.

The General Management for Gateway National Recreation Area was completed recently and this plan describes three alternative scenarios. Alternative A is no action. This means that under alternative A the NPS would continue to manage Gateway's resources and visitor use as it does today, with no major change in their management direction. The second alternative would be Alternative B: "Discovering Gateway", the NPS preferred alternative. In Alternative B, a majority of the sites would be classified for recreation. (MAP: Alternative B) The third alternative management plan, Alternative C, is "Experiencing Preserved Places." In Alternative C, most of the areas that are seen as recreation in the previous proposed management alternatives would be left as natural spaces, but some areas would still be converted into recreation spaces. (MAP: Alternative C)

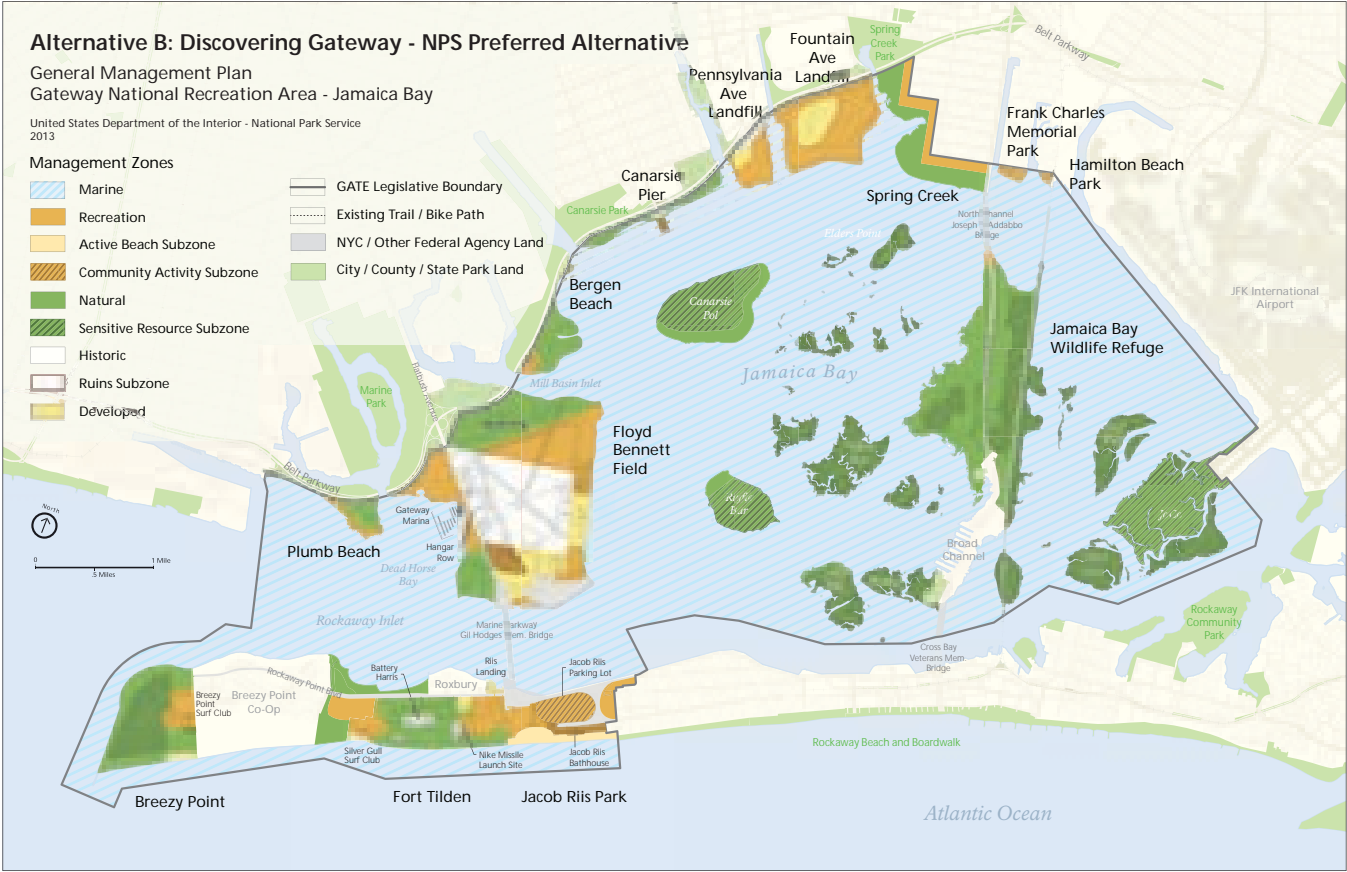


Figure 42:
 NPS Gateway
 National Recreation
 Area's General
 Management Plan:
 Alternative B solution

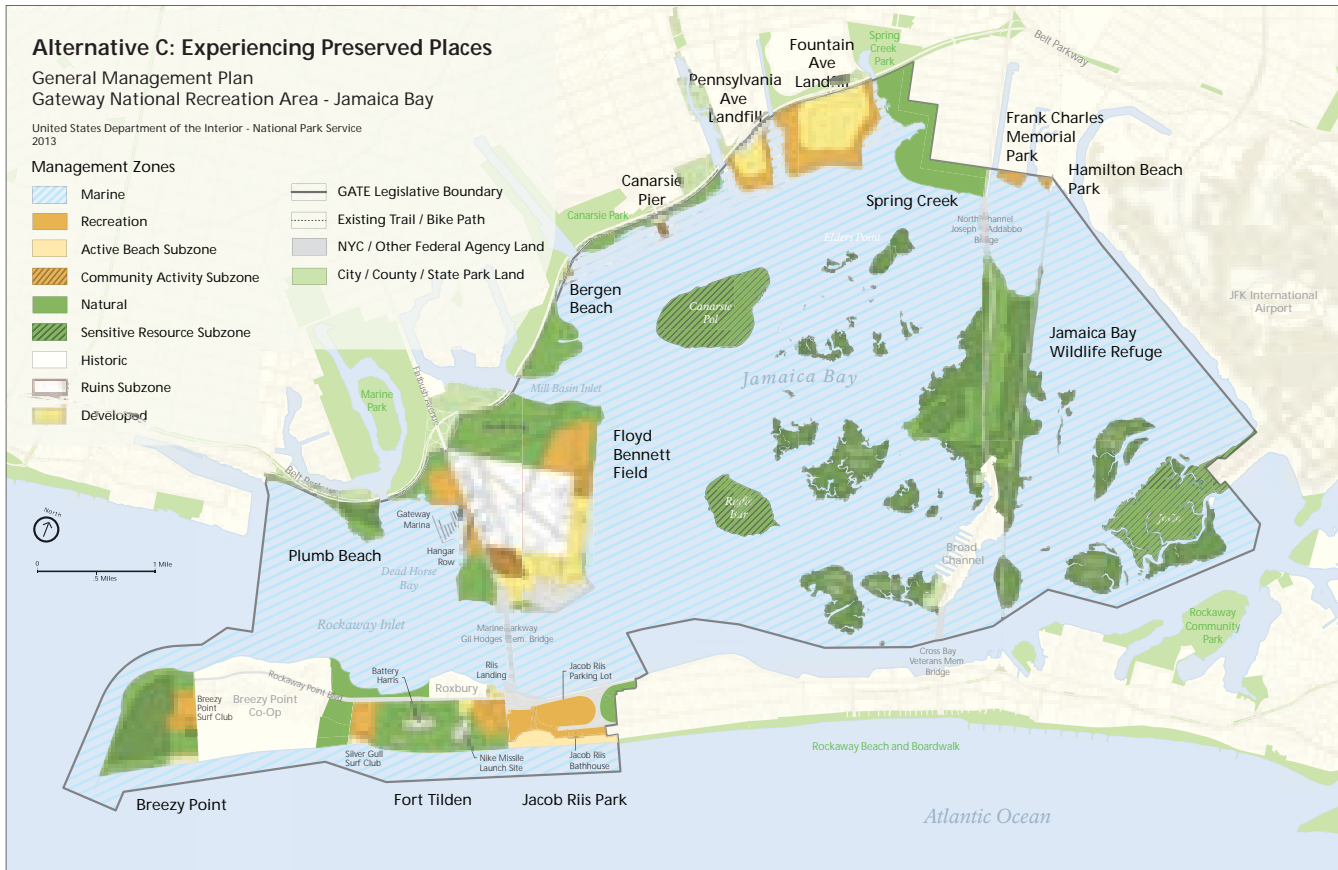


Figure 43:
NPS Gateway
National Recreation
Area's General
Management Plan:
Alternative C solution

NY Rising (NY State)



In response to Superstorm Sandy, Hurricane Irene, and Tropical Storm Lee, the Governor of New York established the NY Rising Community Reconstruction Program to provide for a community-based planning and reconstruction effort in downstate and upstate communities severely affected by the aforementioned storms. Each CR community was allocated between approximately 10 and 30 millions dollars for resilience-oriented projects.⁵⁹ The Rockaways were divided into three sections for planning proposals: Rockaway East, Rockaway West and Breezy Point. Rockaway East conducted a total of nine planning meetings and

residents of the community served on this committee as well as co-chairs. The latest report for Rockaway East, published in March 2014, was prepared by the following consulting firms: HR&A Advisors, Parsons Brinckerhoff, Beyer Blinder Belle Architects & Planners, Mathews Nielsen Landscape Architects, Hammes Company, Open Plans and Johnson & Asberry.⁶⁰ The report includes an overview of the community (i.e.: existing conditions), risk assessment and needs, reconstruction and resilient strategy recommendations, project profiles of implementation, as well as additional material that highlights the public engagement process and so forth.⁶¹

Community Reconstruction Plan

Six Recovery Functions

Community Planning
& Capacity Building



Health &
Human Services



Economic
Development



Natural &
Cultural Resources



Infrastructure



Housing



In the Rockaway East report the projects that were included for possible implementation were the following:

Objective: Protect the community from flooding, surge, and sea level rise

1. Thursby Basin Park drainage
2. Bayside Coastal Protection

Objective: Bolster Community Resiliency

3. Relief Center Network
4. Local Health Center Resiliency
5. Health Care expansion
6. Residential education and technical assistance

Objective: Strengthen Economic Resiliency

7. Workforce development
8. Mott Avenue corridor improvements
9. Seasonal business and amenity expansion
10. Rockaway bike share program
11. Bus circulator service

The Bike Share program and the Bus circulator service were featured projects because they also impact the community on a regional scale, having multi-modal transportation benefits. On the western end of the Peninsula, the report⁶² included the following projects for possible implementation:

Objective: Protect the Community from flooding, surge, and sea level rise

1. Bioswales to improve drainage (Proposed)
2. Bayside Coastal Protection

Objective: Strengthen Community Resiliency

3. Relief Center Network
4. Health Care expansion

Objective: Catalyze Economic Revitalization

5. Long-term ferry operations
6. National Grid site redevelopment
7. Beach 108TH Street improvements
8. Bus circulator service
9. Rockaway bike share program
10. New Harbor Park

The featured projects here were the bike share program as well as the new harbor park. The community vision statements for both east and west both seek to focus on natural resources, economic and social capacity.

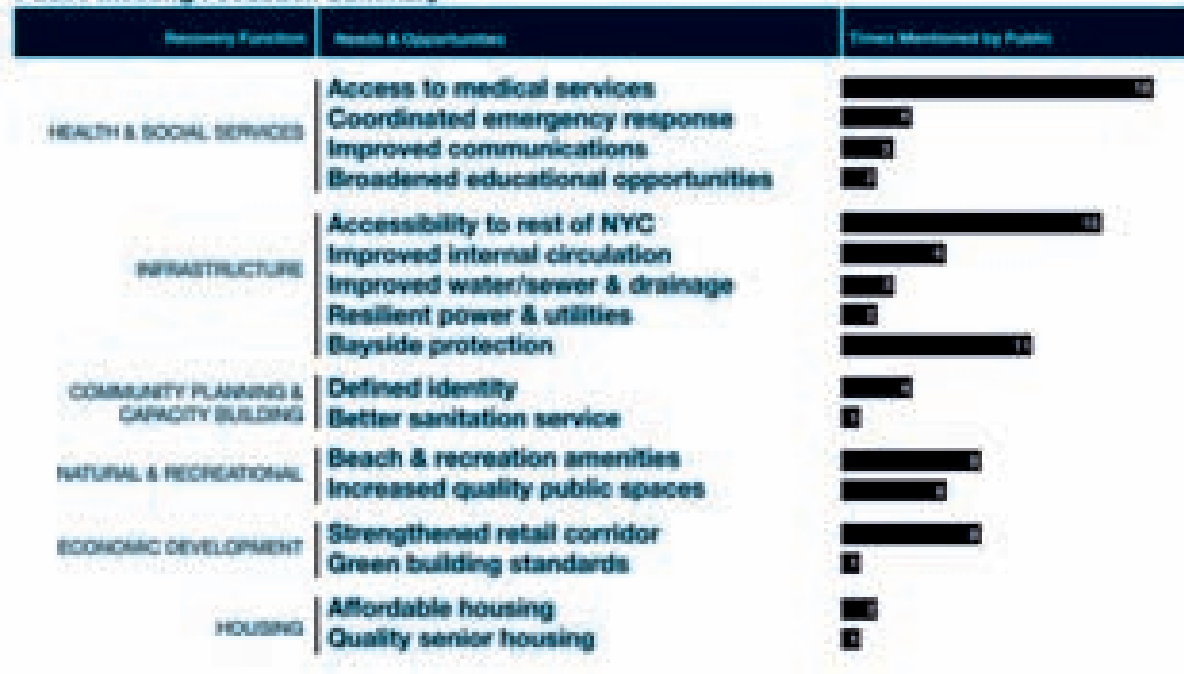
NY Rising Community Reconstruction Program—Rockaway West



Eye Level Rendering: Rockaway West -Support Long Term Ferry and Harbor Park at 108th St.

The Ferry Terminal will double as a recreational space with small concessions within the Harbor Park and bike share pick-ups for use along the entire Rockaway peninsula. A landscaped berm can serve as both a recreational space and provide some protection against storm surges. Green elements will include bio-swales and permeable paving surfaces.

**Rockaway East
Needs & Opportunities
Public Meeting Feedback Summary**



Mayor's Office of Long Term Planning & Sustainability / Mayor's Office of Recovery & Resiliency (SIRR Report) (NYC)

Although PlaNYC, which has been run by the Mayor's Office of Long-term Planning and Sustainability (OLTPS), put forth the Special Initiative for Recovery and Resiliency (SIRR) report (also referred to as A Stronger, More Resilient New York) Mayor de Blasio had appointed a new Sandy recovery leadership team in March.⁶³ The leadership for the new Sandy recovery team includes Bill Goldstein, Dan Zarrilli, and Amy Peterson. Bill Goldstein recently served as the Executive Vice President at the MTA Capital Construction Company, where he helped oversee the implementation of the agency's \$16 billion program, which includes the Fulton Street Transit Center, the extension of the No. 7 Line to the West Side, the Second Avenue Subway, and the East Side Access Project.⁶⁴ Goldstein was appointed as senior advisor to the Mayor and will oversee the Office of Housing and Recovery (OHR) and the Office of Recovery and Resiliency (ORR), directed by Amy Peterson and Daniel Zarrilli respectively. The two offices are charged with stewarding \$3.2 billion in federal resources to help city residents rebuild and repair their homes and make the city more resilient.⁶⁵ Aside from being newly appointed as Director for ORR, Dan Zarrilli also serves currently as an acting director of OLTPS.

OLTPS currently awaits new leadership to direct their office. The yearly release of progress report updates for both resiliency and sustainability were published together for 2014.⁶⁶ The report outlines both New York City's efforts and their accomplishments towards achieving a more sustainable, resilient city.

A Stronger, More Resilient New York also acts as a master plan framework for the city; however, it also fails to address the City's socio-economic or organizational needs in the face of climate change challenges.⁶⁷ A majority of the recommendations outlined in this report are related to physical infrastructure (i.e.: beach nourishment, bulkheads, tide gates, etc.).

In A Stronger, More Resilient New York there are recommendations for coastal NYC communities including South Queens, stretching from Howard Beach to the Rockaways. Some of these recommendations are some that are nearing completion for the Rockaways, including beach nourishment that the U.S. Army Corps of Engineers are in the process just starting.⁶⁸ The reason these that Rockaways, Broad Channel and Howard Beach were grouped into South Queens is because they also share overlapping infrastructure, such as the A-train, as well as overlapping political jurisdictions.

Figure 44:

Mayor's Office Long-Term Planning and Sustainability's report
 NYC Special Initiative for Rebuilding and Resiliency (SIRR)
 Map of Phase 1 Recommendations

