



Transportation and Access Improvements for the

JAMAICA BAY UNIT of Gateway National Recreation Area





Cyclists and buses compete for the road at the eastern entrance to Jacob Riis Park

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Executive Summary

Currently, New Yorkers have very few options to get to New York City’s largest national park, Gateway National Recreation Area (NRA). Improving access to Gateway NRA’s Jamaica Bay Unit in south Brooklyn and Queens has long been a pressing issue for a diverse set of stakeholders. Transit-dependent residents who live close to Jamaica Bay and have lower-income levels face many hurdles when trying to access this local treasure. The need to improve transportation in this geographic region of NYC seems particularly urgent in recent years, as larger discussions about equality and resiliency have dominated the public sphere.

The National Parks Conservation Association, Jamaica Bay Greenway Coalition and Jamaica Bay Advocates worked together with supporting organizations, city, state and federal agencies to develop ideas and transportation projects that can

improve access to the Jamaica Bay unit of Gateway NRA. Where these projects primarily aim to enhance the visitor’s experience when traveling to Jamaica Bay, they also can provide a number of co-benefits such as increased opportunities for outdoor recreation, environmental education and ways to better prepare local communities for emergency evacuations.

This report suggests a series of recommendations that would increase public access to Jamaica Bay with projects ranging widely both in authority and feasibility. The recommendations center on expanding water-borne connections to and within Jamaica Bay, extending and rerouting existing bus lines that connect to park entrances and capitalizing on the existing segments of the Jamaica Bay Greenway for new, critical connections to landlocked neighborhoods.

Cyclists on the Jamaica Bay Greenway



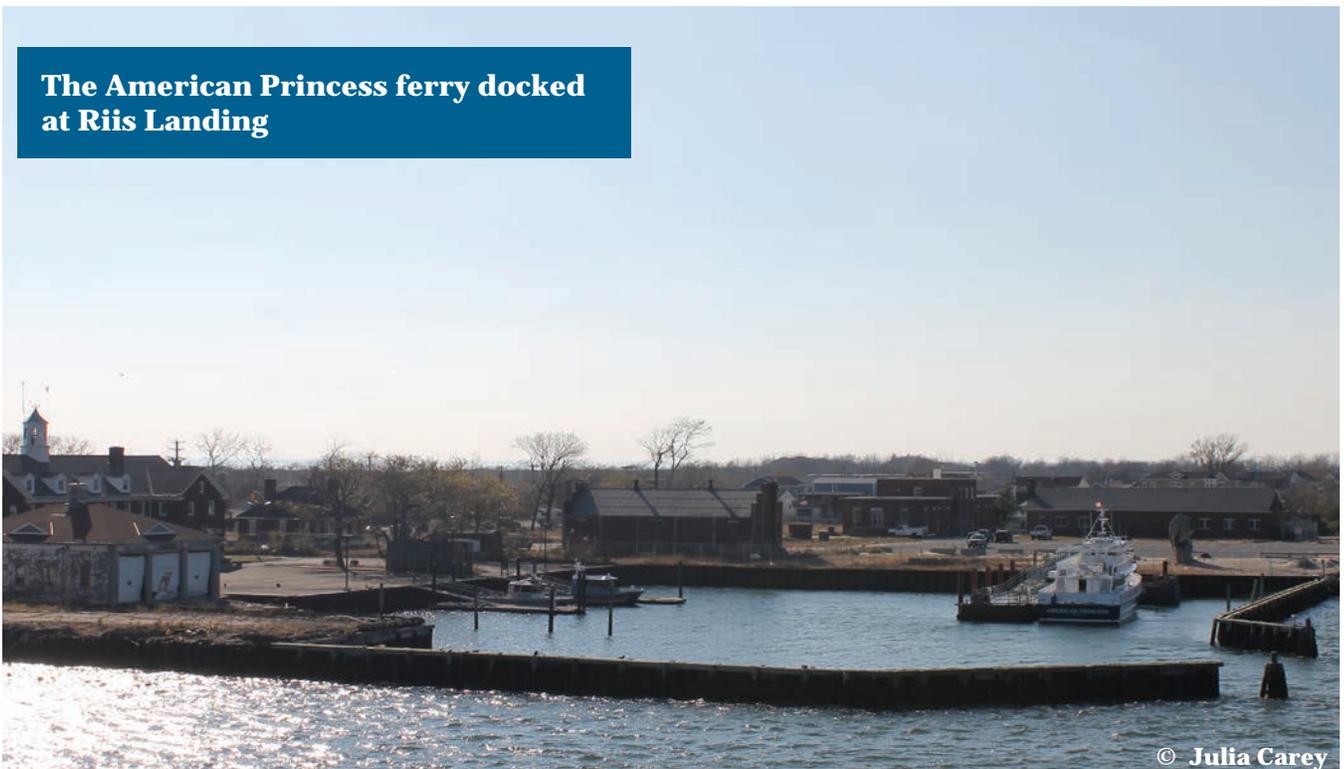
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**Cycling next to Spring Creek
in Howard Beach**



© Julia Carey

**The American Princess ferry docked
at Riis Landing**



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Recommendations

The report is organized to provide background on the current status of transportation options into the park followed by recommendations for improvements. The following is a summary of the recommendations in this report.

Recommendations for Expanding Waterborne Connections

- A. Extend the shuttle bus from the NYCEDC Rockaway Ferry to Jamaica Bay park entrances
- B. Increase boat capacity with more frequent service to accommodate summer ridership
- C. Integrate ferry service fare system with existing MTA services
- D. Adequate parking for vehicles and bicycles at Rockaway ferry landing
- E. Implement a water shuttle to serve Jamaica Bay

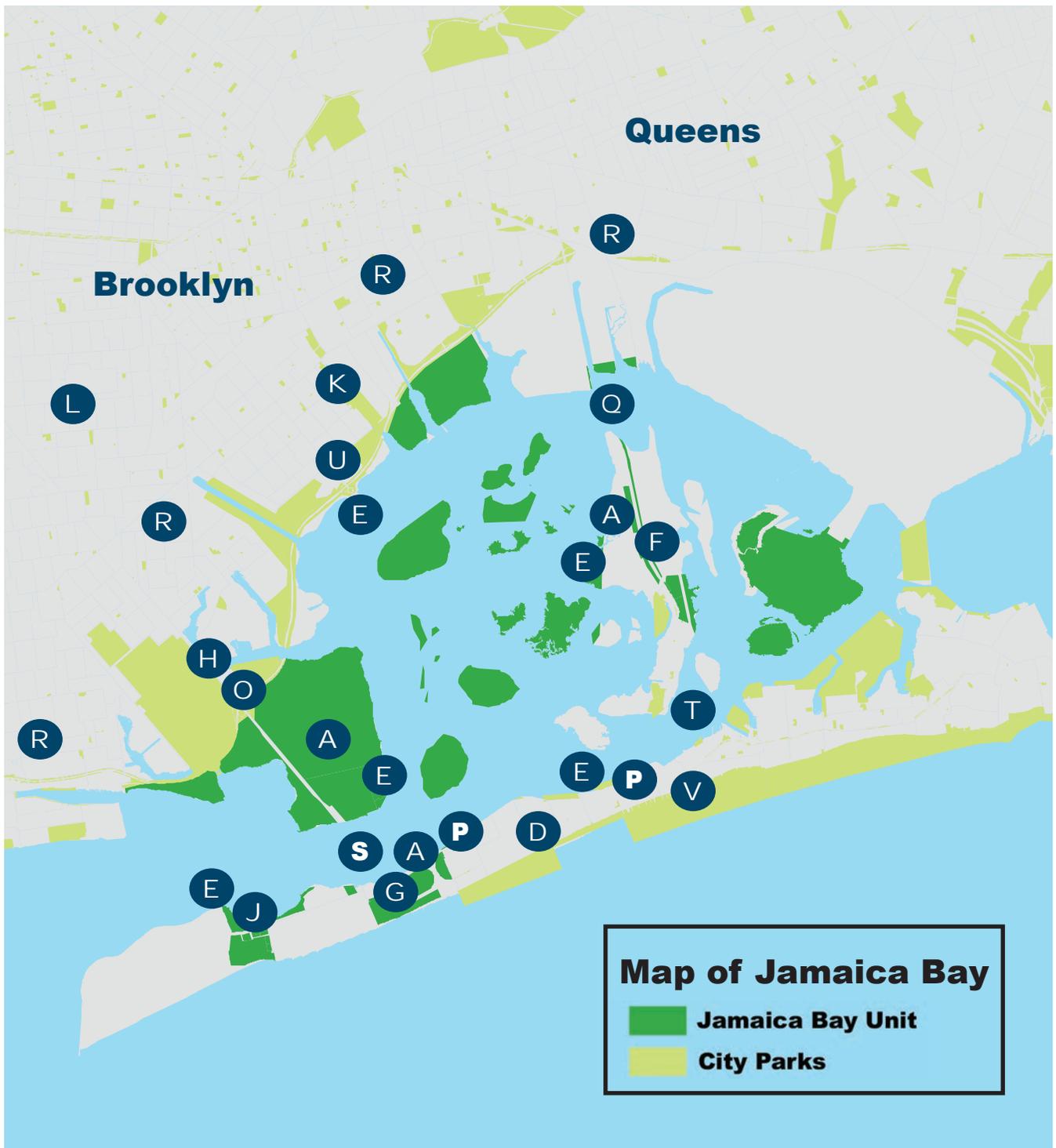
Recommendations for Improving Bus Service

- F. Retain Jamaica Bay Wildlife Refuge bus stop with Q52/53 SBS implementation
- G. Extend the Q53 to Riis Park landing and Riis Beach/Ft Tilden
- H. Increase bus frequency on Flatbush Avenue
- I. Familiarize bus drivers with Jamaica Bay park attractions
- J. Extend the Q22 to Beach 193rd Street
- K. Improve bus connections between East New York, Canarsie and Flatlands neighborhoods and Jacob Riis Park
- L. Improve transferring passengers' experience between B82 and Q35 bus routes
- M. Explore private alternatives where increased bus service isn't feasible
- N. Expand Bike and Ride program

Increase Bicycle Access In and Around Jamaica Bay

- O. Flatbush Ave enhancements
- P. Implement Bayside Path to connect Jamaica Bay Greenway to Beach 108th Ferry Terminal
- Q. Addabbo Bridge improvements
- R. Connect Jamaica Bay Greenway with surrounding neighborhoods
- S. Widen the pedestrian and bicycle path on Marine Parkway-Gil Hodges Memorial Bridge
- T. Allow cyclists to ride their bikes over Cross Bay Blvd Bridge
- U. Dedicated lighting for Belt Parkway portion of Jamaica Bay Greenway
- V. Lighting on the Rockaway Boardwalk
- W. Extend Citi Bike program to Jamaica Bay

SITE-SPECIFIC RECOMMENDATIONS



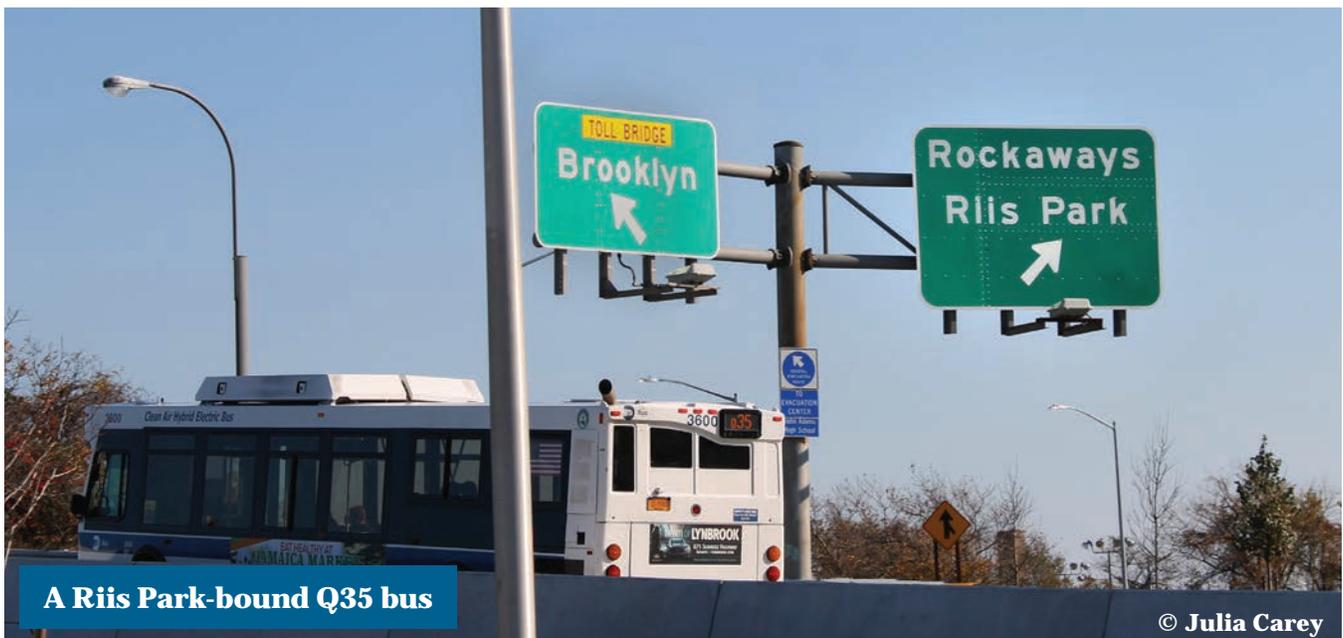
Introduction

Gateway National Recreation Area (Gateway NRA) is one of our country's most visited national park units and one of the most recreationally and ecologically significant national park units in an urban area. For the last decade the National Parks Conservation Association (NPCA) has advocated for a Jamaica Bay unit of Gateway NRA that is protected and restored, and connected to the communities that live around the park. Since the release of the [General Management Plan](#) for Gateway NRA in June 2014, NPCA has worked to serve as conduit and catalyst for establishing greater awareness and support for Gateway NRA and Jamaica Bay in surrounding communities.

NPCA is looking to not only build awareness and welcome new audiences to the park, but we convene groups of individuals and organizations to inform improvements to the park. Our primary focus is to facilitate community visioning processes to rethink 1) transportation to the park, 2) resources that can help visitors find their way within the park, and 3) basic park amenities.

This report focuses on the first goal: transportation to the park. This report is one of three that NPCA will undertake over the next three years to suggest improvements to the Jamaica Bay unit of Gateway NRA. Future reports will address existing gaps and opportunities for enhanced wayfinding, signage and visitor amenities.

NPCA, the Jamaica Bay Greenway Coalition and the Jamaica Bay Advocates worked together with supporting organizations to develop this set of transportation recommendations for the Jamaica Bay unit of the Gateway NRA. We chose to engage these advocates and local residents in South Brooklyn and Queens because they have innovative ideas for basic park improvements that can transform a visitor's experience at Jamaica Bay. This report covers the group's recommendations and NPCA's recommendations to improve access to Jamaica Bay via bike, bus, and ferry.



About the National Parks Conservation Association

Since 1919, the nonpartisan National Parks Conservation Association has been the leading voice in safeguarding our national parks. NPCA and its more than one million members and supporters work together to protect and preserve our nation's natural, historic, and cultural heritage for future generations. NPCA's Northeast office works to advocate for improvements to urban parks, create new parks that tell inclusive stories of all Americans, and to ensure Northeast national parks are protected in perpetuity for generations to come.

In addition to seeking improvements to Jamaica Bay, NPCA works on the ground with civic groups, non-profits, housing complexes, afterschool clubs and many others to build a stronger sense of place in Jamaica Bay, Gateway NRA. By sharing biking maps, paddling schedules, email newsletters and other resources we help area residents take advantage of the under-tapped natural, cultural and historic resources that live at Jamaica Bay.

NPCA members and employees working in Jacob Riis Park at the Finish Line of the Brooklyn Greenway Initiative's 2016 Epic Ride.



© NPCA staff

About this Report

The recommendations in this report for improving transportation and access to Jamaica Bay are a culmination of ideas, thoughts and feedback that have been derived from extensive community outreach and outreach to key transportation departments in local and state agencies. NPCA's work with the Jamaica Bay Greenway Coalition forms the basis of the majority of the recommendations in the report. The recommendations have been refined and discussed with the following groups and agencies:

American Princess Cruises
Bike New York
Brooklyn Community Board 13
Brooklyn Community Board 18
Coney Island Beautification Project
East New York Farmers Market
Floyd Bennett Field Blue Ribbon Panel
Friends of Penn & Fountain Parks
Gateway Bike and Boat Club
Jamaica Bay Advocates
Jamaica Bay Greenway Coalition
Marine Park Civic Association
Metropolitan Transit Authority (MTA)
Mill Basin Civic Association
Millennium Development
National Park Service (NPS)
New York City Department of Health and Mental Hygiene (NYC DOHMH)
New York City Department of Parks and Recreation (NYC Parks)
New York City Department of Transportation (NYC DOT)
New York City Economic Development Corporation (NYCEDC)
New York State Assemblyman Phillip Goldfeder
New York State Department of Transportation (NYS DOT)
Partnerships for Parks
Pure Elements
Queens Community Board 14
Queens Public Transit Committee
Regional Plan Association
Riders Alliance
Rockaway Waterfront Alliance
Rockaway Youth Task Force
Sebago Canoe Club
Southern Queens Greenway Alliance
Student Conservation Association (SCA)
Transportation Alternatives
Trust for Public Land
YMCA, Global Teens Program



© NPCA staff

Jamaica Bay Greenway Coalition members at Floyd Bennett Field. The Coalition is a partnership of local and citywide organizations committed to improve and expand the 28-mile Jamaica Bay Greenway. To learn more about the Coalition visit their Facebook page: <https://www.facebook.com/JBGCoalition/>

The Need

For decades New Yorkers have had very few options for traveling to enjoy New York City’s largest national park unit. Connections from nearby neighborhoods are time-consuming and insufficient. Jamaica Bay is serviced by few bus routes with minimal infrastructure to support commuting cyclists. It is recognized in Gateway’s [General Management Plan](#) that visitors primarily enter the park by personal automobile. Once at the park, visitors face difficulties traveling within the park as many of the unit’s attractions are physically disconnected by waterways, highways, bridges, tolls or privately owned land and most park sites are not served by transit.

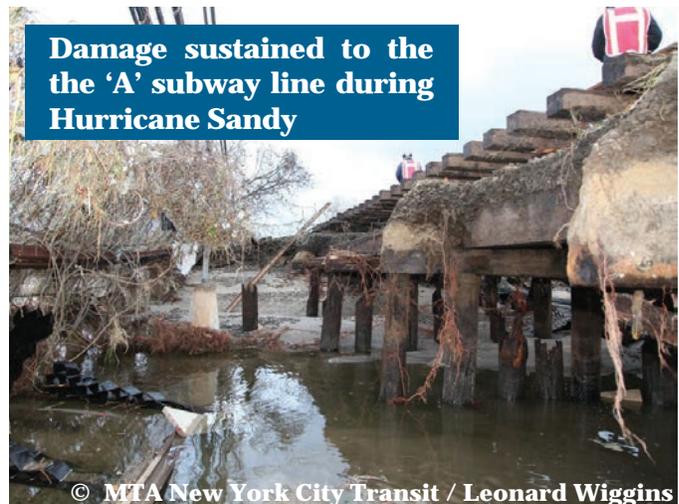
According to the latest Census data, less than half of New York City residents own cars. The map on the right shows the distribution of car ownership in New York City with extremely low car ownership around Jamaica Bay.

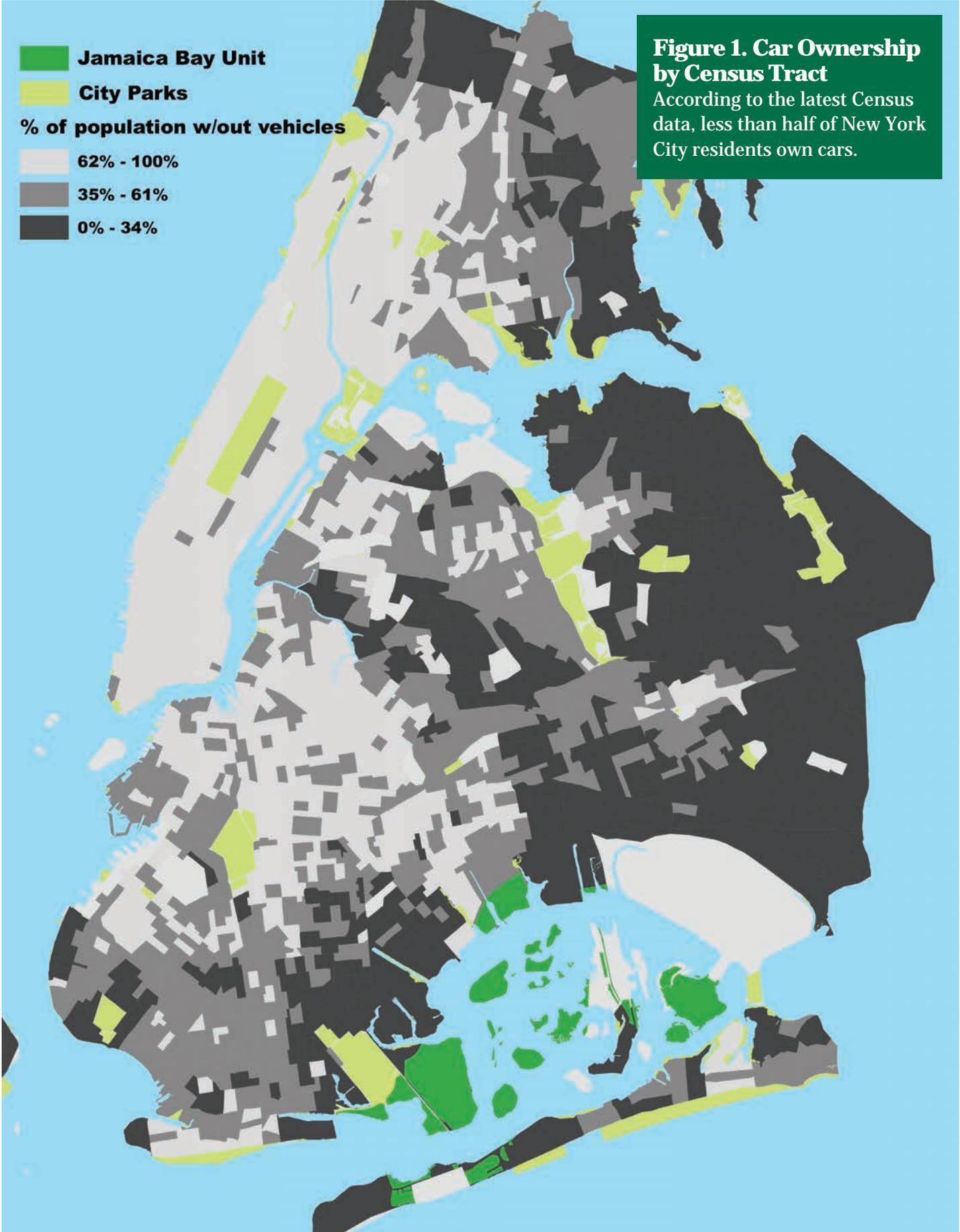
Transit-dependent residents who live close to Jamaica Bay and have lower-income levels face many hurdles accessing this local treasure. People face life-threatening conditions on the city streets that connect Jamaica Bay to the rest of the city. In fact, Flatbush Avenue and Woodhaven Boulevard, the only two roads that connect New York City to the Jamaica Bay unit of Gateway, are two of the most dangerous streets in New York City. More pedestrians are killed or seriously injured due to traffic accidents on Flatbush Avenue and Woodhaven/Cross Bay Boulevard than most New York City streets. This is why Mayor de Blasio’s administration has designated both Flatbush Avenue and Woodhaven/Cross Bay Boulevard as ‘Priority Corridors’ in the New York City Department of Transportation’s (NYC DOT) *Vision Zero* campaign.¹

Jamaica Bay lacks water transit services, is serviced by few bus routes and has minimal infrastructure to support commuting cyclists.

Improving resiliency in the face of climate change is another factor in the importance of Jamaica Bay accessibility. Inadequate transit in Jamaica Bay can pose serious evacuation challenges. Jamaica Bay’s natural landscape and local residents are becoming more vulnerable to land erosion and more frequent and intense storms, like Hurricane Sandy. Global climate patterns are changing and sea levels continue to rise across the eastern seaboard. Improving transit routes that connect Jamaica Bay to New York City would not only bring new audiences to Gateway NRA, but it could also provide additional evacuation options which could evolve as vital public safety resources for Brooklyn and Queens waterfront communities.

Improving access to the Jamaica Bay Unit has long been a pressing issue for a diverse set of stakeholders. The need seems particularly urgent in recent years, as larger discussions about equality and resiliency have dominated the public sphere. As New York City prepares to celebrate its 400th anniversary, Mayor de Blasio released the *OneNYC*





plan to unite and strengthen our nation's greatest city by realizing untapped potential for growth, equity, sustainability and resiliency. Increasing access to Jamaica Bay's waterfront is consistent with the projects recommended in *OneNYC* and can improve the quality of life for area residents, visiting tourists and future generations of New Yorkers who live around Gateway NRA.

The National Park Service at Gateway NRA echoes the need to improve public transit to Jamaica Bay in [Gateway's General Management Plan](#) released in 2014. The plan recommends improving ferry service, increasing public transportation options and expanding bicycle network connections to the park. The plan also recommends increasing the number of park entrances with more convenient and affordable transit connections.

Stakeholders outside of the NPS have also identified the need to improve access to the park. In 2011, NPCA worked with Senator Charles Schumer and former Congressman Anthony Weiner to develop a set of recommendations for Floyd Bennett Field. Their subsequent report, *Floyd Bennett Field: A Report*

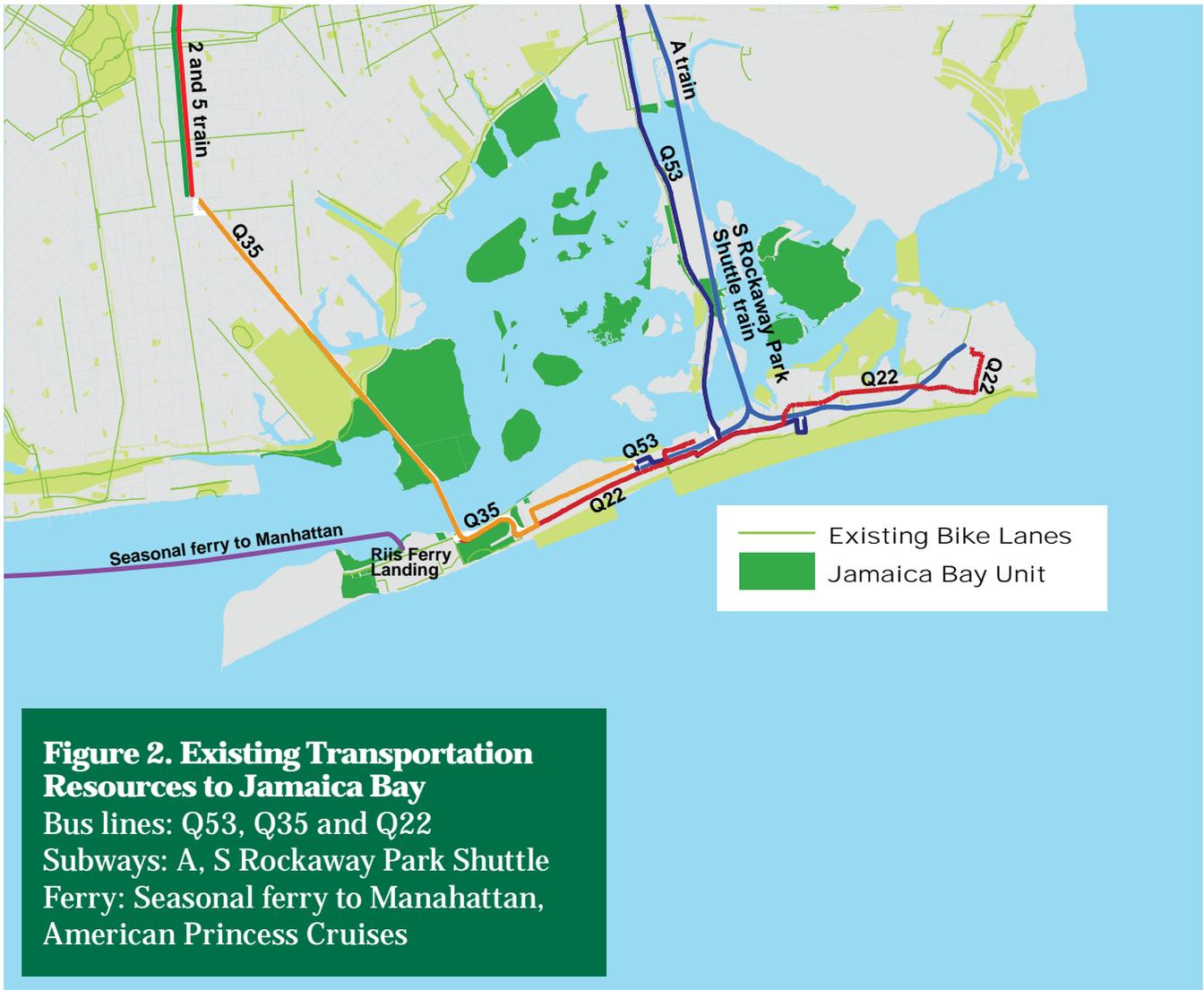
by the Floyd Bennett Field Blue Ribbon Panel, states "transportation to and from Floyd Bennett Field is perhaps the park's greatest challenge." The Blue Ribbon Panel included a diverse group of participants, ranging from politicians to not-for-profit naturalist organizations, who collectively demonstrate the wide-spread support for transportation improvements needed at Jamaica Bay.² The Floyd Bennett Field Blue Ribbon Panel recommends specific transportation projects that have informed NPCA's *Park Improvements Report*.

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Getting to Jamaica Bay by Water

EXISTING CONDITIONS AND PLANS

Jamaica Bay, though consisting mostly of water, wetlands, salt marshes and upland islands, lacks water transit services to popular areas of the park. Some of the most visited sites of Jamaica Bay are separated by bridges, tolls, highways and other prohibitive measures. Water borne transportation continues to present the greatest opportunity for a quick and fluid ride from park site to park site, and from the park to nearby transportation hubs, local restaurants and beach and bike shops that prove to be a principle economic engine for one of the most transit starved areas of NYC.

CITYWIDE FERRY SERVICE AND ROCKAWAY FERRY ROUTE REINSTATEMENT

Citywide ferry service is coming to every New York City borough over the next five years. Citywide ferry service provides a potential opportunity for improved transportation to the Jamaica Bay unit of Gateway NRA.

Mayor De Blasio announced on February 3, 2015 the expansion of ferry service by adding five new ferry routes to the existing East River Ferry and Staten Island Ferry routes. The new routes will serve Astoria, South Brooklyn and Rockaway by summer 2017; and Soundview and the Lower East Side by 2018. Starting in summer 2017, the Rockaway Ferry is slated to run from the bay side of Beach 108th Street in Rockaway, stopping at the Brooklyn Army Terminal and ending at Wall Street in Manhattan. The route is a reinstatement of the ferry route that was put in place following Hurricane Sandy and deactivated in 2014 when regular transit service returned.

According to the New York City Economic Development Corporation (NYCEDC), the



Citywide Ferry will attract around 4.6 million riders per year once in full operation. The city has committed \$55 million in capital investment to build and renovate docks and landings to support the Citywide Ferry. An additional \$30 million per year over the next six years is needed to subsidize the cost of operations, staff, fuel, etc. to ensure that fares remain at \$2.75 per ride. It is critical that fares remain competitive with subways and buses to ensure that the ferry is a viable transit option for all New Yorkers. subsidy amounts can decrease if ridership increases overtime, meaning the more people that ride the ferry, the less it will cost to operate.

In advance of the launch of a citywide ferry, NYCEDC released a Citywide Ferry Operators 'Request for Proposal' (RFP). Through this RFP, NYCEDC solicited competitive proposals for



American Princess Cruises currently operates a popular weekend ferry service to Riis Landing

private operators to operate the Citywide Ferry Service ferry routes, and to provide shuttle bus service in Midtown Manhattan and the Rockaway Peninsula. The RFP identified the need for the Rockaway shuttle to serve communities to the east and west of the Beach 108th landing. According to NYCEDC, the proposed shuttle route has not yet been finalized; an announcement was expected late summer/early fall 2016.

WEEKEND FERRY SERVICE TO RIIS PARK LANDING

The existing ferry service that connects lower Manhattan to the Rockaways is operated by Princess America Cruises. A round-trip ride on the American Princess costs \$30, which is prohibitively expensive for many New Yorkers. Even with its high cost, the American Princess is very popular with beach goers and national park visitors serving over 13,000 riders every year. The American Princess Ferry has grown so popular on summer weekends that it consistently leaves long lines of customers waiting at the dock for a later boat. The American Princess ferries hold 250 passengers and makes only four trips a day during regular summer weekends.

RECOMMENDATIONS

The following recommendations cover opportunities to enhance access to Jamaica Bay via the new Citywide Ferry Service:

A. EXTEND THE SHUTTLE BUS FROM THE NYCEDC ROCKAWAY FERRY TO JAMAICA BAY PARK ENTRANCES

We recommend that the Citywide Ferry operator prioritize hiring a shuttle bus operator that offers a west-bound shuttle to bring ferry riders to Jamaica

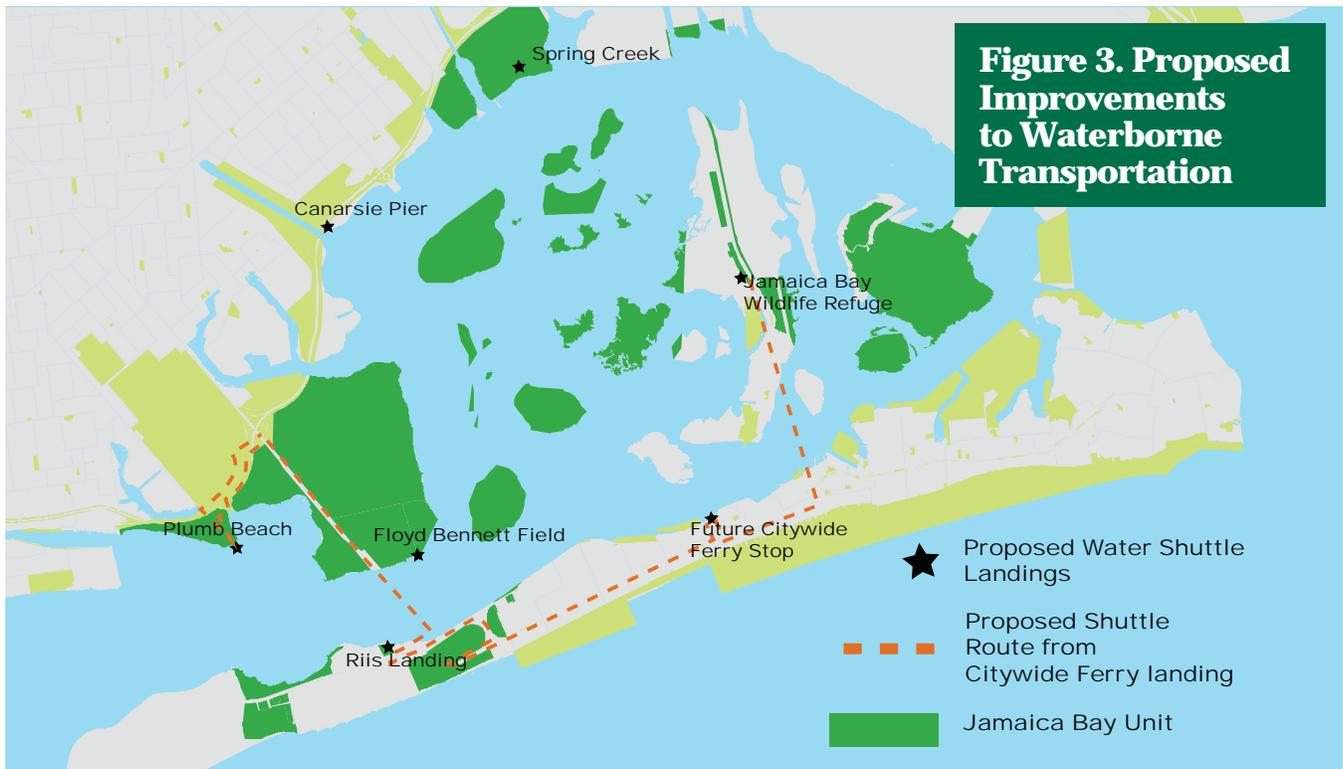
Bay parks including but not limited to Riis Park Beach and Fort Tilden. Additional stops could include: the Jamaica Bay Wildlife Refuge, Riis Park Landing and Floyd Bennett Field.

The Rockaway Ferry shuttle bus service should run west-bound from Beach 108th Street to Jamaica Bay parks on a limited weekday schedule with more frequent stops on the weekends. The shuttle should also accept advance reservations so additional bus service could bring visitors to the Jamaica Bay Wildlife Refuge Visitor Center in Broad Channel, Canarsie Pier and Floyd Bennett Field in South Brooklyn as needed and for special events.

This shuttle could be modeled after the existing trolley service operated in partnership with the town of Homestead, Florida and the NPS. The Homestead trolley connects both residents and visitors to two National Parks in the area and to Miami-Dade County public transit. The trolley runs from downtown Homestead to the Everglades National Park’s Ernest Coe Visitor Center and to Biscayne National Park’s Dante Fascell Visitor Center, where visitors can rent a kayak or canoe to explore the park. It also travels to Miami-Dade County’s Homestead Bayfront Park, where riders can enjoy the public beach.³



The Homestead trolley service is an asset to community members and tourists alike. It also offers park rangers a venue to interact directly with the public.



B. INCREASE BOAT CAPACITY WITH MORE FREQUENT SERVICE TO ACCOMMODATE SUMMER RIDERSHIP

More frequent weekend ferry service in the warm months would be an economic engine that benefits NPS and local Rockaway businesses. In order for NYCEDC to offer reliable summer service to potential park visitors, larger boats should be used during peak times. Operators should also run more frequent trips during these hours.

While NYCEDC has not published their models and predictions for weekend ridership on new Citywide Ferry Service lines, the popularity of the existing Rockaway-bound ferry indicates that ridership will be quite high on summer weekends. According to the NYCEDC, their previous Rockaway ferry service ridership increased in the summer, even after subway service was restored following closures due to damage sustained by Hurricane Sandy.⁴ In our discussions with NYCEDC, they have indicated that their contract with Hornblower is flexible regarding service capacity. They plan to evaluate the system after the first year of service and will use ridership data to decide if existing boat capacity and service frequency is adequate. NPCA encourages NYCEDC to evaluate demand and stay committed

to increasing capacity if necessary with an eye to serving Gateway NRA.

C. INTEGRATE FERRY SERVICE FARE SYSTEM WITH EXISTING MTA SERVICES

The new permanent Citywide Ferry Service connection to the Rockaway Peninsula is a crucial component to improving New Yorkers’ accessibility to Jamaica Bay. A standard \$2.75 fare for the Citywide Ferry is essential to remain a viable transit option that serves all New Yorkers. However, because the NYCEDC and Metropolitan Transit Authority (MTA) have not planned to integrate their fare systems to allow for free transfers between the Citywide Ferry Service and MTA trains and buses, the service will be prohibitively expensive for those individuals and families that don’t live within walking distance of the ferry.

The Citywide Ferry service will be using both a paper and mobile tickets. According to NYCEDC, Hornblower’s capacity to use a mobile ticket system was a key factor in their successful ferry-operator bid. NYCEDC continues to explore options for how to integrate ferry payment into the MTA’s new fare payment system. NPCA supports NYCEDC’s efforts to integrate the Citywide Ferry fare system with the MTA’s upcoming fare system in 2019. In the meantime, NPCA recommends that NYCEDC and the

MTA develop a short-term fare integration solution that will make ferry service affordable during this two- year transition period. A rollout of Citywide Ferry Service that does not include free transfers with MTA service could possibly alienate middle and lower income New Yorkers from this valuable transit resource.

D. ADEQUATE PARKING FOR VEHICLES AND BICYCLES AT ROCKAWAY FERRY LANDING

In the environmental review for the Citywide Ferry Service, NYCEDC demonstrates there will be an increased need for parking at several of the new ferry landings. The new Rockaway landing is projected to require 135 new parking spaces. In the past, ferry riders were able to park their cars in the lot across the street from the ferry landing on Beach 108th Street. NYCEDC has confirmed that they are in negotiations with National Grid, who owns the lot across from the ferry landing, to continue to use the land for parking moving forward. NPCA urges the NYCEDC to ensure that the parking needs of all new landings are fulfilled so the expansion of New York City’s ferry network will effectively serve those who live in transit-starved areas.

In addition to vehicle parking, NPCA encourages NYCEDC to devote substantial portions of their proposed parking facilities to bicycle-parking so that those who can’t afford cars can still access the ferry landings. NYCEDC has stated their commitment to bicycle-friendly ferry facilities. There will be space for 15 bikes on Citywide ferries and NYCEDC is also working with NYC DOT to locate bike parking near ferry landings. NPCA urges NYC DOT and NYCEDC to commit to installing bike parking within walking distance of all ferry landings, including the Rockaway landing at B108th Street. The planned parking lot that is currently owned by National Grid should also include bike parking.

E. IMPLEMENT A WATER SHUTTLE TO SERVE JAMAICA BAY

One of the biggest challenges that visitors face at Jamaica Bay is traveling to isolated points of interest that are separated by privately owned land, roads, highways, narrow bridges and waterways. Attractions within the park are geographically close but separated by tolls,

disjointed public transit systems and inconspicuous park entrances. A feasible and effective solution would be to issue an RFP and hire a private operator to manage an internal Jamaica Bay ferry. This can be a seasonal stop with off-peak, weekend hours to accommodate park visitors and special events. The ferry can service landings in Jamaica Bay at Beach 108th Street and Riis Landing. Ferry landings could be constructed and installed near existing docks at Gateway Marina, Canarsie Pier and other potential sites along the Jamaica Bay waterfront like Floyd Bennett Field and Sunset Cove.

The Jamaica Bay water shuttle should emulate the Boston Harbor Cruises (BHC), the company which serves Boston Harbor Islands national park. BHC offers regular trips to the Harbor Islands from a convenient location in downtown Boston. The company highlights the unique features of each island and also offers themed-cruises like “Cultural Connector” and “Historic Sightseeing Cruise”. The boats are also available for private events like weddings. The company cites its diverse portfolio of offerings as the key to its monetary success.⁵

Former Congressman Anthony Weiner had earmarked \$15 million over ten years ago to purchase three ferries that would serve the Rockaway Peninsula. The money has gone unspent as the ferry service was never implemented. NYCEDC is using the funds to conduct a study for implementing a Rockaway peninsula-only ferry service. The study will include public meetings. NPCA recommends the study include an analysis of water shuttle service within Jamaica Bay, linking to the Rockaway Peninsula.



Boston Harbor Cruises serve Boston Harbor Islands State and National Park. The partnership could serve as a model for Gateway National Recreation Area.

Getting to Jamaica Bay by Bus

EXISTING CONDITIONS AND PLANS

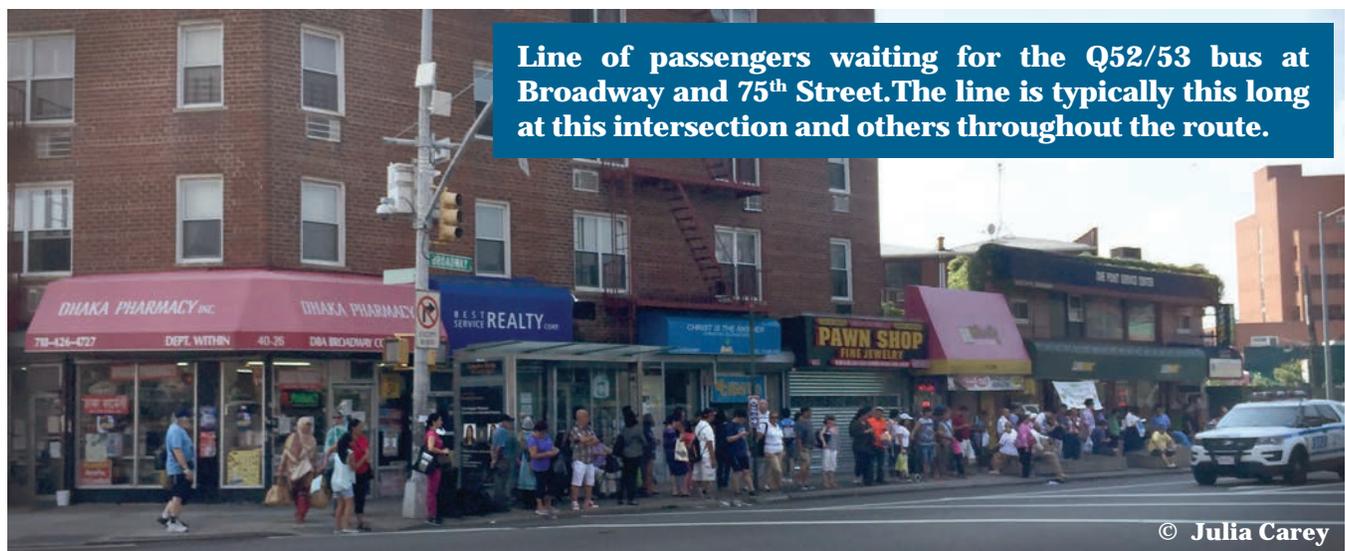
Jamaica Bay is currently serviced by few city buses with even less routes in the spring, fall and winter seasons. Local residents who want to visit the park often have to take a bus to either Flatbush Avenue or Cross Bay Boulevard then transfer to another bus line that brings them to a national park entrances at Jamaica Bay. These transfers are time consuming and logistically prohibitive. To make matters worse, buses on Flatbush Avenue and Woodhaven/Cross Bay Boulevard are frequently overcrowded, forcing drivers to bypass stops with long lines of people. The compounding effect of bus transfers and overcrowding contributes to a negative experience, making riders second guess their next trip to Jamaica Bay.

Woodhaven/Cross Bay Boulevard is a notoriously dangerous road. The corridor has one of the highest averages of killed or seriously injured pedestrians in Queens.

PLANS FOR COMPLETE STREETS AND BUS RAPID TRANSIT

New York City is part of a national movement to redesign streets to serve a broader set of transit modes, or to be “Complete Streets.” In the NYC DOT’s Street Design Manual, the agency recognizes streets as important public spaces where safety should be prioritized and opportunities for economic development, healthy lifestyles and social interaction are enhanced. The city also recognizes that streets are a great place to install green infrastructure that filters storm water and diverts it from the city’s overburdened sewer system. Another essential component of “Complete Streets” is to increase ridership of public transit by making it more attractive and convenient.

Bus Rapid Transit (BRT) is an important component in New York City’s goal to achieve “Complete Streets.” The service is cheaper to implement than rail and aims to emulate rail by decreasing travel



© Julia Carey

A recent rendering of a proposed Q52/53 SBS station that will be implemented in 2017.



times and increasing ridership capacity. BRT cuts travel time by offering riders the option of paying before they board the bus, traveling in dedicated bus lanes with transit signal priority to reduce the time that buses sit at red lights. BRT has been implemented in cities around the world.

IMPLEMENTING SELECT BUS SERVICE FOR Q52/Q53 ROUTE

Select Bus Service (SBS) is New York City's version of Bus Rapid Transit. It has only recently been in operation in NYC, with the first line being implemented in 2008. The MTA and DOT have been working together to introduce Select Bus Service in Manhattan, Brooklyn, Bronx and Staten Island. Together these agencies have identified the highly trafficked 14-mile Woodhaven/Cross Bay Boulevard corridor as a prime location to introduce SBS. The Q52 and Q53 buses are typically very slow and crowded on the weekends, when many of their passengers are traveling to Jamaica Bay and to the public beaches in Rockaway. By introducing SBS to Eastern Queens, the MTA is seeking to ease congestion, cut travel time and create safer streets for drivers, transit riders and pedestrians on Woodhaven/Cross Bay Boulevard.

The Woodhaven/Cross Bay corridor intersects with the Long Island Railroad (LIRR), and subway lines. The corridor also connects many New York City neighborhoods, a number of which have few transit options. The existing Q52 limited service operates daily from Woodhaven Boulevard at the M/R subway stop to Elmhurst and Rockaway Beach Boulevard, and Beach 69th Street in Arverne. The Q53 limited bus service runs from Woodside 61st Street at the 7 subway stop to the LIRR station in Woodside to Beach 116th Street in Rockaway. The MTA also outlines this project on their website.⁶

Besides improving travel times for both commuting and leisure trips, the NYC DOT and the MTA are working together to make Woodhaven/Cross Bay Boulevard a public space that's more safe and appealing for transit riders and pedestrians. Woodhaven/Cross Bay Boulevard is a notoriously dangerous road. The corridor has one of the highest averages of killed or seriously injured pedestrians in Queens. It has been designated a Priority Corridor as part of NYC DOT's *Vision Zero* campaign.⁷

One of the key components of SBS is enhanced bus shelters. The MTA and NYC DOT are proposing the implementation of center median comfort

stations on Woodhaven/Crossbay Boulevard. These enhanced shelters provide riders a safe place to wait, protected from the elements and street traffic. Pedestrian safety improvements like curb extensions and mid-block crosswalks are also being proposed to reduce the number of pedestrian-vehicle accidents.

SBS on the Q52/Q53 is scheduled to be implemented in 2017, with a larger more expensive capital project to follow after 2017 under the management of NYC Design and Construction. NPCA supports the NYC DOT and MTA's efforts to improve the efficiency, safety and increase availability of public transit along Woodhaven/Crossbay Boulevard.

Some community members have expressed concern with the proposed SBS plan for the Q52 and Q53 buses. This is why NYC DOT and MTA should continue to submit project updates and timelines on their website in addition to hosting public meetings that inform nearby communities about bus service changes and construction progress in their neighborhood. By continuing to engage the public before, during and after short term implementation projects, transportation agencies will be able to compile useful feedback that can steer the future of the project.

RECOMMENDATIONS

The following recommendations cover improvements to bus service to Jamaica Bay:

F. RETAIN JAMAICA BAY WILDLIFE REFUGE BUS STOP WITH Q52/Q53 SBS IMPLEMENTATION

It is vital that the Jamaica Bay Wildlife Refuge remain a stop along the new SBS Q52/Q53 route. The Q52/Q53 routes are one of the few ways that NYC and Long Island transit-reliant residents can get to Jamaica Bay. This bus stop will allow thousands of area residents the opportunity to more easily explore a national park via public transit. The NPS should work with MTA to improve and

Currently, the Q53 bus terminates at Beach 116th Street and park visitors have to transfer to the Q22 bus and travel nearly two miles or twenty minutes by bus to the park area.



highlight this stop as an entrance to the national park. The stop could be modeled after the NPS-branded Q35 bus stop on Flatbush Avenue.

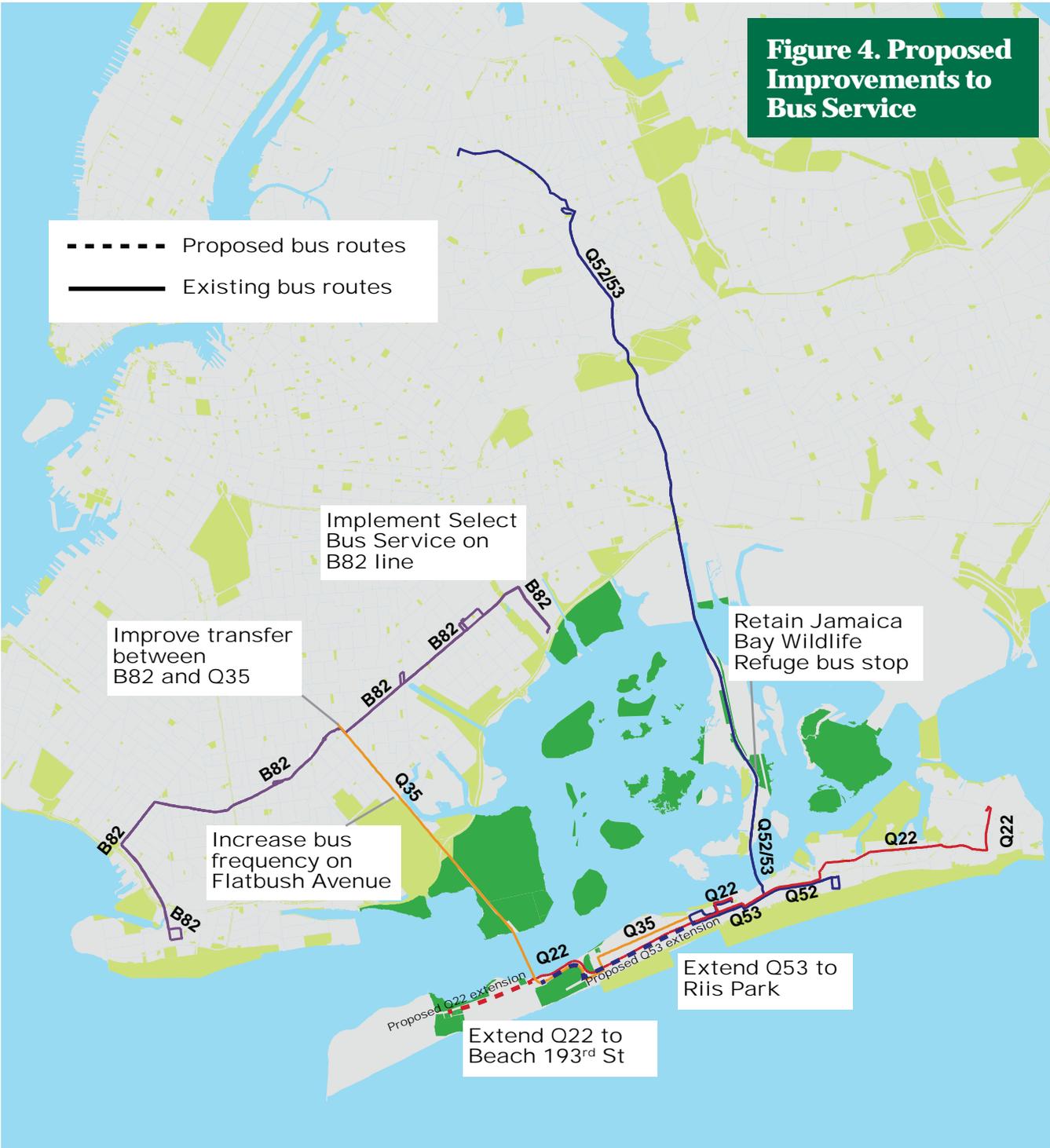
G. EXTEND THE Q53 TO RIIS PARK LANDING AND RIIS BEACH/FT TILDEN

Many south-bound bus riders who travel on the Q53 bus are visiting national park sites Jacob Riis Park and Fort Tilden. Currently, the Q53 bus terminates at Beach 116th Street and park visitors have to transfer to the Q22 bus and travel nearly two miles (or twenty minutes by bus) to the park area. NYC DOT and MTA should consider extending the Q53 and/or the SBS Q53 route further west to Riis Park Landing parking lot just west of Beach 169th Street and Riis Beach/Ft Tilden bus stop where the Q22 currently services.

H. INCREASE BUS FREQUENCY ON FLATBUSH AVENUE

The Q35 bus runs north and south on Flatbush Ave. from Avenue H in Brooklyn to Rockaway Park in Queens via Flatbush Ave and Beach Channel Drive. The Q35 makes vital connections between the subway stop at Brooklyn College, the subway station at Beach 116th Street, and stopping at Gateway NRA park

Figure 4. Proposed Improvements to Bus Service



entrances at Floyd Bennett Field, Fort Tilden and Jacob Riis Park.

The route is highly trafficked with people of all ages trying to go to school, work, restaurants, Kings Plaza, Marine Park, Aviator Sports, Gateway NRA and Rockaway Beach. People typically wait 15-20 minutes at Floyd Bennett Field to catch the Q35, though waits can be as long as thirty minutes.

I. FAMILIARIZE BUS DRIVERS WITH JAMAICA BAY ATTRACTIONS

Bus drivers aren't stopping at Jamaica Bay attractions unless requested by a rider. There are a variety of low cost solutions to provide better bus service to Gateway NRA sites, beginning with driver education. If bus drivers were more familiar with park entrances along their route they would be better equipped to serve park visitors. The National Park Service can supply driver training materials to the MTA. Potential materials include several facts about each Gateway NRA site, common park names and attractions along the route, annual special events and a simple map highlighting park entrances.

The Jamaica Bay Wildlife Refuge bus stop offers an opportunity for the MTA and the NPS to work together to promote the park and the bus stop through printed ads on buses, printed materials distributed by the MTA (such as MetroCards) and social media.

National parks sites of interest include:

- **Floyd Bennett Field:** Aviator Sports Complex, Ryan Visitor Center, public camp grounds, Ecology Village and Historic Aviation Restoration Project in Hanger B
- **Dead Horse Bay**
- **Riis Landing and American Princess Cruises**
- **Fort Tilden and Battery Harris**
- **Jacob Riis Park:** Riis Bathhouse, Riis Park Beach Bazaar, Pitch & Putt
- **Jamaica Bay Wildlife Refuge**
- **Canarsie Pier**
- **Plumb Beach**

J. EXTEND Q22 TO BEACH 193RD STREET

Beach 193rd Street is the eastern-most public

street on the Rockaway Peninsula and it connects to the Range Road entrance to Fort Tilden. NPCA recommends extending the Q22 to Beach 193rd Street so park visitors can access the eastern end of Fort Tilden by bus.⁸

K. IMPROVE BUS CONNECTIONS BETWEEN BROWNSVILLE, EAST NEW YORK, CANARSIE AND FLATLANDS NEIGHBORHOODS AND JACOB RIIS PARK

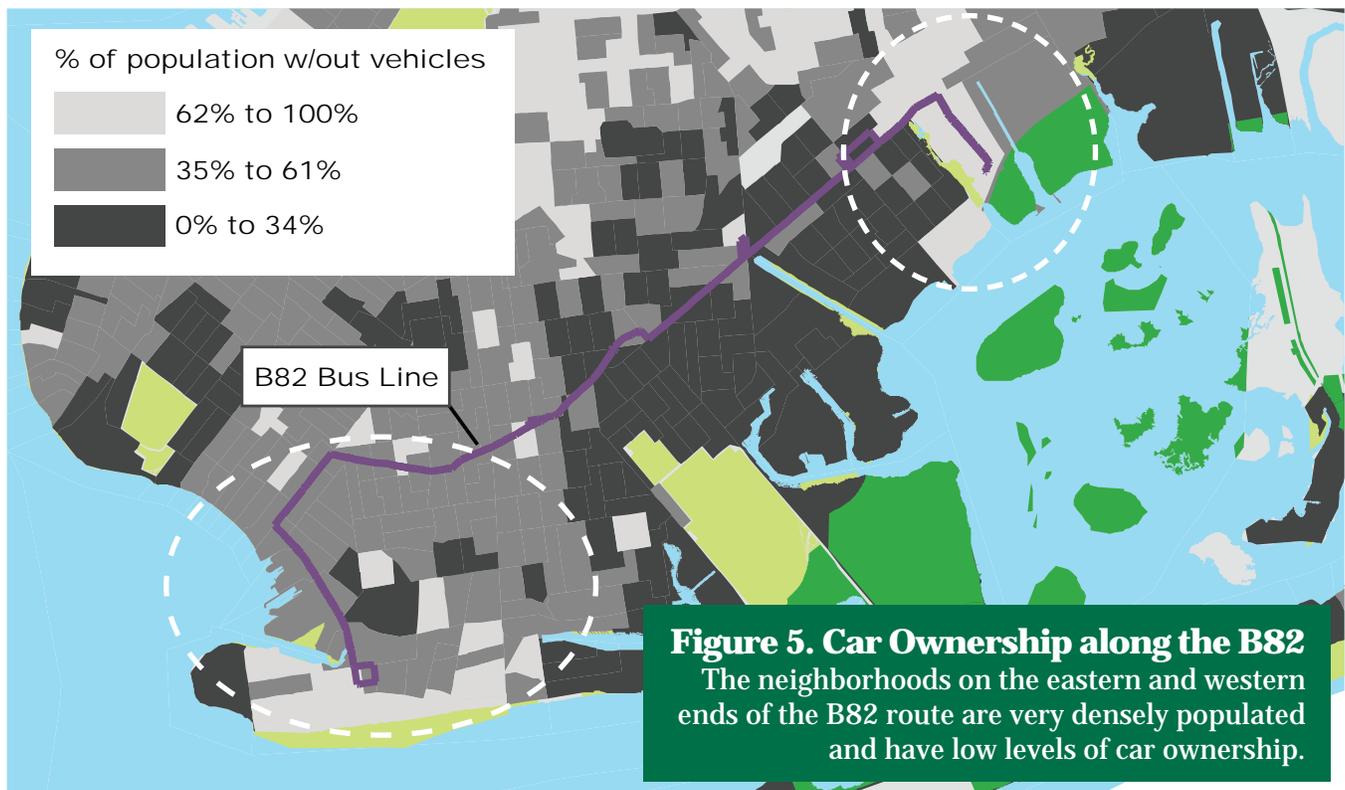
MTA and NYC DOT have begun a planning process to implement Select Bus Service on the B82 bus route that connects East New York and Canarsie to Coney Island. Existing service on the B82 bus is poor and the areas surrounding its route are generally underserved by transit (see Figure 5). While this route does not directly connect to Jacob Riis Park, it does connect to the Q35 bus route, the only bus route that travels between Brooklyn and Riis Park. These neighborhoods near the southern end of the L train are low-income areas with very little parkland. The implementation of SBS on the B82 route is an important project to increase New Yorkers' access to Gateway NRA.

L. IMPROVE TRANSFERRING PASSENGERS' EXPERIENCE BETWEEN B82 AND Q35 BUS ROUTES

Besides implementing SBS on the B82 route, NPCA also recommends that the MTA and NYC DOT improve the transferring passengers' experience between the B82 and Q35 routes by relocating bus stops and/or improved wayfinding between this popular transfer.

M. PRIVATE ALTERNATIVES WHERE INCREASED BUS SERVICE ISN'T FEASIBLE

In NPCA's meetings with NYC DOT and the MTA, both agencies agreed that while bus service to Jamaica Bay could be improved, some of the route extensions or modifications we were suggesting were prohibitively expensive. The routes would likely have too low a ridership (either year round or seasonally) for the cash-strapped agencies to justify their high operational expenses. As an alternative, they recommended investigating



partnerships between the NPS and ride-sharing services like Via, Uber Pool or Lyft.

N. EXPAND BIKE AND RIDE PROGRAM

The Bike & Ride program installs bike racks on the exterior of MTA city buses. These racks allow people to travel throughout the city without having to struggle with their bike inside the bus or underground on the subway. Bike & Ride promotes human-powered transportation and encourages New Yorkers to take advantage of the many networks of bicycle paths across the city which reduces the amount of carbon emissions in the atmosphere and promotes healthier lifestyles.

The MTA issued a pilot Bike & Ride program on the S53 and the S93 buses that go from Staten Island to Bay Ridge, Brooklyn via the Verrazano Bridge. The year-long pilot started on September 6th, 2015 which marked the first time that bike racks were ever made available on MTA city buses. These racks are free for bus riders and are available first come first serve. The MTA

Jamaica Bay's geographic isolation and lack of effective public transit makes it an ideal location to expand the Bike & Ride program

is currently evaluating the pilot program. According to the MTA, NYC Transit purchased 38 racks for the S53 and S93 buses that cost a total of \$42,000.⁹ There are three different types of racks that MTA has installed on S53 and S93 buses, each rack can carry two bicycles. Bike & Ride is not an operational challenge for the MTA,

the biggest obstacle to the success of the program is the overwhelming popularity of it, given the limited number of bike racks on each bus.

Jamaica Bay's geographic isolation and lack of effective public transit makes it an ideal location to expand the Bike & Ride program to include buses that operate near the existing Jamaica Bay Greenway. The MTA and NYC DOT should implement the Bike & Ride pilot program on following bus routes and evaluate demand and program needs:

- **Canarsie: B17, B42**
- **Howard Beach: Q41, Q21**
- **Flatbush: Q35**
- **Sheepshead Bay: B4, B44, B44 (Select Bus Service from Williamsburg)**
- **Rockaway: Q22**

Getting Around Jamaica Bay by Bike

EXISTING CONDITIONS AND PLANS

Biking continues to be one of the most attractive ways to visit Jamaica Bay, though few communities have access to entry points along the 11-mile Jamaica Bay Greenway loop. The Jamaica Bay Greenway, as it exists today, does not directly connect with nearby subway stops, transportation hubs or local points of interest. The greenway should expand beyond the 11-mile loop to connect with NYC's safe and protected bike lanes in nearby neighborhoods in order to make it more accessible to the people who live around the bay.

JAMAICA BAY IMPLEMENTATION PLAN

The Office of Bicycle and Pedestrian Programs at NYC DOT collaborated with the Regional Plan Association (RPA) to develop the [Jamaica Bay Greenway Implementation Plan](#). The goal of the plan is to implement a 28-mile network of pedestrian and bicycle paths along the Jamaica Bay waterfront. NYC DOT and RPA sought extensive public input and engaged the local community at four planning workshops throughout Summer 2015 which greatly informed the final implementation plan.

A greenway is particularly appropriate for connecting visitors to Jamaica Bay because greenways entice new cyclists and “provide comfortable spaces for parents with young children to go for family bike rides.”¹⁰

RECOMMENDATIONS

The following recommendations cover improvements to bicycle access to and within

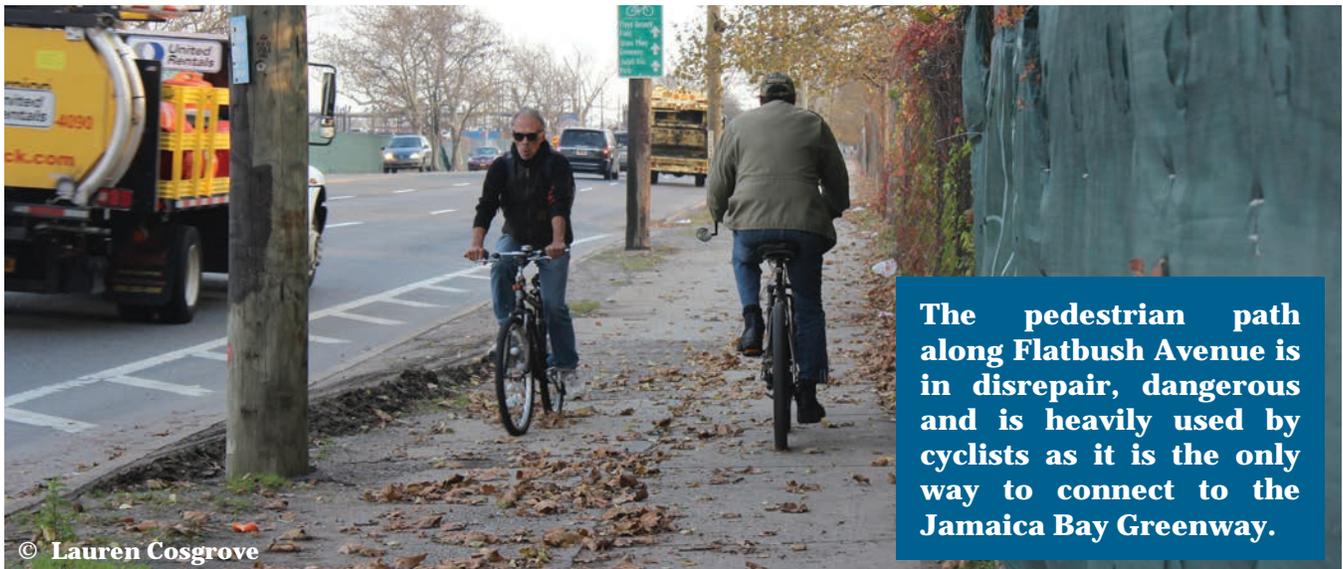
Jamaica Bay. The first set of recommendations cover improvements to the existing Jamaica Bay Greenway Implementation Plan. The second set of recommendations cover projects that complement the Jamaica Bay Greenway Implementation Plan and support better bicycle access to Jamaica Bay.

Recommendations for Improvements to the Existing Jamaica Bay Greenway Implementation Plan

O. FLATBUSH AVE ENHANCEMENTS

Flatbush Avenue has been designated a Priority Corridor by the NYC DOT due to the high number of pedestrians and cyclists that have been injured or killed. Flatbush Avenue is one of only two north-south routes that lead to Jamaica Bay. The sidewalk along Flatbush Avenue is the only protected lane that pedestrians and cyclists can use on this busy thoroughfare. At roughly 6 feet it is just slightly over the recommended 4-foot width for a one-way bike lane adjacent to a street edge.¹¹ Since the path is heavily trafficked by cyclists traveling longer distances, cyclists tend to travel at higher speeds on the Flatbush sidewalk leaving cyclists and pedestrians vulnerable to collisions.

NPCA has heard from members of the community and active Jamaica Bay Greenway users that the pedestrian path on the west side of Flatbush should be repaired and widened in lieu of painting bicycle paths in existing street traffic lanes. Beginner and expert cyclists will not feel comfortable riding their bikes on a shared bike plan that merges and yields to street traffic. Flatbush Avenue needs to feature a protected bike lane to ensure the safety of its users.



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Another option is to extend the sidewalk and build out a protected bike lane. This can be accomplished in two ways:

1. NYC DOT can narrow the travel lanes for cars and build into the street.
2. NYC DOT can work with NYC Department of Parks and Recreation to use about 9 feet of land that is currently leased by the Marine Park Golf Course to build the sidewalk further west.

In addition to a narrow sidewalk on Flatbush, the intersection at Shore Parkway is confusing and in poor condition. The pedestrian ramps are crumbling and directional signage is sparse. NPCA urges NYC DOT to repair ramps at Shore Parkway and Flatbush and install adequate signage.

Flatbush Avenue has been designated a Priority Corridor by the NYC DOT due to the high number of pedestrians and cyclists that have been injured or killed while traveling it.

popular areas like Beach 116th Street and Gateway NRA parks. Beach Channel Drive is a natural connection between Cross Bay Blvd Bridge and the national park sites on the Rockaway Peninsula.

NPCA urges NYC DOT to work with bayside landowners such as New York City Department of Parks and Recreation (NYC Parks), New York City Department of Education (NYCDOE) and private property owners to construct continuous off-street, multi-use path along Beach Channel Drive from Veteran’s Memorial/Cross Bay Blvd

Bridge to the existing bike path north of Riis Park Beach. Agency officials recommend that NYCEDC oversee the project as they have proven to be effective at managing multi-agency projects in the past, particularly the pre-Hurricane Sandy bulkhead construction along the north of the Rockaway Peninsula. NPCA recommends that NPS and NYCEDC collaborate to implement the Bayside Path extension.

P. IMPLEMENT BAYSIDE PATH TO CONNECT JAMAICA BAY GREENWAY TO BEACH 108TH FERRY TERMINAL

The Bayside Path extension is another important project in DOT’s Implementation Plan. This 14,200 ft. proposed extension along Beach Channel Drive would provide protected bicycle access along Rockaway’s breath-taking Jamaica Bay waterfront connecting ferry riders at Beach 108th Street to other parts of the Rockaway Peninsula, including

Q. ADDABBO BRIDGE IMPROVEMENTS

The Addabbo Bridge is a heavily trafficked bridge where cars and trucks travel at high speeds. The bike lanes on the bridge are unprotected and leave cyclists exposed to the dangerous vehicles. NYC DOT’s Implementation Plan recommends converting the protected pedestrian path on the west side of the bridge into a two-way bicycle path.

NPCA supports this project as it would ensure cyclists of all ages feel more comfortable traveling on Addabbo Bridge.

R. CONNECT JAMAICA BAY GREENWAY WITH SURROUNDING NEIGHBORHOODS

The Jamaica Bay Greenway is a fantastic resource for cyclists both young and old because it is protected from dangerous car traffic. Accessing the Greenway proves to be a challenge for residents living in surrounding neighborhoods. Most streets that lead to the Greenway are not a part of the city's current bicycle network. This leaves cyclists disconnected from the Greenway, forcing them to access the Greenway by riding on streets without protected bike lanes, or in many cases, on streets with no bike lanes at all.

Cyclists accessing the Greenway must first travel on streets without protected bike lanes, or in many cases, on streets with no bike lanes at all.

The Jamaica Bay Implementation plan indicates that NYC DOT is expanding the bicycle network in Canarsie and Spring Creek. NPCA urges NYC DOT to continue prioritizing bicycle network projects that connect more Brooklyn and Queens neighborhoods to the Greenway. Community Boards and residents of Brooklyn and Queens should recognize the social and economic value of Greenway proximity and support bicycle projects that connect their neighborhoods to this fantastic resource.

Recommendations in Addition to the Jamaica Bay Greenway Implementation Plan

S. WIDEN THE PEDESTRIAN AND BICYCLE PATH ON MARINE PARKWAY-GIL HODGES MEMORIAL BRIDGE

The Marine Parkway-Gil Hodges Memorial Bridge is located entirely in Gateway NRA and is under the jurisdiction of the MTA. This bridge is the most convenient way to access the Rockaway Peninsula from Brooklyn. Cyclists and pedestrians share one narrow lane that is roughly six feet wide. Per MTA rules, cyclists are required

to dismount and walk their bicycles over the bridge. Many cyclists ignore that rule and continue to bike over the bridge because the bridge is nearly one mile long, making it unrealistic and prohibitive for park visitors traveling by foot. During the summer, the heavy cyclist traffic on the Marine Parkway Bridge creates a dangerous situation.

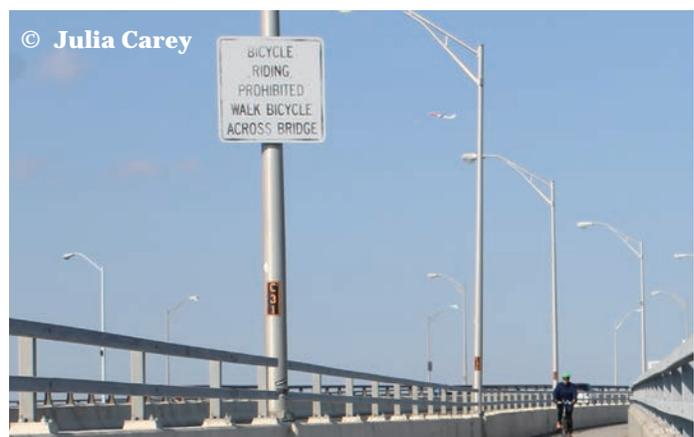
NPCA recommends that NYC DOT include this capital project in the Jamaica Bay Greenway Implementation Plan and work with the MTA to widen the pedestrian lane on the Marine Parkway

Bridge to make bridge crossing safer for local residents and park visitors. While experienced cyclists may feel the path is adequate, inexperienced cyclists and families are unlikely to use the lane at

its current width. While widening the lane would be expensive, it would open the bridge up to a much broader population, greatly increasing the number of people using the Jamaica Bay Greenway and cycling to attractions on the Rockaway Peninsula.

T. ALLOW CYCLISTS TO RIDE THEIR BIKES OVER CROSS BAY BLVD BRIDGE

The Cross Bay Blvd Bridge is an integral connection in the Jamaica Bay Greenway yet cyclists are currently required to walk their bicycles over the bridge per MTA rules. NYC DOT should work with MTA and change existing policy.



The Cross Bay Blvd Bridge is an integral connection in the Jamaica Bay Greenway yet the MTA prohibits biking on the bridge.

U. DEDICATED LIGHTING FOR BELT PARKWAY PORTION OF JAMAICA BAY GREENWAY

One of the longest stretches of the Greenway is the section that runs adjacent to the Belt Parkway on the north side of the bay. This portion is also one of the closest entry points to the waterfront for many of the neighborhoods in southern Brooklyn that lack direct public transportation options to Jamaica Bay. The Greenway is one of the only means of accessing the Jamaica Bay Unit for the many non-drivers in these neighborhoods (see Figure 1.). However, because this section of the Greenway has no dedicated lighting, riding the Greenway after dark is quite dangerous. NYC Parks and the NYC DOT should work together to install dedicated lighting along the sections of the Greenway adjacent to the Belt Parkway so it is safe to use at all hours.

V. LIGHTING ON THE ROCKAWAY BOARDWALK

The boardwalk that runs along the shore from Far Rockaway to Rockaway Park is the only protected bike path east to west on the Rockaway Peninsula. It's an important transportation resource for Edgemere and Far Rockaway in particular, where many residents don't own cars. Cycling on the boardwalk is currently not a reliable transportation option because it is only open from sunrise to sunset, due to lack of lighting. NYC Parks should install lights on the boardwalk and revise policy to allow biking in the evening so it can reliably serve cyclists and pedestrians at all hours.

W. EXTEND CITI BIKE PROGRAM TO JAMAICA BAY

Bike share systems allow people to use bikes on a temporary basis without the hassle of storing them, traveling with them or dealing with daily maintenance. Bike shares are used around the world to provide an alternate transportation option and to encourage bicycle-ridership in urban areas.

The Citi Bike program has been in operation in NYC since 2013. The program is a partnership between Motivate (a bike share operations company) and the City of New York. In 2014, Motivate purchased Citi Bike from the previous operator, Alta Bicycle Share.

New York City Bike Share, LLC (NYCBS) is the local subsidiary of Motivate that operates the Citi Bike system in New York. A sponsorship agreement with Citi Bank helped fund the initial launch of the system, as well as system expansion through 2017. By the end of 2017, the Citi Bike system will have doubled in size from 6,000 bikes at system launch to 12,000 bikes, and will extend further into Brooklyn, Queens and Upper Manhattan.

NPCA recommends that NYC DOT work with NYCBS to expand the program to Jamaica Bay. While Jamaica Bay is a low density area, the potential Citi Bike ridership is quite high. A large

Citi Bike stations could connect transit-reliant visitors to nearby beaches, natural, cultural and historic national park sites, local restaurants, souvenir shops and more.

number of city residents travel to Jamaica Bay for leisure activities and with improved transit on the horizon, the number is likely to grow. With 11 miles of bike path constructed along the

Jamaica Bay Greenway and the Rockaway Ferry returning in 2017, there is significant opportunity for increased bike ridership at Jamaica Bay. Citi Bike stations could connect transit-reliant visitors to nearby beaches, natural, cultural and historic national park sites, local restaurants, souvenir shops and more. NYCBS should consider Jamaica Bay as a high priority destination as Citi Bike continues to expand. The Brooklyn Greenway and

The State of Citi Bike

Citi Bike is New York City's only bike share program. Mayor de Blasio has stated hopes Citi Bike will eventually be a five-borough system but this may be overly optimistic given the bike share's perpetually precarious financial situation. Since it was introduced in 2012, Citi Bike has been on shaky footing. It is the only bike share program in the country that doesn't receive a public subsidy. Citi Bike's current funding will expire in 2017 and the it is unclear where future funding for expansions will come from. Citi Bank has name rights for 12,000 bikes until 2024 so there may be opportunity for alternative sponsorship for additional bikes. However, most agree that public funding is the surest way to sustain the program and expand its network to meet the needs of all New Yorkers.

Jamaica Bay Greenway can connect existing Citi Bike docking stations in Greenpoint to the Jamaica Bay waterfront.

Currently, only local residents and expert cyclists accustomed to long bike rides can get to Jamaica Bay via bike because of a lack of public infrastructure to transport people and their bicycles. Most New Yorkers face long distance rides to the park with varying quality of bicycle infrastructure. Bike-share docking stations along the Greenway and at transportation hubs in Rockaway, Broad Channel and southern Brooklyn would encourage park visitors to use expanding bike infrastructure like the Jamaica Bay Greenway, Shore Parkway Esplanade and Brooklyn Greenway. These protected bicycle facilities are important resources for all visitors with varying bike experience. Locating bicycle-docking stations within the Jamaica Bay Unit is not only an important opportunity to connect sites within the park but also to increase bike-ridership in New York City as it is one of the safest and most attractive locations in the city to bike.

Pilot docking stations should be considered at:

- **Beach 108th Street**
- **Beach 116th Street**
- **Riis Park/Fort Tilden**
- **Floyd Bennett Field**
- **Plum Beach**
- **Canarsie Pier & Canarsie Park**
- **Frank Charles Memorial Park**
- **Jamaica Bay Wildlife Refuge**
- **Broad Channel A-train subway station**

There are also opportunities for Citi Bike further east in Rockaway at Beach 69th Street, Arverne by the Sea shopping plaza, and underneath the elevated A-Train tracks.

The Bike Share Unit of NYC DOT has expressed that extending Citi Bike to Jamaica Bay would be difficult. Citi Bike's system is designed for 30-45 minute trips. Jamaica Bay's distance from the rest of the Citi Bike network would mean that riders originating in Jamaica Bay would risk exceeding these time limits and end up stranded, far from the rest of the Citi Bike network. NYC DOT's Bike Share Unit recommended speaking with Motivate to evaluate the feasibility of implementing a satellite network around Jamaica Bay, similar to the fleet

on Governors Island. Citi Bike on Governors Island is operated by Motivate outside of NYC DOT's purview.

The Bike Share Unit also suggested that the NPS with the NYC DOT's and NYC Parks' Concessionaire Units to bring a company like Bike and Roll or Blazing Saddles to Jamaica Bay. While this would be prohibitively expensive for many to use on a regular basis, it could be one of the most feasible solutions to increase bicycle access to Jamaica Bay in the short-term. Increased ridership will pave the way for improved bicycle facilities and in the long run, perhaps as an extension of Citi Bike operations.

Future Opportunities and Funding

NPCA is committed to bringing together private groups and city, state and federal agencies who can work together to move forward with the aforementioned transportation projects that require low capital investment and aim to increase access to Jamaica Bay and its waterfront. Together with local leaders and community organizations, NPCA will continue to lead this conversation, highlighting feasible and affordable improvements that can make a world of difference for area residents who want to explore Jamaica Bay by public transit.

There are a wide variety of funding opportunities available for infrastructure projects in and around the Jamaica Bay Unit due to its vulnerability during natural disasters. Many of the transportation improvements NPCA is advocating for strengthen Jamaica Bay’s resiliency. NPCA recommends that city agencies, state agencies and the NPS

collaborate and apply jointly for grants to fund transportation projects in and around Jamaica Bay. Possible funding resources include: US Department of Housing and Urban Development (specifically grants like the National Disaster Resilience Competition), the Federal Highway Administration (specifically the Transportation Alternatives Program, the Federal Land Access Program and the Congestion Mitigation and Air Quality Improvement (CMAQ) Program) and the Federal Transit Administration.



Additional Resources

MTA Capitol Plan 2015-2019

http://web.mta.info/capital/pdf/Board_2015-2019_Capital_Program.pdf

Pratt Center for Community Development's study on Bus Rapid Transit

http://prattcenter.net/sites/default/files/pratt_rockefeller_brt_nyc_whitepaper_for_web.pdf

Gateway National Recreation Area General Management Plan

<http://parkplanning.nps.gov/document.cfm?documentID=59051>

Jamaica Bay Greenway Map

<http://library.rpa.org/pdf/Jamaica-Bay-Greenway-2013-Users-Guide.pdf>

Floyd Bennett Field Blue Ribbon Panel Report, April 12, 2011.

http://www.rpa.org/pdf/FBF_Report_Final.pdf

NYCEDC Citywide Ferry Service

<http://www.nycedc.com/project/citywide-ferry-service>

NYC DOT Greenway Implementation Plan

<http://www.NYCDOTfeedbackportals.nyc/sites/default/files/JBG-Brochure-Web-Layout.pdf>

NYC Vision Zero priority corridors

<http://www.nyc.gov/html/dot/downloads/pdf/ped-safety-action-plan-brooklyn.pdf>

NYC DOT Adopt-A-Greenway Guidelines

<http://www.nyc.gov/html/dot/downloads/pdf/adopt-a-greenway-guidelines.pdf>

Rockaway Waterfront Alliance's Project Underway Plan

https://www.rwalliance.org/rwa/projects/project_underway/a-better-way-thru-rockaway-broch:en-us.pdf



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Bikers along Flatbush Avenue and the Marine Park Golf Course

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