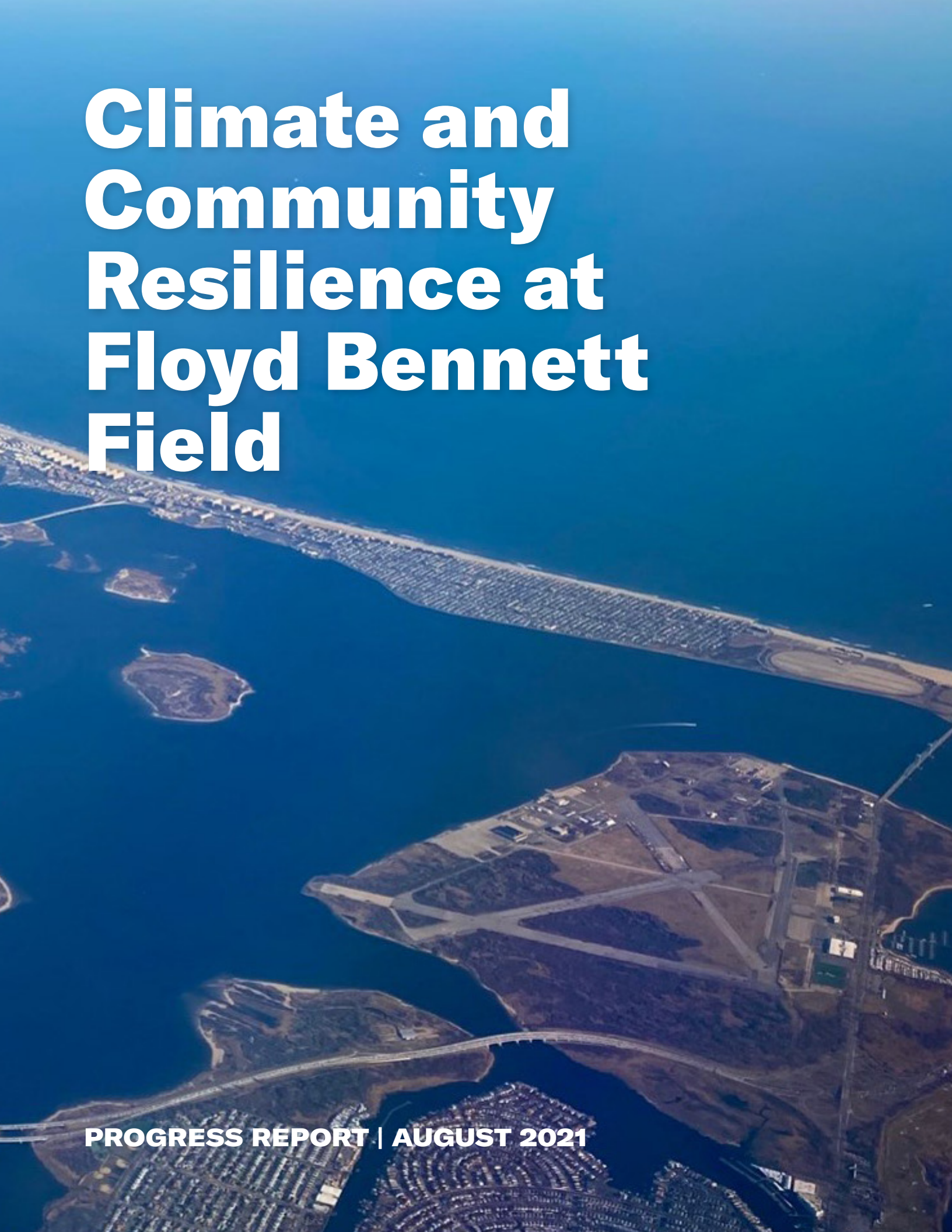
Climate and Community Resilience at Floyd Bennett Field



PROGRESS REPORT | AUGUST 2021

Establishing Floyd Bennett Field as a Hub for Innovation, Research, Education, Workforce Development and Recreation with the National Park Service, City University of New York, Science and Resilience Institute at Jamaica Bay and Jamaica Bay-Rockaway Parks Conservancy.

Jamaica Bay-Rockaway Parks Conservancy

The Jamaica Bay-Rockaway Parks Conservancy (JBRPC) was established in 2012 as a new, collaborative public-private partnership with the mission to improve 10,000 acres of public parkland throughout Jamaica Bay and the Rockaway peninsula for local residents and visitors alike. With its partners at the National Park Service, the New York City Department of Parks and Recreation and the New York State Parks, Recreation and Historic Preservation, JBRPC works to expand public access; increase recreational and educational opportunities; foster citizen stewardship and volunteerism; preserve and restore natural areas, including wetland and wildlife habitat; enhance cultural resources; and ensure the long-term sustainability of the parklands. JBRPC is a project of the Fund for the City of New York, a tax-exempt organization under section 501(c)(3) of the federal tax code. JBRPC's office is located in the Rockaway Park community of Queens.

The Science and Resilience Institute At Jamaica Bay

Founded in 2013, the Science and Resilience Institute at Jamaica Bay (SRIJB) is a partnership among the National Park Service, the City of New York and the City University of New York (CUNY) led by Brooklyn College. SRIJB's mission is to produce integrated knowledge that increases biodiversity, well-being and adaptive capacity in coastal communities and waters surrounding Jamaica Bay and New York City. The mission is supported by a research consortium that currently includes Columbia University, Cornell University, Rutgers University, Stony Brook University, New York Sea Grant, Stevens Institute of Technology and the Wildlife Conservation Society.

Report Project Partners:

The City University of New York
The Fund for the City of New York
Jamaica Bay-Rockaway Parks Conservancy
National Park Service (U.S. Department of the Interior), Gateway National Recreation Area
New York City Department of Parks and Recreation
New York State Parks Recreation and Historic Preservation
Science and Resilience Institute at Jamaica Bay

Report Consultants:

Bolton-St. Johns
Hester Street
Sterling Project Development

Acknowledgments

Over the past eight years, the efforts of the **Jamaica Bay-Rockaway Parks Conservancy** and the **Science and Resilience Institute at Jamaica Bay** to preserve the natural, recreational, historical and cultural resources throughout Jamaica Bay and the Rockaways and to re-imagine the future of Floyd Bennett Field would not have been possible without the support, time and energy of many passionate individuals and organizations.

The work and advocacy around the future of Jamaica Bay and Rockaway Parks for all New Yorkers, the championing of synergies between the City University of New York and green workforce opportunities and research, and the plans to transform Floyd Bennett Field into a green, innovative economic powerhouse have been a collective effort and a collaborative process.

Many thanks to project funders, Jamaica Bay-Rockaway Parks Conservancy board members, elected officials, governmental agencies, schools and community partners who have been fierce champions and stewards of Floyd Bennett Field and Jamaica Bay and Rockaway Parks.

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Assembly Member Stacey Pheffer Amato, NYS Assembly

Maura Avington, Office of Assembly Member Stacey Pheffer Amato

Dr. Brett Branco, Science and Resilience Institute at Jamaica Bay; Brooklyn College/CUNY

Katherine Bunting-Howarth, New York Sea Grant

Roger Green, Brooklyn Communities Collaborative

Candice Julien, Brooklyn Borough President's Office

Liam Kavanagh, NYC Parks and Recreation

Angela Licata, NYC Department of Environmental Protection

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Provost Anne Lopes, Brooklyn College

Jeff Lowell, Brooklyn Borough President's Office

Ryan Lynch, Brooklyn Borough President's Office

Chris McCreight, Council Member Justin Brannan's Office

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Dan Mundy Sr., Jamaica Bay Ecowatchers

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Dr. Claudia V. Schrader, Kingsborough Community College

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Dennis Weakley, Office of Senator Roxanne Persaud

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Yankees

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Introduction

Floyd Bennett Field is one of New York City's greatest treasures. With roots in New York City's aviation history as the city's first municipal airport, its unique ecosystem provides a rare experience for the public to interact with 1,300 acres of uninterrupted wide open spaces and grasslands; experience wildlife on the Atlantic flyway; relate to water; and embark on activities and knowledge-building that speak to Floyd Bennett Field's exceptional location on Jamaica Bay. Floyd Bennett Field provides a truly democratic space where New Yorkers and visitors can interact. Equity is a central tenant to the work at Floyd Bennett Field as we plan for its future.

Floyd Bennett Field has the potential to become one of the region's premier hubs for innovation, economic opportunity and academic research to accompany an existing multitude of recreational uses. By activating underutilized historic buildings and green spaces and investing in infrastructural improvements, the Jamaica Bay Rockaway-Parks Conservancy (JBRPC) in partnership with the Science and Resilience Institute at Jamaica Bay (SRIJB) and National Park Service (NPS) believe Floyd Bennett Field has the potential to unlock unique opportunities offered nowhere else in New York and advance the next phase of park history along historic Hangar Row as the *Floyd Bennett Field Innovation Hub.* Opportunities for adaptive reuse of buildings at Floyd Bennett Field are possible as demonstrated by the successful redevelopment of the historic Brooklyn Navy Yard.

This Progress Report reflects on eight years of steadfast work by JBRPC, SRIJB and their partners to champion Floyd Bennett Field as one of the city, state and nation's most precious resources for urban recreation and marine stewardship. JBRPC and SRIJB have been working together since 2013 to re-imagine the future of Jamaica Bay and transform this urban tidal estuary and its parks into a hub for coastal resilience, academic research and education while remaining grounded in community input and equity. Floyd Bennett Field offers SRIJB an opportunity to bring cutting-edge research to its varying public spaces. Exciting opportunities include: establishing a physical home for SRIJB at Floyd Bennett Field; laying the groundwork for an economic and innovation hub that will create upwardly mobile green jobs to provide transformational career and low-barrier job opportunities; and continuing to enhance the visitor experience for those visiting Floyd Bennett Field with new park amenities.

The purpose of this report is to:

1. Celebrate the work and effort from the past eight years of JBRPC, SRIJB and partners while looking towards Floyd Bennett Field's future;
2. Formalize the status of SRIJB as an official institute at the City University of New York;
3. Establish an action plan to develop Floyd Bennett Field as a place for research, education, innovation, recreation and workforce development, and utilize $7.5 million in capital funds designated for the SRIJB resilience center to build a research center at the park;
4. Complete the vision for Floyd Bennett Field's Hangar Row by rehabilitating Hangars 3 and 4, and the historic Sheet Metal Shop, into an Innovation Hub that will provide the public with new park amenities, job opportunities and educational opportunities;
5. Strengthen and expand the role of CUNY campuses in the SRIJB, and collaborate with a larger network of research organizations to further the mission of JBRPC, SRIJB and the NPS;
6. Identify reliable and sustainable funding streams to ensure financial stability for JBRPC and SRIJB;
7. Integrate community knowledge and establish partnerships with neighbors, elected officials, educators, students, local businesses and arts and culture partners and industries by providing opportunities for green workforce development and cutting-edge solutions to the climate crisis;
8. Capitalize on city, state and federal funding efforts to promote equity and resiliency, and investment in Jamaica Bay and Rockaway Parks; and
9. Build awareness, excitement and support for an inclusive and equitable future of Floyd Bennett Field and all of Jamaica Bay and Rockaway Parks.

With the help of consultants Bolton-St. Johns, Hester Street and Sterling Project Development, JBRPC, SRIJB and their partners have reflected on their work together and have co-created an action plan to move forward with their efforts to advance the work at Floyd Bennett Field. It was paramount that this Progress Report be grounded in the voices of key stakeholders including elected officials, governmental agencies, schools and community partners. Over the course of three months, project partners conducted interviews and surveys with these groups and individuals to gather their input on Floyd Bennett Field's future. Findings reaffirmed prior ideas, strengthened existing partnerships and generated additional possibilities for the future.

The time to transform Floyd Bennett Field is now. In the midst of a global pandemic and the uprisings for racial justice, we have seen the importance of equitable access to nature; how access to secure career and job opportunities is a lifeline; and how the devastation caused by climate change is indiscriminate but disproportionately impacts low-income Black and Brown communities. There is current momentum at the city, state and federal level to invest in infrastructure and our most vulnerable communities, and Floyd Bennett Field is well positioned to serve communities most in need. As we celebrate the upcoming 50th anniversary of Gateway National Recreation Area, we have the opportunity to realize a vision for Gateway decades in the making by transforming the park into a research and economic hub that will shape the next fifty years and beyond at Jamaica Bay.

> **When we are trying to advance smart policy, we need an external partner that does this work but is not constrained by bureaucratic inside-the-box thinking. Voices who are trying to get the government to move help push the narrative further. Having research to back it up would be helpful for government.**
>
> Brooklyn Borough President's Office


Fresh Creek Nature Preserve
HOWARD BEACH
BROOKLYN
Spring Creek Park
Shirley Chisholm State Park
Canarsie Pier
Canarsie Park
Paerdegat Basin Park
JAMAICA BAY
Marine Park
Floyd Bennett Field
Plumb Beach
ROCKAWAY INLET
MARINE PARK BRIDGE
Fort Tilden
Jacob Riis Park
Breezy Point Tip
ATLAN


QUEENS
Idlewild Park
Frank Charles Memorial Park
JFK INTERNATIONAL AIRPORT
CROSS BAY BRIDGE
NASSAU
Bayswater Point State Park
Jamaica Bay Wildlife Refuge
BROAD CHANNEL
Vernam Barbadoes Peninsula
CROSS BAY BRIDGE
Sunset Cove
Rockaway Community Park
Rockaway Beach
Dubos Pt. Wildlife Sanctuary
TIC OCEAN
THE PARKS OF JAMAICA BAY & ROCKAWAY PENINSULA
National Park Service
New York City Parks
New York State Parks
Jamaica Bay & Rockaway Parks Boundary
County Boundary
0 mi
0.5 mi
1 mi
2 mi
3 mi

History

1931

Floyd Bennett Field opens as New York City's first municipal airport, the most modern airport in the world at the time.[1]

1931-1940

Floyd Bennett Field hosts notable flights during the Golden Age of Aviation. Each flight and the pilots that made them helped to advance the science of aviation, with many world records broken at field.[2]

1941

Floyd Bennett Field becomes a World War II U.S. Naval Air Station.

1972

Gateway National Recreation Area of the NPS is created by the U.S. Congress.

2006

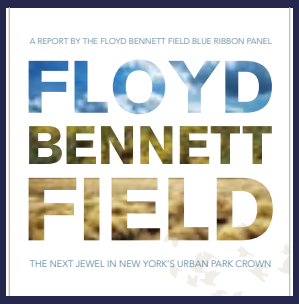
Aviator Sports and Events Center, the largest in New York City, opens at Floyd Bennett Field by combining four historic air hangars on Hangar Row.

2007

$4.8 million secured to renovate the Ryan Visitor Center on Hangar Row at Floyd Bennett Field.

2011

Floyd Bennett Field Blue Ribbon Panel convened by Senator Charles Schumer to transform the Jamaica Bay Unit of Gateway National Recreation Area into a model for resiliency.



2012

New York City and the NPS sign an agreement to co-manage Jamaica Bay and restore 10,000 acres of public parks and green spaces.

JBRPC is established as a public-private partnership dedicated to improving the 10,000 acres of public parkland throughout Jamaica Bay and the Rockaway peninsula.

Hurricane Sandy hits New York City in October and Floyd Bennett Field becomes a FEMA staging area.

[1]https://www.nps.gov/gate/learn/historyculture/fbf.htm
[2]https://www.nps.gov/gate/learn/historyculture/upload/fbfmunicipalsitebulletin-2.pdf

This historic partnership will improve our city's great natural treasure - Jamaica Bay - by creating restored, resilient natural landscapes, more outdoor recreation, new and cutting-edge research collaborations, and an improved, sustainable transportation framework.

Mayor Michael R. Bloomberg

2014

Gateway National Recreation Area General Management Plan published.

Jamaica Bay Parklands Strategic Design Framework published.

2013

SRIJB is established via a cooperative management agreement with the City, State, NPS and a CUNY-Brooklyn College led consortium.

The Bloomberg Administration leads citywide beach reopening efforts after the damage from Hurricane Sandy, including Rockaway beaches.

2017

3.25 acre beach grass nursery created by JBRPC and partners.

2019

Shirley Chisholm State Park opens to the public on Jamaica Bay following an historic $20 million investment by the state.

2020

Great American Outdoors Act passed by Congress.

2021

JBRPC advances $4M Living Shoreline project at Jamaica Bay Wildlife Refuge.

JBRPC produces progress report on Floyd Bennett Field.

What We Heard

Through a series of interviews and surveys, the project team engaged government agencies, schools and community partners to help define short- and long-term goals, desired programs and activities, and suggested partnerships. This input provided a deeper understanding of community priorities and helped identify both programmatic and design opportunities to re-imagine Floyd Bennett Field as a hub for education and resilience infrastructure.

Short-term and long-term goals from stakeholder engagement:

1. Provide physical research space and encourage interdisciplinary research projects across academic institutions;
2. Focus on workforce development in green career paths for youth and communities of color;
3. Recruit locally and create Community College and Senior College level jobs;
4. Demonstrate sustainable land use and redevelopment;
5. Address challenges with transportation and accessibility; and
6. Implement community-centered programs and activities to make Floyd Bennett Field a destination.

Desired Programs + Activities

Survey and Interview participants responded that they would be most likely to participate in the following programs/activities:

- Adaptive Programs
- Aquaculture Lab
- Aquatic Life Education
- Arts and Culture Programs
- Coastal Wetland Restoration
- E-Bike Hub + Bike Repair Shop
- Environmental Ambassador Programs
- Floating Classroom
- Historical Storytelling
- Hydroponics Education
- Recreation (Camping, fishing, trail walking, biking, sports fields)
- Solar + Solar-Thermal Demonstrations
- Underwater Robotics
- Urban Agriculture + Farming
- Urban Sustainability Programs
- Wetlands Pathogen Removal
- Wind/Solar + Green Tech Education

Catalyzing the Role of CUNY + SRIJB

Why the Science and Resilience Institute at Jamaica Bay?

The City University of New York (CUNY) is the nation's largest urban public university and was our country's first free public institution of higher education; it has always put the welfare of New York City and its people first. It is the logical home for SRIJB given the mission of CUNY and the ways it can bolster the City's resilience efforts. Composed of a diverse student body, more than 80% of CUNY graduates stay in New York and are important contributors to New York City's workforce.[3] As a public university firmly embedded within the communities it serves, formalizing the status of SRIJB as an official institute under CUNY will allow SRIJB to propel cutting-edge research and affordable education that will increase the resilience of Jamaica Bay and the City of New York from environmental, social and economic standpoints. With campuses distributed throughout the City, CUNY science and scholarship can contribute to and benefit from the interdisciplinary, brokering capabilities that SRIJB has to offer. A CUNY Institute for SRIJB will help communities understand ways to adapt that are more flexible, accrue more environmental benefits, and therefore improve New Yorkers' overall quality of life.

Becoming an official CUNY Institute would better harness capabilities of campuses such as Kingsborough Community College, Medgar Evers College and New York City College of Technology, and help SRIJB create more opportunities for CUNY faculty and students to participate in the City's response to climate change and population growth. SRIJB can help new leaders in a wide range of fields related to resilience, including physical, natural and social sciences, technology, finance and the humanities. Additionally, the CUNY Institute will help SRIJB provide unparalleled educational experiences, generate funds for research and design programs to translate academic programs into cutting edge innovation and workforce opportunities that will benefit New York City.

CUNY Institute status would also greatly enhance SRIJB's reach across CUNY, governmental agencies and local communities. CUNY has achieved unparalleled success in providing New Yorkers the means to reach their individual aspirations. However, with SRIJB as a CUNY-wide Institute, it can also meet its next greatest challenge – bringing core strengths, like affordable access, academic excellence and student success, to bear on creating a just, equitable and resilient city.

> **I think I will always credit the [Institute Fellowship] as the job that started my career…I was able to make key career connections within their vast network of frequent collaborators. Without the Institute, I would have never gotten my current graduate research position working with Bill Solecki (CUNY Hunter College) at Consortium for Climate Risk in the Urban Northeast.**
>
> Rebekah Breitzer, CUNY

[3]https://www.cuny.edu/about/

Career Pathways for the 21st Century

CUNY's central mission is to provide opportunity to New Yorkers in a transformative way. For over a century, CUNY has acted as an engine of economic and social mobility to New Yorkers of all backgrounds contributing to the city's ever-changing economic and vibrant cultural life. From certificate programs to gateway degree programs to the most advanced degree offerings, CUNY provides opportunities to the city's workforce in all sectors, including environmental science and green-related occupations.

SRIJB is at the intersection of these workforce opportunities at all levels. As technology advances and the job market changes across our city, state and nation, so do the needs of our workforce. New career pathways have emerged as green energy becomes more prevalent and our community responds to climate change; there is more opportunity around environmental careers as we look towards nature-based solutions to protect us from extreme weather events. In this context, there is an opportunity to support the workforce through programming at CUNY and SRIJB that focuses on multiple career paths and job levels. SRIJB and partner colleges, agencies and institutions will lead the way to support a qualified, inclusive, equitable and resilient workforce as CUNY readies our city for 21st century career pathways while meeting the needs of the research community.

> **I went to CUNY Brooklyn College to study urban ecology where I learned about Jamaica Bay's richness in urban and ecological diversity. I proudly work as a field technician for New York State Parks, where I conserve and steward the NYS Park land in Jamaica Bay Area.**
>
> Bomin Kim, 2019 Brooklyn College Graduate

Jamaica Bay-Rockaway Parks Conservancy

Meeting a Need

Climate focused careers are expected to be in demand and grow over the next decade according to the U.S. Bureau of Labor Statistics.[4] For example, by 2029, careers for wind turbine service technicians are expected to grow by 60.7 percent, careers for solar photovoltaic installers are expected to grow by over 50 percent and careers for data scientists and mathematical science occupations are expected to grow by over 30 percent. These types of careers are in high demand and available to students with diverse backgrounds and levels of education.

SRIJB is exceptionally poised to respond to this growing demand for a qualified and diverse workforce with its industry-informed programs and partnerships with CUNY colleges, consortium partners, public agencies, and private and non-profit sector partners. The need for a skilled workforce to meet demand for climate focused, green jobs in New York City and New York State provides a great opportunity for SRIJB to support CUNY in their mission.

> **Cutting-edge science is essential for understanding and managing the precious resources of the Jamaica Bay ecosystem and surrounding communities. The Science and Resilience Institute at Jamaica Bay – with its stellar consortium of the region's top-flight scientific institutions – will advance the role of science in managing resources and building regional resilience to future storms. And it is a model of how local scientific expertise can be marshaled to solve big problems, and to provide managers – like those of us in the National Park Service – with usable knowledge.**
>
> Jonathan Jarvis, National Park Service

[4]https://www.bls.gov/emp/tables/fastest-growing-occupations.htm

Jamaica Bay-Rockaway Parks Conservancy

Promoting Opportunity

SRIJB is poised to lead the way on developing innovative career pathways and promoting opportunity for CUNY students. From innovative majors, minors and concentrations for undergraduate and graduate students, to continuing education certificate programs for working professionals, multiple opportunities exist to impact career development. Through this work, SRIJB can create pipelines to jobs from the classroom and the field to public and private sector organizations. These career paths can range from low-barrier programs like apprenticeships to more advanced graduate programs, continuing education and professional development opportunities.

Innovative Career Pathways at SRIJB

1.0 Certificate Programs

Certificate programs aimed at working professionals can be offered through continuing education programs at CUNY community and senior colleges, and provide specialized knowledge and training that improves job performance and advances careers.

Example: Certificate of Urban Climate Resilience Planning
For working professionals on the front lines of building resilience to the impacts of climate change in urban environments, this 9-12 credit program could include courses covering topics such as: the science, uncertainty and risk of climate change; vulnerability assessments and adaptation planning; climate justice and equity; stakeholder engagement; adaptation financing and policy; nature-based solutions; and more. Certificate earners would work in government agencies, non-governmental organizations and environmental consulting.

2.0 Minors and Concentrations

Minors and Concentrations aimed at undergraduate students in existing programs at CUNY community and senior colleges provide specialized skills and knowledge for workforce-ready graduates.

Example: Minor in Urban Natural Resource Management
Designed in collaboration with NYC Parks, Gateway National Recreation Area and local environmental stewardship organizations, this minor would be designed to provide students with the knowledge and skills to directly enter careers in natural resource management. The parklands around Jamaica Bay and New York City provide unique opportunities for hands-on learning.

3.0 Field School at Floyd Bennett Field

Modeled after the immersive learning experience of geoscience programs around the country, Field School at Floyd Bennett Field would provide an intensive educational experience that prepares students for a variety of environmental science careers. Using the existing campgrounds as a base camp, classes could remain on site for a full week of research and learn about water quality, urban wildlife, interactions between the built and natural environment and the social dimensions of urban environments. Field School will be available to classes throughout CUNY and the research consortium, as well as high schools.

Industry-Informed Programs + Partnerships

SRIJB seeks to create strong relationships with partners that offer opportunity for joint research, education and job opportunities. To help the private sector meet their needs for a qualified workforce, SRIJB can leverage the work of the 25 colleges across the CUNY system to ready students for careers and job opportunities for the 21st century.

These industry-informed programs and partnerships with SRIJB and CUNY could relate to careers in:

- Alternative Energy Systems
- Atmospheric, Earth and Environmental Sciences
- Construction and Building Infrastructure Systems
- Environmental Sustainability Data and Analytics
- Horticulture including Aquaculture and Hydroponics
- Parks, Recreation and Cultural Assets Management
- Recycling and Waste Management
- Sustainable Agriculture

> **We still envision the Institute fulfilling the role as a source of scientific research and evaluation and guidance for the future of Jamaica Bay. Not just in terms of the current state of the bay but also in helping other agencies work toward a healthier bay going forward.**
>
> Liam Kavanagh, NYC Parks

Current Activities at SRIJB

The RV CUNY I

Kingsborough Community College's (KBCC) Maritime program operates the RV CUNY I - a 63-foot research vessel powered by a fuel-efficient hybrid electric and diesel propulsion system. KBCC Maritime students are among the first in the country to receive vocational training on this vessel. With its environmentally-friendly technology, the RV CUNY I is among the first in a new wave of technology on the leading edge of the maritime industry. Built in part to support the mission of the SRIJB, the RV CUNY I also provides opportunities for research and education programs in Jamaica Bay. The RV CUNY I has already proven to be an excellent teaching aid for younger students, attracting funding from the City Council to support trips for K-12 students.

Additionally, the New York Harbor School brings classes of students out on the Bay for work-based learning experiences, oyster restoration and underwater scuba diving training, all of which can be done via the RV CUNY I. When younger students are inspired by trips aboard the RV CUNY I, they are witnessing first hand the thrill and potential avenues for careers in resiliency.

Monitoring Success

The SRIJB recently led a statewide effort to develop a new monitoring framework for natural and nature-based features (NNBF). The framework allows the resilience services of NNBF to be assessed relative to hard structural features such as seawalls. Completed in 2019, the data collected using this framework can help shape future state policy and regulations on shoreline projects. The SRIJB is supporting the application of the framework to shorelines in Jamaica Bay and throughout New York City through training, data collection and data analysis.

Jamaica Bay-Rockaway Parks Conservancy

Flood Watch

Through the CUNY Institute, SRIJB will expand Jamaica Bay Flood Watch (Flood Watch). Flood Watch is an outgrowth of SRIJB's partnership with New York Sea Grant, the Stevens Institute of Technology, the Mayor's Office of Resilience, the NOAA Consortium for Climate Risk in the Urban Northeast, New York City Emergency Management and local partners. Through Flood Watch, residents are trained to better understand the causes of flooding by documenting where it happens. Residents photograph floods from pre-identified locations tied to survey benchmarks and record details about the impacts to critical infrastructure. SRIJB notifies communities of the potential for coastal flooding using forecasts from the Stevens Flood Advisory System. The resulting data on the causes and extent of flooding help improve models used by the New York City Panel on Climate Change.

Cycles of Resilience

Cycles of Resilience is an annual, community-driven process of games, mapping, idea generation and coordination with city, state and federal resilience efforts. The process creates central roles for residents in prioritizing resilience research and action in Jamaica Bay, including new research on transformational climate adaptation by CUNY doctoral students.

Jamaica Bay-Rockaway Parks Conservancy

Expanding Access + Inspiring Innovation

Floyd Bennett Field has the potential to become one of New York City's premier hubs for innovation, economic opportunity and academic research to accompany its myriad of recreational uses. Its close proximity to neighborhoods served by *Vital Brooklyn*, a state initiative focused on underserved communities in Central Brooklyn, would be a critical asset to ensure *Vital Brooklyn's* commitment to open space and recreation; healthy food; education; economic empowerment; community-based violence prevention; community-based health care; affordable housing; and resiliency are met. Both *Vital Brooklyn* and the partners at Floyd Bennett Field approach their work with a holistic perspective that complements each other's efforts. By activating underused buildings and green spaces and improving existing infrastructure, JBRPC and SRIJB believe Floyd Bennett Field has the potential to unlock unique opportunities offered nowhere else in New York City while providing opportunities for New York City's most vulnerable residents.

> **I've worked in Jamaica Bay for seven years with the Jamaica Bay Restoration Corps; and I've lived there all my life as well. Jamaica Bay is a region like no other; the greatest reward is working in an area and watching as your hard work pays off and matures into a newly restored environment. It's always heartwarming when I am able to bring my friends who may know little to nothing about nature out in the field and point out things that I myself have built, planted or created, and show them the progress of my diligent work.**
>
> Cameron Williams, Jamaica Bay Restoration Corps

Jamaica Bay-Rockaway Parks Conservancy

Economic

Floyd Bennett Field has the space and infrastructure to become a leader in green technology and innovation. With forward thinking and emerging conversations led by SRIJB and JBRPC, Floyd Bennett Field can become an economic hub of New York City that will not only generate fresh ideas, but also provide valuable green industry jobs.

In 2015, a 3.2-mile natural gas transmission pipeline, the Rockaway Delivery Lateral, was constructed. Running across Fort Tilden and Jacob Riis Park to a hangar within Floyd Bennett Field, the pipeline by Williams Partners' Transcontinental Gas Pipe Line Company, transfers gas to the National Grid distribution system which then distributes the gas to customers in Queens and Brooklyn. To mitigate the impact of the pipeline, Williams and National Grid agreed to invest $500,000 in Jamaica Bay marshes and invest $1.5 million to create an artificial reef.[5]

The pipeline was not met without controversy, and as we look toward Floyd Bennett Field's future, it is critical that green energy solutions and resiliency measures be examined as a way to prepare for NYC's future. These are tied to exciting green job opportunities at Floyd Bennett Field that would be further enhanced by CUNY's involvement as a partner able to further research in these green fields, as well as provide direct pathways from academics into the workforce. Workforce opportunities at Floyd Bennett Field can also draw on residents and community partners in the Rockaways, *Vital Brooklyn* and the surrounding neighborhoods by providing well-paying, long-term job opportunities offering upward career trajectories.

[5]https://www.rockawave.com/articles/rockaway-pipeline-is-up-and-running/

Jamaica Bay-Rockaway Parks Conservancy

Educational

With SRIJB located at Floyd Bennett Field, Floyd Bennett Field and Jamaica Bay will become an outdoor classroom and lab for CUNY, as well as elementary through high school students. Floyd Bennett Field's location and growing body of programming and partnerships will also provide opportunities for alternative, upwardly mobile career pathways that do not require a college degree.

Establishing a permanent home for SRIJB at Floyd Bennett Field will be a catalyst for bringing increased opportunities for accessible programming and sustainable investment to Floyd Bennett Field for all New Yorkers. SRIJB has been in discussion with the NPS to rehabilitate Hangars 3 and 4 as their permanent home. However, in their three-step strategy, SRIJB has been in conversation with the NPS to 1) set up a temporary home at Building 135 in Spring / Summer 2022; 2) re-locate into the historic Sheet Metal Shop (Building 26) to serve as a field station and education center; and 3) move permanently into Hangars 3 and 4 as their permanent home for a resiliency center for research, public engagement and innovation. As a public institution, CUNY prides itself on access to high quality education and opportunities for all. With the final home of the SRIJB co-located with an economic hub, the synergies and opportunities for both green industry and academia is exciting.

In addition to higher education, Launch Expeditionary Charter School (Launch), an Outward Bound school currently located in Crown Heights, is a future partner at Floyd Bennett Field. The school has been in conversation with NPS about the possibility of converting a vacant, non-historic park building into a new high school. Currently serving grades 6-8 with the hopes to expand, Launch serves many families in Vital Brooklyn and neighboring communities near Floyd Bennett Field. As Launch plans their school, they are considering not only how their students can benefit from their new location, but also how the larger New York City community can take advantage of their future facilities. Like CUNY, Launch will be able to use Floyd Bennett Field as a teaching tool to inspire innovation in student learning and generate excitement about career paths in science and resiliency. As this project progresses, there will be rich opportunities for Launch and CUNY to partner across efforts to further leadership and career pathways for students in Hangars 3 and 4 and across Floyd Bennett Field.

> **We are committed to SRIJB and want to see it evolve to have a wider reach, which it certainly has the potential to do. Using Jamaica Bay as a laboratory for research and education will not only inform our understanding of the changing environment; that research is also critical in helping us make better informed decisions as land managers and conscientious stewards. At a time when addressing climate change is a clear priority, we want to be able to engage visitors, communities, and schools around issues of resilience, and have that be a two-way street–a feedback loop that in turn helps guide the research agenda as well. Having a physical presence for SRIJB is part of making that happen.**
>
> Jen Nersesian, National Park Service

Recreational

Lastly, Floyd Bennett Field offers unparalleled recreational opportunities. Programming through the Ryan Center as well as offerings through the NPS are assets to one's mental and physical health and well-being. There are unique opportunities to participate in archery, bird watching, boating, camping, fishing and hiking as well as join the active Floyd Bennett Field Community Garden membership community, one of the largest community garden associations on the East Coast.

> **One of the strengths in the model that Brooklyn College put forward is the Consortium. Having a physical space, physical resources can get the Consortium members to have something that they can invest in and become invested in. I'd like to see some bricks and mortar cement the Consortium together and to get SRIJB the recognition...We have the opportunity to be a global leader.**
>
> Patti Rafferty, National Park Service


3
NATIONAL
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NATIONAL PARK SERVICE
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Photo Credit: Solar One

Activating Floyd Bennett Field as an Innovation Hub

In a bold advancement of this public-private partnership, JBRPC, NPS and SRIJB envision transforming Floyd Bennett Field into a hub for recreation, innovation, education and workforce development.

To realize this vision, the partners will take a phased approach, renovating and occupying the remaining unoccupied buildings of Floyd Bennett Field's Hangar Row, including the former Sheet Metal Shop (Building 26), Hangars 3 and 4, and the Volunteer Contact Station (Building 135). Combined, these facilities will unlock the full potential of Floyd Bennett Field and provide new visitor experiences and opportunities for research, recreation and jobs.

Project benefits will include:

1. Expanded opportunities for recreation through new public use of the renovated buildings and surrounding parkland;
2. Development of a landmark research and innovation hub at Floyd Bennett Field;
3. Preservation and adaptive reuse of iconic buildings through guaranteed long-term occupancy and care;
4. Major reduction in Gateway's deferred maintenance backlog through partnership and leveraged funding;
5. Reliable and on-going NPS revenue through rent and other sources of income, including a wetlands mitigation bank;
6. Workforce development and educational opportunities through CUNY and SRIJB programming and instruction; and
7. Expanded and streamlined volunteer coordination by JBRPC.

Overall Strategic Vision

1.0 The partners will agree upon a business framework in which JBRPC leads the planning, design and redevelopment efforts, with NPS leasing buildings and land to JBRPC, who will then develop these spaces and sublease them to future partners to operate.

2.0 JBPRC and NPS will document this agreement through revisions to the Philanthropic Partnership Agreement (PPA) (currently with the Fund for the City of New York, a 501(c)(3) non-profit organization of which JBRPC is a project). The revised PPA will provide a conceptual framework, including general intended use, business model and timeline. A letter of intent (LOI) between JBRPC and Gateway would allow JBRPC to conduct due diligence on the buildings.

3.0 In the near term, SRIJB will establish a presence at Floyd Bennett Field by occupying the existing Volunteer Contact Station (Building 135). This will provide SRIJB with an in-park home to host students, educators and research equipment, and give the Institute the ability to engage visitors to Gateway National Recreation Area.

4.0 SRIJB and JBRPC will then apply $7.5 million[6] in capital funds available from CUNY to prepare Building 26 for use while work on Hangars 3 and 4 is underway.

5.0 NPS will work to identify project funding for historic rehabilitation work

6.0 If NPS is able to identify funding, JBRPC and NPS will advance to a General Agreement or Memorandum of Agreement and then advance to design work for the exteriors of Hangars 3 and 4, to be funded by JBRPC and partners.

With funding secured and a business model agreed to, JBRPC and NPS will advance to lease negotiation and exterior construction. During construction, planning and environmental compliance will take place for the development and interior use of Hangars 3 and 4.

[6]Based on FY 2014 OMB Budget carried over to the FY 2022 Capital Budget.

Phase I: Buildings 135 and 26

In the first phase, project partners will establish SRIJB's new home at Floyd Bennett Field and begin offering cutting-edge research and education in resilience. SRIJB will provide unparalleled educational experiences, generate funds for research and design programs to translate academic programs into public good while upholding the mission of the NPS.

Building 135, which is currently unoccupied and in usable condition, will provide initial classroom and meeting space for SRIJB. JBRPC will also use the space to help the park coordinate volunteer activities at Floyd Bennett Field and throughout Jamaica Bay.

After its renovation, **Building 26** will serve as the new home for SRIJB, creating a campus-like setting for future development. The size of the building will allow SRIJB to build-out their administrative offices, classrooms and research labs using their existing funds. SRIJB may share the space with additional tenants. In this way, SRIJB will establish the framework for the development at Floyd Bennett Field as a hub for education and resilience infrastructure while providing opportunities for the local community and park users.

Renovation Plans/Scope

- Full restoration of existing building including exterior and interior;
- Full upgrades to the infrastructure including mechanical and plumbing systems to house labs;
- Interior build out to include classroom space, boat storage, administrative offices and associated facilities; and
- Explore feasibility of any natural resource technologies including a solar component and/or garden on the roof.

Business Structure

- JBRPC will execute a letter of intent and then investigate the redesign of Building 26, submitting the renovation plans to NPS for approval;
- JBRPC will prepare a long-term lease for Building 26 from NPS and then sublease to SRIJB; and
- Construction funds would primarily come from an existing $7.5 million capital line for a Jamaica Bay resilience center at CUNY.

Timeline

- Prepare a report for NPS to review and enter into a letter of intent. JBRPC to execute Due Diligence, with a six-month visioning process followed by environment compliance, construction and occupancy by 2024.

Estimated Budget

- $5M based on $300/SF, 30% for soft costs and 30% contingency. NPS/City Procurement rules are inclusive of the 30% contingency ($7.5 million secured).

PHASE II: Hangars 3 and 4

The restoration and transformation of **Hangars 3 and 4** into the *Floyd Bennett Field Innovation Hub* will begin during the Phase 1 work on Building 26. When complete, the Innovation Hub will create a place for public recreation, environmental education and technology-based companies with high growth potential, while providing new facilities for the Launch Expeditionary Charter School and other much needed amenities at the park. The types of companies that could be a part of the Innovation District include those that focus on sustainable farming, renewable energy, robotics, infrastructure and resilience. The companies will complement each other and learn from one another and the neighboring Science and Resilience Institute at Jamaica Bay.

The space is suitable for a public food hall, brewery or large-scale restaurant that can attract patrons from across the city. Visitors will also have the opportunity to learn about the history of Floyd Bennett Field at an education center aviation museum or arts and culture space as envisioned in the General Management Plan for the park.

The potential economic one-time construction impacts are approximately $120M, and likely to generate over 500 jobs. Depending upon the types of start-ups and their business structure, on-going operations will likely create 125 office jobs. With a restaurant and/brewery, there is further potential for 50 jobs.

Jamaica Bay-Rockaway Parks Conservancy

JBRPC will act as the anchor tenant and work with partners to renovate the hangars to attract and secure tenants.

Renovation Plans/Scope Exterior

- Restoration led by JBRPC using NPS funding and private funding.

Interior

- Build-out suitable for indoor recreation, hydroponics/aquaponics, solar energy, public gathering spaces, green roofs, and other innovative research spaces.

Timeline

- September 2021 through April 2022 – NPS evaluates potential funding sources;
- 2022 – Plan for Hangar 3 and 4 exterior renovation to be reviewed by the Department of Interior's National Investment Review Board;
- September 2023 – Potential for funding to be put in budget; and
- 2024/25 – Funding potentially secured, start exterior renovation contracting, with interior planning to begin during exterior renovation.

Estimated Budget

- The exterior is paid for by NPS to reduce the park's deferred maintenance backlog. Renovation will leverage other sources of funding, including JBRPC support for rehabilitation design. JBRPC spending on historic restoration may be offset against future fair market value rent payments;
- To be competitive for NPS funding, the park and its partners will need to demonstrate commitment to occupying and caring for the renovated hangars;
- Approximate hard and managed soft cost to build out – Exterior and core and shell work: approximately $77 million[7]; and
- Interior Fit Out: $20 million.

[7]Based on Sterling Project Development review of 2019 Project Scoping Assessment for hangar rehabilitation, using an estimated cost of $850 per square foot for hard costs of construction. Hangars 3 and 4 together comprise approximately 58,400 square feet, for hard costs of close to $50 million. Assuming soft costs of 30% brings the cost estimate to $60 million, and allocating another 20% in contingency and unknown costs, brings the estimate to $77 million. Hangars 1 and 2 were rehabilitated in 2014 for $45 million


IGLOO

Advancing Opportunities for Alignment + Solutions

Efforts by JBRPC and SRIJB complement concurrent efforts by the Trust for Public Land's New York City Park Equity Plan as well as strategies led by CUNY and city, state and federal agencies to bolster social resilience and economic development in our most vulnerable communities.

JBRPC and SRIJB are also staying apprised of the current conversation around the Bipartisan Infrastructure Deal, a once-in-a-generation investment in our country's infrastructure that speaks to our country's most vulnerable communities. Additionally in the 2021 NYC budget, $500,000 has been allocated for paid internships in science, business, public health and the green economy for students at Medgar Evers College.

It is timely that JBRPC and SRIJB double down on their efforts to not only democratize access to Floyd Bennett Field and nature for all New Yorkers, but also drive efforts forward bolstered by involvement and input from anchor institutions and partners who represent a wide variety of stakeholders. This includes government officials, community partners, the *Vital Brooklyn* catchment area, academic institutions like the Launch Expeditionary Charter School, and federal, state and city partners who can help advance a comprehensive resilience effort that tackles resiliency from an ecological, social and policy standpoint.

Great American Outdoors Act

In August 2020, the Great American Outdoors Act was signed to provide up to $1.9 billion a year for five years to provide necessary maintenance for critical facilities and infrastructure in our country's national parks and recreation areas. This is an unprecedented opportunity for NPS and for park sites like Floyd Bennett Field. It is also an exciting moment to advance nearly a decade's worth of efforts in transforming Floyd Bennett Field into a hub for innovation, economic opportunity, academic research, education and recreation.

Civilian Climate Corps

Part of President Biden's American Jobs Plan, announced in March 2021, calls for $10 billion to establish the new Civilian Climate Corps (CCC) which would employ thousands of young people to address the intersectional crises of climate change, environmental and racial injustice and economic inequality. The CCC would expose Americans to climate action and create pathways to careers in the green and clean economy. One of Biden's first executive orders called for the creation of the CCC, "...to mobilize the next generation of conservation and resilience workers and maximize the creation of accessible training opportunities and good jobs. The initiative shall aim to conserve and restore public lands and waters, bolster community resilience, increase reforestation, increase carbon sequestration in the agricultural sector, protect biodiversity, improve access to recreation, and address the changing climate."[8] The Sunrise Movement estimates that the CCC would provide jobs for about 20,000 people annually.[9]

> **Jamaica Bay is where it is today because of collective efforts. Having a resource like this would be great for my residents...The bottom line is green jobs. I have one of the first wind farms on the shores of the Rockaways. It is accessible to my constituents. I see schools coming for class trips; the potential is there to do so much at this site.**
>
> Joseph Addabbo, NYS Senate

[8]https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/27/executive-order-on-tackling-the-climate-crisis-at-home-and-abroad/
[9]https://www.npr.org/2021/05/11/993976948/reaching-back-to-the-new-deal-biden-proposes-a-civilian-climate-corps

Jamaica Bay-Rockaway Parks Conservancy

Restore Mother Nature Bond Act

The Restore Mother Nature Bond Act is slated to appear on New Yorkers' general election ballot in November 2022. If approved by voters, the $3 billion bond will be the largest environmental bond act in New York State's history and is part of a broader 5-year plan to invest $33 billion to fight climate change. The Restore Mother Nature Bond Act will reduce flood risk for vulnerable communities; invest in resilient infrastructure; restore fish and wildlife habitats; preserve open space and enhance recreational opportunities; prepare New York for the impact of climate change; and ensure transformational projects, especially in disadvantaged communities.[10]

Workforce Development Initiative

The state's $175 million Workforce Development Initiative, announced in July 2021, will help New Yorkers find quality, well-paying jobs; improve talent pipelines; expand apprenticeships; and address the long-term needs of growing industries. For CUNY, opportunities to access millions of dollars through the Workforce Development Initiative exist through a call for the following award categories: CUNY Apprenticeship Program, CUNY Futures of Work Centers and CUNY Workforce Development Training Grants.[11]

[10]https://www.governor.ny.gov/programs/restore-mother-nature-bond-act
[11]https://workforcedevelopment.ny.gov/sites/default/files/2021-07/WorkforceDevelopmentProgramGuidelines2021.pdf

Photo Credit: CUNY

Working Action Plan

Here is our Action Plan for the next five years as we seek to preserve the natural, recreational, historical and cultural resources throughout Jamaica Bay and the Rockaways and to re-imagine the future of Floyd Bennett Field.

KEY:

Short: Present - End of 2021 | Medium: 2022 - 2033 | Long: Beyond 2023

1.0 Formalize SRIJB as an Institute within CUNY

Strategy	Action	Timeline
Navigate the Institute approval process with Brooklyn College and participating CUNY campuses	1.1 Draft a proposal to make the SRIJB a formal CUNY Institute	Short
	1.2 Obtain approval from participating CUNY campuses	Short
	1.3 Seek approval of standing committees and Board of Trustees	Medium

2.0 Restore and enhance Floyd Bennett Field

Strategy	Action	Timeline
Establish a Wetlands Mitigation Bank	2.1 Summarize existing proposals for the North 40 and prepare vision for North 40 mitigation bank to contribute to the vision of FBF and the funding of science and research for SRIJB / CUNY	Short
Improve circulation and access at FBF	2.2 Restore historic entrance to the Ryan Visitor Center (RVC)	Short
	2.3 Pilot a self-sustaining, self-driving electric shuttle service.	Medium
	2.4 Connect FBF to the Interbay Ferry Service.	Long
	2.5 Identify minor capital needs to improve pedestrian safety at bus stops, along curb cuts and Greenway.	Medium
	2.6 Identify major capital improvements to allow direct turn lanes into the RVC from South bound Flatbush Avenue	Long

Strategy	Action	Timeline
Better utilize the runways at FBF	2.7 Set up conversation with NPS to better understand limitations and opportunities of runways' historical status	Short
Modernize and update safety infrastructure at FBF	2.8 Update fire hydrants at FBF	Medium
	2.9 Rehabilitate sanitary sewer system at FBF	Medium

3.0 Activate underutilized buildings + green spaces

Strategy	Action	Timeline
Identify and understand building status at FBF (landmarked, in progress, to be demolished)	3.1 Create a keyed map of each building's status at FBF	Short
Renovate Building 26 to support programming for SRIJB, CUNY and NPS	3.2 Identify if building renovation is viable	Short

4.0 Deepen + expand existing community programs

Strategy	Action	Timeline
Integrate language into upcoming NPS RFPs to encourage partnerships and inclusion of educational and community stakeholders	4.1 Include language about partnerships in upcoming Aviator RFP	Medium
	4.2 Explore potential of Rockaway Beach Clubs expanding to FBF	Medium
	4.3 Include language in Camping Grounds RFP	Long

KEY:

Short: Present - End of 2021 | Medium: 2022 - 2033 | Long: Beyond 2023

5.0 Build local/regional partnerships around research + education

Strategy	Action	Timeline
Establish the SRIJB Research Center	5.1 Identify potential building possibilities at FBF for future permanent home of SRIJB Research Center	Short
	5.2 Set-up temporary location of SRIJB at Building 135 / Gatehouse	Short
Host CUNY classes at FBF	5.3 Pilot Sustainable Urban Gardens class at FBF	Short
Development of Launch Expeditionary Charter School at FBF	5.4 Advance drawings and programmatic details for Launch relocation to FBF	Short
	5.5 Coordinate environmental compliance necessary to allow for Launch relocation to FBF	Medium

6.0 Encourage investment + leverage existing funds to ensure financial viability

Strategy	Action	Timeline
Establish FBF as one of New York State's leaders in solar energy production	6.1 Identify locations for solar battery storage	Short
	6.2 Explore opportunities to charge commercial vehicles	
	6.3 Explore potential partnership with NYC Sanitation vehicles	

7.0 Create workforce development opportunities in green careers + pathways

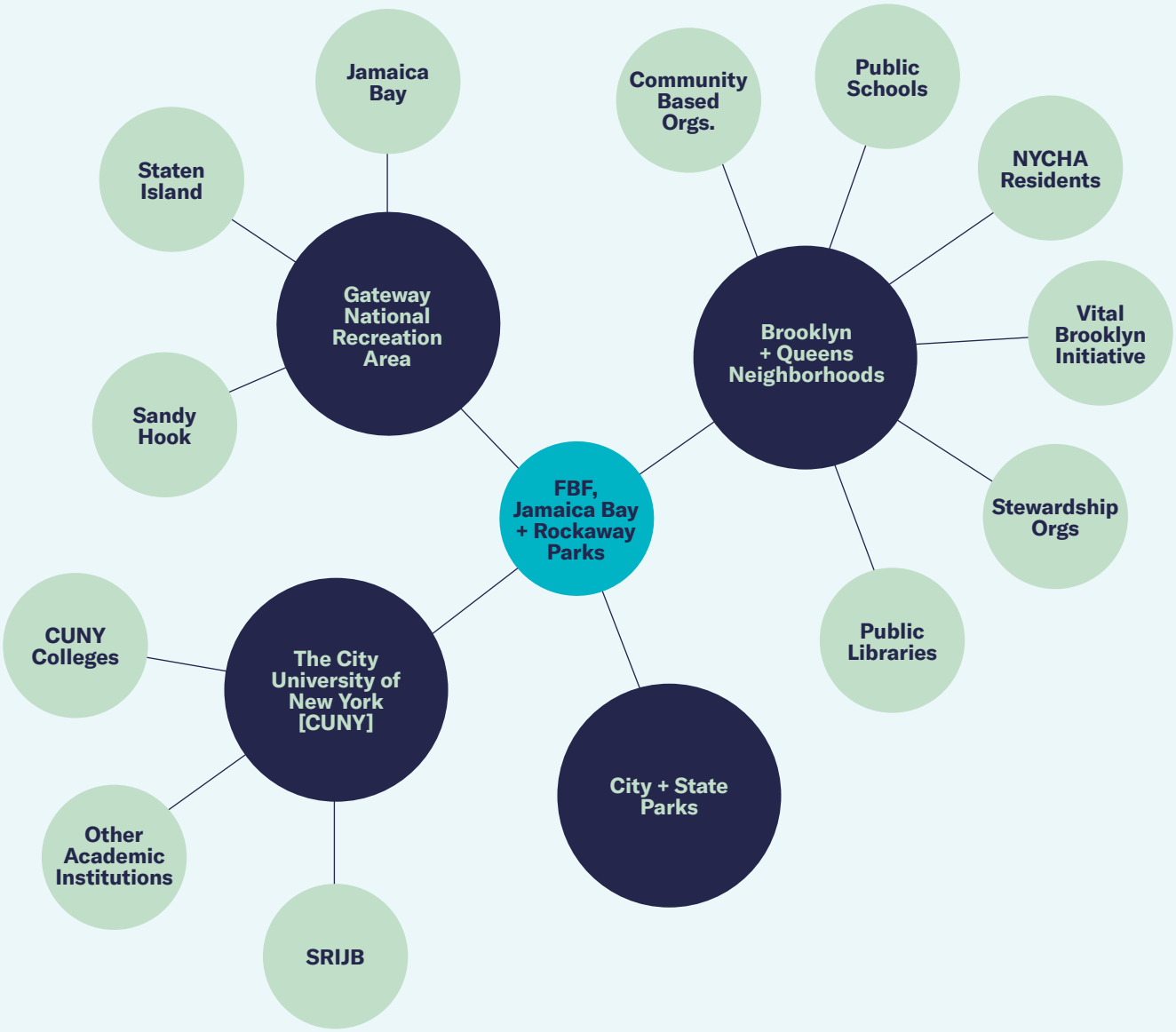
Strategy	Action	Timeline
Develop FBF as an Innovation Hub to create jobs and explore emerging green technologies	7.1 Identify activities and tenants for Innovation Hub	Short
Install a green roof on the rehabilitated hangars to provide research, education and workforce opportunities	7.2 Continue conversations with Randall's Island to learn from their green roof experiences	Short

8.0 Build on existing community plans + initiatives while encouraging creativity + innovation

Strategy	Action	Timeline
Evaluate existing plans, initiatives and studies and amplify opportunities for implementation	8.1 Synthesize findings from the Cultural Landscape Report (2009), Gateway National Recreation Area General Management Plan (2014), Floyd Bennett Field Blue Ribbon Panel (2011), Jamaica Bay Parklands Strategic Design Framework (2014)	Complete

Connecting to Our Community

Floyd Bennett Field acts as a hub that connects to Brooklyn and Queens neighborhoods, CUNY colleges, SRIJB, JBRPC, and federal, city and state park lands.



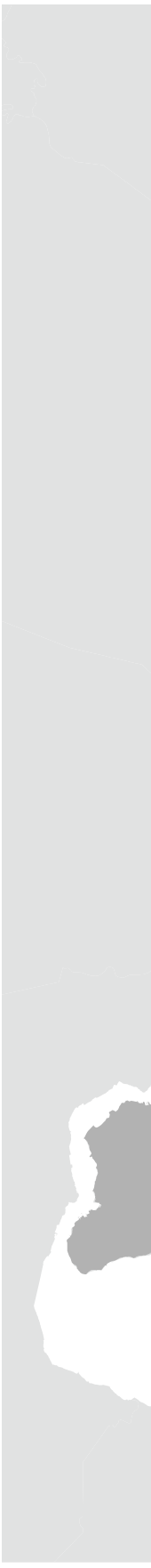
Transit + Connectivity

Understanding the current landscape and actively improving transit and connectivity to Floyd Bennett Field is critical to activating underutilized spaces and encouraging development. This section offers a broad overview of direct transit connections to Floyd Bennett Field and the larger Jamaica Bay area. The main modes of non-vehicular transit include train, bus, ferry and biking; depending on the mode of transit, transportation options need to be taken in conjunction with each other to reach Floyd Bennett Field. Expanding modes of transit and connectivity in and around Floyd Bennett Field could enhance and promote more inclusive usership of the space and potential programs.

25 CUNY campus locations:

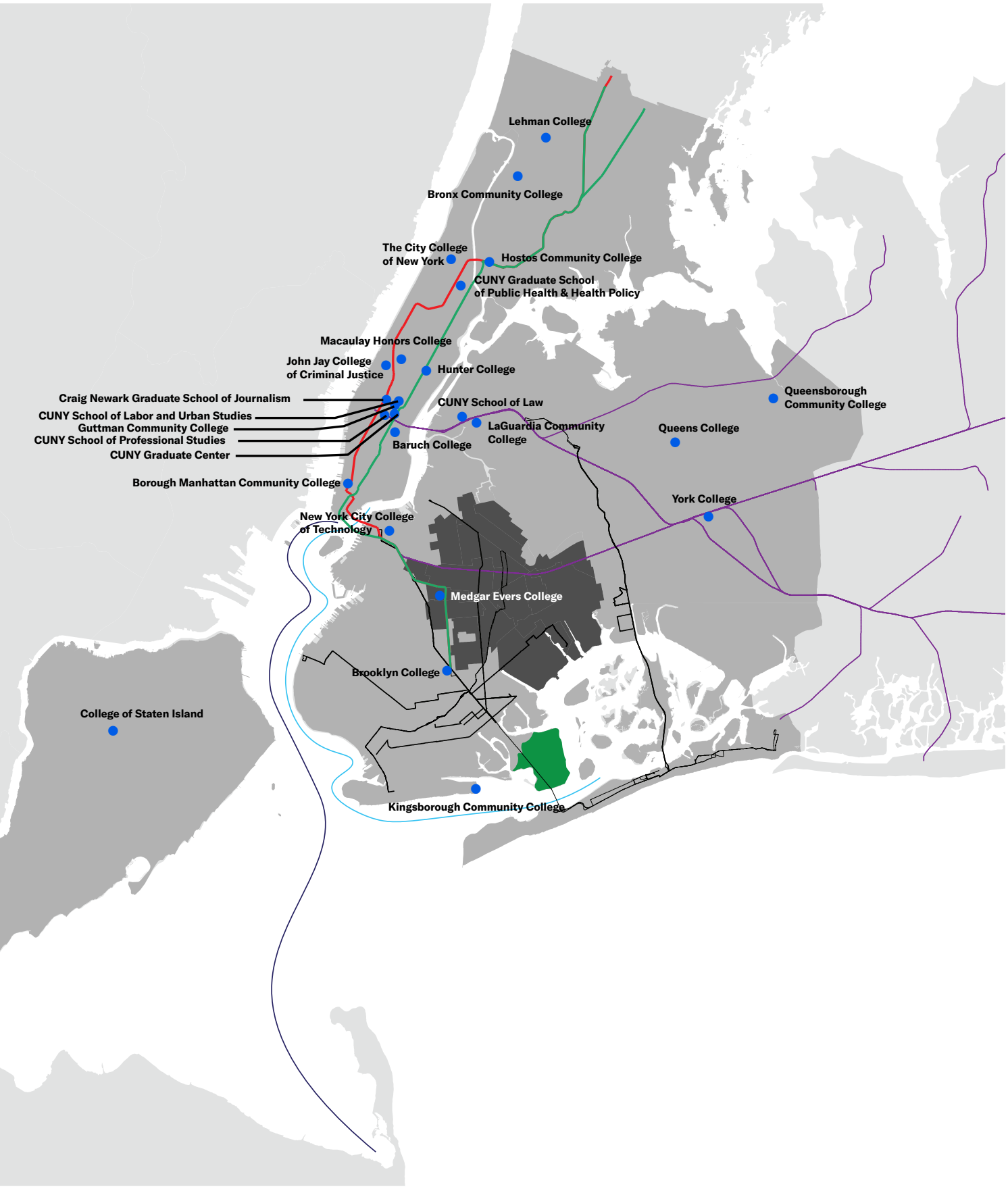
- Manhattan [12]
- Queens [5]
- Brooklyn [4]
- The Bronx [3]
- Staten Island [1]

Medgar Evers College falls in the *Vital Brooklyn* catchment area.



Legend

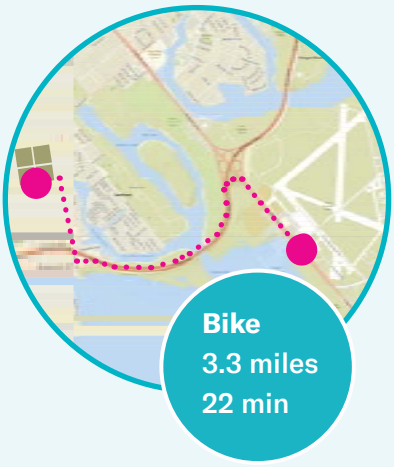
- CUNY Campus
- Floyd Bennett Field
- Vital Brooklyn Neighborhoods
- Rockaway Ferry
- Sandy Hook Ferry
- 2 Train
- 5 Train
- LIRR
- Connecting Bus Routes


Lehman College
Bronx Community College
The City College of New York
Hostos Community College
CUNY Graduate School of Public Health & Health Policy
Macaulay Honors College
John Jay College of Criminal Justice
Hunter College
Craig Newark Graduate School of Journalism
CUNY School of Labor and Urban Studies
Guttman Community College
CUNY School of Professional Studies
CUNY Graduate Center
CUNY School of Law
LaGuardia Community College
Baruch College
Queensborough Community College
Queens College
Borough Manhattan Community College
York College
New York City College of Technology
Medgar Evers College
Brooklyn College
College of Staten Island
Kingsborough Community College

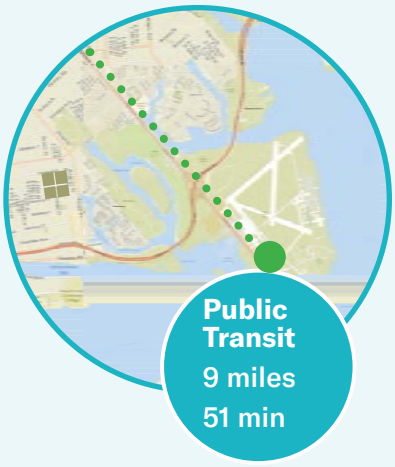
Site Analysis: Arrival at Floyd Bennett Field

Arriving at the Ryan Visitor Center at Floyd Bennett Field can be done via multiple modes of transportation; however, due to a lack of public transportation options, the journey can take several legs from surrounding neighborhoods. Also, once one arrives at the Ryan Center, it can be a lengthy walk to one's destination at Floyd Bennett Field. Some opportunities to improve the travel experience to Floyd Bennett Field include improving signage and wayfinding, clarifying existing bike entry points and providing continuous bike infrastructure.

Teens from Nostrand Houses via Bikes

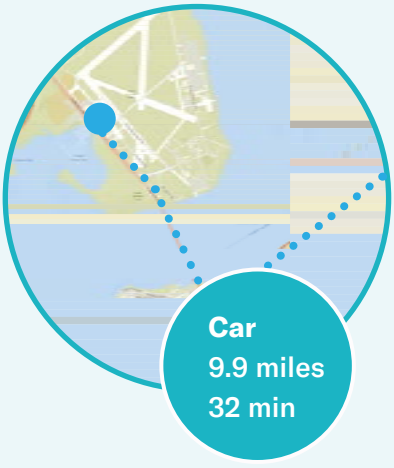


Students from Crown Heights / Brooklyn College via Public Transit

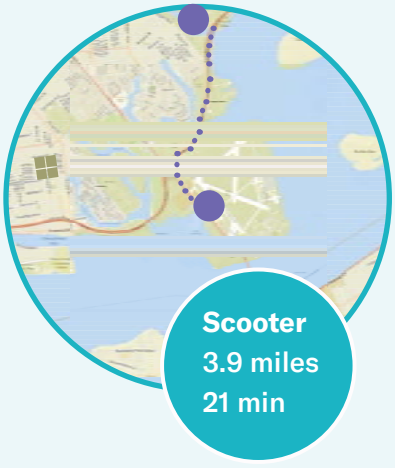


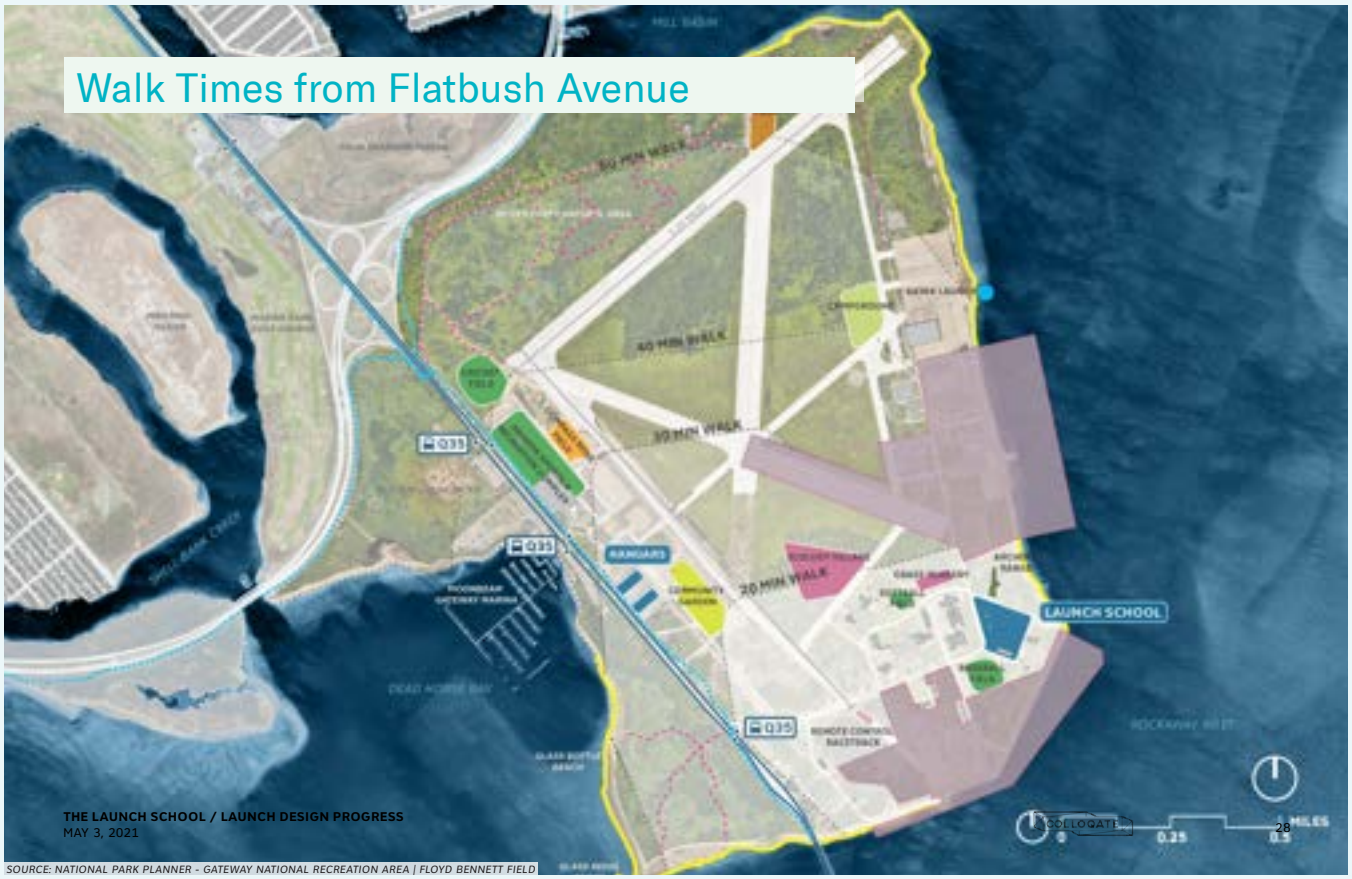
From Crown Heights:
3 Train to the 2/5 Train
2/5 Train to the B35

Families from Far Rockaway via Car



Green Industry Employee from Canarsie





SCAPE Architects. Design Progress Launch Expeditionary Charter School, an Outward Bound school. 2021.

Amplify Arrival + Magnet Destinations Within Floyd Bennett Field

The following are opportunities to improve the visitor arrival and navigation experience in and around Floyd Bennett Field (FBF):

Amplify Arrival + Magnet Destinations Within Floyd Bennett Field

- Amplify primary magnet destinations around FBF through wayfinding + signage
- Optimize physical gateways to the park and signal park arrival with the Ryan Center
- Connect FBF identity and wayfinding to surrounding neighborhoods

Clarify Circulation + Provide Multi-modal Transit Opportunities

- Align entries and pedestrian crossings with transit stops
- Create a continuous loop of circulation for safe + accessible multi-modal movement around FBF
- Provide secondary circulation with smaller paths and trails that connect park destinations
- Provide clear vehicular access to park destinations

Provide Site Infrastructure

- Provide short- and long-term site infrastructure to better serve FBF visitors and stakeholders through enhancing safety and comfort

Call to Action

Share Your Thoughts

Questions or comments about the report?
Share your thoughts on the questions below by visiting: http://www.jbrpc.org/future

1. What new or additional opportunities do you see to partner with JBRPC?

2. What programs, activities or services are lacking in the community and the areas around Floyd Bennett Field/Jamaica Bay?

3. What workforce development opportunities are most interesting to you?

Want to stay updated about community resilience efforts at Floyd Bennett Field?
Subscribe to our newsletter by visiting: http://www.jbrpc.org/

Follow us on social media:
Instagram: @jbrpc
Facebook: @JBRPConservancy

Thank you for your support and interest. We look forward to seeing you at Floyd Bennett Field.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Appendix

Case Study: Boston Harbor Islands

Similar to the vision and partnership of CUNY and SRIJB at Floyd Bennett Field, the Stone Living Lab and Boston Harbor Islands National Recreation Area and State Park are modeling an innovative, multipartner relationship that engages scientists and the community in collaborative design, exploration, research, education and the promotion of equity. The Stone Living Lab is a partnership between the City of Boston, UMass Boston School for the Environment, Boston Harbor Now, the National Parks of Boston, the Massachusetts Department of Conservation and Recreation, and the James M. and Cathleen D. Stone Foundation.[12] The partnership also engages the Greater Boston community by including students, community organizations and advocates to co-design solutions with scientists related to challenges posed by permitting, financing and community benefits necessary for implementing solutions to climate adaptation, coastal resilience and ecological restoration. Education efforts include a "Citizen Science" initiative and K-12 programming that will use Boston Harbor Islands as an outdoor classroom.

The Lab conducts cross-cutting research on novel approaches to climate change adaptation and extends beyond the boundaries of a traditional laboratory setting to include field sites, classrooms, board rooms and neighborhoods. The Lab is working at several sites throughout Boston Harbor with active monitoring, pilot experiments and community science projects.

Some current examples include:

- Rainsford Island – home to a diverse range of ecosystems and terrains for full scale, in-situ testing of nature-based and hybrid systems where system performance can be fully monitored.
- UMass Boston Campus – provides Lab and classroom space to complement field research and programming and provides dock space and research vessels to transport researchers, partners and scientific equipment. The UMass Boston campus is also the site of some of the Lab's first pilot projects.
- Peddocks Island – potential center for community science, education programming and community engagement. The use of Peddocks as an educational campus for place-based STEM learning is compatible with the current collaborative master planning process through Boston Harbor Now, Department of Conservation & Recreation and the NPS.

Like Floyd Bennett Field and Gateway National Park, the mission of the Boston Harbor Islands National Recreation Area is to make the Boston Harbor Islands' system a vital part of the Greater Boston area through opportunities for recreation and education while protecting the islands and their resources. Eleven different agencies and organizations make up the Boston Harbor Islands Partnership, the federally legislated body that governs the Boston Harbor Islands National and State Park. These include federal, state and municipal partners as well as private and non-profit organizations.

[12]https://stonelivinglab.org/

Opportunities for Collaboration with Other Climate Institutes in New York City

The SRIJB Institute complements growing efforts across New York City to help institutions and communities understand how best to respond to resiliency and climate change challenges. There are potential opportunities to partner with the nascent Governors Island Climate Solutions Center and other institutes, centers and organizations as all work toward a resilient future for New York City.

Center for Climate Solutions on Governors Island

In September 2020, the City of New York and the Trust for Governors Island announced plans to create a Center for Climate Solutions on Governors Island to advance the fields of climate research, innovation and policy making. Anchored by a major academic or research institution, a Center for Climate Solutions will bring together a multidisciplinary community of researchers, educators, advocates, entrepreneurs and policymakers, creating a cross-sector hub devoted to addressing the global climate crisis. Governors Island will be a central hub focused on developing, testing, scaling and advocating for the solutions that communities will need as the world navigates the impacts of climate change. Anchored by an educational or non-profit research institution, the Center is projected to create 8,000 new green jobs and over $1 billion in economic impact for New York City. Learn more about the Center for Climate Solutions on Governors Island by visiting: https://www.govisland.com/about/climate-solutions