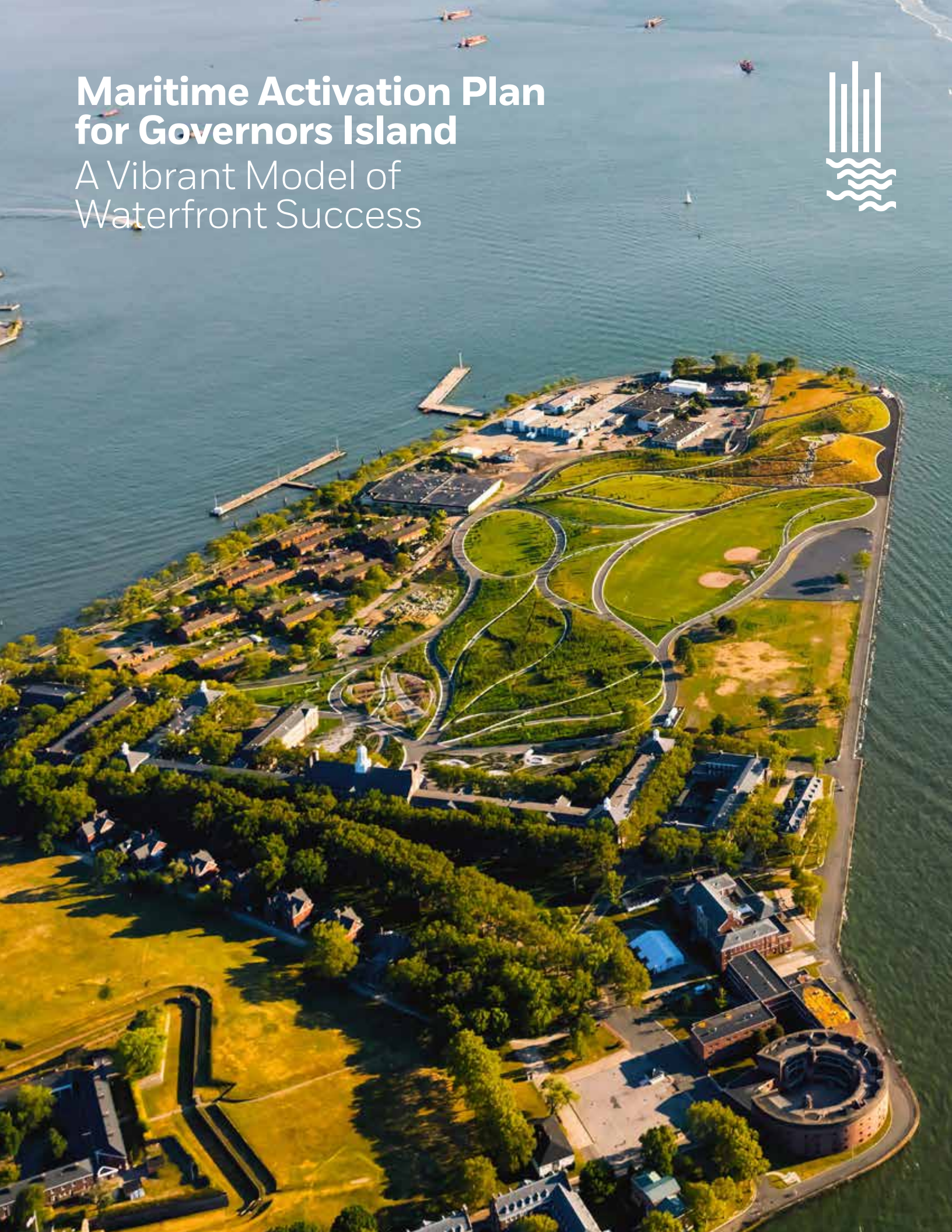


Maritime Activation Plan for Governors Island

A Vibrant Model of
Waterfront Success



Governors Island



East River

New York Harbor's Upper Bay



Maritime Activation Plan for Governors Island

A Vibrant Model of Waterfront Success

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Executive Summary

The harbor and waterways that surround the great metropolis of New York have come to be called our “sixth borough.” If we were to designate the capital of this sixth borough, the best candidate would be Governors Island, in the heart of New York Harbor. While it is deeply entwined in harbor history, the Island’s future potential is of even greater significance as a leading model of revitalized, resilient, accessible, and innovative waterfront uses.

Since opening to the public in 2005, Governors Island has become an extraordinary destination beloved by New Yorkers of all stripes. The Trust for Governors Island is the nonprofit organization created by the City of New York and charged with the planning, redevelopment, and ongoing operations of 150 acres of the Island’s total 172 acres (the remaining acreage is managed by the National Park Service). The Trust has worked hard to turn this former military base into a world-class attraction, and today, the Island’s car-free lanes, historic buildings, and green spaces blend with unrivaled harbor vistas and creative programming to offer a quieter, slowed-down version of how to have fun in the big city. New park elements such as hammocks, ballfields, man-made hills, and slides have been complemented by significant infrastructure investments, and as the Island continues to develop, there will be even more tenants, activities, and uses. As defined in the

Island’s 2010 Park and Public Space Master Plan, two areas totaling 33 acres were set aside for development to attract new uses that will generate revenue to support Island operations.

The water’s edge of Governors Island represents untapped potential and yet remains a dynamic environment where Mother Nature’s power is undeniable. With this Maritime Activation Plan (MAP), Waterfront Alliance examines how the Trust for Governors Island can make the most of its waterfront and offers recommendations for addressing the challenges of an island in New York Harbor and capitalizing on that Island’s unique waterfront assets.

The Governors Island MAP was constructed with input from dozens of the most experienced maritime minds from our region and around the country, along with many locally invested stakeholders.

WATERFRONT PROGRAMMING AND MANAGEMENT RECOMMENDATIONS

This MAP offers strategies for rethinking and maximizing Island maritime needs, including ferry service, recreation and education, freight service, and operations and management. Each of these essential elements applies to multiple parts of the shoreline, and each is influenced by systemic and historical factors. Activation on these complex goals will be critical to full use of the Island and its waterfront.

The heavily used ferry landing at Soissons emphasizes the need for enhanced ferry service for visitors. Weekends already average more than 10,000 ferry passengers per day.





Visitors enjoy picnicking at the shoreline, where there are sweeping waterfront views with little access onto the water.

Getting There: Improving Ferry Service to Meet Growing Demand

Expand Capacity: As the Island works towards full-year operation and build-out of the development zones, ferry service will continue to be expanded and refined. Currently, weekends average more than 10,000 ferry passengers per day. We recommend using that number per day, for seven days, as a basis for studying or planning future service.

Increase Access and Equity: In recent years, direct ferry services to Governors Island have been from Manhattan and Brooklyn departure points. NYC Ferry's transfer option now allows connections to other ferry lines serving Queens and the Bronx. As additional locals discover Governors Island, having more direct ferry service to the Island from diverse neighborhoods around the region has become desirable. Ferry service represents a significant investment of resources, though, so we recommend an economic impact study to refine the possibilities for additional direct routes.

Consolidate Ferry Landing Sites through Continued Dock Infrastructure Investment:

Ferry services to Governors Island have expanded since the island opened to the public, transitioning from customized military infrastructure and responding to the Island's growing popularity. We recommend the Trust consider retaining the military era Manhattan-to-Governors Island route from the Battery Maritime Building to Soissons Landing, and in the long term, assign all other ferry routes, whether Trust or externally operated, to Yankee Pier. To achieve

that investment in both dock infrastructure and passenger amenities at Yankee Pier would need to be funded. However, in addition to streamlining ferry service, this would open Pier 102, recently used as a ferry berth, to other types of boats, increasing the variety of the Island's maritime activation.

Streamline Operations: As of the publishing of this report, ferry routes to the Island are operated by both the Trust and by NYC Ferry, with the Trust contracting with HMS Global Maritime and NY Waterway for services. While ideally a unified ferry operation has natural advantages, the Trust can continue to maximize the various services through strong management.

Enjoying Island Life: Providing Diverse Recreational and Educational Opportunities

Increase Water Touch Points: Other than Pier 101, there are no opportunities for visitors to touch the water at any other point in Governors Island's 2.2 mile shoreline. Though it requires significant investment, we recommend the Trust explore ways to create an additional get-down, cove, or touch point. New waterfront parks around the harbor, more boathouses and sailing clubs, increased numbers of marine events permitted by the Coast Guard, and more field trip providers and curricula about our waters all highlight the trend that people are rediscovering the waterways for education and recreation, particularly valuing ways they can touch or directly interact with the water.

Invite More Boating: Recreational boaters, including small motorboats and sailboats, are

The waterfront gives us the experience of expansiveness amid a dense, clustered city. Psychologically, it calms you; it offers respite.

Michael Samuelian, The Trust for Governors Island

a local constituency that eagerly appreciates waterfront access. We recommend the Trust zone for and allow proposals for a marina concession which would provide access for park visitors who could arrive by their own boat. These kinds of projects require significant external investment, though.

Expand Educational Offerings: Establish a vibrant educational and recreational district centered around Piers 101 and 102 which could include historic ships, public kayaking and continuing Harbor School/Billion Oyster Project activities.

Moving the Goods: Freight Service Demands New Infrastructure

Establish a New Service Entrance:

Reconstruction of Lima Pier as the “service entrance” for the Island is widely supported by Trust staff, maritime experts, and local park users. Currently, nearly all freight, trash, and heavy moving to and from Governors Island is managed by trucks taking the ferry through the Battery Maritime Building to dock at Soissons Landing. As only a limited number of vehicles can ride the ferry at a time, capacity for freight has been closely managed, and managing truck and pedestrian traffic in close quarters on the same ferry and docks has been an increasing safety concern.

The overarching goal is to transform the way Governors Island uses its waterfront. In the past, uses were viewed as discrete, but activating the Island’s full potential requires consolidating and considering waterfront uses as a whole package.

Carl Weisbrod, The Trust for Governors Island

Pursue Wholistic Design for Essential

Connectivity: A variety of tried and true designs exist for building infrastructure to create freight access at Lima Pier, and final design would be best advanced as a match to the equipment of the maritime operator providing the service. Plans for freight service at Lima Pier should also include adjacent upland space of an appropriate size and shape for the staging and turning radius of trucks. The service will need a “mainland” connection, such as Brooklyn or

New Jersey, which is also a decision that is most streamlined when made in concert with the maritime freight operator.

Maximizing Management: Evolving Waterfront Expertise and Coordination

Continue Use of Contract Services: We recommend that the Trust continue to contract with marine services companies for vessels and their manning, dock maintenance, and future freight services. The specific tasks of dock and boat maintenance, infrastructure and crew certification, cargo freight handling, and marine regulatory management are distinct and require targeted expertise, with protocols and technology continually evolving in the industry.

Engage Internal Maritime Specialists: In working with a marine operations contractor, and to optimize the waterfront, a key to success will be active management and coordination by Trust staffers knowledgeable in the maritime field and dedicated to the Island’s maritime interests. The Trust has already effectively managed the waterfront, expanded ferry services and marine programming, and repaired areas of shoreline infrastructure. But to further utilize the waterfront, we recommend adding one or two specialist positions, such as a vice president for maritime operations and a maritime director. New maritime personnel should have experience in maritime operations, including common industry parameters for contracts with marine service providers, as well as an understanding of waterfront programming implementation to further expand public engagement.

ACTIVATION GOALS: SITE SPECIFIC ANALYSIS AND POSSIBILITIES

These activation goals should translate into benefits on the Island’s waterfront. A chart, found at the end of this report, identifies specific sites of current and future possible maritime activation, describes considerations for use of these spaces, and recommends possible actions and activities that the Trust may explore as paths to the goals of full use and benefits on the waterfront of Governors Island. Highlights include:

Soissons Landing: Continue pedestrian ferry service. Transfer vehicle and freight ferry service to Lima Pier.

Lima Pier: Reconstruct Lima Pier for use as designated “service entrance” to the Island, such as receiving trucks and freight, and discharging trash.

Yankee Pier: Explore ways to maximize Yankee Pier for ferry services, including installing additional ferry loading barges and passenger information signage.

Pier 101: Maintain educational and recreational floating docks on the west side. Consider an additional floating dock on the east side dedicated to small motor boat landings.

Pier 102: Emphasize educational and historic ship use of the barge at Pier 102. Consider permanently relocating ferry service from Pier 102 to Yankee Pier.

Buttermilk Beach: Install a basic gate and steps. Provide direct access to the beach for structured educational and recreational programs that touch or test the water.

Picnic Point: One of several places the Trust could consider building a get-down for visitors to touch the water. While the in-water conditions nearby make this possible, it would require substantial related rebuilding inland as well.

Castle Williams Corner: Another of several places the Trust could consider building a get-down for visitors to touch the water, and also

establish a catch-and-release fishing station. The landside space is most easily adapted to this use, and while the in water conditions are also agreeable, this side of the Island is the most exposed to severe weather.

Tango Pier: Should significant investment become possible, rebuilding Tango Pier as a marina’s central services dock with a dinghy dock and nearby moorings would offer a great benefit to open the Island to visiting recreational boaters who could arrive by their own boat.

Travel Lift Pier: Not in use since the Coast Guard days, a travel lift enables small boats to be taken ashore for maintenance. The opportunity to make boat work an integral part of education and community programs on the Island would involve a partner taking on the operations of this pier.

Western Shore: If a harbor education center were to be proposed in this Western Development Zone, significant investment would be needed to build a water access point here.

As Governors Island matures as a civic destination and asset, Waterfront Alliance hopes that these possibilities for recreation, education, transportation, jobs, and, perhaps most critically, for answering the existential dilemma posed by climate change, will be of use to the Trust in creatively moving forward. We look to Governors Island as our unofficial harbor capital—a vibrant model of waterfront success.



Governors Island is an urban oasis in New York Harbor with a great deal of untapped potential.

Island History and Systems: Past, Present, and Future

Historical influences, natural conditions, and regulatory framework are all part of the larger ecosystem of factors that any plans for Governors Island should consider.

HISTORY OF GOVERNORS ISLAND

When the Dutch joined the native Lenape people in this bountiful estuary in 1624, they spent that first year on what was to become Governors Island, seeing the surrounding waterways as protection. This settlement soon moved to the

2002, the New York State Legislature formally recognized Governors Island as the birthplace of the State of New York.

From its military beginnings as a colonial militia in 1755, Governors Island became a major headquarters for the U.S. Army and Coast Guard, making it one of the longest continually operated military installations in the country until its closure in 1996. During the historic designation process, the Landmarks Preservation Commission recognized that this lengthy military presence on the Island contributed to the remarkable integrity of its historic character.¹

There is a novelty to Governors Island for New Yorkers. It's exciting to visit and also to imagine. The historic buildings are still intact and some are in use, but there remains a lot that isn't activated and that hasn't been transformed.

New York State Senator Brian Kavanagh

island that would be named Manhattan, and in 1699 with the colony under English control, Governors Island received its current name, being reserved for the "benefit and accommodation of His Majesty's Governors." New York Harbor remained occupied by the British during the American Revolution, but with independence, the new United States seized on the strategic value of the islands in the port of New York. In fact, in

The U.S. Army built the structures now forming the historic district, and added landfill to expand the Island. The Coast Guard built much of the maritime infrastructure in use today. In its busiest Coast Guard days, the Island hosted a uniformed residential community of more than 3,000 and a commuting population of 1,500. When the Coast Guard announced the closure of its base there, Governors Island, perhaps for the first time, entered the public's imagination and became the subject of widespread discussion and a grand visioning for what the space could and should become.

Negotiations following the departure of the Coast Guard led to the affirmation of a designated

Governors Island has a rich history. Its designated Historic District contains more than 50 structures related to two centuries of the military history of the nation.



¹ http://home2.nyc.gov/html/lpc/downloads/pdf/reports/GOVERNORS_ISLAND_-_HISTORIC_DISTRICT.pdf

Historic District in the north of the Island, with Fort Jay and Castle Williams and their connecting acreage further designated the Governors Island National Monument. In January of 2003, Governors Island was sold for a nominal sum to the State and City of New York, with the provision that the Island be used for public benefit according to a deed restriction calling for public space, educational use, and cultural, nonprofit and commercial facilities. The 22 acres that comprise Governors Island National Monument would be administered by the National Park Service and the bulk of the Island, 150 acres in total, would be administered by a joint City-State agency, the Governors Island Preservation and Education Corporation (GIPEC).

Governors Island began to open its doors to visitors, first with guided tours by the National Park Service in the summer of 2003, and then, in 2005, to the broader public. In April 2010, the City assumed sole control of the Island's development through the newly established Trust for Governors Island (The Trust), and through a design competition, settled on a master development plan by urban design and landscape architecture firm West 8 from Rotterdam, Netherlands. The historic northern end, with Castle Williams, Fort Jay, and more than 50 historic buildings, would remain structurally unchanged. The majority of the southern acres would be reimagined and rebuilt as a climate-resilient park offering play areas and hammocks, natural turf ball fields, man-

The Governors Island Corporation, doing business as The Trust for Governors Island, is the 501(c)3 nonprofit organization created by the City of New York and charged with the planning, redevelopment, and ongoing operations of 150 acres of Governors Island. The Trust's mission is to transform Governors Island into a vibrant resource for New York City, making the Island a destination with extraordinary public open space, as well as educational, not-for-profit and commercial facilities.

made hills rising 25 to 70 feet, and five miles of meandering cycleways. Two designated areas on the south-east and north-west of the Island would be left for new development of educational, commercial, hospitality, and cultural facilities in order to generate revenue to expand public access and be financially self-sustaining. Along the 2.2 mile perimeter of the Island would run a wide promenade for bicyclists and pedestrians.

MARITIME CONDITIONS OF GOVERNORS ISLAND

Originally about 70 acres in size, Governors Island was expanded by landfill to its present size of 172 acres. Landfilling is common in New



To realize the West 8 plan, Coast Guard residential buildings had to be demolished, with portions of the rubble reused in park elements such as the Hills and ballfields.

New park construction (foreground) complements and protects the Island's Historic District (background).



When you land at Governors Island, you really feel like you're on an island; the city feels at once remote, yet wholly open to you.

Erik Baard, HarborLAB

York City history, but famously, the extended southern portion of the Island includes the rubble dug out to build the Lexington Avenue line of the New York City subway system. Following usual development patterns, the most historic structures on the Island hold the high ground, and the landfilled area was, critically, in the flood zone. But park construction thoughtfully addressed this, and raised elevations of the newly landscaped parkland in ways that also help add flood protection to the historic district.

Governors Island sits at the core of a dynamic estuary, where the rivers meet the sea. Tidal levels cause the water height to regularly vary five to six feet, currents change their course multiple times a day, and can run at the relatively strong speed of three knots. The estuary's salt water adds a naturally corrosive factor, and weather predominantly comes from the west, where an open stretch of harbor water provides fetch, or building space, for winds and waves to pick up speed and force. With Manhattan about 800 yards to the northwest, and Brooklyn about 400 yards to the east, these coasts of the Island are somewhat more protected from weather. But that constriction of land masses also contribute to the swiftness and complexity of the currents. The waterways surrounding Governors Island see hundreds of vessels a day, from large commercial bulk carriers to cruise ships to ferries to sailboats to kayaks. These ships pass closest to the Island where the waterways are

most narrow, on the northwest and east coasts, where wakes from vessel traffic add to the complex water conditions.

INFRASTRUCTURE, RESILIENCY, AND FUTURE DEVELOPMENT ON GOVERNORS ISLAND

Because much of the waterfront and inland infrastructure on Governors Island dates from the Coast Guard's administration, or even further back, the initial phase of the City's capital construction program included not only park and open space development, but important stabilization and upgrades to existing infrastructure. An investment of \$300 million in capital improvements brought the restoration of potable water through a new 12-inch main, more than two miles of seawall replaced or repaired, upgraded stormwater outfalls, and realigned stormwater drainage systems. Vessel berths at Soissons Landing and the Battery Maritime Building were revitalized, increasing service and safety for vehicles and passengers. New equipment at Soissons Landing, including electrical and mechanical systems, was complemented by new signage, landscaping, and passenger amenities in the surrounding area. Similarly, at the Battery Maritime Building, a new lift bridge for boarding boats with increased loading capacity was added to Slip 7, with plans for additional electrical and mechanical improvements. Anticipating a variety of potential uses by tenants, fiber optic lines

and new electrical feeders and distribution systems were installed, bringing a robust power supply and high-speed communication capability to the Island.

Just as the Island's infrastructure upgrades took into account a variety of future commercial, recreational, and educational uses by tenants and the public, so too did the 2010 Park and Public Space Master Plan, anticipating the effects of climate change and designing with resiliency in mind. West 8 purposefully created a resilient park that could withstand the long term rising of sea levels and the increasing frequency of violent storms. The plan lifted many parts of the Island out of the flood zone, transforming it through a new topography and the addition of a variety of wind- and flood-resistant tree species.

At present, the Island has three year-round tenants: the offices of the Trust for Governors Island, the Urban Assembly New York Harbor School, a public high school incorporating stewardship in its curricula, including the Harbor School-affiliated Billion Oyster Project, and the Lower Manhattan Cultural Council's Arts Center, an artist studio residency program. Seasonal tenants greatly expand the Island's programming, and include The Downtown Boathouse for kayaking, Earth Matter and GrowNYC for composting and farming, New York City Audubon for nature programs, and the Children's Museum of the Arts' Summer Arts Colony, among many others². National Park Service continues to offer tours and improve access to the historic monuments. Two outdoor restaurant concessions have opened in recent years on the waterfront near Soissons Landing, in addition to food trucks and tents that service other parts of the Island seasonally.

There is great potential for even more activity on the Island, and on the waterfront. The two development zones totaling 33 acres are open to entrepreneurial and visionary proposals, and adaptive reuse proposals are also welcomed for the legacy buildings in the historic district. The Island's first commercial tenant in a historic building, QC Terme spa, is planning to open in 2021, and Spaceworks is in predevelopment to turn another historic structure into a set of studios, galleries, and performance space. Though much has been accomplished, work

remains to be done. Continued investment in the Island's infrastructure, particularly its waterfront infrastructure, will be critical for it to become a self-sustaining entity serving diverse uses year-round. To that end, in 2018 the Trust began a rezoning initiative for the South Island and its development zones set aside in the master plan. Rezoning is necessary because original codes were residential, for military barracks, but now permanent housing is prohibited on the Island. The size and type of development allowed in the future build-out of Governors Island will be guided by the type of commercial zoning identified

The challenge is balancing development zone uses that can make Governors Island economically self-sustaining with those that are complementary to the park and that do not limit diverse public uses. If the development zones are the key to making the island self-sustaining, how do you do development in a way that is complementary to the park, but still attractive to those developers?

Carl Weisbrod, The Trust for Governors Island

through this process. The Trust seeks to extend zoning that allows for uses compliant with the Island's deed, and to create a proactive public planning framework for future development. The buildable areas being rezoned line the waterfront on both the east and west sides of the Island, and rezoning will set parameters for projects along these waterfronts, though the Trust retains the final decision on what ultimately is built.

For additional details about the history of Governors Island, visit this website: govisland.com/history

² <https://govisland.com/highlights>

Waterfront Programming and Management Recommendations

GETTING THERE: IMPROVING FERRY SERVICE TO MEET GROWING DEMAND

Ferry services to Governors Island have expanded since the Island opened to the public. The Trust inherited a legacy system that had been highly customized by the U.S. Coast Guard and limited to Manhattan. Waterfront Alliance has long advocated for the benefits of increased ferry services across the city, and elected leaders have invested in ferry service to Governors Island through subsidies for weekend Brooklyn service and NYC Ferry. Continually improving the user experience for ferry passengers has been a driving goal across large sections of the island's waterfront, with various ferry operators utilizing nearly all the available docks to maximize service for the traveling public. This has, in part, limited the capacity for the Island's visitors to experience the waterfront in different ways, resulting in fewer berths for side-loading vessels such as tour and charter boats, or historic ships that could provide programming. As operations grow towards 365 days a year access, demand for passenger ferry service is poised to grow substantially, and the Trust is wisely seeking to increase ferry capacity while also expanding operational flexibility. Yankee Pier provides a significant opportunity to increase passenger ferry service, which could allow for other educational and recreational uses at other berthing sites.

In the early years of public access to the island, pre-existing conditions introduced substantial constraints for rationalizing ferry management. Ferry *Lt. Samuel S. Coursen*, in use since Coast Guard days and the largest serving the Island, has a unique vessel design that corresponds to a unique landing design. This design is not widely applicable in or transferable to other locations. In addition, *Coursen*, built in 1956, is nearing the end of its operational life, and the decision of how to continue service with this or another design must be examined. With the exception of Soissons Landing, other piers on the Island were not built for high-volume passenger service at the outset, and they lack typical width and entrance-exit separations. These conditions also present opportunities for rethinking ferry service.

During the 2018 season, ferry service to Governors Island was provided through a number of initiatives:

- From lower Manhattan's Battery Maritime Building to Governors Island Soissons Landing, with the *Coursen*, now owned by the Trust and managed directly through the Trust's marine subcontractor, HMS Global Maritime, Inc. Though other vessels may run this route, *Coursen* is the only regular ferry that provides vehicle access, and she is also the highest passenger capacity ferry of all those that service the Island.
- From Brooklyn's Pier 6 in Brooklyn Bridge Park to Yankee Pier on Governors Island. This passenger only, weekend-only route has benefitted from a subsidy to increase service on peak weekends. It is managed by the Trust through vessel charter with NY Waterway.
- From the Bronx, Queens, Brooklyn, and Manhattan, NYC Ferry's connecting routes allow passengers to transfer to a ferry to Governors Island, originally arriving at Pier 102, but also utilizing Yankee Pier during 2018. As a City service, the Trust incurs no additional expense for the greatly increased accessibility through NYC Ferry, but the Trust also has a reduced role in how this ferry service to the Island is managed. In 2018, NYC Ferry service to Governors Island responded to growing pains with infrastructure, route design and passenger capacity by modifying schedules and route particulars as the season progressed.

FERRY SERVICE RECOMMENDATIONS:

Expand Capacity: Currently, weekends average more than 10,000 ferry passengers per day, and that number may provide a working model for planning full ferry service seven days a week. In 2018, "headway," or the wait time between ferries, typically ranged from a half hour to an hour, and the only weekday ferry service was from the Battery Maritime Building to Soissons Landing. It will be essential to the success of the Island's development zones, and to the goal of year-round use of the facilities, for there to be more weekday service, and continually improved



Four out of the eight historic water access points and docks are in use on Governors Island. Soissons Landing currently handles both passengers and freight.

weekend service. There is time and space open at the docks for ferry service to be increased by adding more boats to serve the existing routes and landings. But while more boats more often would serve more people, this would be a significant equipment and personnel investment by the ferry operator or the Trust, who would require associated increases in budget or subsidy, or the establishment of market rate routes.

Short Term, Continue to Streamline

Contracted Ferry Operations: As the above details illuminate, a number of behind the scenes variations to ferry service contribute to challenges in fully integrating transportation to the Island. There are different price points between Trust-operated ferries and NYC Ferry. The separate entities make it more challenging to manage maintenance needs and liability concerns at the ferry docks. Technically, the various ferry operators are competitors in the same business, further complicating how resources to expand ferry service might be shared or maximized. As a public park, it's invaluable to keep transportation costs low. With additional operations revenue generated by further development on the Island, ferry services could be expanded and increased. But in the short term and with currently available resources, it would be prohibitive for the Trust to fund its own fully expanded ferry system. In the meantime, the Trust can continue

with strong management practices, aided by community advocacy and support from elected leaders, to maximize ferry service.

Mid to Long Term, Consolidate Ferry Landing Sites through Continued Dock Infrastructure Investment:

We recommend the Trust consider keeping the traditional Battery to Soissons route, and in the long term, assign all other ferry routes to Yankee Pier. This allows for significant increases in capacity, and having two passenger ferry areas available gives the benefit of redundancy. Not planning regularly scheduled ferry service at Pier 102 will allow its expanded use by educational, historic, and tour boats. Pier 102 is a comparatively smaller berthing area, well suited to match the comparatively less frequent operations of culturally programmed vessels.

Taking the boat to Governors Island is a challenge logistically, but it is also the Island's greatest asset. It's what makes the experience of coming to Governors Island unique.

Elizabeth Velez and Meredith Johnson, The Trust for Governors Island

Retaining the Battery-to-Soissons route enables ferry *Coursen* to continue to serve the Island in the near future, preserving its advantages of carrying trucks and service vehicles, and high passenger capacity. *Coursen's* capacity is

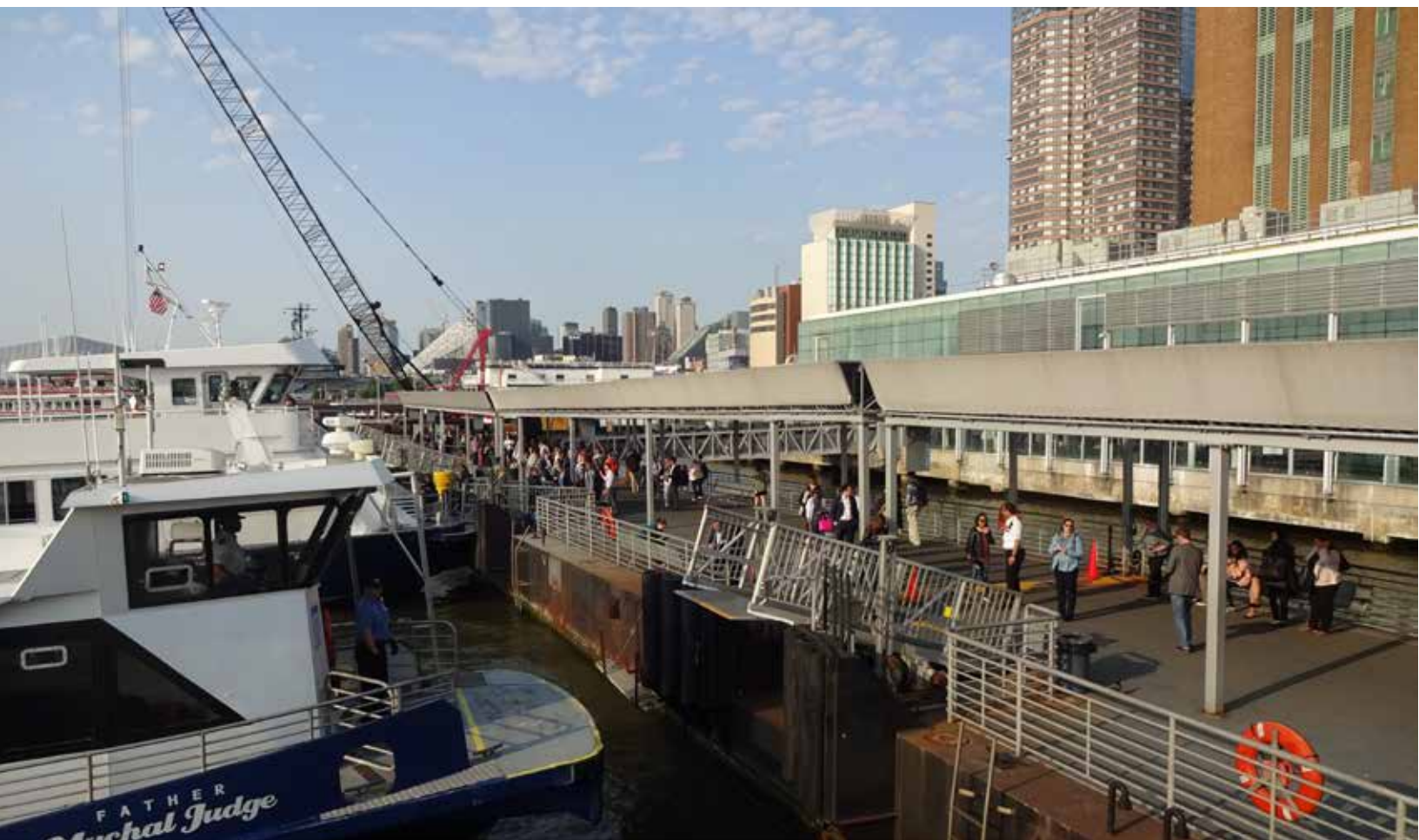
The West Midtown Ferry Terminal is located at Piers 78 and 79 in Hudson River Park, and may be a model for expanding ferry berths at Yankee Pier.

1,200 passengers, while outside of the Staten Island Ferry, the majority of vessels in use can carry about 400 passengers. Soissons Landing is currently the only Governors Island ferry berth that can regularly handle such high passenger volume. This does not preclude other vessels from using the same docks, and Soissons Landing is able to receive work boats and barges, a flexibility that adds value to the Island's overall operations. The lower Manhattan terminal at the Battery Maritime Building is in close proximity to tourist attractions, government offices, the Staten Island Ferry, and multiple subway and bus lines, making the Battery-to-Soissons route valuable to a number of constituencies.

Centralizing ferry routes from all other originating points to land at Yankee Pier, with associated infrastructure investment, would streamline service and reduce confusion for visitors. We recommend the Trust consider adding additional ferry berths at Yankee Pier, possibly by replacing the existing arrangement with a long, narrow floating dock parallel to the pier, with multiple perpendicular berths along

its length, similar to the NY Waterway terminal at Pier 81, serving vessels with capacity of up to 399. A full marine engineering analysis should complement this initiative; this arrangement may be most feasible on the outer length of the pier; it may require removing dolphins in the slip along the inside length of the pier, and may even include the rebuilding of the now collapsed western arm of Yankee Pier. The pier already has electricity to supply future LED signage that could direct passengers and identify individual boarding points for different destinations. Though Yankee Pier is somewhat narrow for lining up ferry queues amidst exiting passengers, it is quite long, and planning can organize the pier successfully for crowds, as large capacity special events have demonstrated. Depending on ferry headway and capacity, upland queueing may not be necessary, though an information or amenity center adjacent to the pier is always desirable.

Engage in Service Analysis: A full economic study could shed important light on what ferry expansion might be supported by market opportunities, where ferry expansion would only



be successful through subsidy, and what ferry services the Trust should prioritize within its own budget.

When the Island first opened to the public, ferry service was only from lower Manhattan on the same route used in Coast Guard days. One of the earliest additional weekend-only ferry services to be added was a direct link from Brooklyn's Pier 6 in Brooklyn Bridge Park to Yankee Pier, operated by the Trust through charter with NY Waterway. As East River Ferry germinated NYC Ferry, access to Governors Island increased. As NYC Ferry continues to expand, an analysis should be completed to understand how the services at Yankee Pier could be integrated and arrive at the best route commitments for future ferry operations. With established NY Waterway terminals stretching up the Hudson, the Trust could explore rerouting its charter ferry services to provide a direct connection from the west side of Manhattan to Governors Island, if other parts of the system can maintain sufficient capacity for Brooklyn.

In the long term, the Trust's maritime personnel could work with industry partners to understand the optimal balance of subsidy, concessionaire support, and ticket fees that would enable the development of expanded ferry service. Possible participants include ferry operators (who currently include HMS, NY Waterway, and NYC Ferry), government agencies (including New York City Economic Development Corporation and New York City Department of Transportation), a potential future development zone concessionaire (still undetermined), and marine contractors (an incomplete list of potential respondents to a request for bids includes HMS Global Maritime, Inc., Millers Launch, Inc., and McAllister Towing and Transportation Co., Inc.).

Increase Access and Equity: There is a misperception that the Island serves primarily Manhattanites and Brooklyn residents. To expand outreach into other boroughs, and neighbors in New Jersey as well, we recommend the Trust explore long term opportunities to work with a ferry operator to provide limited (once a month) weekend ferry routes that provide a direct connection to the Island alternating among Queens, the Bronx, Staten Island, Hoboken, and/or Jersey City,

Staten Islanders suggest that the Governors Island Ferry Coursen's schedule be offset from the half hour or hour by five minutes, in order to facilitate an easy transfer from the Staten Island Ferry to the Governors Island ferry. For example, change the Coursen's 10am departure from the Battery to a 10:05 departure, so those on the 9:30 ferry coming from Staten Island (approximately a 25 minute ride) have time to make the transfer.

beyond the waterborne transit connections already provided by NYC Ferry. Such an arrangement would enable a faster, direct trip to the Island from more distant communities, but would likely require an operating subsidy provided by local government leaders from New York City or New Jersey, or possibly from private fundraising in partnership with The Friends of Governors Island. Because of the potential popularity of direct access at peak times, capacity and headway will also have to be carefully considered to avoid overcrowding.

ENJOYING ISLAND LIFE: PROVIDING DIVERSE RECREATIONAL AND EDUCATIONAL OPPORTUNITIES

There is increasing demand for expanding access for recreational boating and direct contact with the water for education and recreation at public and redeveloped waterfronts. Across the region, community input at waterfront visioning sessions has called for boat launches, docks, beaches, and water touch points. For example:

- › Community advisory groups to the U.S. Environmental Protection Agency for the superfund sites in Newtown Creek and Gowanus Canal are requesting human-powered boating launches in those restoration plans, and on Newtown Creek, low points to touch the water. Community meetings in Queens with The Port Authority of New York & New Jersey regarding Flushing Bay and Creek advocate to increase human-powered boating and increase water touch points.

You can ‘build your own adventure’ on Governors Island.

Merritt Birnbaum, *The Friends of Governors Island*

The Bay Area Discovery Museum, located in a national park in Sausalito, California combines maritime history, architecture, culture and ecology for an educational and entertaining experience.

Staten Island's North Shore community seeks to be recognized as a Maritime Education and Recreation Corridor with increased opportunities to touch the water for marine science. Manhattan's Community Board 1 has passed at least three resolutions requesting the City create access to the beach under the Brooklyn Bridge on the Manhattan side.

► In preparing their State of the Estuary Report, the New York–New Jersey Harbor & Estuary Program counted more than 100,000 human-powered boaters on the water in 2017. Approximately 30 boathouses have been organized across the harbor, and new boat storage areas and new boathouses have opened within the past few years in Hoboken, Brooklyn Bridge Park, and Jamaica Bay.

► Affordable marinas are in high demand, with waiting lists at NYC Parks' marinas, and sold-out slips at Liberty Landing Marina. At the same time, community sailing has flourished, with a recently created fleets at One°15 Brooklyn Marina in Brooklyn Bridge Park and new moorings for Hudson River Community

Sailing in Inwood joining long-standing organizations such as Manhattan Yacht Club and the boaters of City Island.

► Opportunities to access the water at the shoreline without necessarily getting in a boat are also in great demand. Crowds gather at the relatively new beaches in Brooklyn Bridge Park and Hoboken, while people who fish have always made their own way to shore in places along the Harlem and Hudson Rivers. The Billion Oyster project has grown from 12 participating schools in 2014 to 70 participating in 2018, with more than 6,000 students having touched the water as they monitor oysters' growth and water quality.

In addition to people flocking back to the water, marine and bird life have begun to repopulate our estuary, adding potential for wildlife based activities to enhance programming on Governors Island. Blackfish and stripe bass follow baitfish into coves among submerged rocks at the Island's shore, oyster restoration encourages invertebrates to gather, and common terns, a coastal bird species rarely found in New York City, have been visiting the Island.





The Harbor School and Billion Oyster Project, providing marine education and restoration, both utilize floating docks at Pier 101.

RECREATION AND EDUCATION RECOMMENDATIONS:

Short Term, Maximize Existing Maritime

Activation Sites: Many interviewees recognized the value of an interactive component to any waterfront programming, and particularly, the value of opportunities to touch the water. As a public space in the heart of New York Harbor, Governors Island is a natural hub for public waterfront recreation and education. Although there are challenges related to in-water conditions and passing vessel traffic, there are still safe opportunities to offer hands-on water experiences for visitors.

- Continue the successful public kayak programming in its current location in the cove at Pier 101, with continued supervision by an experienced local boathouse. Also continue to allow this dock to provide public access as a NYC Water Trail Landing when the Island is open
- Create supervised access to the natural beach open at low tide on Buttermilk Channel. This could be provided with minimal step-down infrastructure and an educator/attendant on station whenever the gate is open, for additional safety. There, Island visitors could participate in programs to test the water, seine for marine life, or make a short, guided kayak voyage to or from Pier 101.

Long Term, Increase Water Touch Points:

We recommend developing an additional water touch point for activities, such as a small cove, or a stepped get-down, or a pebble beach, where people can touch the water, if necessary with an outer rock wall or in-water fence that would

Immersive education is the most effective way for students to learn; Governors Island is one of the few places where a waterfront lab is possible for learning about marine science, resiliency, and the environment.

New York State Assembly Member Yuh-Line Niou

prevent exposure to open waterways. While there are legitimate concerns that the currents around the Island and its proximity to heavily used ship channels complicate calls for recreational use and unencumbered shorelines, Waterfront Alliance has direct experience operating in-water programming for more than a decade through the City of Water Day festival, and understands these challenges firsthand. Safe access can nonetheless be provided through diligent design and management. Potential sites exist all around the Island's perimeter, but would fit best within overall activation by being sited on the southern or western shore. Creating a cove in any place would involve breaking inland

New York's waterways have become increasingly popular for kayakers and waterfront communities are calling for more water touch-points, as in this photo of Pier 101 at Governors Island.



from the seawall, as was imagined in early park designs for the southern portion of the Island. The exact location may be better facilitated by upland programming connections or funding allocations for areas of work on the seawall. For example, the bend in the Island's western shore near Castle Williams occurs near a natural rocky area offshore that would enhance marine life connections, but determining financial and permitting feasibility in conjunction with jurisdiction requires further internal examination from the Trust.

The joy of urban paddling is something many New Yorkers don't know. You experience the unexpected when you're on the water in a kayak.

Erik Baard, HarborLAB

Invite More Boating: At Pier 101, the larger floating dock is already in use by numerous vessels serving Harbor School and Billion Oyster Project, as well as holding oyster grow out cages underneath. The smaller Pier 101 float is intended and designed for use by human-powered boaters. Additional floating docks are needed to meet the growing interest and activation possibilities for small boat access at Governors Island.

Recreational motorboaters and sailors are very interested in visiting the Island, and typically bring economic opportunity along with them. While the Island's Eastern Development Zone remains open to any number of possibilities, its proximity to established pier and boating areas on Buttermilk Channel offers some unique opportunities for small boat access. A development zone concession to operate a mooring field, with a town dock in the water on Buttermilk Channel, and necessary upland space in the development zone, would expand access to the Island for visiting recreational boaters, and possibly be proposed medium to long term. A marina in the vicinity of Tango Pier is also technically possible, long term, but would require significant investment in wave attenuation infrastructure. A significant revenue source would be necessary to establish a marina, also likely financed, managed, and operated by a concessionaire, similar to the arrangement that led to the development of Brooklyn Bridge Park's marina. The option for a restaurant to be included in the concession for a marina or mooring field may be necessary for its economic survival, as is in a number of Hudson River facilities such as La Marina and Liberty Landing Marina.

Island partners and tenants, Island staff, special event organizers, and a small boat launch

service operator have all expressed interest in adding “touch-and-go” temporary berthing space at the Island, for pick-up and drop-off uses, which usually dock for brief time periods. In the medium term, installing an additional small floating dock on the opposite side of Pier 101 or at Yankee Pier could serve small boat access for “touch-and-go”. A long term solution could be integrated with a town dock or marina facility described below, in partnership with a private operator or concessionaire.

Legacy Coast Guard infrastructure includes a travel lift pier, for taking small boats out of or into the water, on the eastern shore. Though travel lifts serve a significant maritime necessity, there are precious few available in or near New York Harbor. Restoring the Governors Island travel lift pier is a capital investment which would need to be matched by related equipment and a boathouse ashore, but it would enable uniquely creative programming

such as boat building and technical skills education. These types of activities are exciting to watch as well as participate in, so if the investments were made, they could significantly contribute to the dynamism of the Island’s programming. As an added benefit, a working travel lift pier would also enable low cost maintenance of any small utility boats that may serve the Island. The Trust’s maritime programming partners, such as Harbor School, Island Oyster, and Boatride NYC are also eager for small boat access, maintenance, and haul-out capability for the winter, and could be invited to take a partnership role in the build-out and management of a travel lift.

Expand Educational Offerings: The Trust and its programming partners have continually expanded and improved activities presented on the Island. But further programming will require further investment to activate underutilized parts of the waterfront for things like additional

Governors Island has the potential to develop programming around a restored travel lift, for working on small boats ashore, though significant infrastructure and equipment investments would be needed.



The new One°15 Brooklyn Marina features more than 100 slips plus a sailing school and community boating program.

ecological explorations and tall ship visits. Even though South Street Seaport Museum is nearby, the berths in the historic Seaport District are frequently all already in use. At Governors Island, the Pier 101 cove is frequently at full capacity serving the Harbor School's technical programs, and nearby buildings may host a kayak boathouse, but are not suited for a large educational venue.

► Create a Tall Ship Dock: If ferry service were centralized at Yankee Pier per the above recommendations, Pier 102 could be promoted as a tall ship dock, and programmed with heritage activities in conjunction with National Park Service (NPS). Public kayaking and Harbor School/Billion Oyster Project activities should continue at the adjacent Pier 101, establishing a vibrant educational and recreational district centered around Piers 101 and 102. The Pier 102 dock does not need to be redesigned to accommodate the typical tall ships of our eastern seaboard, and additional supports for ships, such as shore power, could be added when feasible at a later time. The New York City Economic Development Corporation (NYCEDC) and its operating partner NYC Ferry, as well as NPS, would be key partners in effecting this transition.

► Create a Harbor Education Center: In the long term, a harbor education center with programming for children and adults alike would offer significant potential public value. Topics might include citizen-science data collection, conservation, maritime history, Sea Scouts, oyster restoration, or boat-building. An education center could be proposed in cooperation with a business or university in one of the development zones, or through potential partnership with nonprofit educational institutions, and utilize a newly built get-down as a marine science access point for teachers and classes to engage in marine environmental education.

MOVING THE GOODS: FREIGHT SERVICE DEMANDS NEW INFRASTRUCTURE

The movement of all freight to and from Governors Island by truck through the Battery Maritime Building via ferry to Soissons Landing limits freight capacity and adversely impacts service for passengers at these docks. Reconstruction of Lima Pier as the "service entrance" for the Island is widely supported by Trust staff, maritime experts, and local park users. This would also facilitate Lima Pier's use for delivery of construction material for future development phases on the Island. Marine





With increased activity and future development on the Island, this report recommends Lima Pier be repaired for use as the designated "service entrance" to the Island.

builders are professionally hesitant to estimate costs without detailed supporting information, including a survey of existing conditions. It is challenging to accurately estimate average pier repair costs because conditions for piers in need of rehabilitation vary widely. For broad comparison, Hudson River Park's 2016 financial plan⁴ indicates that \$21 million rebuilt basic pier access as well as the firehouse on Pier 53. As a benchmark for new pier construction, NYCEDC's initial projections⁵ for a new ferry pier installation at Clason Point in Soundview, Bronx, the largest new ferry infrastructure built as part of the launch of NYC Ferry, were \$9.3 million for a 5,000 square foot pier. (This estimate includes passenger amenities.)

FREIGHT SERVICE RECOMMENDATIONS:

Establish a New Service Entrance: While we describe scenarios here, the final decision for designing new freight infrastructure at Lima Pier would be best advanced as a match to the maritime operator who would be providing the service. If a regularly scheduled service is to be established, we recommend the Trust contract with that freight operator first, then work with that organization to plan any new or repaired pier infrastructure, which may include:

- Pier-based truck transfer equipment: Rebuilding the pier to match common deck barges, where trucks might roll on and roll off a standardized

flat surface, could involve installing heavy-load, tide-adjustable ramp and frame infrastructure on the pier. This may have a nominal presence in sight lines to the view of the water near the pier, but it would also enable more flexibility in selecting companies for moving freight.

There are a variety options for how to build freight capacity and integrate freight infrastructure. You can build a pier to match a boat, or a boat to match a pier.

Tim Loesch, HMS Global Maritime

- Vessel-based truck transfer equipment: If the Trust desires to have the ramp infrastructure for trucks on the barge or ship itself, this would require a more customized vessel. The Trust would either have to build one itself, or commit to a longer contract for it to be economically viable for the contractor to invest in a customized barge or ship with the transfer capability aboard.
- Barge directly to shore: A number of New York Harbor-based marine contractors, such as Miller's Launch, have creatively used barges to serve freight needs, enabling a barge system to fully replace a pier. Significant benefits include flexibility and ability to customize barge delivery when operated as a unified system, which

⁴ https://hudsonriverpark.org/assets/content/general/HRPT_Fiscal_Lima_Pier_2016_Financing_Plan.pdf

⁵ https://www.nycdc.com/sites/default/files/filemanager/Resources/Studies/2013-Citywide_Ferry_Study/Citywide_Ferry_Study_-_Final_Report.pdf

Consolidating the movement of goods at a purposefully designed space on the waterfront will be essential for future growth on Governors Island.

would promote scalability in service and costs. Each marine contractor has its own specialized equipment to move, place, and connect its barges to the shore according to the client's needs.

- Palletized freight; If the Trust continues to allow trucks to use Soissons Landing via ferry, then ships with a crane could deliver palletized cargo or small containers directly to Lima Pier, for Island-based trucks to distribute.

To estimate potential costs for these options, the Trust could project the quantity and schedule of freight movements desired, provide a survey of existing dock conditions, and request bids from maritime companies on how they would fulfill the described freight need.

Pursue Wholistic Design for Essential Connectivity: The reconfiguration of Lima Pier for freight and construction services should include assigning upland areas

adjacent to the pier as part of the freight zone, needed for the queueing and turning radius of trucks. Even if the Island creates a freight distribution hub elsewhere on its grounds, there will still be some need for truck staging and turning immediately adjacent to the pier. The nearby Eastern Development Zone may benefit from proximity to freight services, as that might provide direct connections for deliveries and trash and eliminate the need for a middle carter. Thoughtful design could ensure that occasional nuisance concerns in proximity to the freight zone, such as odor, noise, and parked trucks, would be minimized. If proposed, a marina or mooring field operation would be highly compatible alongside a pier for barges and freight, with both users having an innate understanding of on-water operations.

Secure a “Mainland” Connection: The reconfiguration of industrial waterfront uses





Increasing opportunities to directly touch the water at Governors Island will require both infrastructure development and management policies that proactively support public access.”

in Brooklyn, including Red Hook Container Terminal and South Brooklyn Marine Terminal, now operating under the same management, poses an immediate window of opportunity to secure operating agreements for points of origin for freight service to Governors Island. This arrangement could be a job-creation opportunity for South Brooklyn residents in partnership with local leaders and community organizations. Brooklyn Community Boards 6 and 7, Brooklyn Borough President Eric Adams, and Council Member Carlos Menchaca have all been strong proponents of industrial job retention and creation in Red Hook and Sunset Park, as have community-based organizations such as UPROSE and Red Hook Initiative. Southwest Brooklyn Industrial Development Corporation, a workforce development organization, could also be a strong potential partner.

Preserve Redundancy at Soissons Landing:

This berth is already able to accommodate some freight barges. Due to the high volume passenger traffic there, it is not recommended as a primary freight facility. But we advise retaining the possibility to receive freight barges and trucks at Soissons Landing for redundancy.

MAXIMIZING MANAGEMENT: EVOLVING WATERFRONT EXPERTISE AND COORDINATION

The Trust has utilized a combination of in-house staff and contractors to manage and maintain the waterfront and waterfront services. Whether the Trust continues to engage multiple contractors or merges those responsibilities under the management of one maritime subcontractor, the key to success will be active management and coordination by a Trust staffer knowledgeable in the maritime field.

In 2018, maritime operations planning and supervision was conducted by in-house staff, with contractors performing maintenance, security, and vessel operations on the waterfront. While operating with different contractors for boat charter, vessel operations, and dock maintenance can introduce inefficiencies such as poor communication and budgeting gaps, it does allow organizational flexibility in budgeting and eliminating poor performers. On the other hand, unifying all marine operations under one major contractor enables smoother coordination of communications and maintenance, and quicker response times to evolving concerns.

MANAGEMENT RECOMMENDATIONS:

Continue Use of Contract Services:

We recommend that the Trust continue to contract with marine services companies for vessels and their manning, dock maintenance, and future freight services. The specific tasks of dock and boat maintenance, infrastructure and crew certification, cargo freight handling, and marine regulatory management are distinct and require targeted expertise, with regulations and technology continually evolving in the industry. By contracting out for these services, the Trust is able to rely on the marine contractor for the specialist skills and necessary industry updates to properly operate docks and ferries. Other local waterfront parks typically contract out for marine services.

Match Long Term Needs to Long Term

Contracts: The Trust's maritime maintenance and infrastructure contractors are challenged by the current pattern of relatively short contract periods, and a relatively short maintenance season, a window of the few months when the Island is closed to the public. Initially, the Trust's maritime staff will have to be creative to bring efficiencies to waterfront maintenance. As the Island moves to 365 days a year access, there will be no off season, and maintenance plans must also evolve to meet that goal. Buy-in from contractors can be increased by establishing longer contracts and unifying projects under larger contracts. If the contractor is expected to invest in highly customized equipment, a typical arrangement would consider a contract of 20 years. Though this is the high end, longer contracts also allow retention of expert staff who get to really know the site and can be entrusted with the work.

Engage Internal Maritime Specialists:

Trust staff have effectively managed the waterfront, expanded ferry services and waterfront programming, and upgraded waterfront infrastructure. But to further utilize the waterfront, we recommend adding one to two specialist maritime positions, in addition to existing staff. Having one to two in-house maritime professionals, described below, would enable the Trust to further maximize maritime operations without having to build out their own full service marine operations department.

A full-service maritime department, such as those found in ferry and tug companies, would include in-house captains, engineers, a dispatcher, and human resources staff with expertise to manage the differences in worker benefits mandated for maritime labor under the federal Jones Act.

New internal maritime personnel would be charged with responsibility for coordinating all marine services and maintenance. The best maritime managers have operations experience in their background, such as a barge freight manager who earlier captained a tug boat. However, it is unlikely that a single candidate would have direct experience with the full range of potential waterfront uses at Governors Island: ferries, barge freight, kayaking, historic ship programs, and dock building experience. The key characteristics for the new position(s) would be experience that enables a contextual understanding of each of these fields, maritime management experience to understand the contractual side of operations, and enough public service experience to do this work in a public park.

The Trust will have to balance this staff growth with the capacity of work needed on the waterfront, but will also have to invest in maritime staff to be able to maximize the waterfront. One possible arrangement would bring on a maritime director responsible for day-to-day supervision of contracts and maintenance, with the skills to serve as a dockmaster or drive a small boat if needed, and tasked with growing maritime program opportunities, at a salary of about \$85,000. In the long term, a vice president for maritime operations who focuses on maximizing contracts, long term maintenance needs, logistics planning, and partner development, with a salary of about \$150,000, would be a step in support of full maritime activation of the Island. The alumni associations of SUNY Maritime College and the U.S. Merchant Marine Academy are good networks for outreach for candidates, but a college degree is not necessary for success in the maritime field, and specialty headhunter firms, such as Flagship Management or Brooks Marine Group, or online trade publications such as workboat.com or passengervesseljobs.com could be helpful resources in the candidate search process.

Explore Increasing Operational Flexibility through In-House Utility Boat(s):

While we recommend ferry service remain under a contracted marine operator, there are opportunities for the Trust and its partners and tenants to have direct control over some small boat access to facilitate their work and missions. There are times the ferry schedule introduces great inefficiencies for business meetings or situations when VIPs require special transportation schedules, and relying on a ferry for very late night or early morning access for just a few staff is extremely costly.

A utility boat would also require investments in docking infrastructure, similar to those for inviting more recreational boating above, with a small floating dock, a gangway, and fendering bumper-like protection for boats at docks. Recommended sites for this include the southern side of Pier 101 or Yankee Pier. To stop the utility boat at the opposite shore to drop off or pick up passengers, such as North Cove Marina

in Manhattan or One°15 Brooklyn Marina at Brooklyn Bridge Park, would typically generate a touch-and-go fee there. But the Trust could offer reciprocal courtesy touch-and-go docking for launches from those marinas as an option that may eliminate fees.

If the utility boat is not used for hire, simpler Coast Guard and State regulations apply. While it would be advisable to hire a staff member with a captain's license for extra safety, that license would not be mandatory for an owner-operated small boat not carrying paying passengers. If the Trust would like to establish or fund this service by offering it for a fee to partners, vendors, or tenants, it remains relatively inexpensive to further certify this small boat for hire, and the maritime staff described above would be capable of doing so. In this commercial role, if the vessel carries six people or fewer, Coast Guard regulations for an "Uninspected Passenger Vessel" require a licensed captain at the helm, but relatively manageable regulatory obligations otherwise.

Programming that features direct contact with the water, such as this kayak tour at Brooklyn Bridge Beach, has become increasingly popular across the region.



Site Specific Analysis and Possibilities

Governors Island is a case study of the city's underutilized waterfront...but also its potential to create balanced waterfront spaces where use of the waterfront drives the economy.

Michael Marrella, New York City Department of City Planning



Soissons Landing



CURRENT CONDITION/USE

Primary pedestrian artery and sole vehicular access point to Island via ferry service from Manhattan. Currently, general Island deliveries come by truck through Soissons Landing. Vehicle and pedestrian traffic must be managed together in close quarters.

The Trust has upgraded docking infrastructure and equipment at Soissons Landing.

Seasonal food and beverage concessions such as Island Oyster, Taco Vista, and vending machines or carts.

POTENTIAL USE

Continued pedestrian ferry service for park visitors, Island tenants, tourists, and others. After transitioning vehicular ferry traffic to another Island pier, maintain infrastructure for vehicle access for transportation redundancy.

Year-round food and beverage concessions.

CONSIDERATIONS

The *Coursen*, the Trust-owned vehicular ferry built by the U.S. Army in 1956 to serve this route, will need to be rebuilt or retired at some point. Rebuilding expense could be high enough that a new ferry would be cost effective.

Coursen has the highest capacity of any ferry currently serving the Island: more than 1,200 passengers.

The view of Manhattan from the restaurant area and its proximity to transportation make this a valuable site for entertainment concessions. But the current setup does not support a year-round operation.

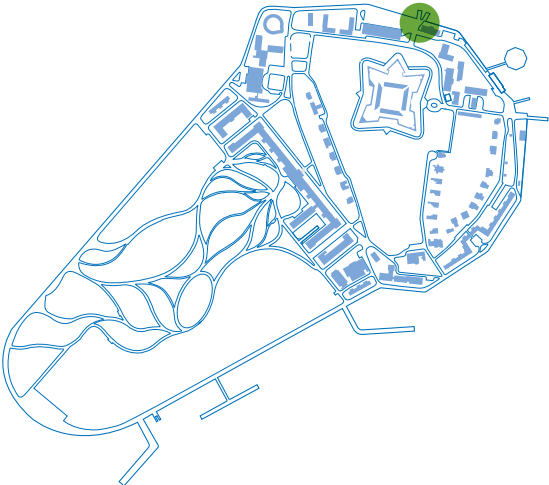
RECOMMENDATIONS

Short Term: Addition of a new Trust-owned 400-passenger ferry in 2019, to supplement service by *Coursen*, is in progress.

Medium Term: To transition service from *Coursen*, build or contract for additional ferries. Smaller ferries running more frequently could maintain capacity while reducing wait times. Establish a service dock for trucks at another Island pier.

Long Term: Redesign Soissons Landing to enable a wider range of vessel types to access this berth. Make the berths at Soissons compatible with the designs of potential future berths at Yankee and Lima Piers for redundancy at all the Island's transportation access points.

For food and beverage concessions, continue to upgrade infrastructure in the historic district and explore appropriate renovation of a nearby building to invite concession proposals for a year-round restaurant that can expand seasonally to the outdoor area.



Pier 101



CURRENT CONDITION/USE

Two floating docks on the northern side of Pier 101 currently serve educational and recreational small boat activities. The larger of the two is maintained by the Harbor School and the Billion Oyster Project (BOP). The other was designed as a NYC Water Trail dock for human-powered boaters.

As the only existing floating docks at the Island that can accommodate small craft, tenants and visitors sometimes ask to use them to access the Island by small boat, revealing a growing need on the waterfront for additional dockage.

POTENTIAL USE

In addition to the existing educational and recreational uses on the north side of the pier, plan a new, separate floating dock on the south side for small motorboat drop-off and pick-up. These small boats are also known as "tenders" or "launches." This option would allow on-call transportation outside the ferry schedule, providing that tenants or visitors can procure their own small boat and perhaps pay a docking fee.

CONSIDERATIONS

The northern side of Pier 101 faces a jetty and the Battery Tunnel ventilation building, which creates a safe cove appropriate for kayaking and educational uses. Keeping recreational and educational boating activity on this side of the pier and separate from small boat transportation optimizes safety for all activities.

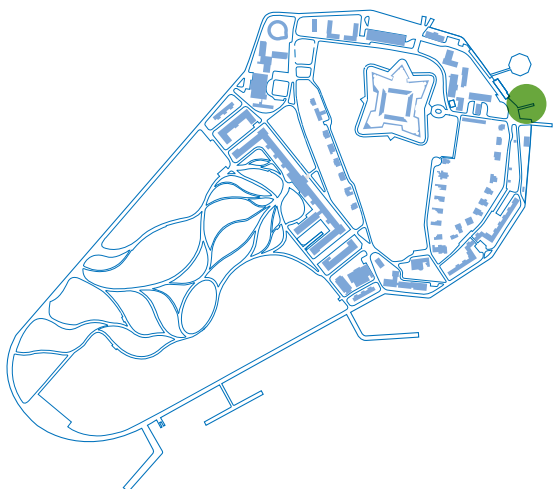
The southern side of Pier 101 is one of two potential sites identified by the Waterfront Alliance for a small dock that offers "touch-and-go" berthing space for motorized small boat access and transit uses. Though the current number of these transits is low, we expect requests for such service to increase as the Island expands tenancy. The value of touch-and-go is especially high for time sensitive or sudden maintenance and operations needs, for emergency management, for tenants who have high priority/high privacy customers or guests, and for maximizing productive time when working with off-Island partners. This access would be a welcome amenity for future tenants, and its maintenance could be subsidized by charging a nominal fee to users, as many urban marinas do, for pick-ups and drop-offs.

RECOMMENDATIONS

Short Term: Continue public kayak programs supervised by experienced local boathouses and continue to provide access as a NYC Water Trail landing when the Island is open to the public.

Medium Term: Install a fender system, gangway, and floating dock on the southern side of Pier 101 for touch-and-go berthing space for motorized small boat access and transit uses for Trust operational needs, tenants, and partners.

Long Term: As the Island continues developing spaces and tenants increase, it is likely that this suggested drop-off and pick-up floating dock will remain in demand. In addition, Island visitors who are visiting recreational boaters would also seek a dinghy dock for small boat access. Eventually, a small motorboat floating dock at Pier 101 could be moved to become part of expanded small boat access elsewhere. Possibilities for that expansion include a public access town dock installed near Tango Pier or a mooring field/marina concession if proposed for the Eastern Development Zone.



Pier 102



CURRENT CONDITION/USE

Pier 102 is owned by the National Park Service (NPS). It consists of a short, fixed pier with the large, floating passenger vessel barge shown above alongside. The fixed pier has educational signage for the public. A gated entry leads to the barge, which is relatively well suited for docking historic ships or research vessels up to 120 feet in length, and can receive bow-loading ferries on its outer end. Recently, a need for additional work on the barge pilings emerged, and the barge was temporarily closed for docking.

In the beginning of the 2018 season, NYC Ferry provided direct ferry service from Manhattan and Brooklyn to Pier 102, with connections making it possible to access the Island from Queens and the Bronx. Due to the repair needs described above, later in the 2018 season, NYC Ferry was rerouted to Yankee Pier.

POTENTIAL USE

Permanently relocate the NYC Ferry services to Yankee Pier and open Pier 102 to priority use for educational and cultural programming. Specifically, program Pier 102 as a tall ship dock and encourage heritage activities with the NPS. Continue to make the pavilion and plaza area adjacent to the pier available for activities in conjunction with ship visits.

The specific activities would vary with the mission of the visiting ship and the types of partners involved, and multiple activities could cluster together. For example, a ship can be open for deck tours at the pier's barge, while the ship's or partner's marine science activities are offered in the pavilion, while a physical science or navigation activity is offered on the plaza, while groups meet a NPS ranger for tours of the Island's monuments.

CONSIDERATIONS

As built, Pier 102's passenger vessel barge offers a variety of freeboard heights, a preferred arrangement for hosting visiting vessels. The pier deck offers existing public signage and a nearby pavilion, further facilitating group educational programs on the pier. Educationally oriented heritage activities at Pier 102, together with public kayaking and Harbor School/BOP activities at adjacent Pier 101, naturally sets the stage for a vibrant educational and recreational district centered around Piers 101 and 102.

New York City's multijurisdictional waterfront and the commercial monetizing of City piers has given New York Harbor a reputation for being an expensive port with burdensome requirements. For educational and research vessels, typically operated by nonprofits, this creates a prohibitive atmosphere for visiting the City to offer marine programs. It will take outreach, support, and marketing for Pier 102 to overcome this trend and begin to fulfill the potential of a tall ship dock.

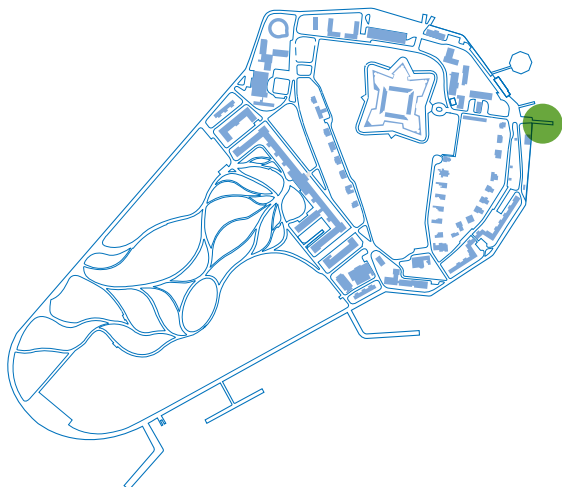
RECOMMENDATIONS

Short Term: In partnership with NPS, create a docking specifications brochure for Pier 102 and outreach materials for visiting ships to use the pier. Emphasizing weekday ship visits at the beginning will help balance needs for ferry service, if continued, which is greater on the weekends.

Medium Term: Permanently transition ferry service to Yankee Pier, enabling unrestricted access for other vessels at Pier 102. Ensure that historic ships on the National Register are made aware of program partnership opportunities at this National Park Service pier. Explore shoreside enhancements to utilities and the pavilion to support increased programmatic diversity and numbers of participants, such as shore power for boats and classroom style seating in the pavilion. See the Yankee Pier section for related recommendations at that site.

Long Term: The shoreline south of Pier 102 is one of several places the Island could build a get-down or beach for visitors to touch the water. This area experiences strong currents, but could be well integrated with supervised programming and is a good match for the proposed education district.

Similar educational opportunities are present at the Castle Williams Corner. See below.



Buttermilk Beach



CURRENT CONDITION/USE

At lower tide levels, a 10- to 15-foot sandy beach is exposed along the seawall, on the water side of the promenade fence. There is currently no public gate in the fence, and no step-down to the beach.

POTENTIAL USE

Consider developing this small beach for water-based educational opportunities, providing direct access to touch or test the water, seine for marine life, or make a short, guided kayak voyage to or from Pier 101.

CONSIDERATIONS

The beach is largely under water at high tide, so any programming would have to be scheduled for lower tide levels. The beach is close enough to Yankee Pier's ferry traffic that kayaking is best reserved for experienced boaters or scheduled excursions. But the opportunity to have the beach as a landing for a guided kayak trip traveling the short distance along the Island's coast presents a safe, unique, and exciting program model. The route for this proposed short kayak excursion can hug the Island's coast and remain completely outside commercial navigation channels.

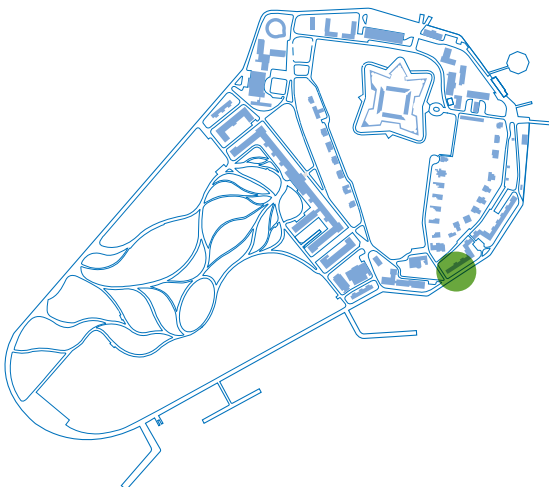
While currents in Buttermilk Channel can be strong, even for our harbor, the beach is out of the main stem of current and well away from the main channel for commercial boats.

RECOMMENDATIONS

Short Term: Work with programming partners to fundraise for installing a gate and steps down to allow supervised access to the beach during low-tide hours. Staff a seasonal, part time, educator/attendant for the beach. Tidal timing allows for summer daytime programming for about 10 out of every 14 days, for at least three hours each day.

Medium Term: Provide access for The Downtown Boathouse or other partner to offer short, guided intra-Island coastal kayak excursions between Pier 101 and Buttermilk Beach. A small amount of additional communications and planning with existing Trust operations and security staff would enable this unique and exciting program.

Long Term: Creation of a permanent designated water touch-point area at Buttermilk Beach would involve significant engineering and permitting to raise the elevation of sand above future sea level rise. In addition, to enable unsupervised water access, it's recommended to install a jetty or piling fence to separate the area from Yankee Pier ferry traffic.



Yankee Pier



CURRENT CONDITION/USE

Yankee Pier was originally shaped like the letter Y and was designed for docking sizable Coast Guard ships. The east branch of the Y was recently restored to provide an access point for the South Island via a passenger ferry barge and berthing for visiting ships. The west branch of the Y is no longer visible, having deteriorated into the water, but its footprint is still charted. Governors Island's Brooklyn ferry service, operated by NY Waterway, has predominantly used Yankee Pier. In 2018, NYC Ferry also utilized Yankee Pier for direct routes to Manhattan and Brooklyn, with connections beyond.

POTENTIAL USE

The eastern branch could be used as a pedestrian-friendly "front door" for all passenger ferries not arriving or departing from Soissons.

A rebuilt western branch may add additional ferry berths or may serve as a visiting ship dock for historic and cultural vessels, or may serve as a small motorboat town dock. Including wave attenuation in the new pier design to offer more protection from wakes on the inland side of the rebuilt pier will increase its utility.

CONSIDERATIONS

Relocating all ferries (except the BMB-Soissons route) to Yankee Pier requires preparation for the boat operations and for the passengers. As inherited from the Coast Guard, Yankee Pier is relatively narrow for a ferry pier, and so creating an efficient passenger boarding experience is even more critical. To meet future needs, traveler management strategies, including real time LED signage, remote ticketing, and queueing guides, would have to be fully vested at Yankee Pier. Ferry operation management would also take coordination, which could be fulfilled by the suggestions in the management section above.

Yankee Pier's design, at up to 12 feet off the water, is not suitable for many local historic and cultural ships, who use low floating docks or piers at about 4 feet off the water.

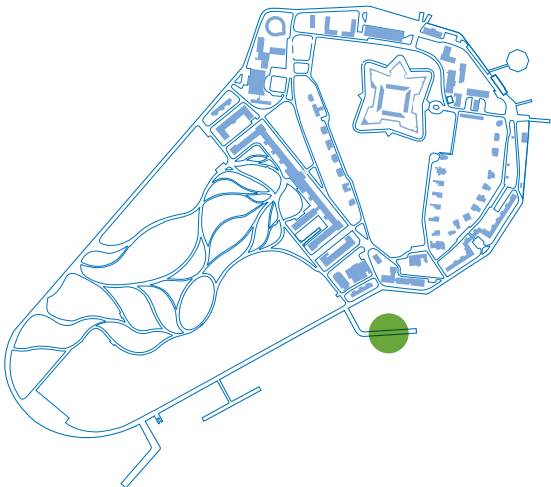
An inherent conflict exists between using the remaining eastern branch of Yankee Pier for ferry routes and for larger visiting ships for two reasons. One is on the water, as a berthing area for visiting ships is in the same narrow space ferries cruise through when coming in to their berth. The second is on the pier, as queueing for both ferries and visiting ships would have to be organized in the same space. Careful scheduling has enabled some ship visits at Yankee Pier. But as the need for ferry service expands, it will become increasingly difficult to balance alternate uses at Yankee Pier.

RECOMMENDATIONS

Short Term: Integrate additional ferry operations onto Yankee Pier. Formalize queueing guides, increase signage, and possibly add an additional ferry barge on the eastern branch of the pier.

Medium Term: Reconfigure Yankee Pier to include even more ferry berths by installing new, long, narrow transfer float docks running parallel to the pier that have multiple berths perpendicular to the pier along its length. (The NY Waterway terminal at Pier 79 has this arrangement.) A full marine engineering analysis should complement this initiative; it may be most feasible on the outer length of the pier and could require removing obstructions in the slip to be suitable along the inside length of the pier. Ensure staffing for the pier to coordinate ferry dockings and communicate effectively with the riding public, either by hiring additional marine staff for Trust operations or through specifying this role with contractors and partners. Invest in LED signage, or a similar real time information network, for passengers.

Long Term: Rebuilding the western branch of Yankee Pier will require significant capital investment, and will provide a significant and valuable increase in maritime capacity. Primarily, we advocate for increased ferry service at Yankee Pier. But if needs evolve differently, a rebuilt western branch could be designed to match any selected use, including additional ferry berths, a small motorboat docking facility with a dinghy dock for touch-and-go for the public, or for support vessels for Island tenants and partners. The western branch could also be custom rebuilt for historic and visiting ships if other improved options for hosting them don't develop, as the new design could intentionally address the inherent conflicts present on the eastern branch.



Tango Pier



CURRENT CONDITION/USE

Tango Pier is shaped like the letter T. It is not in use due to the need for significant rehabilitation. Its deterioration began before the City took ownership of the Island.

POTENTIAL USE

Tango Pier may remain abandoned, but without infrastructure investment it will eventually collapse into the water.

Should significant investment become possible, rebuilding Tango Pier as a marina's central services dock with a dinghy dock and nearby moorings, would offer a great benefit to open the Island to visiting recreational boaters who could arrive by their own boat.

CONSIDERATIONS

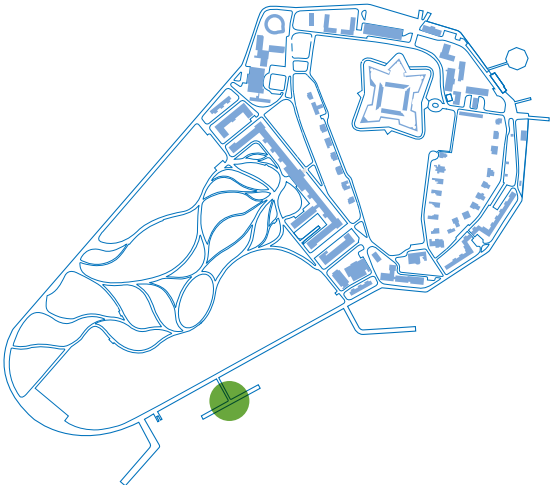
Tango Pier connects to the footprint of the Island's Eastern Development Zone, so marina type rebuilding, including a "dock and dine" restaurant and a shop ashore, are compatible, though require significant investment. As described at Pier 101, this investment could be modestly offset by establishing a fee-for-service small motorboat dock and/or launch service for access needs for Island businesses, partners, tenants, special events organizers, VIPs, and visitors interested in touch-and-go.

RECOMMENDATIONS

Short Term: In the Trust's real estate web page and outreach for the Eastern Development Zone, explicitly recognize the potential to combine a dock rebuilding, new small dock, marina, or mooring field as an add-on opportunity to proposed projects. Allow future respondents to development zone RFPs to include water-based add-on components such as docks and get-down touch points and recognize the benefits of these water-based connections in evaluation of proposals. See Waterfront Alliance's WEDG program, described in the appendix, for examples or models.

Medium Term: Fund a structural analysis of Tango Pier to inform the extent of rebuilding needed to reprogram it.

Long Term: Should future development proposals not address Tango Pier's future condition or possibilities for docking in that area, capital funding from public or private sources could be sought to remove the failing infrastructure, and replace it with a more modest town dock that will allow recreational boaters to access the Island. The management section of this report recommends the internal maritime staff to be considered for the Trust to implement this infrastructure permitting, development, and management.



Travel Lift Pier



CURRENT CONDITION/USE

A travel lift is an open, box-like vehicle with straps for lifting boats out of the water. It works in tandem with a specially constructed pier space that allows the wheels of the travel lift to roll out on either side of a water inlet, lower the straps into the water, and pick up a boat. Travel lifts are useful for taking small- to medium-size boats ashore for repair or winter storage. Currently, we don't have enough travel lift services in New York Harbor, and many boaters go out to Long Island or up the Hudson to "haul the boat."

The Travel Lift Pier on Governors Island is left over from Coast Guard days. It sits adjacent to the Eastern Development Zone and is close to Lima Pier.

POTENTIAL USE

Reactivating the Travel Lift Pier would enable the Island to continue its Coast Guard heritage as a center for boats and be an authentic maritime activity for use of the Island's space. If the Trust could maintain the pier, a partner could manage the actual travel lift operations and programming. With significant maritime partners such as Harbor School and The Downtown Boathouse already in place, the Travel Lift Pier could make this boat work an integral part of education and community programs for Island partners and visitors.

CONSIDERATIONS

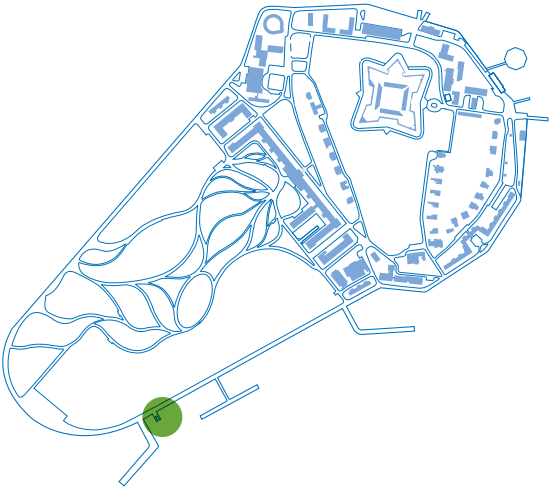
The Island relies on boats, and working boats need places to be taken ashore to be serviced and repaired. There are already maritime uses on the Island that could benefit from this activation, and there will probably be more of them with future tenants. Without the travel lift, these needs will have to be met farther afield.

Revitalizing the Travel Lift Pier is just one step. The travel lift vehicle itself is a second, costly investment. The Trust and potential partners on the Travel Lift Pier project would have to work out cost sharing for infrastructure responsibilities. As the Island's pier infrastructure suffers delayed maintenance, it would be unrealistic to expect a new project of this type to cover all the costs of a repair.

Once the boat is lifted out of the water, it needs a space on land to rest, so a nearby workshop and boat shed would be an important upland component to discuss with partners and to develop along with the Travel Lift Pier. That upland is the Eastern Development Zone, and decisions about that zone will affect the possibilities for maritime activation on the adjacent waterfront.

RECOMMENDATIONS

- Short Term:** The Trust's real estate web page and outreach done for the Eastern Development Zone, explicitly recognize the potential to combine a travel lift boat service operation or marina as an add-on opportunity to projects proposed for the development zone. Allow development proposals to include water-based components such as docks and a small boat workshop and recognize the benefits of these water-based connections in evaluation of proposals. See Waterfront Alliance's WEDG program, described in the appendix, for examples or models.
- Medium Term:** Include the possibility of activating the existing Travel Lift Pier in any survey of waterfront infrastructure maintenance needs on the Island.
- Long Term:** Should development proposals not address this pier, the Trust may work with a partner to seek public water access funding to capitalize on the unique programming opportunities that Travel Lift Pier presents.



Lima Pier



CURRENT CONDITION/USE

Lima Pier is shaped like the letter L. Like Tango Pier, it is immediately adjacent to the Eastern Development Zone

While Lima Pier is not used for passengers and does not see the level of freight activity of Yankee Pier, it has been used for transportation of construction materials for large scale projects on the Island, such as building the Hills, rehabilitating the Parade Ground, and moving reef building materials for BOP. The pier recently underwent a partial rehabilitation, but would require further improvements to support increased maritime traffic.

POTENTIAL USE

Reconstruct Lima Pier for use as designated service entrance to the Island, including receiving trucks and freight, and discharging trash.

CONSIDERATIONS

An upland area immediately adjacent to the pier would be needed for staging freight vehicles and allowing the turning radius of trucks.

Proposed projects for the development zones may take advantage of Lima Pier as a freight pier. If trucks and trash eventually are handled at Lima Pier regularly, projects for this part of the Eastern Development Zone should include plans for managing their proximity to these activities.

A marina operation would be highly compatible alongside a pier for freight, with both users having an innate understanding of on-water operations.

Using Lima Pier for freight will require a matching dock on the distribution side, such as in Brooklyn, Staten Island, or New Jersey. Marine freight companies have their own partners and specifications to be considered in establishing this connection.

RECOMMENDATIONS

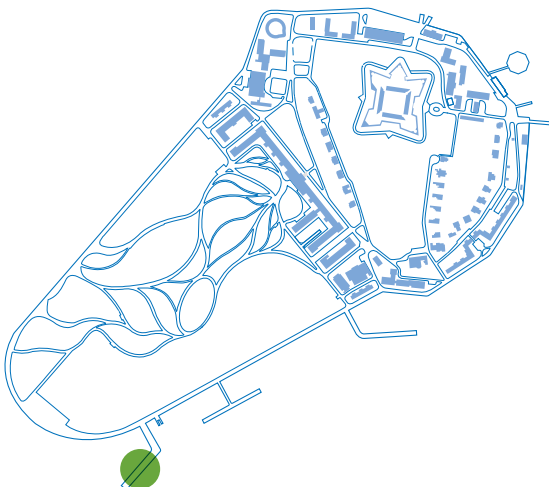
Short Term: Continue maintenance on Lima Pier. Commission a marine survey to establish specifically which freight conditions can be supported at Lima Pier in its current state. This information is likely to be requested by any marine freight provider.

Considering Lima Pier's proximity to the Eastern Development Zone, clarify that proposals for this area of the development zone be compatible with freight operations as a neighbor.

Medium Term: Develop a strategy to seek proposals for freight service to the Island via Lima Pier. The management section of this report recommends the internal maritime staff to be developed at the Trust to design, implement, and manage these contractual relationships.

Long Term: Build necessary pier infrastructure or contract for services to fully utilize Lima Pier for freight deliveries to the Island.

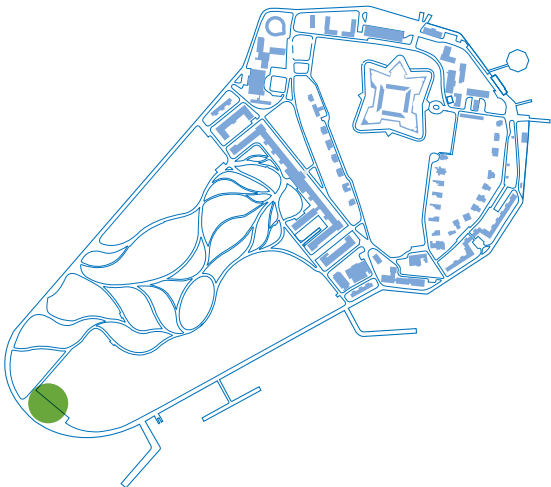
Some marine service companies handle both passengers and freight under the same umbrella. Analyze if integrating ferry management with freight management would be beneficial.



Picnic Point



CURRENT CONDITION/USE	POTENTIAL USE	CONSIDERATIONS	RECOMMENDATIONS
<p>In 2009, this newly built park area at the most southern edge of the Island opened as Picnic Point, with green space and impressive harbor views. At the eastern side of Picnic Point, there is still a portion of remaining space from the West 8 Park and Public Space Master Plan that could be built as additional park land.</p>	<p>The shoreline of Picnic Point and its possible future eastern extension is one of several places the Island could build a get-down for visitors to touch the water. This area is impacted less by current and weather conditions than other shorelines of the Island, and also faces the least active commercial shipping waters. If necessary, installing rip rap or in-water gates would ensure visitors aren't exposed to the open harbor.</p>	<p>Early visions for the Island's Park and Public Space Master Plan included ecology activities and habitat features in this area. In some suggestions, these wetland gardens and restored marshes interacted with tidal levels and provided a sheltered cove where Island visitors could have touched the water. These features add cost and presume additional liability, and they did not make it through to final plans.</p> <p>As more fully described in the waterfront recreation and education section of this report, there are strong calls for opportunities for the public to touch the water around the region, including at Brooklyn Bridge Beach in Manhattan, two popular beaches in Brooklyn Bridge Park, and beaches in Hoboken, Red Hook, and Astoria.</p>	<p>Short term: Seek risk data from Red Hook's Valentino Park and Pier, a beach immediately across Buttermilk Channel from Governors Island. If necessary, commission a survey to compare liability concerns to real data on parks with open coves where one can touch the water.</p> <p>Medium Term: Identify potential sites including Picnic Point and create a design contest for building a get-down, tidal cove, or water touch point on Governors Island.</p> <p>Long Term: Seek capital funding from public or private sources to create a place for the public to touch the water on Governors Island. The management section of this report recommends the internal maritime staff expected to grow at the Trust to implement this permitting, development, and management.</p>



Western Shore



CURRENT CONDITION/USE	POTENTIAL USE	CONSIDERATIONS	RECOMMENDATIONS
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The central stretch of the Island's western shore is immediately adjacent to the Western Development Zone, just north of the Hills. It features a promenade with views of the Statue of Liberty and Ellis Island.

Both the Eastern and the Western Development Zones have borders with the promenade and waterfront. This presents a fantastic opportunity for development proposals in these areas to create a harbor education center that can include direct programming with the water, developed in cooperation with a business or university, or through partnership with nonprofit educational institutions.

There are large footprints to fill in the development zones on Governors Island, while many established local harbor education programs are more modest in size. Partnerships could be key in realizing the full maritime activation potential of the development zones.

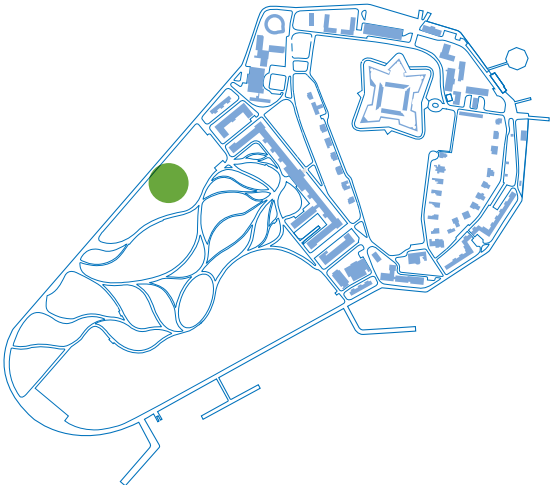
While the Island's western shore is the most exposed coast to heavy weather, shallow rocky areas along the western shore also provide conditions that would support marine life populating into a cove or ecology touch point.

The new shoreline revetment was established by building it into the promenade, narrowing the path. To site a water get-down along the Western Development Zone would require realigning the path into the development zone footprint, to allow activity space at the water's edge.

Short Term: On the Trust's real estate web page and in outreach for the Western Development Zone, explicitly recognize the potential to combine a water touch point or shoreline education station as an add-on opportunity to projects proposed for the development zone. Allow development zone proposals to include water-based components such as a get-down touch point, and recognize the benefits of these water-based connections in evaluation of proposals. See Waterfront Alliance's WEDG program, described in the appendix, for examples or models.

Medium Term: Create an application for organizations that offer harbor education and public engagement on the water to be listed with the Trust as potential partners for development zone projects, and distribute that list to development zone applicants. In addition to existing Trust program partners, organizations such as The River Project, American Littoral Society, and HarborLAB could add public marine-focused benefit to commercial projects in the development zones.

Long Term: Continue to include marine education in measuring the success of development zone tenants.



Castle Williams Corner



CURRENT CONDITION/USE	POTENTIAL USE	CONSIDERATIONS	RECOMMENDATIONS
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This northern stretch of the Island’s western shore includes about 800 feet between the Western Development Zone and Castle Williams, a historic fort. It features the same views to the Statue of Liberty and Ellis Island as the rest of the western shore.

The area features the Island’s straight stone seawall, and in parts, the promenade is much wider than at other points on the western shore.

This short shoreline has great potential for maritime activation, including a natural nook in the coast that might be built into a small cove or get-down to touch the water for educational activities. A catch-and-release fishing station would also fit well with the conditions and layout on this waterfront.

Historic buildings immediately adjacent to the waterfront in this area may be adaptively reused to offer the necessary upland space for waterfront programming.

Water is available in the area to create an outdoor hose and sink, a vital amenity for an ecology or fishing station.

Recent rebuilding converted other edges of the Island to rocky revetment, but at the Castle Williams Corner, there is still a straight seawall, which allows catch-and-release fishing. While revetment has benefits in resiliency and ecology, it is a shoreline design that prohibits fishing, particularly for beginners. In general, recreational fishing in New York Harbor is supervised by the New York State Department of Environmental Conservation (DEC) through a free, online recreational marine fishing registry. The Trust would not be required to establish or enforce fishing regulations.

While the Island’s western shore is the most exposed coast to heavy weather, its shallow rocky areas also provide conditions that would support marine life populating a cove or ecology touch point.

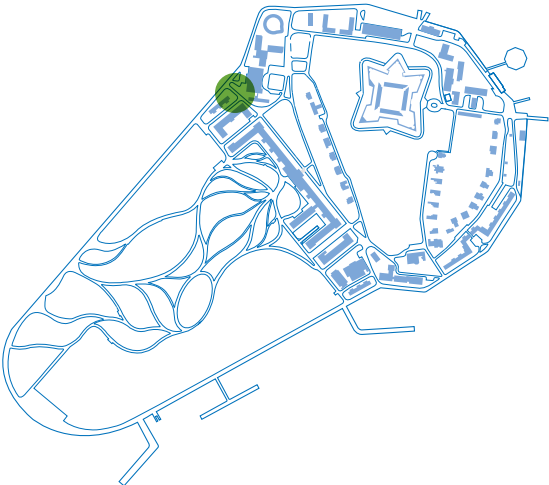
Public and harbor education programs require a way to touch the water as well as an upland storage/support area to be most successful.

Short term: Pilot using this area for a pop up fishing clinic on occasional days. The DEC I Fish NY education program is a possible partner.

Medium Term: Identify potential sites, including the Castle Williams Corner, and create a design contest for a get-down, tidal cove, or water touch point on Governors Island.

Long Term: If development zone proposals do not eventually include a harbor education facility, a space like this outside the development zone may serve that purpose. Significant funding would still be needed to build a water touch point and get-down and to restore a nearby historic district building to serve as a harbor education center.

Similar educational opportunities are present near Pier 102, and at Tango Pier. See above.



Appendices

A Brief Overview of Waterfront Construction and Permitting in New York Harbor

The regulatory environment for waterfront and wetland construction in the New York City area is widely acknowledged to be complicated and challenging. The complexity of the permitting process stems in part from the varying policies, standards, and goals of the federal, state, and municipal agencies that oversee waterfront activities and that are tasked with protecting the health and safety of our waterways.

Waterfront Alliance has authored two detailed reports outlining the permitting process, which highlight the need for a comprehensive resource to guide users. Using this work as a foundation, the New York City Economic Development Corporation (NYCEDC) developed a web portal—Waterfront Navigator—as a “one-stop” educational resource to guide applicants through the process. This website, developed in partnership with the four primary agencies involved in the permitting process—the U.S. Army Corps of Engineers (USACE), the New York State Department of State (DOS), the New York State Department of Environmental Conservation (DEC), and the New York City Department of City Planning (DCP)—consolidates information about each agency’s requirements and directs applicants to the materials they will need to submit a successful permit application. For the purposes of this report, we provide a summarized overview of the regulatory agencies involved, their respective jurisdictions, and the permits commonly required for major construction, renovation, or rehabilitation projects, such as those under consideration by The Trust for Governors Island.

While the permitting process and required permits may vary according to the purpose, site, and potential environmental impact of the project, major non-residential projects typically require review and approval from the four major agencies as well as additional permitting from New York City Small Business Services (SBS), New York City Department of Buildings (DOB), and New York State Office

of General Services (OGS). Federal permits administered by the USACE are necessary for construction in navigable waters, for any amount of dredging or filling in of a waterway (including excavation activities and pilings placements), and construction or dredging in tidal water. Within New York State, the DEC regulates activities on or near the shoreline and issues permits for all work and activities that are in or that have an impact on a waterway or wetland. Permits are required for floating docks, new pier construction, and pier rehabilitation or reconstruction, and include those for Tidal Wetlands, Protection of Waters (including Section 401 Clean Water Act Permit, Water Quality Certification), and Coastal Erosion Hazard Area (depending on location). The DOS is responsible for ensuring that projects and activities within the coastal zone that are authorized by the USACE, adhere to, and are consistent with, the State’s Coastal Management Program, which seeks to balance competing land and water uses in the coastal area. Accordingly, proposed construction projects and activities are subject to and require a Coastal Zone Federal Consistency review by the DOS.

All in-water construction projects also require a Lands Under Water Easement from the OGS as well as a Waterfront Construction permit from the SBS, which has jurisdiction over maritime and non-maritime construction for waterfront properties as well as private and city-owned marine and maritime structures such as docks, piers, seawalls, and bulkheads. A permit from the DOB is required for constructing or renovating any building on privately owned waterfront property. Additional permits that may be required include a Private Aids to Navigation permit from the U.S. Coast Guard for the placement of buoys, lights, or day beacons in navigable waters, and a Floating Objects Permit from the New York State Office of Parks, Recreation and Historic Preservation, for anchored markers or platforms at the surface of

the water such as mooring buoys, speed zone markers, and diving floats.

At the municipal level, proposed waterfront projects must be reviewed by the DCP to ensure their consistency with the Waterfront Revitalization Program, a set of policies for the development and use of waterfront areas within the Coastal Zone Boundary map. Projects such as a floating dock or pier construction must pass a Waterfront Revitalization Program (WRP) consistency review prior to filing for a permit. The entirety of Governors Island falls within the Coastal Zone map; and Lima Pier, Yankee Pier, Piers 101 and 102, and Soissons Landing are designated as "Priority Marine Activity Zones," where projects and developments that make use of the existing maritime infrastructure for water-dependent uses are prioritized in the permitting process (see Policy 3.5). Because the WRP program also includes a policy on the protection of Significant Coastal Fish and Wildlife Habitats, permitting for development of Lima Pier should be mindful of, and include provision for, the area as a site of significant tern nesting and the tern's classification as a threatened species.

As an example, building a floating dock or reconstructing a pier will require permits from the four primary agencies identified above, as well as a Floating Objects Permit from the State Office of Parks, Recreation and Historic Preservation and a Waterfront Construction Work Permit from SBS. While there is difference in permitting complexity between a small kayak dock and a large float for ferries, all projects must strictly attend to requirements related to size, position, and water depth. The project description, per the DEC, must include why it is necessary to build the dock in a chosen area, a long-term maintenance plan and proof that construction of the dock would not cause any measurable increase in erosion at the site, and a description of how the project prevents or minimizes effects to existing erosion protection structures and natural resources such as significant fish and wildlife habitats. Dock project applications must also include a detailed set of drawings and maps and, for larger projects, a supplemental application form with details about the measurements of the dock and volume of boats to be docked there.



Ferry landings would benefit from installing additional loading barges and passenger information signage.

Appendices

WEDG: supporting resilient, accessible, ecologically-friendly waterfronts near you

Waterfront Alliance, a New York City-based nonprofit organization working to protect, transform, and revitalize New York harbor, is working to expand the success of its Waterfront Edge Design Guidelines (WEDG) tool and program to improve public and private decision-making at the waterfront in coastal regions across the nation.

WHAT IS WEDG?

WEDG® is a credit system and set of guidelines for catalyzing resilient, accessible, and ecologically-sound urban waterfront transformation: think LEED® for the waterfront. A nationally-applicable version of WEDG was launched in 2018, developed by a cross-cutting field of experts convened by Waterfront Alliance to provide better guidance amid a complex regulatory environment and the threats of climate change and coastal storms.

WHO IS WEDG FOR?

WEDG is for the edge—for urban and suburban projects along the coast. It is a reference for landowners, community stakeholders, regulators, designers, planners, and engineers. Much like LEED made complex sustainability concepts accessible to practitioners and developers, resulting in real market changes, WEDG aims to shift the field of waterfront design. WEDG also aims to empower grassroots advocates to demand better waterfronts, developing an ambassador network of organizations and assisting in community-based planning efforts.

WHAT ARE THE RESULTS?

WEDG facilitates positive outcomes from the bottom up across private and public lands through professional education, project certification, and stakeholder engagement. This has resulted in:

A community of hundreds of professionals—from leading international design and engineering firms, government agencies, and

others—are engaged with WEDG best practices through advisory roles, professional education, and a volunteer program.

Eight certified projects and dozens of informed landowners, resulting in improved design strategies—direct access to the water for boats and people, storm and sea-level rise-resilient structures, and room for wetlands in urban New York City.

Landowners, designers, engineers, and regulatory agencies engaging in solution-oriented conversation using WEDG.

The launch of a city-wide WEDG Neighborhoods Campaign in New York City promoting rights to resilient, ecologically-responsible, and accessible waterfronts to each of the 43 waterfront community boards, with focus on the most economic and socially vulnerable neighborhoods.

Three additional community-based planning efforts using WEDG as a tool to engage with landowners and design better, more resilient waterfronts in the Bronx, Brooklyn, and Queens, and passed resolutions by community boards in support of WEDG.

What's in it for my community?

We all want livable and resilient cities that will thrive for generations to come, but our existing frameworks are leaving many human, economic, and natural assets increasingly vulnerable. Waterfront Alliance is working with partner regions locally in New York City and in the Philadelphia–Camden region in 2018–2019 through its WEDG program to adapt these resources and grow the community of professionals, activists, and government actors that push for more resilient, accessible, and ecologically-sound waterfronts.

The organization is also working to grow relationships coastal cities across the nation to shift how we design at a national scale.

What's in it for practitioners and landowners? Leaders in the design and engineering fields need to be informed by cutting-edge information. Waterfront projects are extremely complex (exacerbated by sea level rise and climate change), regulated, and high-value. WEDG uniquely addresses these issues through a rating system, guidelines, education, and engagement. Alignment with WEDG demonstrates leadership, innovation, and integrity in a field where these qualities are necessary for a competitive edge.

"As our coasts face increasing risks, properties and communities need to be designed to the highest standard and for long-term resilience. Resources like WEDG are important because they provide guidelines for risk reduction and help to address changing hazards." –Lou Gritz, FM Global

Climate change is already reshaping the design and function of our nation's waterfront edges. The WEDG guidelines provide an actionable and flexible tool for practitioners, landowners, and communities alike to communicate and support the quality and future adaptability of their waterfront projects.

Kate Orff, SCAPE



Appendices

Resilient Park Construction on Governors Island

The Governors Island Park and Public Space Master Plan features forward thinking approaches to resiliency. In building the park features on the South Island, 40 acres of land were raised 16 feet by adding more fill. The Hills, partially created with reused debris from the removal of 20th century military housing, were secured with a jute mesh erosion control mat and the addition of trees, shrubs, and grasses that stabilized the new hilly topography and prevented its erosion. The white seat-edges

throughout the park that define pathways also protect the Hills against wave action during flood events. In reconstructing the seawall that surrounds the Island, rip rap revetment was placed along the shores and at the base of the Hills. Revetment at the water line provides more ecological benefits than a straight sea wall, giving nooks and crannies that sea life can use, and doing more to break up damaging wave and wake action.

West 8's design anticipates increases in sea level rise and the extreme storms that are expected to accompany climate change along the Eastern seaboard.



Acknowledgements

Waterfront Alliance is most grateful to our more than 1,000 Alliance Partners, who continually contribute their efforts and expertise to make our waterfront resilient, revitalized, and accessible for all communities. We thank the organizations below for additional specific feedback for this report:

The Trust for Governors Island

The City of New York

The Friends of Governors Island

Waterfront Alliance Board of Trustees

Billion Oyster Project

HarborLAB

HMS Global Maritime, Inc.

Hughes Marine Firms

Manhattan Borough
President's Office

Manhattan Community
Board 1 (CB1)

McAllister Towing and
Transportation Co., Inc.

Millers Launch, Inc.

National Park Service

New York City Audubon

New York State 26th
Senate District

New York State Assembly
65th District

New York City Department
of City Planning

New York City Department
of Parks & Recreation

New York City Department
of Transportation (Staten
Island Ferry)

Operation Sail, Inc.
(OpSail)

The Downtown Boathouse

The LiRo Group

The Urban Assembly New
York Harbor School

Photos courtesy of:

The Trust for Governors Island

Waterfront Alliance

The Urban Assembly New York
Harbor School

West 8

New York City Water Trail
Association

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Alison Simko

Ian Douglas

David Gonsier

Etienne Frossard

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The Waterfront Alliance inspires and effects resilient, revitalized, and accessible coastlines for all communities.