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Acknowledgments

Regional Plan Association

Regional Plan Association (RPA) is America's oldest independent urban research and advocacy organization. RPA works to improve the prosperity, infrastructure, sustainability and quality of life of the New York-New Jersey-Connecticut metropolitan region. For 90 years, RPA has been an indispensable source of ideas and plans for policy makers and opinion shapers across the region.

Some of the region's most significant public works, infrastructure development and open space projects have their roots in RPA ideas and initiatives, from the location of the George Washington Bridge to the revitalization of downtown Brooklyn, to the preservation of open space and the development of parks in the Palisades, Governors Island and Gateway National Recreation Area.

RPA has pursued these goals by conducting independent research, planning, advocacy and vigorous public-engagement efforts. A cornerstone of our work is the development of long-range plans and policies to guide the region's growth. Since the 1920s, RPA has produced three landmark plans for the region and is currently working on its fourth plan, which will tackle urgent challenges facing our region, including climate change, fiscal uncertainty and declining economic opportunity.

Paddling the Bay was created by Kyle Kozar, Senior Planner, with help from Sanjay Seth, Research Analyst, Sharai Lewis-Gruss, GIS Manager, and Sreya Vempatti, Open Space Intern, RPA. Ben Oldenburg, Senior Graphic Designer, assisted with the design and layout of this paper.

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City of Water Day at Sebago Canoe Club
Photo: Whitney Starbuck Boykin

Introduction

Jamaica Bay is an ideal place to encourage human-powered boating. The Rockaway Peninsula protects the bay from the Atlantic Ocean creating relatively calm waters. The natural landscape provides a scenic experience perfect for education and recreation programming. And the area is easily accessible for the hundreds of thousands of local residents and regional visitors alike. Since 2008, 15 official and non-official human-powered boat access points have been established around the bay. The sites are part of the citywide Water Trail system managed by NYC Department of Parks and Recreation (NYCDPR), part of Gateway National Recreation Area managed by the National Parks Service (NPS), or owned by private service providers who occasionally allow the public to land and launch from their facilities. In recent years, various government entities and community members have expressed the desire to expand human-powered boat access in the bay. This sentiment has been reiterated in a number of planning efforts and documents, including: Vision 2020 (NYC Department of City Planning 2011), Gateway National Recreation Area Final General Management Plan (National Park Service, 2014), Rockaway Parks Conceptual Plan (NYCDPR and NYCEDC, 2014), and Gardening the Bay (SCAPE Landscape Architecture, Rebuild by Design, 2014). In 2014, over 6,700 visitors took to the water — taking advantage of free programming offered by NPS and NYCDPR, or the various kayak rentals, lessons, tours and events offered by local businesses and non-profit organizations¹. The growing interest to paddle the bay creates a unique opportunity to further rejuvenate New Yorkers' relationship with the Jamaica Bay Waterfront by strengthening and expanding the water trail to be a recreational asset for all users. While some water trail infrastructure such as signage and launch pads currently exists, there has not been a collaborative effort to create a cohesive water trail vision that will enable and encourage more visitors to experience this recreational resource.

Since 2011 Regional Plan Association (RPA) and NPS have had a Cooperative Agreement to conduct a comprehensive public engagement campaign and planning process to identify ways to improve access to the Jamaica Bay Greenway and waterfront from neighboring communities. Building on this effort, RPA received a NPS Challenge Cost Share Program grant to explore the opportunities and challenges to advancing the Jamaica Bay water trail concept. Over the last year and a half, RPA collected public input regarding the water trail at three paddling events and three community workshops, interviewed local business

owners, experienced paddlers, and park rangers/managers to gain insight into the challenges and opportunities in improving the water trail, and conducted site visits and research about various access points. This paper explores the most important issues to be considered, highlights existing and potential water trail infrastructure, and recommends potential strategies to advance the Jamaica Bay Water Trail.

Context

Located between the city's two most populous boroughs of Brooklyn and Queens, Jamaica Bay contains roughly 10,000 acres of federal, state and city parkland and is home to nearly 300,000 residents who live within a 1 – mile walk from the Bay's waterfront. Five Community Boards and roughly 35 distinct neighborhoods surround the Bay. While many residents have a generational relationship with the waterfront, others are completely unaware of the natural beauty and recreational opportunities it provides. The former are often environmental stewards, boaters, or nature recreationalists. The latter recall the bay from their youth as a polluted water body, unable to imagine paddling around in the bay's open waters or basin inlets.

In 1972, Gateway National Recreation Area (Gateway) was created, securing Jamaica Bay as a critical natural, cultural and recreational resource for the greater New York City metropolitan region. However, due to limited resources the park has face challenges². The 1992 New York City Comprehensive Waterfront Plan established a new vision for how city residents would interact with the waterfront by encouraging waterfront access, and creating new waterfront parks and improving existing ones³. Since that time the city's waterfront has undergone a renaissance with the addition of a number of transformational parks like Governor's Island, Brooklyn Bridge Park, and the Bronx River. While Jamaica Bay has fallen behind, harbor-wide conservation efforts and recent investments in the area have begun to transform Jamaica Bay into one of New York City's iconic waterfront parks.

¹ The number of paddlers was calculated using estimate numbers from primary vendors and program providers including: Wheel Fun Rentals, Sebago Canoe Club, Gateway Bike and Boat House, and National Park Service.

² NPCA. 2007. State of the Parks: Gateway National Recreation Area, A Resource Assessment. http://www.npca.org/about-us/center-for-park-research/stateoftheparks/gateway/Gateway_CSOTP_NPCA.pdf

³ NYCDCP. 1992. New York City Comprehensive Waterfront Plan: Reclaiming the City's Edge.

Jamaica Bay Parks



Jamaica Bay has been the focus of several habitat conservation and water quality initiatives since the mid-1990s. Local advocates, regional stakeholders, and government agencies at every scale have pushed to fully realize the area’s potential to become a city and regional asset. Due to habitat restoration projects, wastewater treatment facility upgrades, remediation of three landfills, and community clean-up efforts, the water quality and perception of the bay has steadily improved over the last two decades⁴. In the fall of 2012, NPS and the City of New York signed a Cooperative Management Agreement to jointly plan, manage, and program the parkland in and around Jamaica Bay. This innovative agreement builds on the General Management Plan for Gateway National Recreation Area and NPS’s America Great Outdoors (AGO) initiative to reconnect the public with the nation’s great outdoors, particularly within urban areas⁵.

⁴ NYCDCP. Vision 2020: New York City Comprehensive Waterfront Plan. March 2011.

⁵ Pursuant to the America Great Outdoors (AGO) initiative, NPS released A Call to Action: Preparing for a Second Century of Stewardship and Engagement in 2012, outlining an action agenda for the agency moving forward into the next 100 years. The report focuses on four main themes: Connecting People to Parks, Advancing the NPS Education Mission, Preserving Special Places, and Advancing Professional Excellence. Jamaica Bay Greenway has become a priority for Action Number 4: In My Backyard, which calls on NPS to: “Improve urban residents’ awareness and access to outdoor and cultural experiences close to home by promoting national parks in urban areas and ensuring safe and

Further, it has helped to advance cross-jurisdictional projects like improving the Jamaica Bay Greenway, and begun to institutionalize new investments with the establishment of the Jamaica Bay Rockaway Parks Conservancy and the Jamaica Bay Science and Resilience Institute. These institutional commitments will grow Jamaica Bay as popular tourist destination and benefit local economies. As more visitors find their way to Jamaica Bay Waterfront, a cohesive user-friendly water trail system will be a critical component in creating the Jamaica Bay experience.

enjoyable physical connections from parks to a variety of sustainable transportation options aligned with urban populations’ needs.” Source: National Park Service (NPS). 2012. A Call to Action: Preparing for a Second Century of Stewardship and Engagement. <http://www.nps.gov/calltoaction/PDF/DirectorsCalltoActionReport2012.pdf>

Defining the Water Trail

A water trail is a system of public waterfront access points that often serve a wide variety of water recreationalists, include hand-powered boat launches and landings, and access to other recreational amenities like food concessions, equipment rentals, nature trails or other destinations. Water Trails create the next generation of environmental stewards through partnership, volunteerism, conservation, and education. Further, they encourage well-being through active outdoor recreation, and by connecting people with history, nature, and community. A water trail will be specific to the water body that encompasses it, depending on the site ownership, geography, landscape, and the population that is served. In order to reach a wide audience and encourage greater use, the Jamaica Bay Water Trail should connect a network of different access points and destinations that accommodate the various needs of the wide array of potential users.

Types of Users

Over 292,000 people live within 1-mile walk from the Jamaica Bay waterfront. The Jamaica Bay unit of Gateway receives an average of 3.8 million regional and local visitors every year who are attracted to the beaches, nature trails, fishing, bird watching, and numerous other recreational activities⁶. Canoeing and kayaking has grown as a popular activity in recent years due to expanded programming offered by NYCDPR and NPS, and the establishment of various rental and program providers. Despite growing interest, a relatively small number (approx. 6,700) experienced paddling on the bay in 2014. Attracting new paddlers will require providing education, services, and amenities that speak to the needs of all user types.

Promotion of the Water Trail

Access to equipment, understanding waterways and potential hazards, and knowledge with regards to safety, can pose significant barriers for first time paddlers. Clearly communicating the structure of the water trail network, opportunities to access the trail, and the available programs offered, is critical to engage new and practiced paddlers. NYCDPR, the New York City Water Trail Association, and Going Coastal, all maintain online interactive tools for the broader NYC Water Trail, including Jamaica Bay. In 2009, NPS and the National Parks of New York Harbor Conservancy created a Paddling Jamaica Bay user's guide to establish the concept of the Jamaica Bay Water Trail and encourage greater use of the Jamaica Bay waterfront. These promotional

⁶ Average of Annual Gateway National Recreation Area visitation between 2004 – 2013. * Estimate does not include visitation at NYCDPR sites like Rockaway Beach, Marine Park, or Canarsie Park, which could significantly increase this estimate. Source: NPS Stats. <https://irma.nps.gov/Stats/>

User Types

First Timers

Experience Level: Never, once or twice been in a boat. Short distance routes, or confined to specific areas with supervision.
Services Needed: Requires rental or walk-up service, instruction, and assistance in the water.

Program Participants

Experience Level: Full range of experience
Services Needed: Requires rental or walk-up service, and instruction or guide. Educational program, Citizen science programs, or guided tours.

Experienced Recreationalist

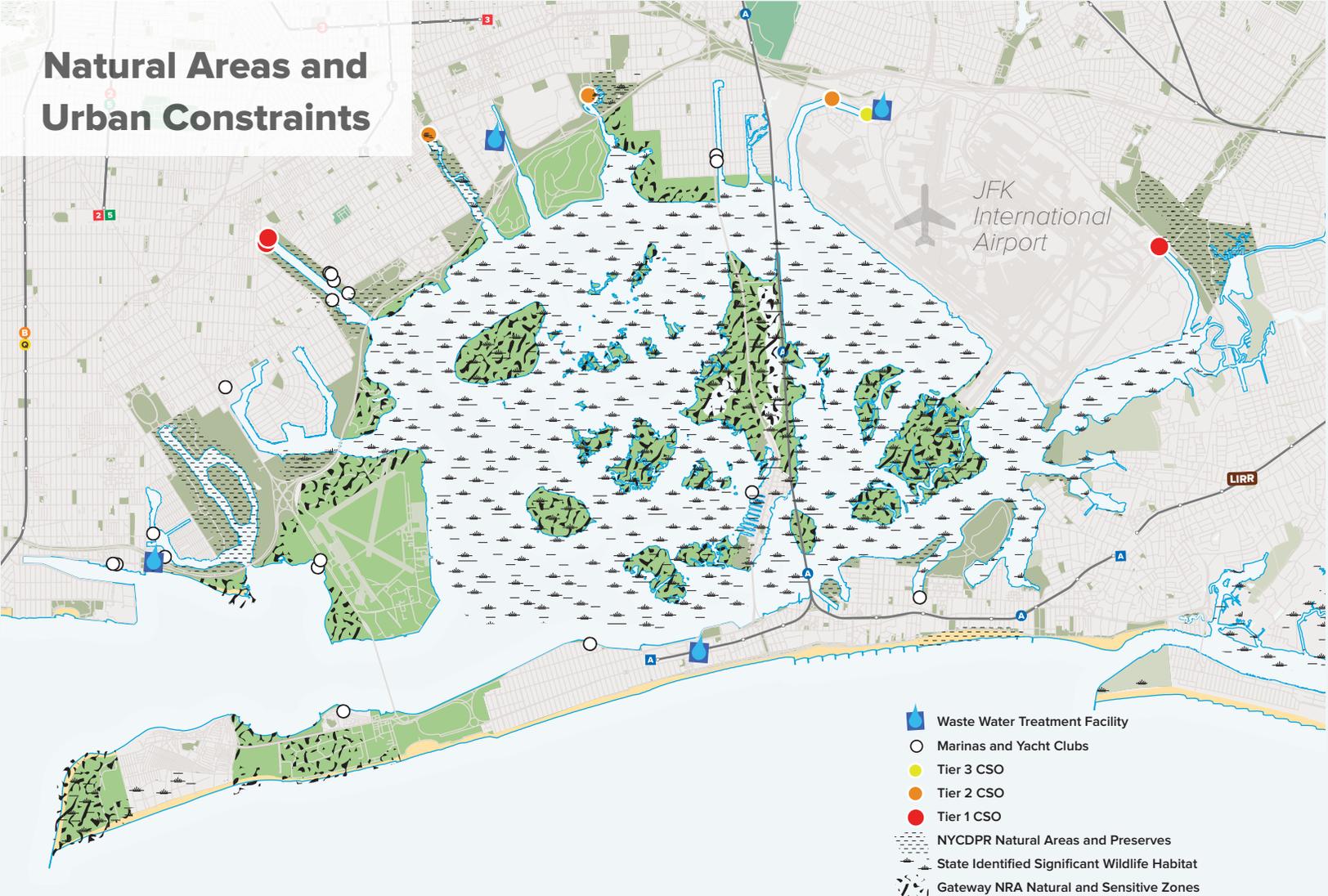
Experience Level: Experienced and do not need guidance. Longer paddles.
Services Needed: Could benefit from boat storage, club membership, annual events.

tools contain information about existing access points in the bay, paddling best practices, and rules/regulations. However, because these tools are created and managed by separate entities a number of inconsistencies exist, including location of designated access points, variation in rules/regulations based on managing entity, and site-specific safety considerations, like water quality status. Information regarding rentals, public programs, connected water trail destinations, and stewardship opportunities, is lacking in all of the available water trail user tools. A consistent management plan and cohesive vision that is easily communicated to the public will increase safety and break down the barriers to paddling.

Water Quality

Jamaica Bay is surrounded by a complex mix of natural landscapes and competing urban land uses, which have historically contributed to severe degradation of the water quality. The bay is home to four wastewater treatment plants, six Combined Sewer Outfalls (CSOs), three remediated landfills, and JFK International Airport. The perception of poor water quality can be a major deterrent to encouraging first time users to paddle on the bay. However, due to considerable investment in managing the Jamaica Bay watershed, including plant upgrades, equipment

Natural Areas and Urban Constraints



replacement, habitat restoration, and storm water diversion projects, water quality has consistently improved over the last 10 years⁷. New York State Department of Environmental Conservation (NYSDEC) classifies New York City water bodies to indicate that water quality is suitable for their best use including swimming, boating, fishing, and shellfishing⁸. The open waters of Jamaica Bay are currently classified for bathing or other recreational uses. Most of the basin inlets, including Paerdegat, Fresh Creek, Hendrix Creek, Shell Bank, and others, are classified for boating and fishing, however, are prone to diminished water quality due to storm water runoff and poor flushing⁹. Water quality of the bay is an important consideration in the siting of access points, public safety, and the public communication/promotion of the water trail.

Boat Traffic

Jamaica Bay is a shallow navigable water body consisting of narrow navigation channels along the outer edge and tidal marsh islands that cover roughly 3,000 acres. The average depth of

the bay is 13 feet. The average depth of the navigation channels ranges from 30 – 50 feet¹⁰. The bay contains 18 marinas and boating clubs, and sees significant recreational and commercial boat traffic. Most of the existing access points are located in the basin inlets, however several are located in close proximity to the navigation channels, and at/or near local marinas. Where possible, access points should be sited and programmed to protect users from the potential hazard of bay traffic and to promote navigable waters best practices.

Launch and Landing Design

Launch and landing sites should be designed to be user-friendly, protected from exposure to high winds and strong currents, and constructed to not cause damage to natural habitats¹¹. No national water trail design standards exist, however a number of water trail stewardship organizations, like River Management Society, offer online tool kits to encourage water trail design best practices¹². Three types of access points are best suited for Jamaica Bay depending on the constraints and suitability of the site. 1) Beach Access – Beaches are the most user-friendly access

⁷ Source: NYCDEP. State of the Harbor 2012.

⁸ NYSDEC. Water Quality Standards and Classifications. <http://www.dec.ny.gov/chemical/23853.html> "DEC identifies best uses by taking into consideration the physical, chemical, and biological characteristics of the waterbody and its use and value for wildlife protection and recreational, industrial, and navigational purposes... and are subject to change depending on the demonstrated attainment of related bacteria and dissolved oxygen standards." Source: The City of New York, WAVES: Waterfront Vision and Enhancement Strategy. Best Practices for Promoting Safe Public Access to Human-Powered Boating in New York City. May 2013.

⁹ Source: NYCDEP. State of the Harbor 2012.

¹⁰ NYCDEP. Waterbody/Watershed Facilities Plan: Jamaica Bay and CSO Tributaries. Ch. 4 Waterbody Characteristics. 2011.

¹¹ Source: The City of New York, WAVES: Waterfront Vision and Enhancement Strategy. Best Practices for Promoting Safe Public Access to Human-Powered Boating in New York City. May 2013.

¹² River Management Society and National Park Service host a web site called prepare to launch, which offers guidelines for accessing, designing and building launch sites: <http://preparetolaunch.river-management.org/>

type, enabling users to become easily situated before entering the waterway. However, beaches that serve as sensitive habitat should be avoided as an access point or landing destination. 2) Ramp Access – Ramp access points are user-friendly and enable users to become situated before entering the waterway. They can be designed to prevent paddlers from disturbing sensitive habitat, however, depending on the ramp surface material can also cause damage to equipment. 3) Dock Access – Docks are best suited for access points that do not have a smooth transition between the land and water (e.g. bulkheads). They can be designed to prevent users from disturbing habitat, however are more challenging for inexperienced paddlers and may require assistance to enter the waterway.

Designated Trailheads

Of the existing 15 water trail access points, six sites managed by NPS contain consistent wayside signs with cautions, rules and regulations; one site managed by NYCDPR contains launch rules and regulations signage; three sites are operated by private entities that promote services to a varying degree; and two sites have no signage marking the access point. The variation in signage across the existing access points does not convey a cohesive water trail system throughout the bay. To create a user-friendly experience, access points should be designated with consistent, simplified, and concise language regarding paddling best practices like avoiding boat traffic, potential health risks like proximity to CSOs and water quality status, information about nearby amenities, and paddling routes to points of interest.

Water Trail Amenities

Amenities such as bathrooms, boat storage, equipment rental, public programs, picnic areas, informational kiosks and access to other associated destinations like nature trails, will attract new and practiced users to the Jamaica Bay Waterfront. While it is not feasible to provide a large menu of amenities at every access point, it should be clear to users where amenities are located throughout the system. Amenities like boathouses, rental concessions, lessons, and eateries should be evenly distributed at several highly visible, and easily accessible trailheads throughout the bay.

Parking and Transit Access

A majority of First Time Users and Program Participants will visit the water trail via public transportation and at prominent trailheads that offer equipment rentals or public programs. Currently, 11 of the 15 existing launch sites are within walking distance of the A Train or MTA bus service. Clear wayfinding signage between prominent access points and public transit options will improve access and attract less experienced users. Experienced paddlers, on the other hand, often own paddling equipment and will require adequate parking facilities connected to launch sites. Parking facilities should be located in close proximity to access points and portage trails should be clearly marked. All of the existing Jamaica Bay Water Trail access points are currently served by either a parking lot or on-street parking amenities.



Beach Launch Type - Gerritsen Beach, Brooklyn



Dock Launch Type - Sebago Canoe Club, Brooklyn, Photo: Whitney Starbuck Boykin



Old Signage - Mill Basin Inlet, Gateway NRA



New water trail wayside sign - Riis Landing Gateway NRA



How do you use the...
JAMAICA BAY WATERFRONT

City of Water Day at Sebago Canoe Club
Photo: Whitney Starbuck Boykin

A Water Trail Concept

The opportunity exists to expand and strengthen the physical infrastructure, and develop a conceptual framework for the Jamaica Bay Water Trail, which will engage a wide range of visitors and will be a defining element of the Jamaica Bay experience. RPA identified opportunities to improve the water trail through site visits, interviews with local users and park professionals, and community input received at public events and workshops. Existing and potential sites were assessed based on the presence of a potential stewardship partner, property ownership, parking, launch type, and amenity connections, as well as proximity to CSOs, public transit, boat traffic, population, and sensitive habitats (See Appendix). Proposed enhancements include:

- Strategically adding access points;
- Instituting hub trailheads throughout the bay that offer amenities for users;
- Improving existing access points with consistent and concise signage;
- Structuring and promoting the water trail as a series of different overlapping paddling experiences;
- Standardizing Jamaica Bay water trail best practices, rules and regulations, across all managing entities and private service providers;
- And, empowering local partners to steward the water trail.

Access Points

RPA identified 12 new potential access points throughout the bay. The sites vary in their required level of planning, permitting and capital investment – from formalizing an existing informal access point like the beach launch at Gateway Marina, which would require partner agreements and designated trailhead signs, to creating new waterfront parks like Plumb Beach West, which could become prominent portals into the Jamaica Bay Water Trail. While the user demand is not great enough to require advancing all of the identified potential sites, the sites should be considered as other planning processes and capital projects advance.

Hub trailheads are prominent water trail destinations that can be easily accessed by public transit, have connections to other destinations like nature trails, and provide space for boat storage, equipment rentals, and concessions. Hub trailheads should be evenly distributed throughout the area to provide access

to different parts of the waterfront. RPA identified the best opportunities to create hub trailheads, based on the available parking, potential connections to amenities, protection from potential hazards, and ease of access for first time users. NPS and NYCDPR currently run public programs at some of the potential hub trailheads, like Canarsie Pier, the Floyd Bennett Field Sea-Plane Ramp, and Salt Marsh Center. Others like Beach 88th Street and Rockaway Community Park have been highlighted as potential water trail hubs in the Rockaway Parks Conceptual Plan and are currently being considered by city agencies as prominent waterfront access points¹³.

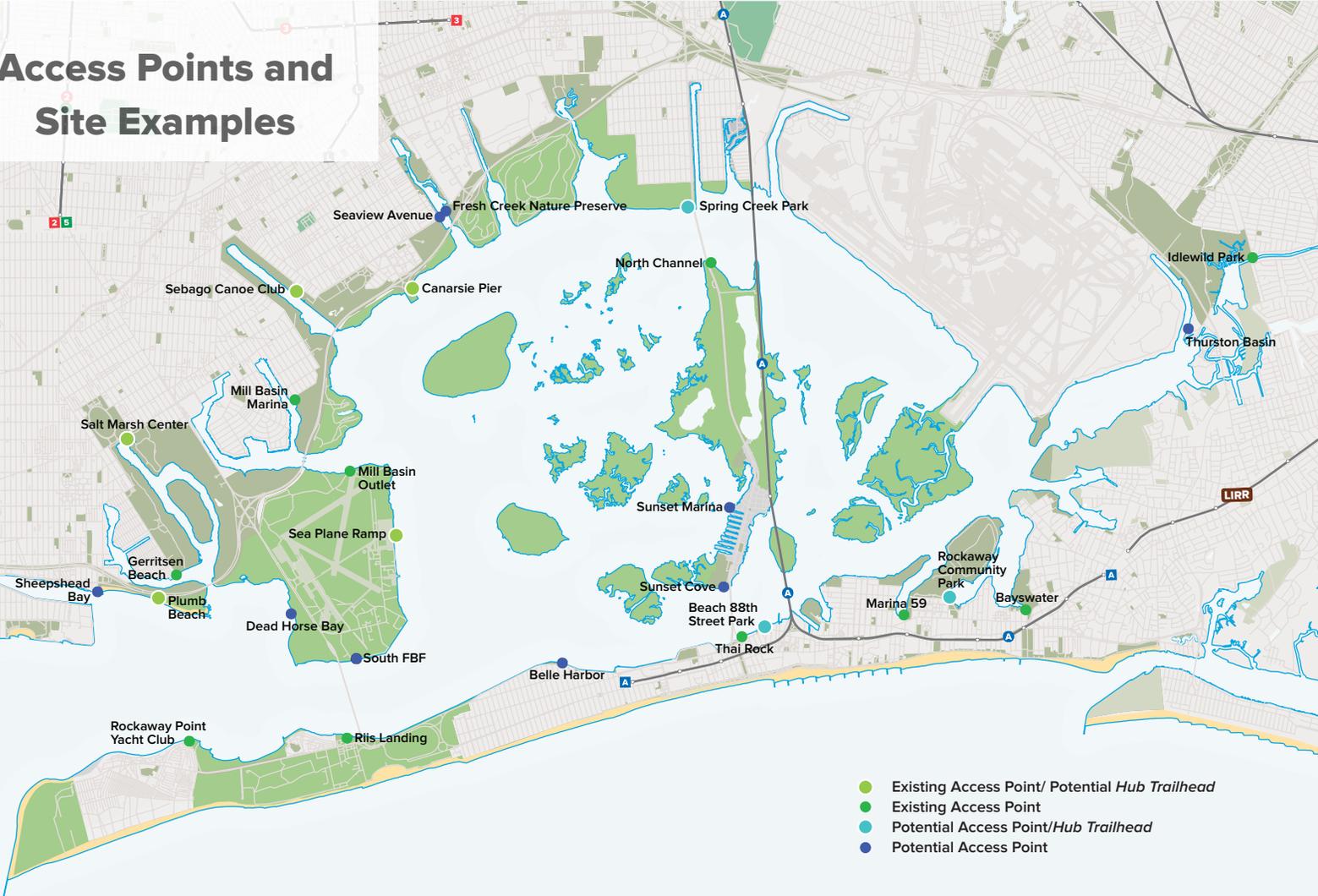
Improving Existing Sites

15 water trail access points currently exist and are identified in one or more of the existing user tools. Sites are owned by NPS, NYCDPR, or a private business, like Marina 59 in Arverne, Rockaway. They consist of various launch types depending on the site context (beach, ramps, and docks), and contain a range of variant signage. For instance, some sites like Canarsie Pier and Riis Landing, have clear water trail signage that was created and installed by NPS¹⁴. Others sites, like Mill Basin Marina and Gerritsen Beach, are identified on one or more of the water trail user tools, but contain no indication that launching human-powered boats is permitted. Every established water trail access point should be marked with consistent and visible signage that clearly communicates common sense paddling best practices, site specific potential hazards, and information regarding nearby amenities.

¹³ NYCDPR, NYCEDC, and The City of New York. 2014. Rockaway Parks Conceptual Plan. http://www.nycgovparks.org/pagefiles/71/Conceptual-Plan-Summary_3.pdf?a=1

¹⁴ Between 2008 and 2010 NPS, in partnership with the National Parks of New York Harbor Conservancy, and funded by the Coca-Cola Company, developed and installed six consistent water trail signs around the bay.

Access Points and Site Examples



Example New Launch Site



Dead Horse Bay

Dead Horse Bay is a popular part of Gateway National Recreation Area where NPS offers occasional educational programs and visitors explore the beach trails. The proposed access point would be located in Gateway Marina at the beach just south of the marina docks. Implementation will require an agreement between Gateway Marina and NPS.

Site Owner: NPS
 Potential Local Steward: Gateway Marina
 Parking: Lot
 Launch Type: Beach
 Protection-Currents/Boat Traffic: Low
 Sensitive Habitat: No
 Transit: Bus - Q35
 Improvement: Signage
 Potential Cost: \$

Example New Launch Site



Sheepshead Bay

The *Sheepshead Bay* site is located at an empty lot on the corner of Brigham Street and Emmons Avenue. The site is owned by NYCDPR and NYCDEP, and plans have been proposed in the past to turn the park into a waterfront park. Jamaica Bay Greenway begins at the head of the lot and the site is along the primary route for many cyclists coming from other parts of the city to the Jamaica Bay Greenway waterfront.

Site Owner: NYCDPR
 Potential Local Steward: -
 Parking: Lot
 Launch Type: Beach
 Protection-Currents/Boat Traffic: Moderate
 Sensitive Habitat: No
 Transit: Bus - B4, B44
 Improvement: Range - signage to new park
 Potential Cost: \$ - \$\$\$

Example Site Needing Improvement



Bayswater Park

Bayswater Park is located in the southeast corner of Jamaica Bay and owned and managed by NYCDPR. The site is currently indicated on all of the existing water trail user tools, however lacks a user-friendly launch or water trail signage. The Rockaway Parks Conceptual Plan proposes \$28m in park improvements including a kayak launch and storage, and new park building.

Site Owner: NYCDPR
Potential Local Steward: Gateway Bike and Boat House
Parking: On-Street
Launch Type: Beach/ Un-developed Shore
Protection-Currents/Boat Traffic: High
Sensitive Habitat: Yes
Transit: A Train; Bus - Q22
Improvement: Signage, Wayfinding, Launch
Potential Cost: \$\$

Example Site Needing Improvement

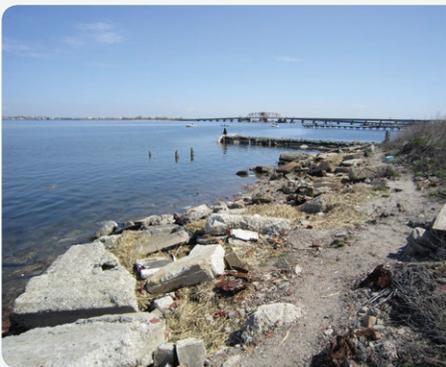


Gerritsen Beach

Gerritsen Beach is located in Marine Park on the southern edge of the Gerritsen Peninsula. The site is currently indicated on one of the existing water trail user tools, however it lacks water trail signage. The site is owned by NYCDPR and offers a local user-friendly water trail connection for the Gerritsen community.

Site Owner: NYCDPR
Potential Local Steward: -
Parking: On-Street
Launch Type: Beach
Protection-Currents/Boat Traffic: High
Sensitive Habitat: Yes
Transit: Bus -B31
Improvement: Signage
Potential Cost: \$

Potential Hub Trailhead



Beach 88th Street Park

Beach 88th Street Park is located on the bay-side of Rockaway Peninsula five blocks east of the Veteran's Memorial Bridge. The site was recently acquired by NYCDPR and no park amenities currently exist. The Rockaway Parks Conceptual Plan proposes \$7 - 8m in park improvements including a kayak launch and storage. Gateway Bike and Boat House is currently working with NYCDPR to run programs from and steward the site.

Site Owner: NYCDPR
Potential Local Steward: Gateway Bike and Boat House
Parking: On-Street
Launch Type: Beach
Protection-Currents/Boat Traffic: Low
Sensitive Habitat: Yes
Transit: A Train; Bus - Q52, Q22
Improvement: New park and boat house
Potential Cost: \$\$\$

Potential Hub Trailhead



Canarsie Pier

Canarsie Pier is part of Gateway National Recreation Area, owned and managed by NPS. The pier is a popular destination for fishing, kite flying, picnicking and cycling. Currently, NPS offers free kayak paddling lessons and tours from the site. The area is identified as an important recreational node in the Gateway NRA General Management Plan.

Site Owner: NPS
Potential Local Steward: -
Parking: Lot
Launch Type: Beach
Protection-Currents/Boat Traffic: Moderate
Sensitive Habitat: Yes
Transit: Bus - B42, B17
Improvement: Range - Boat House to major park improvements
Potential Cost: \$\$\$

Explore the North Channel's natural areas and basin inlets. Access the Hub Trail Heads via the B42 or B80 busses. Enjoy a picnic at Sebago Canoe Club, or food concessions at Canarsie Pier.
Caution: Be cautious of boat traffic and strong currents in the North Channel.

Explore the coastline of NYC first municipal airport. Access the Hub Trailhead via the Q35 bus. Connected activities include, historic Hanger B, the North 40 nature trails, and NYC only campground.
Caution: When paddling to Ruffle Bar, be cautious of boat traffic and strong currents.

Explore the sandy beaches and restored marshlands. Access Hub Trailheads via various Brooklyn bus lines. Hike on nature trails in Marine Park, Plumb Beach, and Dead Horse Bay.
Caution: When paddling to Dead Horse Bay, be cautious of boat traffic. Launch is subject to Horseshoe Crab breeding periods.



Brooklyn

Sebago Canoe Club

Canarsie Pier

Salt Marsh Center

Plumb Beach

Sea Plane Ramp

Airfield Trail

Dead Horse Trail

Rockaway Bayside

Fort Tilden

Jacob Riis Park

Atlantic

Queens

Water Trail Concept

Jamaica Bay is a very large body of water covering 16,000 acres of water and 3,000 acres of marshland¹⁵. The waterfront consists of both natural habitat full of wildlife and urban edges offering facilities such as restaurants and parks. While some overnight options exist (like the Floyd Bennett Field campground operated by the NPS, and Marina 59's Boatel), a majority of users will be experiencing the Jamaica Bay waterfront through shorter daytrips. There was consensus among the many users and park professionals interviewed for this paper that the Jamaica Bay Water Trail should consist of a series of overlapping daytrip paddles that would encourage users to explore different aspects of the bay through many return visits. Each paddle could be programmed to highlight specific points of interest and structured around a Hub Trailhead. A local partner could be engaged with each paddle to help steward the trail amenities, provide public programs, and rent equipment.

¹⁵ NYCDEP. Waterbody/Watershed Facilities Plan: Jamaica Bay and CSO Tributaries. Ch. 4 Waterbody Characteristics. 2011.

Explore the beauty of the marsh islands of the bay. Access the Hub Trailhead at Spring Creek Park via Q52 bus.
Caution: Not advisable during low tides. Do not land boats on marsh islands as they are sensitive ecological habitats.



- Picnic Area
 - Kayak Rental/ Public Program
 - Jamaica Bay Greenway Access
 - Fishing
 - Camping
 - Bird Watching
 - Food Concessions
 - Restrooms
 - Ferry
 - Nature Trails
 - Water Access Point
 - Potential Hub Trailheads
- *Variant colors denote different paddle experiences

*Note: This map is conceptual. Many of the launch sites do not currently exist and many of the parks like Spring Creek Park, Beach 88th Street Park and Rockaway Community Park are not currently open to the public.

Explore the entire bayside of the Rockaway Peninsula from Breezy Point to Idlewild Park. You can access Hub Trail heads at Beach 88th Street and Rockaway Community Park via the A Train, and Q52 and Q22 busses. Additional boat rentals are offered at Marina 59. Be sure to dock at Thai Rock for lunch.
Caution: At times heavy boat traffic and strong currents in the Rockaway Inlet and Beach Channel.

c Ocean



City of Water Day at Sebago Canoe Club
Photo: Whitney Starbuck Boykin

Rules and Regulations

Both NPS and NYCDPR disseminate very similar rules and regulations for paddling, however these regulations are seldom enforced. The rules and regulations are based on federal, state, and local boating legal statutes and are designed to promote public safety, reduce conflicts with motorized boats, protect sensitive habitats, and reduce pollution. Rules and regulations are posted at the designated access points around Jamaica Bay that contain signage. While these guidelines are comprehensively displayed on water trail web tools and at trailheads, potential and experienced paddlers commented that rules could be represented to the public in a more engaging way—for instance, as common sense guidelines in easy-to-understand graphics.

Currently NYCDPR requires users to obtain a launch permit for their sites, which is obtained for \$15.00 by mail or in person at Borough Offices. NPS no longer requires a launch permit, but rather requires and enforces a parking permit at some launch sites like Riis Landing, Rockaway Point Yacht Club, and the North Channel sites. While permits serve as a tool for public agencies to gauge the number of users, experienced users and park professionals noted that very few paddlers actually obtain them. This is in large part because permits are rarely enforced, and can only be obtained through mail or in person. Those interviewed for this paper recommended that permitting requirements in Jamaica Bay be streamlined into one process for NPS and NYCDPR, and web based procurement options should be available. Further, paddlers might be more inclined to pay permitting fees if the fees directly contribute to improving water trail amenities.

Empowering Local Partners

Expanding the Jamaica Bay Water Trail will require initial capital investment and operations funding for the long-term maintenance of facilities. Both NPS and NYCDPR have expressed the challenge of expanding amenities and programming due to budgetary shortfalls. While budget gaps have hindered parks projects throughout the city, public funds are often supplemented by private non-profit organizations or local

businesses that donate funding, in-kind service, and volunteer hours¹⁶. Jamaica Bay is surrounded by a number of local environmental organizations and paddling organizations. Many of the groups are already actively engaged in stewardship activities around the bay, like salt marsh restorations and beach clean ups. These groups should be engaged as primary stakeholders that can help the public agencies to run and manage programs at hub trailheads, steward water trail amenities, or in some cases be contracted as concessionaires. Stakeholder engagement could be institutionalized with the formalization of a Jamaica Bay Water Trail Committee that meets twice a year to coordinate promotional materials, water trail events/programs, maintenance efforts, and future water trail improvements.

Potential Local Stewards

- Sebago Canoe Club
- Gateway Bike and Boat House
- American Littoral Society
- Rockaway Waterfront Alliance
- Jamaica Bay Eco Watchers

Potential Local Business Partners

- Thai Rock
- Marina 59
- Gateway Marina
- Mill Basin Marina
- Old Mill Yacht Club
- Sunset Marina
- Wheel Fun Rentals
- Belle Harbor Yacht Club

¹⁶ Regional Plan Association. 2007. On the Verge: Caring for New York's Emerging Waterfront Parks and Public Spaces.

Further Considerations and Next Steps

This paper explores the most important issues to be considered, highlights existing and potential water trail infrastructure, and recommends potential strategies to advance the Jamaica Bay Water Trail. As the Jamaica Bay waterfront sees increased investment and continues to develop into one of New York City's iconic waterfront parks, the water trail will be a key component in creating a network of recreational and educational experiences. With recent investments in the bay's parks and water quality, and growing interest in paddling throughout the city, now is the time to begin to plan a cohesive user-friendly water trail that will attract regional visitors and local users alike. The water trail could be expanded and promoted as a series of different paddling experiences built around hub trailheads that provide amenities like rentals and concessions that will encourage new users to paddle in Jamaica Bay. Below is a list of next steps to begin to work toward that goal.

Consider New Sites

NPS and NYCDPR should further examine and explore new potential sites and consider including designated water trail access points as part of other planning efforts and capital projects, e.g. Sunset Cove, Spring Creek, Beach 88th Street Park, etc.

Identify User Needs

Survey current users about transportation to the bay, desired paddling amenities, best strategies for communicating with the public, and potential deterrents from paddling in Jamaica Bay.

Engage Water Trail Stakeholders

Engage potential water trail stakeholders in a round table workshop to further develop the Jamaica Bay Water Trail plan, focus opportunities and constraints of potential access points, and explore a long term water trail stewardship strategy.

Seek National Water Trail Designation

The National Water Trails System is an interagency collaborative effort administered by the National Park Service through the Rivers, Trails, and Conservation Assistance Program and the National Trails System. The designation will raise visibility of the water trail, provide assistance with stewardship and water trail development. <http://www.nps.gov/WaterTrails/>

Explore Funding Opportunities

NPS, NYCDPR, and local water trail partners should work to identify potential sources of funds for site assessment, design, and capital construction of potential water trail access points. Following is a brief list of some of the funding sources available:

Land and Water Conservation Fund (LWCF) Stateside Program

The LWC is managed by the National Park Service in conjunction with state agencies. Funds are intended for projects that focus on parks and green spaces, with a specific emphasis on blueways and access to water resources and large landscapes. The program has existed since 1965, and has awarded nearly \$17 billion for land acquisition and grant purposes. (http://www.nps.gov/nrcr/programs/lwcf/fed_state.html).

Kodak American Greenways Awards

This program, which operates in partnership with the Kodak Company, the Conservation Fund, and the National Geographic Society, awards small grants for greenways. Funds are allocated for mapping, ecological assessments, surveys, conferences, developing brochures, interpretive displays, audio-visual productions or public opinion surveys, hiring consultants, incorporating land trusts, building footbridges, planning bike paths, and other creative uses. (<http://rlch.org/funding/kodak-american-greenways-grants>).

Club Fostered Stewardship Grant

Administered by the American Canoe Association and L.L. Bean since 2002, this program provides funding for paddling clubs and organizations that undertake waterways improvements. Grants are usually small, ranging from \$100-\$1,000. Past grants have included funding for water trails, environmental education, and improved access for paddlers. (http://www.americancanoe.org/?page=LLBean_CFS_Grant).

New York-New Jersey Harbor Estuary Program

The New York-New Jersey Harbor & Estuary Program (HEP) was set up in 1987, with the aim of protecting waterways, improving access, and educating the public. The core area of the estuary includes the entire Jamaica Bay region. Historically, HEP has provided several grants for projects in Jamaica Bay. Some examples include public access improvements, educational and stewardship events, and habitat restoration, with awards ranging from a few hundred dollars to over \$40,000. (<http://www.harborestuary.org/about.htm>)



Appendix: Site Assessment

Point Name	Property Owner	Potential for Local Steward	Parking	Likely Landing Type	Over 1/2 mile from CSO	Protection from Boat Traffic and Currents (+, -, =)	Sensitive Habitat	Transit Connections within 1/2 mile	Population Within Walking Distance (1 mile walkshed)	Potential Amenities Ranking*	Capital Cost (Low \$ - High \$\$\$)**
Existing Access Points											
Plumb Beach	NPS	NPS	Lot	Beach	Yes	-	No	None	6,119	4	\$
Rockaway Point Yacht Club	NPS	Rockaway Point Yacht Club	Lot	Beach	Yes	-	No	None	2,612	3	\$
Riis Landing	NPS	NPS	Lot	Beach	Yes	-	No	Bus	499	6	\$
Mill Basin Outlet	NPS	NPS	Lot	Ramp	Yes	-	Yes	None	4	1	\$
Sea Plane Ramp	NPS	NPS	Lot	Ramp	Yes	=	Yes	None	5	4	\$\$
Salt Marsh Nature Center	NYCDPR	NYCDPR	Lot	Beach	Yes	+	Yes	Bus	35,140	6	\$
End of Gerritsen	NYCDPR	NYCDPR	On-Street	Beach	Yes	+	Yes	Bus	4,205	1	\$
Mill Basin Marina	NYCDPR	Mill Basin Marina	Lot	Ramp	Yes	=	No	Bus	6,283	0	\$
Canarsie Pier	NPS	NPS	Lot	Beach	Yes	=	Yes	Bus	18,477	9	\$\$
North Channel	NPS	NPS	Lot	Beach	Yes	=	Yes	Bus	292	5	\$\$\$
Sebago Canoe Club	NYCDPR	Sebago Canoe Club	On-Street	Dock	Yes	+	Yes	Bus	29,584	6	\$
Bayswater	NYCDPR	NYCDPR	On-Street	Beach	Yes	+	No	Train and Bus	28,895	3	\$\$
Idlewild	NYCDPR	NYCDPR	On-Street	Ramp	Yes	+	Yes	None	13,400	0	\$
Marina 59	Marina 59	Marina 59	Lot	Ramp	Yes	+	No	Train and Bus	17,998	3	\$
Rockaway Jet Ski*	Thai Rock	Thai Rock	None	Dock	Yes	-	No	Train and Bus	15,831	3	\$
Potential Access Points											
Sheepshead Bay	NYCDPR	NYCDPR	Lot	Beach	Yes	=	No	Bus	14,532	5	\$
South Floyd Bennet Field	NPS	NPS	Lot	Beach	Yes	-	Yes	None	5	2	\$
Dead Horse Bay	NPS	Gateway Marina	Lot	Beach	Yes	-	Yes	Bus	52	3	\$
Sunset Marina*	Sunset Marina	Sunset Marina	On-Street	Dock	Yes	-	Yes	Bus	1010	3	\$
Thurston Basin	NYCDPR	NYCDPR	Lot	Beach	Yes	+	Yes	None	663	1	\$\$\$
Fresh Creek Nature Preserve	NYCDPR	NYCDPR	On-Street	Ramp	Yes	+	Yes	Bus	24,613	4	\$\$
Seaview Avenue	NYCDOT	NYCDPR	On-Street	Ramp	Yes	+	Yes	Bus	25,968	2	\$\$
Beach 88th Street Park	NYCDPR	Gateway Bike and Boat House	On-Street	Beach	Yes	-	No	Train and Bus	17,211	7	\$\$\$
Spring Creek	NPS	NPS	None	Beach/Ramp	Yes	-	Yes	Bus	2,946	6	\$\$
Sunset Cove	NYCDPR	NYCDPR	Lot	Beach	Yes	-	Yes	Bus	834	4	\$\$
Rockaway Community Park	NYCDPR	NYCDPR	On-Street	Ramp	Yes	+	No	Train and Bus	12,909	5	\$\$
Belle Harbor	NYCDPR	Belle Harbor Yacht Club	None	Dock	Yes	-	No	Bus	12,273	2	\$\$\$

* Potential Amenities Ranking created by assessing the feasibility of creating or instituting the following additional water trail amenities at the access site: Physical access to other trail networks; Equipment Rentals; Boat Storage; Lessons; Food Vendors; Picnic Areas; Restrooms; Fishing Stations; Playgrounds; Camping; and Beach Access. Feasibility was gauged based on stakeholder interviews and site visits.

** Capital Cost is a rough estimate range.

\$ = Little improvement needed: Signage, minimal trail maintenance, etc.

\$\$ = Will require more substantial infrastructure and permitting, i.e. dock or ramp construction, signage, etc.

\$\$\$ = Will require substantial construction, i.e. Docks, bulkheads, parking lots, and/or other amenities.

