

WATERFRONT **PUBLIC ACCESS**

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NYC's hundreds of miles of waterfront parklands, public spaces and recreational in-water access sites are critical resources. They supply New Yorkers with valuable open space, recreational amenities and community gathering spots. These parks range from world-renowned destinations to discrete kayak launches. Ensuring that the City continues to improve and expand its network of parklands, greenways and public access areas is essential to connecting New Yorkers to the important economic, environmental and civic roles the waterfront plays in their daily lives.

Increased emphasis on inclusive design practices, expanded capacities for community-based waterfront stewardship and targeted strategies to link disconnected neighborhoods safely to their waterfronts can ensure that the benefits of open space and in-water access are more equitably distributed citywide.

Goal 1: Expand public access to the waterfront with an emphasis on equity by bridging access gaps in historically underserved areas and supporting growing waterfront communities

Goal 2: Promote opportunities to get onto and into the water

Goal 3: Shape design and programming of public waterfront open spaces to reflect public use needs

Goal 4: Promote good stewardship of public spaces on the waterfront

Overview



NYC has experienced a waterfront renaissance over the last few decades driven by the waterfront's role in NYC's economic growth and New Yorkers' never-ending curiosity and desire to reconnect with forgotten waterways. Today, NYC's waterfront consists of a green network of parks and open spaces that spans all five boroughs and rivals that of any other global coastal city.

At the heart of this green network are dozens of public parks maintained on City-owned land, including 160 miles of shoreline parkland. These sites range from large destination parks that provide waterfront access for numerous communities to neighborhood "pocket" parks that provide space for quieter moments of reflection. Many of these smaller parks—like Richmond Terrace Park on Staten Island and Bridge Park South in the Bronx—are the products of reclaiming vacant or underutilized shoreline lots and turning them into vibrant new spaces.

This network of open spaces also includes State and national parks located within NYC. Roberto Clemente State Park in the Bronx, Shirley Chisholm State Park in Brooklyn and Gantry State Park in Queens are waterfront parks overseen by the New York State Office of Parks, Recreation and Historic Preservation (OPRHP). Much of Jamaica Bay and several adjacent parklands are part of the Gateway National Recreational Area, which is overseen by the National Park Service (NPS).

Interspersed throughout NYC's public parklands are open spaces on other City-owned sites and a growing mix of dynamic, publicly accessible open spaces on private waterfront sites. Together, these open space resources form a network that serves New Yorkers by providing access to an increasingly available waterfront. This wide range of passive and active amenities provides an increasing number of opportunities for people to get directly to the water's edge, put a boat in the water or learn more about the critical ecological and economic roles that NYC's waters play.

Over the last few decades, NYC has demonstrated its ability to take innovative approaches to building world-class waterfront parks that bring millions of residents and visitors to NYC's shoreline. Brooklyn Bridge Park and Hudson River Park have grown and thrived over the last decade and are now seen by the public as grand "porches" from which to experience the East and Hudson rivers, respectively. Groupings of parks and open space along the Brooklyn and Queens East River waterfronts—anchored by increasingly popular destinations such as Domino Park, Bushwick Inlet Park, Hunter's Point South Park and Gantry State Park—are now used as everyday destinations for New Yorkers and tourists who want to play or picnic by the water. Some of the most important neighborhood waterfront parks (like Barretto Point Park in the Bronx and Valentino Pier Park in Brooklyn) connect area residents to their waterfronts. These parks may not be as well-known beyond their neighborhoods, but they serve as critical lifelines to the water for local residents. Many are the result of community-led initiatives to reestablish neighborhood waterfront connections that were severed long ago.

In addition to creating new parks, the City works hard to improve the health of NYC waterways located near those parks by restoring the ecology of nearby wetlands and natural shorelines. Hunter's Point South Park and Sunset Cove in Queens, Ecology Park in Brooklyn and Pier 26 in Manhattan's Hudson River Park are all located near restored wetlands and intertidal habitats that help NYC's marine ecosystems thrive. Because healthy waters make it safer for people to get onto the water, the City has also expanded infrastructure that supports recreational water access, such as floating docks, get-downs, boat ramps and boat tie-ups. This infrastructure, along with an increase in the number of boating clubs and youth-focused paddling initiatives, has made it easier and safer for New Yorkers to launch watercraft into NYC's rivers and bays today than at any other point in the last century.

Although there are still barriers that render stretches of NYC's waterfront inaccessible to adjacent communities, recent neighborhood and citywide strategies to improve connectivity continue to help the City rethink how best to use its publicly owned waterfront resources. The clean-up and revitalization of vacant and industrial waterfronts have contributed to filling many of NYC's historic access gaps, helping to advance the collective goal of equitable access to the waterfront.







Left: Little Island at Pier 55, Manhattan.

Right: Van Pelt Plaza at Richmond Terrace Park, Staten Island.

A 10-Year Vision

To guide decision-making as the City plans for the expansion of waterfront public access and open space over the next 10 years, this plan outlines three key considerations:

- 1. Ensuring that future investments and strategies to expand waterfront access continue to address inequities in community access and inclusive design.
- 2. Acknowledging the effects of climate change and the vital role NYC's waterfront parklands play in adapting to new realities.
- 3. Advancing recreational water access opportunities to redefine "waterfront access."

Equity and Inclusivity

Nearly 3 million New Yorkers live within a half-mile's walk to the waterfront, and more than 2 million of those residents can access at least one safe, formally designated waterfront park or other waterfront public open space. Often these waterfront spaces are the most significant open space options within walking distance — highlighting the importance of these crucial resources in coastal communities. But no walk-to-waterfront access exists for the remaining 800,000 residents who live within a half-mile's walk of the shoreline. Areas lacking access are often less wealthy and likelier to consist of relatively larger communities of color when compared to those communities with convenient waterfront access. These factors indicate that often a lack of waterfront open space parallels other societal inequities.

Waterfront accessibility in NYC varies widely by borough. More than 90% of Manhattan residents within a half-mile of the waterfront can walk to open spaces on the water, but fewer than half of Bronx residents and only about half of Staten Islanders living within that same distance have pedestrian-accessible public access options. Even within Manhattan, much of which is ringed by public parkland, economic disparities exist between neighborhoods with and without waterfront access.

More equitable waterfront access requires going beyond solely expanding physical access at the waterfront, ensuring that waterfront areas are responsive to the specific needs and priorities of underserved communities. Public and institutional support for community-based organizations can help to promote active community stewardship of public spaces. Increased educational programming for schools and local youth groups is essential to create long-lasting connections between communities and their waterfronts. Similarly, a holistic design and planning approach is needed to understand how upland neighborhood conditions support (or negatively affect) waterfront access.

Over 2 Million New Yorkers live within a half-mile walk of a waterfront park or open space access point.

Connecting Communities to their Waterfronts

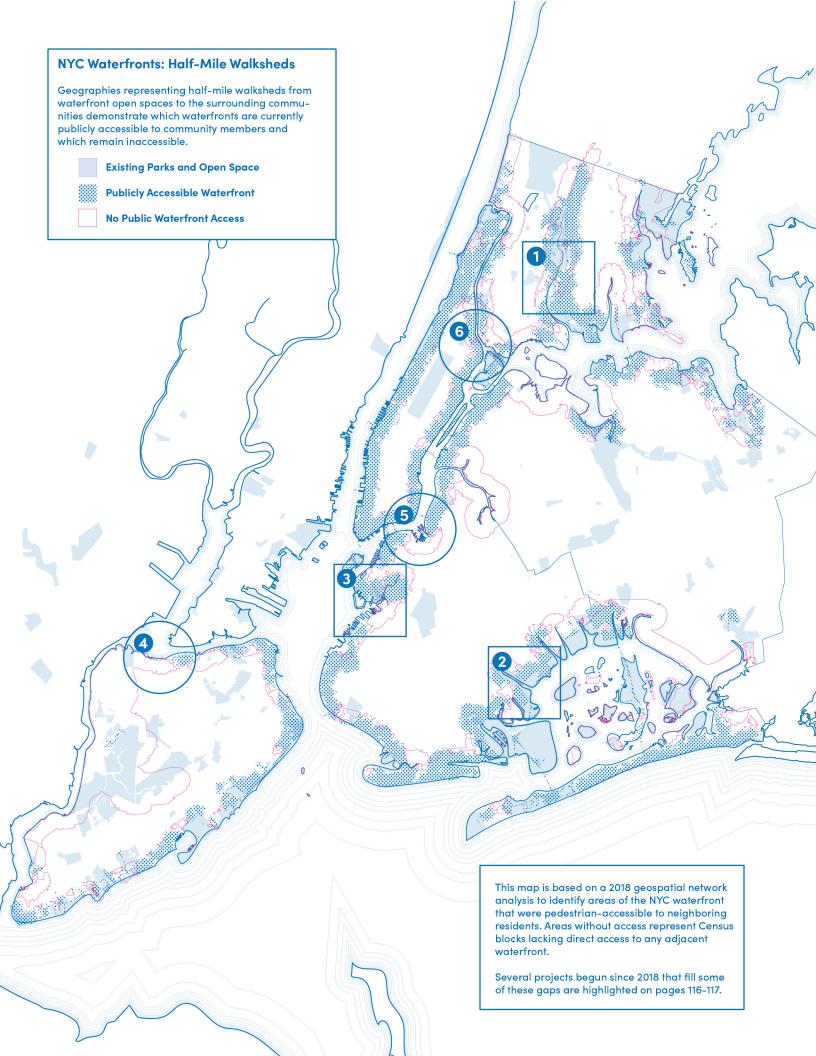
More than 1,200 formal waterfront park entrances and access points are available to New Yorkers across all five boroughs. Some larger parks, like Hudson River Park, have many entrances at cross streets, but most parks are accessible at only a few entry points. A lack of safe pedestrian upland street conditions or poor transit connectivity greatly affects park accessibility. Currently, many stretches of the waterfront remain entirely inaccessible to the public today because safe, formally designated public access points or open spaces are lacking.

Varying shoreline conditions and historical development patterns require a wide range of strategies to connect neighborhoods to their waterfronts. Active industrial waterfronts may need to leverage existing City-owned sites and flexible design guidelines. Former waterfront industrial areas undergoing redevelopment with commercial and residential uses are generally subject to zoning requirements that require providing public access.

Constructed or natural barriers along waterfronts like elevated highways or steep cliffs necessitate their own creative solutions to expanding public waterfront access. These conditions require rethinking how aging transportation infrastructure along NYC's waterfront is rebuilt in the future to incorporate safe pedestrian and bicycle access to the waterfront and how natural area protections are balanced with physical access. Ways to expand waterfront access in lower-density neighborhoods or areas with privately owned shorelines are comparatively limited, requiring more opportunistic strategies.



2019 Red Hook Regatta, Valentino Park and Pier, Brooklyn.



Envisioning A More Equitable and Accessible Waterfront

A Half-Mile Waterfront for Many but Not All

Nearly 3 million New Yorkers live within a half-mile of their shoreline, but more than 800,000 of them still lack access to a waterfront park space to which they can walk.

Plugging these open space gaps will provide thousands of New Yorkers living in coastal communities with access to their waterfronts. Successfully doing so will require addressing historic community inequities and long-standing concerns around the safety and appropriateness of access along some waterfront areas. Strategic planning will be needed as the City reevaluates the future of our shoreline infrastructure, including aging elevated highways and other physical structures that create barriers between communities and their waterfronts. Success will require leveraging a variety of tools and strategies aimed at designing new and improved waterfront open spaces, while continuing to balance other important long-term waterfront planning priorities.



West Farms Rapids: Focused Parkland Improvements Connect New Communities

Recent improvements to West Farms Park in the Bronx included new access points and bikeway and pedestrian paths along the Bronx River that connect to other parklands. The project also included restoration of sections along the riverbank of the city's only freshwater river. This new park now connects an additional 18,600 people in West Farms and the surrounding neighborhoods to a public waterfront park space.



2 Canarsie West Trail Connector: Designing Around Coastal Barriers

This NYC Parks project constructed a pedestrian and bicycle greenway path to connect Canarsie residents and Canarsie Park users safely to the Shore Parkway Greenway and Jamaica Bay. This project, part of a larger ecological restoration and planting effort, provides a safe, multiuse path beneath the Belt Parkway, where no direct access for community residents existed previously.



Gowanus Waterfront Access Plan: Leveraging Redevelopment for New Public Access

The Gowanus Waterfront Access Plan creates tailored design and zoning requirements that ensure waterfront public access along a significant portion of the Gowanus Canal as it redevelops over time. The regulations are designed specifically to fit the unique character of this narrow waterbody, address climate impacts from sea level rise, support diverse shoreline treatments to help the Canal's ecological revitalization, and facilitate interconnectivity among a mix of uses, parklands and public facilities.

Connecting New Yorkers to Their Waterfront

How can we measure communities' connectivity to their waterfront? Recent waterfront access projects demonstrate how targeted strategies can help plug existing gaps in waterfront access and create new waterfront parks and public open space within walking distance of thousands of New Yorkers who lacked access.



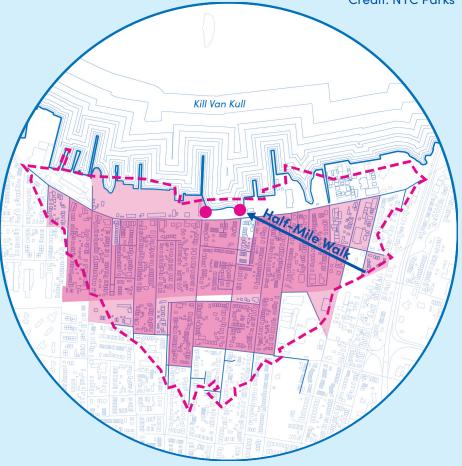


Richmond Terrace Credit: NYC Parks

Capital Funding for Parks: Richmond Terrace Park Staten Island



Richmond Terrace Park was recently created out of existing woodlands on Staten Island's North Shore to serve the neighboring Mariners Harbor community along an industrial stretch of waterfront. This parkland and its scenic views of the harbor provide access to over 4,000 residents within a half-mile of its entrance who previously lacked access.



Partnering on City Owned Sites: Dock 72, Brooklyn Navy Yard Brooklyn

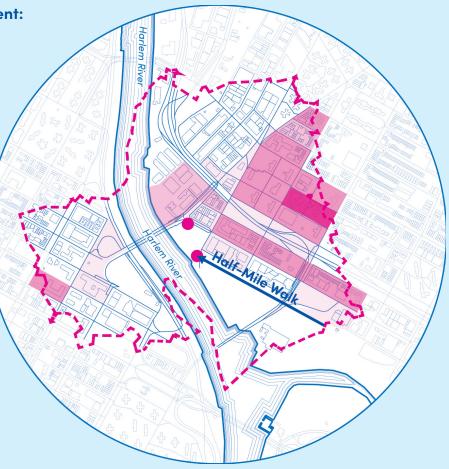


A new waterfront open space was completed in 2019 alongside the development of the Dock 72 mixed-use office building at the Brooklyn Navy Yard (BNY), a City-owned industrial and innovation campus. It provides open space for BNY's thousands of workers, surrounding residents and ferry commuters.

Leveraging Waterfront Development: 101 Lincoln Avenue The Bronx



A Waterfront Public Access Area (WPAA) currently under construction as part of a new development will extend waterfront access to over 7,200 residents currently living within a half mile of its entrances who lack access today. The public walkway will continue northwards to neighboring sites as part of the Harlem River Waterfront Access Plan.



Parks in the Face of a Changing Climate

NYC's waterfront parklands are crucial recreational resources for New Yorkers that also play an important role in protecting NYC from future sea level rise and storm-driven flooding. While rising sea levels threaten New Yorkers' use of their parks, design practices and materials can be adapted to both manage flooding as well as to create better, more resilient parks. Parkland shoreline design can incorporate natural features such as wetland marshes, which at scale can help break and reduce wave action. Shorelines can be designed to accommodate and even thrive from rising sea levels. Selectively elevating circulation paths and active recreational use areas above floodable spaces can facilitate public access to parks even during high tides in the future.

Parks will continue to be a crucial component in developing and implementing effective coastal protection strategies. Reconstructing NYC's parks to support coastal flood protection could require regrading and elevating certain parkland features, incorporating more salt-tolerant plant species, and ensuring that flood events present minimal risk to electrical and recreational equipment. Preserving and improving public access to the maximum extent feasible will be a continued priority to keep waterfront parks resilient and accessible.

Maintenance, operations and regulations will also be adapted to support the long-term requirements of waterfront parks and public spaces. The materials and techniques used to construct park spaces in increasingly wetter and more volatile conditions will require updated engineered solutions. Nature-based ecological strategies will require all governmental and community-based land stewards to have increased resources and maintenance capacities.





Boardwalk and beach dunes at Rockaway Beach, Queens reconstructed after Hurricane Sandy.

Credit: NYC Parks

Pushing Beyond the Shoreline: Getting on the Water

As commercial and residential use of the waterfront and the popularity of NYC's waterfront park system continue to grow, New Yorkers will have increasing opportunities to connect to the water. Greater recreational water access, such as adding more locations to launch a kayak or touch the water, requires careful consideration. Traditional sheet-pile bulkheads (heavy materials, such as steel or concrete, driven deep into the ground along the shoreline to create a strong separation between the land and the water) will continue to be necessary in many areas. Elsewhere, riprap shorelines (human-placed stones or boulders to prevent soil erosion) may be used to provide coastal protection while maintaining access to the water. Intertidal marsh plantings and other natural materials may be needed to stabilize shorelines, accommodate get-downs to the water and promote marine habitat. Ecological opportunities must be balanced with growing climate challenges and the wide range of upland activities that must be supported.





Pebble Beach at Brooklyn Bridge Park, Brooklyn.



Goals and Strategies

Goal 1: Expand public access to the waterfront with an emphasis on equity by bridging access gaps in historically underserved areas and supporting growing waterfront communities

Redefining Access

As NYC's relationship to its waterfront has evolved, so has New Yorkers' expectations of what "waterfront access" means. Historically, emphasis on vehicular movement, frequently parallel to the waterfront, has limited who could meaningfully reach the water. More recently, however, significant investments have been made to provide safe crossings and pathways for pedestrians, cyclists and transit users of all abilities. Through zoning updates, public improvements, and improved agency coordination, the City has pushed to integrate open space more closely with new waterfront development and to take a more holistic approach in designing NYC's parks and open spaces to maximize connectivity and accessibility.

Waterfront access is not simply a matter of providing pathways to the water's edge. New accessibility strategies can blur the distinction between a waterfront park space and the water itself by preserving or reintroducing intertidal shoreline habitats to connect visitors with a shoreline's ecology. To bring a sense of ownership and belonging to all New Yorkers — including those who live further away from the waterfront — the City will continue investing and partnering to improving upland linkages, wayfinding down to the water and transit infrastructure and service planning to waterfront destinations.

Using universal design guidelines, the City and other partners strive to make parks increasingly accessible to all New Yorkers regardless of physical ability. To strengthen the role of parks as community gathering areas and nodes of civic and educational engagement, the City and its partners are implementing inclusive programming, user amenities, and design features that reflect the needs of all residents.

Visual access — clear, unobstructed sightlines down to the waterfront — is another important layer that expands connectivity. Visual corridors typically overlap with streets and other upland connections to guide people safely to the water. Where physical access to the water cannot be achieved immediately — such as along active maritime industrial sites — visual connectivity can provide communities with an opportunity to see and engage with their waterfronts and form a meaningful connection.





Opposite: "Fish Parade" event at Baretto Point Park, The Bronx.

An Evolving Waterfront Means New Opportunities for Public Spaces

NYC's major waterfront industrial campuses continue to be important in sustaining and growing manufacturing, maritime activities, and other industrial uses. As these job centers have grown, they have attracted innovative technology, creative, food and beverage, life science manufacturing and design companies. The mix and diversification of these workforces and their need for offices and services have reactivated adjacent waterfronts and sparked new opportunities for waterfront access.

The Sunset Park neighborhood of Brooklyn is one example. In the past, Sunset Park residents never had safe passive or active recreational waterfront access due to the neighborhood's legacy of heavy industry and the intensive use of the shoreline to transport and distribute bulk cargo from across the harbor. Recent investments by the City to expand and improve Bush Terminal (a historic hub of Sunset Park industry) — along with the launch of the Made in NY Campus — supported the rehabilitation of the former port complex into Bush Terminal Piers Park, which opened in 2014. Today, the park offers crucial neighborhood open space with views of tidal pools, the Bay Ridge shipping channel, vegetated areas for exploration and ballfields for active recreation.

Further north in Brooklyn, the Brooklyn Navy Yard has undergone unprecedented growth to establish itself as one of the most innovative industrial campuses in the nation, drawing both a diverse group of tenants and visitors. Among the first opportunities for targeted waterfront investment here was the new park space constructed



Bush Terminal Piers Park, Brooklyn. behind the Dock 72 building, which was further linked by a new passenger ferry landing. More recently, redevelopment of the Barge Basin is planned, which will revitalize the northeast section of the Yard and create a publicly accessible esplanade. This project will connect to the Brooklyn Greenway and offer waterfront recreational amenities for the surrounding Wallabout and South Williamsburg neighborhoods and nearby Farragut Houses community, all historically cut off from the waterfront. To plug gaps in NYC's public access network, continuing to identify opportunities for targeted investments, particularly on publicly owned land, is an important strategy.

Film and television production is an example of a growing economic engine well suited to operating on sites that are no longer used for other legacy industrial activities. As new production facilities are established, the City is working with property owners to create new public waterfront spaces that open previously inaccessible stretches of waterfront while still accommodating these facilities' specific constraints and operational needs.

Waterfront parklands have also become important host sites for the growing NYC Ferry network. These sites integrate new ferry landings with much-needed pier and shoreline improvements. New connections between waterfront parks provide ferry passengers with easy access to Brooklyn, Manhattan, Queens and the Bronx without ever leaving NYC's vast waterfront park system.



"Prioritizing public access on city-owned sites is a great idea, even in areas that support the working waterfront. It shouldn't be a universally mandatory requirement but there are some creative ways to provide public access without impeding the working waterfront."



Soundview Ferry Terminal at Classon Point Park, The Bronx. Since their creation in 1993 in the NYC Zoning Resolution, Waterfront Public Access Areas (WPAAs) have added over 1 million square feet of public waterfront open space citywide.

Learn more about ZCFR at "Zoning for Coastal Flood Resiliency" on page 100 and at nyc.gov/zcfr

Waterfront Zoning: An Important Tool for Expanding Access

Zoning regulations are another way that the City expands waterfront public access for New Yorkers. Waterfront public access areas (WPAAs) are public waterfront open spaces that are required to be constructed as a condition of redevelopment of most commercial and higher-density residential waterfront sites. Over the last 20 years, dozens of WPAAs have been built across all five boroughs, comprising more than 1 million square feet of public open space and recreational amenities. WPAAs provide quality, publicly accessible open spaces primarily in communities experiencing new waterfront development. Together with NYC's public parklands, WPAAs have contributed significantly to expanded waterfront access.

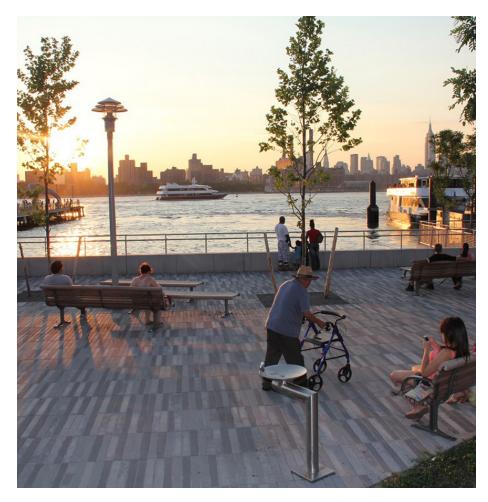
The earliest WPAAs (built in the 1990s) consisted primarily of hardscaped, linear esplanades elevated above the water behind sheet-pile bulkheads. Linear physical access remains an important open space feature by connecting adjacent park spaces and ensuring accessible circulation along the entirety of a shoreline. However, in the last few decades, property owners, community groups and designers have made significant advances and innovations in WPAA design. Programmed to reflect diverse landscapes, topographies and marine habitats, many recent WPAAs are dynamic new spaces offering a great variety of multifunctional uses and amenities for a broad range of users.

Adjoining WPAAs can be developed individually or be planned as part of a larger Waterfront Access Plan (WAP), an important zoning tool that allows for public access requirements to be tailored across multiple waterfront sites. WAPs and zoning Special Districts have been used carefully to tailor public access design and bulk requirements to reflect unique waterfront conditions and community needs, which allows for more predictability regarding the location of future access points and public amenities.

NYCDCP's Zoning for Coastal Flood Resiliency (ZCFR) project, a set of amendments to zoning regulations adopted by the City Council in May 2021, reshaped regulations to encourage waterfront property owners to design greener, more ecologically responsive shorelines by incorporating intertidal habitats and step-downs to bring the public closer to the water. The interweaving of marine ecology, flexible pedestrian circulation and ecologically oriented plantings all expand opportunities for physical access to the water.

Provisions in ZCFR also reflect how zoning can support implementation of waterfront public spaces that are better designed to mitigate the impact of sea level rise and manage tidal habitats. Practical solutions include elevating lawns and circulation paths, grading sites to meet higher design elevations and incorporating intertidal habitats.

New waterfront zoning regulations were introduced in the 1993 Comprehensive Waterfront Plan for property owners developing waterfront sites. The regulations required publicly accessible waterfront open spaces to be incorporated alongside compatible developments. Subsequent 2009 updates to the Zoning Resolution enabled WPAA designs to be more flexible, dynamic and harmonious with the natural and built environments with which they meld. ZCFR further exemplifies how the City can use zoning to respond to changes in the design and use of waterfront sites. As the way we use our waterfront sites continues to evolve, the City's understanding of zoning's role in expanding waterfront public access and enhancing its design will continue to reflect these changes.



Waterfront Public Access Area (WPAA) located at The Edge Towers, Williamsburg, Brooklyn.



"Public access sometimes gets a bad rap, since it may be conflated with in-water access. There are some SMIAs that have diesel truck activity, but maybe not other heavy machinery or equipment. We should be able to get everyone close to the edge, near the waterfront, wherever possible. We have a place for safety, and working waterfronts. But there are overburdened and underserved communities that live on peninsulas but don't have waterfront access."

Compatibility and Flexibility: Public Access and Waterfront Industry

The businesses locating along commercial and industrial stretches of NYC's waterfront continue to change, reshaping opportunities to invest in compatible public waterfront open spaces. Although traditional water-dependent maritime industries — port and freight facilities, supportive maritime services and heavy marine operations —may not be compatible with public access, many current industrial waterfront operations are less intensive, present fewer environmental hazards to surrounding communities, and often need less direct shoreline access. These newer industrial or quasi-industrial sites along waterfronts often can support levels of public access in a way that is compatible and not disruptive with their operational needs.

Phased construction of the Newtown Creek Nature Walk, along the Newtown Creek Wastewater Resource Recovery Facility in Greenpoint, Brooklyn, was completed in 2021. Designed by environmental sculpture artist George Trakas, the Nature Walk is woven around several active industrial sites, including an asphalt plant and the largest of NYC's wastewater treatment centers. The landscape features indigenous trees, shrubs, grasses and wildflowers. Other design features include tributes to the site's historical past such as its use by the indigenous Lenape people and as a shipbuilding center in the 1800s. The Nature Walk demonstrates how dedicated public access can be constructed and maintained to complement active industrial waterfront uses, restore neglected ecosystems and incorporate design elements to highlight connections between NYC and its waterfront industry.

Public safety is a critical component of public access on or near industrial sites. Hazardous conditions for pedestrians and cyclists are more likely in these zones, especially along truck routes. Poor water quality is also more common in industrial neighborhoods. Neighborhood-level approaches may be necessary to incorporate public access effectively in industrial areas, with a combination of private redevelopment, use of City-owned assets and traffic calming strategies.

Establishing and managing partnerships to improve and manage waterfront access enable public and private entities to collaborate in designing and maintaining compatible publicly accessible space along industrial stretches of the waterfront. Global precedents have demonstrated that thoughtful, coordinated approaches to engage all stakeholders effectively can generate positive results in industrial waterfront communities.

Designing for Public Access and Industrial Uses

As economic, technological and environmental regulatory innovation continue to shape NYC's manufacturing and production sectors, the City will continue to identify opportunities to encourage or require public access to the waterfront where practical.

Public access must be balanced with *operational constraints*, such as water dependency, freight and loading frequencies, mechanical equipment needs, and open storage and other yard utilization needs. Similarly, *environmental constraints* (environmental hazards, conformance to industrial performance standards, and evolving compatibility with commercial or residential uses) also need be considered.

In addition to sufficient consideration of public safety features such as signage, lighting, visibility and fencing requirements, design that incorporates public access alongside industrial uses can include:

- Materials and design approaches that reflect any unique maintenance and operational needs of these spaces.
- Point access or viewing areas where cross-access along the shoreline is not feasible.
- Pop-up activities and installation of moveable furniture instead of permanent fixtures.
- Hours of operation that balance public access with the loading and yard utilization needs of businesses.
- Surface treatments that enable spaces to be programmed and activated without interrupting business usage of spaces.
- Interpretive signage that educates and informs the public about the historic roots of maritime industry.
- New partnerships between property owners, local community groups, and City agencies to maintain and provide stewardship of spaces.







Top: Newtown Creek Nature Walk, Brooklyn Credit: NYC DEP

Middle: Public access alongside an active cement terminal, Bronx Credit: Votorantim Cimentos / St Marys Cement

Bottom: The Gowanus Waterfront Access Plan outlines access requirements for a range of uses and shoreline conditions.

City-Owned Waterfront Sites

The City maintains hundreds of waterfront sites and facilities throughout the five boroughs, including green spaces managed by NYC Parks and other agencies. Some of these waterfront facilities, although they are not designated parkland, may still be able to accommodate public access. Siting and design decisions related to locating various City-owned waterfront facilities can provide expanded waterfront access, particularly in areas where public waterfront parkland is limited or unavailable. The Newtown Creek Nature Walk demonstrates that even when situated alongside an active City-owned industrial facility, public open spaces can thrive and even benefit from such proximity under certain conditions. City-owned sites that are less use-intensive, like parking lots or office building sites, could be redesigned to allow full shoreline access while keeping public open space use separate from the ongoing business activity. Sites or facilities with more active uses, particularly where shoreline or pier access is required or where the primary function is more industrial, might be more appropriate for point access or viewing areas that provide open space without affecting other municipal uses.

Street ends provide another unique opportunity to expand public access at City-owned locations. By promoting a network of resilient, activated street ends citywide, NYC can reimagine many of its waterfront street ends as open spaces that improve community quality of life.

Determining where public access may be most appropriate on City property must be aligned with the City's overall management of its waterfront assets and its facility siting decisions. This alignment includes assessing agency operational needs for facilities to be located at specific locations, current and future climate risks and shoreline conditions and the potential for alternative upland locations.

For more on street ends, see <u>"Street Ends: From</u> Forgotten Pavement to Hyperlocal Havens" on page 134.

See <u>"Governance Goal 1"</u> on page 261 for more information.

Breaking Down Barriers and Creating Connectors

The current state of NYC's waterfront has changed dramatically following decades of decline and disinvestment. Still, those years — and related policy decisions — have left their mark on certain communities that still bear an unequal share of neglect. Although most of the harmful waterfront industrial businesses left long ago, contaminated waterfront sites remain. The elevated and at-grade waterfront highways constructed throughout the 20th century are also reminders of an era that harmed waterfront communities.

Beginning in the 1990s, replacing the dilapidated West Side Highway with an urban boulevard indicated a new way of thinking about shoreline transportation infrastructure. In recent years, a portion of the Sheridan Expressway in the Bronx was converted to a boulevard, with adjoining bicycle and at-grade pedestrian crossings connecting to the Bronx River. The new Canarsie West Trail Connector, created by NYC Parks, has provided a valuable community access point beneath the Belt Parkway to the Brooklyn Greenway and the Gateway Natural Recreational Area along Jamaica Bay. As the City plans for future transportation and infrastructure needs, expanding and improving safer pedestrian and bicycle pathways down to and along the waterfront will remain a priority.

At the center of the vision of a more interconnected waterfront is the ongoing development of NYC's network of waterfront greenways. Together, they provide dedicated, protected pedestrian and bicycle esplanades along NYC's waterfront and weave together waterfront parks and open spaces. For more on the City's greenways programs, see <u>"Advancing a Five-</u> Borough Greenway Plan" on page 136



Bicyclists on Bay Ridge Promenade Greenway, Brooklyn.

Credit: NYCDOT

Strategy 1.1

Advance a citywide waterfront public access framework that addresses systemic access gaps and prioritizes investments in communities underserved by safe waterfront access.

Utilize available data and community perspectives to identify waterfront neighborhoods with long-standing, unmet access needs as well as rapidly growing communities lacking open space and waterfront access.

Where neighborhood rezoning and other City planning efforts encompass waterfronts, coordinate capital investments and zoning strategies to encourage publicly accessible open spaces that reflect the neighborhood and waterway's context.

Incorporate best practices, such as those described in NYCHA's <u>*Connected Communities Guidebook*</u> that strengthen passive and active open space connections to surrounding communities and utilize physical design solutions (such as recent access improvements across the Sheridan Expressway) to address historic physical impediments to waterfront open space access and connectivity.

Strategy 1.2

Identify City-owned waterfront sites and facilities that can support additional public access through investment and coordination among City agencies.

Capitalize on opportunities on City-owned waterfront sites, facilities and rights-of-way to provide linear or point waterfront public access on-site where compatible with co-located uses and other water-dependent priorities, particularly where communities have limited alternatives to waterfront public access.

Identify priority locations to promote use of underused waterfront street ends for a mix of publicly serving uses where feasible, including access improvements among adjacent public spaces, street end pocket parks, stormwater infrastructure and point access to the water.

Incorporate public access feasibility planning into existing waterfront facility-siting decision processes and interagency coordination.

Over 1 million New Yorkers live within a 10-minute walk of one of the hundreds of waterfront street ends. Ensure that consideration of siting accounts for operations and maintenance strategies and expenses, including waterfront infrastructure inspections, necessary repair funding, and ongoing topside cleaning and upkeep.

Strategy 1.3

Identify opportunities for expanding applicability of waterfront public access requirements in zoning as waterfront uses continue to evolve, and update requirements and design standards where compatible and appropriate.

Consider expanding waterfront public access requirements to a broader set of compatible uses and site conditions, such as selfstorage or other light industrial uses, and in WAPs as appropriate to anticipated future land uses.

Where industrial uses do not trigger waterfront public access requirements, consider limiting construction for non-water dependent uses within the area adjacent to the shoreline to ensure that near-term improvements do not foreclose future opportunities for public access and support long-term flood resiliency planning.

Develop design guidance for expanding physical or visual access and connection across waterfront industrial sites and between the working waterfront and adjacent neighborhoods in a manner that reflects the varied design and operational characteristics of waterfront industrial sites.

Strategy 1.4 Connect and unify public spaces along the water's edge and strengthen connections with upland communities.

Plan holistically for waterfront connectivity and promote safer connection to the water for a broader range of users by addressing community access paths extending beyond the first upland street.

Use landscaping and planting to signify routes that lead down to the water.

Consider updates to public waterfront wayfinding and signage to improve interconnectivity between waterfront parks and other public activity centers, and to incorporate information on ecology and resiliency. "The water's edge should be activated and accessible to an many people as possible."





Locate transit and other sustainable mobility infrastructure (including bike racks, bike share docking stations, ferry landings and bus stops) around waterfront park and open space entrances to maximize ease of access.

Strategy 1.5

Complete planned waterfront greenway improvements that leverage the unique opportunities and community needs available along the various stretches of waterfront.

Implement the "Closing the Loop" waterfront greenway plan to complete greenway segments along East Midtown, East Harlem and Inwood, and to upgrade other gaps and pinch points.

Develop community-supported greenway improvement plans for needed signage upgrades, safety enhancements and street-grid connectivity improvements down to existing greenways.

Invest in improved pedestrian and bicyclist mobility along bridges, particularly across the Harlem and East Rivers, to support safer connections between borough greenways. 80% of New Yorkers have access at at least one waterfront park or beach within a 30-minute public transit trip.

Opposite: Public access pathway winding between wetland restorations, Hunter's Point South Park, Queens.

Street Ends: From Forgotten Pavement to Hyperlocal Havens

More than 1 million New Yorkers live within a 10-minute walk of one of the hundreds of waterfront street ends that intersect with NYC's shoreline. These street ends serve a variety of important public purposes. Many support active vehicular, pedestrian and emergency service circulation and turnaround functions. They also house crucial sewer and stormwater infrastructure connecting to nearby waterways. Some street ends serve as physical or visual links drawing visitors down to NYC's growing network of waterfront public access areas.

Despite their key role in the urban landscape, administrative complexity and other factors have frequently caused street ends to be overlooked, lacking the rigorous design standards that exist for other infrastructure. As such, most street ends remain underused even as COVID-19 has underscored the importance of expanding open space opportunities. Street ends often need structural repairs and lack amenities included in other public spaces across NYC. These forgotten dead ends can offer unique opportunities for public spaces as small parklets, waterfront viewing areas or in-water access points, particularly in areas having limited waterfront public space but strong community desire for access.

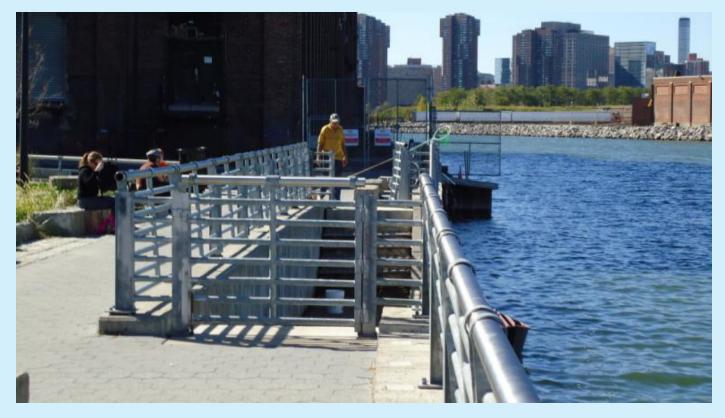
Street ends can be important places of respite for the diverse communities that live and work near the waterfront. Developing clear design guidelines and new concept plans can help create a network of active open spaces across waterfront communities. Because waterfront street ends fall under both public and private jurisdictions, coordination between City agencies and third parties (particularly for traffic and shoreline analysis) is crucial to identifying the best, most appropriate locations for activations.

Several street end activations provide good examples of the potential benefit of using NYC's street end network. At Sherman Creek Parks in Inwood — a neighborhood underserved by waterfront access — NYC Parks and NYCDOT created five street end parks with amenities to bring residents closer to the Harlem River. These street end parks also can be adapted to interconnect with potential future open spaces at the adjacent waterfront sites. In Greenpoint, Brooklyn, a street end was converted into Manhattan Avenue Street End Park and now provides a planted seating area and boat access onto Newtown Creek. Elsewhere, in the Greenpoint-Williamsburg WAP area, street end improvements are required to be designed as a continuation of the public access areas and have been incorporated into several WPAAs. These street end improvements have allowed for additional seating, safe pedestrian access to a ferry pier and improved connectivity between open spaces.

Street ends can also support climate resiliency and adaptation. Because these locations are frequently lower lying than surrounding properties or other rights-of-way, they may already be entry points for flooding from high tides that will only increase with rising sea levels. However, using more thoughtful design for many street end projects presents opportunities to adapt these areas to mitigate risks from increased flooding, heat and heavy rains and to improve public waterfront access. Over time, street ends may be raised or otherwise reconstructed to mitigate these climate risks. Projects could also present opportunities to improve functional roadways and use for emergency response. Street ends can serve as shoreline connectors between adjacent open spaces, or become sites for beneficial vegetated land cover or other critical shoreline infrastructure.



Sherman Creek Park, Manhattan Credit: NYC Parks



Manhattan Avenue Street End Park, Brooklyn. Credit: NYC Parks

Advancing a Five-Borough Greenway Plan

Years of advocacy and planning have expanded sections of NYC's waterfront greenways across all five boroughs. Some recent highlights include new improvements along the Brooklyn and Queens Jamaica Bay Greenway that better connect cyclists and pedestrians to an expansive waterfront greenway, parklands and restored wetlands. In Manhattan, new park spaces and investments along the East River Esplanade will tie into ongoing phased park and greenway improvements and future segments of the Lower Manhattan and East Side Coastal Resiliency projects. Staten Island, too, has seen early constructed phases of the Stapleton Waterfront extending waterfront access along the North Shore.



Greenway at Atlantic Avenue, Brooklyn. Credit: NYCDOT

On the Bronx side of the Harlem River, combined investments in City and State parkland have advanced greenway connectivity along the river. NYCDOT's ongoing Harlem River Bridge crossings initiative and planned Depot Place bridge improvements will make connections to the river safer and more available to Bronx residents. Along the Bronx River, park construction and improvement projects over the last decade (including the Hunt's Point Riverside, Soundview, Concrete Plant, Starlight, Shoestring and West Farms Rapids parks) have provided valuable green spaces. The conversion of the former Sheridan Expressway to an at-grade boulevard with improved bikeways, crosswalks and river crossings enables the Bronx River waterfront to be more interconnected and accessible to residents than ever before.



Randall's Island Connector. Credit: NYCDOT

Continuing to advance the vision for a truly five-borough waterfront greenway plan will require sustained community engagement, committed capital resources and continuous strategic planning. Initiatives that highlight several approaches currently underway include:



Closing the Loop

Closing the Loop will complete the Manhattan Waterfront Greenway by connecting remaining gaps and upgrading key pinch points. When complete, the 32.5-mile greenway loop will connect more than 1,000 acres of greenspace around the entire island. Closing the Loop will add 15 acres of open space that integrates the greenway into Inwood, East Harlem, Harlem and East Midtown — mostly low-income neighborhoods historically cut off from the waterfront. The improvements will include safety enhancements and new recreational amenities for cyclists and joggers. The project also integrates climate change considerations and improves connectivity to and along the waterfront for New Yorkers with limited waterfront access.

Credit: NYCEDC





Destination Greenways!

Destination Greenways! is an NYC Parks and NYCDOT initiative to develop community-supported greenway improvement plans that connect park greenways to a broader, publicly accessible network. The initiative will focus on safety enhancements and street-grid connectivity improvements. The current project focus is on Shore Parkway and establishing connections to Coney Island in Brooklyn, as well as a Queens route that connects several parks to the waterfront at Joe Michael's Mile along Little Neck Bay.

Credit: NYCDOT

Harlem River Bridges Access Plan

The Harlem River Bridges Access Plan will support ongoing waterfront access investments along both the Upper Manhattan and South Bronx Harlem River waterfronts to create a safe, continuous experience for New Yorkers crossing between the two boroughs. This project identifies a series of community preferences for capital improvements to City-owned Harlem River bridges and on-street approaches that enhance safety and pedestrian and bicycle mobility. The plan also will identify public and private property strategic partnerships to maximize improvements.



Goal 2: Promote opportunities to get onto and into the water

Nothing compares to the tranquility of experiencing NYC from the water. NYC's waterways combined represent 156 square miles of public open space, and yet relatively few New Yorkers have safe, regular access to paddling, sailing or general on-water access. Boat launches and landings are the crucial touchpoints that enable humanpowered boats to enter the water. Whether launching a canoe, kayak or some other human-powered watercraft, NYC's network of launches connects boaters with the extensive "blue network" of trails charted throughout NYC's waterways. NYC Parks and a dedicated team of advocacy groups manage and update the <u>NYC Water Trail</u> <u>map</u>. Although most boat launches are located in City parks, State and federal parks (along with a growing number of privately owned waterfront open spaces) provide important in-water access sites with floating piers, landings and waterfront sites graded to enable boats to be transported and launched safely.

Boathouses serve as important hubs for boat storage, education and guided instruction that anchor community access to the waterfront. New boathouses planned at Sherman Creek in Manhattan and Bay Breeze Park in Queens demonstrate how the City can partner with local boating and paddling advocacy groups to construct new multipurpose boathouses on revitalized waterfront parkland.

Ensuring growth in the popularity and accessibility of humanpowered boating requires continued investment in the traditional infrastructure (such as floating docks, ramps and gang ways) that help put boats and other human-powered watercraft onto the water. Growth in these activities will also require safer and more accessible public space designs that help people and their equipment get into and out of the water easily. Amenities like boat storage, tie-ups and comfort stations will make boating more accessible to communities and residents less likely to have their own boats or the ability to transport crafts to waterfront sites.



Water Recreation Beyond Our Beaches

Decades of regulatory oversight and capital investments in water quality improvements have enabled NYC to achieve its cleanest water in a century, sparking growing public interest in getting onto and into the water. Many New Yorkers have expressed a desire for expanded access to new waterfront areas, improvements in the existing waterfront open spaces, and expanded access to specific recreational activities such as human-powered boating, wading and swimming.

NYC's beaches are popular summertime destinations for millions of New Yorkers. Many recent, ongoing improvements continue to enable NYC's beaches to thrive as prime waterfront destinations where swimming is permitted today, including:

- Post-Hurricane Sandy investments in the New York Aquarium and Luna Park at Coney Island Beach.
- A resiliently reconstructed Rockaway Beach boardwalk with new playgrounds and room for local restaurants.
- Major renovations of the Orchard Beach Pavilion in the Bronx and Manhattan Beach's promenade and ballfields in Brooklyn that are getting underway.

While there is always a reason to visit NYC's miles of public swimming beaches, the possibility of introducing swimming to new areas is a compelling prospect for the city's many waterfront users. However, these aspirations must be balanced with a thorough public health and safety assessment to identify suitable conditions and locations. Ultimately, the goal is not to have swimming everywhere, but to identify near- and long-term thoughtful steps that the City can take to increase appropriate recreational access where suitable conditions exist.

Despite the improvements in water quality, much of NYC's nearshore waterfront is unsuitable for swimming (including all of the East River and Harlem River, and most of the Hudson River) due to a combination of dangerous tidal conditions and currents, conflicting marine traffic, other incompatible waterfront uses, and water quality that is not consistent with in-water access. Additionally, opportunities for in-water access are further limited by erosion hazards and climate-driven stressors such as sea level rise and storm surge. These challenges are compounded in NYC's smaller, more constrained tributaries — many of which were significantly reconfigured in the past to support manufacturing and shipping. Although the City has made considerable strides in improving its water quality, these challenges remain.

Opposite: Learning to surf at Rockaway Beach, Queens.

Credit: Ryan Struck/ NYC & Company



Decades of Investment in Improved Water Quality

Since the 1970s, the City has invested over \$40 billion in projects to upgrade and expand wastewater treatment and reduce CSOs, which are key determinants of water quality near the city's shoreline. More recently the City has invested over \$1.2 billion to upgrade seven Wastewater Resource Recovery Facilities (WRRFs) to reduce nitrogen discharges and expects to complete work on an eighth WRRF by the end of 2022. Reducing nitrogen discharges increases dissolved oxygen levels and improves the overall health of waterways. To reduce CSOs that affect water quality during heavy rainfall events, the City has spent nearly \$2.7 billion in grey infrastructure projects since 2010. In 2012, the City kicked off the Long-Term Control Plan (LTCP) process. Through the LTCP process, the City has actively engaged local stakeholders in the development of 11 LTCPs and committed approximately \$6 billion in future projects to reduce further the frequency and volume of CSOs.

The City has also committed \$1.6 billion to its Green Infrastructure Program (the nation's largest). By end of 2021, the Green Infrastructure Program will achieve a reduction of 507 million gallons per year of CSO. As this program continues, the reduction of CSO will continue to increase. The overall stormwater management and water quality in the city's waterways will be further enhanced by new stormwater regulations that are expected to come into place during 2022. The City plans to continue making significant investments in CSO reduction, although diminishing returns are expected regarding the degree of sustained water quality improvement that additional funding can achieve.

Assessing Opportunities for Water Recreation

Local, state, and federal regulations protect NYC's waters and set water quality standards for safe public recreational water use. The Department of Health and Mental Hygiene (NYC DOHMH) regulates permitted NYC bathing beaches, pools and the associated waterfront area and facilities. Furthermore, provisions of the NYC Health Code require all bathing beaches be located within the boundary delineated for primary contact recreation as defined by the New York State Department of Environmental Conservation (NYS DEC). To reduce the risk of waterborne illness from untreated wastewater, City law prohibits the location of bathing beaches within 750 feet of any discharge from wastewater treatments plants, combined sewer outfalls, or other pollution sources. To allow swimming, specific bacteriological water quality standards from the federal and state level must also be monitored and attained on an ongoing basis. Because water bodies are influenced by numerous coastal jurisdictions across See <u>"Water Quality + Natural</u> <u>Resources" on page 205</u> for more on what the City will be doing to improve water quality.

See <u>"Unified Stormwater</u> <u>Rule" on page 216</u> for more information.

Opposite: Boat launch at Starlight Park, The Bronx.



"Love the goal of having swimming. Would love for you to add the goal of boating and teaching people boating whether it's paddling or kayaking. It would be great to add that into the goal, because it's a little hard to jump from nothing to swimming in the rivers and an additional incentive to help people learn how to swim would be the segway of boating, and so we just encourage you to consider that."

multiple states, local water quality must be understood in the context of the much larger regional watershed and its interstate tributaries.

To identify areas safe for recreational access, the NYC Health Code requires site assessments of prevailing wind direction during the bathing season, rainfall, topography, or environmental factors including current measurements that must be conducted. The assessments must also include the location and level of boat traffic, number of vessels with marine sanitation devices, marinas or boat dockage areas, and any current recreational activity, including canoeing or fishing. The assessments must also consider long-term water quality trends, which must be analyzed over a minimum of eight weeks including daily bacteriological samples five days after heavy rain and water clarity tests at non-ocean beaches. Other potential impacts on water quality such as watershed features, land use characteristics and potential sources of contamination must be included in any assessment.

The City is exploring potential opportunities and strategies that can be implemented over time to expand New Yorkers' recreational access to the city's open water. Because of the nature of these challenges, progress will require near-term strategies that can be implemented relatively quickly and within City purview such as funding and developing waterfront infrastructure that include bathing features such as floating pools. A longer-term process is needed that involves City agencies working across jurisdictional lines and more crossregional collaboration on capital and operational improvements. An important starting point would include a formal feasibility study or assessment to investigate a range of practical alternatives or options. Considerations that should be incorporated relate to transportation and marine traffic, open space and marine resources, flooding and erosion hazards, water classifications, and critical water quality determinants such as water treatment discharge points and major outfalls. Assessment should also consider opportunities for various water recreational uses that may present themselves through redevelopment along the waterfront.

Over time, long-term planning and continued investment in infrastructure and best management practices to improve water quality in NYC water bodies could allow swimming at sites that comply with the conditions necessary to support in-water access.

Promoting Water Safety and Education

Increasing access to swimming education and lifeguard training programs is crucial to getting more New Yorkers safely into the water, particularly for communities that lack ready access to safe swimming areas or pools, and communities that suffer from a disproportionate number of drownings. Swimming education programs run by NYC DOHMH and NYC Parks (such as "Making Waves" and "Swim for Life") are examples of existing programs that are engaged in communities with varying needs to teach swimming and in-water safety.

Additional Opportunities for Water Recreation

Other opportunities for water recreation include floating pools or other swimming facilities that can be safely stationed within the waterbody and connected to adjacent parkland or elsewhere along the shore. The Floating Pool Lady, a barge retrofitted with an 80,000 gallon seven-lane pool docked off Barretto Point Park in the Bronx, demonstrates that when properly sited, designed, and operated, floating pools can create safe, accessible swimming resources in communities lacking in-water access or sufficient public pool access elsewhere in the neighborhood. The last decade has also seen an explosion of interest in a range of other recreational water activities, such as surfing and kayaking, that have drawn new users to the waterfront. Holistically planning for the range of water recreation, including growing enthusiasm for human-powered boating, will help broaden the reach and appeal of recreational use of NYC's waterways while ensuring public safety and compatibility with the many other important needs along NYC's waterfront.



Floating Pool Lady at Baretto Point Park, The Bronx.

Credit: NYC Parks

"It's very important that the plan explicitly refer to the social and cultural ways that diverse groups of people use the waterfronts and perceive waterways and water quality. How will existing uses and values of waterfront areas be assessed to make sure that some values and visions aren't privileged over others?"



Strategy 2.1

Expand physical in-water access across NYC's waterfront parks and open spaces to promote recreational boating and opportunities to touch the water where appropriate and feasible.

Continue to expand and improve the NYC Water Trail for humanpowered boating, with emphasis on areas lacking formal or secure in-water access points or launches.

Incorporate safe exits, emergency landings and other infrastructure intended to support human-powered watercraft, improve egress from the water, and meet the growing public interest in use of the water when planning for in-water access.

Provide space, awareness of grant opportunities, and expanded partnerships that link educational and ecological initiatives with community boathouses and marinas.

Strategy 2.2

Expand swimming opportunities where appropriate safety, ambient water quality, and routine monitoring and reporting can be demonstrated.

Examine the feasibility of a range of practicable alternatives or options for water recreation that incorporate land use and transportation issues, open space and marine resources, coastal erosion and floodplain conditions, water body classifications, and critical water quality determinants such as waste treatment discharge points and major outfalls.

Continue to develop innovative approaches to pilot safe swimming solutions that complement traditional beaches, including floating pools and engineered coves, where appropriate safety and waterquality monitoring can be demonstrated.

Study existing global precedents and innovative solutions for seasonal in-water pools or other swimming facilities that can safely and sustainably expand swimming opportunities in revitalized urban waterways.

Coordinate public safety with the City's on-water emergency response teams, including the New York Police Department's (NYPD) Harbor Patrol and the Fire Department of the City of New York's (FDNY) Marine Unit, in addition to ensuring that adequate lifeguard services are provided on site. Target initiatives to areas lacking direct in-water or pool access and those facing greater heat vulnerability while ensuring that locations meet tidal, water quality and vessel traffic limitations or standards.

Study more frequent "special event" swimming days in waterways where designated uses and physical conditions support safe swimming and where lifeguards and demarcated swimming areas can be provided.

Expand outreach and logistical accommodations to broaden community participation and geographic distribution of organized swimming events.

Strategy 2.3

Develop in-water safety and swimming education programs to get more New Yorkers into the water.

Provide free learn-to-swim and water safety instruction to schools and educational groups to promote swimming and to build youth connections to the water by expanding "Making Waves" and other swimming education programs, particularly in communities with disproportionately high incidences of drowning.

Target water safety education through direct delivery to students and by incorporating safety swimming curriculum into ecological and boating enrichment programs.

Expand and focus lifeguard recruitment and training to underrepresented and underserved communities.

Identify strategic partnerships with State and federal partners managing in-water access and programs across parks and other public lands to expand outreach, engagement and best practices.

Work with the State to expand collaboration with DOHMH in licensing and permitting for summer camp swimming and Aquatic Instructor and Director programs.



Goal 3: Shape design and programming of public waterfront open spaces to reflect public use needs

As NYC's waterfront parks and open spaces continue to evolve as important community gathering spaces, they need to reflect the cultural diversity and needs of the communities they serve. Community engagement at an early stage of design and programming, both by government in planning public open spaces as well as by private property owners where developing public access areas, is important to ensuring places are welcoming and inclusive of the community. NYC Parks has demonstrated its commitment to engaging communities through its long-term efforts to ensure that future park spaces reflect community needs. As neighborhood planning, coastal protection and large-scale waterfront property redevelopment initiatives advance, great mutual benefit occurs when public and private property owners work with residents and neighborhood groups. Community input must be solicited and incorporated into any design and long-term operations of future waterfront open spaces.

Guided by community perspectives, urban design can be a powerful tool to improve the quality of life in NYC and even adapt to unprecedented challenges, from pandemics to climate change. NYCDCP has articulated a set of overarching **Principles of Good Urban Design** to create a positive experience for every New Yorker. Under these principles, good design can reinforce the sense of place and the character of a neighborhood. Design can ensure that NYC's public realm is accessible and inclusive, while supporting the ease of movement and access around NYC through attention to quality and detail. Ultimately, a commitment to good design encourages public spaces that feel comfortable, welcoming and safe to all. These principles are meant to guide anyone who is willing to improve the livability of NYC's neighborhoods and who shares the commitment to expand, protect and promote good urban design for everyone.

Community input plays an important role in designing spaces that will be long-term community resources. City agencies can ensure that local communities are sufficiently equipped and supported to participate in a public design process by providing timely, userfriendly information and resources about public meetings, as well as location, ownership and management responsibilities of waterfront open spaces. Developers of waterfront properties are also encouraged to engage with the public at an early stage in the design process by having discussions with residents on how spaces can be designed

Opposite: Hunter's Point South Park, Queens.



"When considering public access, please remember to center disabled folks needs to participate in programs and recreation at the waterfront. There should be access points for all bodies to be able to get into the water, travel by water, kayak, and fish. The appropriate universally designed facilities and management of these facilities should be considered. Hire disabled people to consult in the design of these features and don't assume that you can design for disabled bodies without their lived expertise. By disabled people I mean those in wheelchairs, limited mobility, neurodiverse folks, older people. All of the above."

and programmed, with an emphasis on representative and inclusive engagement for all future users.

Design workshops are an effective tool for creative community engagement, particularly if they include small-group exercises and conversations to help participants imagine and inform these future spaces. Discussions can leverage individual and shared life experiences to express community needs and can identify contextual planning considerations for the neighborhood. Using a variety of linguistic and scheduling accommodations can encourage diverse participation. The <u>NYCHA Connected Communities Guidebook</u> recognizes the importance of engaging NYCHA community residents to shape the environment in which they live. It highlights a multigenerational, community-informed approach to designing public spaces that emphasizes community experiences, civic engagement and stewardship.

For the many communities that historically have not been engaged directly in design processes — particularly in neighborhoods with longstanding concerns about safety or suitability of waterfront access — additional attention can ensure open, transparent discussion that makes time to address historic, linguistic and cultural barriers to participation. Engagement needs to extend its awareness beyond a particular site to understand the experiential relationships people have with their waterfronts. Obstacles to safe access often go beyond a park or parcel boundary. Rather, they may encompass safety or accessibility challenges along the upland streets or surrounding neighborhoods or concerns over legacy waterfront industrial uses. To that end, community preferences and input can inform designing for a mix of amenities, gathering spaces, and recreational or community programming, as appropriate to the nature of individual spaces.

Designers of waterfront spaces are also taking note of the public's interest in greater access to natural shorelines and marine habitat by incorporating graduated shorelines and creative intertidal spaces alongside rivers and coves. Pebble Beach in Brooklyn Bridge Park and Valentino Pier Park in Red Hook are examples of waterfront spaces that incorporate smaller sandy areas that are not safe for swimming but do allow New Yorkers to approach and interact with the water's edge. Other examples include the future East River Esplanade span beneath the Brooklyn Bridge, which will allow controlled access to a beach-like area to be stewarded with a local community partner and will formalize a unique waterfront open space in Lower Manhattan.

Elsewhere, intertidal shorelines with graded riprap and sandy gathering areas (such as those along the proposed Gansevoort

Peninsula in Manhattan's Hudson River Park and Marsha Johnson State Park along the East River in Brooklyn) will bring New Yorkers nearer to the water on stretches of waterfront that had been cut off from human contact. These areas utilize natural and constructed features that demarcate boundaries between land and water without severing community connections with the waterfront. In spaces like these, clear and standardized signage and messaging at access points communicates risk and promotes safe behavior, providing the public with clarity about the appropriate boundaries for acceptable waterfront recreational uses.

Reconstructing natural shoreline conditions and removing hardened barriers between waterfront parks and the water itself can help foster biodiversity and control erosion. Equally important, these steps provide engagement and educational opportunities so that communities can better understand the complex relationships and connections between the land and water.



Domino Park, Brooklyn.

Strategy 3.1

Promote flexible and inclusive processes for designing waterfront open spaces to address community needs across different shoreline and water quality conditions.

Encourage community engagement that incorporates a diversity of voices and community open space needs in the design and activation of public spaces undertaken by the City as well as other waterfront property owners.

Continue incorporating universal design principles into design practice and guidance and improve interagency coordination to ensure greater accessibility for all waterfront open space users.

Within WPAAs, build on design principles that encourage varied treatments, activities and uses reflective of local conditions at the waterfront's edge.

Strategy 3.2

Ensure that waterfront parks and other public open spaces are designed and operated in a manner that addresses climate resiliency challenges.

Use and promote new flexibility provided under recent waterfront zoning amendments to ensure that public waterfront open spaces remain accessible and in good repair as sea level rise increases tidal flood risks.

Using best practice guidance (such as NYC Parks' *Design and Planning for Flood Resiliency*, MOCR's *Climate Resiliency Design Guidelines* and the New York City Waterfront Revitalization Program's (WRP) Climate Change Adaptation Guidance), encourage waterfront property owners to design public open spaces along the waterfront to withstand both storm events and increasing high tide elevations caused by sea level rise.

Develop design guidelines for street ends that support coordination with adjacent waterfront property improvements to address flooding from rising sea levels and tidal inundation while maintaining accessibility.

Strategy 3.3 Expand access to key public facilities and user infrastructure within waterfront open spaces.

Identify strategies on-site and off-site that facilitate ready access to important public amenities (such as restrooms, drinking fountains, and boat storage or rental) to make open spaces more accommodating and practical for a wider range of users.

Study community partnerships and pilot opportunities for deploying "off the grid" solutions, such as composting toilets, to resolve common utility issues.



Sherman Creek Boathouse conceptual rendering, Manhattan.

Credit: NYC Parks



Universal Accessibility

Beyond improving accessibility for all users, inclusive design practices at the waterfront are essential to ensuring that everyone has equal access to everything the waterfront has to offer. Building on the Mayor's Office of Persons with Disabilities' Inclusive Design Guidelines, City agencies tasked with managing waterfront open spaces and maritime infrastructure — including NYCDCP, NYC Parks and the Department of Small Business Services (NYCSBS) — have been incorporating inclusive design practices into City capital project design. These efforts also have resulted in guidance for private property owners constructing new public open spaces.

Best Practices for Designing Accessible Waterfront Public Access Areas

- Provide companion seating spaces adjacent to a bench where a wheelchair user can sit alongside companions and enjoy the same view.
- Ensure accessible and multigenerational seating opportunities, including benches with backs and arms.
- Design grading and dimensions of ramps as an integral part of the design of the open space to promote equal experience for all users.
- Design circulation path widths to reflect expected pedestrian volumes and comfortable ADA accessibility.
- Ensure that get-down areas with in-water access, viewing platforms or other shoreline designs are accessible to all.
- Differentiate pedestrian circulation from vehicular flow.
- Incorporate ground surface material for seating and circulation areas that facilitate wheelchair access and design tactile warning at edges in hazardous areas.
- Align access between multiple, adjacent public open spaces or connectivity to public rights-of-way and other public parks; coordinate grades for seamless public connection.
- Address potential safety challenges, including dead-end walkways, grade or step changes lacking proper design cues, and obstructed lines of sight.
- Incorporate and incentivize publicly accessible restrooms for maintenance and operational staff and visitors within new adjacent developments, particularly where these are distant from other existing public facilities.

Opposite:

Pier 25 at Hudson River Park in Manhattan. An ADA-accessible walkway will connect New Yorkers with a unique opportunity to explore the tidal ecology of the Hudson River.



Goal 4: Promote good stewardship of public spaces on the waterfront

Strengthening Waterfront Stewardship

Government agencies and private property owners that manage public open space have the primary responsibility of ensuring that these spaces are well-maintained and accessible during hours of operation. Stewardship can supplement standard maintenance and operations through activating waterfront spaces and providing community-centered recreational and educational programming. While many stewardship programs exist within public agencies, community-based groups are important partners in ensuring open spaces become nodes for community engagement, strengthening connections to NYC's harbor and waterways, and engaging youth on ecology, resilience and in-water safety.

Although there have long been dedicated waterfront advocates, the last few decades have seen the emergence of new community groups in many waterfront areas and a strong interest in supporting their formation in others. Stewardship groups can either be higher-capacity organizations with full-time staff that offer a range of events, or they can be smaller, less formal groups more reliant on volunteers. The City has taken steps (including with the launch of Partnership for Parks in 1995) to connect and support community groups with park spaces throughout NYC; however, advocates can face significant challenges in sustaining a high level of involvement over an extended period of time. Some organizations may lack sustained financial resources to support grant writing and administrative costs. Other obstacles may include a lack of models for collaboration, whether between local government and community groups or between property owners and community groups, and unmet workforce needs to equip community groups to maintain or program spaces.

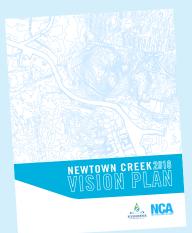
The City has an opportunity to support the formation of stewardship organizations to connect across waterfronts and to share resources and best practices. Although a range of resources is needed to support these groups, City agencies can assist groups and support their organizational and administrative needs in several ways. For example, the City can facilitate connections between stewardship groups that are interested in maintaining or activating public spaces and waterfront property owners that manage the open space. As the vision for these public spaces continues to evolve, additional opportunities could emerge to engage local stewardship groups in designing, programming or maintaining these spaces. Workforce development opportunities could also emerge to maintain and activate waterfront public open space to complement the ongoing work undertaken by City capital agencies, such as supporting maintenance along wetland restoration sites or operating spaces created to host community vendors or events. "Public access opportunities should be available for smaller, all-volunteer organizations to run community-based programs such as East River CREW has been doing successfully and affordably since 2006."



Opposite: Volunteer cleanup at Plumb Beach, Brooklyn.

Reactivating Waterfronts Through Community-Led Visioning Processes

Across NYC's 520 miles of waterfront, not-for-profit and community-based organizations have demonstrated how community-led, grassroots efforts can effectively engage local stakeholders and articulate long-term visions for the restoration and activation of community shorelines.







Riverkeeper / Newtown Creek Alliance: Newtown Creek Vision Plan

The <u>Newtown Creek Alliance Vision Plan</u> represents a participatory process shaped by the voices of many Newtown Creek advocates and stakeholders. The plan suggests a roadmap for remediating historic pollution and degradation; restoring and revitalizing lost and damaged ecosystems; providing safe and accessible opportunities for recreation and education on the waterfront, between communities, and on the water; and ensuring climate and economic resilience of the industries, businesses, communities, and ecosystems around the Creek.

Gowanus Canal Conservancy: Lowlands Study

The **Gowanus Lowlands Master Plan** is a community-based vision for a public realm centered on the Gowanus Canal. The plan envisions a realm formed from a network of parks, privately owned public waterfront esplanades and greened corridors. The Gowanus Lowlands will provide the community with accessible green space, cultural resources and recreational amenities, while serving other functions related to increasing flood resilience, mitigating impacts associated with the urban heat island effect, creating habitats, managing stormwater and reducing pressure on the sewer system.

Bronx and Harlem River Watersheds Urban Waters Federal Partnership (UWFP) and NYC Parks: Natural Resources Management Plan

The Harlem River Watershed and Natural Resources Management

Plan for the Bronx is a community-informed planning effort intended to serve as a road map for agencies, community partners, and other stakeholders pursuing coordinated resource protection and restoration in the Bronx portion of the Harlem River watershed. This plan provides a vision and goals for the watershed and introduces strategies and recommendations to achieve the stated goals. This plan builds upon past planning efforts by integrating recommendations and priorities, as appropriate, in a watershed context. Strategy 4.1

Encourage formation of community-based organizations, particularly in underserved areas, that help to plan, activate and sustain inclusive community connections to waterfront open spaces.

Engage with community-based organizations and other stakeholders to design and activate waterfront open spaces on Citycontrolled sites.

Identify organizational and administrative support that the City can provide to create and provide resources for community groups that can serve as partners, advocates and local ambassadors for waterfront open space.

Encourage collaboration between community-based organizations and waterfront property owners that maintain open space to improve the programming, accessibility and maintenance of public spaces.

Explore workforce development and training opportunities linked to waterfront open spaces that can connect people to jobs in ecology, resilience and in-water safety.

Strategy 4.2

Improve publicly available resources and information that connect communities with their waterfronts.

Continue to update and expand NYCDCP's Waterfront Access Map as an interactive, digital public portal with information and resources about waterfront parks and open spaces.

West Harlem Piers, Manhattan.

Credit: NYC Parks

Goal 1: Expand public access to the waterfront with an emphasis on equity by bridging access gaps in historically underserved areas and supporting growing waterfront communities

Strategy 1.1

Advance a citywide waterfront public access framework that addresses systemic access gaps and prioritizes investments in communities underserved by safe waterfront access.

Strategy 1.2 Identify City-owned waterfront sites and facilities that can support additional public access through investment and coordination among City agencies.

Strategy 1.3

Identify opportunities for expanding applicability of waterfront public access requirements in zoning as waterfront uses continue to evolve, and update requirements and design standards where compatible and appropriate.

Strategy 1.4

Connect and unify public spaces along the water's edge and strengthen connections with upland communities.

Strategy 1.5 Complete planned waterfront greenway improvements that link unique opportunities with community needs along individual stretches of waterfront.

Goal 2: Promote opportunities to get onto and into the water

Strategy 2.1

Expand physical in-water access across NYC's waterfront parks and open spaces to promote recreational boating and opportunities to touch the water where appropriate and feasible.

Strategy 2.2

Expand swimming opportunities where appropriate safety, ambient water quality, and routine monitoring and reporting can be demonstrated.

Strategy 2.3

Develop in-water safety and swimming education programs to get more New Yorkers into the water.

Goal 3: Shape design and programming of public waterfront open spaces to reflect public use needs

Strategy 3.1

Promote flexible and inclusive processes for designing waterfront open spaces to address community needs across different shoreline and water quality conditions.

Strategy 3.2 Ensure that waterfront parks and other public open spaces are designed and operated in a manner that addresses climate resiliency challenges.

Strategy 3.3 Expand access to key public facilities and user infrastructure within waterfront open spaces.

Goal 4: Promote good stewardship of public spaces on the waterfront

Strategy 4.1 Encourage formation of com

Encourage formation of community-based organizations, particularly in underserved areas, that help to plan, activate and sustain inclusive community connections to waterfront open spaces.

Strategy 4.2

Improve publicly available resources and information that connect communities with their waterfronts.