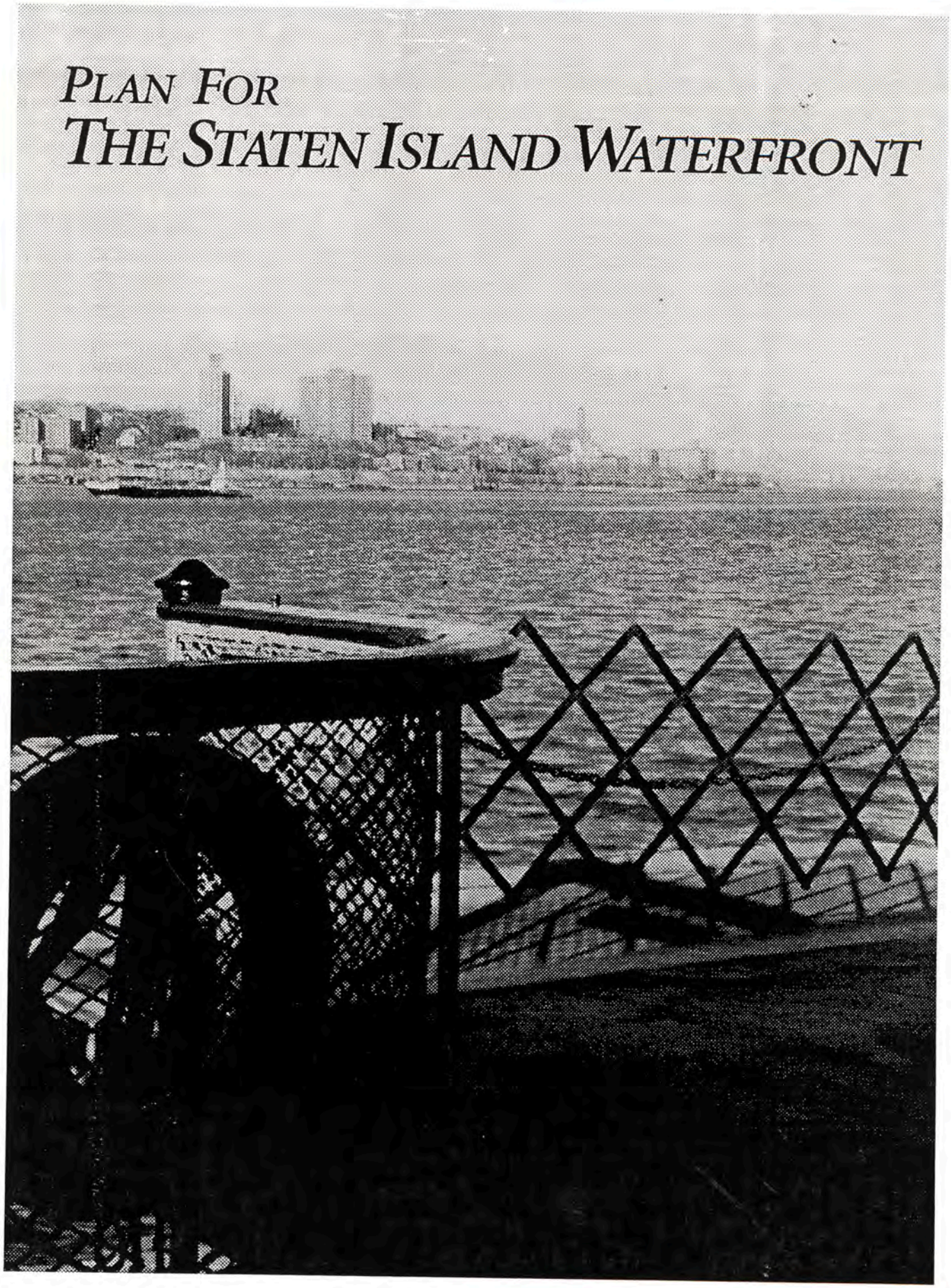
PLAN FOR
THE STATEN ISLAND WATERFRONT



NEW YORK CITY COMPREHENSIVE WATERFRONT PLAN
DEPARTMENT OF CITY PLANNING • CITY OF NEW YORK

PLAN FOR THE STATEN ISLAND WATERFRONT

New York City Comprehensive Waterfront Plan

RUDOLPH W. GIULIANI, Mayor
City of New York

JOSEPH B. ROSE, Director
Department of City Planning

Fall 1994
NYC DCP 94-04

TABLE OF CONTENTS

		Page
Introduction:	Overviews of the Comprehensive Waterfront Plan and the Staten Island Waterfront	1
Reach 18:	Staten Island North Shore	9
	Reach Description	13
	Issues and Recommendations	27
Reach 19:	The South Shore	55
	Reach Description	59
	Issues and Recommendations	73
Reach 20:	Arthur Kill South	85
	Reach Description	88
	Issues and Recommendations	100
Reach 21:	Arthur Kill North	109
	Reach Description	112
	Issues and Recommendations	125
Reach 22:	The Kill Van Kull	133
	Reach Description	137
	Issues and Recommendations	149

INTRODUCTION

The Plan for the Staten Island Waterfront, a part of New York City's Comprehensive Waterfront Plan issued in August 1992, presents detailed studies of the borough's five reaches, or waterfront study areas. For planning purposes, the city's waterfront is divided into 22 reaches, reach being a nautical term for a continuous expanse of water. The reach designations are based on common land use patterns and natural features, physical boundaries and community district lines. In most cases, the depth of the study area is limited to blocks fronting on or near the waterfront. However, wherever significant land use changes are considered, the studies examine broad upland areas to assess the implications of change on the waterfront. Each study describes the history of the reach, examines existing conditions, identifies waterfront planning issues, and recommends actions for achieving the goals articulated in the waterfront plan.

The following overviews of the comprehensive plan and the Staten Island waterfront establish the framework for the local studies.

Comprehensive Waterfront Plan Overview

The New York City Comprehensive Waterfront Plan presents a long-range vision -- and practical strategies -- to guide land use in a way that recognizes the waterfront's value as a natural resource and celebrates its diversity. The plan envisions a 21st century waterfront where adjacent communities have access to a lively mix of waterside activities; where natural habitats are restored and well cared for; where a working harbor is active with industry and waterborne commerce; and where new development generates jobs, revenues and housing for New Yorkers.

The plan for the waterfront balances a broad policy perspective with local conditions and aspirations. Concurrent analyses of citywide waterfront issues, such as maritime industry trends, and local waterfront concerns, such as the suitability of a particular site for redevelopment, ensure that the plan benefits from



NYC WATERFRONT REACHES

Reach Boundaries

COMPREHENSIVE WATERFRONT PLAN
New York City Department of City Planning

an understanding of broad policy objectives and local realities. In this respect, local waterfront studies both inform and are informed by the citywide policies articulated in the Comprehensive Waterfront Plan. They provide the necessary building blocks for developing a comprehensive understanding of the city's entire 578-mile waterfront.

The Comprehensive Waterfront Plan is organized around, and seeks to balance, the goals associated with the four principal functions of the waterfront:

- Protect and enhance the **Natural Waterfront**, comprising beaches, wetlands, wildlife habitats, sensitive ecosystems and the water itself.

  In addition to citywide strategies for improving water quality and protecting wetlands and coastal habitats, the plan highlights three of the city's preeminent natural areas -- encompassing roughly 30 percent of the shoreline -- and proposes public policies to preserve and enhance their natural features. The Special Natural Waterfront Areas include the Jamaica Bay shoreline in Brooklyn and Queens, the Harbor Herons Complex in northwest Staten Island, and the Long Island Sound/Upper East River waterfronts of the Bronx and Queens.

- Reestablish the public's connection to the **Public Waterfront**, including parks, esplanades, piers, street ends, vistas and waterways that offer public open spaces and waterfront views.

  The citywide plan recommends more than 100 sites for new or improved waterside public spaces to provide access for adjacent underserved communities; create linkages to extend the existing network; promote tourism and provide visual relief in densely developed areas; and encourage use of the water as a recreational resource.

- Facilitate water-dependent uses and ensure sufficient manufacturing-zoned land to accommodate the **Working Waterfront**, where water-dependent, maritime and industrial uses cluster or where various transportation and municipal facilities are dispersed.

  The plan recommends retention of manufacturing zoning and coordinated infrastructure investment in six Significant Maritime and Industrial Areas

where water-dependent uses are presently clustered or where potential exists for intermodal connections that would relieve highway congestion and reduce pollution. The designated areas are the Kill Van Kull in Staten Island; the Brooklyn Navy Yard, Red Hook and Sunset Park waterfronts in Brooklyn; the Queens and Brooklyn shores of Newtown Creek; and the South Bronx (Port Morris and Hunts Point). In addition to strategies for these areas and the city's airports, the plan supports improvements to the city's other industrial waterfronts and expansion of marina and ferry opportunities where feasible and appropriate.

- Promote new uses on the **Redeveloping Waterfront**, where land uses have recently changed or where vacant and underutilized properties suggest potential for beneficial change.

  To revitalize derelict, vacant and underutilized waterfront parcels, the plan identifies opportunities for new residential and commercial development, including some 500 acres of manufacturing-zoned land recommended for rezoning. The land use criteria considered in determining areas appropriate for reuse include the presence of substantial amounts of vacant or underutilized land; the absence of unique or significant natural features or, if present, the potential for compatible development; proximity to residential or commercial uses; the potential for strengthening upland residential or commercial areas and for opening up the waterfront to the public; the availability of neighborhood services; and the number of jobs potentially displaced balanced against the new opportunities created by redevelopment.

To achieve many of the plan's goals and advance many of its recommendations, comprehensive waterfront zoning amendments were proposed for immediate implementation. After extensive public discussion, the waterfront zoning amendments were approved by the City Planning Commission in August 1993 and adopted by the City Council in October 1993. The waterfront zoning introduces mandatory public access requirements, encourages water-dependent and waterfront-enhancing uses, and ensures that the scale of development is appropriate for the waterfront. The regulations, which apply primarily on waterfront blocks, require public access and view corridors in most non-industrial developments. They establish specific height and setback requirements and regulate uses, bulk and height on piers and platforms. Many of the specific

controls exempt water-dependent and industrial uses; others foster water-dependent uses, such as ferries and marinas, and waterfront-enhancing recreation and commercial activities in more locations.

Judicious public investment is a major element of the plan's implementation strategy (in addition to zoning changes and revision of the Waterfront Revitalization Program). The plan recommends public investments, both short- and long-term, to achieve planning objectives for natural area preservation, public access development, and infrastructure support for the working and redeveloping waterfronts. Taken together, these investment proposals are well beyond the city's immediate ability to fund. Even so, by aggressively seeking state and federal funds, and by careful targeting of the city's considerable capital resources, many of the plan's investment priorities are advancing. With the comprehensive waterfront plan as a blueprint for public investment, for example, the city has obtained federal Intermodal Surface Transportation Efficiency Act (ISTEA) funding for planning and constructing key greenway/bikeway linkages, and for a comprehensive study of waterfront intermodal goods movement.

All of the city's waterfront -- whether natural, public, working or redeveloping -- can be enriched and enlivened by preserving the archaeological sites and landmark structures that evoke its past as a port, as a seaside resort, and as home for Native Americans and the generations of settlers who followed. Previously undisturbed shoreline sites may well yield important information about Native Americans who clustered along waterways providing abundant sources of food. In its recommendations for land use changes, the Department has taken the presence of these resources into consideration. Furthermore, any property requiring a zoning change to permit redevelopment (whether on the waterfront or inland) will be subject to an environmental assessment of potential historic or archaeological impacts. Until such time, the plan provides a policy framework for identifying the areas most likely to be redeveloped, which should be helpful to preservationists wishing to set priorities for official designation of worthy properties.

The Staten Island Waterfront

Staten Island, with one-fifth of the city's shoreline, offers numerous opportunities to capitalize on its stunning views of, and connections to, Manhattan, Brooklyn and New Jersey from the north shore and to enhance the marshes, coves and cliffs of the natural waterfront along the south shore. With nearly half of its waterfront zoned for industrial use -- by far the highest proportion among the five boroughs -- many large vacant sites are available for industrial reuse or for residential and commercial redevelopment. Staten Island's waterfront also contains almost 4,000 acres of parks dedicated to recreation and to the preservation of natural resources -- 3,000 acres in the Gateway National Recreation Area alone.

The Staten Island Ferry, a major tourist attraction, and four bridges connect the island to the larger metropolitan area. The north shore contains the island's principal gateways -- the Ferry Terminal and the Verrazano-Narrows Bridge -- and its civic and cultural center. Staten Island is the city's only borough with a government center oriented toward the harbor. Though greatly affected by economic shifts within the borough, declining population and a high vacancy rate, the St. George government center and surrounding neighborhoods could benefit substantially by redevelopment or reuse of dormant waterfront properties along the north shore -- including the soon-to-be vacated Staten Island Homeport and the 33-acre vacant site once occupied by the CSX Railroad just north of the St. George Ferry Terminal.

In the southeastern part of the island, low-density residential development borders the sand shores of the Gateway National Recreation Area and numerous city parks including Wolfe's Pond, Lemon Creek and Conference House parks. Residential development and population have burgeoned along the south shore since 1970. Recently approved or newly built residential developments are bringing over 800 new housing units to the waterfront, primarily on the south shore along Raritan Bay.

Along the western shore of the borough, large industrial and municipal uses, including bulk oil storage facilities and the 3,000-acre Fresh Kills landfill, intermingle with one of the city's most extensive wetlands systems -- the Harbor Herons complex.

An astonishing variety of natural environments, emerging from a geologically complex mix of underlying materials, are found along Staten Island's shores. They include the sandy uplands of the south shore, the lowland woods and forested wetlands that form the largest concentration of freshwater wetlands in the city, the tidal marshes of Lemon Creek and the Harbor Herons area, and the freshwater ponds that were once brackish inlets to the bay.

Six of the city's 15 state-designated Significant Coastal Fish and Wildlife Habitats are located on Staten Island. Five are found primarily in the Harbor Herons area which the Comprehensive Waterfront Plan designates a Special Natural Waterfront Area. These designated areas include the tidal marshes of Main, Springville and Richmond creeks and the Isle of Meadows at Fresh Kills; the 80-acre Pralls Island; Chelsea and Merrell's marshes and Sawmill Creek; Old Place Creek and Goethals Bridge Pond, and 50 acres of Shooter's Island. On Raritan Bay, Lemon Creek, a tidal, estuarine and freshwater wetland system, is also a Significant Coastal Fish and Wildlife Habitat. The reach plans call for protecting these and other ecologically important tracts of land through acquisition, transfer to the Department of Parks or the Department of Environmental Protection, and revision of Waterfront Revitalization Program policies.

The plan presents diverse strategies for increasing and enhancing public use and enjoyment of the borough's waterfront. Implementation of the Department's 1988 *North Shore Esplanade Plan* will require a concerted effort by agencies and communities to coordinate incremental development of the esplanade by public and private property owners. An interim trail along all or parts of the North Shore Railroad right-of-way may also be feasible, allowing cyclists and hikers to travel safely and pleasantly from the Ferry Terminal to Snug Harbor and, perhaps, the Goethals Bridge. In all five Staten Island reaches, recommendations for improved access to the water's edge within city parks and selected street end improvements aim to connect upland neighborhoods to their waterfronts.

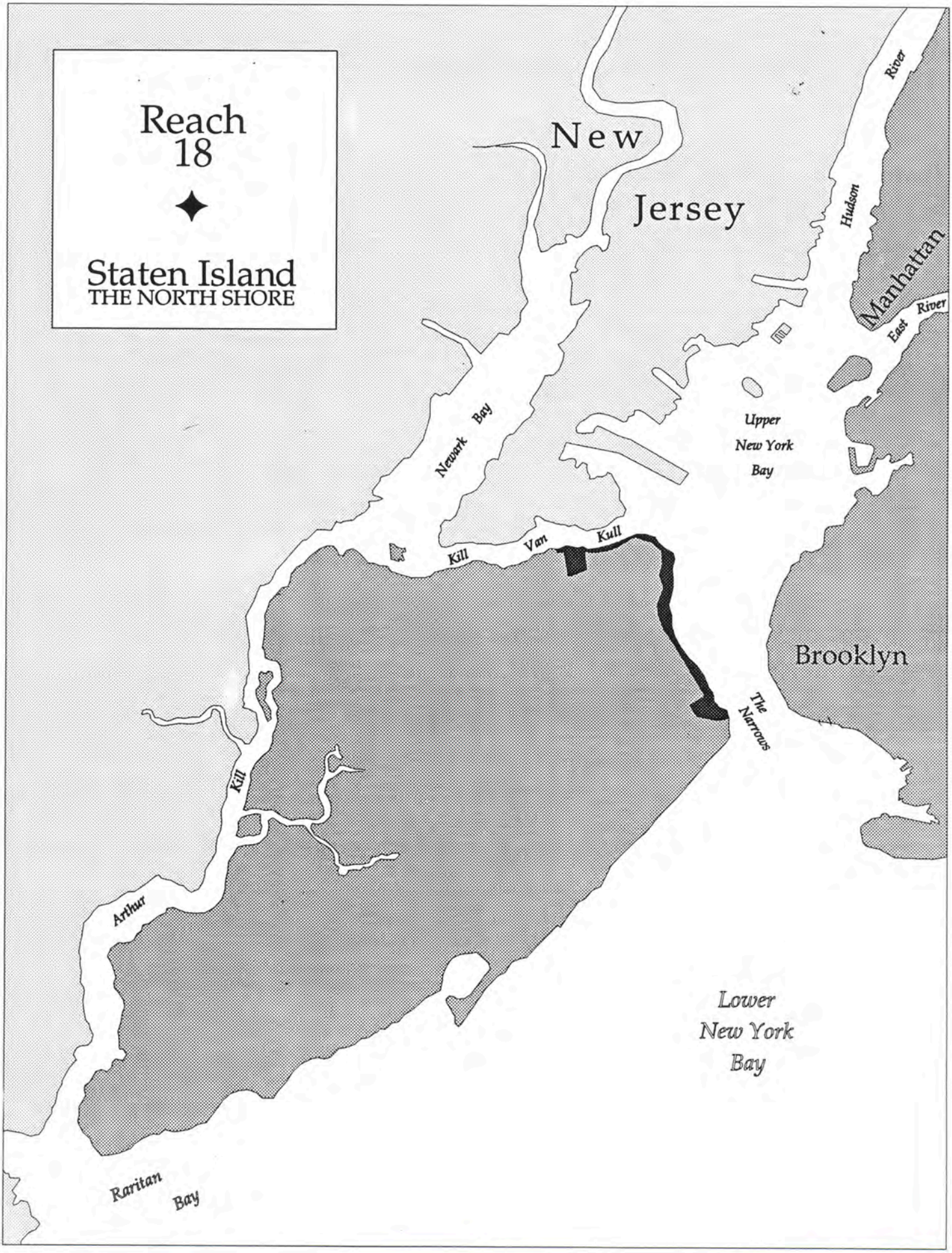
With large tracts of vacant industrially zoned land and access to the deep waters of the Kill Van Kull, Staten Island can support a vital working waterfront. The north shore and land along the Kill Van Kull were once active maritime and commercial areas until waterborne freight and rail activity began to decline several decades ago. The Comprehensive Waterfront Plan designates the area bordering the Kill Van Kull from Howland Hook to Snug Harbor as one of six Significant Maritime/ Industrial Areas in the city. Encompassing clusters of maritime activity as well as

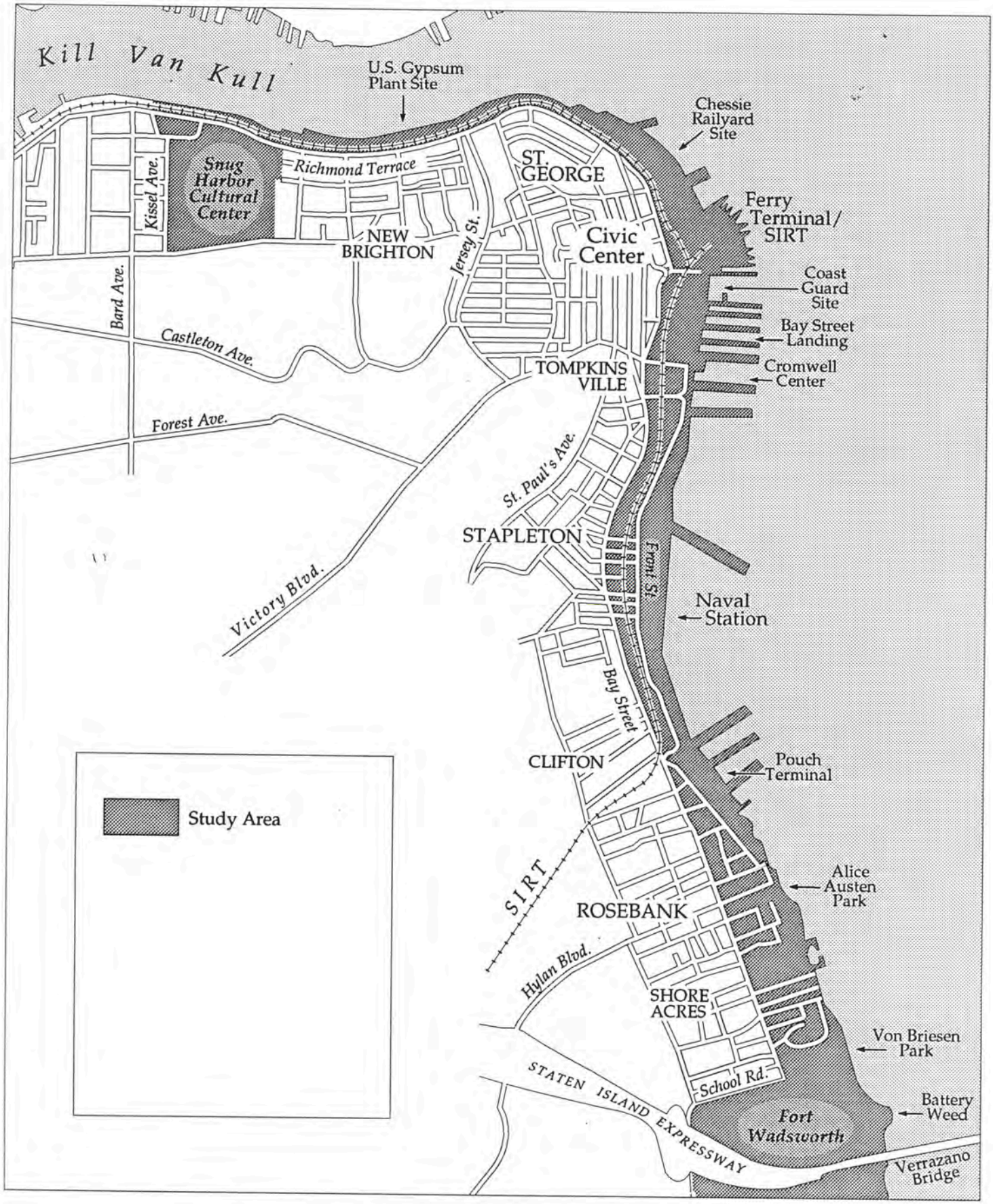
large vacant or underutilized industrial sites such as Howland Hook, the Arlington Yards and Port Ivory, this area has the potential to provide good transportation and market access, and intermodal connections to the larger metropolitan area. Howland Hook, the largest marine terminal on the New York side of the harbor, has facilities for container and break bulk shipping. Planned reactivation of the North Shore line of the Staten Island Railroad would provide rail freight service from New Jersey to Howland Hook and an intermodal facility at the adjoining Arlington Yards.

The industrial base along the west shore has declined, leaving large tracts of underutilized land within sensitive tidal wetland environments. The declining market for industrial sites, lack of infrastructure and the presence of natural features limit the development potential of the Arthur Kill South reach. There are, however, several opportunities to enhance public access to the Tottenville waterfront and to lessen residential/industrial conflicts in the historic Kreischerville community.

Public dialogue has contributed importantly to the development of the Comprehensive Waterfront Plan. During the past two years, more than 100 public meetings have been held to elicit the views of public officials, community boards, civic and neighborhood organizations. A citywide Waterfront Plan Advisory Committee worked with the Department to identify and discuss issues and opportunities affecting the future of the city's waterfront.

Community boards, borough boards and local elected officials have assisted with the reach studies at two stages in their development: the issues identification phase and, more recently, review of the preliminary reach recommendations summarized in the Comprehensive Waterfront Plan. The final reach studies contained in this report reflect modifications in response to public comment. Public participation in the waterfront planning process will continue over the coming months and years as elements of the local plans move toward implementation.


Reach
18
Staten Island
THE NORTH SHORE
New
Jersey
Hudson
River
Manhattan
East
River
Upper
New York
Bay
Newark
Bay
Kill
Van
Kull
Brooklyn
The
Narrows
Kill
Arthur
Lower
New York
Bay
Raritan
Bay



18.1 STUDY AREA & CONTEXT

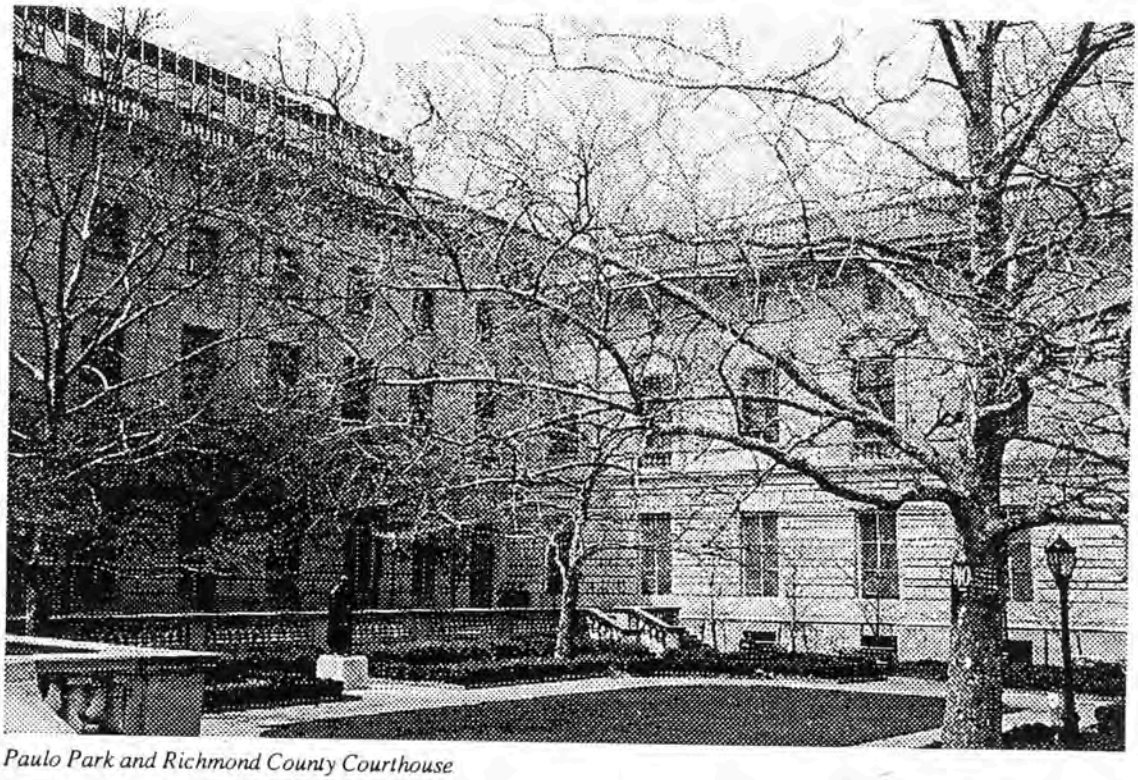
INTRODUCTION

Reach 18, Staten Island's North Shore, is the most visible and diverse of the borough's waterfront areas. The reach begins in Snug Harbor and includes the two principal gateways to Staten Island: the Ferry Terminal and, at its south-eastern end, the Verrazano-Narrows Bridge. The reach contains the borough's transportation hub and its government center and is characterized by a concentration of civic, cultural and recreational facilities, remnants of older industrial buildings and vacant industrially-zoned land. Located entirely within Community District 1, Reach 18 is the front door to New York Harbor for the upland residential communities of New Brighton, St. George, Tompkinsville, Stapleton, Clifton, Shore Acres and Rosebank. (Figure 18.1)

The North Shore was teeming with maritime activity and commerce several decades ago. However, the steady decline in maritime activity along New York Harbor and the loss of shipping and ocean-going trade has rendered much of the North Shore's waterfront vacant and underutilized. The loss of vital waterfront activity, together with land use and economic shifts within Staten Island, has greatly affected upland communities and the borough's office district. In contrast to significant population gains elsewhere on Staten Island, several North Shore communities have lost population since 1970. The void left by the departure of maritime industries and the general economic decline of upland communities can be addressed by reestablishing the economic and physical relationship between the shorefront and adjacent communities.

Although this stretch of waterfront has experienced a slow transition for several years, its potential for sparking the economic revitalization of the North Shore remains unrealized. The advent of the Homeport (U.S. Naval Station) in Stapleton was expected to generate economic activity, but the decision to close the facility means that a void must once again be filled. Recent residential revitalization initiatives in several North Shore communities have brought renewed interest in the reuse of former industrial and commercial sites along the waterfront -- although today's stagnant economy has slowed this promising trend.

The plan for Reach 18 sets forth a framework for the redevelopment of this key stretch of waterfront. The principal themes call attention to its relationship to Upper New York Bay and the boroughs of Manhattan and Brooklyn; its potential as a regional attraction and public resource; the economic benefits of shorefront development to communities of the North Shore and Staten Island; and the potential for capitalizing on the borough's two principal gateways.



Paulo Park and Richmond County Courthouse

REACH DESCRIPTION

Development History

Staten Island's North Shore was first settled in the 1600s when the Dutch came to the area now known as Stapleton and established a farming community. The area then had a natural port and many streams running down the hillside; thus it was initially dubbed the "Watering Place". Stapleton was known as Cole's Ferry or New Ferry when the British established a ferry landing during the American Revolution. To the northwest, Richmond Terrace, known originally as Shore Road or the Public Road in the mid-1700s, grew slowly and, for many years after the American Revolution, there was little except large farms and estates between Tompkinsville and the area around Port Richmond.

Before the Civil War, the reach's growth was leisurely. Farming, small industries and homebuilding prospered. West Brighton (then called Factoryville) and New Brighton became industrial centers. Modest homes were built parallel to the shore just inland from industrial development, while the hilly sections attracted the wealthy who built several large estates. At the same time, many hotels and inns sprang up along Richmond Terrace as the area became a fashionable resort.

After the Civil War, industrialization, proximity to Manhattan, convenient shipping, and migration from overseas combined to bring Stapleton and Factoryville into the life of the city. St. George and other areas operating ferries to Manhattan increasingly became centers of activity, while the Tompkinsville area became a summer retreat for wealthy New Yorkers.

In 1886, the Staten Island Rapid Transit (SIRT) was extended from its previous terminus in Clifton to St. George, the closest point to Manhattan. In the same year, several ferry docks at St. George were consolidated into one installation, enhancing its position as the island's transportation center. In 1898, the seat of government was moved to St. George from Richmondtown and Staten Island became part of the City of New York.

By the early 1900s, industry dominated the reach, mirroring the industrial growth of the nearby New Jersey shore. The resulting air and water pollution, along with improved access to the Westchester, New Jersey and Connecticut countryside, signaled the demise of the resorts and estates. Piers were built for a port to

attract freight ships but shippers continued to choose terminals in Manhattan, Brooklyn and New Jersey.

In 1934, the Stapleton Freeport was authorized by Congress. Piers 12 through 17 were opened three years later as the nation's first duty-free station. Stapleton became one of the many disembarkation ports on the east coast during World War II when the U. S. Army took it over in 1942.

Shortly after the war, the Stapleton port and North Shore maritime industries began to decline, although adjacent communities continued to prosper. Inadequate pier space and poor road access hampered growth and, one by one, operating docks closed. By 1960, only two piers were still operating and working waterfront uses were limited to establishments performing services and maintenance for harbor tug boats and ferries. Still, the North Shore remained the transportation hub and civic center of the island.

In 1964, the Verrazano-Narrows Bridge was completed. The bridge opened the way for growth and development of the mid-island and South Shore areas. By the 1970s, population on the North Shore began to decline, leading to high vacancy rates in some upland neighborhoods. Several urban renewal areas were created and many large sites were leveled to provide affordable housing.

During the borough's economic growth period in the mid-1980s, little development activity occurred on the North Shore although a few private and public development initiatives attempted to stem the economic decline. These included the successful reuse of Sailors Snug Harbor and part of Bay Street Landing; planning for a North Shore Esplanade; and the conversion of Pouch Terminal from industrial to office use. The plan for a continuous North Shore Esplanade running the length of the reach has not yet been implemented, and other projects have not moved forward. These include development of the former Chessie Rail Yard, the Wrigley Building residential project and sections of the Bay Street Landing residential development. The Naval Station New York (the "U.S. Homport"), constructed in 1988-89 and now scheduled to close, had been expected to contribute to the revitalization of Stapleton and the North Shore.

Renewal efforts continue, particularly in community reinvestment and residential revitalization, but do not fully address the need to stabilize the economy of the North Shore. Key waterfront development sites remain underutilized and the government center is burdened by an extremely high vacancy rate due to an exodus of business and civic uses.

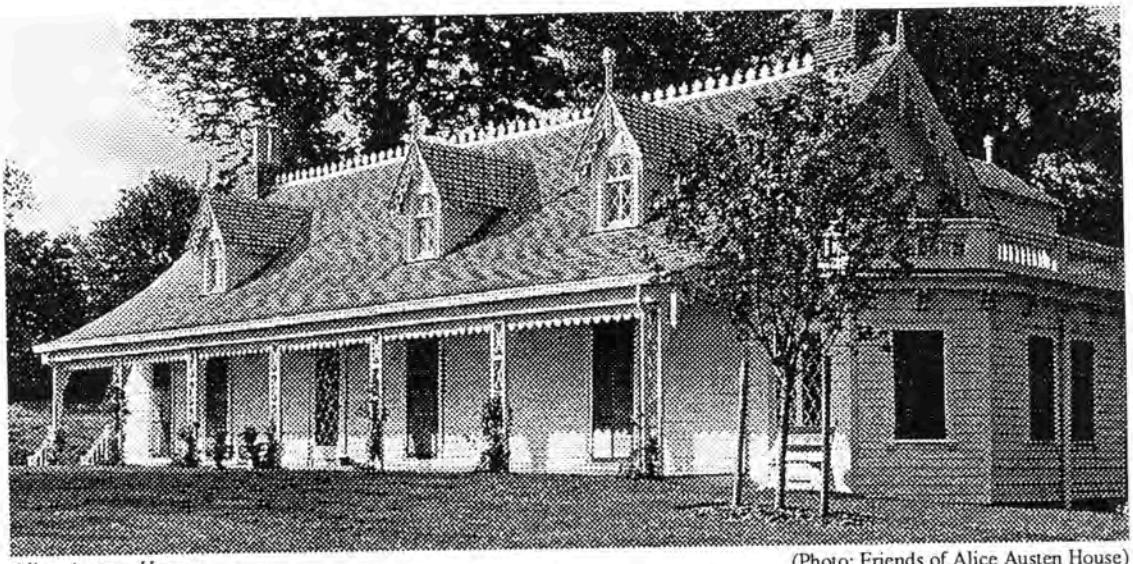
Historic Resources

The rich heritage of the North Shore is typified by the variety and importance of its landmark structures, from Sailor's Snug Harbor to Fort Wadsworth.

Snug Harbor Cultural Center: The 80-acre Snug Harbor property, at the western end of the reach, contains 24 buildings including several fine examples of Greek Revival, Victorian, Italianate and Beaux-Arts buildings and a rose garden, fountains, ponds and meadows. It is a New York City park and a National Register Historic District. Opened in 1833 as a refuge for sailors, the site was the first home for retired seamen. It is now the borough's premier arts and cultural center and the headquarters for the Staten Island Children's Museum and other cultural facilities. The most remarkable spaces are the large Great Hall, the Veteran's Memorial Hall, the 250-seat chapel and the 700-seat music hall.

Former U.S. Coast Guard Base: Now owned by the city, the 22-acre site on the St. George waterfront immediately adjacent to the Ferry Terminal has been used for maritime-related governmental purposes since 1799. Until recently, the site contained 22 buildings, built either by the United States Lighthouse District in the 1860s, or later by the Coast Guard. Six buildings remain following demolition in 1989 to make way for a ferry maintenance facility. Four of the remaining structures are on the National Register of Historic Places, including warehouses and the Administration Building, constructed in 1868-69, which is also a designated New York City landmark. The buildings are all deteriorating and in need of repair. Also on the National Register are the below-ground vaults once used to store oil for the Lighthouse District.

The St. George Government Center Area contains many individual landmarks and noteworthy buildings. These include the brick and stone Staten Island Borough Hall, the most prominent symbol of the civic center, and the limestone Richmond County Courthouse. Both were designed by Carrere and Hastings in the early 1900s and are designated landmarks. The St. George Public Library, Family Courthouse, Staten Island Institute of Arts and Sciences and 120th Police Precinct station are also fine examples of the civic center's architecture. These buildings are set against the hillside and visible from the harbor. The Landmarks Preservation Commission is considering historic district designation of adjacent residential areas with many historic turn-of-the-century homes and places of worship, including houses designed by Edward Alfred Sargent.



Alice Austen House (Photo: Friends of Alice Austen House)

Alice Austen House and Park: The eight-room house in the community of Rosebank was built as a one-room farmhouse in the early 1700s. Later, it was the family home of Alice Austen, one of the country's early photographers. The adjoining McFarlane-Bredt House was built a century later by the merchant Henry McFarlane. Both houses are designated New York City landmarks and on the National Register. The houses and park are under the jurisdiction of the Department of Parks and Recreation.

Battery Weed/Fort Wadsworth: This trapezoidal masonry building was completed in 1861 for the defense of New York Harbor. The fort is located on the easternmost point of the island along the Narrows and sits on the bluffs near the foot of the Verrazano-Narrows Bridge.

Other designated landmarks located adjacent to the reach include the Main Building of the Bayley Seton Hospital (formerly the U.S. Public Health Service Hospital), the Boardman Mitchell House, St. John's Church, Woodland Cottage, Edgewater Village Hall, Hamilton Park Cottage, Curtis High School, Pritchard House, New Brighton Village Hall, Caleb T. Ward House, W.S. Pendleton House, Neville House, Housman House, Brighton Heights Reformed Church, St. Paul's Memorial Church & Rectory and the Garibaldi Memorial. Properties that have been heard but not designated include the Joseph Lyons Pool and the Middletown Township District School #2. Tappen Park in Stapleton and the 32 Park Place House are on the National Register of Historic Places.

Natural Features and Water Quality

The shoreline of Reach 18 contains filled areas, bulkheaded sections and areas lined with riprap, as well as steep bluffs near the historic Alice Austen House and Fort Wadsworth. For the most part, industrial and maritime areas are bulkheaded except where the bulkhead has deteriorated and filled with concrete rubble. The western end of the reach contains a stream which receives water from the surrounding hills of New Brighton and Silver Lake Park and drains into the Kill Van Kull near Kissel Avenue.

Much of this area is underlain by serpentine rock that surfaces in outcrops on the hills above the reach. This rock creates a northeasterly ridge which rises as much as 200 feet high less than half a mile from the Staten Island Ferry Terminal. In the southern section of the reach from Stapleton to Fort Wadsworth, the Serpentine bedrock is replaced by the terminal moraine which is characterized by a mix of materials and hilly topography.

South of the Alice Austen House, steep bluffs rise from the shoreline. The upland area contains a one-acre freshwater wetland located in Shore Acres. The pond was probably created by the kettlehole depressions left by the retreat of the last glacier thousands of years ago. Herons, egrets, ducks and songbirds have been sighted there. This is the only natural wetland area for several miles and provides a resting and feeding place for migratory species.

The area's steep bluffs are located within the New York State Coastal Erosion Hazard Area. Erosion is evident along the shoreline of Alice Austen Park and along the edge of the natural area at Shore Acres.

The waters of the Upper Bay are classified "I" by the New York State Department of Environmental Conservation. This classification indicates the water is suitable for secondary contact recreation, such as fishing and boating. The waters are not suitable for swimming or for shellfish consumption. The reach contains no sewage treatment plants but is served by the nearby Port Richmond Water Pollution Control Plant, located in Reach 22.

Zoning (Figure 18.2)

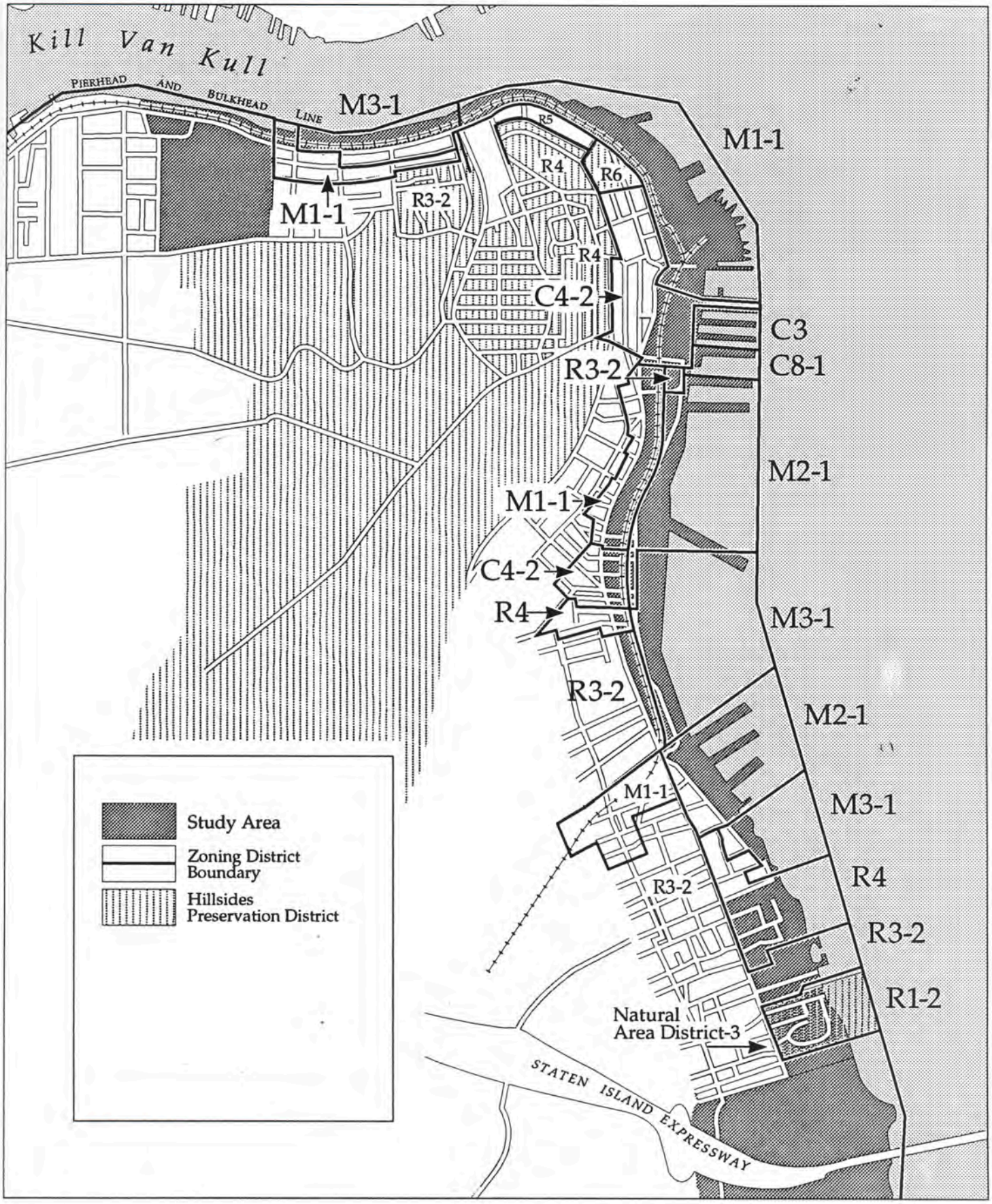
The reach is zoned for manufacturing uses from Snug Harbor to Alice Austen Park, except for small areas of commercial and residential zoning at the end of Victory Boulevard in Tompkinsville. South of Alice Austen Park, zoning shifts to lower-density residential.

Beginning to the west, the Snug Harbor area and the St. George shore are zoned M3-1 and M1-1; the abutting upland areas are zoned M3-1 in New Brighton and R4, R5, R6 and C4-2 in St. George. The Special Hillsides Preservation District, which controls development on steep slopes, abuts Richmond Terrace in two places. The Ferry Terminal and maintenance facility area is zoned M1-1 and the adjacent Bay Street Landing project is zoned C3 and C4 for marina and residential uses. The 1.2-mile stretch containing the Homeport and adjacent inland areas are zoned M2-1 and M3-1. The Stapleton town center, currently zoned C4-1, and parts of Bay Street are proposed to be zoned R6B with a commercial overlay. The Clifton shoreline is zoned M2-1 and M3-1, and the abutting inland area is zoned R4. The shoreline between Alice Austen Park and Van Briesen Park is zoned R4, R3-2 and, in Shore Acres, R1-2. This community and Von Briesen Park are within the Special Natural Area (NA-3) District, which requires City Planning Commission review of development and site alterations to ensure protection of natural features.

Physical Character and Land Use (Figure 18.3)

Distinct patterns of land use and upland-waterfront interaction characterize three subareas of the reach.

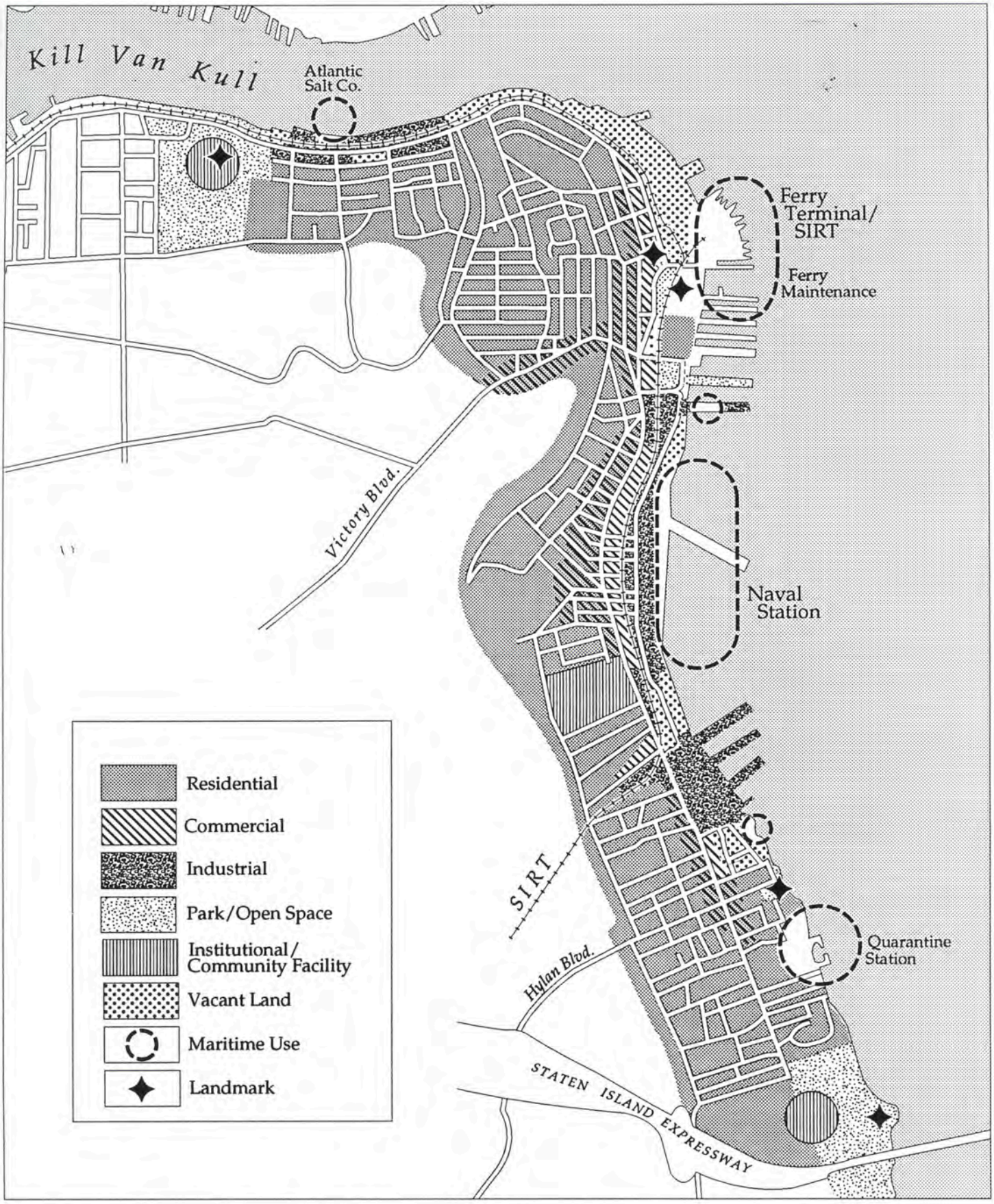
The first subarea, from New Brighton to Tompkinsville, is the borough's cultural, transportation and civic center. The Snug Harbor Cultural Center, a premier cultural amenity, is located at the westernmost end of the reach. This subarea contains few active working waterfront uses and a significant number of vacant buildings and sites. The still-active Atlantic Salt Company at the western end is adjacent to the deteriorating shorefront structures of the former U. S. Gypsum plant, an unsightly, vacant hulk. The large vacant site of the former Chessie Rail Yard dominates the St. George waterfront. The site once served as the terminus of the North Shore Rail Line and now contains scattered run-down structures and commuter parking.



18.2 ZONING

0 ½ mile

DEPARTMENT OF CITY PLANNING NYC
COMPREHENSIVE WATERFRONT PLAN


Kill Van Kull
Atlantic Salt Co.
Ferry Terminal/ SIRT
Ferry Maintenance
Victory Blvd.
Naval Station
SIRT
Hylan Blvd.
Quarantine Station
STATEN ISLAND EXPRESSWAY
Residential
Commercial
Industrial
Park/Open Space
Institutional/ Community Facility
Vacant Land
Maritime Use
Landmark
0
½mile
DEPARTMENT OF CITY PLANNING
NYC
COMPREHENSIVE WATERFRONT PLAN

18.3 LAND USE

The government center waterfront is the most critical and challenging section of the subarea and of the entire North Shore. The Staten Island Ferry Terminal, Borough Hall, several other civic and institutional uses, and the island's intermodal transportation hub are all located in St. George. It is the borough's main office district and is surrounded by a diverse residential community. However, it is plagued by a high vacancy rate as a result of an exodus of government and professional offices and institutions such as the College of Staten Island. Preliminary figures indicate a vacancy rate of approximately 50 percent for office and institutional space -- an extraordinarily high rate for older urban business districts. Although the community retains a town center character and a well-defined core, empty storefronts and vacant or obsolete office space contribute to the perception of an area in decline.

Still, the government center offers several important assets and opportunities. Chief among them are the new ferry maintenance facility and redevelopment plans for the vacant former U.S. Coast Guard facility. The Staten Island Institute of Arts and Sciences and the Harbor International Corporation, a private development concern, are partners in a development proposal for the site. The proposed development includes a 170,000 square-foot museum, a waterfront park and the phased renovation of the historic buildings for reuse as a visitors center and offices. Other assets include recently completed warehouse-to-residential and office conversions, notably a section of the Bay Street Landing complex south of the Coast Guard site, and the Department of Parks and Recreation (DPR) Cromwell Center recreational facility in Tompkinsville. These uses provide some public access along the shoreline but the public spaces are unconnected at present.

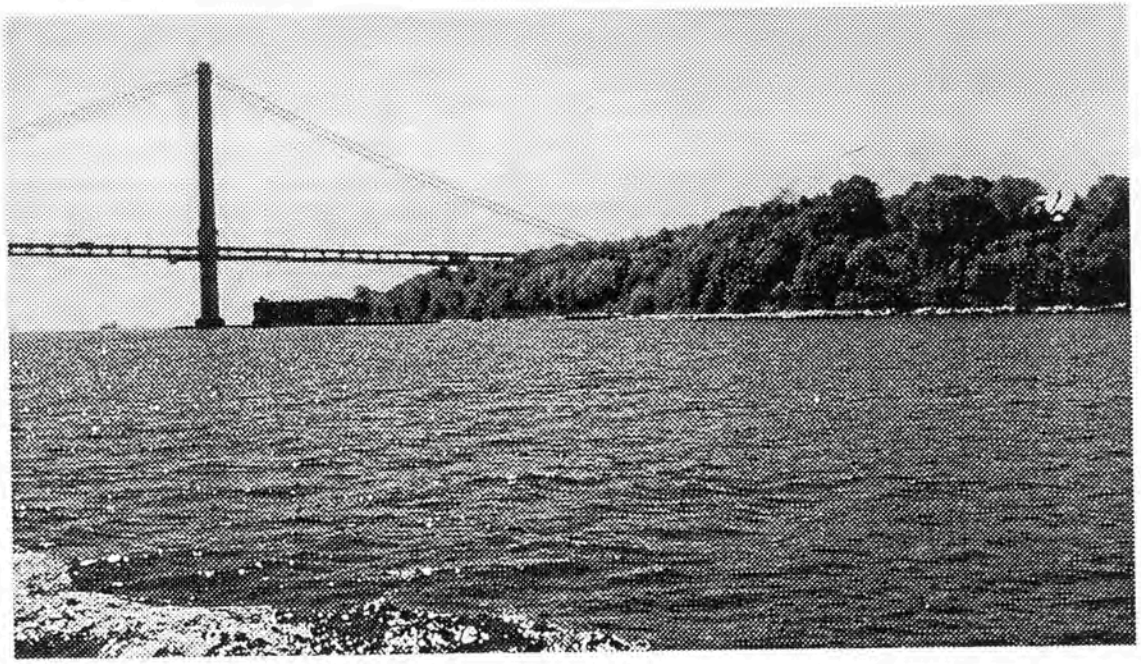
The second distinct subarea, Stapleton, is dominated by the site of the recently completed facility for the Naval Station New York. A 1.2-mile stretch of waterfront has been developed as a deep water port with support services, a 1,000-yard-long pier, a ship repair facility and several structures. Upland uses presently include welding and large machinery repair establishments which will be displaced with the proposed realignment of Front Street parallel to the SIRT tracks. The adjacent community of Stapleton contains older pedestrian-oriented retail and mixed uses in a village atmosphere. The area has many vacant storefronts and commercial sites.

The third subarea, Clifton-Rosebank, includes a mix of water-dependent industrial uses, converted industrial buildings, vacant land and structures, parks and residential areas. A declining industrial area is located along Edgewater Street

south to Alice Austen Park. Uses fronting the bulkheaded shoreline include an MTA bus lot; Pouch Terminal, a warehouse-to-office conversion; active water-dependent uses such as the Sandy Hook Pilots Association; and vacant land and buildings such as the Wrigley Building, a five-story former industrial structure, and the site of the former Reynolds Shipyard.

The character of the reach begins to change at Alice Austen Park and Buono Beach, which provides fishing and passive recreation opportunities along the shoreline. The park contains the historic Alice Austen House and the McFarlane-Bredt House. Farther south, residential uses predominate. Several residential towers intermingle with low-rise dwellings and housing for the Coast Guard on the site of the former Quarantine Station. While area residents use the neighboring vacant shorefront for fishing, use of the Coast Guard property is restricted.

Atop high bluffs in the southernmost part of the reach, a residential enclave known as Shore Acres has commanding views of the Verrazano Bridge. The 13-acre Arther Von Briesen Park, extending from the shorefront to Bay Street, abuts Shore Acres. A waterfront parcel of approximately 30 acres between the park and the bridge includes Battery Weed, an historic landmark and a component of the Gateway National Recreation Area under the jurisdiction of the National Park Service (NPS).



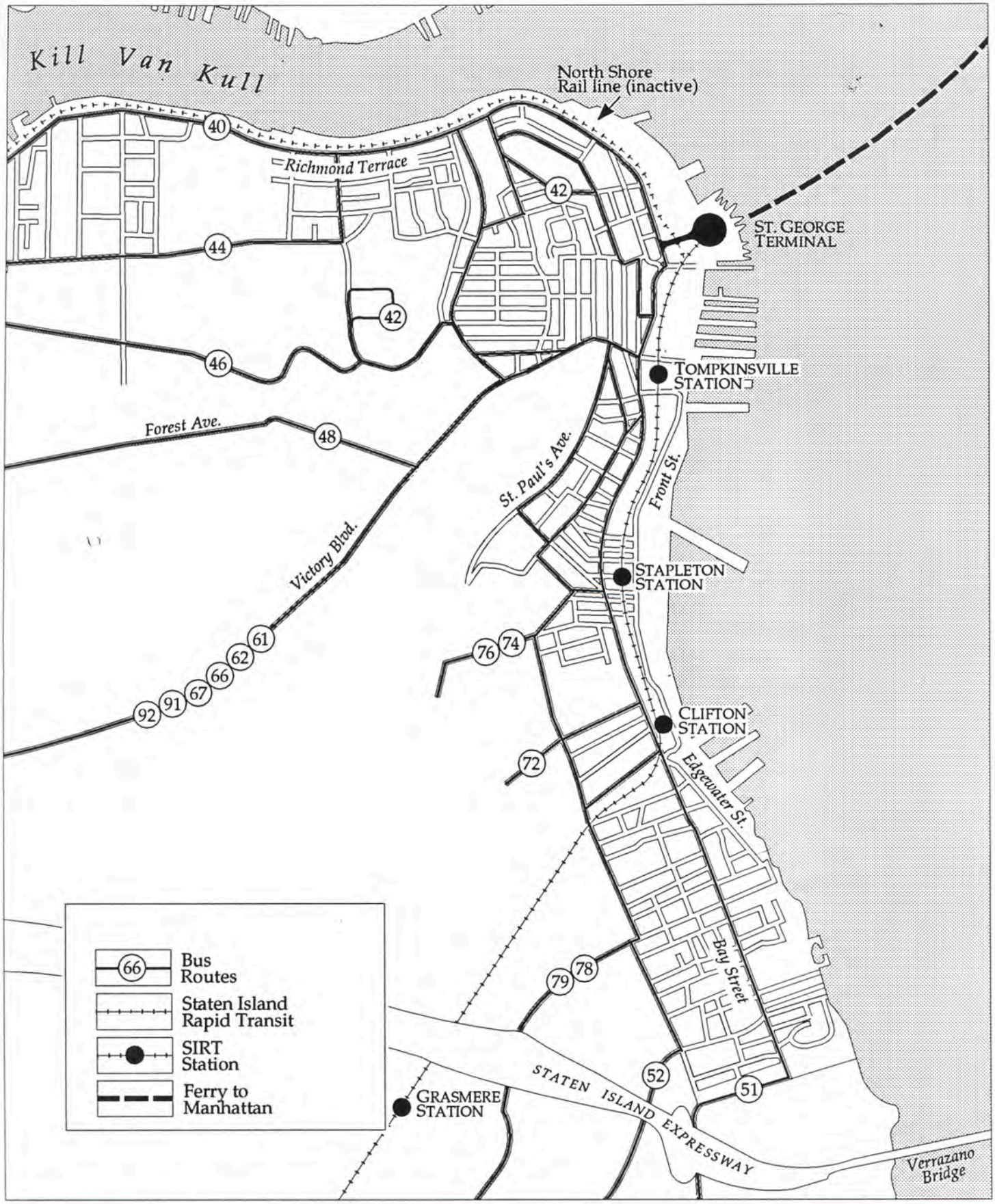
Von Briesen Park & Verrazano Bridge

Transportation (Figure 18.4)

The reach is served by two primary arteries: Richmond Terrace and Bay Street. Richmond Terrace, a narrow, winding roadway elsewhere, is generally wide in the area of Reach 18. However, between St. Peters Place and Westervelt Avenue, it narrows from four moving lanes to two, creating traffic delays during peak hours. It is lined with trees in St. George, providing a formal approach to the government center and transportation terminals. The roadway is approximately 35 feet above the water and is separated from the water's edge by the unused Chessie Rail Yard. Its landscaped promenade offers unobstructed views of the harbor, Manhattan, Brooklyn and New Jersey. Bay Street, farther inland, links St. George with the Stapleton commercial area and the Verrazano Bridge. It is also tree lined and landscaped in the St. George-Tompkinsville area. Both streets are heavily travelled, often congested roadways serving commercial and residential uses and commuter access to the Ferry Terminal. Other principal arterials that begin or terminate at Bay Street -- Victory Boulevard, St. Paul's Street, Van Duzer Street and Hylan Boulevard -- provide direct connections to other points in the borough.

Edgewater Street, located between the waterfront and Bay Street, services the remaining industrial uses along the waterfront. However, its narrow width and generally poor condition restrict this function. Front Street, which serves as a bypass road for Bay Street and runs alongside the Homeport, is in poor condition and is proposed to be realigned parallel to the rail line and to be enhanced with pedestrian streetscape features. It would then function as an upland connection to the Stapleton Town Center and as a link in the planned North Shore Esplanade.

The St. George Ferry Terminal near the civic center is a large transfer and commuter facility occupying approximately seven acres. It incorporates ferry, rapid transit and bus services, as well as park-and-ride, van, taxi and passenger car drop-off areas. Buses and the SIRT line are the primary passenger feeders to the ferries which carry approximately 69,000 people to and from lower Manhattan on a typical weekday (and almost 24 million patrons annually). New high-speed ferry service to midtown Manhattan is scheduled to begin in 1995. Sixteen of the intra-borough bus routes and the SIRT converge here. The Ferry Terminal also contains 1,600 parking spaces. Additional parking is available on the adjacent Chessie Rail Yard site, municipal and private parking lots in St. George, and along Richmond Terrace and local streets in the residential areas upland of the terminal.



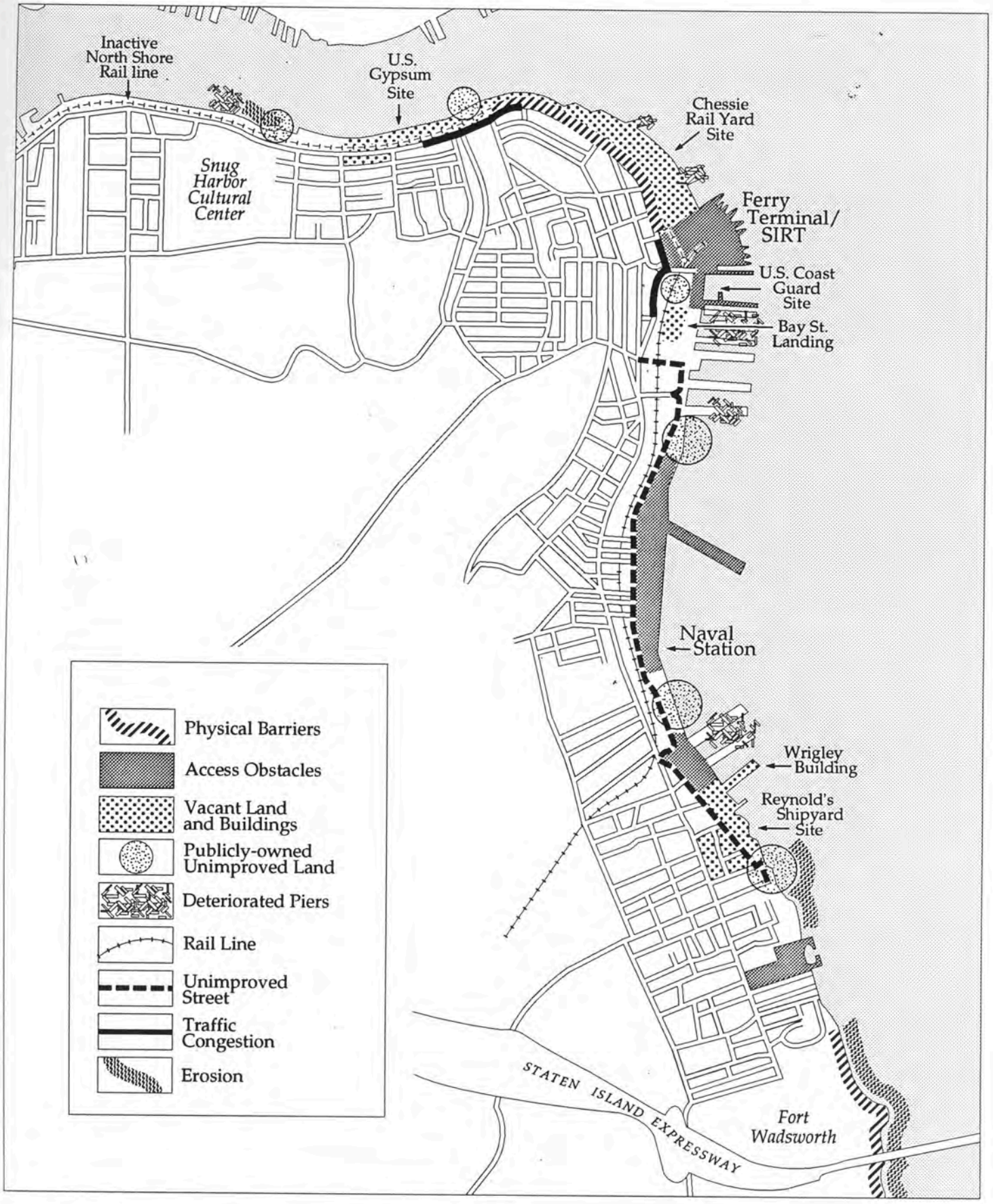
18.4 TRANSPORTATION

0 ½mile

DEPARTMENT OF CITY PLANNING NYC
COMPREHENSIVE WATERFRONT PLAN

The Staten Island Rapid Transit line runs along the shoreline parallel to Bay Street until Clifton where it turns inland. Commuter stations are located in Tompkinsville, Stapleton, Clifton and Rosebank. The line ends in Tottenville near the Outerbridge Crossing on the south shore. The SIRT system carries approximately 20,000 riders on a typical weekday.

The unused North Shore rail line adjacent to the Kill Van Kull was once a vital freight line linking north shore waterfront industries with New Jersey and the continental United States. The line was also used for passenger service. It extends from the St. George Ferry Terminal, through the Arlington Yards and across the Arthur Kill to Cranford Junction, New Jersey or south to Travis. The city has begun negotiations with the Delaware-Otsego Corporation and the CSX Corporation, owners of the rail line, to acquire the right-of-way and rail improvements. Due to its deteriorated condition, there are no immediate plans to reuse the portion of the railway east of the Arlington Yards (Reach 22). The Department of City Planning will examine the feasibility of interim use of all or part of the right-of-way as a pedestrian/bike trail.



18.5 SUMMARY OF ISSUES & CONSTRAINTS

0 ½mile

DEPARTMENT OF CITY PLANNING NYC COMPREHENSIVE WATERFRONT PLAN

ISSUES AND RECOMMENDATIONS

The inherent strengths of North Shore communities and the redevelopment potential of the waterfront support planning efforts aimed at promoting residential growth and new employment opportunities in this reach. These strengths include St. George's government and civic center, regional office and business district, and the terminal where ferry, SIRT and bus lines converge to create an intermodal transportation hub; good infrastructure including a network of arterials radiating to other points of the island; the vitality of its cultural and recreational facilities; the noteworthy character of much of the built environment; and the diversity of land uses and businesses within a small area.

Nevertheless, the obstacles to waterfront redevelopment and renewal of the St. George area are formidable. These include traffic congestion as well as high office and retail vacancy rates which stem in part from the dispersal of both population and business activity across the island. Development of the centrally located Staten Island Mall has reinforced this shift of economic activity away from St. George. Judicious public investment in transportation, economic development and public amenities can help take advantage of the area's inherent strengths to promote private investment and waterfront revitalization.

Reuse of vacant land and structures and completion of the North Shore Esplanade would improve public access to the water's edge and enrich the adjacent communities. Most important, waterfront renewal could help reverse the area's economic decline and complement the efforts of local residents and businesses to improve their communities.

The St. George shorefront presents the greatest potential for redevelopment along the North Shore. A strategic plan for the Staten Island Government Center would ensure coordination of key waterfront development sites, provide a conceptual framework for the long-term redevelopment of the civic center, establish a program and priorities for near-term improvements to the Ferry Terminal and former Coast Guard site, and identify infrastructure improvements to facilitate access to the area. The plan would provide guidelines for the improvements needed to make the Government Center a thriving regional business district into the 21st century. The development of a successful strategic plan will require the active involvement and collaborative efforts of the business community, government agencies, Borough Hall and adjacent residential communities.

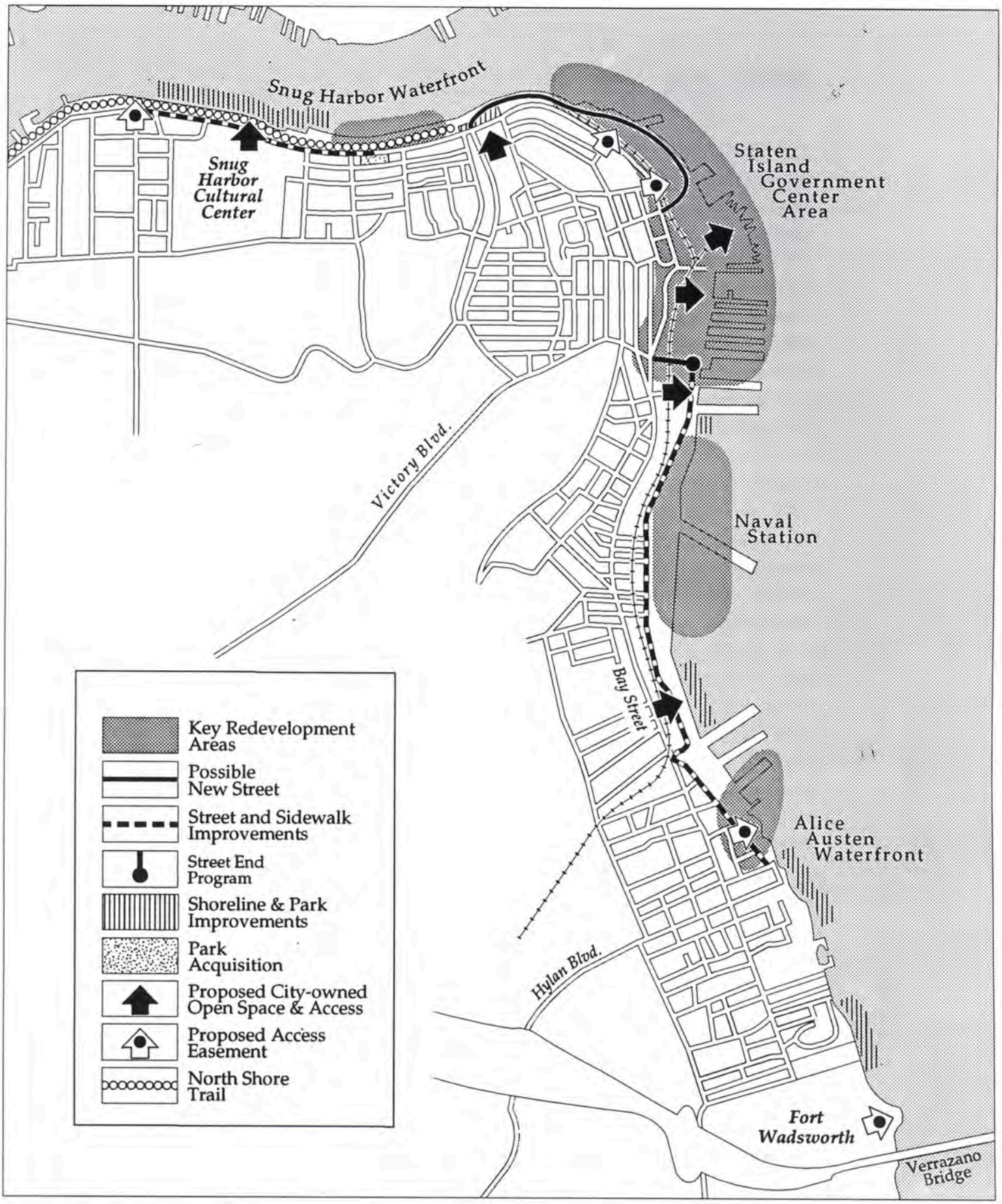
Although the Redeveloping Waterfront, particularly in St. George, is the key element of the plan for Reach 18, the plan also addresses the issues and opportunities affecting the natural, public, working and redeveloping waterfronts throughout the reach. (Figures 18.5 and 18.6)

The Natural Waterfront

Much of the North Shore's natural waterfront has been altered. Shoreline erosion is a pervasive problem in parts of the reach, and illegal disposal of construction debris, waste material and cars on vacant parcels is an issue throughout the reach. Many of the piers and bulkheads in the western section are in deteriorated condition and some of them have become hospitable environments for several harbor species. This condition creates a need to balance competing objectives: to preserve habitats where they have begun to emerge around decaying structures; and to repair and/or remove rotting piers where necessary to improve the shoreline for public access and redevelopment.

- **Establish indigenous vegetation on bluffs to control erosion and explore shoreline reinforcement methods for all natural waterfront areas.**

Rapid currents and ship movements have created shoreline erosion along the bluffs from Alice Austen Park to Battery Weed and along the Snug Harbor waterfront. Many of these areas are under the jurisdiction of the Department of Parks and Recreation or the National Park Service, which can incorporate indigenous planting on the bluffs or shoreline as part of park improvement plans. In addition, the portions of Staten Island shoreline subject to erosion should be included in the Long Island South Shore Monitoring Program which is exploring solutions to erosion and flooding problems (see Reach 19).



18.6 SUMMARY OF RECOMMENDATIONS

The Public Waterfront

Physical and visual obstructions to the waterfront abound in the reach. Severe grade changes, the deteriorated North Shore Rail Line and non-maritime physical obstructions, including the vacant U.S. Gypsum plant, prevent pedestrian access to the water's edge along much of the North Shore. In St. George, the Ferry Terminal and SIRT terminus restrict pedestrian and visual access to the water's edge. In Stapleton, visual and physical access from the village center to the waterfront is partially obstructed by the elevated SIRT line, discontinuous streets and the former Naval Station. Active non-maritime uses in New Brighton and Clifton such as the Pouch Terminal preclude pedestrian access to the shore.

The North Shore Esplanade Plan, issued by the Department of City Planning in 1988, remains an unrealized vision, due largely to the lack of public sector initiatives and new private development projects along the shore. The plan proposes a specific route and design treatment for a waterfront pedestrian path between Snug Harbor and Battery Weed. Its goals are to provide safe, attractive paths for recreation, increase public open space, create linkages to cultural and civic facilities including the Ferry Terminal, and attract visitors and tourists. The plan is intended as a framework for the phased development of the esplanade. It establishes implementation priorities and assumes that the esplanade would be constructed incrementally by both public and private property owners.

More recently, the Department has developed a conceptual greenway plan for 350 miles of bicycle and pedestrian paths crisscrossing the city. The city has received federal transportation funds (the ISTEA program) for a multi-year effort to refine the plan and begin its implementation. The North Shore Esplanade and a potential rail-trail along the North Shore Rail Line are key elements of the citywide plan.

- **Establish a broad-based task force to implement the North Shore Esplanade Plan.**

The esplanade is a key factor in the residential and commercial revitalization efforts of the St. George, Tompkinsville and Stapleton communities and the area's cultural institutions. A concerted effort by city agencies with jurisdiction over city-owned property and streets within or adjacent to the path of the North Shore Esplanade could help to combat the image of an abandoned waterfront and become a catalyst for reinvestment in the North Shore. A public task force should be created to advance development of the esplanade along city-owned shorefront

property and to coordinate public and private esplanade development. The task force should include the Department of Parks and Recreation, the Economic Development Corporation, the Department of City Planning and representatives of Community Board 1, the business and residential communities, cultural organizations, the Mayor's Office and borough elected officials. Its first tasks would be to agree upon a common design vocabulary for the entire esplanade, select priority segments for implementation, and seek design and construction funding for those segments.

Successful implementation of the esplanade plan will involve a variety of actions: enhancing public access within waterfront parks; improving, realigning or extending streets leading to or along the shore; creating new activity nodes at key locations; and integrating privately developed public waterfront spaces into the larger public network.

- **Improve existing sections of the North Shore Esplanade and enhance public access in shorefront parks.**

The Richmond Terrace esplanade overlooking the harbor in St. George should be upgraded with signage, lighting and landscaping to attract visitors and tourists using the Staten Island ferry. The esplanade should also be extended westward two blocks to Bank Street along Richmond Terrace property under DPR jurisdiction. Equally important, the connection from the Ferry Terminal south to the Coast Guard site must be strengthened in accordance with EDC's plan (see Redeveloping Waterfront).

The shorelines at Snug Harbor, Alice Austen Park, Von Briesen Park and Battery Weed often present barriers that hinder public access, most commonly steep cliffs or an intervening rail line. DPR and NPS plans for these parks should incorporate a variety of waterfront activities and experiences, including visual access where direct access to the shore is not possible. Along the Snug Harbor waterfront, for example, the former ferry area should be cleared of debris and descriptive signage and benches installed to create a water's edge sitting area and a dock for excursion boats to other parks. At Von Briesen Park, the proposed waterfront public walkway should be constructed and the master plan for Alice Austen Park and Buono Beach should be implemented to enhance waterfront access. The bulkheaded areas adjacent to DPR's Cromwell Center in Tompkinsville should be stabilized and reconstructed to be made safe for public use.

- **Improve public streets leading to and along the waterfront.**

Richmond Terrace, Bay Street, Front Street and Edgewater Street are generally parallel and close to the shoreline, but direct access from adjacent residential communities to the waterfront is obstructed and possible at only a few points. Few public streets terminate at the water's edge. Bank Street meets the shore but it is unimproved and access to it is awkward. Street ends at Harborview Road, Nautilus Avenue, Jersey Street, Victory Boulevard and Bank Street are unimproved. Modest streetscape improvements at these street ends would allow upland communities to enjoy the waterfront.

Sidewalks should be installed along Richmond Terrace near Snug Harbor, along Pier 7 in Tompkinsville and along Edgewater Street. These improvements would allow safe and direct pedestrian access to currently inaccessible stretches of the waterfront, generally relieve poor pedestrian conditions and improve connections between neighborhoods.

- **Implement the Front Street realignment and improvement plan.**

The realignment plan initiated by the Federal Highway Administration is needed to improve access and promote the reuse of the soon-to-be-vacated Naval Station. A wide sidewalk-promenade area should be developed with landscaping and planting to connect the public waterfront areas proposed north and south of the facility, create uninterrupted pedestrian and bicycle ways as envisioned in the North Shore Esplanade Plan and provide a waterfront amenity for the Stapleton community. Additionally, the Department of Transportation should consider reconfiguring the turning area at Front Street and Edgewater Street to allow for continuous traffic flow along Edgewater Street to Hylan Boulevard. This would relieve congestion on Bay Street and improve access to any new uses proposed for the port facility.

As recommended in the Department's *Stapleton Town Center* study, landscaped areas should be created at the ends of Canal, Water and Tompkins streets which serve as waterfront view corridors from Stapleton. The town center streetscape should be extended along those streets, and the streetscape and lighting improved at SIRT overpasses at the Clifton and Stapleton stations and at Canal and Water streets.

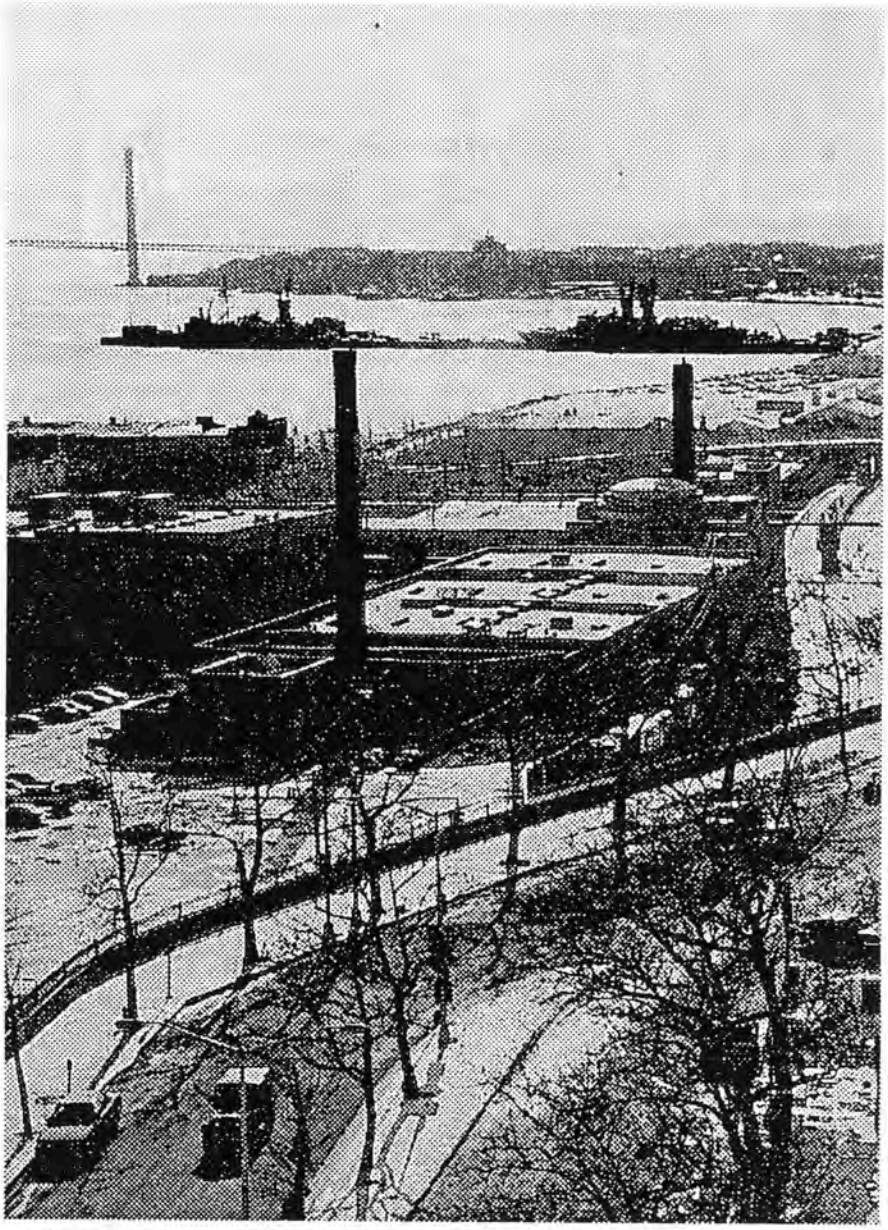
- **Create new public waterfront spaces on unimproved, city-owned parcels north and south of the Naval Station, and acquire a vacant private parcel along Richmond Terrace for a new park.**

Two city-owned parcels, primarily under the jurisdiction of the Division of Real Property (DRP), are directly north and south of the Naval Station. Both are presently unimproved and unsafe or uninviting. The northern parcel (Block 487, Lot 100) extends from Pier 5A at Victory Boulevard, past the Cromwell Recreation Center on Pier 6 through Pier 7 which once housed the ferry maintenance facility. The southern parcel (Block 2820, Lot 105) extends from the Homeport to Pier 19. With funds allocated in its fiscal 1994-95 capital budget, DRP plans to reconstruct the bulkheads and construct esplanades along both parcels. Improvements should include landscaping, signage, lighting, ground surface treatment and information kiosks. While the northern parcel, Pier 7 in particular, would be most appropriate for working waterfront uses, the southern parcel should be assigned ultimately to the Parks Department and designated for active recreational uses. It is near the Clifton SIRT station and is easily accessible from upland communities.

A new park with active recreation facilities should also be considered on a nearly two-acre privately owned vacant parcel along Richmond Terrace between Franklin and Lafayette streets. The park would serve nearby New Brighton residents who have few close-to-home options for active recreation.

- **Incorporate public access components at key redevelopment sites and integrate them into the larger esplanade network.**

The recently adopted waterfront zoning text amendment requires public access in all large mid- to high-density residential and commercial developments. The zoning text establishes design guidelines for waterfront esplanades, upland connectors and view corridors. However, additional site planning controls are likely to be needed to adapt the generic waterfront regulations to specific conditions at the strategically located Chessie site, or to ensure continuity of the North Shore Esplanade through lower-density developments.



Bay Street with Cromwell Center and Naval Station

The Working Waterfront

The principal working waterfront uses along this North Shore reach are the St. George Ferry Terminal and the U.S. Navy Homeport site in Stapleton. Opportunities for reconfiguration and enhancement of the Ferry Terminal site are addressed in the Redeveloping Waterfront. There may also be opportunities to expand ferry service at several locations along the North Shore and to expand nearby water-dependent operations, or introduce new ones, at Pier 7's protected anchorage. DRP has issued a Request for Bids for occupancy of the pier by water-dependent uses. Appropriate reuse of the Homeport -- preferably for water-dependent activity allowing public access -- is the major unresolved working waterfront issue in the reach.

- **Ensure that land use and urban design issues are addressed in plans for the reuse of the Naval Station.**

The 50-acre U.S. Naval Station at Stapleton is to be closed by August 1994. The Naval Station includes a 1,000-yard pier, a large ship repair facility, a new utility system and an array of recently built structures. The land and improvements will revert to the city which deeded the property to the Navy in 1986.

Reuse of the property presents a significant opportunity for the North Shore. A task force, chaired by the Brooklyn Union Gas Company and staffed by EDC, is exploring reuse options for the property. A consultant has been selected to conduct a six-month study of the site, examine zoning and land use options, and propose development guidelines for the reuse of the complex. Water-dependent and/or water-enhancing uses which take advantage of the deep water port and facilities available at the Homeport should be encouraged -- as well as public access links to the upland Stapleton community.

The Front Street realignment and reconstruction, as described in the Public Waterfront, should proceed expeditiously. Its poor condition and configuration deter access to the site and could hinder its reuse.

- **Explore the potential for additional ferry service between the North Shore and destinations in Manhattan and Brooklyn.**

A number of ferry service proposals have been developed to increase commuter and recreational access to other parts of the city from North Shore locations. In conjunction with the Governor's High-Speed Ferry Task Force, the city and state Departments of Transportation have selected a private operator for ferry service from Slip 7 at the St. George Ferry Terminal to a pier on the west side of Manhattan. Service is scheduled to begin in 1995. Before then, the Fire Department's Marine Company 9 now located at Slip 7 will have to be relocated. DOT will form an interagency-community working group to plan for its relocation within the reach.

Additionally, at the request of the Staten Island and Brooklyn Borough Presidents, the Port Authority and city DOT are studying the feasibility of ferry service between undetermined sites in the vicinity of St. George and Downtown Brooklyn, perhaps at the foot of Atlantic Avenue. Its objective is to ease the commute of Staten Island residents to jobs at MetroTech and other locations in Downtown Brooklyn.

As part of New York City's Harbor Park, Snug Harbor is also a candidate for waterborne excursions linking the site to others in the Harbor Park network -- Battery Park, South Street Seaport, Liberty and Ellis Islands and Empire-Fulton Ferry State Park in Brooklyn.

The Redeveloping Waterfront

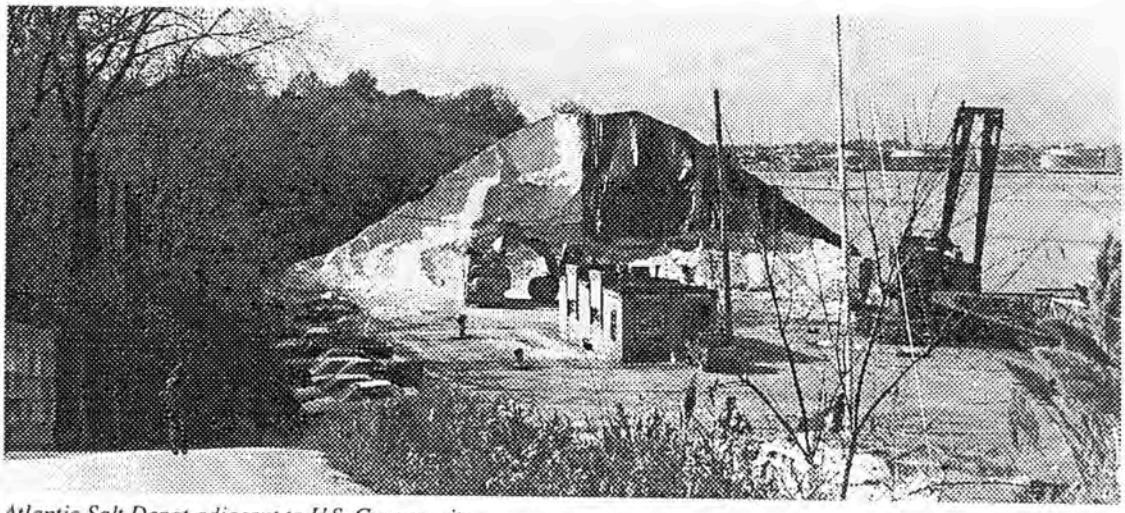
Large tracts of unused land and numerous vacant structures along the North Shore present an opportunity to stimulate growth and development of the inland communities and to provide direct linkage to the water's edge. Zoning constraints and difficult site conditions, together with boroughwide trends and the current economic climate, have stalled redevelopment plans and instead left dormant land and structures that contribute to the perception of a decaying environment.

Development of the Chessie Rail Yard site, reconfiguration and more intensive use of the Ferry Terminal site, and reuse of the former Coast Guard site for a variety of public purposes would together form the cornerstone for renewal of the St. George government and civic center. Elsewhere, opportunities for residential or

commercial redevelopment include the Wrigley and Reynolds Shipyard sites in Clifton and vacant land along Richmond Terrace in New Brighton.

- **Examine zoning options for the area containing the former U.S. Gypsum plant in New Brighton.**

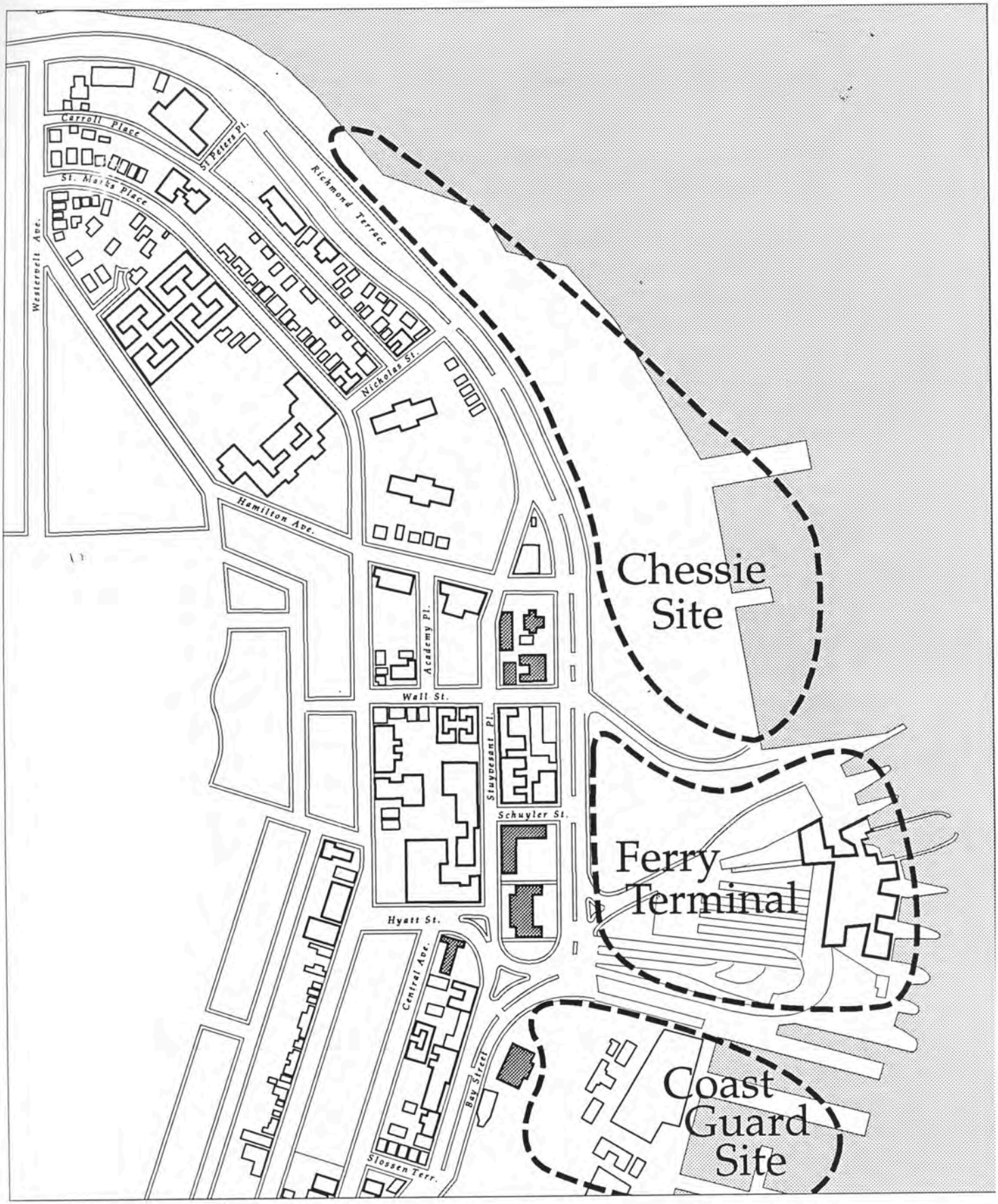
The former U.S. Gypsum plant in New Brighton along the North Shore Rail Line is presently zoned M3-1 and includes several structures on the shoreline adjacent to the Atlantic Salt Company's operations. These deteriorated structures are crumbling from fire damage and several sections of wall have collapsed. In the short-term, the Department of Buildings should ensure that fire damaged structures comply with safety codes. In the longer-term, a zoning study of the area should be undertaken to explore reuse options, including industrial uses that would benefit from rail freight service and new uses that would permit waterfront access and the retail and service establishments needed by adjacent communities.



Atlantic Salt Depot adjacent to U.S. Gypsum site

- **Rezone the area containing the Reynold's Shipyard and Wrigley sites and vacant upland parcels to encourage new residential development.**

The Reynold's Shipyard site is a former ship repair facility at the southeastern end of the reach. The M3-1-zoned site contains several deteriorating buildings, an existing pier and a vacant parcel across Edgewater Street. The nearby Wrigley Building, separated from the Reynold's site by the Sandy Hook Pilots Association, is also zoned M3-1. The area should be rezoned to permit low-rise residential development oriented to the surrounding neighborhood and streets -- as well as direct public access to the existing pier and to Buono Beach.



18.7 CIVIC CENTER/ ST. GEORGE WATERFRONT

0 600'

DEPARTMENT OF CITY PLANNING NYC
COMPREHENSIVE WATERFRONT PLAN

St. George Government and Civic Center

The government and civic center in St. George/Tompkinsville has the greatest need -- and potential -- for redevelopment along the North Shore. Its traditional role as the borough's central business and office district has eroded with the continuing relocation of government uses and institutions (such as the College of Staten Island), corporations and professional offices elsewhere in the borough. Despite its impressive assets, confidence in the area -- as a place to live and do business -- will continue to diminish unless present trends can be reversed.

The St. George Civic Center and its shorefront are physically and topographically separated. The mostly barren Chessie Rail Yard drops steeply from Richmond Terrace. Public access to the waterfront is available only via the Ferry Terminal's intricate layout of bus and automobile ramps. Borough Hall, the court houses and civic uses throughout St. George are effectively severed from the shorefront, undermining the original orientation of these public buildings toward the shore. (Figure 18.7)

The conceptual framework for a strategic plan, as described below, would reorient the borough's government district toward the shorefront and promote a Staten Island presence on New York Harbor. The framework presents site planning objectives and principles for the major redevelopment sites -- the Ferry Terminal, the Chessie site and the Coast Guard site -- as a basis for public discussion on the future shape of the civic center and business district. An important element of the strategic planning process would involve the mapping of a Waterfront Access Plan to ensure coordinated site development and appropriate application of the waterfront zoning text to the complex conditions along the St. George waterfront.

- **Develop a strategic plan, including a Waterfront Access Plan, for the St. George Government Center.**

A major planning study of the Staten Island Government Center is needed to integrate the redevelopment of key waterfront sites with overall redevelopment objectives for the business district, government center and upland residential communities. Carried out in cooperation with involved agencies, public officials, business and community interests, the study would seek to:

- Build on the existing strengths of the government center, its unique waterfront location and relation to New York Harbor;
- Create a long-term partnership between civic and business communities to coordinate redevelopment and investment activity with public sector initiatives;
- Reinforce links between the St. George civic center and the Manhattan CBDs;
- Promote diversification of the area's economic base and encourage new investment;
- Encourage tourism and enhance cultural activities; and
- Establish civic open spaces and parks with improved access to a revitalized waterfront.

Components of the strategic plan would include: analysis of infrastructure conditions and local and regional economic trends to identify opportunities for growth; zoning and street mapping proposals to achieve plan objectives; land use and urban design guidelines for the key waterfront redevelopment sites and the upland civic center; and preparation of a Waterfront Access Plan (WAP) for adoption as a zoning text change. A WAP is needed to coordinate the public access components of the three sites and to link pedestrian promenades and other public spaces; ensure that waterfront zoning bulk controls are applicable to blocks that could become non-waterfront blocks as a result of new street mapping; establish the locations of new parks and open spaces; and increase development flexibility by modifying access and visual corridor requirements.

Among the infrastructure issues that need to be addressed is the severe traffic congestion which occurs during peak hours at Richmond Terrace between York Avenue and St. Peter's Place where the roadway narrows to one lane in each direction. A new street could be constructed parallel and adjacent to the water's edge from the Ferry Terminal through the Chessie site to Bank or Jersey Street in New Brighton. Alternatively, the narrowest section of Richmond Terrace could be widened, which would necessitate reducing the width of the Richmond Terrace



Borough Hall and Ferry Terminal approach

esplanade at Westervelt Avenue. The existing esplanade and unimproved parkland would still be sufficiently wide to provide seating, a pedestrian trail and a bicycle path. However, state enabling legislation might be required if parkland acreage were reduced. The strategic plan should also evaluate the potential economic benefit of restoring passenger service along the North Shore with a link to the mainland Conrail system in New Jersey.

The development and urban design guidelines for the key waterfront redevelopment sites should be developed in accordance with the general concepts outlined below.

A. St. George Ferry Terminal (Figures 18.8a and b)

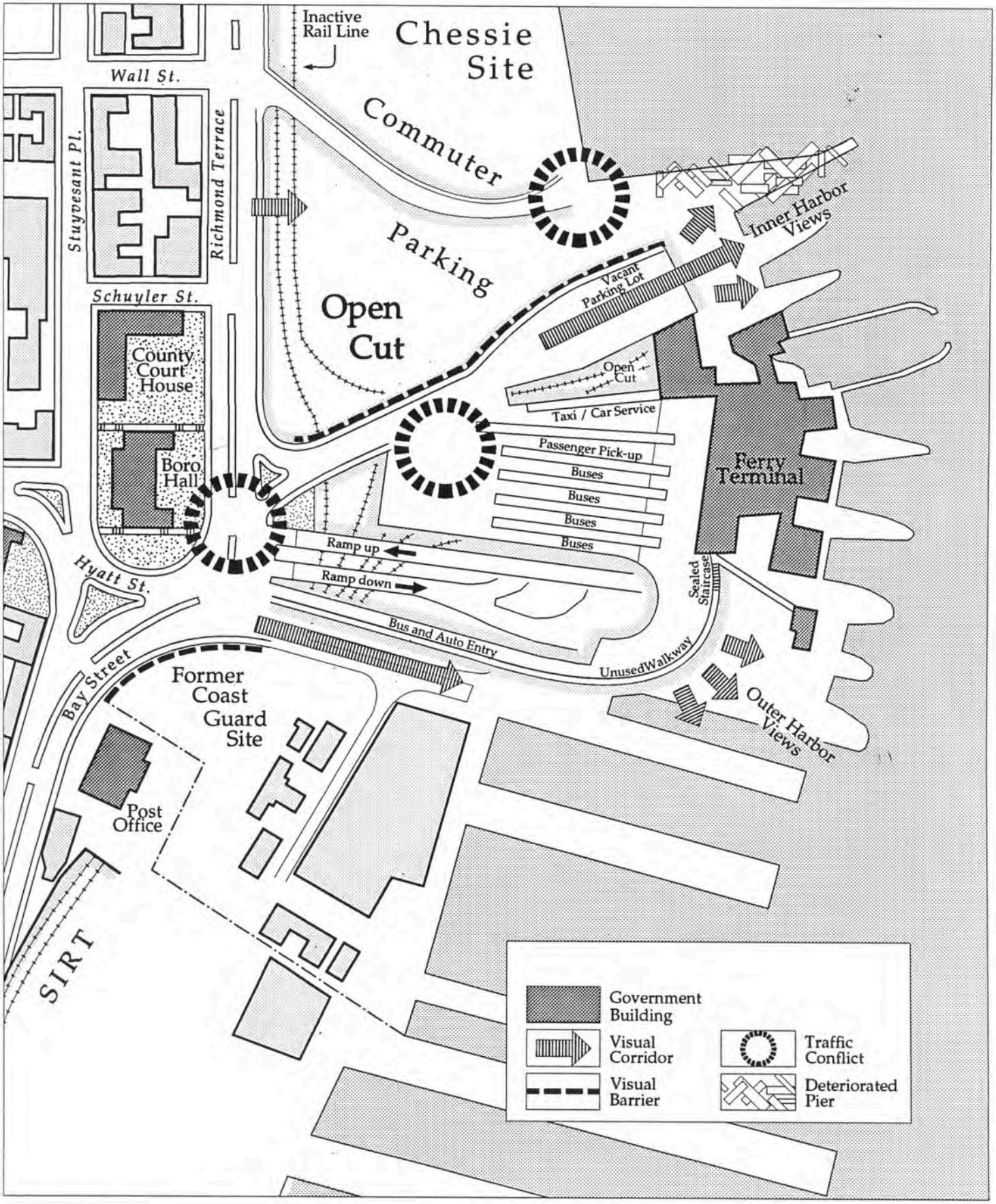
The St. George Ferry Terminal is central to the redevelopment of the civic center and adjacent sites. Despite its waterfront location and dramatic views of Manhattan and New York Harbor, it fails to capture tourist and development potential. While important as a transportation hub, the terminal is linked only marginally to the government center and businesses in St. George. It lacks a sense of destination and contains few amenities or access points to the water's edge.

The current layout of the multi-level Ferry Terminal and its system of ramps severely constrict pedestrian access. Pedestrians entering or leaving the terminal must maneuver across the ramps and through bus, van and automobile traffic. Movement is further restricted by the limited sidewalk space and the adjacent, below-grade open parking lot.

Traffic conflicts occur throughout the site but are especially acute at the exiting areas and the passenger distribution platforms. Vehicles must weave in and out to reach Bay Street or Richmond Terrace, a condition made more hazardous by people walking in the roadway.

Throughout the site, the pedestrian spaces that do exist are often inhospitable, inconvenient and unsafe. Connections with the upland are unclear. Interior spaces are generally unappealing and lack direct visual connections with outdoor spaces and the waterfront. There are no focal points or visible directional clues to orient the commuter or visitor. Views of the water's edge, adjacent shorelines and the upland government center are limited. It is no wonder that so few visitors venture out beyond the waiting areas and concourse.

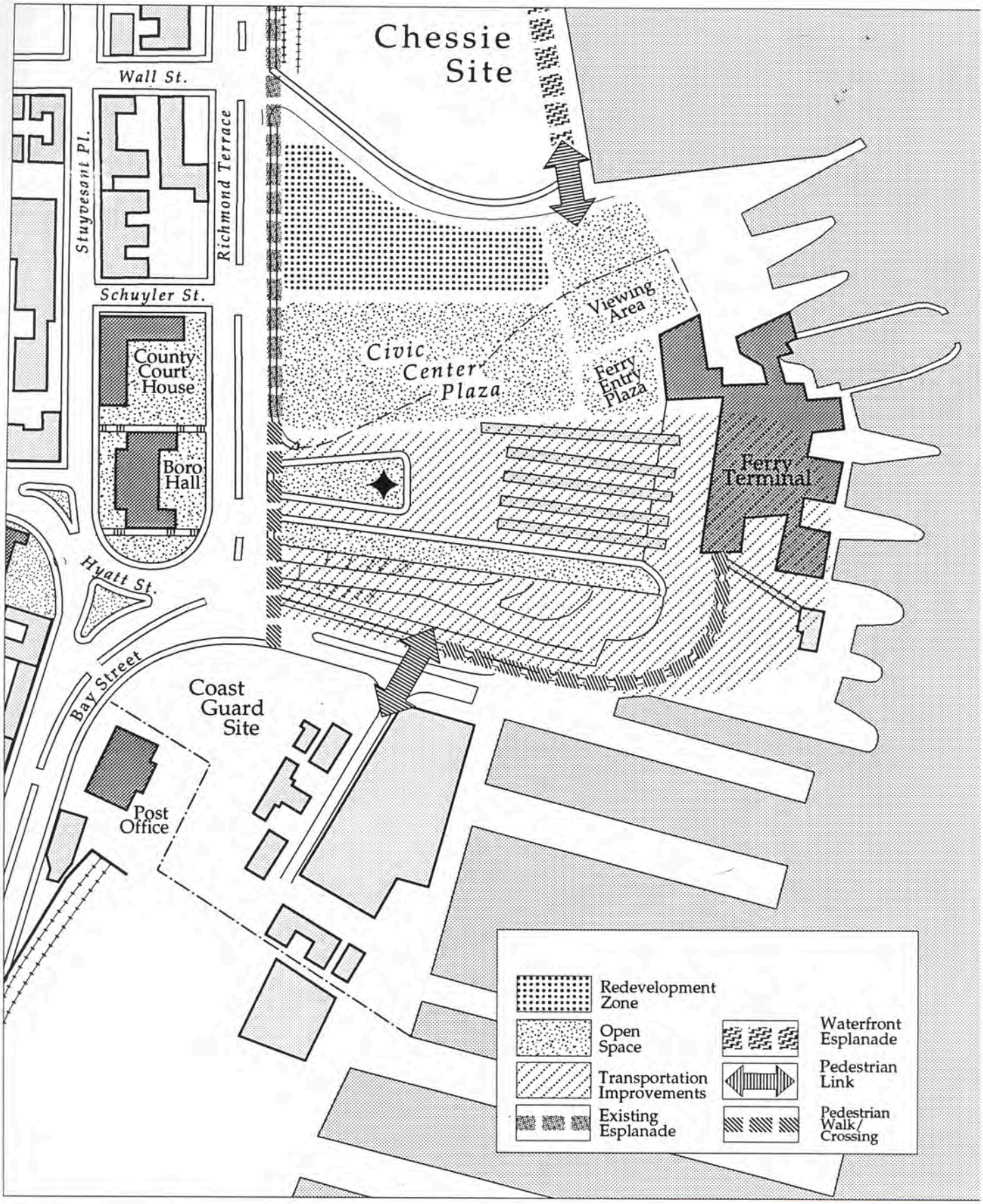
The borough's civic center and office district would benefit from an infusion of new activity and a civic open space at the terminal gateway. The development principles that follow suggest a broad public mission for the site which would create a direct link between the waterfront and the upland. Some of the components are clearly long-range, requiring further study and refinement in the context of a strategic plan. Others, such as pedestrian access improvements and upgrading of interior spaces, could be undertaken in the short-term.



18.8a FERRY TERMINAL SITE: EXISTING CONDITIONS

0 400'

DEPARTMENT OF CITY PLANNING NYC
COMPREHENSIVE WATERFRONT PLAN



18.8b FERRY TERMINAL SITE: LONG RANGE IMPROVEMENTS

0 400'

DEPARTMENT OF CITY PLANNING NYC
COMPREHENSIVE WATERFRONT PLAN

Long Range: One option that might be examined as part of the strategic plan is the feasibility of decking over the railroad tracks to allow for the reconfiguration of traffic circulation, a new civic open space and buildable area.

A civic plaza located directly across from Borough Hall would serve as the focal point of the government center. It could provide a variety of interconnected open spaces to accommodate different users and activities including a waterfront viewing area. With appropriate landscaping, signage and lighting, it would provide open space connections to the interior of the terminal, Richmond Terrace and any future esplanade at the Chessie parcel. The plaza would also enhance views of the harbor and the Manhattan skyline from the civic center.

In conjunction with reconfiguration of vehicular circulation to minimize conflicts and reduce congestion, access improvements to parking areas should be explored and a network of "pedestrian only" zones and crosswalks should be established.

Short-Term: The Department of Transportation should complete a new interior and exterior access scheme to resolve pedestrian-vehicular conflicts and provide waterfront access. The following improvements should be considered as part of DOT's capital plan, now underway, for rehabilitation of the terminal.

- Incorporate crosswalk signage and signal system improvements detailed in the Department of City Planning's 1989 Ferry Terminal plan. These include increasing space for bus and vehicular circulation by bridging/ decking adjacent to the exit area at Richmond Terrace or other means; and reassigning passenger, taxi and bus lanes to minimize or avoid circulation conflicts (relocating north and westbound bus service to the northernmost area of the site and assigning passenger and taxi pick-ups to central lane locations).

- Provide exterior signage to guide pedestrians to the government/business district, the Richmond Terrace esplanade and other points of interest.

- In conjunction with rehabilitation and reuse of the vacant parking area, incorporate a public viewing space with appropriate signage, landscaping and lighting.

- Develop a safe pedestrian connection to the Richmond Terrace esplanade along Wall Street Extension.

- Explore the possibility of providing public access at Slip 7 in conjunction with the proposed ferry service to midtown Manhattan.

- In interior spaces, improve sightlines to exterior views; provide bold directional graphics and better lighting; and relocate incidental retail uses from the middle of the concourse to establish a tourist/information center.

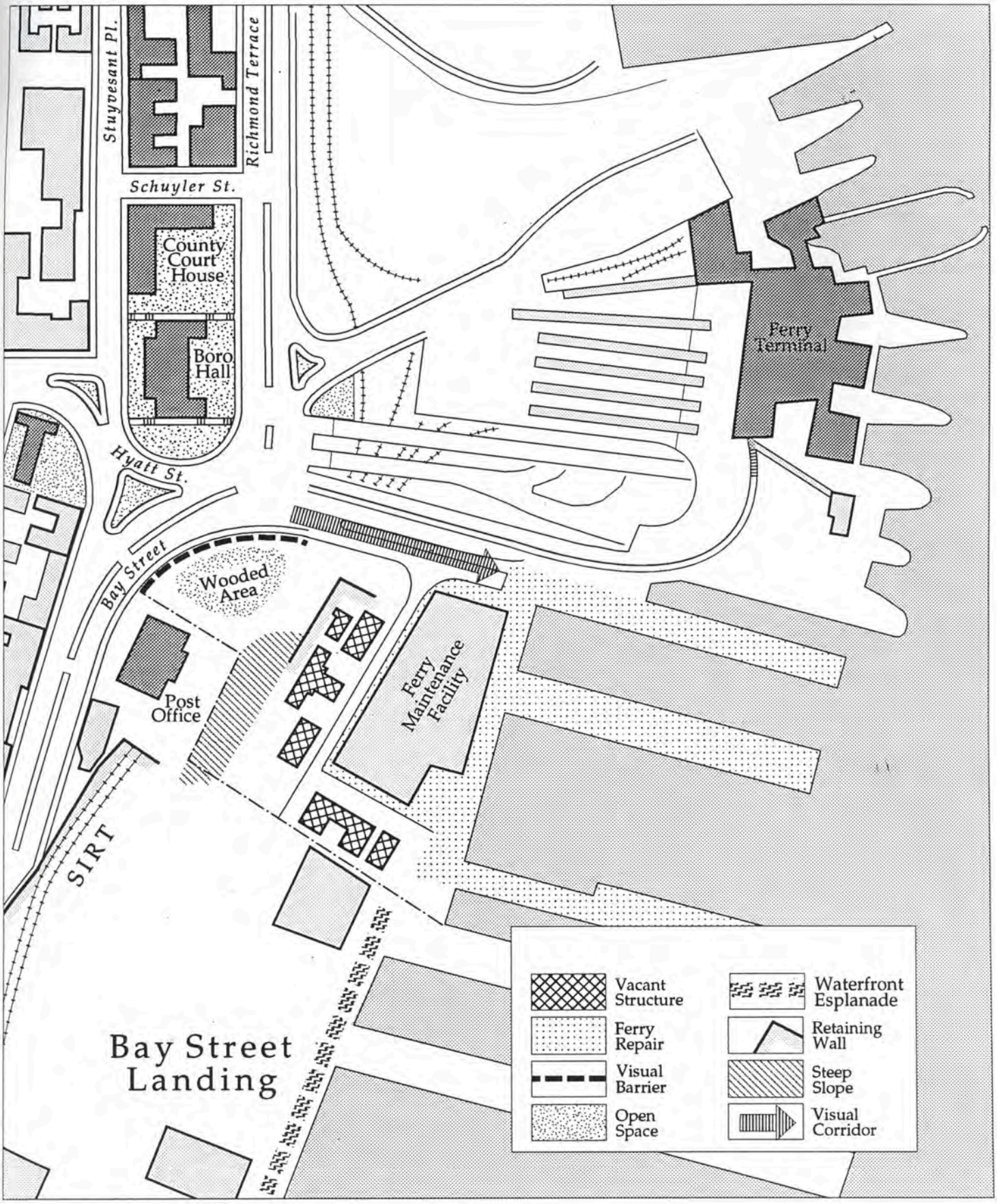
- Rehabilitate unstable piers and bulkhead areas at north parking lot.

B. Former U. S. Coast Guard Base (Figures 18.9a and b)

The city-owned former Coast Guard Base, on 22 acres directly south of the Ferry Terminal, presents an immediate economic development opportunity for the St. George/Tompkinsville business district. The site contains a recently completed ferry maintenance facility with working piers and several vacant historic structures. The Economic Development Corporation is coordinating the construction of a pedestrian bridge connecting the Ferry Terminal to the northern end of the site. EDC is also working with the Staten Island Institute of Arts and Sciences and a private development organization which have proposed redeveloping the site with a museum, a park, a phased renovation of the historic buildings for reuse as visitor centers and offices, and a new retail/commercial complex on the adjacent Bay Street Landing site.

Existing site conditions -- an imposing masonry wall, sudden topographic changes and the placement and scale of existing buildings -- combine to limit visibility and access to and through the site. At present, the only entry point is located adjacent to and behind the Ferry Terminal's vehicular ramps. Its use for vehicular access to the maintenance facility augments the sense of isolation and typifies the potential conflicts that may arise with development of the site for a variety of uses.

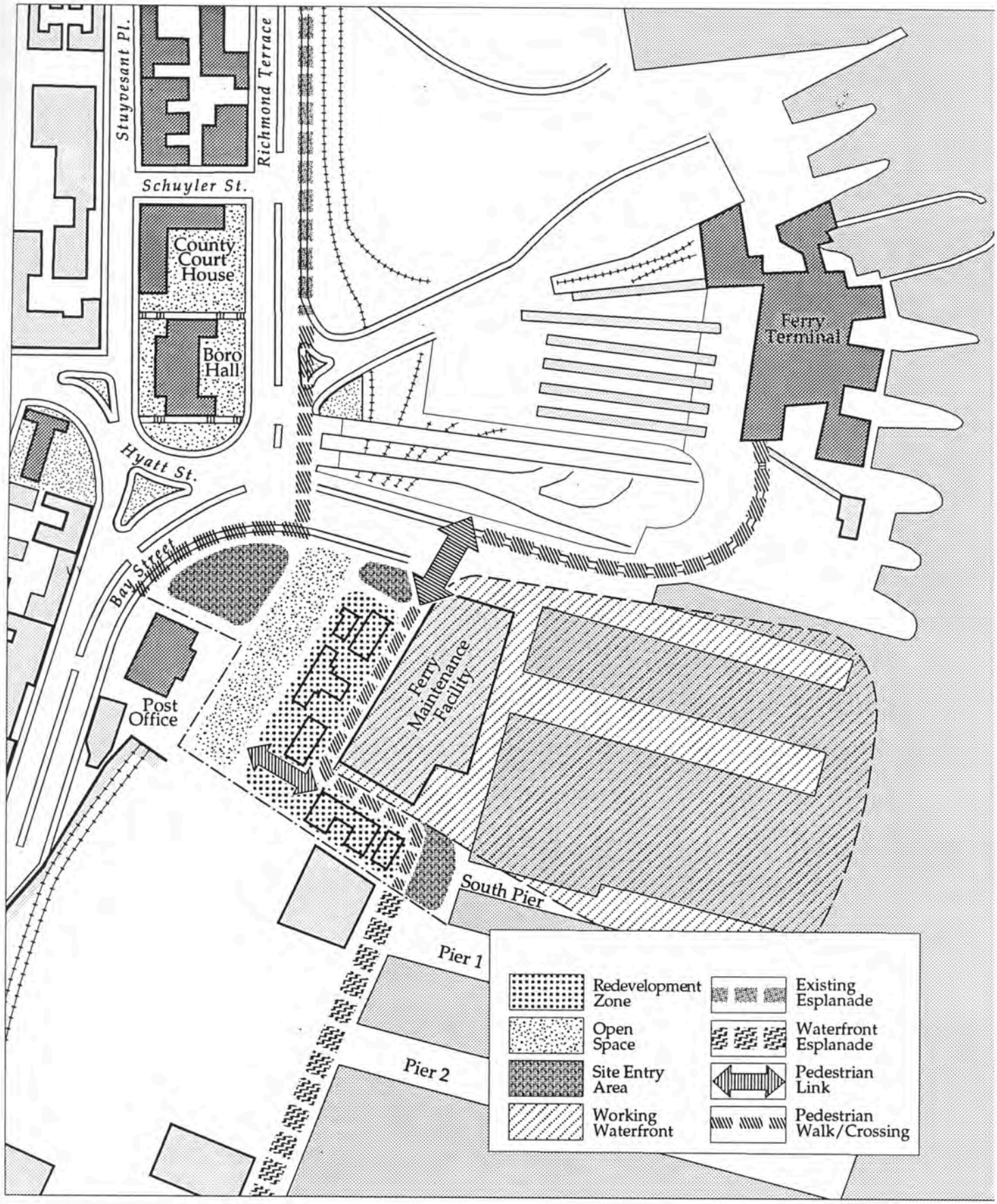
The successful redevelopment of this site for cultural and/or commercial uses requires the resolution of several important site planning concerns including its integration with the upland government and business district and its connection to the North Shore Esplanade, the waterfront and the St. George Ferry Terminal. The following planning and design guidelines for the site should be coordinated with development programs for the Ferry Terminal and Chessie sites and incorporated in the proposed St. George Waterfront Access Plan.



18.9a COAST GUARD SITE: EXISTING CONDITIONS

0 400'

DEPARTMENT OF CITY PLANNING NYC
COMPREHENSIVE WATERFRONT PLAN



18.9b COAST GUARD SITE: IMPROVEMENTS

0 400'

DEPARTMENT OF CITY PLANNING NYC
COMPREHENSIVE WATERFRONT PLAN

- Establish a "front door" presence along Bay Street to avoid a sense of isolation and enclosure; organize pedestrian circulation to orient and direct the public to points of activity and the waterfront.

All site entry areas should be easily identifiable and provide direct paths to centrally located open spaces and to the waterfront. The principal site access should be provided near the Bay Street/Stuyvesant Place intersection. Secondary site access along the site's southern boundary adjacent to the Bay Street Landing parcel should also be explored. A public circulation plan, separating vehicular and pedestrian traffic, should link all on-site uses and provide strong connections to upland and adjacent uses. The site's central public open spaces and circulation areas should be visible from the adjacent sites and Bay Street to promote public access, safety and linkage with the upland community.

- Encourage public use of the water's edge and esplanade and maximize the site's potential as a cultural attraction and recreational node through a variety of public open spaces.

A public area at the water's edge should be linked with the waterfront esplanade and other public open spaces on the adjacent Bay Street Landing parcel. Piers 1 or 2, or the South Pier which is currently used for storage by DOT, should be considered for recreational use. A variety of other landscaped open spaces should be developed including arrival and orientation areas, an upland promenade, and centrally located open spaces adjacent to existing and new structures.

- Enhance the physical context and historical character of the site.

The scale, materials and bulk distribution of any new structures on the site should relate appropriately to Bay Street and St. George, the waterfront, and the existing historic structures. An outward focus for all new buildings can be encouraged by placing active uses along walls fronting public open spaces.

- Resolve potential traffic conflicts and vehicular access issues.

Separated access ways for trucks serving the ferry maintenance facility and for other users of the site will be needed to avoid traffic conflicts. Pedestrian access and reservoir space should be provided at all vehicular site entry points.

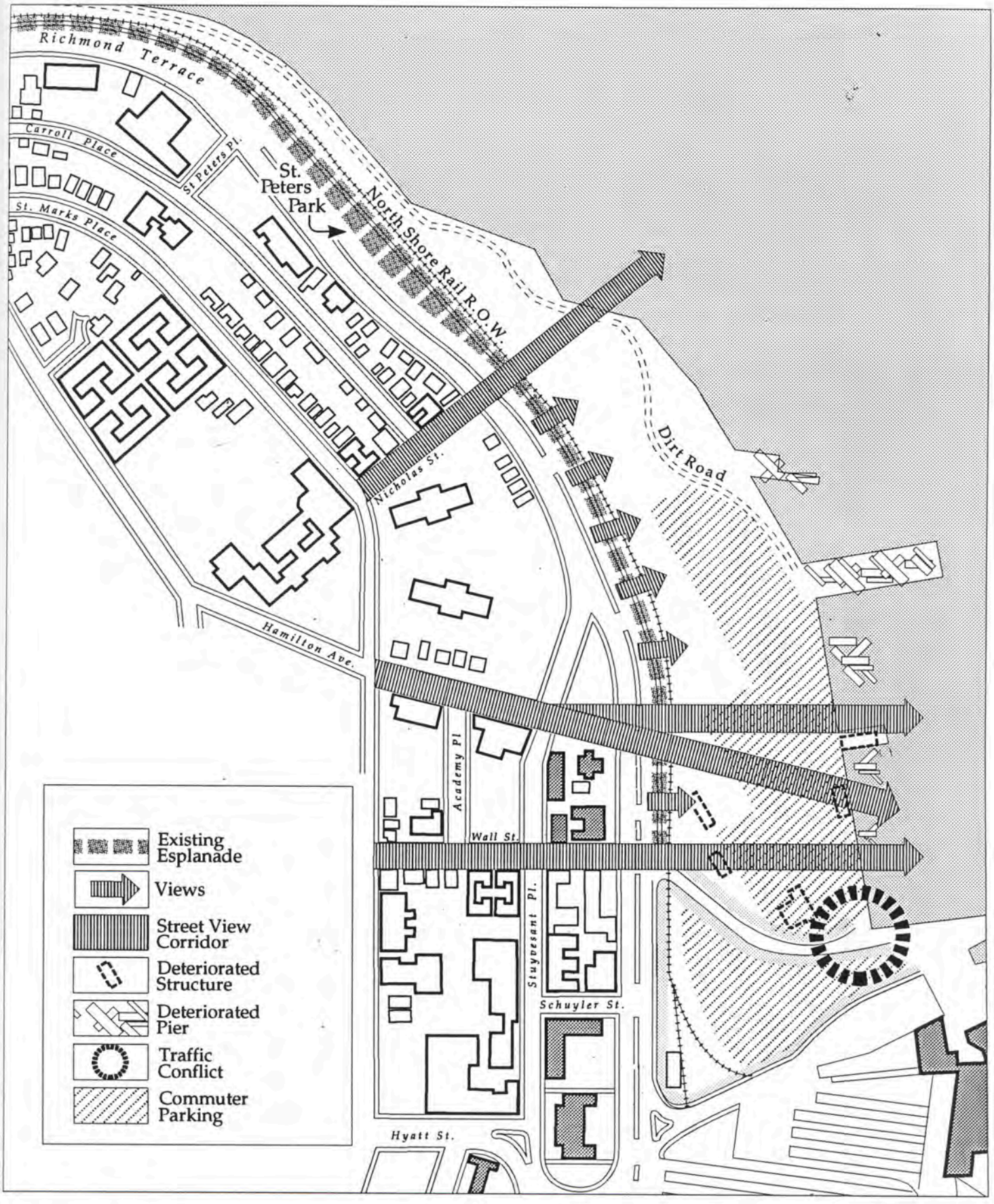
C. Chessie Rail Yard Site (Figures 18.10a and b)

The 33-acre privately owned Chessie site, currently zoned M1-1, is approximately 35 feet below Richmond Terrace. It contains a large commuter parking facility, the unused North Shore Rail Line (soon to be acquired by the city), deteriorating piers and nine vacant, dilapidated and fire damaged structures formerly used as railroad storage facilities.

The site is relatively level and offers dramatic views of New York Harbor. The parcel presents a significant opportunity for mixed-use development with a network of public open spaces. Its redevelopment should be linked with visitor-oriented improvements proposed for the Ferry Terminal, proposals for the North Shore Esplanade and existing civic, institutional and commercial uses in St. George. Existing view corridors should be maintained and development should respect neighborhood texture and street patterns to avoid creating a detached enclave.

Because of its size, strategic location and scale of potential development, the site requires careful planning, including a review of urban design, traffic and parking issues. Among the site planning issues that need to be addressed are appropriate zoning designations, distribution of building bulk and open space, vehicular access points, waterfront public access areas and their integration with adjoining public spaces, and maintenance of panoramic views.

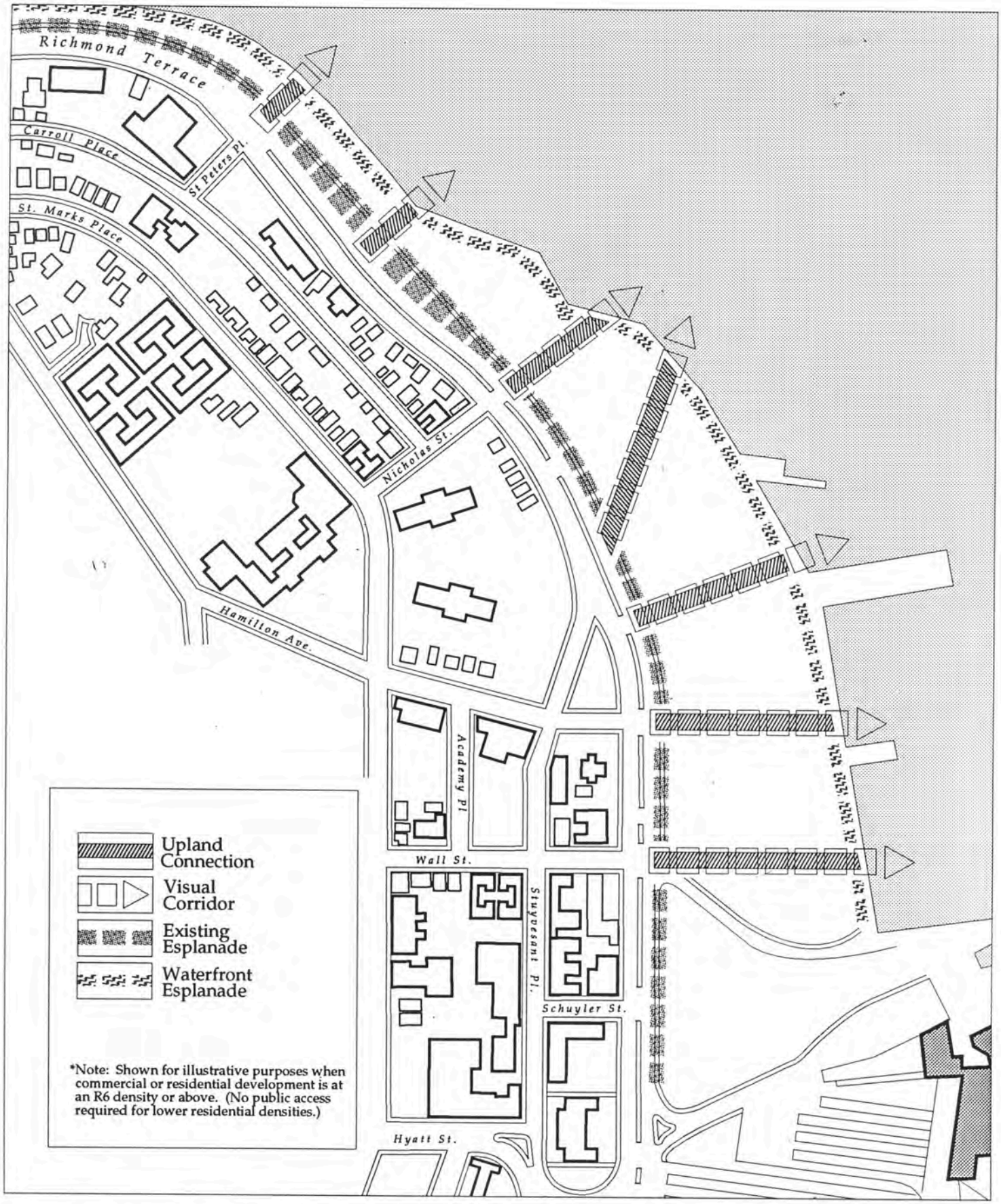
It will also be necessary to coordinate site planning with potential reuse of the North Shore Rail Line and the provision of on-site commuter parking. Although the portion of the railway within the reach will require major reconstruction to be put back in service, redevelopment plans for the site should not preclude the restoration of freight or passenger services nor the provision of any required easements. The Department of City Planning will examine the feasibility of interim use of the right-of-way as a trail for pedestrians and cyclists, as well as joint rail/trail use if this portion of the line is reactivated.



18.10a CHESSIE SITE: EXISTING CONDITIONS

0 600'

DEPARTMENT OF CITY PLANNING NYC
COMPREHENSIVE WATERFRONT PLAN



18.10b CHESSIE SITE:
PUBLIC ACCESS REQUIREMENTS*

0 600'

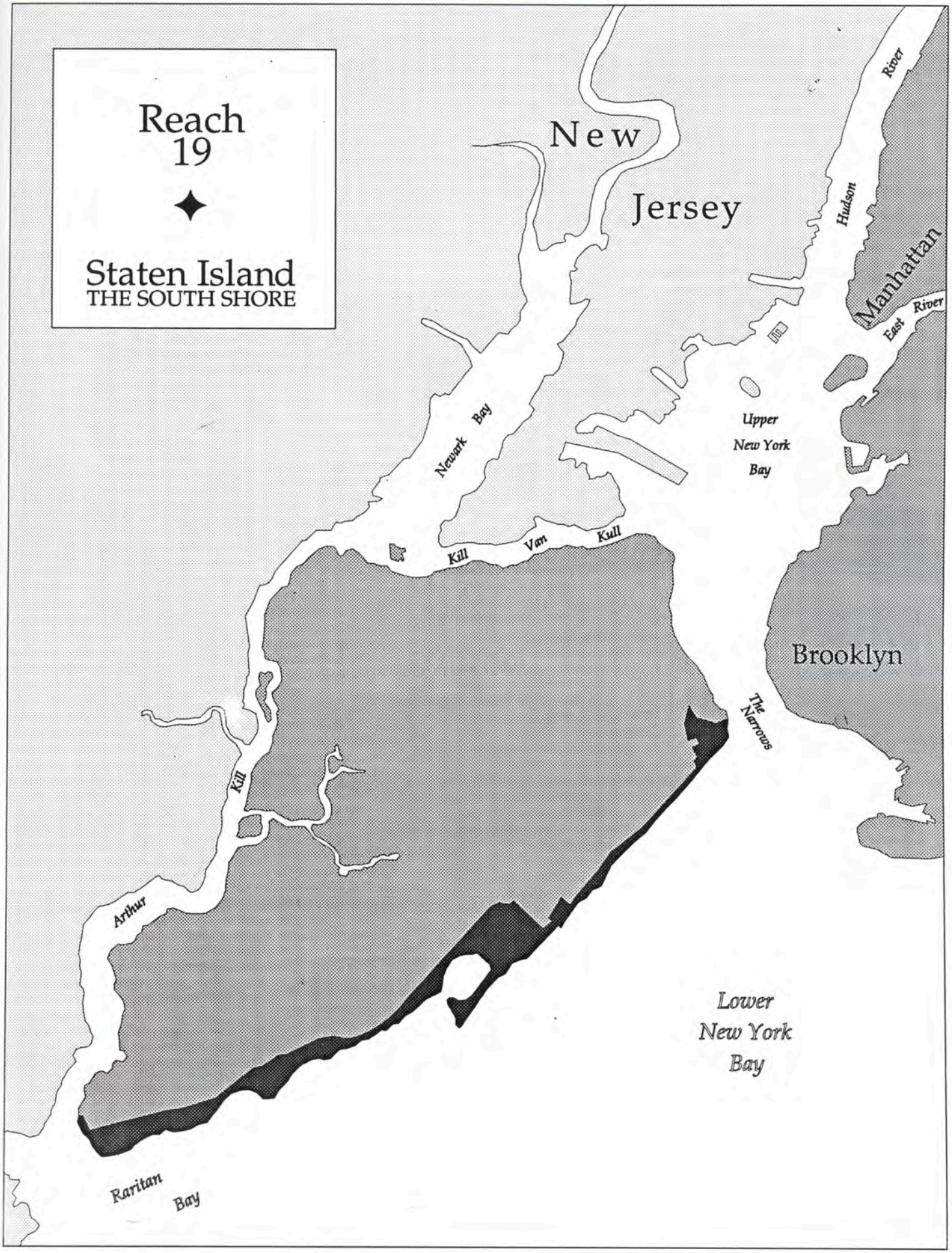
DEPARTMENT OF CITY PLANNING NYC
COMPREHENSIVE WATERFRONT PLAN

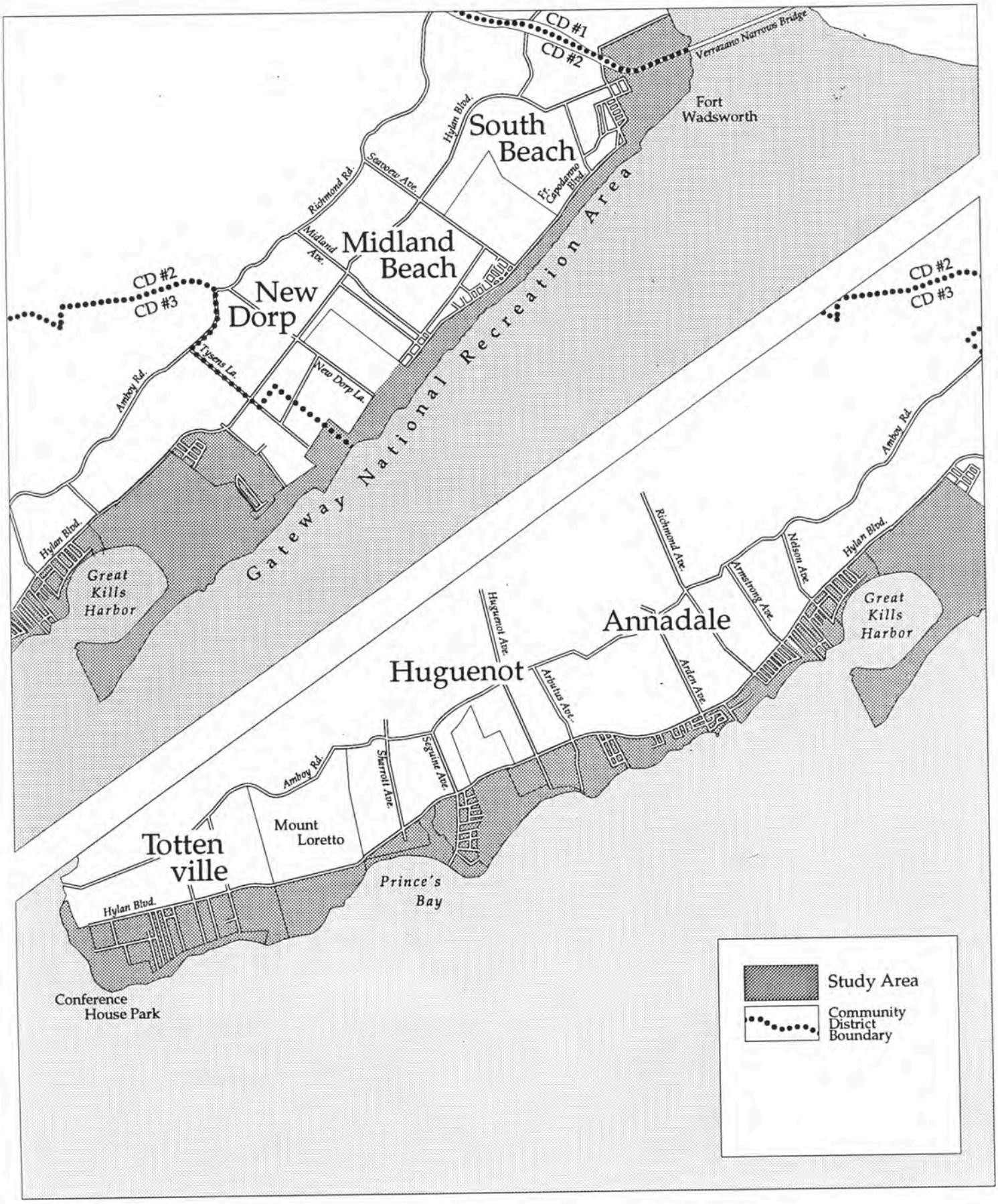
If the site were to be redeveloped for residential and/or commercial uses at densities equivalent to R5 or below, the site would not be subject to waterfront zoning public access requirements for a shoreline public walkway and other public spaces. However, a Waterfront Access Plan could be adopted in conjunction with rezoning to ensure continuous access along the waterfront and to designate upland connections and view corridors. If developed at a density similar to the C4-2 zoning of the St. George business district (R6 equivalent), waterfront zoning would require that 15 percent of the site be devoted to public access, including a 40-foot-wide shore public walkway. In this case, a WAP would also be desirable to adapt the generic public access requirements (as illustrated in Figure 18.10b) to maximize development flexibility by redistributing public access and view corridor requirements, and to ensure seamless connections to public spaces adjacent to the site.



Chessie Site

Carefully planned redevelopment of the Chessie site could well become the linchpin of a revitalized St. George government center.


Reach
19
Staten Island
THE SOUTH SHORE
New
Jersey
Hudson
River
Manhattan
East
River
Upper
New York
Bay
Newark
Bay
Kill
Van
Kull
Brooklyn
The
Narrows
Kill
Arthur
Lower
New York
Bay
Raritan
Bay



19.1 STUDY AREA & CONTEXT

0 1 mile

DEPARTMENT OF CITY PLANNING NYC COMPREHENSIVE WATERFRONT PLAN

INTRODUCTION

Reach 19 comprises the entire southeastern shoreline of Staten Island along Lower New York and Raritan bays. The reach extends some 17 miles from the Verrazano-Narrows Bridge at the Fort Wadsworth/Gateway National Recreational Area to Conference House Park -- the southernmost point of Staten Island and New York City. (Figure 19.1)

The northern part of the reach in Community District 2 consists entirely of city beaches and the Gateway National Recreation Area. Portions of the residential communities of South, Midland, and Oakwood beaches and New Dorp are located immediately adjacent to the inland boundary of the reach, Father Capodanno Boulevard.

The southern part of the reach in Community District 3 encompasses several city-owned parks -- primarily natural area preserves -- and the rapidly growing communities of the South Shore. These include portions of Great Kills, Annadale, Prince's Bay, Richmond Valley and Tottenville which straddle Hylan Boulevard, the inland reach boundary. During the last two decades, growth in the southern part of the reach has been rapid, so that the mostly natural waterfront is now interrupted by several stretches of private residential development. Most of the development is in the form of one- and two-family detached homes, but several townhouse-style developments also extend to the water's edge.

In addition to its beaches and parks, the reach contains large tracts of undeveloped private and city-owned land. Privately owned land is generally to the south near Tottenville, and concentrations of city-owned land are found in parts of the South Shore and in Midland Beach, where hundreds of acres of less easily developed land went *In Rem* in the 1930s and remain vacant. Selected concentrations of city-owned land within or adjacent to the reach are the focus of three of the Department's *Neighborhood Land Disposition Plans*. They are West Poillon Woods, Arbutus Woods and Long Pond/Butler Manor. The goal of the disposition studies is to identify land worthy of preservation and to direct development to city-owned land lacking significant natural features.

Environmental concerns dominate reach issues: shoreline erosion, water quality in the streams and estuaries entering the bay, flooding of low-lying areas along the shore, preservation of freshwater and tidal wetlands, and protection of the habitats they provide. Public access to the shore -- including the need for active recreation in some areas and for access to selected street ends that have been "privatized" -- is also an important concern.



Midland Beach

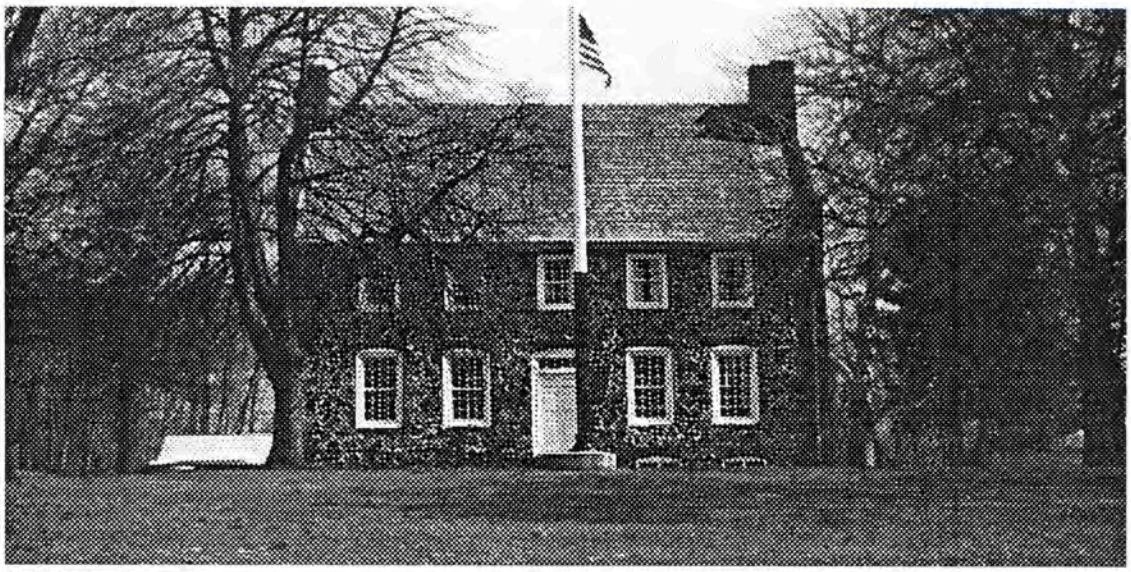
REACH DESCRIPTION

Development History

Staten Island's first permanent settlement, known as Oude Dorp, was established in 1661 at the northern boundary of the reach near Fort Wadsworth. Growth was gradual during the 1700s as small farms began to establish links with commercial centers in the Stapleton area. Oyster fishing and related industries became a major source of income for early settlers throughout the South Shore.

In the 19th century, the pace of growth accelerated with the extension of the first mass transit line from Clifton to Tottenville, now the Staten Island Rapid Transit (SIRT) system. Still, much of the growth was well inland. Summer homes and cottages were built along South and Midland beaches and, as accessibility improved, South Beach became a popular resort, drawing as many as 100,000 people on a single Sunday. By the late 1800s, many hotels were built and ferries ran between the south shore beaches and Brooklyn (Fort Hamilton) and Manhattan (Whitehall terminal).

Hylan Boulevard was opened in 1927 parallel to the SIRT tracks, promoting increased land speculation and residential development in the area. During the Great Depression of the 1930s, however, many tracts of vacant land, especially in the South Shore, went In Rem for non-payment of taxes. By the middle of the century, increased pollution ruined the shellfish industry and discouraged swimming. The completion of the Staten Island Expressway and the Verrazano-Narrows Bridge in 1964 altered much of the area's rural character. Since the bridge's opening, building on the South Shore has increased dramatically. Development has been comprised primarily of one- and two-family houses on large lots and, to a lesser extent, several large-scale townhouse developments.



Conference House

Historic Resources

Conference House Park contains archaeological resources from the Lene Lenepe tribe, which occupied the site as early as 6,000 years ago. About half the park is a nationally designated prehistoric archaeological site because of the presence of a Native American burial ground. Farther north, Lemon Creek Park contains the remains of a small fishing village dating from the period when the shallows supported oyster beds. The beds were closed in 1937 after a typhoid outbreak.

Conference House Park also contains the landmark Henry Hogg Biddle House overlooking the Arthur Kill and the Billop House (c. 1675) where Benjamin Franklin, John Adams and Edward Rutledge rejected British demands to end the colonial rebellion. The house is a city, state and federal landmark. The Joseph H. Seguine House, built in the Greek Revival style in 1837, is a New York City landmark. It is surrounded by two acres of landscaping dating from the same period. Located at Seguine Avenue and Hank Street, the mansion overlooks Lemon Creek and Prince's Bay, and has recently been incorporated into Lemon Creek Park.

The reach contains several other designated landmarks. They are the Poillon-Seguine-Britton House at 361 Great Kills Road, the Poillon House at 4515 Hylan Boulevard and the Manee-Seguine Homestead at 509 Seguine Avenue on Prince's Bay. Miller Army Air Feild is on the National Register of Historic Places.

Natural Features (Figure 19.2)

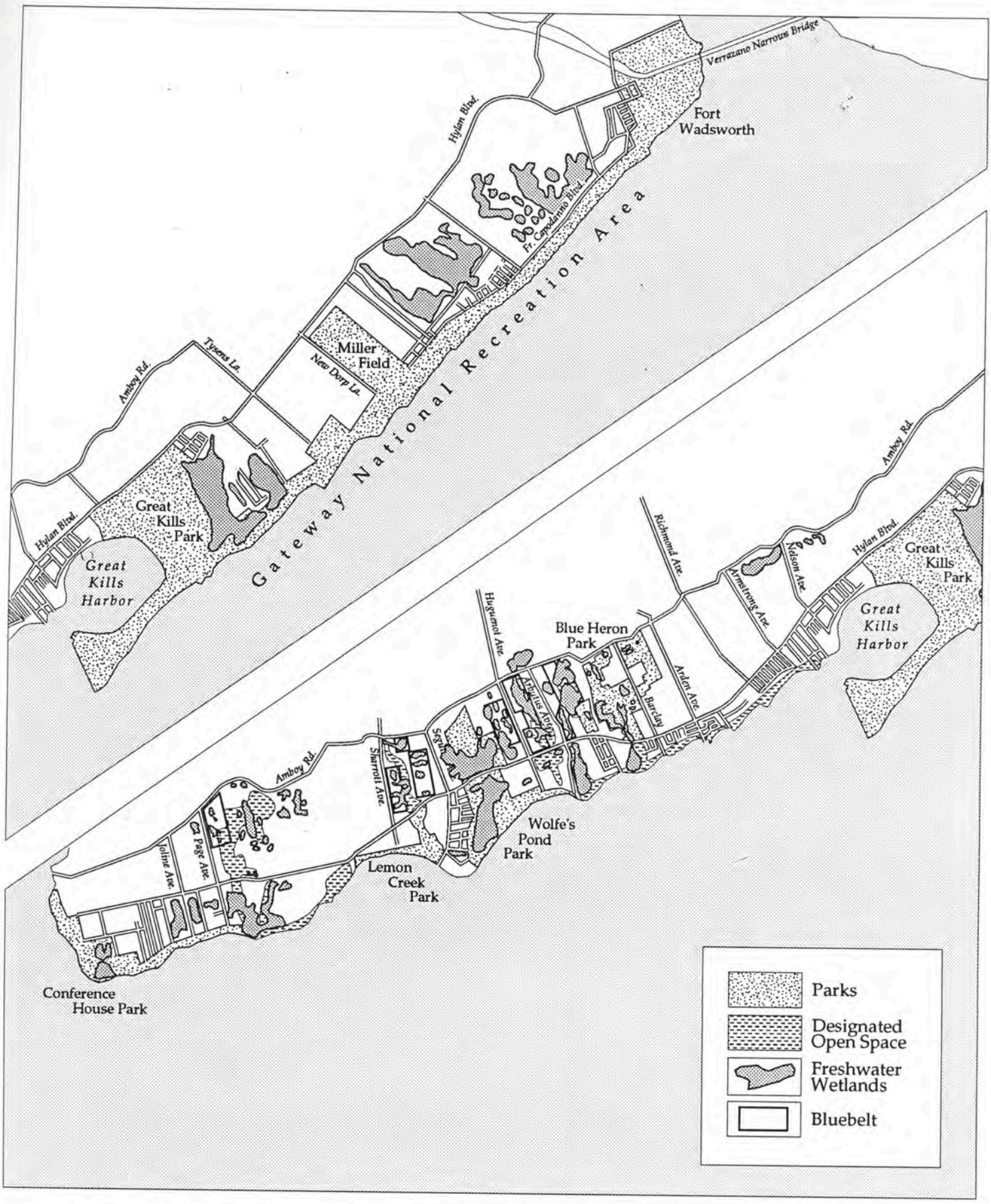
The interaction of climate and geology has created an unusual variety of natural communities along the reach's 17-mile shoreline: the sandy beaches found in the upper portion of the reach, the streams, ponds and freshwater wetlands of Wolfe's Pond Park, the saltwater marshes of Lemon Creek and Great Kills, the high bluffs of Mount Loretto and Conference House Park, and the upland woods and forested wetlands found in many locations near the shore.

Vegetation in the reach is especially varied. Southern species, such as willow oak and tulip trees, at the northernmost extent of their range intermingle with northern species at the southernmost extent of their range. Geologically, the reach is a mix of undifferentiated glacial till (from the terminal moraine deposited during the last period of glaciation) and a glacial outwash plain left by melting ice which deposited a mix of soil and minerals distinct from the underlying bedrock.

Natural Area Parks and Land Assemblages

With its large tracts of vacant land and parklands dedicated to natural preservation, the reach contains an unusual variety of birds and animals for an urban area. The ponds, creeks and wetlands, in combination with upland woods, contain raptors, songbirds, shore birds and many migratory bird species. Large tracts of vacant land with a variety of habitats are especially rich in the number and diversity of species they support. In addition to portions of South, Midland and Oakwood beaches, the major natural resources in the reach are within Wolfe's Pond, Lemon Creek and Conference House parks, and large assemblages of vacant city-owned land near Seguine Pond and Wolfe's Pond Park and at Tottenville. A description of the significant natural areas in Reach 19 follows.

The South, Midland and Oakwood beach areas, which encompass hundreds of acres of fragmented wetlands and several parcels of city-owned land, was once part of a much larger saltwater marsh covering all the land below Hylan Boulevard from Midland Avenue to Old Town Road in South Beach. A berm was built in the 1950s to protect Oakwood Beach homes from flooding. Similarly, a one-way tide gate was constructed at New Creek in 1960 to prevent flooding of the residentially developed area. By preventing tidal flow from entering the wetlands and creek, the berm and tide gate have contributed to nutrient loading,



19.2 NATURAL FEATURES & PRESERVATION AREAS

0 1 mile

DEPARTMENT OF CITY PLANNING NYC
COMPREHENSIVE WATERFRONT PLAN

sedimentation and alteration of water salinity levels. The wetland has been altered to the extent that only a monoculture of phragmites remains along with the remnants of the three creeks that once drained this basin. The drainage basin for this wetland is large and, although some of the runoff is absorbed by the three remaining wetland systems, the residences built in this area are still periodically flooded.

Seguine Pond, below Hylan Boulevard and between Lipsett and Poillon avenues, is a freshwater wetlands area which occasionally breaches the shore and interfaces with coastal waters. It is an important drainage basin that is connected to the Wolfe's Pond Park wetland system. This large, vacant city-owned property also contains a large area of Designated Open Space mapped around the pond. The disposition and appropriate use of this land is a critical concern.

Wolfe's Pond Park includes 317 acres of beachfront, freshwater ponds, freshwater marshes and densely forested upland areas. Preserving habitat and vegetative diversity while improving public access and recreation are primary concerns. The Department of Parks and Recreation (DPR) has received funding for new parking areas, landscaping and the diversion of site runoff into freshwater wetlands. Shoreline stabilization measures have been undertaken and DPR has secured the pond, on an interim basis, from breaching by saltwater from Raritan Bay, thereby maintaining the wildlife presently supported by the pond. Capital funds are allocated for permanent measures to prevent the pond from breaching.

In the **Arbutus Woods** area northeast of Wolfe Pond's Park, two large assemblages of city-owned land contain steep topography and several wetlands. The first encompasses two ponds known as Big and Little Bunker Ponds. These large kettlehole ponds and the surrounding woodlands create a 25-acre area large enough to support wildlife and to provide a direct connection from the upland forest to the shoreline. The second assemblage contains almost 18 acres of property adjacent to Wolfe's Pond Park. Consistent with the recommendations of the *Arbutus Woods Neighborhood Land Disposition Plan*, both assemblages will be transferred to the Department of Parks and Recreation as additions to the existing park.

Lemon Creek Park begins at Prince's Bay near Seguine Avenue and continues for almost a mile along the shore (and inland along Lemon Creek). The creek is the only tidal/freshwater marsh area on the island; it has recently been designated

a Significant Coastal Fish and Wildlife Habitat by the Department of State. The waters of Lemon Creek begin at Porzio's Pond, a freshwater pond at Woodrow Road near the western shore of the island, which flows south to the creek. The freshwater streams of Sandybrook also join the creek, which becomes increasing brackish below Amboy Road. South of Amboy Road, Lemon Creek becomes an integrated system of formerly connected tidal wetlands, coastal freshwater marsh, saltwater meadow and intertidal marsh. The only Purple Martin colony in New York City is found at Lemon Creek, and the mudflats and shallows at its mouth provide foraging and roosting habitat for wintering black duck and brant. Wintering waterfowl include bufflehead, hooded merganser, scaup and canvasback. The creek also supports concentrations of many fish species unique to this ecosystem.

Development has gradually encroached on the floodplain and tributaries of the Lemon Creek area, affecting water quality, habitat value and other functions of the ecosystem. Discharges of polluted runoff from adjacent areas damage habitats, and development on floodplains increases runoff that can exacerbate flooding. City-owned properties along the creek need to be managed to prevent further erosion and siltation into the creek.

The **Butler Manor** area, with almost 20 acres of city-owned land adjacent to large parcels of privately owned undeveloped land, contains an unusually diverse environment. Freshwater and tidal wetlands, together with wet meadows and marshes, create both breeding and nesting areas for waterfowl, birds and mammals. Beginning several hundred feet south of Hylan Boulevard and continuing to the water's edge, the property borders the shoreline of Conference House Park. The Department's *Long Pond/Butler Manor Neighborhood Land Disposition Plan* recommends parkland designation for this city-owned assemblage and an adjacent privately owned parcel.

Conference House Park contains historic resources as well as a variety of natural conditions including accreting and eroding beach areas, sandy bluffs, meadows, woodlands, and freshwater wetlands created by a stream which begins between Finlay and Aspinwall streets and ends in the large marsh bordering the beach. The park offers dramatic waterfront views and occupies a substantial portion of the waterfront on the South Shore. The Department of Parks and Recreation has initiated plans to add appropriate active recreational facilities at Conference House Park, improve public access, identify and secure the park's edges and entrances, and protect the archaeologically significant sections of the site. Shoreline erosion is still a major concern.



Wetlands at Oakwood Beach



Lemon Creek Marina

Erosion

Coastal erosion has affected the shoreline throughout the reach. The entire coastline from the bluffs in Reach 18 running south to Conference House Park has been designated a Coastal Erosion Hazard Area by the New York State Department of Environmental Conservation (DEC). An analysis of data gathered by the Army Corps of Engineers has disclosed a significant amount of shoreline erosion between Mount Loretto and Ward's Point in Conference House Park. Efforts are underway in selected areas to stabilize the shoreline. For example, DPR has recently stabilized the berm at Kissam Avenue in Oakwood Beach, and is planning shoreline restoration work in Lemon Creek, scheduled to begin in fiscal year 1995.

Water Quality and Wetland Preservation

Water quality remains an issue along the reach, as a result of rapid development and inadequate storm and sanitary sewer infrastructure to serve existing and new development. In an effort to improve water quality and to alleviate flooding conditions, the Department of Environmental Protection (DEP) has initiated several major capital projects to provide the needed infrastructure for the area. Work on the Hylan Boulevard sanitary interceptor sewer is complete. Consistent with the recommendations of the Department of City Planning's 1989 Open Space Network report, DEP has also begun to implement its "Bluebelt" program to preserve private and city-owned parcels surrounding the major watersheds of South Richmond by consolidating fragmented and isolated systems to create areas large enough to convey and contain stormwater. By preserving natural drainage corridors, stormwater volumes and velocity will be decreased and suspended sediments will settle, flooding will be reduced and sedimentation into the nearby streams and waterbodies will lessen. DEP is also investigating other areas along the reach which may qualify for the same strategy.

The waters of the Lower Bay are classified primarily "SB" by DEC as suitable for swimming yet unsuitable for shellfishing for market purposes. To meet state standards, DEP is conducting a Citywide Combined Sewer Overflow (CSO) Program to identify technologies to abate combined sewer outflows. During periods of heavy rainfall, combined sewer outfalls may discharge coliform, floatable and settleable materials which decreases the amount of dissolved oxygen

and degrades open waters. Although the Oakwood Beach Water Pollution Control Plant (WPCP) does not receive waste water from combined sewers, the citywide project should reduce floatables and improve water quality in the harbor and Lower Bay. The project has also involved water quality sampling at several Staten Island tributaries including Lemon Creek and Richmond Creek.

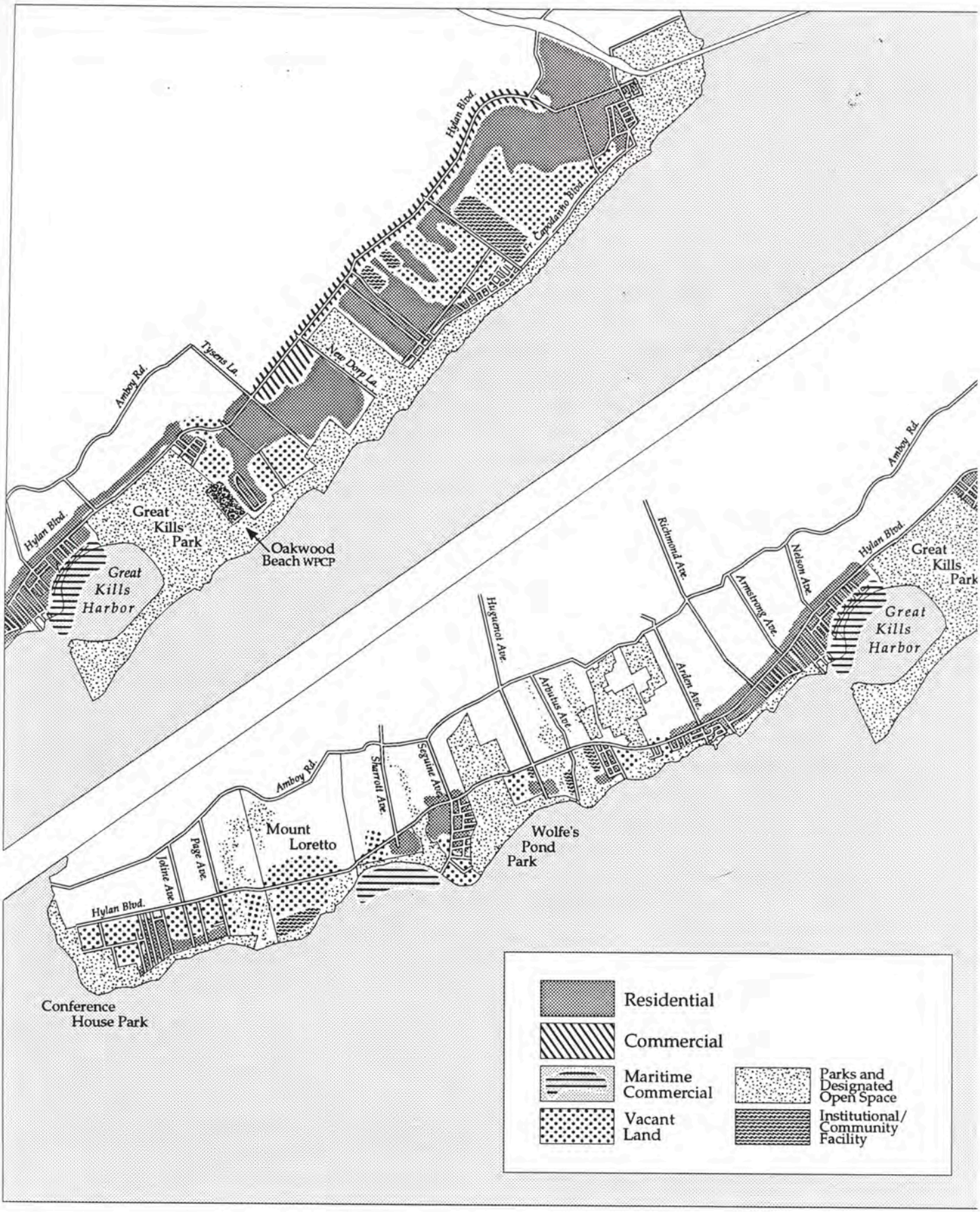
DEP is also revising the Official Drainage Plans for South Richmond in light of state designated wetlands, existing parks and stream corridors. The drainage plans were developed several decades ago in the traditional grid pattern without consideration of wetlands and the natural landscape and should not be built as originally planned. Hydrologic modeling will determine base stream flows and drainage channel capacity, in order to project runoff volumes in each catchment area and to evaluate the need for new upstream retention basins to supplement existing ponds and wetlands.

Physical Character and Land Use (Figure 19.3)

The reach is a major natural and recreational resource for the residents of Staten Island. It begins with the 2,900-acre Gateway National Recreational Area, and ends with the 225-acre Conference House Park. The 317-acre Wolfe's Pond Park and the 80-acre Lemon Creek Park are in between.

Beginning in the northeast, an area of natural waterfront stretches for almost five miles from the Verrazano-Narrows Bridge to Crookes Point at Great Kills Harbor. This nearly contiguous length of open space includes South Beach, Midland Beach, Miller Field, New Dorp Beach, Oakwood Beach and Great Kills Park. Except for Miller Field and Great Kills Park, all are city public beaches with parking for hundreds of cars. The Oakwood Beach WPCP, serving the entire south shore of Staten Island is located north of Miller Field and Great Kills Park.

Miller Field and Great Kills Park, part of the Gateway National Recreation Area, are also fully accessible and include public docking facilities among other recreational opportunities. The Staten Island Unit of the federal Gateway National Recreational Area includes Great Kills Park, Miller Field, a portion of Fort Wadsworth as well as the two manmade Hoffman and Swinburne islands. Portions of Gateway are used primarily for active recreation; others are dedicated



19.3 LAND USE

0 1 mile

DEPARTMENT OF CITY PLANNING NYC
COMPREHENSIVE WATERFRONT PLAN

to the preservation of plant and animal communities and have limited public access. Fort Wadsworth, for reasons of security, is not accessible.

Several neighborhoods nearest the beach and park in the Midland Beach and Oakwood areas are comprised of former cottages winterized for year-round use. Residential development is generally scattered and haphazard. Newly opened, grid-patterned streets intersect older more circuitous roads. Many areas lack storm sewers and, in low lying areas like Oakwood Beach, homes have been built on a former salt marsh with a high water table. As a result, considerable flooding occurs and drainage problems are prevalent.

The shorefront south of Great Kills Park -- while still natural -- is mostly residential and private. Two large scale residential developments have been built at Great Kills: Port Regale, with 58 townhouse units at the end of Nelson Avenue; and Fairlawn, a 97-unit project located at Fairlawn Avenue across the street from Great Kills. To the south, the communities of Eltingville Beach and South East Annadale are developed primarily with single-family detached homes.

Continuing southwest, one mile of public waterfront in Wolfe's Pond Park extends to Seguine Point where a 396-unit private development called Prince's Point is planned. Near Lemon Creek Park and its marina, Captain's Quarters, another large residential development, is near completion. The 279-unit development will occupy several thousand feet of shoreline between the park and the mostly vacant Mount Loretto property owned by the Archdiocese of New York. The Butler Manor area abuts Mount Loretto to the southwest.

Surfside, another large scale residential development, located south of Hylan Boulevard and west of Sprague Avenue, includes 400 residential units extending to the shoreline. The beach of Conference House Park, which abuts Mount Loretto and extends to the boundary of Reach 20, creates over two miles of natural waterfront. However, residential development and the bluffs adjacent to parts of the shoreline limit public access to the beach.

Zoning (Figure 19.4)

Most of the reach is either mapped parkland or is zoned R3-2. The residential R3-2 zone permits a wide variety of housing types including single- or two-family detached residences, garden apartments, rowhouses and apartment houses. Small pockets of R1-2 and R3-1 zoning are interspersed among larger R3-2 districts. Near Great Kills, and again in a limited area west of Lemon Creek Park, the shorefront is zoned C-3 to permit marine-related commercial uses or residences subject to R3-2 regulations.

The southern part of the reach is within the Special South Richmond Development District (SSRDD), encompassing all of Community District 3, which regulates development with regard to tree removal, grading, curb cuts, parking lots and street trees. The purpose of the district is to avoid the destruction of significant natural features such as topography and vegetation.

The Special District also contains provisions for Designated Open Space (DOS) which provides additional protection to selected parcels. The regulations stipulate that DOS parcels be maintained in their natural state or, with City Planning Commission approval, used for limited active recreation facilities. Designated Open Space has been mapped on Surf Avenue east of Page Avenue to the pierhead line along the Mount Loretto property, on areas from Holten to Seguine avenues between Lemon Creek and Wolfe's Pond parks, on a portion of Shore Avenue below Stecher Avenue and on the entire shoreline north of Arbutus Avenue to Wiman Avenue, near Great Kills Park.

The Special South Richmond District delineates a waterfront esplanade along most of the shoreline. In the north, the esplanade is to begin at Wiman Avenue and run parallel to the shoreline. In some instances, the esplanade runs along mapped but unbuilt streets, such as Johnston Terrace, Boardwalk Avenue, Wakefield Road and Tennyson Drive. The shoreline has eroded away, making it infeasible to build several of these mapped streets or to provide the public esplanade prescribed in the South Richmond Plan.



19.4 ZONING

0 1 mile

DEPARTMENT OF CITY PLANNING NYC
COMPREHENSIVE WATERFRONT PLAN

Transportation

Hylan Boulevard, a busy north-south arterial, serves as the transportation spine and commercial corridor of the South Shore. The boulevard runs close to the shore in several sections of the reach but, with large tracts of undeveloped land, few roads run directly to the waterfront. In the northern section of the reach, Father Capodanno Boulevard provides immediate access to parking areas for South Beach and Midland Beach. This wide arterial with little commercial traffic is often used by vehicles to bypass heavily congested Hylan Boulevard.

Several streets have potential to link the water's edge with inland communities. Some streets running perpendicular to the shore "dead end" at the water's edge without providing parking or public access to the waterfront. Many are adjacent to residential developments and are narrow, lack room for parking or contain "no parking" signs, creating the appearance of private ways.

Several developing areas are characterized by an irregular pattern of mapped but unbuilt streets. Throughout South East Annadale, portions of Tottenville and areas such as Oakwood and Midland beaches to the north, unbuilt streets are mapped over wetland areas and sensitive coastal ecosystems.

The extension of Father Capodanno Boulevard, examined in the *Staten Island Arterial Needs Study* by the New York State Department of Transportation, could address projected transportation needs and relieve congested arterials such as Hylan Boulevard. The roadway offers the potential for significant relief if it were extended through Miller Field to New Dorp Lane and Ebbitts Street. The final decision as to the desirability of the corridor will be made upon the completion of the final report and other studies.

ISSUES AND RECOMMENDATIONS

Rapid development during the last 20 years has affected much of the reach, especially the South Shore in Community District 3, where the population grew by 48 percent between 1970 and 1980 and by over 15 percent between 1980 and 1990. As a result, new development has placed increased demands on sewers, roads and schools, and spurred new interest in public access to the waterfront. Increased development also raises environmental concerns. The primary issue in this reach is the need to accommodate growth in an environmentally sound manner.

The Natural Waterfront

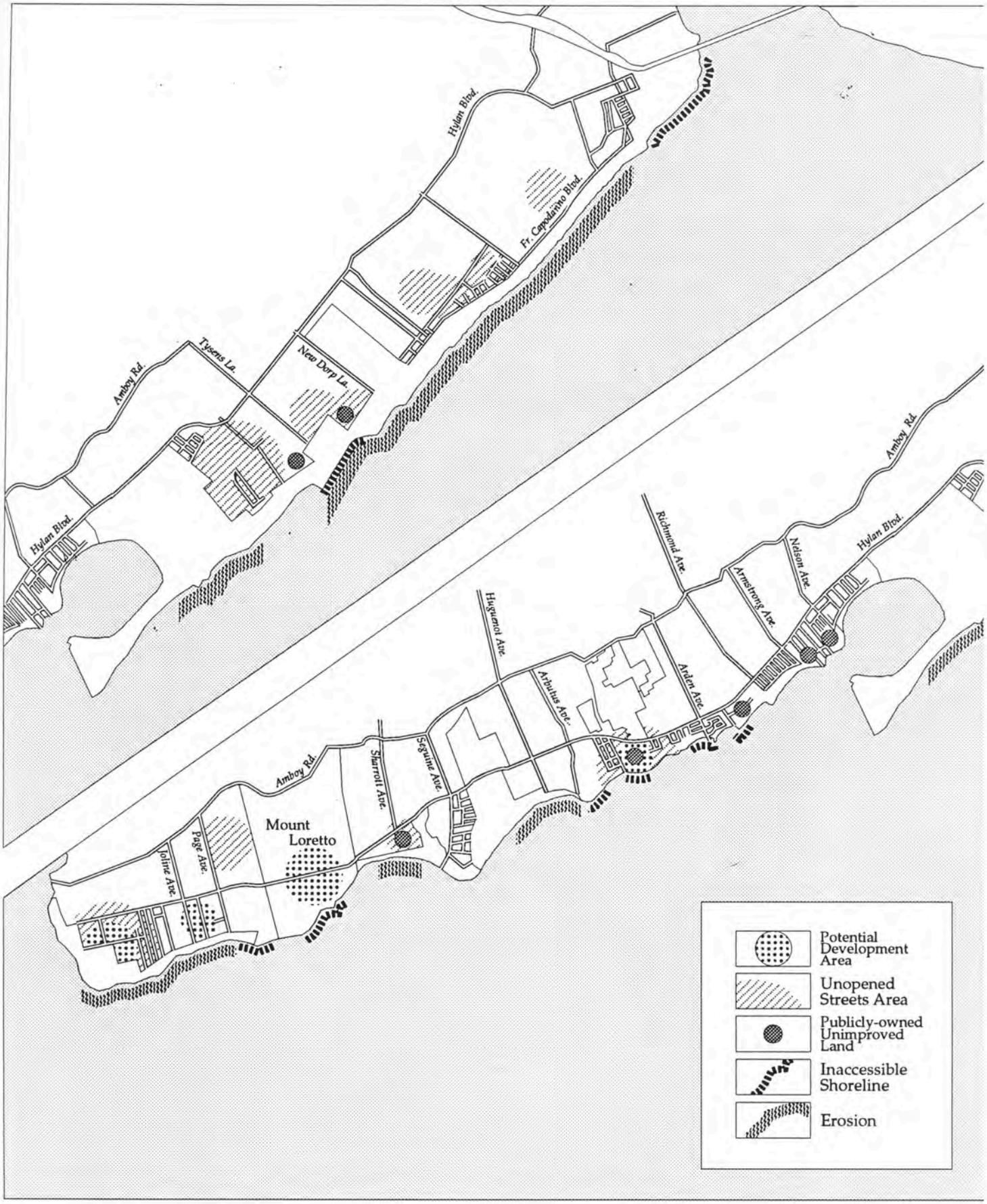
With approximately 17 miles of natural coastline, Reach 19 raises a series of issues and opportunities for the protection of significant natural and recreational resources along the shore and inland. Preserving plant and animal species, preventing coastal erosion, improving water quality and minimizing flooding are among the most significant natural waterfront issues.

DEP's citywide programs to abate combined sewer overflows and remove floatables from the city's harbor and tributaries, the Staten Island Bluebelt program and the Hylan Boulevard interceptor sewer are expected to substantially reduce pollutants affecting the reach. However, additional efforts targeted to Reach 19 beaches and public waterfront areas can augment these programs.

- **Establish year-round pollution control and anti-dumping programs in public shorefront areas.**

The Departments of Environmental Protection and Parks, working with local civic and environmental organizations, should monitor and clean up shoreline debris and litter left by the tides and illegal dumpers. This is a particular problem at South Beach and Midland Beach. The CSO and floatables programs will eventually reduce the amount of debris that washes onto the beaches. However, any debris not contained by the abatement programs should be removed on a regular basis.

Septic discharge, sediment from eroding stream channels and erosion from construction must also be monitored to avoid adverse effects on water quality. In



19.5 SUMMARY OF ISSUES & CONSTRAINTS

0 1 mile

DEPARTMENT OF CITY PLANNING NYC
COMPREHENSIVE WATERFRONT PLAN

addition, stepped-up enforcement is needed to prevent illegal dumping of household appliances and litter, and the damage caused by recreational vehicles to tributaries, freshwater wetlands, sensitive coastal environments and tidal marshes throughout the reach.

- **Include Staten Island in the Long Island South Shore Monitoring Program to develop a comprehensive and coordinated approach to shoreline erosion.**

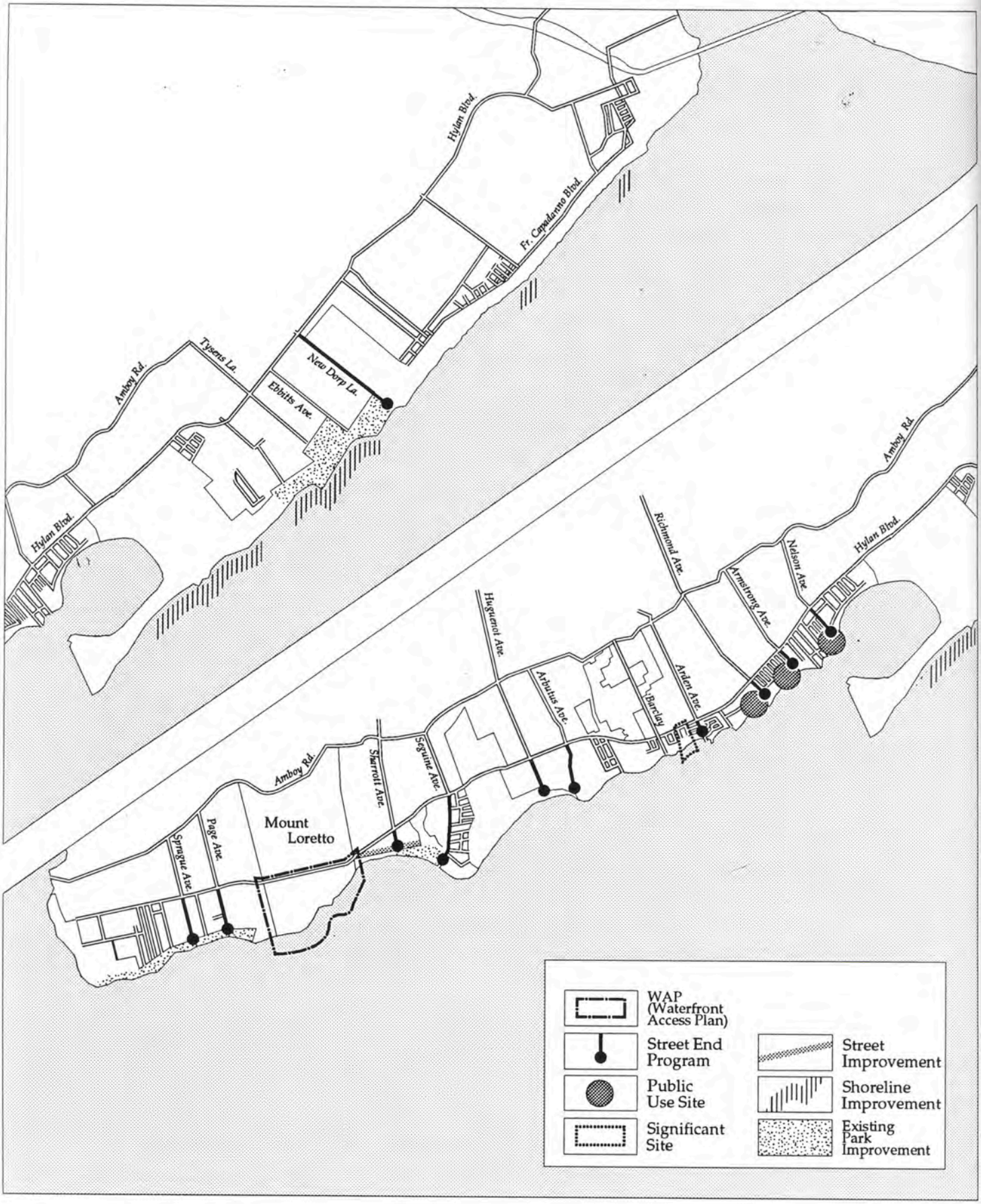
The Long Island South Shore Monitoring Program is a state proposal to monitor beach movement as a result of erosion and flooding problems extending from Coney Island to Montauk Point. The program will explore structural and nonstructural measures to ensure adequate protection of areas located near the shore. As endorsed by the Governor's Task Force on Coastal Erosion, Staten Island should be included in the monitoring program to obtain advice and technical oversight and to coordinate action plans, interagency agreements and funding efforts.

- **Initiate study of shoreline flood control measures, especially in the area between South and Oakwood beaches, with priority given to protection of the Oakwood Beach community.**

Flooding is a major concern for large areas of the reach, especially in the low-lying areas of South, Midland and Oakwood beaches which encompass hundreds of acres of private and city-owned land. During last year's series of storms, much of the surrounding area was flooded and the berm at Oakwood Beach was breached. The berm has since been repaired by the Department of Parks and Recreation, but a concerted effort by federal, state and city regulatory agencies must be made to devise appropriate long-term strategies to prevent flooding during major storms.

- **Protect the remaining wetlands in the South, Midland and Oakwood Beach areas, and devise stormwater management and flooding controls.**

The wetlands in these areas offer extensive benefits. They minimize flooding, provide habitat for wildlife, help prevent sediment and other pollutants from entering the Lower Bay, and produce the organic matter needed to sustain aquatic life in the estuary.



19.6 RECOMMENDATIONS

0 1 mile

DEPARTMENT OF CITY PLANNING NYC
COMPREHENSIVE WATERFRONT PLAN

The Department of Environmental Protection should study the South, Midland and Oakwood Beach drainage basin and develop management plans to relieve flooding and enhance the productivity of this wetland system, particularly within the 43-acre city-owned parcel north of Kissam Avenue. Plans could include acquiring privately owned parcels as a cost-effective stormwater management measure. City-owned property and privately owned parcels that contribute to the flood storage capacity of the area should be consolidated and managed by DEP.

- **Develop Significant Site guidelines for the large tract of city-owned land surrounding Seguine Pond.**

Seguine Pond is a freshwater wetland that occasionally breaches the shore and interfaces with coastal waters. This important drainage basin is connected to the Wolfe's Pond Park wetland system. A large area of Designated Open Space is also mapped around the pond. The disposition and appropriate use of this 7.7-acre, vacant city-owned property is of critical concern. Considering the size of the parcel, its unique topography and vegetation, and the presence of wetlands and Designated Open Space, the Department will develop Significant Site restrictions and development guidelines if it is to be used for a community facility such as a school.

- **Consolidate environmentally significant city-owned parcels and privately owned land at Butler Manor to create a natural area preserve adjacent to Conference House Park.**

The Butler Manor area, with more than 30 contiguous acres of city-owned and private vacant land, contains an unusually diverse environment. Freshwater and tidal wetlands in close proximity, together with wet meadows and marshes, interact as one system to provide breeding and nesting areas for waterfowl. The area supports more than 100 species of birds. The property borders the shoreline of Conference House Park, and should be added to the park. Although the park addition would function chiefly as a natural habitat preserve, a public access component should be explored.

- **Consolidate city-owned and private property bordering the stream and tributaries of Lemon Creek as a Bluebelt assemblage under DEP jurisdiction.**

Runoff from development along an upstream tributary could have a significant impact on various species and damage unique habitats along Lemon Creek. Additional development would encroach on habitats and increase stormwater discharge into the creek, changing hydrologic patterns and producing further erosion and siltation. Consolidation of these properties for stormwater management purposes will also preserve an important natural resource.

- **Reexamine mapped but unbuilt city streets in light of shoreline erosion, wetland designations and parkland additions.**

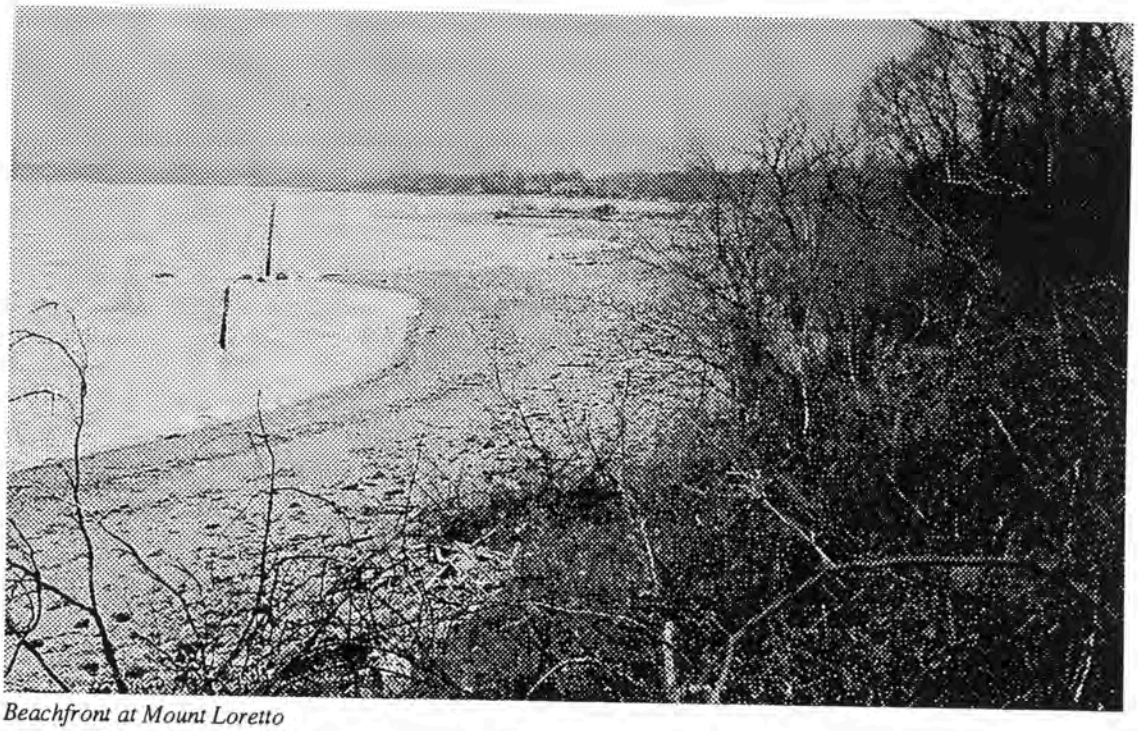
Streets not needed for traffic circulation should be demapped: for example, Shore Place, Boardwalk Avenue and the street ends south of Great Kills Harbor. These streets are near an eroded shoreline, making it infeasible to build them.

Some streets could be incorporated into existing public parks, further protecting their varying habitats. Chester Avenue, adjacent to a heavily wooded area in Wolfe's Pond Park, could be added to the park. Portions of Surf Avenue could be added to Conference House Park and portions of Johnston Terrace could be added to Lemon Creek Park. All should allow for pedestrian access to the shoreline.

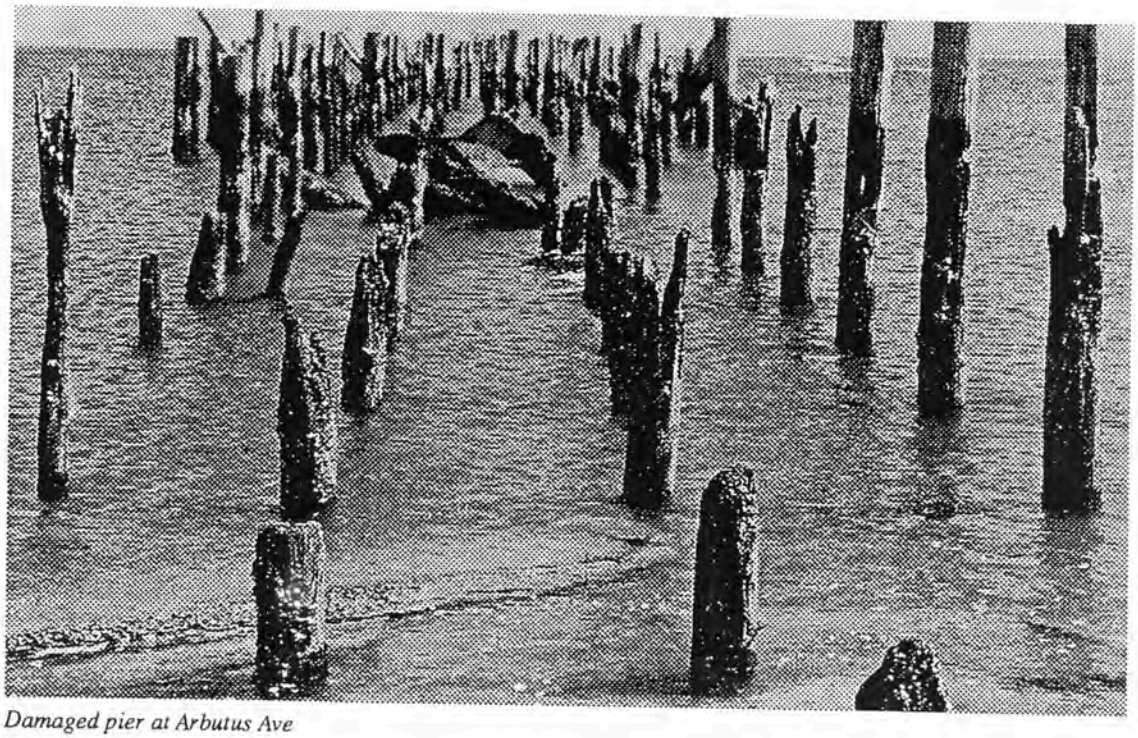
The Public Waterfront

Opportunities for public pedestrian access are plentiful along much of the reach, such as in Great Kills Park, but they are often restricted unnecessarily. The boardwalk at South Beach is often vandalized and is generally in disrepair. The connections between the South, Midland and Oakwood beach areas are disjointed, lacking pedestrian linkages. In other areas, such as at Page Avenue, pedestrian access to public shore areas is constrained by sensitive coastal and inland features, lack of adequate pathways and limitations on parking.

Street access to the water's edge is limited and parking is inadequate for these auto-oriented communities. Although many streets terminate at the waterfront,



Beachfront at Mount Loretto



Damaged pier at Arbutus Ave

they are typically perceived as private. The roads are narrow and have no sidewalks or signage other than an occasional no parking sign. Pedestrian crossings or discernable links from beach areas to inland communities are also limited. As a result, access is impeded and inland commercial districts fail to benefit fully from the business of beach and park users.

Despite extensive parklands throughout the reach, there are insufficient opportunities for active recreation, particularly in the southern section of the reach. Many of the parks need expanded public parking, improved signage, and clearly defined park boundaries to attract public use. Some can offer new or expanded facilities for active recreation, including public boat launching. In some areas, however, the desire for increased accessibility conflicts with the need to preserve unique coastal habitats.

There is no system of bicycle or pedestrian pathways to take advantage of the waterfront along this reach. The Department's *Greenway Plan for New York City* proposes a 350-mile urban greenway network of bicycle and pedestrian pathways throughout the city. The schematic plan includes a South Shore Greenway running the length of this reach. The Departments of City Planning and Transportation have initiated a multi-year effort to refine and implement the plan which will include determining the precise locations of this and other routes.

- **Plan for safe, secure pedestrian connections through mapped parks to upland communities and for increased active recreation.**

Department of Parks and Recreation masterplans for several major parks along the reach should be implemented to increase use of the parks and accommodate new recreation activities. Connections should be established between South, Midland and Oakwood beaches to provide continuity of pedestrian access along this long stretch of shoreline. Access through the parking lot between South and Midland beaches can be improved, and a pedestrian path should be created from Father Capodanno Boulevard to the boardwalk. Park property in the New Dorp/ Oakwood Beach area should be made fully accessible to the general public.

Lemon Creek Park should be more accessible for various recreational, educational and scientific activities. DPR is working to improve public access to the park by providing a new public beach area with parking facilities and by restoring the existing pier for recreational fishing. A trail system and wildlife identification

program should also be developed. The demapping of Johnston Terrace between Woodvale Avenue and Mount Loretto should be explored. The unbuilt street, which is south of the park and adjacent to the shoreline, could be added to the park to provide public access to the water's edge and, possibly, an area for additional public parking.

At Conference House Park, plans should be implemented to include appropriate active recreational facilities, improve public access, and identify and secure the park's edges and entrances. Portions of Surf Avenue should be added to the park to preserve continuity of access from the shoreline to the upland areas.

- **Define and delineate the boundaries of parks with appropriate edge controls.**

In an area as wooded and rural as southern Staten Island, it is sometimes difficult to tell where public parks begin and end. Fences, guard rails, lighting, or special planting and landscaping should be installed along the public perimeters of the reach's parks. Signage identifying access points to shorefront areas owned by the city should be provided. These low-cost measures would protect the parks and, at the same time, increase public awareness and usage of these natural resources.

- **Develop a Street End Access Program.**

Several public streets in the southern section of the reach have been "privatized" by exclusive single-family or townhouse housing developments. Certain streets should be widened to the mapped street width and enhanced with landscaped areas, parking and signage. Those identified as key access points should include observation structures and/or promenades and, where feasible, public boat launching facilities. An interagency working group, coordinated by the Department of City Planning, should develop a streetscape program for those streets identified as special public places and destination points. The program would include standards for elements such as special pavers, signage, litter receptacles, seating and lighting. On-street parking should not be prohibited.

The streets proposed for the program are major arterials, or run through or near public land such as parks offering recreational opportunities. The following streets are among those that should be considered for the program.

- Arbutus Avenue: A public pier could be developed adjacent to a nearby development called Nicolosi Drive Lake and the available right-of-way could be used for parking and picnicking. This will provide a link between the DOS north of Arbutus Avenue and Wolfe's Pond Park.

- Seguine Avenue: DPR should examine the feasibility of widening this street as part of the Lemon Creek Park public access improvements. The allee of trees on the south side of the street bordering the Seguine Mansion should be preserved.

- Sharrotts Avenue: A fishing pier should be provided and the road should be widened to allow for parking.

- Page Avenue: In connection with transferring the area northeast of this street to DPR, the opportunities and constraints associated with providing public access should be explored.

- Barclay Avenue: Public access and parking should be provided and a vacant lot north of Barclay Avenue could be purchased or leased for public parking.

- Nelson Avenue: Public parking should be provided on a nearby city-owned site (Block 5303) which may also be appropriate for a ferry launching site.

- **Transfer city-owned property appropriate for active or passive recreation to the Department of Parks and Recreation.**

A large city-owned site (14 acres) bordering the bay between Wiman and Armstrong avenues and east of Tennyson Drive contains sandy beaches along most of the shoreline. Presently under Division of Real Property jurisdiction, the site also contains sparsely vegetated areas and wooded sections. Most of this area is located within Designated Open Space. This area should be transferred to the Department of Parks and Recreation for management and development of a recreational and public access plan. Public access and parking should be provided so that the area can be used for recreational purposes, including sports facilities and boat launching if appropriate.

Another city-owned parcel (3.6 acres) is located along the bay east of Tennyson Drive between Richmond and Hales avenues. The area contains Designated Open Space that is primarily wooded land with sandy beaches along the shoreline. A range of options for public access to this area should be explored. All of part

of this assemblage with recreational potential should be considered for transfer to DPR. Other uses such as a ferry landing site should be considered for any remaining land or in concert with recreational use.

- **Reconfigure and remap the system of Designated Open Space, including the South Richmond District's Waterfront Esplanade.**

In light of the significant amount of coastal erosion that has taken place and the need for increased waterfront access, the DOS network should be reexamined. A study of reconfiguration options would seek to allow public access to the water's edge at key points while protecting sensitive natural features. The program should coincide with the Street End Access Program, any future development of key vacant sites such as Mount Loretto, and planning for the South Shore greenway/bikeway.

The system of Designated Open Space can serve a variety of purposes. It can foster pedestrian connections to the waterfront, protect sensitive natural areas, promote active recreation or provide an opportunity for trails. Where still feasible, the shorefront esplanade delineated in the South Richmond District Plan also affords an opportunity for public access along the shore.

The Working Waterfront

The only working waterfront uses along the shore, channels or tributaries of Reach 19 are the marinas at Great Kills and Lemon Creek and the Oakwood Beach Water Pollution Control Plant north of Great Kills. Although there is demand for expanded pleasure boating facilities, the reach lacks protected areas for additional marinas. However, it may be possible to expand existing facilities without damaging sensitive coastal systems.

- **Explore the feasibility of establishing high-speed ferry landing sites along the reach.**

Two areas, between Richmond and Hales avenues and at the end of Nelson Avenue, are vacant city-owned sites under the jurisdiction of the Division of Real Property. These sites may be appropriate for high-speed ferries. In the 1980s, city agencies identified a third site at Great Kills Harbor as suitable for high-speed ferry service because of good shore and dock conditions, available parking and transit access.

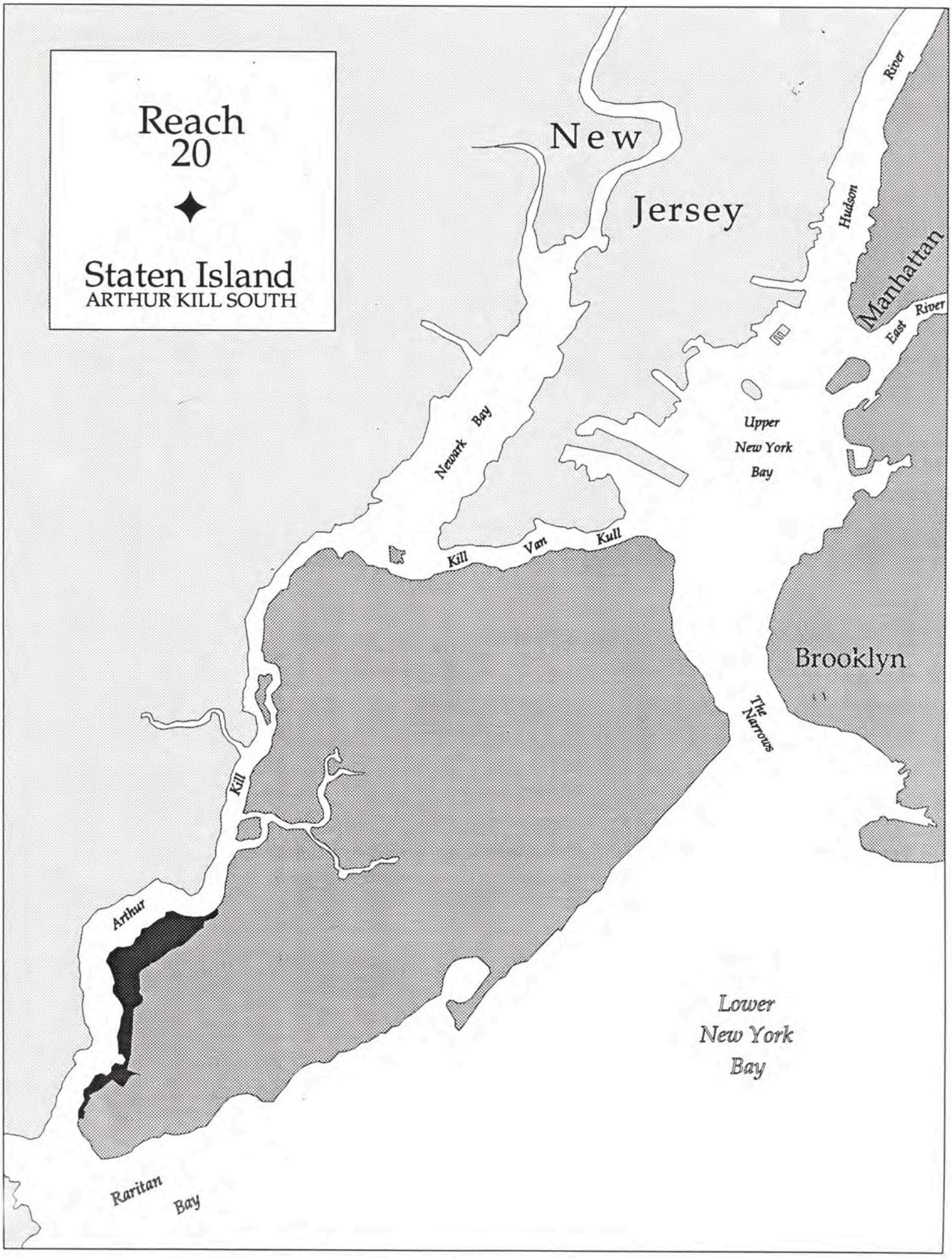
The Redeveloping Waterfront

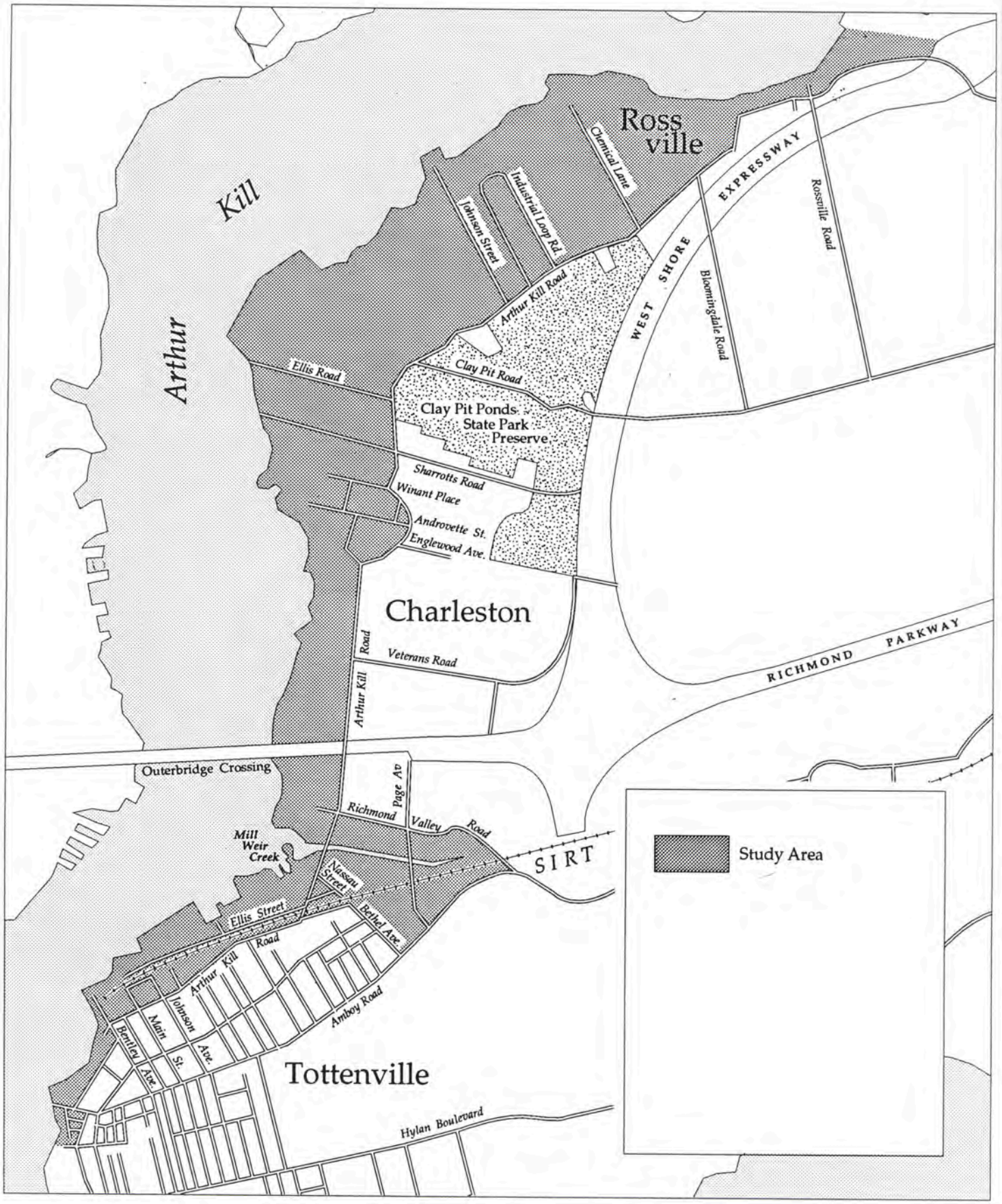
Most of the reach is occupied by public parks or housing development. Only one large site is largely undeveloped and under single ownership -- Mount Loretto. Although no new development is proposed at this time, the parcel could eventually be redeveloped pursuant to its R3-2 zoning.

- **Reconfigure the Designated Open Space and map a Waterfront Access Plan on the Mount Loretto site.**

The approximately 500-acre Mount Loretto tract of land contains several buildings and roads, rolling hills, steep bluffs, forested areas and wetlands. Portions of the property contain Designated Open Space along an eroded shoreline. Since the DOS was mapped, further erosion has occurred and the State has mapped wetlands on the site: freshwater wetlands containing streams, ponds, swamps and marshes; and tidal wetlands sheltered by stands of phragmites. The ecological characteristics of the site should be evaluated in order to reconfigure the Designated Open Space in a way that would protect environmentally sensitive features, direct development to appropriate areas on the site and ensure public access to and along the shoreline.

To establish specific requirements for public access, view corridors, and waterfront linkage to the Butler Manor park, a Waterfront Access Plan (WAP) should be developed and adopted concurrent with DOS reconfiguration. The waterfront zoning regulations do not mandate public access for lower-density residential developments (R1-R5). However, where public access would be desirable, a Waterfront Access Plan may be mapped to designate public esplanades and upland connectors through lower-density sites of 1.5 acres or more. A WAP would be particularly appropriate where the inland neighborhood has no other access to waterfront public open space, or where a connection can be made between existing public spaces to create a continuous waterside route.


Reach
20
Staten Island
ARTHUR KILL SOUTH
New
Jersey
Hudson
River
Manhattan
East
River
Upper
New York
Bay
Newark
Bay
Kill
Van
Kull
Brooklyn
The
Narrows
Kill
Arthur
Lower
New York
Bay
Raritan
Bay



20.1 STUDY AREA & CONTEXT

0 ½ mile

DEPARTMENT OF CITY PLANNING NYC
COMPREHENSIVE WATERFRONT PLAN

INTRODUCTION

Reach 20 extends along the Arthur Kill from the northern edge of Conference House Park to the southern border of the Fresh Kills landfill. The reach is within Community District 3 and the Special South Richmond Development District. It includes Tottenville's waterfront, Mill Weir Creek, the Outerbridge Crossing area, Charleston/Kreischerville and Rossville. While easily accessible by car, the area is somewhat isolated by the landfill to the north, and separated from inland communities by the West Shore Expressway to the east. (Figure 20.1)

Although the Arthur Kill is an important marine traffic route, most commercial maritime traffic is concentrated at its northern end where the Kill Van Kull allows access to New York's Upper Bay and Port Newark. South of the Outerbridge Crossing, the Arthur Kill is used by pleasure boaters who travel to recreational areas in Staten Island and New Jersey.

There is a substantial amount of vacant land along the waterfront. However, the presence of valuable wetlands, such as Mill Weir Creek, and the lack of infrastructure limit the reach's development potential. Most of the shoreline remains in a natural state with significant fingers of wetlands extending to inland industrial areas.

Tottenville, at the southern end of the reach, offers opportunities to enhance public access along existing streets and to increase waterfront recreation on certain vacant parcels. The need to minimize land use conflicts is the principal issue in the northern part of the reach where working waterfront uses co-exist with natural areas or, in Kreischerville, with a residential community.

REACH DESCRIPTION

Development History

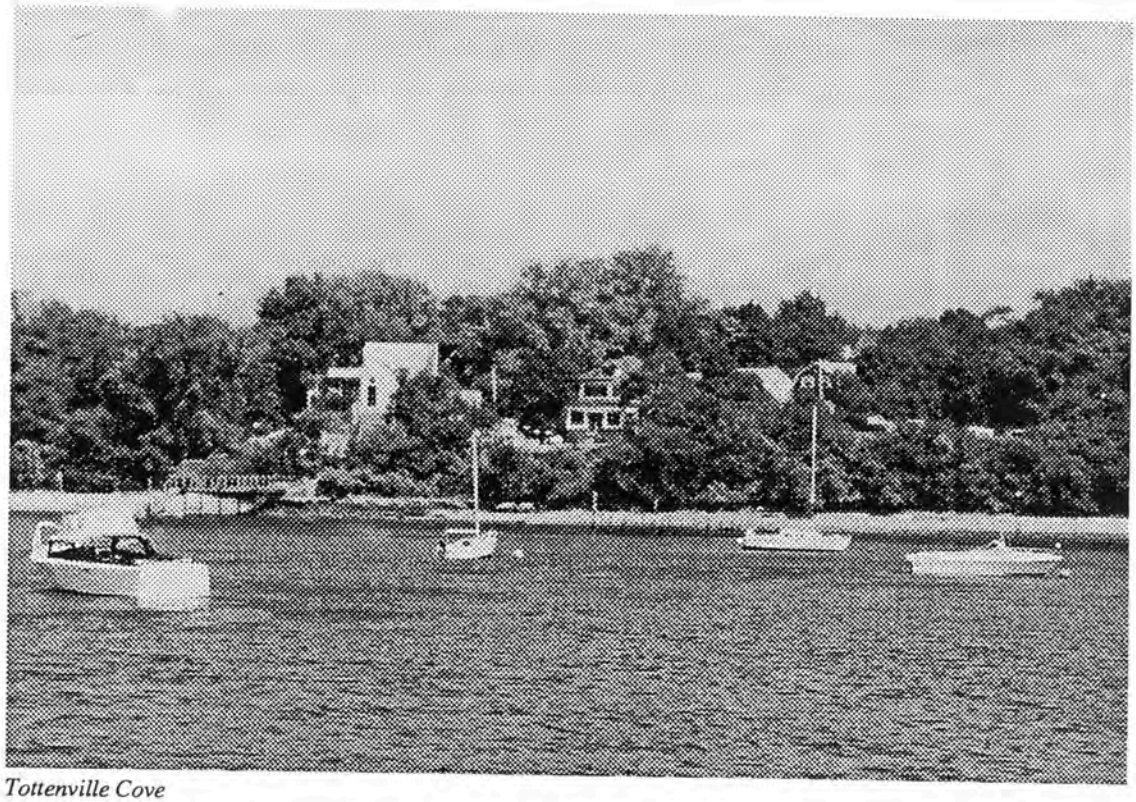
Native American resistance caused the failure of the first European settlements in the area early in the 17th century. It was not until 1788 that the town of Westfield was successfully established. It covered the west shore from Fresh Kills south to Tottenville and inland through the Richmond Valley.

From pre-revolutionary days until the mid-19th century, the towns of Tottenville and Rossville were important ferry crossing locations along the overland route between New York and Philadelphia. Rossville developed around the Old Blazing Star Ferry in the 1810s and 1820s. When Victory Boulevard was built across Richmond County, it improved connections to the western parts of the island and to the competing New Blazing Star Ferry in Travis which had steamboat and stagecoach connections to Philadelphia. In 1860, the construction of the Staten Island Railroad from Clifton to Tottenville bypassed Rossville, reducing its importance for travel and shipping and limiting further development. The construction of the Pennsylvania Railroad, first to Weehawken and then by tunnel directly to Manhattan made the ferry companies in this area obsolete.

Throughout the 19th century, upland areas were settled by Dutch, English and French farmers while the Arthur Kill shoreline was used for fishing and shipbuilding. Oystering was the most profitable industry in the area until the oyster beds were tainted by pollution around the turn of the century. Free Black oystermen moved north from Chesapeake Bay in the 1840s to fish the abundant oyster beds and sell to New York City markets. They established the community of Sandy Ground near Charleston.

After 1850, German immigrant Balthaser Kreischer started a brickworks using clay deposits near Charleston and established a town for his employees. A terra cotta factory opened in Tottenville and other brickworks were established near Fresh Kills. Just south of Rossville at Smoking Point, industrial plants such as the White Lead Company and the International Ultramarine Works (1884-1963) made pigments from the local clay.

Regional connections improved when roads were paved and Hylan Boulevard was constructed early in this century. The opening of the Outerbridge Crossing in 1928 made the reach accessible to New Jersey. The population has grown slowly but steadily since World War II. The greatest spur to urban development in the western portion of the island was the opening of the Verrazano Bridge in 1964 and completion of the West Shore Expressway in the 1970s. Although the expressway improved access, it isolated the waterfront communities in this reach by cutting a swath between upland areas and the Arthur Kill waterfront.



Tottenville Cove

The Vorhees Walker report of 1958 (the basis for the 1961 zoning) recommended that the path of the West Shore Expressway divide the waterfront manufacturing zones from the upland residential zones. This would have allowed the eastern bank of the Arthur Kill to develop in the same manner as the western shore with its oil tank farms and refineries. When the route of the expressway was moved inland, the manufacturing zone was expanded to the east to include Clay Pit Ponds, the Charleston area and the homes along Englewood Avenue.

Historic Resources

Tottenville contains fine examples of Victorian and Carpenter Gothic architecture reflecting the importance of this community at the turn of the century. The Landmarks Preservation Commission has heard a proposal to designate the Kreischerville Workers Housing, a concentration of intact 19th century structures, as landmarks. Other properties that have been heard but not designated include: the Tottenville Public Library, St. Paul's Methodist Episcopal Church, Rutan-Journeay House, 122 Androvette Street House, Drake-DeHart House, Westfield Township District School #7, St. Peter's German Evangelical Church and the Nicholas Killmeyer Store and Residence.

Designated city landmarks within or adjoining the reach are: the Charles Kreischer House built in 1888 for a son of the founder of the brickworks; the Rossville A.M.E. Zion Church Cemetery on Crabtree Avenue, a surviving element of the Sandy Ground settlement of free Black oystermen; and the Sleight Family Graveyard on Arthur Kill Road which served the village of Rossville from about 1750 to 1850.

Natural Resources (Figure 20.2)

The reach lies within the Atlantic Coastal Lowland. The Wisconsin Glacier's final advance left a terminal moraine to the south of the reach, behind which glacial scarring produced a variety of habitats including estuaries, salt and freshwater marshes, bogs, uplands and midslope zones.

The water quality of the Arthur Kill is affected by heavy industrial uses on both its New York and New Jersey shorelines, marine traffic, sewer outfalls, oil spills and the Fresh Kills landfill. Since the reach lacks sanitary sewers, homes have individual septic systems and housing developments provide small sewage treatment plants. There are eleven documented sewage outfalls, most for industrial uses in Tottenville, Mill Weir Creek, Charleston and Rossville.

The construction of new and upgraded sewage treatment plants and more effective system operations on both shorelines have dramatically improved water quality in

the lower Arthur Kill in the last 20 years. Although the state's best usage classification for the waters of the Arthur Kill is "SD" (or fish survival, the lowest rating), Department of Environmental Protection (DEP) water quality measurements between 1972 and 1992 show marked improvement in coliform levels.

Most of the Arthur Kill South has a natural shoreline. The wetlands perform a number of valuable functions, including the provision of fish and wildlife habitat, erosion control, water quality enhancement and flood control. Because this portion of Staten Island generally lacks storm sewers, the wetlands' flood control function is of particular importance. The wetlands act as sponges, storing and then gradually releasing floodwater generated during storms, and providing natural drainage corridors for stormwater.

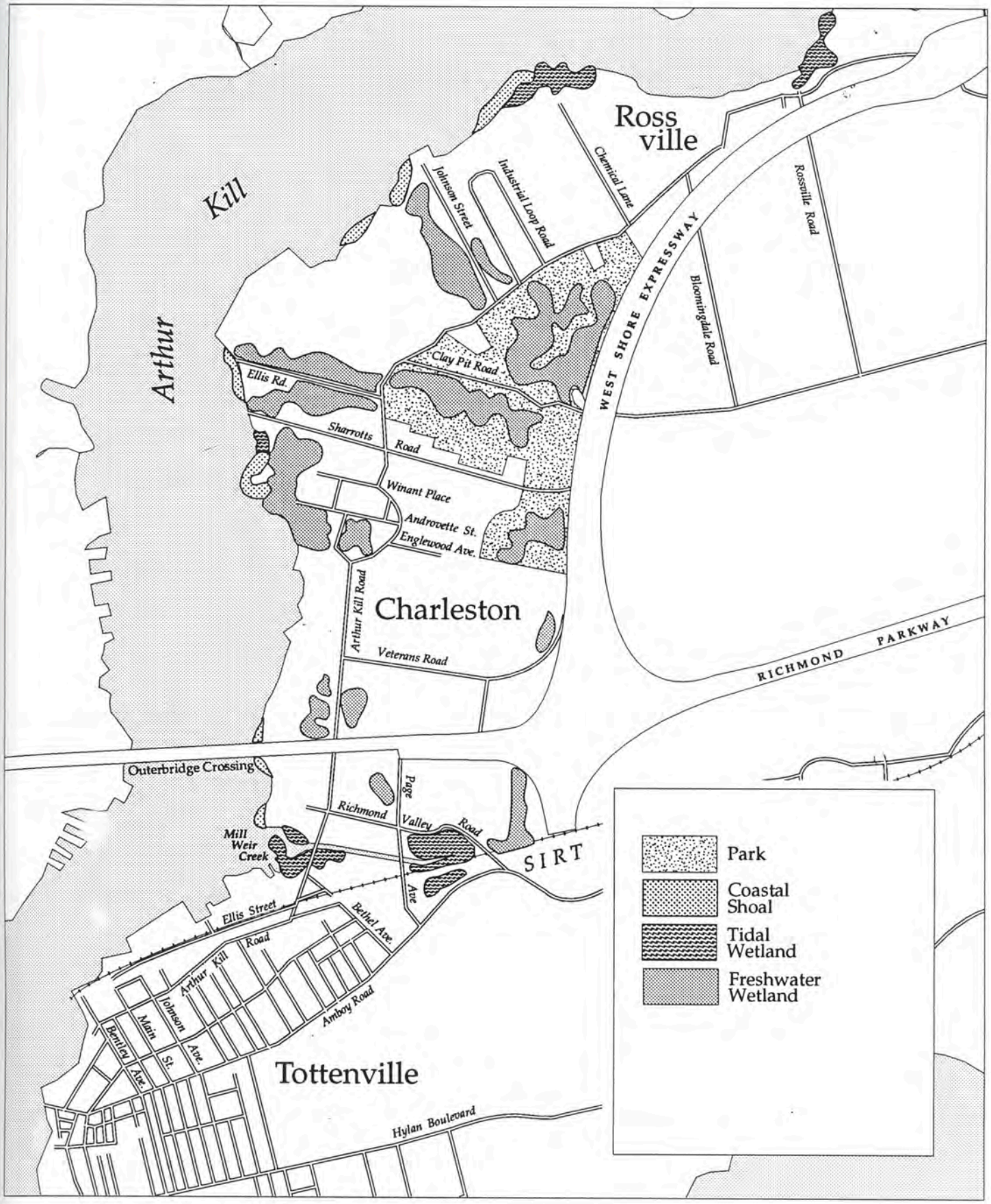


Wetlands near Port Mobil

Freshwater wetland complexes just north of the Outerbridge Crossing and at Port Mobil, Kreischerville and Veterans Road West are mapped and regulated by the Department of Environmental Conservation (DEC). North and south of Port Mobil, the fingers of wetland extending from Arthur Kill Road to the Kill were formerly connected with those in Clay Pit Ponds State Park. Drainage patterns were disrupted when the West Shore Expressway was constructed and tidal and freshwater wetlands were filled for industrial development.

Mill Weir Creek is a tidal creek flowing into the Arthur Kill south of Richmond Valley Road and north of the rail tracks. It is connected to an inland freshwater wetland complex. The creek is channelled through a large culvert as it passes through an industrial area (near the ATT Nassau Smelting Facility) and under Arthur Kill Road before draining into the Kill. The wetlands are composed of a complex of high marsh, intertidal marsh and tidal mudflats which support plant communities such as spartina and cordgrass, waterfowl such as black duck and heron, and shellfish. The shellfish are an important food source for migrating and overwintering birds.

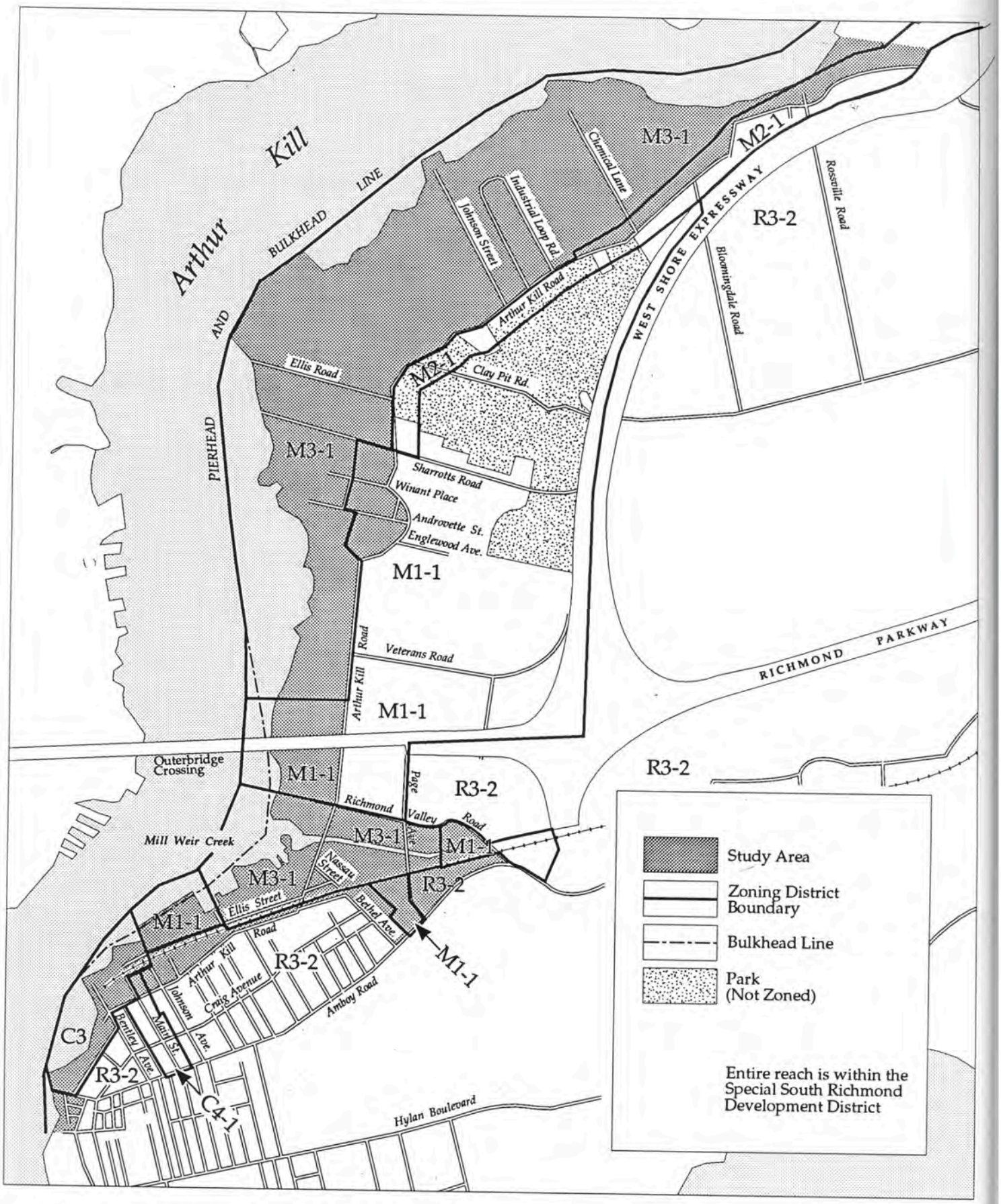
Nearly all of the Kreischerville shoreline is mapped tidal wetland, freshwater wetland or coastal shoal, beginning at an abandoned canal west of Kreischer Street and extending north to Ellis Road. The freshwater wetland includes expanses of common reed (phragmites) near the shoreline, meadows, and a pond east of Kreischer Street surrounded by a deciduous swamp. The fingers of wetland north of Sharrotts Road and on both sides of Ellis Road are part of the freshwater wetland complex (AR-7) in Clay Pit Ponds State Park Preserve, as are the wetlands north of Port Mobil along Johnson Road. Just south of Rossville at the end of Chemical Lane, there is a mapped tidal wetland and coastal shoal along the shoreline.



20.2 NATURAL FEATURES

0 ½ mile

DEPARTMENT OF CITY PLANNING NYC
COMPREHENSIVE WATERFRONT PLAN



20.3 ZONING

0 ½ mile

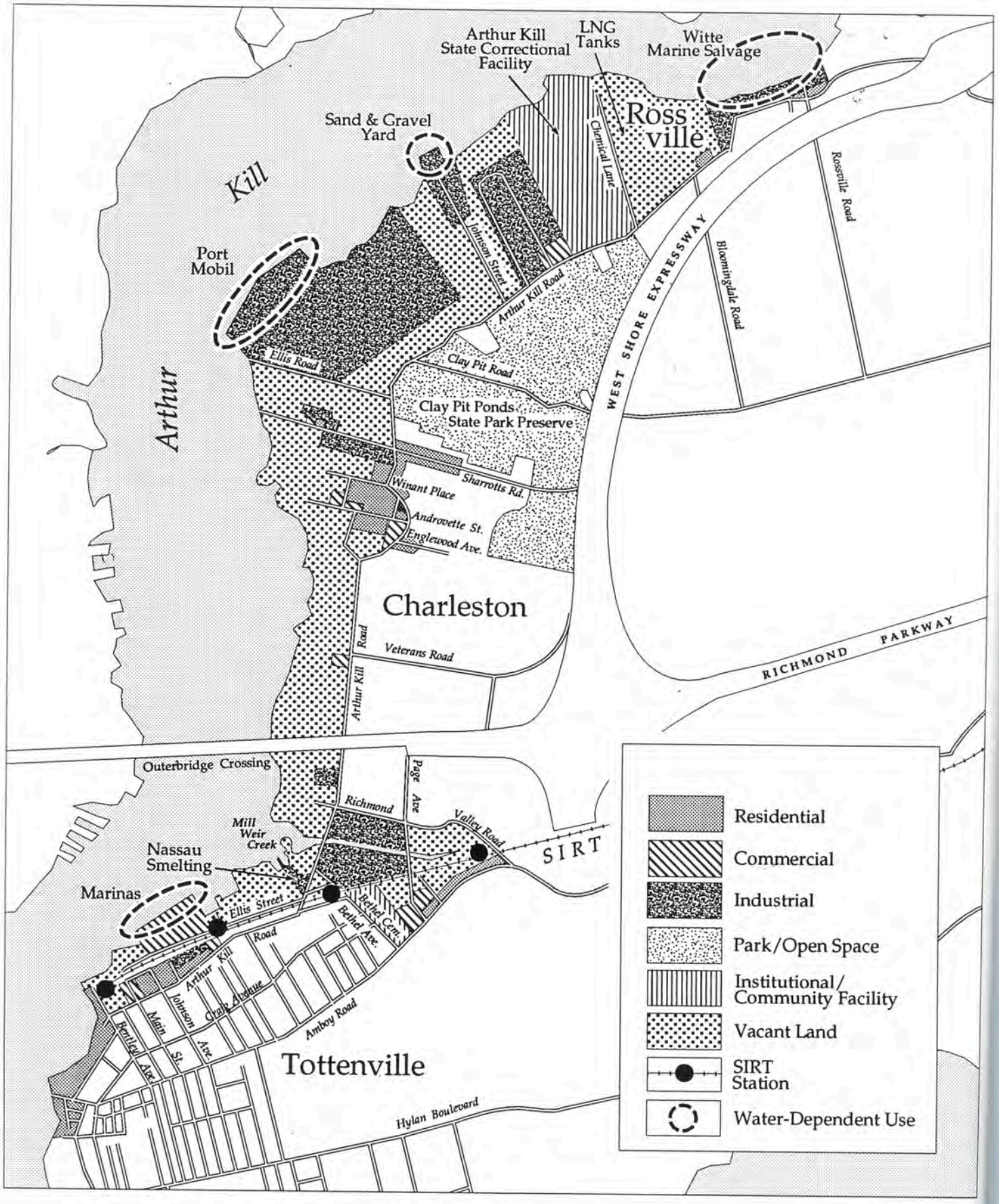
DEPARTMENT OF CITY PLANNING NYC
COMPREHENSIVE WATERFRONT PLAN

Zoning (Figure 20.3)

Most of the reach is zoned for industry and all of it is within the Special South Richmond Development District. The district was created to preserve significant natural features by regulating development with regard to tree preservation and planting requirements, controls on changes to the topography, curb cuts and parking. The district also contains provisions for Designated Open Space (DOS) mapped on selected parcels which must be maintained in their natural state. No DOS was mapped in this reach since it was considered inappropriate for industrially zoned land.

The Tottenville waterfront along Pittsville and Satterlee streets is zoned R3-2, the predominant residential zoning in this part of Staten Island. It is the lowest density district that permits multiple dwellings. From Amboy Road to the foot of Johnson Avenue, Tottenville's Arthur Kill waterfront is zoned C3, which permits waterfront recreation and uses related to boating and fishing such as marinas and boat repair shops. An M1-1 zone, which extends for about three blocks, allows light industrial uses. The north side of Arthur Kill Road has a C2-1 overlay which permits local retail and service establishments. A C4-1 district, which allows shopping centers as well as housing at R5 densities, is mapped along two blocks of Main Street.

An M3-1 zone, which allows heavy industry with minimum performance standards, is mapped over the Mill Weir Creek area in a large triangle extending upstream and inland beyond Page Avenue. The northern two-thirds of the reach is zoned M3-1. In Rossville, an M2-1 district is mapped between the M3-1 zoned waterfront and Clay Pit Ponds Park.



20.4 LAND USE

0 ½ mile

DEPARTMENT OF CITY PLANNING NYC
COMPREHENSIVE WATERFRONT PLAN

Physical Character and Land Use (Figure 20.4)

The long-established town of Tottenville, at the southern end of the Arthur Kill, contains a mix of residential, light industrial and marina uses. New and old single-family homes are found on the waterfront along Ward's Point Avenue. On Amboy Road at Hopping Avenue, there is some new single-family residential development on the waterfront, with older residential areas inland. From Amboy Road north to Bentley Avenue, single-family homes face a pebble beach along a scenic cove. Private piers, moorings and docks along the cove accommodate small motorcraft and sailboats.

Tottenville Station, the terminus of the Staten Island Rapid Transit (SIRT) rail line, is located on Bentley Avenue at the north end of the cove. The Bentley Avenue street end provides a public route to the waterfront and a collapsed pier with views of the cove, the Arthur Kill and the Perth Amboy shoreline in New Jersey. The SIRT line, located inland of and parallel to Ellis Avenue, separates Tottenville's waterfront marinas, service contractors and repair shops from its inland housing, stores and offices. Two pedestrian overpasses (one recently refurbished) provide access to Ellis Avenue from inland neighborhoods. A third SIRT overpass provides pedestrian access to the ATT facility south of Mill Weir Creek.

Two full-service marinas on Ellis Street in Tottenville provide a total of 380 slips. There are a few service contractors on lots fronting Ellis Street and an auto repair shop with open storage and several vacant wooded parcels to the south.

North of Tottenville, industrial uses are located adjacent to the mapped tidal wetlands of Mill Weir Creek. The creek is flanked on both sides by parking, open storage of materials and equipment, warehouses and an inactive metal smelting plant. The Page Avenue shopping center, with over 67,000 square feet of retail space on a 4.9-acre site, is expanding to a site farther inland near Mill Weir Creek.

Harborview, a restaurant/catering facility with ground floor retail and a public waterfront esplanade, is planned for a 13.5-acre waterfront site at Richmond Valley Road just north of Mill Weir Creek. In the Outerbridge area -- from Mill Weir Creek to Kreischerville -- there are scattered commercial uses along Arthur Kill Road, and undeveloped parcels with freshwater wetlands.

In Kreischerville (Charleston), small warehouses are side by side with brick and frame houses. The east-west streets along Kreischerville's waterfront end as dirt roads or footpaths in tidal wetland areas along the shoreline.

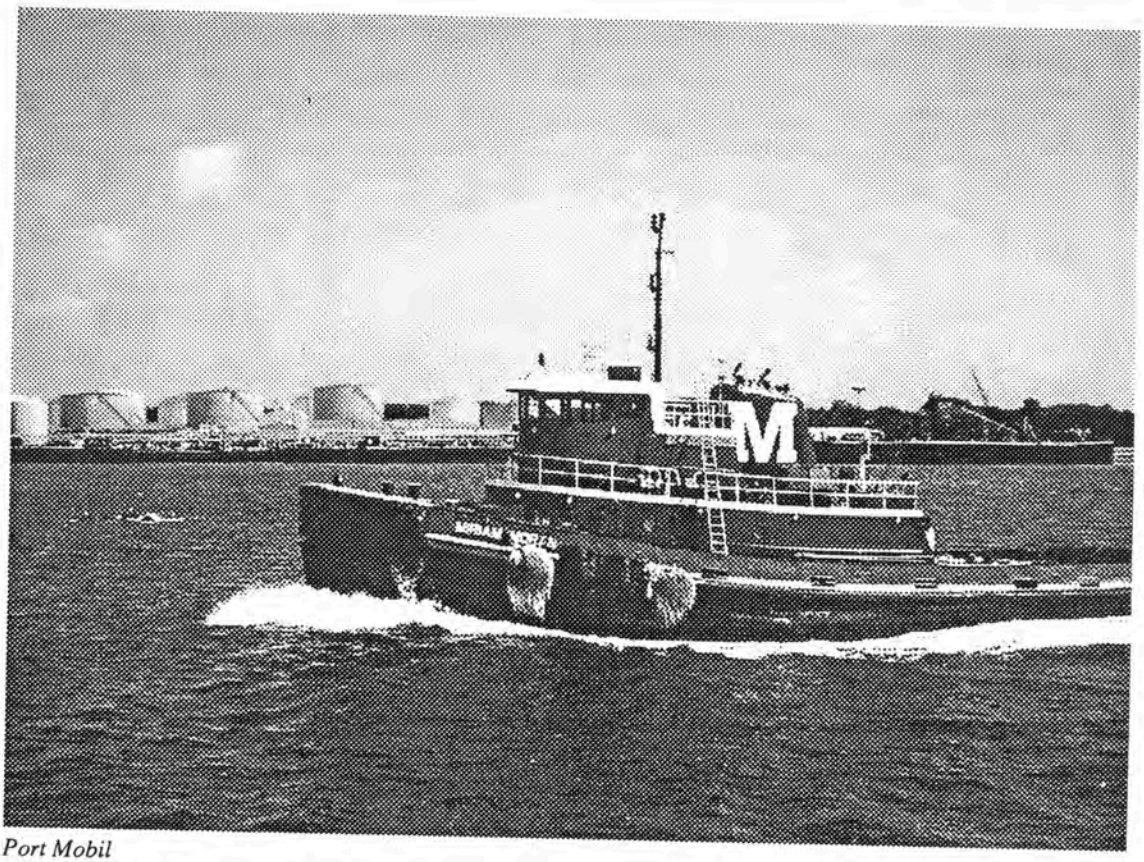
From Kreischerville north to Rossville, much of the Arthur Kill waterfront is flat open land. Most of the shoreline remains in a natural state with significant fingers of wetland extending inland, adjacent to industrial uses. Only the Port Mobil bulk oil facility at Ellis Road, the sand and gravel yard at Johnson Street, and the defunct Liquid Natural Gas facility at Chemical Lane have a bulkheaded shoreline. North of Port Mobil, warehouses, and construction-support and auto-related businesses are located along Industrial Loop Road and Arthur Kill Road. The Arthur Kill State Correctional Facility with approximately 775 inmates is located north of Industrial Loop Road.

The city Department of Correction had proposed a 1,000-bed correctional facility for a privately owned 33-acre waterfront parcel near the abandoned Liquid Natural Gas Tanks at Arthur Kill Road and Bloomingdale Road. However, the need for the new facility was re-evaluated and the project is now on hold.

The Witte Marine Salvage Company (Ship's Graveyard) has been located at the northern edge of the reach since the 1930s. The salvaged ships of all types that are scattered on land and in the water offer passersby a history of the vessels that used to ply the harbor's waters. To improve security, the company has recently erected a fence along Arthur Kill Road which obscures views.

Reach 20 is within the larger Outerbridge industrial area which had 1,986 jobs in 1991.[1] About 60 percent of the jobs are industrial and the preponderance of industrial jobs are in construction, trucking and warehousing, and wholesale distribution.

[1]Department of City Planning aggregation of NYS Department of Labor ES-202 file, third quarter, 1991.



Port Mobil

Transportation

The area is served by the West Shore Expressway with access points at Arthur Kill Road, Veterans Road West, Sharrotts Road and Bloomingdale Road. The expressway connects the Outerbridge Crossing with the Staten Island Expressway, providing links to the Verrazano, Goethals and Bayonne bridges. Richmond Parkway provides an alternate route to the mid-island for auto traffic.

The reach has a limited local road network. The narrow, winding two-lane Arthur Kill Road is the only continuous north-south road and is far inland from the waterfront. The few roads that do extend west to the waterfront were built to serve specific industrial parcels as they developed.

The SIRT line has four stations in Tottenville, providing transit connections to the St. George Ferry Terminal. Several bus lines provide service to the rest of the island and St. George.

ISSUES AND RECOMMENDATIONS

The Natural Waterfront

Most of the shoreline in the reach is expected to remain primarily natural. The undeveloped M-zoned land in the reach has limited development potential because of the adjacent mapped and regulated wetlands. Interwoven public and private ownership and adjacent land uses make it difficult to manage or protect these valuable wetlands.

Wetland protection can be enhanced by improved regulatory coordination and enforcement. The city's Waterfront Revitalization Program and state DEC can work together toward improved management practices such as: control of erosion caused by construction and stockpiled materials; control of stormwater runoff and other non-point source pollutants; and requirements for vegetative buffers that would reduce impacts on adjacent wetlands.

- **Support the proposal to acquire private parcels along the Mill Weir Creek wetland corridor.**

Mill Weir Creek, a tidal creek ecosystem connected to an inland freshwater wetland complex, is an area of particular environmental concern. It has been impacted by industrial uses within its immediate watershed including open storage of equipment and vehicles and the now inactive ATT-Nassau Smelting Plant. (Figures 20.2 and 20.4)

The Departments of Environmental Protection and General Services have submitted an application for site selection and acquisition of properties along Mill Weir Creek. Undeveloped land surrounding the creek would be protected by the establishment of a Bluebelt containing 12.1 acres of city-owned wetlands and 27.5 acres of privately held property. This wetland corridor between Richmond Parkway and the Arthur Kill would be used for the conveyance and storage of storm water, and as an open space amenity.

The Public Waterfront (Figure 20.5)

In Tottenville, the existing land uses, topography and street grid offer opportunities to enhance public access and increase waterfront recreation -- although the SIRT tracks pose a barrier to public access along much of the town edge. It may also be possible to provide waterfront access for the Kreischerville community.

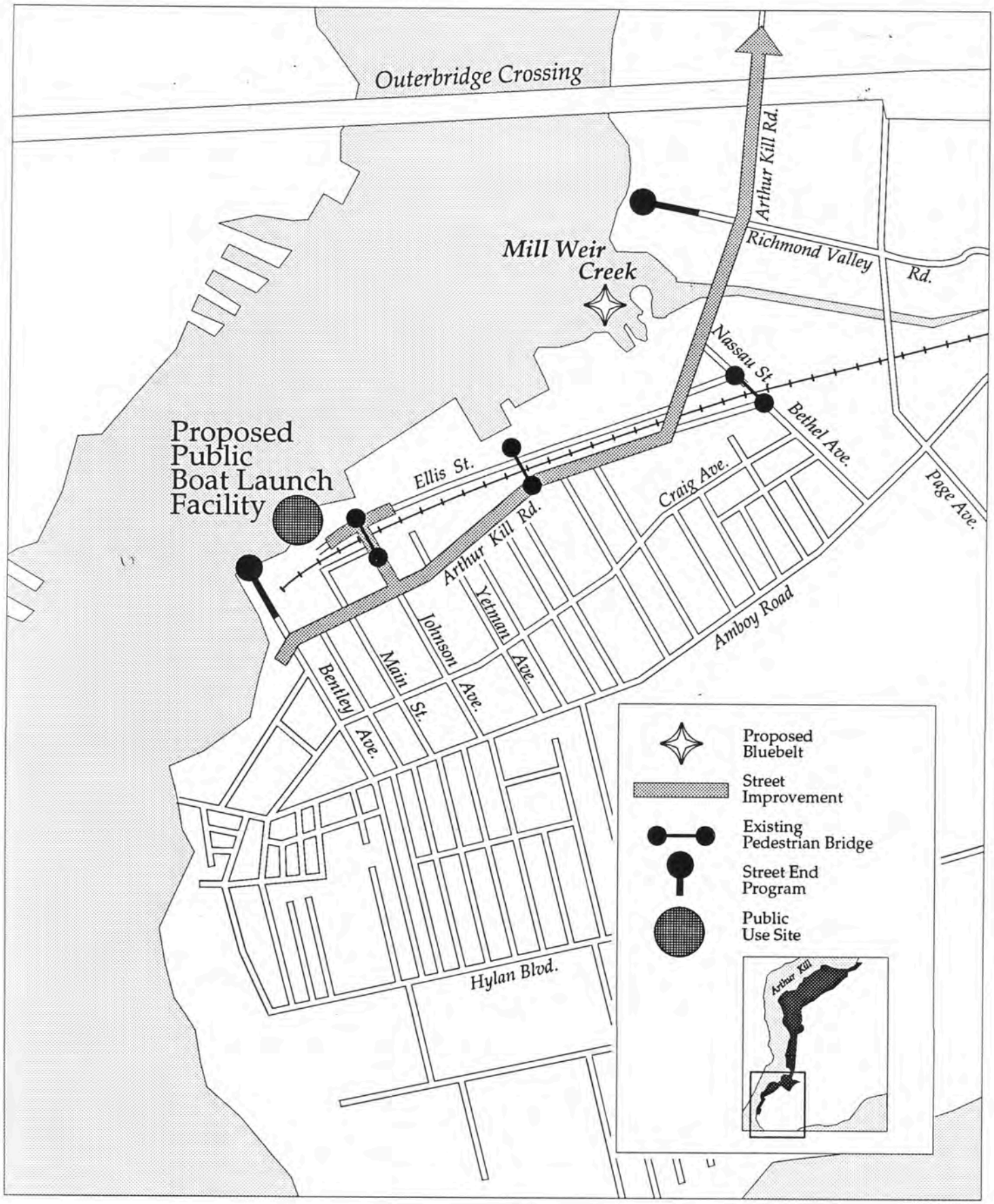


Bentley Ave street end

- **Improve the Bentley Avenue and Sharrotts Road street ends to enhance public access.**

Bentley Avenue, city-owned and managed by DOT, already provides informal public access and views of boating activity in the Arthur Kill and Tottenville cove. However, the dilapidated wooden bulkhead at the street end is collapsing and the site is littered with debris. The street end has the potential to provide improved public access and to serve as a ferry stop for service joining New Jersey, Manhattan and southern Staten Island.

Community Board 3 has expressed a strong interest in providing waterfront public access for Kreischerville. Sharrotts Road may offer such an opportunity once ownership issues are resolved.



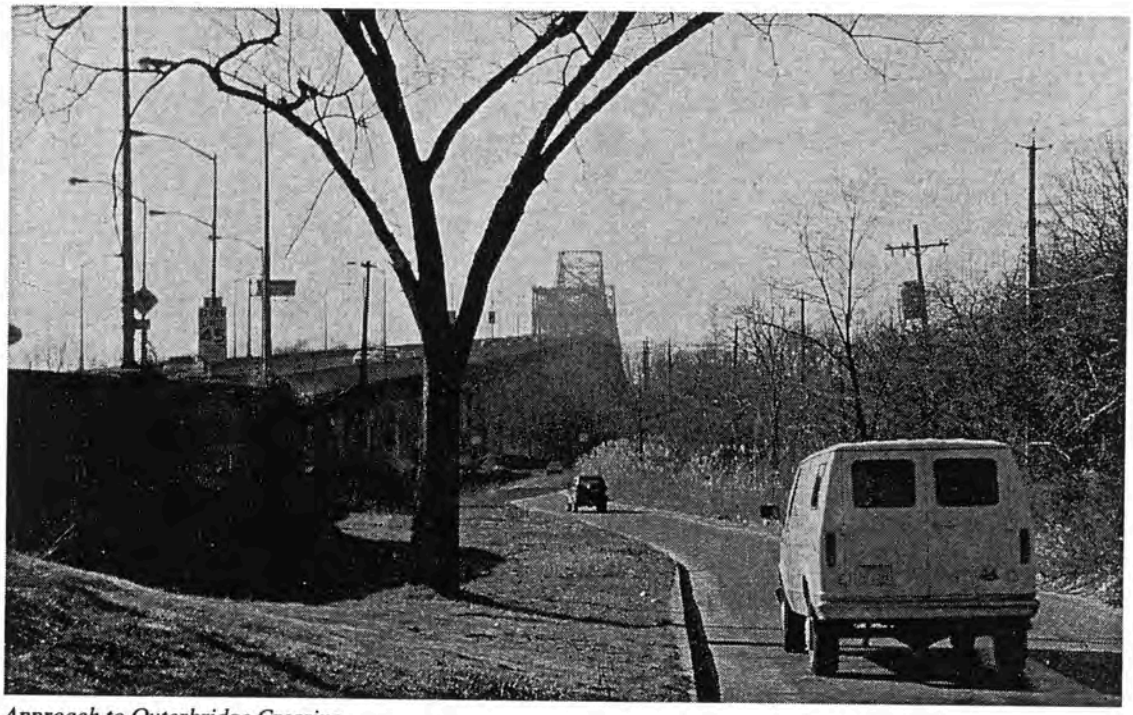
20.5 RECOMMENDATIONS

- **Acquire private property on Ellis Street for a public boat launch.**

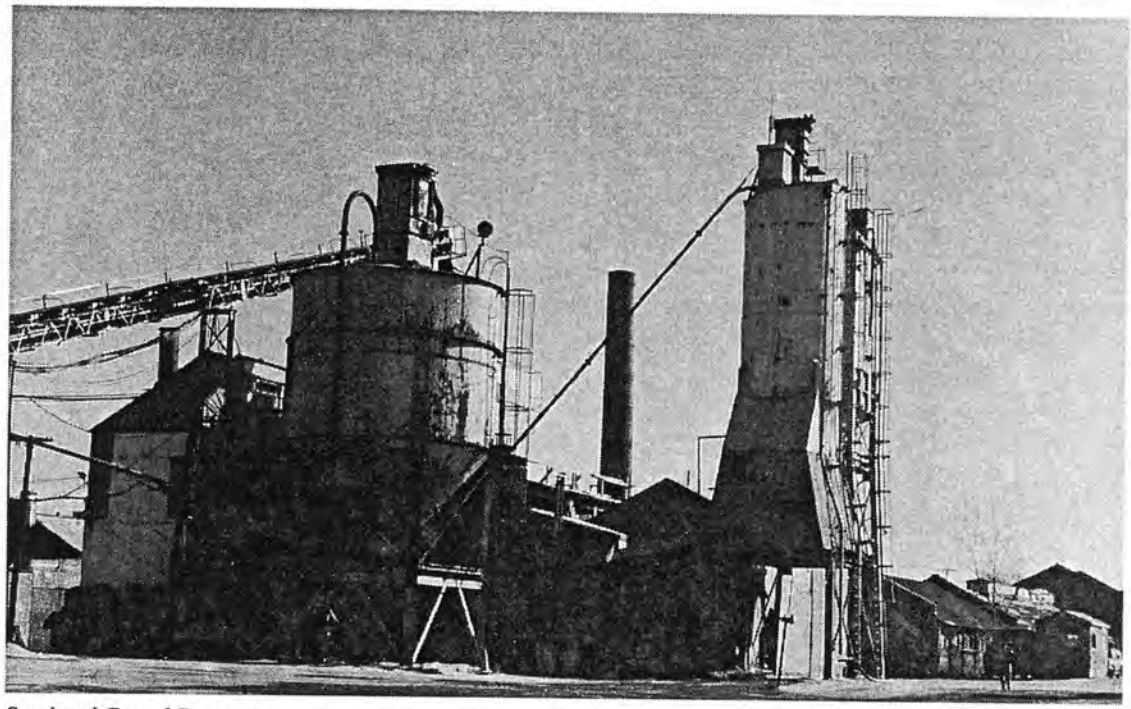
The 1988 *Staten Island Small Boat Launching Feasibility Study,* funded by the New York State Office of Parks, Recreation and Historic Preservation, identified a privately owned site on Ellis Street at the foot of Main Street in Tottenville as the best of five locations studied for a public boat launch facility in Staten Island. This site has a potential development area of 8.3 acres which could accommodate twin boat launch ramps, a boarding dock, comfort station, waterfront walkway, picnic areas, and parking and circulation for 106 cars and trailers. Relatively deep water and proximity to the federal channel minimizes the need for dredging. Local access could be improved by widening Ellis Avenue.

- **Resolve pedestrian and vehicular access issues at Tottenville's waterfront SIRT terminal.**

The SIRT tracks pose a barrier to waterfront public access from the Tottenville community. The vehicular bridge at Johnson Street is closest to the proposed Ellis Street and Bentley Avenue public access areas, but it is closed, in poor condition and slated for removal. The nearest vehicular crossing is at Arthur Kill Road. The SIRT is developing a plan to redesign and consolidate the stations in the Tottenville area. That plan should consider a linkage between Ellis Street and the Tottenville Station in order to connect this hub with the shorefront.



Approach to Outerbridge Crossing



Sand and Gravel Processing

The Working Waterfront

The reach's manufacturing zoning permits a variety of commercial, industrial and water-dependent uses along the shoreline. There are currently five water-dependent industries in the reach, and the local press has reported that a private entrepreneur proposes a ferry service from Tottenville to Perth Amboy. However, most of the Arthur Kill South shoreline lacks the piers, bulkheads, and water depth required for new water-dependent uses. In addition, construction of the infrastructure needed for new uses such as marinas may conflict with wetland regulations. Most of the recent industrial development in the reach -- warehousing and construction support businesses -- is oriented toward Arthur Kill Road rather than the waterfront.

- **Widen Arthur Kill Road and eliminate sharp curves to improve safety and circulation and facilitate truck traffic.**

Arthur Kill Road, a narrow, winding two-lane street, is the only continuous north/south route through the reach. Its condition limits economic growth, particularly for warehousing and construction support businesses. These businesses, which have provided most of the recent growth in the area, rely on the road network for transport of goods. Furthermore, the Economic Development Corporation has proposed development of a "power center" -- a collection of very large retail stores -- in the upland area adjacent to Arthur Kill Road. The widening or reconstruction of Arthur Kill Road should include culverts and other devices to maintain or restore the hydrologic patterns of the freshwater wetlands in the area. Sidewalks in commercial and residential areas would enhance public access and safety along Arthur Kill Road.

The Redeveloping Waterfront

Two areas in the reach, Kreischerville and Tottenville, require further study to develop zoning policies that would address land use trends and conflicts.

- **Explore zoning changes to resolve conflicts between residential and industrial uses in Kreischerville.**

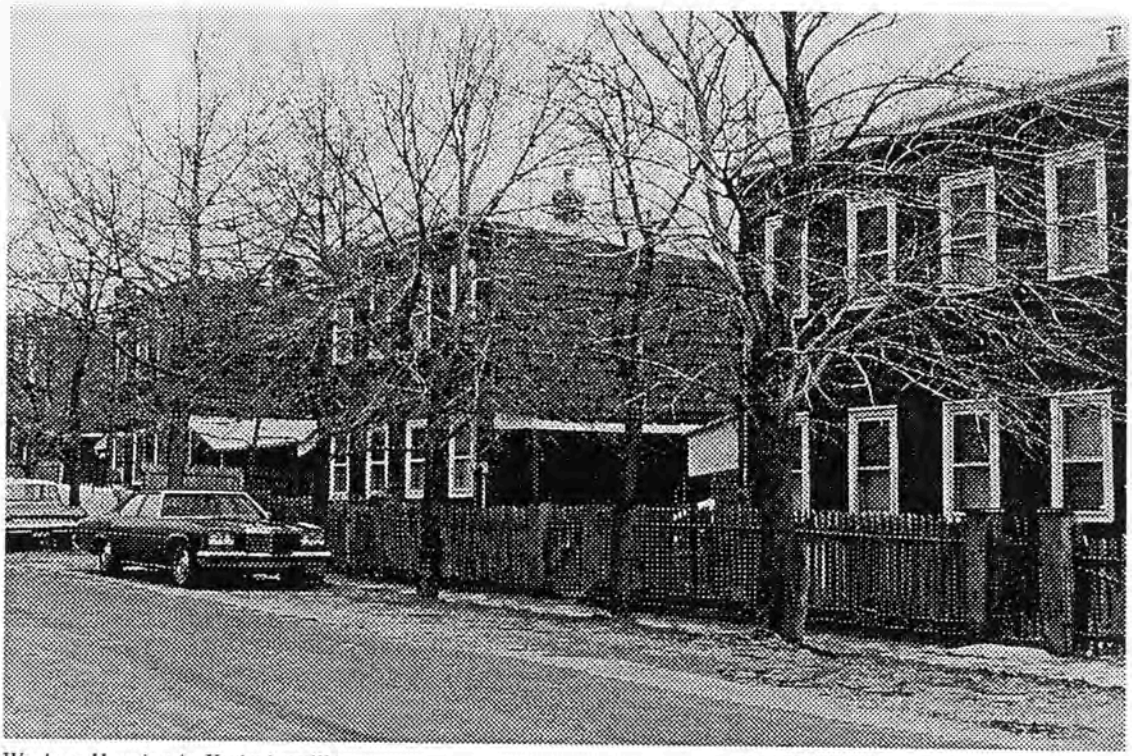
Kreischerville is a residential neighborhood in an M1-1 and M3-1 zone. The residences predate the 1961 zoning, and remain as pre-existing non-conforming uses. Since banks are reluctant to finance non-conforming houses in manufacturing districts, it is difficult for homeowners to improve or sell their property. Permitted uses such as warehousing and contractors businesses, with associated truck traffic, have increased.

The Charleston Civic Association formed a Rezoning Committee to work toward changing the area's zoning to protect residential uses. The Department of City Planning subsequently drafted a proposal to address the land use conflicts in Kreischerville. A proposed mixed-use district within the Special South Richmond Development District would encompass the areas that are now predominantly residential. The proposed revisions would remove the non-conforming status of existing housing within the new district. New one- or two-family detached houses would be allowed by City Planning Commission authorization on the few vacant parcels within the proposed district. Manufacturing uses would continue to be allowed as-of-right.

- **Assess the potential of the Tottenville waterfront for lower-density residential and commercial uses.**

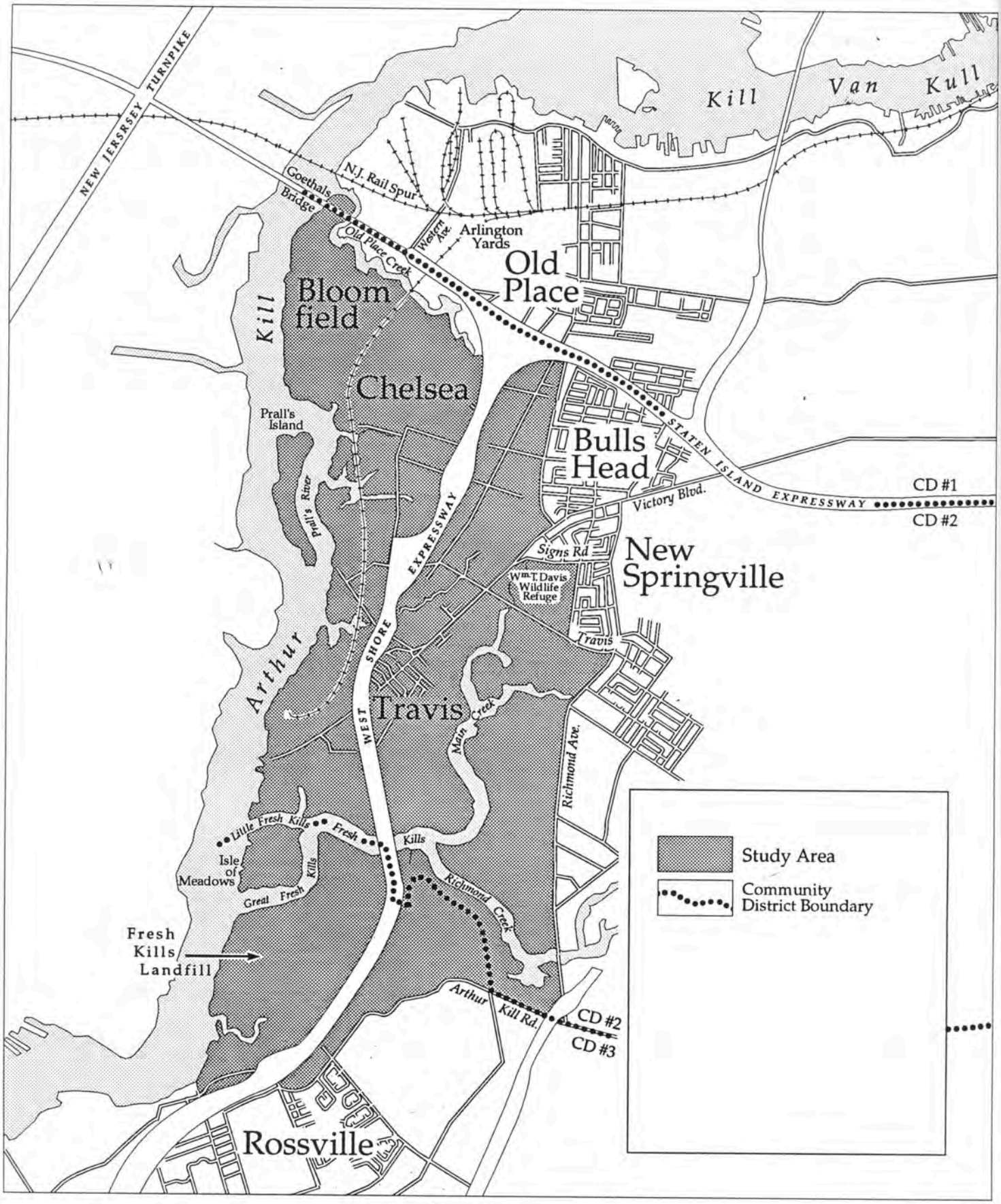
The Tottenville waterfront, west of Arthur Kill Road from Tracy Avenue north to Richmond Valley Road, is now zoned for heavy industry (M3-1). Much of the land is vacant and covered by designated tidal wetlands. The area is adjacent to the residentially zoned Tottenville community which lies to the east of the SIRT tracks. It also contains a bulkheaded area with the remains of piers. Rezoning could encourage marina uses at the former piers in the bulkheaded area and residential uses inland along Ellis Street and Arthur Kill Road. However, several factors restrict the potential for redevelopment. These include DEC tidal wetland regulations, the barrier created by the SIRT, and septic regulations requiring a

minimum lot size of 10,000 square feet in unsewered areas and a development setback of 100 feet from any waterway. (Once the area is sewered, septic regulations would no longer apply.) Furthermore, if the Johnson Avenue vehicular bridge over the SIRT is removed, access to new development would be possible only from Arthur Kill Road at the north end of the area.



Workers Housing in Kreischerville (Photo: Landmarks Preservation Commission)


Reach
21
Staten Island
ARTHUR KILL NORTH
New
Jersey
Hudson
River
Manhattan
East River
Upper
New York
Bay
Newark Bay
Kill Van Kull
Brooklyn
The Narrows
Kill
Arthur
Lower
New York
Bay
Raritan
Bay



21.1 STUDY AREA & CONTEXT

0 1 mile

DEPARTMENT OF CITY PLANNING NYC
COMPREHENSIVE WATERFRONT PLAN

INTRODUCTION

Reach 21 extends approximately six miles along the Arthur Kill from the southern boundary of the Fresh Kills landfill to Old Place Creek to the north. The Arthur Kill is a narrow but heavily trafficked waterway with weak currents which makes it vulnerable to pollution. To encompass the area's extensive and interconnected tidal and freshwater wetlands, the reach area extends relatively far upland. The reach lies mainly within Community District 2, except for the landfill in Community District 3 and a small portion north of the Goethals Bridge in Community District 1. (Figure 21.1)

The reach is both a natural and working waterfront. Three of the 15 state-designated Significant Coastal Fish and Wildlife Habitats in New York City are within its boundaries, including Saw Mill Creek and Fresh Kills Marshes and part of the Harbor Herons wetlands and wildlife complex. Designated in the Comprehensive Waterfront Plan as one of the city's three Special Natural Waterfront Areas, the reach possesses environmental assets of special significance. Management and preservation of valuable wildlife habitats, including extensive tidal and freshwater wetlands, are major objectives for the reach.

The reach's natural landscape is interspersed with large industrial and municipal uses, including bulk oil storage facilities, the Staten Island Corporate Park, and the 3,000-acre Fresh Kills landfill. In addition to local concerns about the landfill itself, issues tend to focus on the effects of industrial uses on the natural waterfront, especially encroachment on natural resources by illegal dumping and pollution caused by runoff from junkyards.

There is presently little waterfront public access because of the extensive natural areas and industrial uses between the shore and residential communities which are generally quite far inland. However, several possibilities exist to increase public access on a limited basis. Well into the future, parks can also be created on portions of the Fresh Kills landfill that are being revegetated once they are closed to further landfill.

REACH DESCRIPTION

Development History

Sites in Chelsea, Travis and on the Isle of Meadows (Lakes Island) are thought to have been heavily populated by Native Americans prior to the arrival of Europeans. Artifacts recovered from this part of Staten Island include arrow points, grooved axes and other implements.

Settlers through the mid-19th century were generally farmers and fishermen. Much of the reach was an extensive system of interconnected tidal wetlands, and the spartina (salt hay) found within the area was used to feed livestock. The area was used by summer residents as well in the late 19th century. Theodore Roosevelt's father and grandfather summered on a farm located in what is now part of the William T. Davis Wildlife Refuge.

After the Civil War, industry gradually came into the area, although the marshy topography and isolated location limited development. The first linoleum factory in the nation was established in 1873 in Travis, which took the name of Linoleumville. At its peak, the factory employed over 700 people. The plant closed in the depression and a few years later the citizens of Linoleumville changed the town's name to Travis. Clay quarries and related brick factories located along the shores of the Great Fresh Kills. The Carteret ferry left from the base of Victory Boulevard where remnants of the pier can still be seen.

After World War II, the reach began to assume its present character. Acquisition of property for the Fresh Kills landfill began in 1948. Bulk oil facilities, served by pipeline and barge, were developed along the Arthur Kill, and junkyards located upland. Construction of the Verrazano-Narrows Bridge and the West Shore and Staten Island expressways in the 1960s and 1970s opened up large areas of Staten Island including this reach for development. These new roads also changed the ecology of the reach. Placed through wetlands and across watersheds, they restricted upland drainage and estuarine flow.

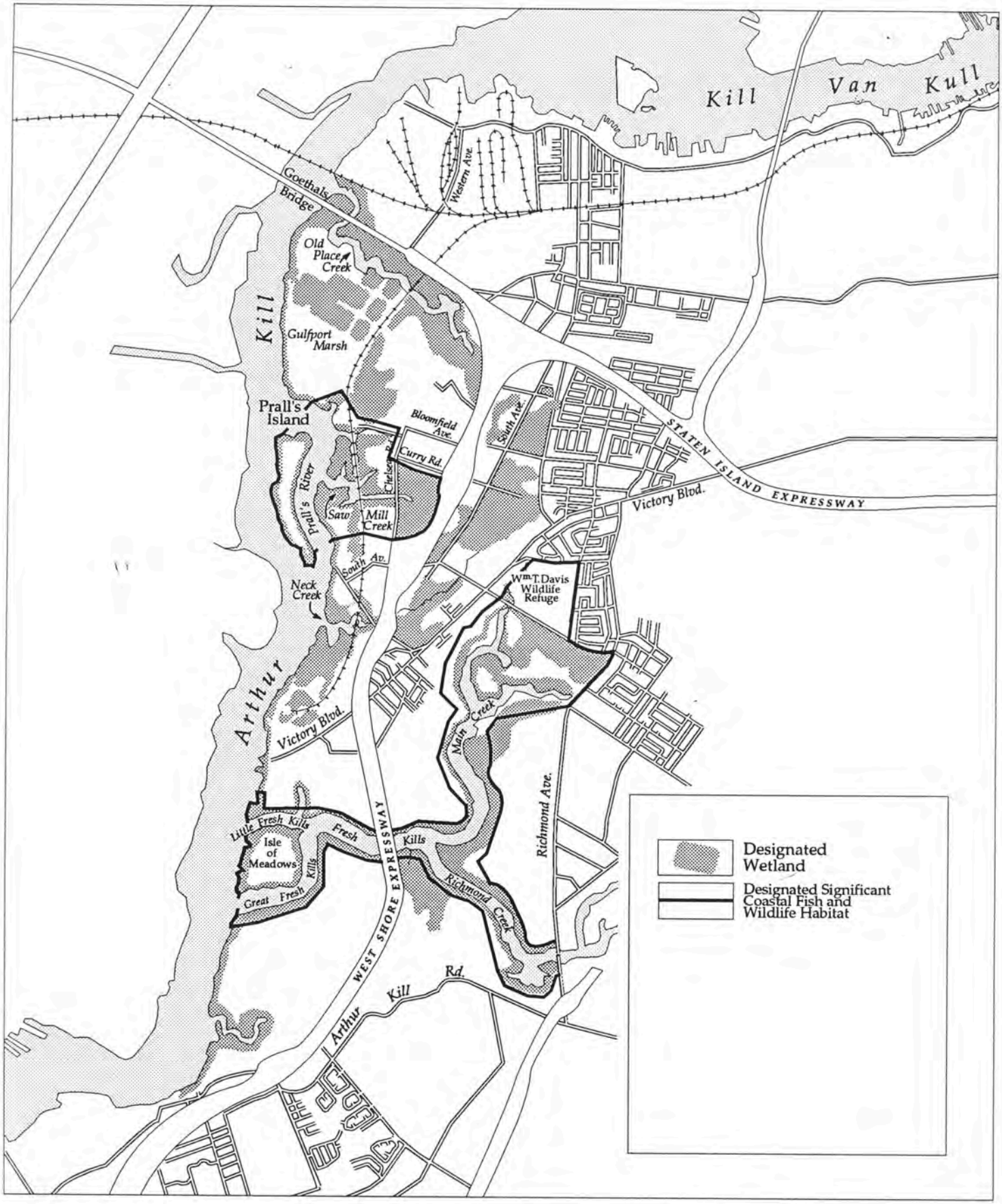
Natural Features (Figure 21.2)

The reach contains bay-like areas which became filled in the postglacial era with deep sediment deposits -- mainly marine and freshwater muck and peat. The largest of these areas is Fresh Kills Marsh, fed by Richmond, Springfield and Fresh Kills creeks. Other important deposits are in Old Place, Bloomfield and Chelsea. A bed of glacial outwash with water-retentive gravel forms an aquifer in the city-owned William T. Davis Wildlife Refuge. This aquifer supplied water to the area before the introduction of water from the upstate reservoir system. Water continues to percolate to the surface around the capped wells in the refuge, creating wet marshy areas.

Water quality in the Arthur Kill and Kill Van Kull is not good. The quality of the water is degraded by heavy industrial uses on both sides of the Arthur Kill, marine traffic and sewer outfalls. The sluggish tides in the Kill do not allow a strong flushing action and pollutants are not readily dispersed. Although water quality has improved significantly in the last 20 years, DEC has rated the water's Best Use Classification as fish survival.

The reach has extensive areas of tidal and freshwater wetlands which support a significant and highly varied ecosystem including shellfish and invertebrates, colonial wading birds, waterfowl and songbirds. The wetlands also help prevent local area flooding by acting as sponges; storing and then releasing stormwater. Three areas in the reach have been designated by the New York State Department of State as Significant Coastal Fish and Wildlife Habitats. These are Prall's Island, Sawmill Creek Marshes (Chelsea Marsh) and Fresh Kills. These designations establish thresholds to determine a proposed activity's potential to significantly impair or destroy a habitat.

The entire reach is within the Harbor Herons wetlands ecosystem, which includes Prall's Island, the Isle of Meadows and all of the surrounding wetland foraging habitat and upland habitat necessary to maintain the ecological and hydrological integrity of the ecosystem. The reach has recently been colonized by several species of herons, egrets and ibises and is identified as "the single most important colonial waterbird rookery complex in New York State" by the Trust for Public Land and Audubon Society in their 1990 *Harbor Herons Report*.



21.2 NATURAL FEATURES

0 1 mile

DEPARTMENT OF CITY PLANNING NYC
COMPREHENSIVE WATERFRONT PLAN

The following subareas contain the most important natural features in the reach.

Fresh Kills: This area includes the portion of Travis east of Victory Boulevard and the Fresh Kills landfill. Fresh Kills is the largest tidal wetland ecosystem in the Manhattan Hills ecological region, and at one time was one of the largest coastal wetland areas in New York State. This Significant Coastal Fish and Wildlife Habitat embraces approximately 1,000 acres of tidal wetlands on the shores of Main Creek, Springville Creek and Richmond Creek. These creeks feed Fresh Kills and the William T. Davis Wildlife Refuge. Only two areas of wetland (Isle of Meadows and the Wildlife Refuge) remain in a relatively natural condition. Although hundreds of acres of marshland have been destroyed through dumping and mosquito control measures, the remaining tidal marshes and mudflats are among the most potentially valuable fish and wildlife habitats on Staten Island. Plant communities in the area include brackish and slightly brackish marsh, forested wetlands, salt marsh and mudflats. Main Creek, as well as the landfill, are major wildlife foraging areas within the Harbor Herons ecosystem.

William T. Davis Wildlife Refuge: This 260-acre refuge, part of the Staten Island Greenbelt, supports a diverse wildlife habitat, including more than 117 different species of birds. The adjacent former Mohlenoff Nursery was recently acquired by the city and transferred to the Parks Department. It is an important link between the wildlife refuge and the rookeries and foraging grounds in the marshes.

Isle of Meadows: This 101-acre island is an important bird nesting area which supports seven species of wading birds.

Neck Creek Marsh: The marsh comprises 60 acres located between the Arthur Kill, Victory Boulevard and South and Travis avenues. Part of the residential community of Travis to the west of Victory Boulevard is included in the subarea. Much of the land is vacant and includes a small wetland restoration area. The Travis spur of the Staten Island Railroad runs through these marshes and terminates at the Con Edison plant. Although the West Shore Expressway disturbed some of the wetlands to its east, the wetlands are connected by culverts and remain productive habitat areas. The marshes that surround Neck Creek are a highly productive tidal and freshwater marsh complex providing wildlife foraging habitat. The marshes are an important link for birds travelling between Prall's Island, the salt marshes and the Wildlife Refuge. Numerous waterfowl and



Damaged wetlands near Saw Mill Creek

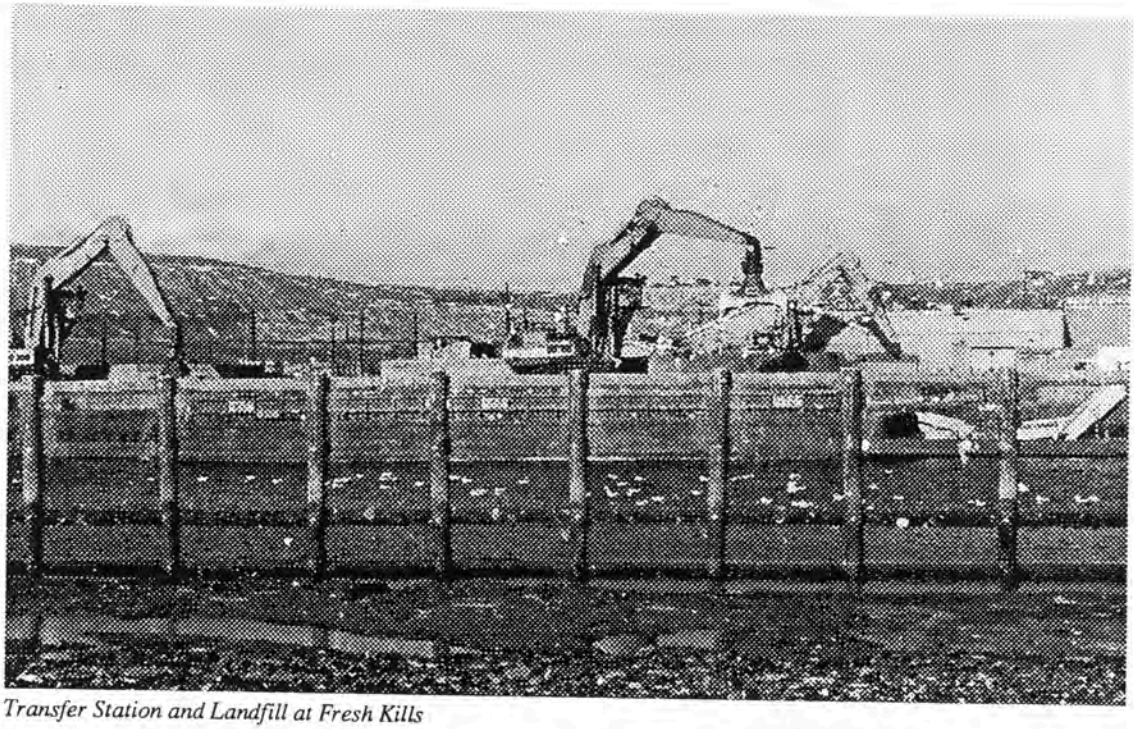
wading birds have been seen feeding in the freshwater marshes. The vacant property adjacent to the Fresh Kills landfill and south of the Con Edison generator is a valuable shrub and high marsh area which affords beautiful views of the Arthur Kill.

Prall's Island: The 88-acre island is located west of the Sawmill Creek Marshes between Prall's Creek and the Arthur Kill. Owned by the Parks Department and managed by the New York City Audubon Society, it is a designated Significant Coastal Fish and Wildlife Habitat. The island is relatively isolated from human contact (public access is restricted) and provides nesting areas for birds, especially colonial wading birds. In 1989 it was estimated to have over 200 pairs of nesting colonial wading birds including cattle egrets, glossy ibis, black crown night herons, snowy egrets and little blue herons.

Saw Mill Creek Marshes: Also designated as a Significant Coastal Fish and Wildlife Habitat, the area includes Merrell's Creek and Marshes to the north, Chelsea Marsh located between the rail line and Bloomfield Road, and Sawmill Creek and related marshes. The marshes, which include tidal and freshwater wetlands as well as brackish waters, have been interrupted by the rail line and roads that cross through it. The marshes have been further degraded by illegal dumping. Wetlands along the edge of the creek have suffered damage from recent oil spills in the Arthur Kill.

These marshes are especially important as feeding grounds for adult and juvenile herons, egrets and ibises that nest on Prall's Island. They provide a winter habitat for the short-eared owl and northern harrier, which feed on the marine invertebrates that are in rich supply here. **Chelsea Marsh**, a freshwater and brackish marsh, has been identified as a habitat for the southern leopard frog, listed by the state as a species of special concern. It is one of the few habitats for this frog within the state, probably one of its northernmost habitats.

Much of the land in the Sawmill Creek marshes was originally intended to be part of a 777-acre city-owned industrial urban renewal area, the Staten Island Industrial Park. The city condemned much of the land, but subsequent wetlands regulations and the lack of infrastructure have left the area nearly vacant. The Department of Parks and Recreation proposes to map much of the property as parkland. Wetlands along the creek edges were restored as part of the 1990 Exxon oil spill settlement. The restored saltmarsh cordgrass has shown good growth.



Transfer Station and Landfill at Fresh Kills



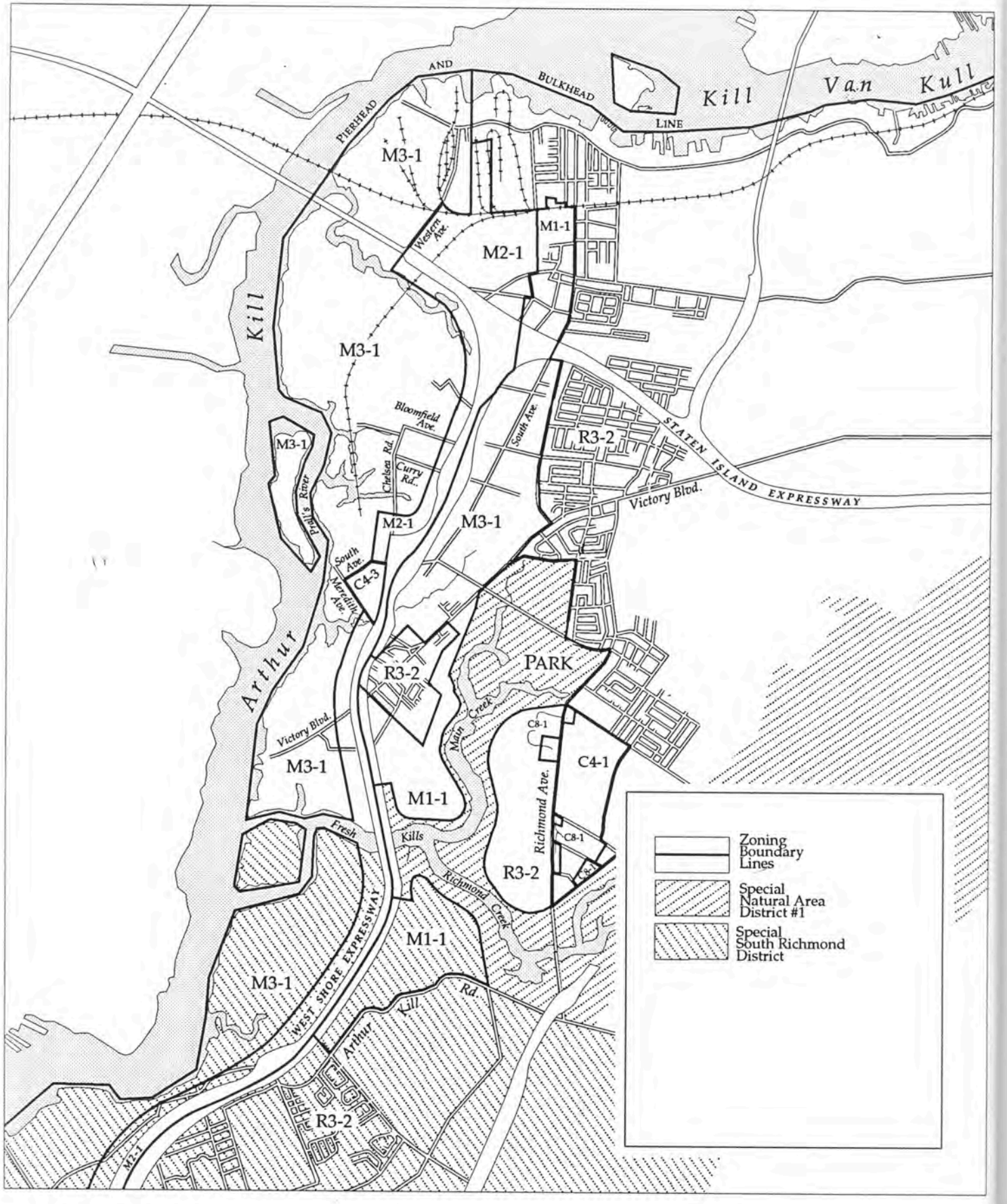
Revegetated wetlands at Fresh Kills

Gulfport Marsh: The Gulfport Marsh surrounds extensive bulk oil storage facilities and an electrical substation. The Travis rail spur crosses through the marsh and over Merrell's Creek. Interspersed between the oil tanks is the second largest emergent marsh in New York City. Covering approximately 162 acres, these freshwater wetlands contain significant wildlife habitat for the northern harrier which is listed by New York State as an endangered species.

Old Place Creek: This tidal creek drains the most extensive watershed in northwest Staten Island. It serves as a feeding ground for egrets and other wading birds. A roseate spoonbill, extremely rare this far north, was recently sighted along its shores. Portions of the creek that are surrounded by lush green fields of salt hay appear completely removed from the urban environment. A grove of native persimmons, listed by New York State as a rare species, thrives along the banks.

Recent oil spills have seriously disturbed the marshes along the creek's banks. Some parts of the creek are also affected by debris and pollutants from junkyards on filled portions of the creek. Freshwater wetlands become part of the tidal wetland system upstream of the West Shore Expressway/Staten Island Expressway Interchange. These freshwater wetlands are valuable, among other reasons, because they filter the stormwater runoff from the expressway. The tidal system continues beneath the expressway interchange and reemerges at the Teleport in the Staten Island Corporate Park.

Staten Island Corporate Park (SICP): The Staten Island Corporate Park is part of the watershed that drains into Old Place Creek and Saw Mill Creek. The southern portion of the park, occupied by Teleport, contains significant wetlands and cattail marshes. Large areas of swamp forest containing rare plant species surround the marshes. The wetlands are fenced to prevent dumping. The SICP wetlands help control flooding and filter water that eventually drains into Saw Mill and Old Place creeks.


PIERHEAD AND BULKHEAD LINE
Kill Van Kull
Kill
Arthur
M3-1
M1-1
M2-1
Western Ave.
Bloomfield Ave.
Chelsea Rd.
Curry Rd.
Pralls River
South Ave.
Meredith Ave.
C4-3
R3-2
STATEN ISLAND EXPRESSWAY
Victory Blvd.
PARK
Main Creek
C8-1
C4-1
Richmond Ave.
Fresh Kills
Richmond Creek
WEST SHORE EXPRESSWAY
Arthur Kill Rd.
Zoning Boundary Lines
Special Natural Area District #1
Special South Richmond District
0
1 mile
DEPARTMENT OF CITY PLANNING
NYC COMPREHENSIVE WATERFRONT PLAN

21.3 ZONING

Zoning (Figure 21.3)

The Special South Richmond Development District, intended to guide development and protect natural features, covers the southernmost portion of the reach including the Fresh Kills landfill. A Special Natural Area District (SNAD) is mapped on parkland in the middle part of the reach. Its purpose is to ensure that all new developments and site alterations preserve unique natural features having ecological and conservation values. Unlike all other zoning districts, SNAD is applicable to parkland. Natural features are protected by limiting modifications to topography, by preserving tree, plant and marine life and natural watercourses, and by requiring clustered development to maximize the preservation of natural features.

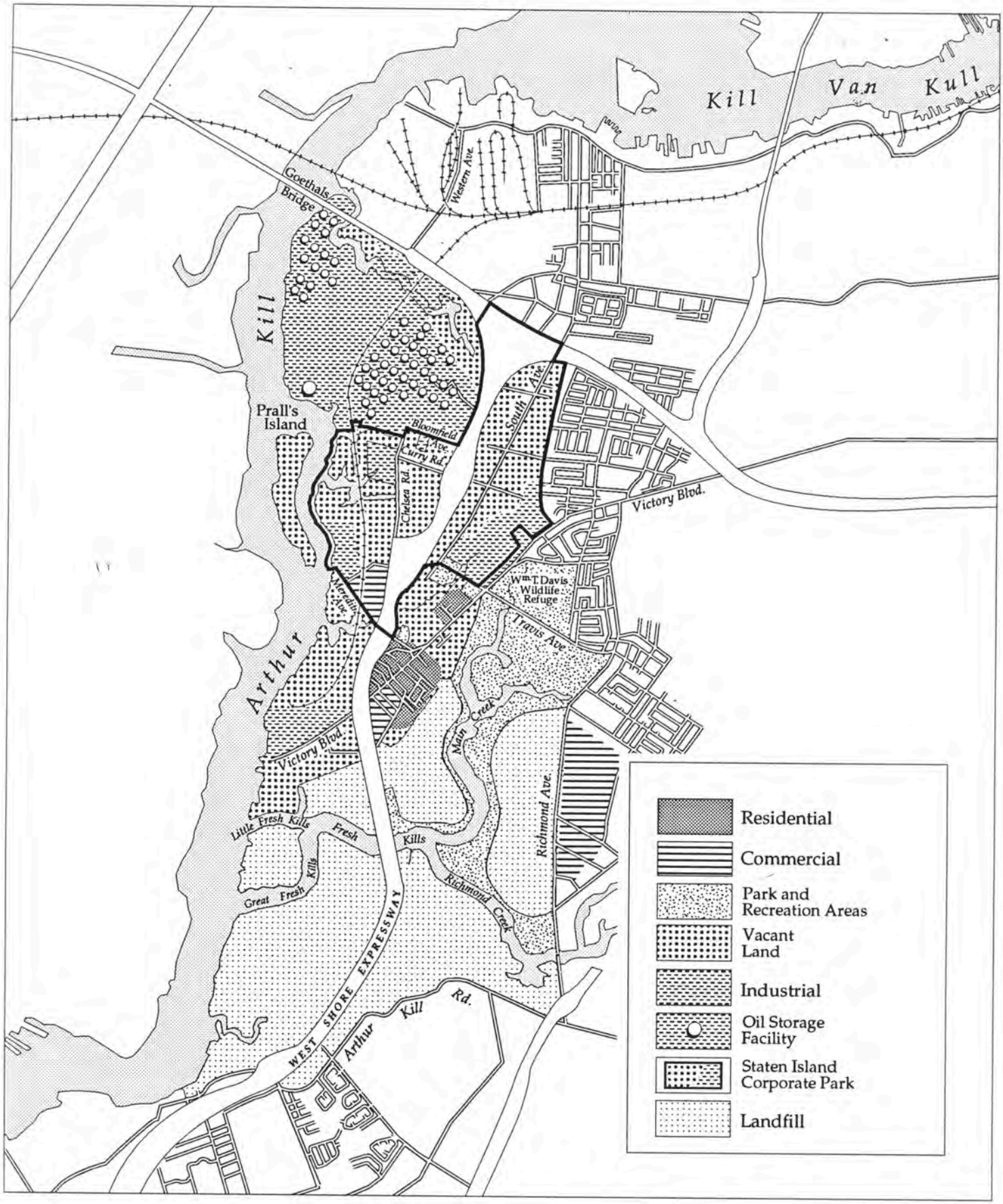
The reach's only residential zoning (R3-2) is mapped in the community of Travis adjacent to the West Shore Expressway. This is the lowest density district that allows for the development of all housing types.

The northern Arthur Kill is zoned for industrial use except for a small area northwest of Travis mapped C4-3 which allows for major commercial centers.

Physical Character and Land Use (Figure 21.4)

The Arthur Kill is heavily trafficked by vessels serving bulk oil storage facilities along both its shores. On the New Jersey shore, there are a number of industrial uses including chemical plants, oil refineries and storage facilities, many of which are water-dependent. Collectively, the two shores house the largest concentration of oil storage facilities in the harbor.

A Con Edison plant and the Fresh Kills landfill lie in the southern portion of the reach. The landfill at Fresh Kills Creek is the only active one in New York City; 900 of the landfill's 3,000 acres are currently used for waste disposal. Solid waste is brought to the site from the rest of the city by barge and then transferred to trucks for land disposal. When completed, the landfill is projected to rise to heights between 150 and 450 feet. A "super boom" has been placed across the mouth of Great Fresh Kills Creek to prevent the escape of floating garbage from



21.4 LAND USE

0 1 mile

DEPARTMENT OF CITY PLANNING NYC
COMPREHENSIVE WATERFRONT PLAN

the creek into the Arthur Kill. The Department of Sanitation is currently constructing underground barriers to cut off the approximately one million gallons per day of leachate that escapes in surrounding water bodies.

The West Shore Plaza shopping center is located south of Victory Boulevard along the West Shore Expressway. There are also several building contractors and sand and gravel facilities in the area. The low-density residential community of Travis, consisting primarily of detached houses, is located on both sides of Victory Boulevard. The residential population of the entire reach, concentrated mainly in Travis, is just over 2,000 people.

Petroleum storage facilities ("tank farms") are located in the northern sector of the reach where there is also extensive vacant land. The GATX Petroleum Storage Company is located in the Gulfport Marsh. Several pipelines extend from its wharf to 90 steel storage tanks with a total capacity of over five million barrels.

The Staten Island Corporate Park including the Teleport straddles the West Shore Expressway. The Teleport (in the southeast section of the park) was developed by the City of New York, Merrill Lynch, the Port Authority and Western Union as a high technology communications center. The complex has 700,000 square feet of office space with an additional 400,000 square feet planned for the future.

A riding club and warehouses are south and east of Gulfport along Bloomfield Avenue. Farther south, there are a number of junkyards on Edward Curry Avenue and Chelsea Road.

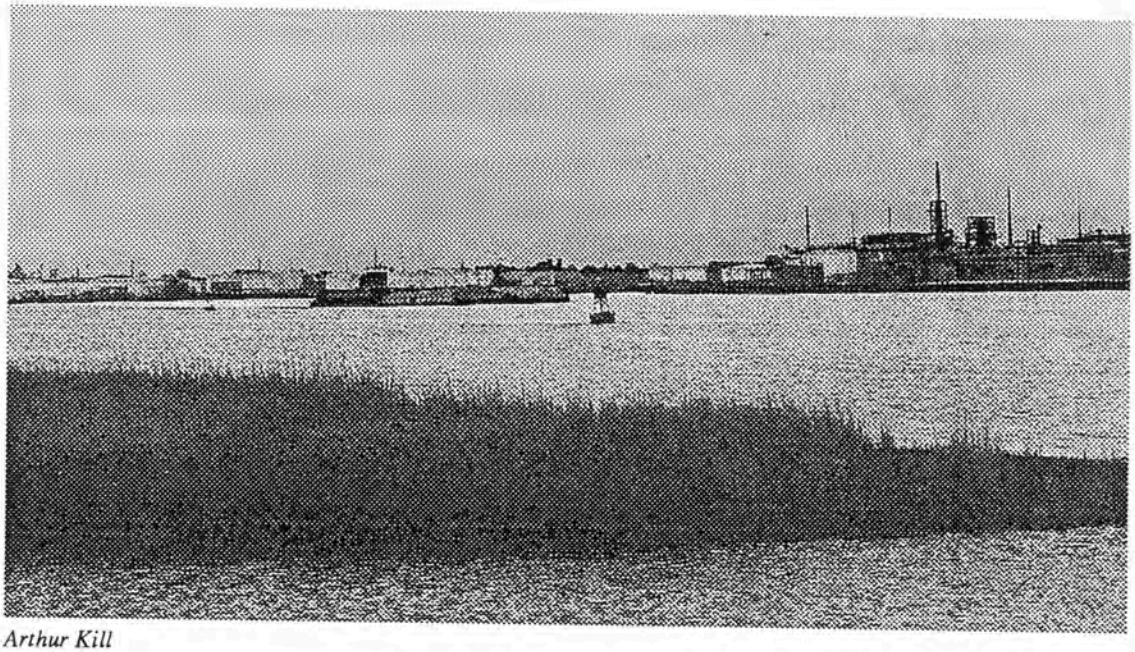
The limited number of public recreational resources in the reach include the Emil Borg Memorial Field, Schmul Park, the Amateur Softball Association ballfields, the Mid-Island Little League and Babe Ruth Field, and an unimproved park at West Shore Road and Ridge Road.

Transportation

The main passenger and truck routes traversing the area are the east/west Staten Island Expressway and the north/south West Shore Expressway cutting through the center of the reach. The Goethals Bridge at the northern end of the reach is one of eight major truck routes that enter New York City from the mainland of the United States.

The inactive Travis Branch of the Staten Island Railroad runs from the upper end of the reach to the Con Edison plant. The Arlington-to-Travis freight line is a single track line, approximately 2.4-miles long, on a 66 to 100 foot wide right-of-way. The city is now in the process of acquiring the entire Staten Island Railroad which includes the Arlington to Travis property.

Apart from the West Shore Expressway, there are very few through streets in the reach. Bus service is available along Victory Boulevard and the West Shore Expressway.



Arthur Kill

ISSUES AND RECOMMENDATIONS

The Natural Waterfront

The major natural waterfront issue is the need to manage and preserve tidal and freshwater wetlands and valuable wildlife habitats. An array of zoning and environmental regulations, and land acquisition programs, provide significant protection for the natural features in most of Staten Island. In those areas, the preservation strategy focuses on continued implementation of existing and planned programs. Improved enforcement of existing regulations is also needed to prevent illegal dumping, filling and encroachment on protected land.

Only in the Harbor Herons complex is a more integrated approach necessary to ensure adequate protection and management of its unique resources. There are a number of means to protect these natural areas. They include identification of priority areas for acquisition, transfer of city property for natural resource management, acquisition of conservation easements, and special designations such as Significant Habitats or Special Natural Waterfront Areas.

- **Designate the northwestern section of Staten Island a Special Natural Waterfront Area.**

The Comprehensive Waterfront Plan identifies the northwestern section of Staten Island as one of its least protected natural resources and designates it as the Staten Island Special Natural Waterfront Area. (Two other areas in the city were also designated: Long Island Sound/Upper East River and Jamaica Bay.) In the Harbor Herons complex, which makes up much of the Special Natural Waterfront Area, an integrated management approach is necessary to ensure adequate protection of its unique resources including its freshwater and tidal wetlands and significant bird colonies. The Department of City Planning proposes to revise the Waterfront Revitalization Program (WRP) to delineate the exact boundaries of the Special Natural Waterfront Area and develop policy guidelines specific to the area. Any future programs or projects in the area would then be reviewed for consistency with revised WRP policies.

- **Acquire environmentally sensitive land where feasible and necessary to ensure its protection.**

Any newly acquired land, together with the most sensitive portions of city-owned property, should be transferred to the Parks Department or the Department of Environmental Protection depending on the extent to which the land is to be accessible to the public. In some cases, management by private land trusts may be feasible. Wherever acquisition proves infeasible, alternate methods of protection may be necessary. An active management program or strict enforcement of existing regulations might be an adequate form of protection for some of the wetlands. The *Harbor Herons Report* proposes the following areas for acquisition.

Old Place Creek: The property at the mouth of Old Place Creek is city-owned and should be transferred to the Department of Parks and Recreation or the Department of Environmental Protection as appropriate. Private properties on the north bank of the creek with frontage on Gulf Avenue contain filled tidal wetlands as well as habitat-rich wetlands. Due to the fragility of the wetlands, there is concern that they could be harmed by adjacent development. Since the *Harbor Herons Report* was issued, however, some development has occurred on these properties, making the acquisition alternative unlikely. Adherence to wetland regulations by property owners should be monitored carefully.

Staten Island Corporate Park: The swamp forest and wetlands within SICP should be transferred to DEP or DPR as appropriate. Currently, property within the Teleport is well protected from dumping and other activities that might damage wetlands. However, the rest of the park is not as well protected. The swamp forest complex located in the western portion of the SICP is particularly important. Destruction of the swamp forest could severely damage the wetlands system of Old Place Creek and the Harbor Herons habitat as a whole. Other areas around the swamp forest have been degraded and are more suitable for development than the swamp forest. In lieu of a transfer, strict adherence to existing regulations should be enforced.

Gulfport Marsh: The *Harbor Herons Report* recommended acquisition of the major wetland components of the marsh. However, all the property in the area is privately owned and the extensive high quality wetlands makes much of the property difficult to build on. Therefore, acquisition of major wetlands in this

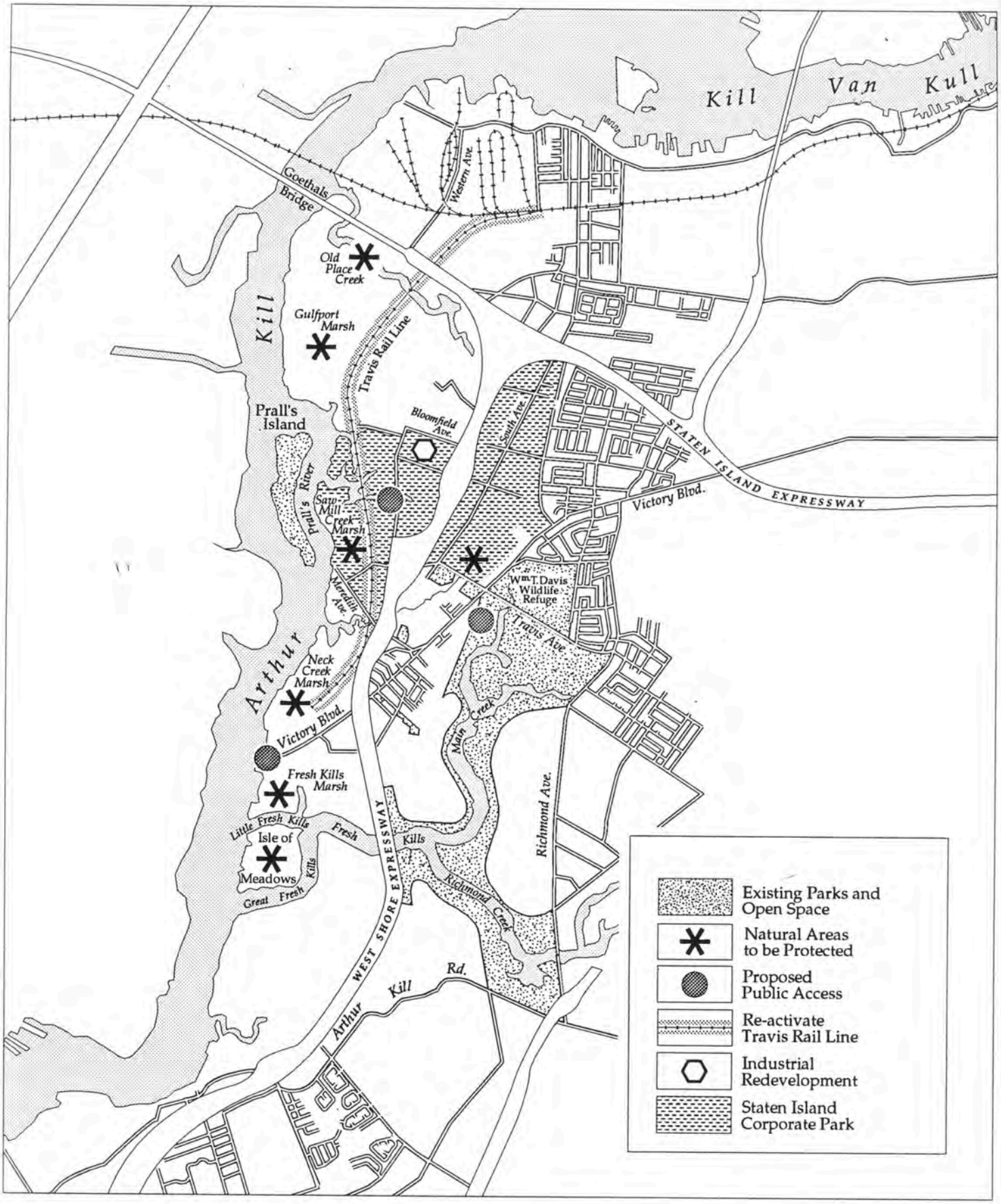
marsh is not recommended; adherence to regulations should adequately protect the property.

Saw Mill Creek Marsh: A large portion of the Saw Mill Creek Marsh, a Significant Coastal Fish and Wildlife Habitat, is being transferred to the Parks Department. However, additional property across Chelsea Road, also containing tidal and freshwater wetlands and part of the designated habitat, should be transferred to the Parks Department. The property bounded by Bloomfield Avenue and Curry Road is appropriate for light industrial development and need not have additional protection.

Neck Creek Marsh: *The Harbor Herons Report* recommends that city-owned parcels be transferred to the Department of Parks and that wetlands owned by Con Edison be acquired or placed under a conservation easement. The area immediately surrounding the Con Edison plant is highly disturbed and has no ecological significance and therefore is suitable for development.

Fresh Kills: Though this portion of the reach is dominated by the Fresh Kills landfill, it includes other areas that need further protection to preserve their environmental viability. The marshes south of the Con Edison plant and along the Arthur Kill are an active feeding ground for birds and a rich marine habitat. The property is owned by the New York State Power Authority. If it is possible to transfer it to a city or state park or environmental conservation agency, this parcel and the adjacent Victory Boulevard street end recommended for public access would be suitable for an environmental education station. The landfill will be revegetated and become a park in the long-term.

Isle of Meadows: This city-owned island should be transferred to Department of Parks for management as a bird sanctuary, similar to Prall's Island.



21.5 RECOMMENDATIONS

0 1 mile

DEPARTMENT OF CITY PLANNING NYC
COMPREHENSIVE WATERFRONT PLAN

The Public Waterfront

The combination of industrial and natural waterfronts precludes extensive public access to the shoreline in the reach. The residential population centered in Travis is small, limiting demand for waterfront access and major active recreational facilities. The most appropriate opportunities for public access in the reach would take the form of environmental education and public trails through natural areas.

Small craft recreational boating is not recommended for the reach. The Department's *New York/New Jersey Harbor Estuary Water Use Management Study* discourages recreational boating in the northern Arthur Kill. This portion of the Arthur Kill is heavily trafficked by large maritime vessels, especially oil tankers servicing the largest oil storage facilities in the harbor. In addition, increased vessel activity is anticipated with the reactivation of Howland Hook. New recreational marinas or boat launches in this narrow waterway could conflict with maritime vessels.

- **Develop the Victory Boulevard street end as public open space.**

The end of Victory Boulevard is currently the only place in the reach where the public has access to the water's edge and views of maritime activity in the Arthur Kill. It is a remote site with a Con Edison plant to the north and vacant Con Edison property to the east. Local school groups or scout troops could be encouraged to adopt the site as an environmental management project. If the high marsh property owned by the New York Power Authority is transferred to DEC or the Parks Department, nature trails connecting the Victory Boulevard street end to the Greenbelt should be considered to make this a contiguous park.

- **Consider public access to Main Creek at the former Mohlenoff Nursery property.**

The city has recently acquired the former Mohlenoff Nursery which provides an opportunity for new public access to the banks of Main Creek for environmental education and trails. The new trails could link the Greenbelt with the William T. Davis wildlife Refuge.

- **Explore the possibility of a passive viewing area along Saw Mill Creek in Chelsea Marsh.**

A small area on Chelsea Road along the shores of Sawmill Creek has views of the creek and surrounding landscape. However, its natural features have been substantially degraded by dumping. A clearly delineated public area with parking and a railing or bollards to prevent dumping could provide an opportunity for bird watching and other passive activities.

The Working Waterfront

Although there are many sensitive natural areas in the reach, there is potential for further industrial development of the west shore's M-zoned land north of the landfill between the West Shore Expressway and the Arthur Kill. The Department will develop a work program to identify infrastructure and land use issues and examine the constraints to development posed by the proximity of sensitive natural and wetland areas. The study will explore new and emerging industrial technologies and propose new zoning or land use regulations to promote development of industrial sites without impinging on important coastal resources.

- **Dispose of developable land in the Staten Island Corporate Park for new industrial uses.**

EDC has identified two additional properties appropriate for development in the Staten Island Industrial Park Urban Renewal Area west of the expressway. The property bounded by Bloomfield Avenue and Curry Road is appropriate for light manufacturing. The existing stables should be retained or relocated if necessary to avoid conflict with industrial development. The second parcel to the south has extensive tidal and fresh water wetlands, and is part of the Saw Mill Creek Marshes Significant Coastal Fish and Wildlife Habitat. EDC should reevaluate the development potential of this property. Areas that are not appropriate for development should be added to the adjacent property being transferred to the Parks Department once issues are resolved concerning the clean-up of land contaminated by previous uses.



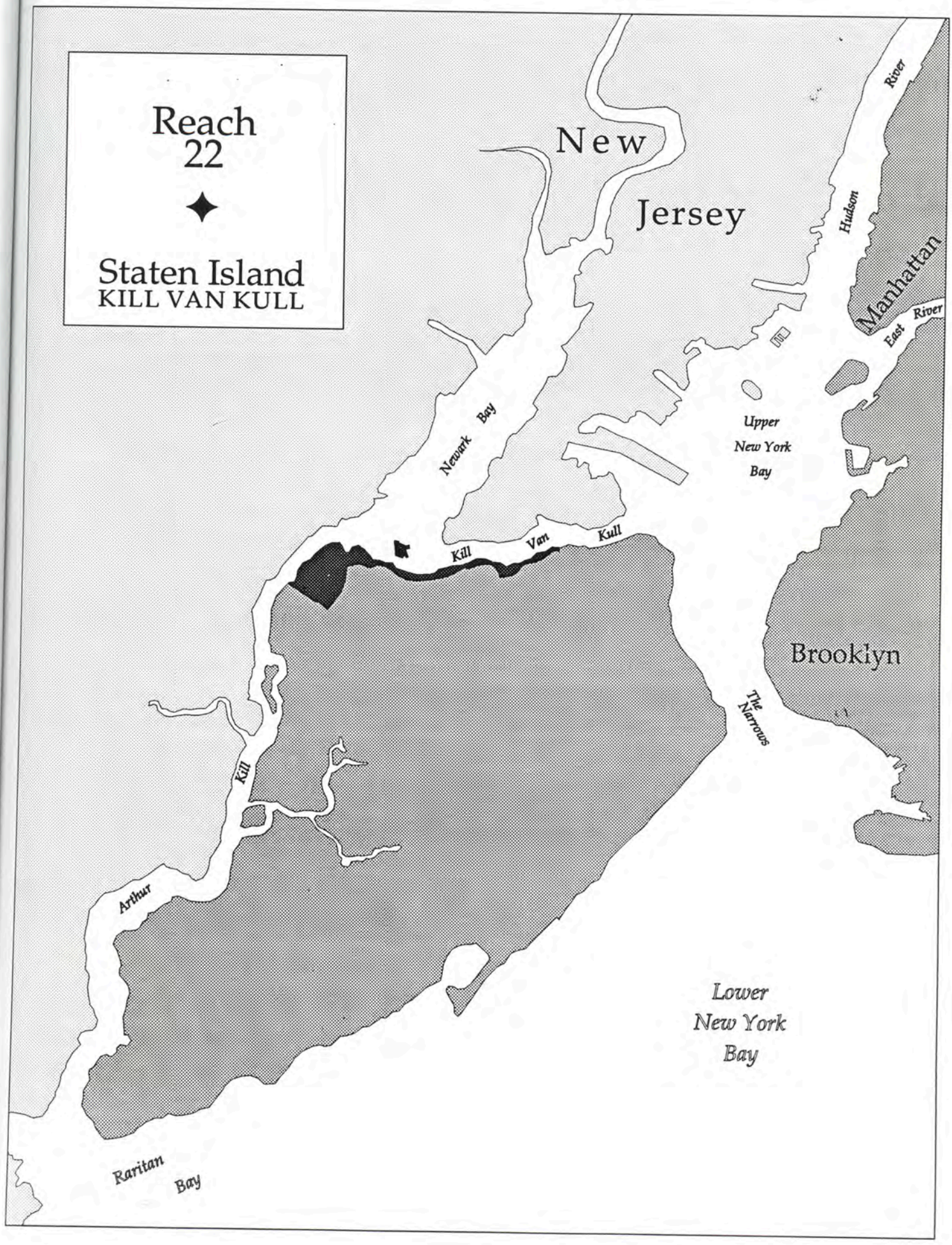
Tank Farms near Chelsea Marsh

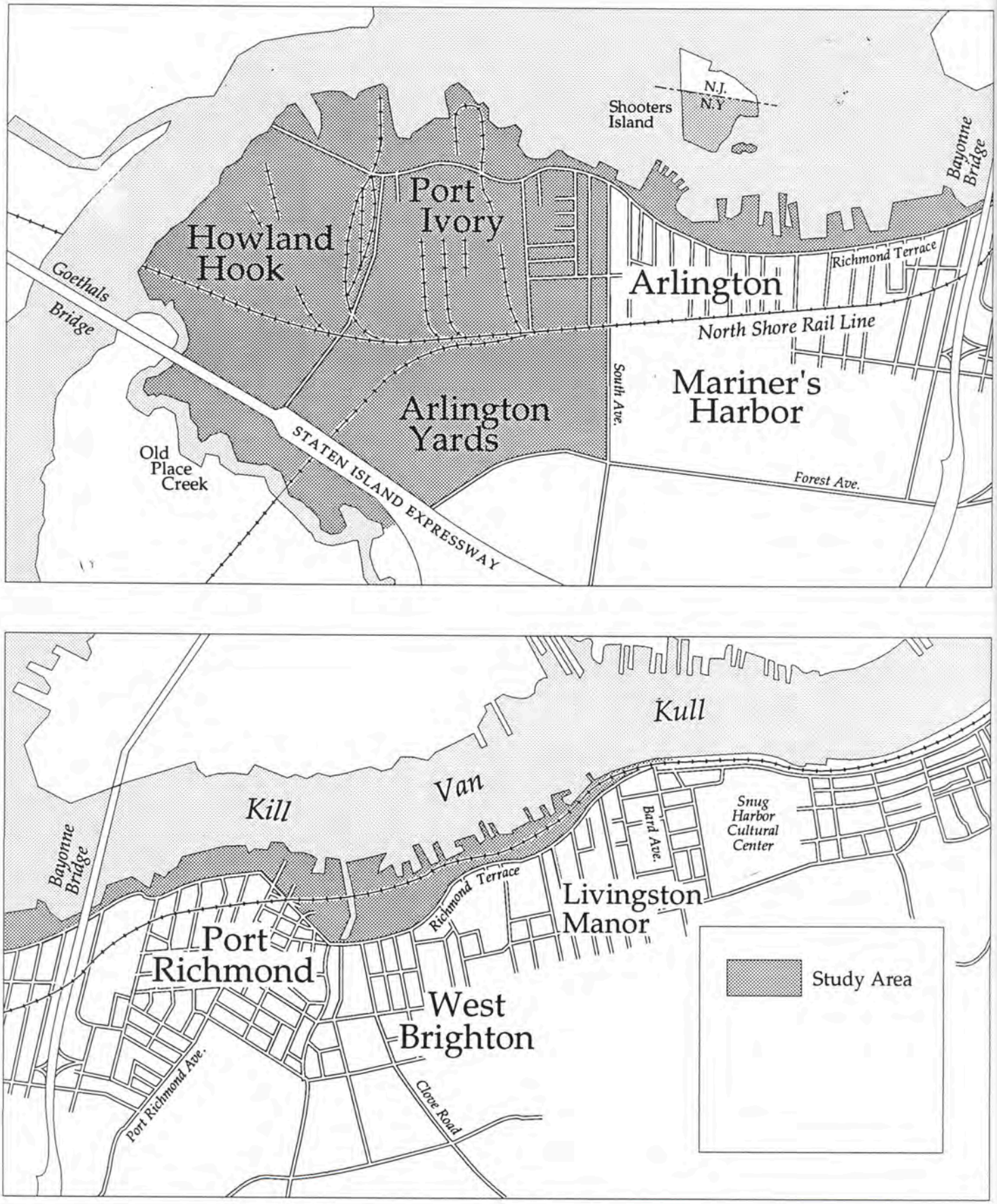
- **Acquire the unused Travis Rail Line and explore its reactivation for commuter and freight use.**

The city is acquiring the entire New York section of the Staten Island Railroad, including the Travis line. Current plans call for activation of the line only from the Arthur Kill Bridge to the Arlington Yards in Reach 22. As part of future improvements to rail service in Staten Island, the Travis line could serve industries as well as residential communities on the west shore. Further study is required to determine the feasibility of extending the Travis line southward to Tottenville where it could connect with the SIRT.

- **Continue efforts to contain impacts of the Fresh Kills landfill and to implement end-use plans for closed portions of the landfill.**

The Department of Sanitation is pursuing a number of programs at the Fresh Kills landfill to avoid further water and air quality degradation and impacts on nearby communities and natural habitats. A 1990 Consent Order mandates that the landfill be operated in an environmentally safe manner. It requires a leachate mitigation system, a gas monitoring program and improved loading procedures and devices to prevent floating debris from entering surrounding waterways. These programs, as well as plans to cap and revegetate portions no longer used as landfill, must continue.


Reach
22
Staten Island
KILL VAN KULL
New
Jersey
Hudson
River
Manhattan
East River
Upper
New York
Bay
Newark Bay
Kill Van Kull
Brooklyn
The Narrows
Kill
Arthur
Lower
New York
Bay
Raritan
Bay



22.1 STUDY AREA & CONTEXT

0 ½ mile

DEPARTMENT OF CITY PLANNING NYC
COMPREHENSIVE WATERFRONT PLAN

INTRODUCTION

Reach 22 is located on the north shore of Staten Island along the Arthur Kill and the Kill Van Kull. From west to east, it extends approximately four miles from Old Place Creek to Kissel Avenue. The inland reach boundary runs along Richmond Terrace except at the western end where the reach encompasses important natural features and industrial facilities. The portion of Shooter's Island located within New York State is also part of the reach. The entire reach is located within Community District 1. (Figure 22.1)

Richmond Terrace, the major east-west street in the reach, is the dividing line between the industrial and residential areas. In general, the land north of Richmond Terrace is devoted to maritime, industrial and auto-related uses while the land to the south in Port Richmond and West Brighton is predominantly residential. The primary objectives for the reach are to revitalize industrial uses, preserve significant natural resources and increase public access to the waterfront.

The western end of the reach includes three large, vacant industrial sites: Howland Hook Marine Terminal, the Arlington rail yards and Port Ivory. The Economic Development Corporation and the Port Authority are pursuing reactivation of Howland Hook, the Arlington yards, and the Staten Island Rail Line connection to the national rail system.

The reach is an important center for maritime and maritime support service activity. The Kill Van Kull serves as the main waterway for Port Elizabeth/Port Newark. Identified as the best area in the port to meet the future needs of the maritime support services industry, the Kill van Kull is designated a Significant Maritime and Industrial Area in the Comprehensive Waterfront Plan. This designation is intended to protect and facilitate concentrated working waterfront uses, and to ensure sufficient industrially zoned land to accommodate future growth of these uses.

The Kill Van Kull reach is the only one in the city that is at once a Significant Maritime/Industrial Area and part of a Special Natural Waterfront Area. The reach contains large areas of valuable wildlife habitat, including part of the Harbor Herons tidal and freshwater wetland systems which extend throughout the western end of the reach and southward into the Arthur Kill North Reach. Additionally,

the New York State Department of State has designated Goethals Bridge Pond and Shooter's Island as Significant Coastal Fish and Wildlife Habitats. A number of measures are proposed to further protect natural resources in the area and, at the same time, strengthen its maritime and industrial functions.

Although the reach contains an active working waterfront, adjacent residential communities could benefit from increased waterfront access. These communities are now separated from the waterfront by the inactive railroad tracks and industrial uses along the shoreline. Potential waterfront recreation areas include new street end access points and the use of part of the rail line as a walking trail.



Tugboats in the Kill Van Kull

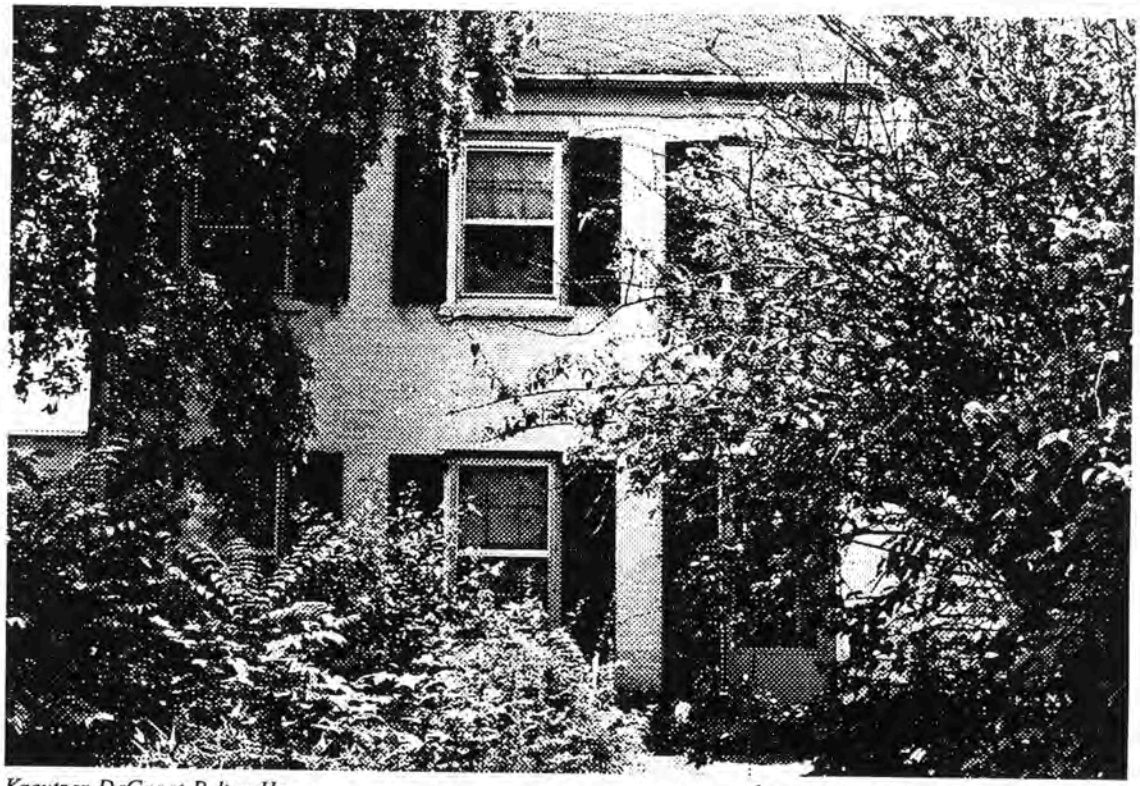
REACH DESCRIPTION

Development History

The Port Richmond area along the Kill Van Kull was first settled by farmers and fishermen before the Revolutionary War. During the 19th century, shellfishing remained an important industry as the Kill Van Kull shoreline became a popular resort before it emerged as an important center for port activity. The Port Richmond-Mariner's Harbor section became the focal point for maritime, shipbuilding, fishing, and other traditional working waterfront activities.

After the Civil War, the Kill Van Kull experienced rapid industrial development as factories, shipyards, warehouses, and maritime-related activity located along its shores. This industrialization led to development of upland residential communities and the establishment of Port Richmond Avenue as the premier shopping area of Staten Island. It also led to the demise of shellfishing as local waters became polluted. The area's importance as a transportation center also increased with the construction in 1889 of a bridge over the Arthur Kill to New Jersey. The establishment of ferry services between Staten Island and Manhattan led to further development along the shores of the Kill Van Kull. The Goethals Bridge to Elizabeth, New Jersey was completed in 1928. With the introduction of the Arlington Yards and the Staten Island Rail Line, the Kill Van Kull emerged as the borough's major industrial center by the turn of the century.

Along with other port areas in the city, the reach experienced a dramatic decline of manufacturing activity and employment following World War II. The development of the Howland Hook Marine Terminal helped to counter that trend by providing a modern ship/truck intermodal facility with extensive upland area for efficient freight handling. It is the city's largest intermodal terminal and containerport but it has been inactive since the 1986 bankruptcy of its operator, the United States Line. The Staten Island Rail Line, which runs the entire length of the reach with a connection southward to Travis, has not been in use since Howland Hook ceased operations. Proctor and Gamble, formerly a major employer in the reach, ceased operations at its Port Ivory complex in the late 1980s.



Kreutzer-DeGroot-Pelton House (Photo: Landmarks Preservation Commission)

Historic Resources

A number of 19th century mansions, built along Richmond Terrace before the area assumed its present industrial character, are reminders of the era when the North Shore was a popular resort. "Captains' Row" on Richmond Terrace between Van Name and Van Pelt avenues, contains mansions built in the mid-19th century by captains of oyster and clipper ships. One of these, the Stephen D. Barnes House, is a designated New York City landmark. The Kreutzer-DeGroot-Pelton House, also a landmark on Richmond Terrace, was originally built in 1722 with later additions. Nearby landmarks include the Dr. Samuel Mackenzie Elliot House on Delafield Place and the Romanesque Revival Northfield Township District School 6, now Public School 20 Annex, at 160 Heberton Avenue. The Staten Island Reformed Church, in Port Richmond south of Richmond Terrace, was organized in 1663, and the present church building dates from 1844. The Bayonne Bridge, an arch span bridge linking the Willowbrook Expressway to Bayonne, New Jersey, is the second longest bridge of its type in the world.

Natural Features (Figure 22.2)

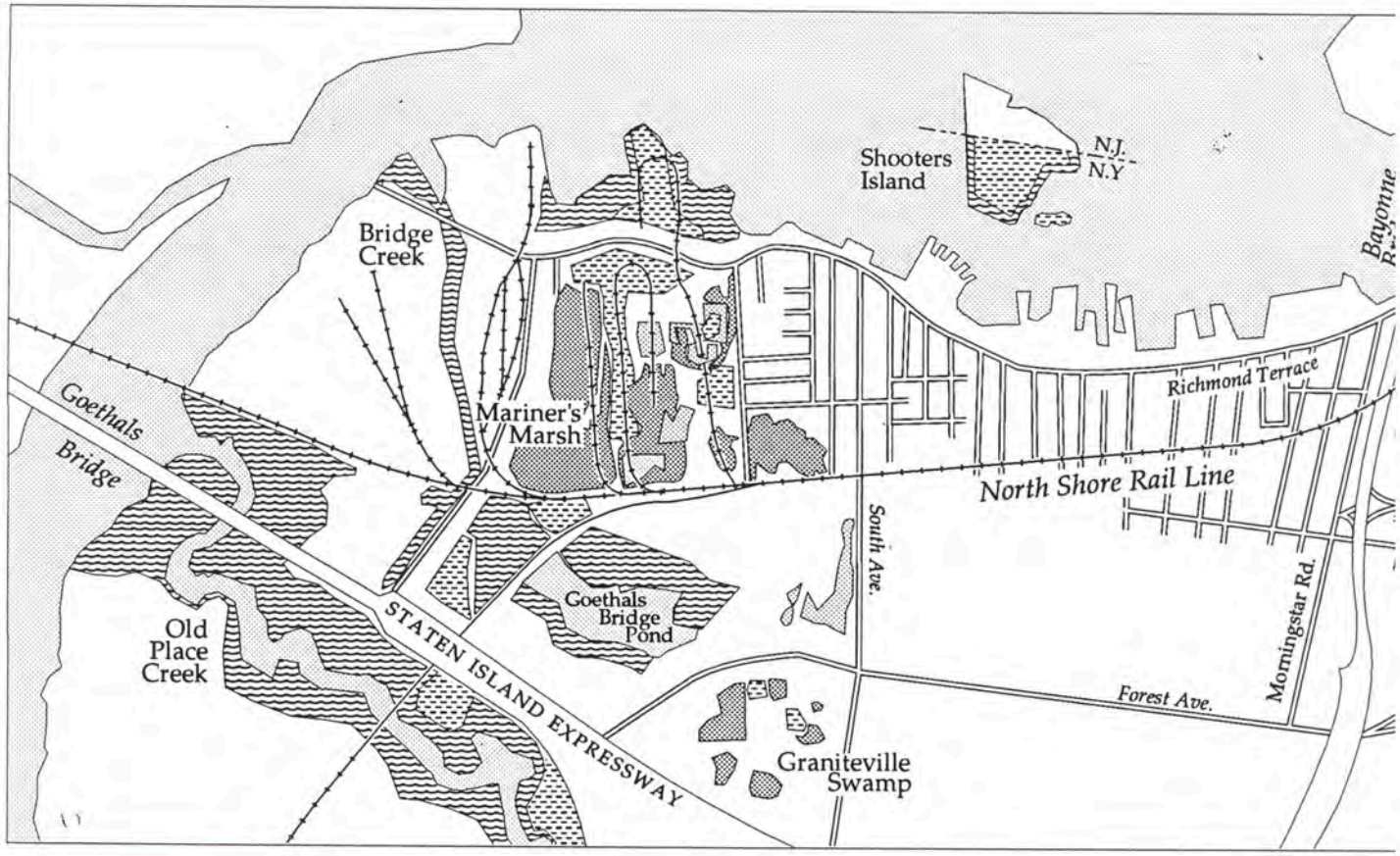
The shoreline of Reach 22 was at one time almost entirely bulkheaded. However, in areas that have been abandoned by industry, such as the Port Ivory waterfront, mudflats, sandbars and tidal wetland plant communities have re-established themselves and now provide forage for colonial wading birds. These birds also nest in more secluded areas such as Shooter's and Prall's islands.

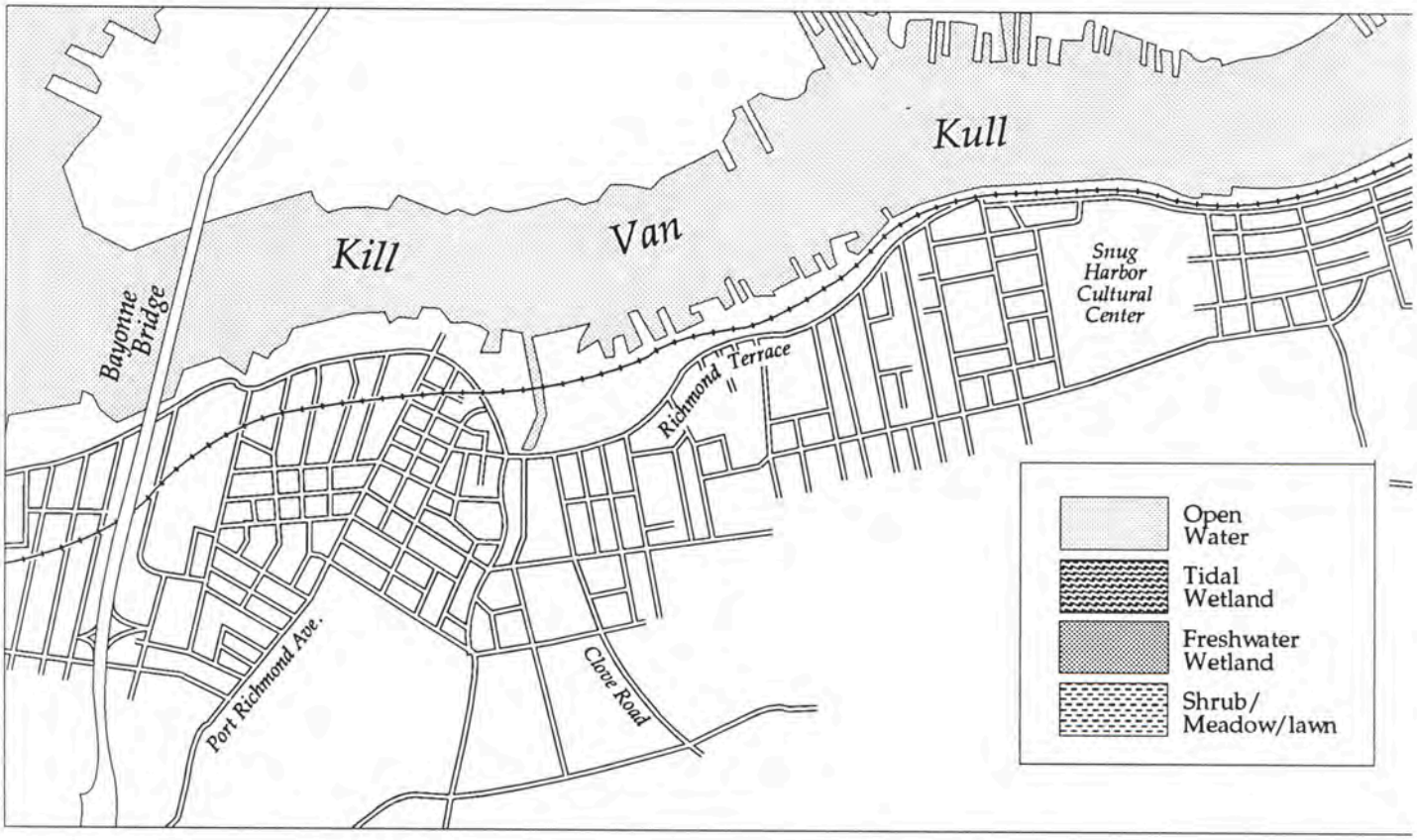
The waters of the Arthur Kill and Kill Van Kull are not very clean. Relatively high levels of coliform bacteria and nutrients are caused in part by pollutant sources in Newark Bay and the Hackensack and Passaic rivers, as well as direct runoff. The Arthur Kill and Kill Van Kull are classified as suitable only for fish survival by the state Department of Environmental Conservation (DEC). However, recent data indicate that on average the waters of the kills now meet the standards for fishing and boating. Because of their location in the Hudson/Raritan estuary, tides and flushing action in these waterways are weak.

Nevertheless, the northwest Staten Island ecosystem is a unique natural resource, supporting large populations of wading birds in close proximity to some of the nation's densest urban development. Colonial wading bird species nesting here include great egrets, snowy egrets, cattle egrets, blue herons, green herons, black-crowned night-herons, yellow-crowned night-herons and glossy ibises. A wide range of other birds, amphibians, reptiles and mammals are also present, along with wetland and upland plant species.

There are several creeks in the reach. Bridge Creek, which runs between Port Ivory and Howland Hook, contains areas of freshwater and intertidal wetlands that provide forage for wading birds and habitat for such species as pheasant and black duck. Old Place Creek, the western border of the reach, is a meandering tidal creek with areas of mudflats, intertidal marsh and high marsh giving way to freshwater wetlands upstream of the Staten Island Expressway/West Shore Expressway interchange.

Extensive freshwater wetlands in the western portion of the reach include Mariner's Marsh between Richmond Terrace and the Arlington Yards; Goethals Bridge Pond south of the Arlington Yards; and Graniteville Swamp between Forest Avenue, South Avenue and Goethals Bridge Road. Graniteville Swamp also contains swamp and upland forests supporting a wide range of bird species.





22.2 NATURAL FEATURES & PRESERVATION AREAS

0 ½ mile

DEPARTMENT OF CITY PLANNING NYC
COMPREHENSIVE WATERFRONT PLAN

The New York State Department of State designated Goethals Bridge Pond and Shooter's Island as Significant Coastal Fish and Wildlife Habitats. These designations employ a Habitat Impairment Test to determine a proposed activity's potential to significantly impair or destroy a habitat.

The western end of the reach is within the Harbor Herons wetlands ecosystem, which includes Prall's Island, the Isle of Meadows (Reach 21) and all of the surrounding wetland foraging habitat and undeveloped upland habitat necessary to maintain the ecological and hydrological integrity of the ecosystem. The reach has recently been colonized by several species of herons, egrets and ibises and is identified as "the single most important colonial waterbird rookery complex in New York State" by the Trust for Public Land and Audubon Society in their 1990 *Harbor Herons Report*. Areas of special significance are described below.

Goethals Bridge Pond, a 33-acre parcel consisting almost entirely of freshwater wetlands, is a vital feeding and breeding area for diverse waterfowl species. The pond has been acquired by the Trust for Public Land for conveyance to DEC. The properties adjacent to the pond are privately owned and efforts continue to acquire critical parcels to ensure the pond's future integrity.

Graniteville Swamp is an intact and diverse swamp forest with a wide range of habitats -- tidal marsh, cattail marsh and freshwater ponds -- in a relatively small area. In addition to ponds and marshes, it includes one of the last remaining wooded tracts north of the Staten Island Expressway. A few small parcels are city-owned, but most of Graniteville Swamp is privately held. The preservation of this unique open space is a high priority in the *Harbor Herons Report.*

Shooter's Island, a 50-acre parcel located in the Kill Van Kull near Port Ivory, is a significant colonial waterbird rookery. Ownership of the island is split; the northern one-third is owned by two New Jersey counties and the southern two-thirds by New York City. The island is uninhabited and accessible only by boat. It has been managed by the New York City Audubon Society since 1985 and is in the process of being designated parkland by the Department of Parks and Recreation. No future development is expected to take place on the island, which is surrounded by the remains of a World War One shipbuilding facility and debris which form a tidal pool.

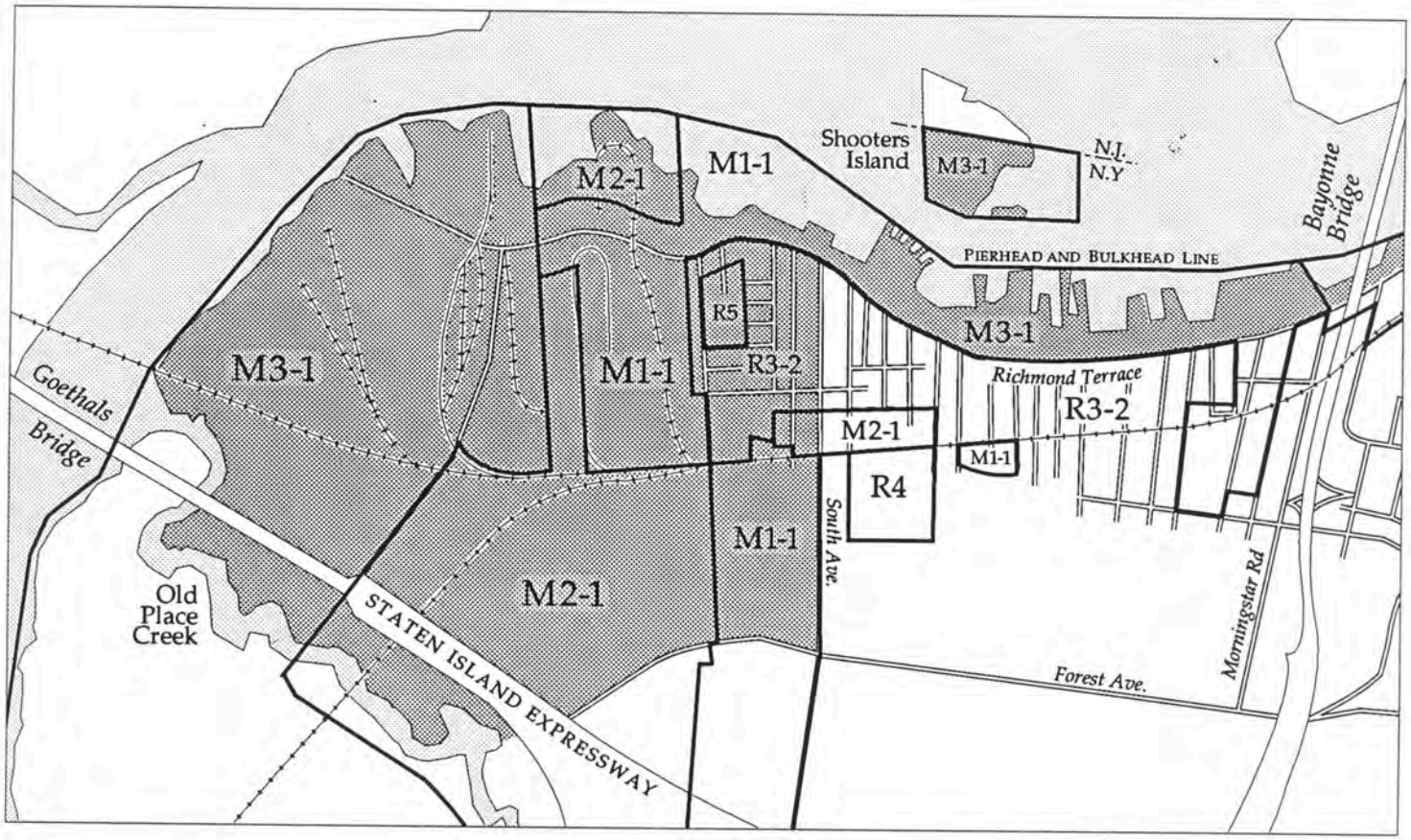
The **Arlington** portion of the Harbor Herons complex includes Port Ivory, Mariner's Marsh and the Arlington rail yards. Most of the valuable wetlands are located in **Mariner's Marsh**, a fragile complex of freshwater marshes and ponds, meadows, woods and streams. This large, continuous and diverse habitat is capable of supporting even greater numbers of wildlife. The inactive rail yards have become an illegal dumping area and are now classified as an inactive hazardous waste site.

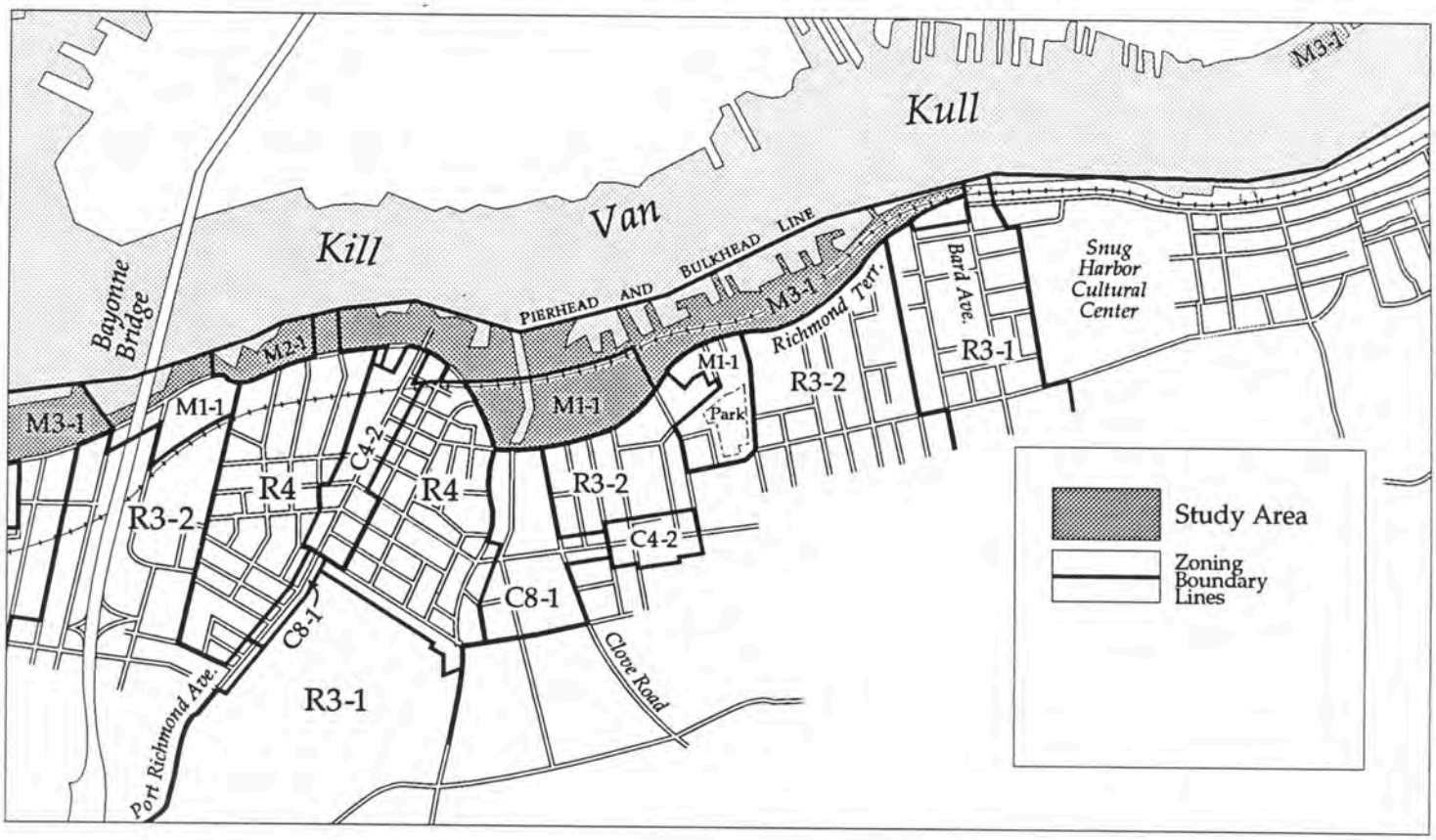


Mariner's Marsh

Zoning (Figure 22.3)

Along the waterfront to the north of Richmond Terrace, manufacturing zoning prevails; to the south, zoning is predominantly lower-density residential (R3 to R5) permitting one- and two-family houses as well as multiple dwellings. The manufacturing zones (M1 to M3) allow a wide range of industrial uses and most commercial uses. M1 uses must meet performance standards, while M3 permits the heaviest industrial uses. In the Howland Hook and Port Ivory areas, the manufacturing districts extend inland beyond Richmond Terrace. All of the Harbor Herons wetlands in this reach as well as Shooter's Island are within manufacturing districts.

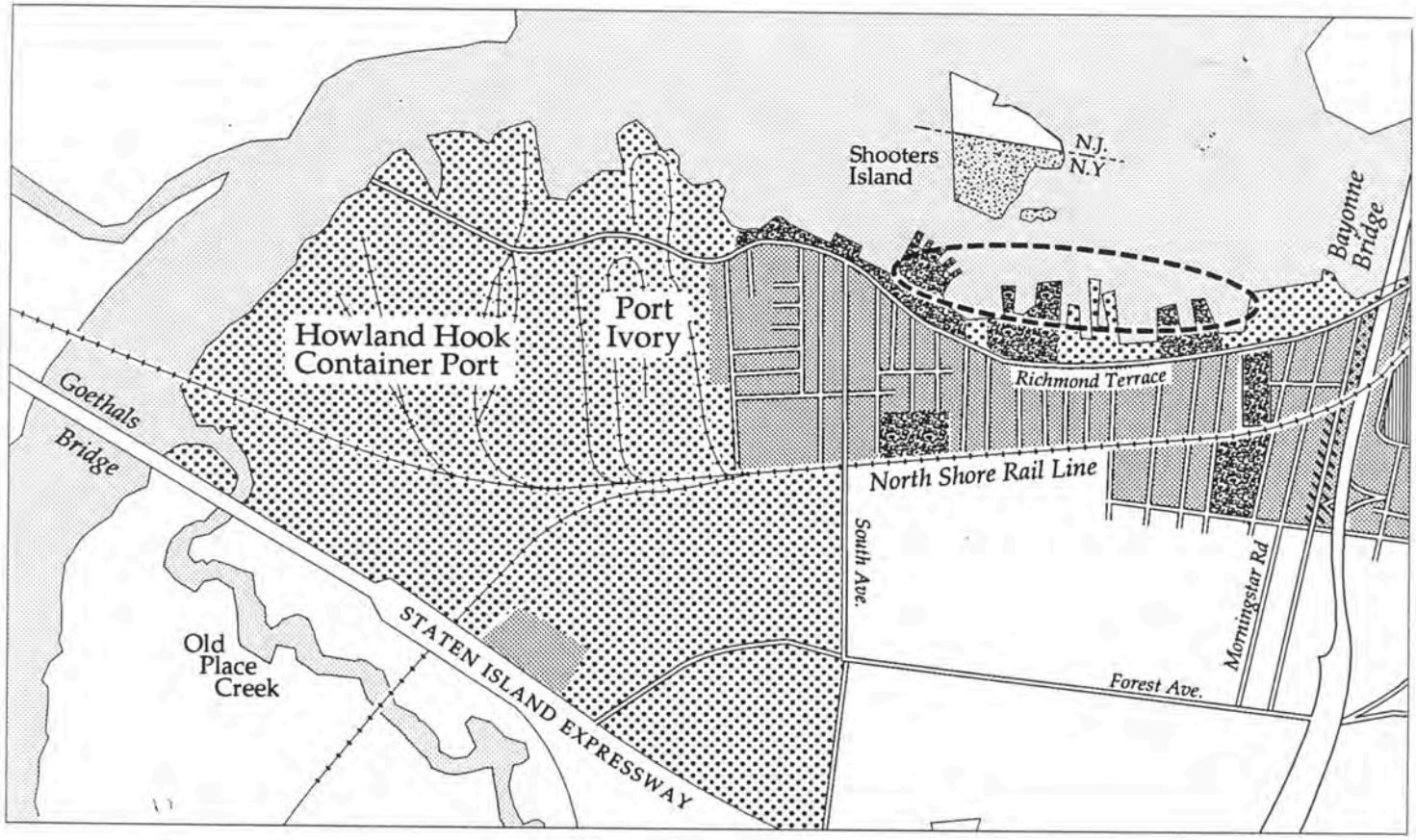


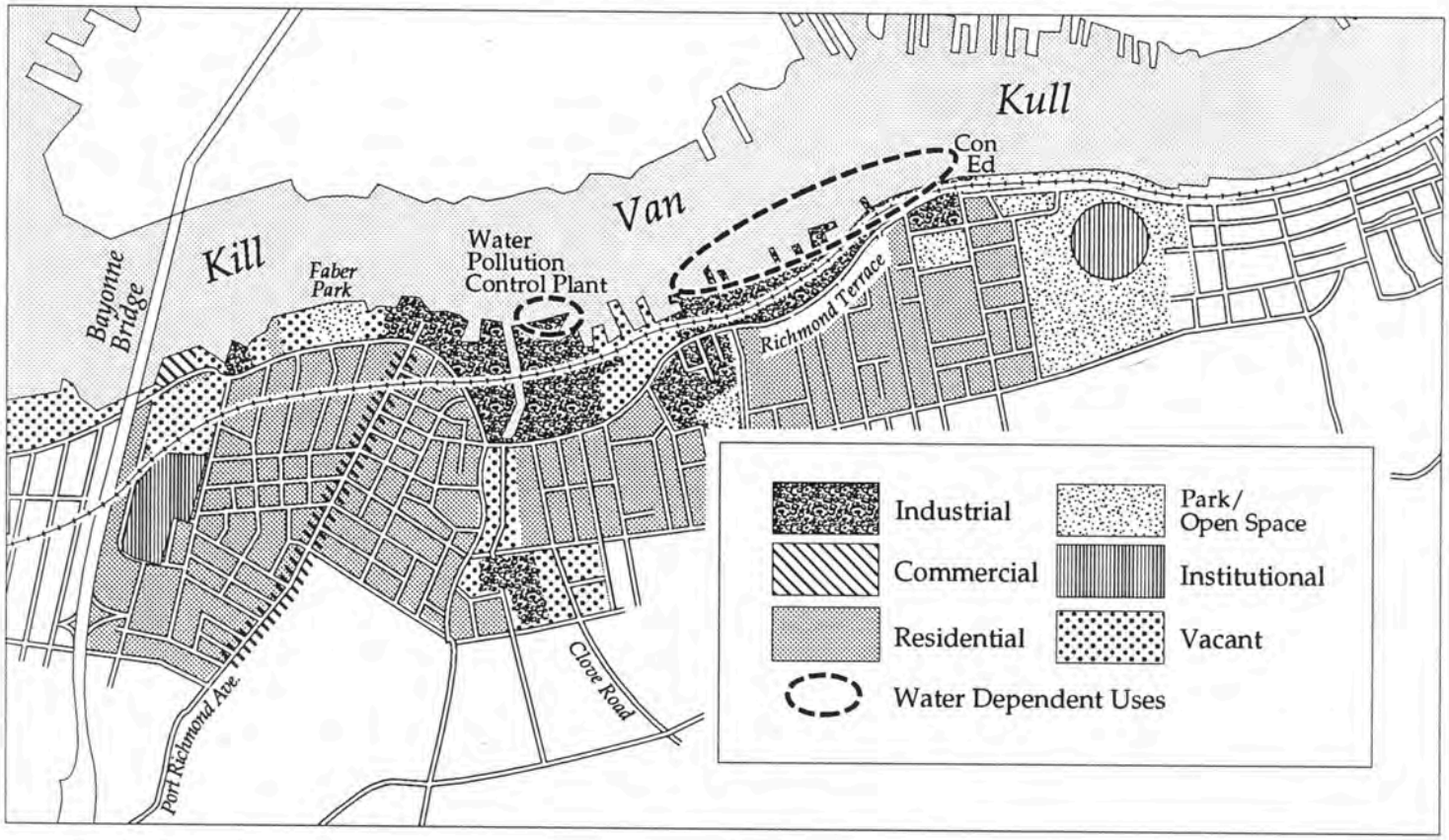


22.3 ZONING

0 ¼mile

DEPARTMENT OF CITY PLANNING NYC
COMPREHENSIVE WATERFRONT PLAN





22.4 LAND USE

0 ½ mile

DEPARTMENT OF CITY PLANNING NYC

COMPREHENSIVE WATERFRONT PLAN

Physical Character and Land Use (Figure 22.4)

The Kill Van Kull reach is strongly industrial in character for most of its length. Because of its concentration of maritime-related uses, along with other industrial and commercial activities, the reach is designated in the Comprehensive Waterfront Plan as a Significant Maritime and Industrial Area. The reach's deep waters, bulkheaded shoreline, relatively calm currents, and location on the main shipping route to Port Elizabeth/Port Newark make it suitable for the port-related uses that concentrate here. These include tug and barge companies, marine repair and drydock facilities, oil and petroleum transporters, vessel outfitters and converters, and equipment transfer functions. The plan identifies the area as the best in the port to meet the future needs of the maritime support services industry. Other industrial uses in the area include building contractors, auto repair, wholesale trade and municipal uses such as the Department of Environmental Protection's Port Richmond Water Pollution Control Plant.

Industrial job density is particularly low in the area west of South Avenue where several large industrial sites are presently vacant. Of the 1,823 industrial jobs in the reach in 1991, more than 500 were in maritime-related businesses. Of the 107 industrial firms, 33 were maritime-related. The reach also contained approximately 1,300 non-industrial jobs.[2]

In addition to its natural areas, the western end of the reach contains three large, vacant industrial and maritime sites: the 124-acre former Proctor and Gamble production facility, the 187-acre Howland Hook Marine Terminal and the Arlington rail yards. An area adjacent to the Proctor and Gamble site had been selected for construction of a sewage sludge composting facility. However, the city has altered its plan and is awaiting federal approval to ship sludge out of state for beneficial reuse and landfill cover. This would avoid development of additional composting facilities.

The Howland Hook Marine Terminal is city-owned and leased to the Port Authority. In 1985, its last full year of operation, the facility handled over 100,000 containers. However, the principal tenant went bankrupt in 1986 and the

[2] Department of City Planning aggregation of NYS Department of Labor ES-202 File, third quarter, 1991.

terminal in now vacant. The containerport is the largest marine intermodal terminal on the New York side of the harbor and is an important resource for the Port of New York and New Jersey. The Port Authority has recently begun a revitalization and marketing effort to reactivate the containerport. The combination of the containerport and the rail line, which provides New York City's only direct rail connection to the west, makes this reach an important resource for intermodal goods movement.

Proctor and Gamble's Port Ivory complex was once the island's largest single employer. However, the site has been vacant since the Proctor and Gamble facility was closed. Some portions have been converted for office use but future plans for the remainder of this privately held site are unknown.

Industrial activity in the western portion of the reach outside of Howland Hook and Port Ivory is limited to a few auto repair facilities, construction firms, and other small industrial activities.



Howland Hook Marine Terminal

In the eastern part of the reach, east of Holland Street, the area to the north of Richmond Terrace contains a number of industrial, non-industrial, municipal and maritime uses. These include construction firms, a Con Edison plant, the Port Richmond Water Pollution Control Plant, tug and barge companies, marine repair and drydock facilities, petroleum transporters and a marina. Auto-related uses such as repair shops and junkyards also operate in the area.

The only waterfront park in the reach is Faber Park, located between Faber Street and Sharpe Avenue. It contains a swimming pool and a waterfront esplanade. Otherwise, public access to the water's edge is limited to a few street ends, which are generally uninviting, with litter and weeds, and no seating.

A series of low-density residential communities -- Arlington, Mariner's Harbor, Port Richmond, West Brighton and Livingston Manor -- adjoin the reach south of Richmond Terrace. The housing stock includes single-family and attached houses and low-density multiple dwellings.

Transportation

The Goethals and the Bayonne bridges in the western section of the Kill Van Kull provide good access to transportation networks in northern New Jersey and beyond. The Goethals Bridge is one of eight major truck routes that enter New York City from the mainland of the United States. However, the bridge has only two narrow lanes for traffic in each direction and cannot accommodate the largest interstate trucks.

The Port Authority has begun planning for the modernization and expansion of the Goethals Bridge, which involves building a second span parallel to the existing bridge. This addition would allow lane widths to be increased from ten to twelve feet, permit dedication of a lane for vanpools and carpools, and possibly allow a preferential lane for trucks during non-commuting hours. In addition to benefitting Howland Hook and local businesses, this expansion would lessen the city's reliance on the heavily congested George Washington Bridge and Cross Bronx Expressway, permitting large interstate trucks bound for Brooklyn, Queens,

and Long Island to bypass Manhattan. Truck traffic on the Goethals Bridge generally serves the north shore of Staten Island, Brooklyn's industrial waterfront, and Port Newark/Elizabeth in New Jersey.

Richmond Terrace, which runs along the entire length of the reach, is a narrow, winding road. The roadway has several problems: physical deterioration, sharp turns and poor sight lines, and congestion during peak hours. The road cannot accommodate high volumes of truck traffic, which have trouble maneuvering its narrow turns. The reconstruction of Richmond Terrace is planned, but funds have not yet been appropriated.

The Staten Island Railway which runs through the reach parallel to Richmond Terrace is no longer in use. It once carried freight from north shore locations to the Arlington yards, New Jersey and the interior of the nation. It also provided passenger service to St. George. The city, through the Economic Development Corporation, is acquiring the line to provide freight access to the Howland Hook Marine Terminal from New Jersey. Potential long-term uses include reactivating the entire line for freight, possibly including a floatbridge operation from St. George to Sunset Park in Brooklyn. In addition, the Staten Island Borough President has committed funds for a study of the potential for passenger use of the railway. The Department of City Planning will study the feasibility of recreational use of all or part of the right-of-way both on an interim basis prior to reactivation, and permanently, as a rail-with-trail.

ISSUES AND RECOMMENDATIONS

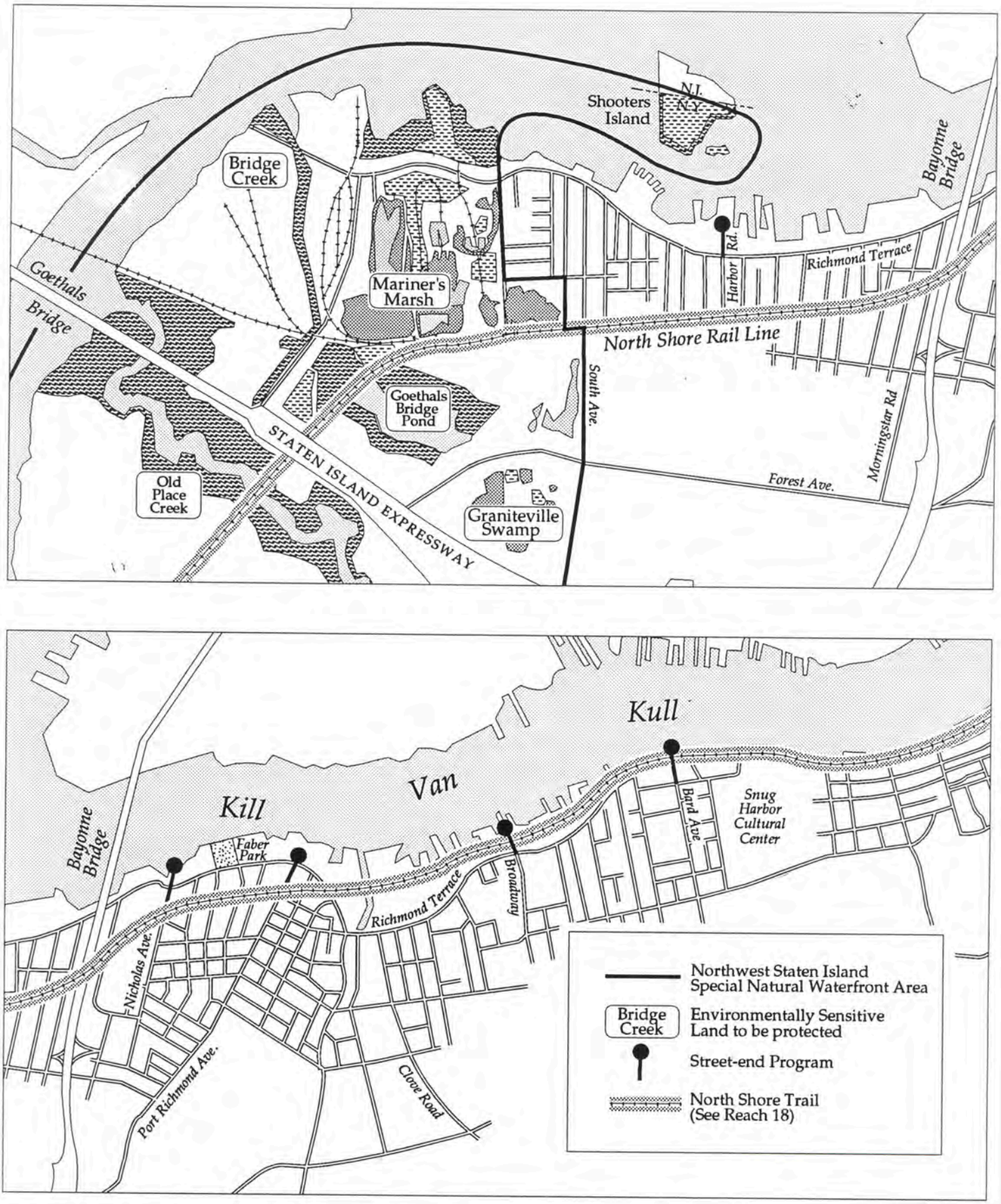
The Natural Waterfront (Figure 22.5)

Though the Kill Van Kull is heavily industrialized, the reach contains one of the harbor's most extensive and ecologically significant freshwater and tidal wetland systems. The Harbor Herons complex is a unique urban wildlife refuge that includes wetlands within the reach at Arlington, Goethals Bridge Pond, Bridge Creek, Old Place Creek and Graniteville Swamp. The Harbor Herons ecosystem also extends into Reach 21 (Old Creek Marsh, Staten Island Corporate Park, Gulfport Marsh, Neck Creek Marsh, Fresh Kills and Sawmill Creek Marsh). Five portions of the complex in both reaches are state-designated Significant Coastal Fish and Wildlife Habitats. Even though the wetlands are no longer contiguous, they are hydrologically interconnected and provide both flood control and water purification.

In areas like this, where significant habitats coincide with important economic generators, it is essential that that both environmental and economic considerations be acknowledged and balanced. In this reach, for example, the proposed twin span for the Goethals Bridge, recognized as a necessary action to improve freight movement, will have to be designed in a way that minimizes impacts on Goethals Bridge Pond.

- **Designate the northwestern section of Staten Island as the Staten Island Special Natural Waterfront Area.**

The Comprehensive Waterfront Plan identifies the northwestern section of Staten Island as one of the island's least protected natural resources and designates it as the Staten Island Special Natural Waterfront Area. (Two other areas in the city were also designated: Long Island Sound/Upper East River and Jamaica Bay). In the Harbor Herons complex which makes up much of this Special Natural Waterfront Area, an integrated management approach is necessary to ensure adequate protection of its unique resources including its freshwater and tidal wetlands and rare bird colonies. As part of its proposed revision of the city's Waterfront Revitalization Program, the Department of City Planning would delineate the exact boundaries of the Special Natural Waterfront Area and develop policy guidelines for future programs and projects within the area.



22.5 RECOMMENDATIONS: NATURAL AND PUBLIC WATERFRONT

0 ½ mile

DEPARTMENT OF CITY PLANNING NYC
COMPREHENSIVE WATERFRONT PLAN

- **Acquire environmentally sensitive land where feasible and necessary to ensure its protection.**

Any newly acquired land, together with the most sensitive portions of city-owned property, including adequate upland buffers, should be transferred to the Parks Department or the Department of Environmental Protection depending on the extent to which the land is to be accessible to the public. In some cases, management by private land trusts may be feasible. Wherever acquisition proves infeasible, alternate methods of protection may be necessary. An active management program or strict enforcement of existing regulations might be an adequate form of protection in some areas. The *Harbor Herons Report* proposes the following areas for acquisition.

Graniteville Swamp: The mostly privately owned swamp is located just across the street from residential development. Fee acquisition is recommended in the *Harbor Herons Report*, but the high cost of acquisition may limit the city's ability to acquire this valuable wetland.

Goethals Bridge Pond: All of the properties immediately adjacent to Goethals Bridge Pond are privately owned. The *Harbor Herons Report* recommends acquiring at least a perimeter buffer wide enough to protect and maintain the pond's natural resources. The acquired parcels should be transferred to the Department of Environmental Protection.

Arlington: This property includes both the Arlington rail yards and the Proctor & Gamble site known as **Port Ivory**. The salt marshes along the shore are probably the last of their kind on Staten Island. The *Harbor Herons Report* recommends the protection of the Port Ivory shoreline through fee acquisition or conservation easement. The city-owned shoreline as well as **Mariner's Marsh** has been transferred to the Department of Environmental Protection.

Bridge Creek: Bridge Creek and its associated tidal wetlands form a natural boundary between the Howland Hook industrial area and a potential natural open space. Transfer of city-owned property in the wetlands and the vacant uplands adjacent to the mouth of Bridge Creek to the Department of Environmental Protection is recommended.

The Public Waterfront (Figure 22.5)

Strengthening connections between residential communities and the waterfront is a central goal of the comprehensive plan. However, opportunities for waterfront public access and recreation are limited by the reach's industrial character. Aside from Snug Harbor just outside the reach, the only existing public waterfront space is Faber Park with its swimming pool and waterfront esplanade. It may be possible to enlarge the park in the future. Two nearby parks, Lawrence Thompson Memorial Park and Randolph Walker Park, serve the reach but do not provide waterfront access. Most north/south streets in adjacent residential communities terminate at Richmond Terrace and do not reach the waterfront. Access to the shoreline can be improved by developing street end public access throughout the reach. A stronger link between the commercial center of Port Richmond and the waterfront should also be established.

- **Explore the possibility of interim trail use of the North Shore Rail Line, pending its reactivation.**

The Staten Island Rail Line right-of way could be developed as a public open space and recreational resource, if trail use does not conflict with the planned reactivation of the line for freight purposes. This route is identified in the Department's *Greenway Plan for New York City* as a potential link in the proposed East Coast Greenway between Washington and Boston. The city has received preliminary federal funding approval for a feasibility study of a pesdstrian/bike trail along all or parts of the right-of-way.

- **Link new public access at the end of Port Richmond Avenue to the Port Richmond commercial center.**

The Department of Transportation, in cooperation with local businesses, should improve the end of Port Richmond Avenue with benches, lighting and landscaping to buffer the space from surrounding industrial uses. Design treatment and signage that highlights this waterfront access area should be included in improvements to the upland Port Richmond commercial strip. Some acquisition of vacant and occupied private land, and the use of city-owned property may be necessary to fully develop a suitable public space.

- **Create street end public access at Harbor Road, Nicholas Avenue, Broadway and Bard Avenue.**

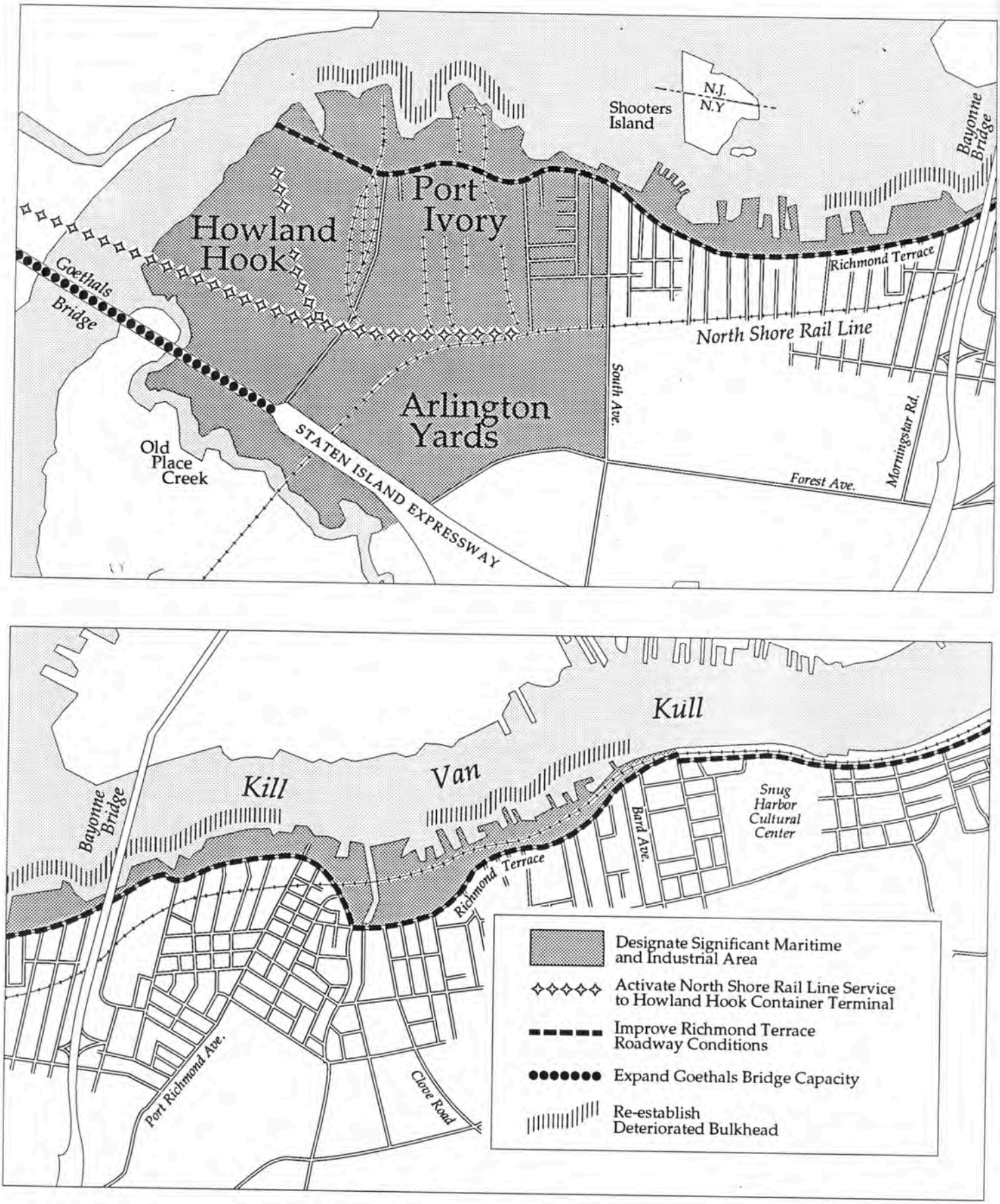
These streets, which extend beyond Richmond Terrace to the waterfront, are potential access points to the water's edge in addition to Port Richmond Avenue. The Community Board and DOT should explore the possibility of developing these street ends for public access. This could include landscaping and seating, as well as buffers or screening to prevent conflicts with adjacent industrial uses. Another public access alternative that might be explored is the area adjacent to the DEP composting facility site.

The Working Waterfront (Figure 22.6)

The waterfront in this reach should remain industrial -- primarily for maritime, maritime support and water-dependent uses. The area contains an important concentration of maritime support industries, other industrial and non-industrial uses,and transportation resources that can be used for port activity and goods movement. The deep waters and relatively weak currents of the Kill Van Kull and upland infrastructure combine to make the reach a suitable location for continued maritime industrial use.

- **Designate the Kill Van Kull as a Significant Maritime and Industrial Area.**

The waterfront plan proposes the designation of six Significant Maritime and Industrial Areas citywide. This designation is intended to protect and facilitate concentrated working waterfront uses and to ensure sufficient industrially zoned land to accommodate future growth of these uses, including municipal and water-dependent activities. The Kill Van Kull reach is among those designated. Although current industrial activity is modest, especially in the western portion of the reach, this area has important attributes that make it a valuable resource for working waterfront uses. The combination of industrial zoning, hydrological conditions, rail freight potential, ship/truck intermodal facilities, proximity to



22.6 RECOMMENDATIONS: WORKING WATERFRONT

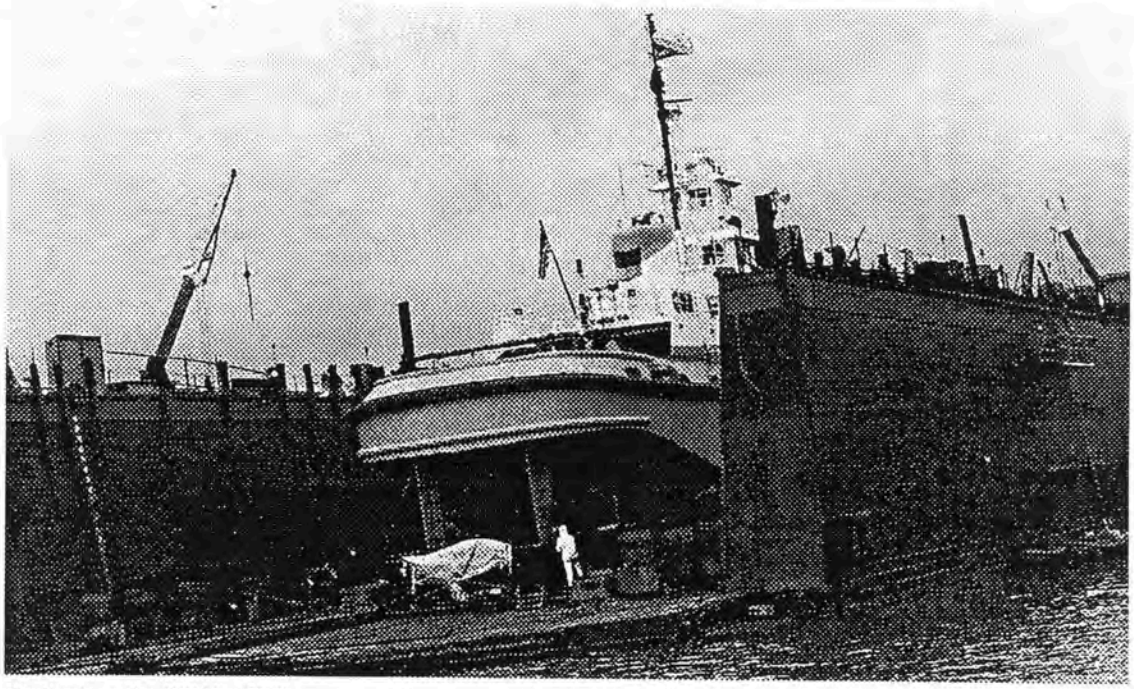
0 ½ mile

DEPARTMENT OF CITY PLANNING NYC
COMPREHENSIVE WATERFRONT PLAN

shipping channels and the high concentration of maritime uses make this reach one of the best areas in the port to meet future needs of the maritime support services industry.

Specific measures called for in Significant Maritime and Industrial Areas are maintenance of industrial zoning, revision of Waterfront Revitalization Program policies to provide added support and priority for working waterfront development, disposition and development of public property to support water-dependent activity and waterborne goods movement, development of intermodal freight facilities, and access improvements.

There are several privately owned vacant and underutilized sites where new industrial development could occur. Port Ivory at the confluence of the Kill Van Kull, Newark Bay and the Arthur Kill is now substantially vacant and may be suitable for maritime support service and other working waterfront uses.



Drydock on the Kill Van Kull

- **Acquire the North Shore Railroad and pursue its reactivation for freight movement.**

The New York portion of the North Shore Railroad is being acquired by the city, acting through EDC. The railway extends from Cranford Junction in New Jersey to St. George, with a spur running along Staten Island's west shore as far south as the Con Edison plant in Travis (Reach 21). It is a valuable transportation resource, with the potential to provide the city with its only direct rail freight link to the national rail system. It is also the only connection that can accommodate double-stacked containers on rail. EDC is planning to reactivate the railway from the Arthur Kill Bridge to the Arlington yards, to provide rail service to Howland Hook. If the Port Newark sewage composting plant is built adjacent to the Port Ivory site, the line could also serve that facility.

The long-range potential of freight and commuter passenger service along the entire corridor from Travis to St. George should also be assessed.



North Shore Railroad right-of-way

- **Expand the capacity of the Goethals Bridge to improve local and regional truck access.**

The Port Authority is considering construction of a twin span for the Goethals Bridge to better serve Staten Island industry and commerce, and to reduce congestion on the George Washington Bridge. That bridge is the city's only Hudson River crossing that can handle the widest (102") modern trucks. The Goethals Bridge expansion would improve freight movement in Staten Island as well as Brooklyn, Queens and Long Island.

- **Re-establish the bulkhead where shoreline deterioration has occurred.**

Bulkhead and pier deterioration has occurred adjacent to former industrial properties that have not been maintained. Making these sites usable for future waterborne activity requires that bulkheads be restored. Since this reach is a Significant Maritime and Industrial Area particularly well-suited for maritime activity, maintenance of shoreline infrastructure should take priority over policies that seek to protect newly emerging wetland vegetation. However, development of industrial uses, and the infrastructure to support it, must be carefully designed to avoid conflicts with areas identified as significant wildlife habitats.

- **Improve Richmond Terrace, repair sidewalk and curbs, and open the unbuilt portion between Bement Avenue and Pelton Avenue.**

As a Significant Maritime and Industrial Area, the infrastructure needs of local industry should be given special attention. Richmond Terrace, the major vehicular route serving the entire length of the reach, is in poor condition, causing traffic delays and congestion. Reconstruction of this road, a project for which funds have not been allocated, would improve the business environment and facilitate truck movement. Opening the unbuilt portion between Bement Avenue and Pelton Avenue would eliminate a sharp curve that hampers truck movements.

DEPARTMENT OF CITY PLANNING

Joseph B. Rose, Director
Andrew S. Lynn, Executive Director
William Bernstein, First Deputy Executive Director

Strategic Planning
Sandy Hornick, Deputy Executive Director
Richard Barth, Deputy Director
Philip Schneider, Project Coordinator

Staten Island Office
Pablo Vengoechea, Director
Mitchell Korbey, Deputy Director
Barbara Murray
Morley Morgana, Graphic Design

Zoning and Urban Design
Marilyn Mammano, Director

Housing/Economic/Infrastructure Planning
Eric Kober, Director
Barry Dinerstein
William Sears

Reproduction
Antonio Mendez, Acting Director, Operations
Gerald Anderson

Planning Coordination
Barbara Weisberg, Assistant Executive Director
James McConnell
Lucy Baxter, Word Processor

Waterfront and Open Space
Wilbur Woods, Director
Cathy Faughnan
James Heineman
Kirsti Jutila
Sheila Metcalf
Teresa Buckner, Wendy Niles

Transportation
Floyd Lapp, Director

Graphics
Eustace Pilgrim, Director
Michael Greene

Acknowledgements

The Department of City Planning is grateful to staff from the following city agencies for their valuable contributions to this Plan for the Staten Island Waterfront.

Department of Environmental Protection
Department of Parks and Recreation
Department of Transportation
Division of Real Property, Department of General Services
Economic Development Corporation
Landmarks Preservation Commission