WEST SHORE BROWNFIELD OPPORTUNITY AREA FINAL REVITALIZATION PLAN

Nomination Report

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Prepared for

Staten Island Economic Development Corporation (SIEDC)

Lead Consultant

Greener by Design LLC

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EXECUTIVE SUMMARY

Community and Project Overview

Post Hurricane Sandy, the SIEDC and its members were faced with many challenges related to the environment, the economy and the changing rules and regulations related to redevelopment and economic opportunities. A re-visioning of the landscape was necessary in order to create a plan that could help define what the West Shore of Staten Island's future could look like.

The West Shore has long been overlooked by the region's business community as a potential area for revitalization and growth. The lack of investment, the influx of competing industrial centers, and the decline of maritime industry on Staten Island have obscured the area's unique strengths and assets. Today, the emergence of niche industries and creative manufacturing methods are drawing attention back to the West Shore's development opportunities and highlighting its potential as a node for cutting-edge, high-tech, and green businesses. New transportation options, the availability of land, the abundance of skilled labor and the growth of various industries such as medical/healthcare, logistics and resiliency preparedness have opened up a new opportunity for the West Shore's land owners and businesses. By emphasizing its unique position and by leveraging its physical and economic assets, advocates of the West Shore can reinvent the area as a hub for business-friendly forward-thinking, environmentally conscious industries.

The West Shore of Staten Island is one of the most undervalued assets in New York City, collectively representing one of the largest collections of underdeveloped area and manufacturing zoned land throughout the City. While several success stories have occurred on the West Shore, there is an even greater opportunity for expansion of economic activity. An analysis of other successful industrial areas throughout the City demonstrates that industrial parks have transitioned from polluted and dangerous areas of the City to clusters of mutually beneficial businesses that have a multitude of offerings for their employees and the region. Industrial zones can achieve positive collaboration with businesses and surrounding community through varying management techniques. Business Incubators, Business Improvement Districts, and other programs that accelerate the success of businesses can spur job retraining, retention, and an integrated marketing of existing commerce.

Staten Island's West Shore provides a unique opportunity for the City to create partnerships that promote principles of resiliency, transit-oriented development, business development, job growth, and best practices in land use.

Given the West Shore's history of industrial uses and several decades of neglect, there is a large concentration of brownfields in the BOA. This Step 2 Brownfield Opportunity Area (BOA) Study is centered on an approximately 308-acre area characterized by six potential or in-remediation brownfield sites that are located on the West Shore of Staten Island (Census Tract 291.02). The study is being led by Staten Island Economic Development Corporation (SIEDC), a 501(c)(3) non-profit organization, with its mission to enhance Staten Island's economy by promoting public and private investment and encouraging responsible and sustainable development. SIEDC has been responsible for over $500 million in new investment, the creation of over 3,500 jobs, and the development of over 1,000 acres of vacant industrial land by providing assistance to developers and companies implementing projects in the borough, while at the same time serving the smallest entrepreneur and small business owner with tailored financing, procurement, and real estate assistance.

In November 2015, SIEDC commissioned Greener by Design LLC to lead a multidisciplinary group of planning, design, environment and economic consultants for this project. Funded by the New York State Department of State's Brownfield Opportunity Area Program, this study considered the area as key development for industrial, manufacturing, logistics, and potential urban agricultural businesses. SIEDC has worked for the past five years to develop a West Shore Green Zone concept for the entire Arthur Kill corridor and the investment in and revitalization of the BOA area are critical for effective overall economic development to Staten Island. As part of the larger Green Zone project, the primary community revitalization objectives to be achieved by this project include Green technology development, Green manufacturing, and education partnerships to promote Green development, wetlands protection, brownfield remediation and activating vacant or under-utilized parcels. Anticipated community benefits resulting from this project include enhancing and educating local companies related to Green economy, providing incentives for efficiency retrofits and advanced energy technologies, providing support and guidance to companies seeking financial incentives for Green investment, providing Green collar job retraining, enhancing community and educational partnerships, and creating renewable thermal and electric energy.

Community's Vision, Goals and Objectives

The project specific goals and community's vision are working in tandem to create enhanced future economic vitality for the West Shore community and Staten Island as a whole. The goals of the BOA project are as follows: job growth, green industry, activation of waterfront, increased access, improvement of stormwater management, and the activation of rail and water infrastructure. These goals are further validated by various studies that have conducted workshops, surveys, and research straight from the community. Although not expressed in this list, the implementation of the BOA in the West Shore of Staten Island would also be to activate vacant industrial land, help develop the area in an intelligent manner, and therefore improve the economic vitality of the community.

Public Participation Process

This Revitalization Plan relied on the interviews of local stakeholders, government officials, business owners, and the

newly formed West Shore Industrial Business Improvement District (WS-IBID). Continued efforts to spur community engagement have been critical for spurring "Calls to Action". One-on-one meetings revealed particular issues unique to Staten Island, encouraged interaction among business owners, and provided an open forum for discussion on how to address issues. Special informational materials were used during public meetings to spread general public awareness and maximize information sharing.

Existing Conditions, Opportunities and Assets

The West Shore BOA currently consists of primarily industrial uses and vacant property. Some of the most common businesses types include aggregate concrete recycling, asphalt plants, bus garages and car storage. Due to its industrial activity, there is significant wear and tear on the roads. Frequent truck traffic results in high amounts of air pollution as well as damage to the curbs and increased potholes. Furthermore, due to the BOA's low elevation, sewer damage and poor stormwater management several roads experience regular flooding – as shown above. Moreover, as a result of the high vacancy in the BOA there are issues with illegal dumping, prostitution and feral cat colonies. Despite these issues, there are a number of promising opportunities in the West Shore BOA for future green industrial development, transportation improvements and business growth. Within the BOA there are several businesses that are looking to potentially expand, there has recently also been significant interest in businesses moving to the BOA.

The BOA has a number of assets that make it unique and can be leveraged in making it a truly revitalized eco-industrial park. To start, there already are a number of successful businesses within the BOA that are focused on recycling and interested in green business development. The BOA also has a Business Improvement District that has many active members that want to collaborate to improve the BOA. Finally, the BOA includes and is adjacent to several important ecological habitats such as the Saw Mill Creek and Meredith Wood. Given the need to remediate, rehabilitate and raise many of the sites, there is a unique opportunity to recreate the land use and circulation of this area bringing nature and industry back in a way that compliments both. Many communities and cities throughout the US are dealing with the same needs and are proceeding in a way that provides opportunity to local businesses to assist in the rehabilitation of both natural and industrial sites.

Economic Opportunities

Over the last decade, private and government entities have envisioned large-scale redevelopment, highway access and enhanced industrial business concepts. Plans to develop sites, such as the former GATX site where NASCAR had once proposed a racetrack, which is now underway to become over 3 million square feet of potential warehousing space, serve as a tremendous catalyst for the West Shore. In addition, Saw Mill Creek, also located in the West Shore, was the first Wetland Mitigation Bank project in New York City, created with three goals: (1) to provide targeted investment on behalf of New York City to increase resiliency against storm events, flooding, and the effects of climate change and sea level rise; (2) to restore a significant ecological habitat in the New York Bight watershed; and (3) to streamline the process of mitigating authorized unavoidable impacts to wetlands and aquatic resources within a particular region. The City of New York was the grantee of the Community Development Block Grant-Disaster Recovery (CDBG-DR) Funds for the construction of the Saw Mill Creek Wetland Mitigation Bank in which New York City Economic Development Corporation (EDC) was the project administrator and the funding sub-recipient.

The redevelopment of the nearby Teleport has spurred increased interest in the West Shore. The suburban style 100-acre business park includes five Class A office and specialized buildings totaling 700,000 square feet as well as additional development-ready sites. It was developed in the mid-1980's by the City of New York and the Port Authority of New York and New Jersey (PANYNJ), which manages it under a contract to the city, focusing on new technologies in communications. In 2001, AT&T, the Teleport's biggest tenant, moved 4,000 employees out of two office buildings on the site. The buildings were sold in 2006 and renamed it as the now thriving Corporate Commons. The Nicotra Group, the largest private real estate developer, has attracted a variety of businesses to the office space at the Teleport and has continued to create new development and job creation strategies that will be a major asset for the West Shore and the entire borough.

In the midst of these investments targeted towards growing industrial and corporate campus uses, there has also been momentum towards expanding the definition of a Working West Shore. Concepts in green jobs, manufacturing, logistics, and maritime industry will be expanded upon in this study. Several planning documents that address these areas for increased employment will be expanded upon in the *Analysis of the Proposed BOA* section.

The West Shore has the potential to create a vision for the BOA and its place in the New York economy, maximize existing assets, connect new industries and promote the area's competitive advantages. A coordinated effort will be required for the continuation of the redevelopment, such as investment in green businesses, private manufacturers, logistics facilities, or NYCEDC, city, and federal funding opportunities i.e. federal New Market Tax Credits, New York State Brownfield Cleanup Program Tax Credits and New York City Brownfield Incentive Grants.

With a market of almost 20 million people within a 20-mile radius of the Island, the potential of continued growth in high tech logistics and various support activities such as energy supply (green and brown), resiliency, mobility and food/entertainment is extremely high. The ability of local businesses to take full advantage of the reinvestment is key to helping drive the economic multiplier of the investments.

West Shore BOA Projects Table

Category	#	Project Name	Difficulty Ranking	Agency or Elected Official
Land Use / Strategic Sites	1	SI Sportsmen's Club	1	NYCDCP, NYCDEP, NYSDEC, CM Matteo
	2	ADCO Backlot	1	NYCDCP, NYCDOB
	3	Hogan Asphalt	2	NYCDCP, CM Matteo, Assm. Cusick, Sen. Lanza, BP Oddo
	4	501 Industry Road	1	NYCDCP, NYSDEC, Army Corps
	5	WWC Waterfront	1	NYCDCP, NYSDEC, Army Corps
	6	Spencer Street Assemblage	1	NYCDOB, NYCDCP, NYCMOER
	7	250 Meredith	1	NYCDCP, NYCOER, NYCDEP, NYSDEC, CM Matteo, Assm. Cusick, Sen. Lanza, BP. Oddo
Transportation & Circulation	8	Roadway Consolidation	4	NYCDOT, NYSDOT, NYSDEC, NYCDEP Assem. Cusick, CM Matteo, BP Oddo, Sen Lanza
	9	Gulf Avenue	2	NYSDOT, NYCDOT, Assem. Cusick, CM Matteo, Sen. Lanza, BP Oddo
	10	Glen Street	4	NYSDOT, NYCDOT, Assem. Cusick, CM Matteo, Sen. Lanza, BP Oddo
	11	Roadway Design Guidelines	2	NYC DOT, NYS DOT, BP Oddo,Assem Cusick, Cm Matteo, Sen Lanza
	12	Alternative Transit Improvements	1	NYCDOT, NYCT, CM Matteo, Assem Cusick, Sen Lanza, BP Oddo
Flood Protection & Wetlands	13	District Flood Resiliency	4	NYCDOT, NYCDEP, NYSDEC, NYCDDC, NYC EDC NYC Parks, BP Oddo, CM Matteo, Sen Lanza, Assem Cusick
Business Development	14	Blanket Permitting	3	CM Matteo, BP Oddo, Assem Cusick, Sen Lanza, NYC DOB, Empire State Dev., NYCSBS, NYCEDC, NYCDCP, NYC Parks
	15	Matrix Collaboration	3	CM Matteo, Sen Lanza, Assem Cusick, BP Oddo
	16	Access to grants	2	None
	17	Tax Incentives	2	None
	18	Attracting Companies	1	None
	19	Competitive Edge	2	Am. Cusick, CM Matteo, Sen Lanza, BP Oddo, NYCDOF, NYCEDC, NYCSBS, Empire State Development

Difficulty Rankings are Categorized from 1 (Easiest to Achieve) to 4 (Most Difficult to Achieve)

Figure 1. Recommendation concepts diagram

Strategic Sites and Associated Redevelopment Opportunities

Catalytic strategic sites and associated redevelopment opportunities were selected through a series of meetings and an extensive discussion process held in 2016. The full list of sites and opportunities can be found in the West Shore BOA Projects table on page 8.

Key Findings and Recommendations

Based on the strategic sites and associated redevelopment opportunities, the following priority actions are key candidates for next stage work.

Land Use/Strategic Sites

1. Have WS IBID purchase SI Sportsmen's Club and sell it to local business or developer

2. Construct a green office building or vertical farm on ADCO backlot

3. Develop Hogan Asphalt site into a full-service resource recovery park or green "pick and pack" assembly/ warehousing

4. Conform 501 Industry Road site

5. Redevelop WWC Waterfront site and modernize docks

6. Have one developer purchase all three Spencer Street Assemblage sites and build one larger structure

7. Redevelop and ecologically restore site or transfer to SI Sportsmen's Club

Transportation & Circulation

8. Consolidate roadway network

9. Convert Gulf Avenue to a two-way street

10. Convert Glen Street to a two-way street

11. Implement roadway design guidelines

12. Improve alternative transportation

Flood Protection & Wetlands

13. Build a flood resilient district

Business Development

14. Develop blanket permitting and create a local ombudsman

15. Collaborate with Matrix Development on alternative energy production, collaborative co-branding and public advocacy

16. Create better access to state, federal and foundation/ corporate grant programs

17. Offer tax abatements

18. Attract priority companies

19. Be competitive with New Jersey

SECTION 1. PROJECT DESCRIPTION AND BOUNDARY

Lead Project Sponsor

The West Shore Brownfield Opportunity Area (BOA) Step 2 Nomination Study is being led by Staten Island Economic Development Corporation – a 501(c)(3) non-profit organization with a mission to enhance Staten Island's economy by promoting public and private investment, and encouraging responsible and sustainable development, all of which improves the quality of life and provide broad and diverse employment opportunities in the borough.

In October 2013, SIEDC received $360,000 from the New York State Department of State (NYS DOS) through its BOA Program for the West Shore and was responsible for providing a 10% match. In December of 2015, SIEDC commissioned Greener by Design LLC to led a multi-disciplinary group of planning, economic, environmental, and design consultants to craft a comprehensive plan for the revitalization of this brownfield opportunity area. The team possesses deep experience in community-based planning, urban design, economic development strategies, community engagement, adaptive reuse, engineering and hazard mitigation strategies.

Throughout the Step 2 nomination process, the consultant team engaged with stakeholders, and municipal agencies who have all contributed unique perspectives to this study area. This study in large part is attributed to the participation from various stakeholder groups to better the team's understanding of the area.

Project Overview and Description

The past two decades have been a period of unprecedented change in New York City, which has been experiencing a remarkable boom in real estate, increased safety and significant waterfront development. Surprisingly, Staten Island has experienced more change than any other borough. In fact, between 1990 and 2010[1], the pace at which Staten Island has grown far outpaced other boroughs. However, the West Shore has been largely left untouched. Many say it is the last the last frontier of developable industrial land in New York City and post of Super Storm Sandy, a frontier in need of major resiliency investments for the future.

The West Shore's vast expanses of unused land has made it the focus of many ambitious and controversial development proposals at the start of the 21st century. The most prominent of these involves the current redevelopment of the GATX site which was proposed to become a NASCAR racetrack. The 2004 proposal included a 2 5-mile (4.0km) oval track

Figure 2. Community Context Map

that would be constructed on a 440-acre site,however that proposal faced strong community resistance. Matrix Development Group, a privately held, full-service real estate investment and development company is currently completing a 200-acre Global Logistics Park north of Bloomfield Ave. The industrial park will include distribution logistics space and 120 acres of parking, detention basins and open space. Matrix Development Group has completed a deal for Amazon's first fulfillment center in New York. The 855,000-square-fulfillment center is anticipated to create 2,250 full-time jobs which were incentivized by the Empire State Development's Excelsior Jobs Program with an offer up to $18 million in performance-based tax credits.

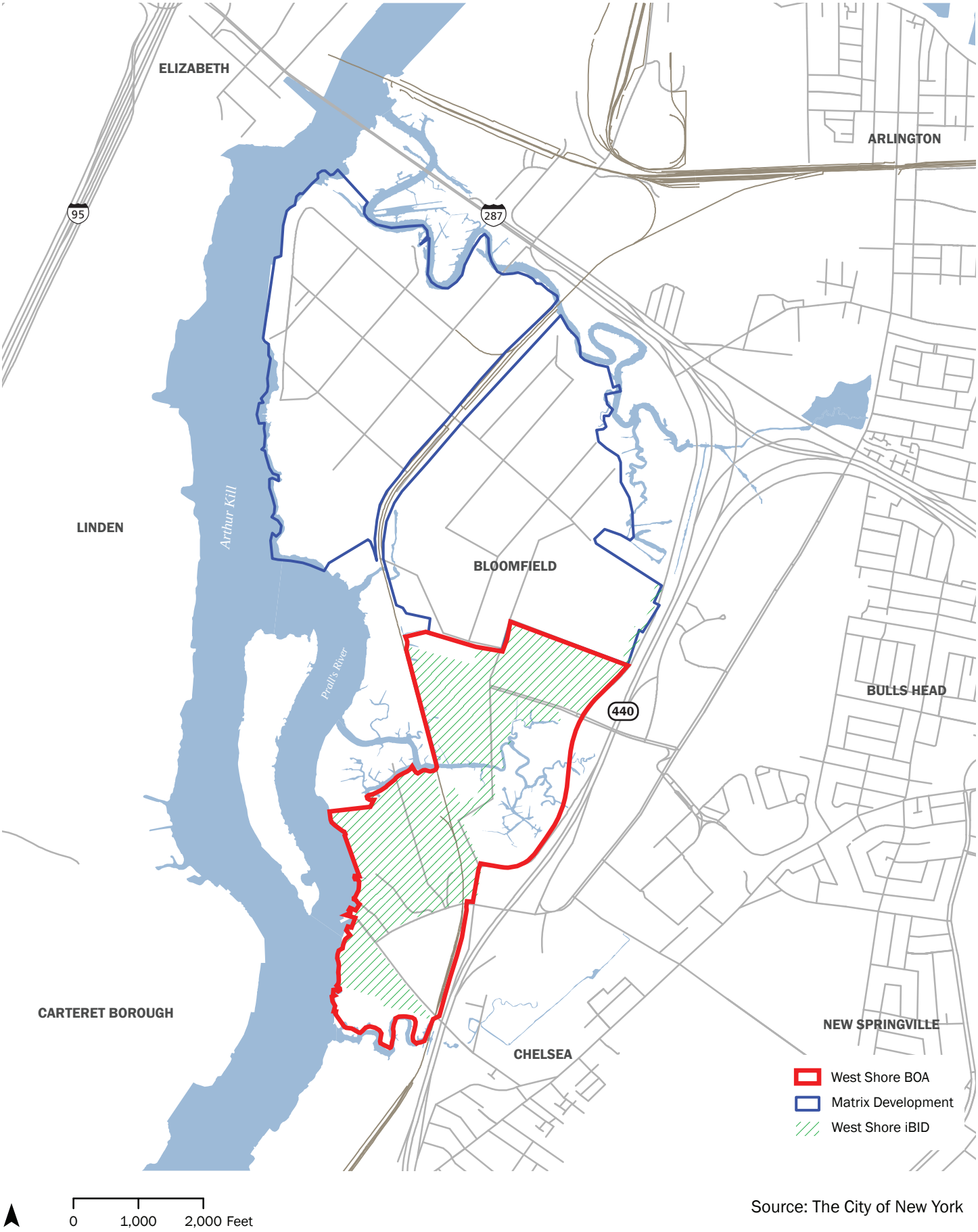
This newly developed Global Logistics/Industrial Park directly north of the BOA will establish the West Shore of Staten Island as a new leader in the growing global innovation economy. If the West Shore BOA can remedy its remaining challenges, the area can further densify and adapt to new market trends in a sustainable manner.

The following issues and challenges will be thoroughly examined and presented in this Step 2 Nomination Report:

- **Land Use Opportunities** - There are current obstacles with vacant, blighted, and underutilized properties as well as uncertain environmental site conditions such as levels of contaminants
- **Transportation Circulation** - There are limiting circulation options and lack of optimal street infrastructure
- **Access to Transportation** - There is limited access to the West Shore via public transit and other non-vehicular options

1 Staten Island Then and Now - Center for an Urban Future

Figure 3. Study Area Context Map



Source: The City of New York

- **Stormwater Management** - There is a pressing need to address persistent flooding and the need for a comprehensive Bluebelt program
- **Wetlands Improvements** - Saw Mill Creek and additional wetlands areas face a need to have additional mitigation assistance
- **Business Development Concepts-** The community needs to become more competitive with neighboring industrial parks by capturing available incentives for businesses

This revitalization plan will also propose findings and recommendations for solutions to these issues. Helping set a vision and foundation for a thriving West Shore BOA.

BOA Boundary Description and Justification

An area of high commercial importance and geographic centrality has been chosen as the BOA area and represents 308 acres. The BOA sits within the central region of the larger Green Zone (a designated area of Staten Island aimed at attracting companies that produce sustainable goods and services) and is located adjacent to Exit 8 of the West Shore Expressway (NY-440), the main North-South route on Staten Island. The location is highly visible and able to support commercial activity and traffic as demonstrated by approximately 87,000 vehicles passing the exit daily. The BOA is served by a portion of the West Shore rail line which is a heavy rail freight line which serves the container port adjacent to the Goethals Bridge and has direct rail access to New Jersey via the Arthur Kill Lift Bridge. Many Islanders hope for, and the SIEDC has proposed, a Bus Rapid Transit and/or light rail system for the West Shore which would be an integral part of Green development for the Island and would pass directly through the Green Zone via its proposed right of way. This project could be powered by alternative energy produced in the Green Zone itself.

The borders of the BOA were strategically chosen to encompass mainly industrial land before it transitions over the West Shore Expressway to primarily residential land. The BOA boundaries clearly outline an area that supports one of the primary goals: to build up the BOA area of industrial land that sits underutilized and vacant. The majority of land within the BOA is zoned M3-1, which is defined by NYC Department of City Planning as “designated for areas with heavy industries that generate noise, traffic or pollutants. Typical uses include power plants, solid waste transfer facilities and recycling plants, and fuel supply depots…M3 districts are usually located near the waterfront and buffered from residential areas” (http://www.nyc.gov/html/dcp/html/zone/zh_m3.shtml). As the designation indicates, this type of zoning is for heavy industrial uses and can often be accompanied by pollutants, which further indicates the need for the BOA in this area. Additionally, implementing our Green Zone strategy in the BOA area will add additional reinforcement of the area becoming a green, industrial corridor. The land also includes M1 and C8 zoning.

Community Vision and Goals

The overall vision of the West Shore BOA is to create a vibrant, economically sustainable, environmentally recognized industrial green zone that becomes a showcase for the implementation of sustainable best practices in land use, transportation, and stormwater management.

The West Shore BOA’s public and stakeholder engagement was central to the development of the Nomination Study. Participants ranged from elected officials to business owners which came together to highlight issues in the area that were unique to the West Shore and provided many different perspectives. Prior to beginning the Step 2 Nomination Study, SIEDC engaged the West Shore community to develop a vision for the area’s many brownfield sites as a resource to achieve future economic development and land use goals. The project goals drawn from the outreach initiatives during the Step 1 Pre-Nomination and other community plans such as the Working West Shore 2030: Creating Jobs, Improving Infrastructure and Managing Growth, the 2012 Green Zone study conducted by Parsons Brinckerhoff, the 2014 study by the NYU Wagner Capstone Team, and the Vision 2020: New York City Comprehensive Waterfront Plan, reflect the visions and consensus of the West Shore.

Project Goals

1. Increase job opportunities for local residents especially through the encouragement of sustainable industry and green jobs;
2. Decrease environmental hazards and facilitate the remediation and redevelopment of key brownfield and vacant properties in the BOA study area;
3. Work with area businesses, the City and the State to develop a streamlined process for permitting of development as well as best practices in sustainability
4. Increase transportation access to the area and address difficult circulation patterns to alleviate safety concerns that have heavy truck traffic
5. Create symbiotic relationships with public and private entities to further redevelopment opportunities
6. Promote ecological habitat and restoration through the use of a Bluebelt program

Figure 4. BOA Boundary Map

0 200 400 800 Feet

Source: City of New York

SECTION 2. COMMUNITY PARTICIPATION PLAN AND TECHNIQUES TO ENLIST PARTNERS

Community Participation

The public outreach methods and techniques used to ensure public participation throughout the course of preparing the Revitalization Plan were carefully chosen through several stakeholder meetings led by SIEDC. SIEDC has been engaging their enrolled members primarily through three different approaches: regular steering committee meetings, media or website updates and business conferences. Meetings led by SIEDC throughout the year were comprised of individuals representing local residents, elected officials, city agencies, business owners and tenants, nonprofit organizations, and specific stakeholder groups. The extensive work performed by SIEDC leading up to the BOA study helped establish a set of goals that have guided the continued efforts for the West Shore. These priorities were reaffirmed at numerous community meetings held by SIEDC and the West Shore Industrial Business Improvement District staff. They include:

- Improve quality of life standards
- Create quality jobs
- Engage new industries
- Improve mobility and transportation nodes
- Streamline permitting process
- Improve infrastructure to meet existing and future development needs
- Mitigate hazardous sites
- Implement stormwater management techniques and;
- Incentivize and finance projects
- Develop public-private partnerships

The aforementioned priorities are highlighted in the SIEDC WS-IBID Vision Plan for the purpose of addressing immediate needs of the industrial businesses that contribute financially to the IBID. These goals are overlapping with the BOA's primary goals in areas such as increasing economic opportunities, transportation access, infrastructure improvements, and the overall quality of the industrial area.

A primary component of the West Shore BOA planning process consists of public participation in order to reach consensus on a vision for the future. The comprehensive approach outlined below helped to establish a working relationship with the business community. It has been crucial to interview landowners and tenants that are a mix of industrial and manufacturing businesses. The first outreach sessions convened in 2015 during the SIEDC Annual Business Conference, a brownfield consultant session, and also at the "Alternative Island" session at the Green and Clean Expo where attendees were invited to listen to a panel of experts on the topic of what the BOA process means for the vision of the West Shore. SIEDC has had long-running success in leading Staten Island in visioning sessions held at various conferences throughout the year. Some other examples include:

- West Shore Light Rail public meetings
- West Shore Business Improvement District quarterly meetings
- SIEDC Press conferences
- Green Zone study

These additional focus areas have brought increasing participation to the full range of West Shore project opportunities. In particular, the West Shore Industrial Business Improvement District (IBID) is a catalytic focus group that discusses all relevant issues for active businesses. The West Shore IBID was initiated by the New York City Economic Development Corporation (NYCEDC) in May 2012 by selecting SIEDC to manage a new industrial business improvement district to provide much-needed services including private maintenance, private security, signage, advocacy and important infrastructure improvements. The ultimate goal of the West Shore IBID is to transform the West Shore into a premier industrial corridor for Staten Island and the City. With better public infrastructure, increased services to business owners, and additional marketing towards new industries, the West Shore BID will possess the potential to achieve this goal.

Techniques to Enlist Partners

To foster participation from all representative stakeholders and community members throughout the BOA process, the team developed comprehensive engagement methods that included various meetings, interviews, visioning sessions, and campaign strategy. Techniques were developed specific to the audience and included steering committee meetings, visioning sessions with the community, one and one interviews with business owners in the area and outreach with key municipal organizations and agencies. The following section details these techniques and are separated into the Steering Committee, Stakeholders, and the Public.

Steering Committee Meetings

The BOA Steering Committee was engaged by SIEDC and the consultant team over the course of one year for this project, the West Shore IBID Steering Committee dually served as the BOA Steering Committee. The steering committee consisted of representatives of elected officials, Community Board 2 members, SIEDC staff, and all owners and tenants within the BOA boundary study area. Included are also landowners that have an impact on the West Shore and are outside of the BOA study area but contribute to several West Shore regional priorities.

The kick-off of the BOA Steering Committee was held on December 9, 2015 at ADCO Electrical (201 Edward Curry Avenue). The focus of the agenda was various advocacy updates that affect the success of the BOA. Following the

TIMELINE

Task Desc. / Outcomes	Month 1-3	Month 3-6	Month 6-9	Month 9-12	Month 12-15	Month 15-18
Component 1: Project Start-up	Project kickstart, Steering committee, Project outline approved					
Component 2: Capacity Building & Training		Workshop, training completion				
Component 3: Community Participation		Visioning Plan, Community participation, Stakeholder engagement				
Component 4: Draft Revitalization Plan		Complete analysis of BOA, Maps, Candidate sites for assessments, Community participation				
Component 5: Completion and Distribution			Executive summary of Revitalization Plan, Distribution package, Summary agreements			
Component 6: Final Revitalization Plan				Site specific information, Completed application package for project advancement		

Figure 6. Project Timeline

Figure 5. Assemblyman Mike Cusick making announcement of BOA study

meeting, a press conference was immediately held featuring Assemblyman Cusick and Greener by Design President, Adam Zellner. In addition to the presentations regarding the introduction to the BOA project, topics in the general meeting included as aesthetic needs for garbage can placements, Bloomfield Avenue flooding, repair of Edward Curry Avenue pothole, Parks Department cleaning, Clean Team Request for Spencer Street, potential Con Ed & National Grid upgrades, and the new businesses that will be added to the West Shore.

Once the consultant team had gathered sufficient knowledge of SIEDC's goals of the BOA, a presentation was given by Greener by Design and Parsons Brinckeroff at ADCO Electric on March 9, 2016. The key areas identified for presenting to the BID board were:

- Public engagement plan and strategy
- Sharing survey results so far
- Displaying updated contextual maps
- Status of the revitalization plan

The presentation was kick-started by talking and identifying the main focal points of the BOA Revitalization Plan which are:

1. Access to Transit
2. Beautification and Maintenance
3. Resiliency and Renewable Energy
4. Wetlands and Flood Plains Remediation
5. Bus Route Development

The results of the meeting and a majority of the dialogue indicated that the most pressing concerns were: Bloomfield Avenue Flooding and potential ways to mitigate its impacts; a potential two-way conversion, light signal and highway off-ramp for Gulf Avenue, and the need for advocacy of issues at various City agencies. These comments amongst other feedback from SIEDC were documented by the consultant team and would be examined in greater detail over the course of the next few months.

SIEDC's 6th Annual Green & Clean Festival

A key BOA Steering Committee meeting was held during the 2016 Green and Clean Festival. The event was held June 8th and was a lively and spirited day-long marketplace where over 400 sustainable businesses and organizations showcase their services and where environmentally conscious individuals gather to learn how to incorporate sustainability into their lives. The forum hosted a variety of seminars and break-out sessions from business leaders and product developers in the green industry focused on enhancing everyday life in Staten Island's economy and environment. The BOA Steering Committee conducted a break-out session during the afternoon that focused on the West Shore BOA project. This session lasted an hour and was conducted as an interactive post-it note exercise, called Map and Tell.

Figure 8. Beth Zall presenting at stakeholder meeting

Figure 7. Map and Tell Exercise

Map and Tell

During the Steering Committee meeting, the team presented a form of a design charrette with displaying the maps of the BOA's boundaries and existing conditions. Several maps were created to provide the BID Board member with content and context for taking stock of what exists in the West Shore BOA and what could possibly be included or excluded from the Strategic Sites already identified by SIEDC and Greener by Design.

This Map and Tell exercise was carried out to seek input from the Board members who were local and soundly aware of the region's activities in order to:

- Create an overall inventory of the BOA
- Identify the issue areas
- Identify the opportunity areas

From the transportation side, key areas for reviewing with the BID board were:

- Identifying who is using the bus services for commute and route followed.

- Identifying the need for effective transportation.
- Outlining wetlands and categorizing them into fresh-water, saltwater, natural resources.
- Providing the context on the compelling issue of what will happen in the case of an extreme situation of flooding and sea-level rise in the next 10-20-80 years.

Feedback from the BID Board members from the Map and Tell exercise:

- The BID Board members identified a colony of Feral Cats on the border of Edward Curry Avenue.
- An area was identified for having previous prostitution activity on Chelsea Road.
- Most members expressed curiosity regarding how wetlands issue will be dealt with.
- Members identified 200 acres of wetlands to beautify and raise between Bloomfield and Gulf Avenue.
- The members also identified the areas that are currently not accepted by insurance companies' due to the geographical location as well as topography on file but still was untouched during a major storm and flood event like Sandy.
- The members identified the need to raise certain areas to at least 15 feet or higher in order to claim insurance.
- Through discussions, it became critical to actually identify the key problem in a particular location whether it was sea-water rise or surge.
- Water aggregation areas need to be identified and discussed with the transportation team and SIEDC.
- The members also identified underground jet fuel lines running from Texas to neighboring airports through the BOA which made things difficult when it came to digging underground for additional utility lines.

This steering committee meeting was overall very informative for the SIEDC, consultant team, and the representatives of the committee to share honest dialogue about notable issues that would need to be addressed in the coming months. This exercise allowed for a safe place to share and educate the fellow members.

Public Outreach

The consultant team enlisted strategies that would not inconvenience the BOA community and the public.

Interviews with Local Business and Property Owners

The BOA consultant team in the months of January to May, had charted a plan to interview twenty-three business owners and fourteen Board of Directors from the West Shore Business Improvement District. The BOA consultant team initially conducted surveys by circulating a questionnaire of twenty-nine questions that focused on areas of land use, resiliency, and transportation. The team categorized the levels of participation after the interviews were completed and once the minutes of the interviews were reviewed multiple times by the team. These categories were:

Unaware - of project and potential impacts;
Resistant - aware of project and potential impacts and resistant to change;
Neutral - aware of project, yet neither supportive nor resistant;
Supportive - aware of project and potential impacts and supportive to change;
Leading - aware of project and potential impacts and actively involved

Those in the unaware category are unaware of the project and potential impacts and therefore should be informed about the potential of this project. Next, the resistant category includes those who are aware of the project and potential impacts but are resistant to change. Those in this category may need more attention in trying to get them on board with the project. In the neutral category, those who are aware of the project, yet are neither supportive nor resistant will be present. While this may not have any physical harm on our plans with the project, there is a lot of potential that could be missed and should be harvested. Subsequently, those in the supportive category are aware of the project and of the potential impacts and are

Figure 10. Screenshot of Interview with John DiFazio

Figure 9. Screenshot of Interview with Fred DiGiovanni

supportive to change and adapt to the project. Finally, the last category is the leading category, and those in this category are aware of the project and of the potential impacts and are actively planning to participate. Those in the supportive and leading categories could definitely help us educate those in the lesser categories and possibly make those in the unaware, resistant, and neutral categories on board with the project. A majority of the responses were in either in category 2, resistant, or category 5, leading.

Survey and Interview Results

The surveys resulted in learning additional historic challenges that each land owner had been facing in the BOA. Transportation was certainly one of the leading challenges due to lack of public transit and the inability to attract corporations and employees' due to this lack of options for viable alternatives to cars. There was also interest in renewable energy or energy conservation measures to help business operations. Stormwater management was also a major complaint from all of the surveys since it has an overwhelming impact on day to day operations. It was also notable that each private land owner was interested in looking ahead at future storm impacts and ways to make the area more resilient.

Once surveys had been received by all BOA stakeholders, requests were made by SIEDC's liaison to the West Shore Industrial Business Improvement District committee for on-site interviews with site tours on a one-on-one basis. Interviews were conducted over the span of three days to determine five critical sites that could be deemed strategic or catalytic based upon SIEDC's preliminary discussions and analysis. These interviews were conducted with key landowners that have the ability to make high-level decisions. These on-site interviews provided critical insight into unknown site issues, challenges for redevelopment, and an ability to gain willingness of property owners to redevelop their sites and whether they would participate in future steps towards implementation.

Follow-up Interviews

SIEDC led the efforts to set-up site visits with interested land-owners who took an interest to having in-depth discussions in the months of June to August. Select interviews were recorded with video transcriptions. The list of questions was used as a framework for each interview discussion (The questions can be found in the in Appendix). Through each interview and on-site tour, detailed observations were made about the existing challenges and potential concepts that would need to be vetted. Landowners expressed concerns related to flooding, transportation, and development rights. An additional survey was created to focus on a blueprint to be competitive with New Jersey business climate. These survey questions were provided to New Jersey-based businesses who could have a potential interest in expansion or relocation opportunities in New York, with a specific focus on the industrial warehousing, logistics, and maritime industries. The results of this survey demonstrated additional challenges in the costs of doing business in Staten Island which will be shared in the "Business Development" section.

BOAOPOLY at the 6th Annual Green and Clean Festival

In an attempt to engage with a quite disengaged community in the West Shore and to seek the understanding of the external stakeholders carrying out businesses, commuting or contributing to the West Shore BOA region, Greener by Design undertook several steps which involved developing paper-based questionnaires, meeting the community in person, and carrying out face-to-face interviews and also devised a board game "BOAOPOLY" for collecting information at the SIEDC Green and Clean festival. The BID board members were encouraged to participate in the BOAOPOLY and express their opinions on how they would like to see money spent on the West Shore BOA.

BOAOPOLY-Communication Tool

Throughout the Green and Clean Festival, the BOA consultant team had a table in the vendor area that was utilized for engaging all attendees.

Purpose of the BOAOPOLY: The BOAOPOLY Board game was devised to see where the stakeholders and the community wanted to see their money spent.

BOAOPOLY Board Game Equipment:

- 1 game board
- BOAOPOLY money in denominations of $50.
- Buckets for each actionable item selected

BOAOPOLY Board Game Rules:

Each player was given $600 in the denominations of $50.

There were total of 8 options to select from. Each option is priced as below on the board:

i. Deploying fast affordable transit: $200
ii. Environmental Clean-up: $200
iii. Flood prevention: $200
iv. Renewable Energy: $200
v. Attracting new Green Start-up businesses: $100
vi. Attracting new Maritime businesses: $100
vii. Attracting New Construction Materials Businesses: $100
viii. Starting up Urban Agriculture: $100

Players could not select all 8 and had to choose their favorites similar to a real-life scenario experience of only being able to fund a few most important options.

Figure 11. West Shore BOA Table at the Green & Clean Festival

Players could also voice their opinions in terms of any new ideas, business ventures that they see benefiting the West Shore BOA region.

Results of the BOAOPOLY Board Game Execution

The Staten Island Green and Clean Festival had an overall footfall of 200 patrons and the BOAOPOLY got fair and well-rounded responses from a majority of the patrons heavily involved in the West Shore Community. A great deal was learned about what the community wanted from the BOA project and a lot about Staten Island residents as a whole. A sign that this survey had a positive result was that most participants were eager to learn about results of the game – where did most people want to put their money?

A vast majority of participants of the BOAOPOLY were people keen on seeing the West Shore BOA revitalize either because they worked in that area, had previously worked there, had a family member who worked there or lived nearby or commuted through the BOA area, or had businesses that had the potential to grow based on the BOA revitalization.

People who lived on other shores of Staten Island, shores that were affected by Hurricane Sandy, were strongly in favor of the “Flood Protection” option, but sustainable business owners there to support their business were privy to investing in the more sustainable options of the game. Some of the participants who owned their own businesses were eager to find out about business opportunities associated with the BOA project. Due to the large survey, about 200 patrons, the diverse background of people resulted in a fair, well-rounded survey.

BOAOPOLY GAME Outcome

The community contributed input on the possible next steps in a revitalization plan as members of the West Shore. It is extremely important to engage with the community to understand what the micro-level needs and wants are as compared to deriving results from engaging with the direct stakeholders. Several outcomes from the BOAOPOLY Board game execution can be segregated as quantitative and qualitative outcomes and outlined as below:

- The BOAOPOLY Board game community engagement helped the community to understand the Brownfield areas in the West Shore, the strategic sites that are developable, and the strategic sites that need remediation as well as identify and accept the presence of undevelopable land.

- The BOAOPOLY Board game resulted in the following selection by the participants:

BOAOPOLY Results Table

Name	Value per selection	Amount collected
Renewable Energy	$200	$5350
Deploying Fast Affordable Transit	$200	$4950
Flood Prevention	$200	$2950
Attracting New Green Start-up Businesses	$100	$2950
Attracting New Maritime Businesses	$100	$1950
Starting up Urban Agriculture Businesses	$100	$1600
Attracting New Construction Materials Businesses	$100	$1300
Environmental clean-up	$200	$600

- The top three BOAOPOLY dollar investment choices of the players were Renewable Energy, Fast and Affordable Transit and Attracting Green Start-up Businesses.
- The areas that scored low on the BOAOPOLY investment choices were Environmental Clean-up, Attracting Construction Materials Businesses and Urban Agriculture Businesses in the West Shore BOA.

Some of the issue areas that were identified by the players for the West Shore BOA region were:

- Too much traffic on the East Shore which would be great of diverted in some way
- Housing and residential buildings are located very far away from the West Shore which indicates towards developing a fast and affordable transportation system to the West Shore, given the fact that most of West Shore is zoned for commercial and industrial use

The Consultant team used these eight options to qualify which themes were impactful to the public. The team opted to give a higher denomination to Renewable Energy, and others at the $200 level to promote the aforementioned vision of the BOA and of the Green Zone study.

West Shore BOA Stakeholder Presentation

On December 12th, 2016, SIEDC invited the public and various stakeholders such as the West Shore Business Improvement District members, New York City and State agencies, as well as elected officials of Staten Island. The intent of the meeting was to provide an update on the BOA project's status and solicit feedback from all attendees.

Figure 12. Steve Grillo presenting at stakeholder presentation

An overview was provided of 18 strategic projects in Land Use, Transportation, Wetlands & Stormwater, and Business Development. A power point presentation gave a general overview of the challenges and opportunities for each project with a difficulty ranking assigned to each project. A question and answer period were allotted to document stakeholder's critical feedback. Upon the conclusion of the meeting, a priority list of items for follow-up was created to ensure that all stakeholder questions and comments were addressed.

SECTION 3. ANALYSIS OF THE PROPOSED BOA

Community and Regional Setting

As the name suggests, the West Shore BOA is located on the west shore of the borough of Staten Island in New York City. It is a primarily industrial area next to other industrial and commercial areas. Perhaps the most notable new neighbor is Matrix Development, which was the former GATX oil field located north of the BOA in the Bloomfield neighborhood. Directly east of the BOA is South Avenue Industrial Park, which primarily consists of office buildings. South of the BOA is the Victory Blvd Industrial area and the Travis residential neighborhood with the Fresh Kill Landfill slightly further south.

The BOA is partially in the Bloomfield neighborhood and partially in the Travis-Chelsea neighborhood, and sits between the Arthur Kill/Prall's River and the West Shore Expressway. The BOA consists of two parts, the northern portion and the southern portion -- 308 acres in total. Due to the fact the area is primarily industrial very few people live in the community. According to the 2010 US Census, only 809 people live in the encompassing Census Block Group (Block Group 1, Census Track 291.01). Though this is due a small residential area in the Travis-Chelsea neighborhood along Victory Boulevard south of the BOA.

The BOA in Previous Planning

The West Shore neighborhood and BOA have been addressed in many planning initiatives. In particular, the establishment of a Green Zone and the study of a working waterfront have been primary focus areas of these planning efforts. In particular, the review of potential private industry such maritime commerce, eco-industrial technologies, and urban agriculture for re-location were identified for current strategies to enhance business development in the BOA. The following sections give a brief overview of some of the relevant planning studies. This review also serves to identify key institutional support and potential funding opportunities for plans and projects that can further the BOA goals.

Full List Plans and Studies

- Vision 2020 Comprehensive Waterfront Plan (2011)
- Staten Island 2020 (2007)
- NYCEDC and NYCDCP Working West Shore 2030 Plan
- Green Zone Study (2012)
- Stormwater Management Framework for Staten Island West Shore (2013)
- Recapturing Staten Island's West Shore (2014)
- District Plan for the Staten Island West Shore Industrial Business Improvement District (2013)
- Pre-Nomination Study (2012)

Overview of Key Plans and Studies

Vision 2020 Comprehensive Waterfront Plan

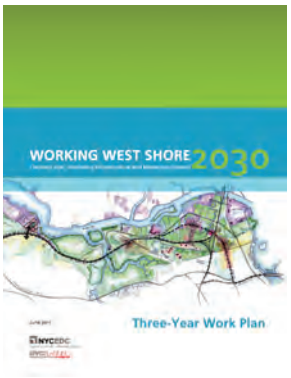
Led by the Department of City Planning, Vision 2020 is a broad-based plan unveiled in 2011. The plan provides a sustainable framework for water transportation, increased public access to the waterfront, and economic opportunities along NYC's shoreline. Specifically, for the West Shore BOA, Goal 3 supports economic development activity on the working waterfront which ties in with BOA and Industrial Business Improvement District's goals to expand port and maritime industries. The recent expansion of the Panama Canal has the potential to be an impetus for increased commercial shipping, warehousing, transportation logistics, and any businesses in the supply chain. Targeted incentives, recruitment, and coordinated regulatory policies can help the West Shore potentially adapt to the rapidly growing market. The plan promotes the restoration of degraded natural waterfront areas, protection of wetlands, and shorefront habitats. This has been a priority for the Saw Mill Creek Wetland Mitigation Bank program which addresses deep and severe flooding and inundation. As part of the Mitigation and Restoration Strategies for Habitat and Ecologically Sustainability (MARSHES) Initiative, NYC facilitates the long-term improvement and protection of critical coastal resources, while providing a predictable, efficient, and environmentally responsible process to serve the mitigation needs of permit applicants in the geographical service area. NYC would restore about 68 acres of the Saw Mill Creek marshes at a cost of about $14 million. However, there is a concern of recontamination of the wetlands by waters from the Arthur Kill. The nearby waterway is heavily used by the shipping industry and has undoubtedly been contaminated by industrial uses on both its NJ and NY shores. The fear is that as the wetlands are restored, the constant contact with contaminated water will undermine the effectiveness of the restoration and the resulting quality of the wetland.

The containerization of waterways was the catalyst for the vast redevelopment of City waterfronts, which has reshaped the shipping industry. To help preserve the maritime industry, 6 areas were designated as Significant Maritime Industrial Areas (SMIA). These districts were previously zoned for heavy manufacturing and will continue to be used for industry. These designated SMIA's include:

- Kill Van Kull between Staten Island and Bayonne
- Sunset Park in Brooklyn
- Red Hook in Brooklyn
- Brooklyn Navy Yard in Brooklyn
- Newtown Creek in Brooklyn and Queens
- South Bronx in the Bronx

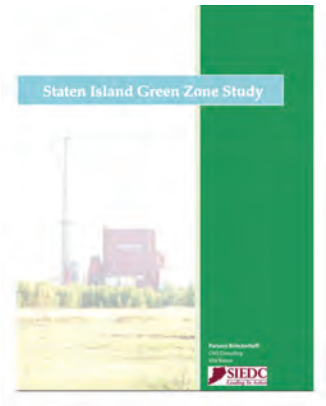
Staten Island 2020

This report was written by Jonathan Bowles and Jim O'Grady of the Center for an Urban Future and was funded by the SIEDC. The focus of the report was to highlight that by the year 2020 Staten Island could experience a complete renaissance due to several catalytic projects across the borough. There is significant warning that the borough could continue pace with its mounting problems if Staten Island does not 1) engage in better planning for the borough's growth, 2) ensure that borough's business, government, and civic officials pay much closer attention to the economic challenges and 3) figure out what Staten Island wants to be when it grows up—a bedroom community or an independent economic entity. The borough is said to face rising housing prices, longer commutes and an exodus of young people. Key recommendations that tie in with the BOA included the support for new public transit options, a study about the growth in port-related warehousing, and the creation of a high-level event to bring policy experts from across the country to Staten Island i.e. to host a Staten Island/ New Jersey Summit.



NYC EDC and NYC DCP Working West Shore 2030 Plan

In 2010, the NYC DCP and EDC released the plan, Working West Shore 2030: Creating Jobs, Improving Infrastructure and Managing Growth. The report demonstrated a neighborhood framework, highlighting the Bloomfield-Teleport area which has four key existing conditions: (1) an abundance of vacant and underutilized industrial areas; (2) significant highway, bridge and rail freight infrastructure; (3) underutilized office facilities; and (4) large natural areas that are not readily accessible or viewable. The plan calls out for 5 major development strategies: (1) encouraging major maritime and industrial uses; (2) facilitating the development of a mixed industrial and commercial center along the West Shore expressway; (3) increasing the vibrancy and diversity of the Corporate Park and Teleport Campus; (4) expanding and improving natural areas, and using natural areas as a network of public open space; and (5) supporting comprehensive transportation network, including the creation of new road connections to facilitate access to the West Shore from nearby neighborhoods. Vision 2020 also recommends for the Bloomfield waterfront to reutilize industrial sites with modern distribution, maritime and commercial facilities that utilize the waterfront for goods movement, with sensitivity to existing wetlands, and exploring infrastructure financing mechanism while seeking opportunities for public waterfront access as open space.



Staten Island Green Zone Study

In a $120,000 grant from the U.S. E.D.A., the SIEDC hired Parsons Brinckerhoff to study the Green Zone and develop an analytical report to aid the SIEDC's strategic work in developing this green industrial corridor on Staten Island. The study provided case studies of other green/ eco-industrial zones and key strategies on how to create partnership opportunities to entice new businesses to the Green Zone which would include a need for partnerships at all levels: private, local, City, State, and Federal.

Key Points

- The Green Zone is a strategically located part of New York City, home to businesses that are green in their purpose or operations
- The Green Zone provides access and opportunities to companies practicing or participating in sustainable activities
- The Green Zone is an established cluster of successful businesses actively participating in the green economy
- The Green Zone is a unique opportunity for companies seeking a competitive advantage through incentives and synergies

To date, the SIEDC has been well positioned to implement the strategies that were outlined in the Green Zone plan. A number of companies that focus on recycling and clean energy production already exist and are looking to move in the BOA. The Green Zone also compliments the BOA and the BID as a vision for the area.

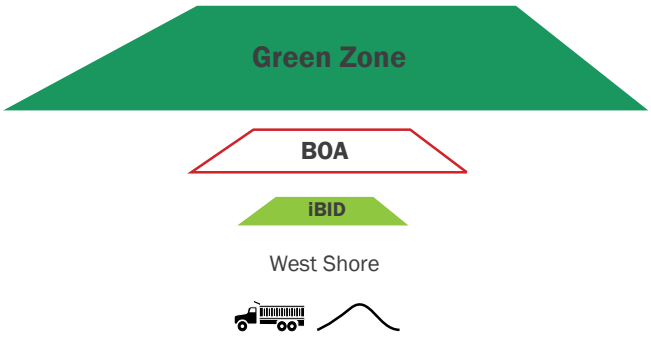


Figure 13. Planning areas layers diagrams

Stormwater Management Framework for Staten Island West Shore

SIEDC commissioned a report by Crauderueff & Associates and the New York City Soil & Water Conservation District in September 2013, named A Stormwater Management Framework for the Staten Island West Shore. The study evaluates ongoing development practices in the study area with respect to stormwater management and develops a watershed-based framework for further analysis. The study area including the Green Zone, Industrial Business Improvement District, and the BOA was about 230 acres, with 20 to 25 active businesses that lack basic infrastructure services such as storm and wastewater management and modern transportation infrastructure. The study recommended three next steps (1) a characterization of the watershed; (2) the commissioning of an engineering assessment for the Faztec Industries site; and (3) a joint environmental and economic analysis of businesses to identify on-site stormwater management challenges and opportunities and to identify strategies to encourage business growth in the process.

In addition, a Work Plan for NYC MS4 Lot Size Soil Disturbance Threshold Study was presented on March 30th, 2016 for public comment. A Municipal Separate Storm Sewer System (MS4) Permit requires the City to develop a Stormwater Management Program (SWMP) in order to manage urban sources of stormwater runoff.

Recapturing Staten Island's West Shore

SIEDC retained NYU Wagner's Capstone Project Team and Arthur Kill Associates to study the potential of Staten Island's West Shore and create a roadmap for catalyzing growth as New York City's next center of economic development and innovation. The report outlined the study area of roughly 6,000 acres with the neighborhoods of Bloomfield, Travis, Chelsea, Rossville, and Charleston. The report detailed existing conditions in land use, zoning, roadways, transit, parks, open space, natural and environmental features, infrastructure, and existing case studies that frame the context of the area. This particular study relied heavily on stakeholder interviews, site visits, and local expertise to shape the recommendation of the report. Key recommendations for creating an industrial competitive advantage include the establishment of a Foreign Trade Zone in the Bloomfield section of the study zone and coordination with the City EDC to provide training, incentives, and business assistance to growing manufacturing industries. It was noted that potential emerging industries should include food producers, beverage warehouses, and building construction (modular) as well as green technology. A thorough comparison of competing industrial areas provided a great context for challenges that the West Shore BOA might face for increasing investments for industrial parks. The sites that were suggested to be catalysts for growth included, 1900 South Avenue, 501 Industry Road, 364 Meredith Avenue, 414 Spencer Street, and 219-295 Chelsea Road. Key recommendations for these catalytic sites were the creation of a Chelsea Resource Recovery Park, the creation of green space along the Arthur Kill waterfront, and increased accessibility between the West Shore Plaza and the community of Chelsea via South Avenue for pedestrian access and a widening of Chelsea Road to accommodate truck traffic. The methods for implementation of each recommendation required SIEDC to take lead on issuing potential public bids as well as coordination with each public agency.

BOA Pre-Nomination study

The BOA Pre-Nomination study provides a basic and preliminary analysis of the West Shore BOA. Among other things, the study identified 6 strategic brownfield sites as well as targeted industries for development and revitalization.

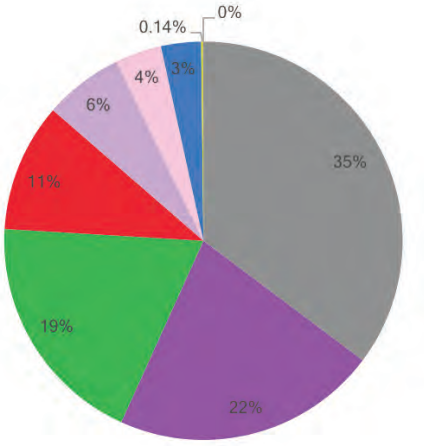
Inventory and Analysis

Existing Land Use and Zoning

As mentioned, the BOA is an industrial area next to other industrial and commercial areas, and is partially in the Bloomfield neighborhood and partially in the Travis-Chelsea neighborhood. It consists of two parts, the northern portion and the southern portion. The two parts are separated by the Saw Mill Creek, which runs east-west as well as the SI Rapid Transit freight line, which runs north-south and they are connected by Chelsea Road. The BOA is 308 acres in total.

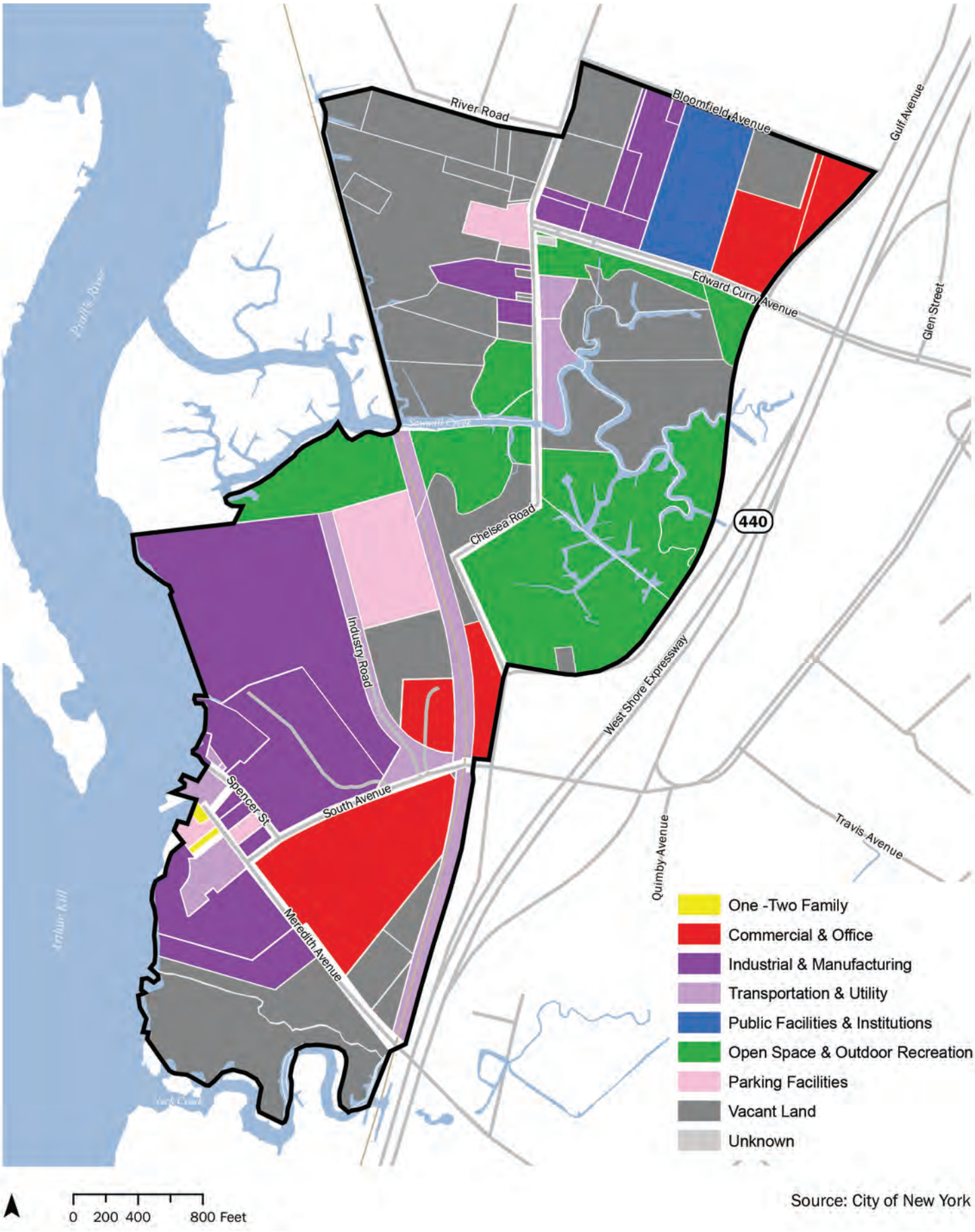
The Land Use of the West Shore BOA primarily consists of Vacant Land (35%) and Industrial & Manufacturing (22%). Then the next largest categories include Parks (19%) and Commercial & Office Buildings (11%). Follow by other industrial related uses such as Transportation & Utility (6%) and Parking Facilities (4%). And finally, a small portion of the BOA is Institutional (3%) and residential (0.14%).

Some of the common industrial businesses in the BOA include asphalt recycling, concrete production, car storage, charter bus companies, and self-storage. Some of the more notable properties include Hogan Asphalt/Richmond Recycling, West Shore Plaza, and Master Mix LLC. Due to the industrial nature of many of the business in the BOA, many of the sites could be considered brownfields. More information will be provided about the brownfield, abandoned and vacant sites in the BOA in the next section.



Land Use	Area (Acres)
Vacant Land	108.74
Industrial & Manufacturing	66.39
Park	59.14
Commercial & Office Buildings	32.20
Transportation & Utility	19.85
Parking Facilities	11.58
Public Facilities & Institutions	10.02
One &Two-Family Buildings	0.42
Unknown	0.14
Total	308.48

Figure 14. Land Use Map



The majority of land within the BOA is zoned as M3-1, which is defined by NYC Department of City Planning as "designated for areas with heavy industries that generate noise, traffic or pollutants. Typical uses include power plants, solid waste transfer facilities and recycling plants, and fuel supply depots…M3 districts are usually located near the waterfront and buffered from residential areas". The BOA also includes several areas that are zoned as PARK which are NYC Parks properties and C4-3 which is the West Shore Plaza Mall. A small portion is also zoned as M2-1 which includes the ADCO buildings and Self-Storage Buildings in the northern portion and Indoor Extreme Sports building in the southern portion. The BOA does not have any historic or special districts, though the majority is in an IBZ (Industrial Business Zone).

Industrial Business Zone Definition

In early 2006, the City created 16 Industrial Business Zones (IBZ) across the City where expanded business services are available for industrial and manufacturing businesses. This designation fosters high-performing business districts by creating competitive advantages over locating in areas outside of New York City. The IBZs are supported by tax credits for relocating within them, zone-specific planning efforts, and direct business assistance from Industrial Providers of NYC Business Solutions Industrial and Transportation (Source: NYCEDC). Currently, there are 21 Industrial Business Zones, SIDEC manages 3 including the West Shore IBZ which contains the BOA.

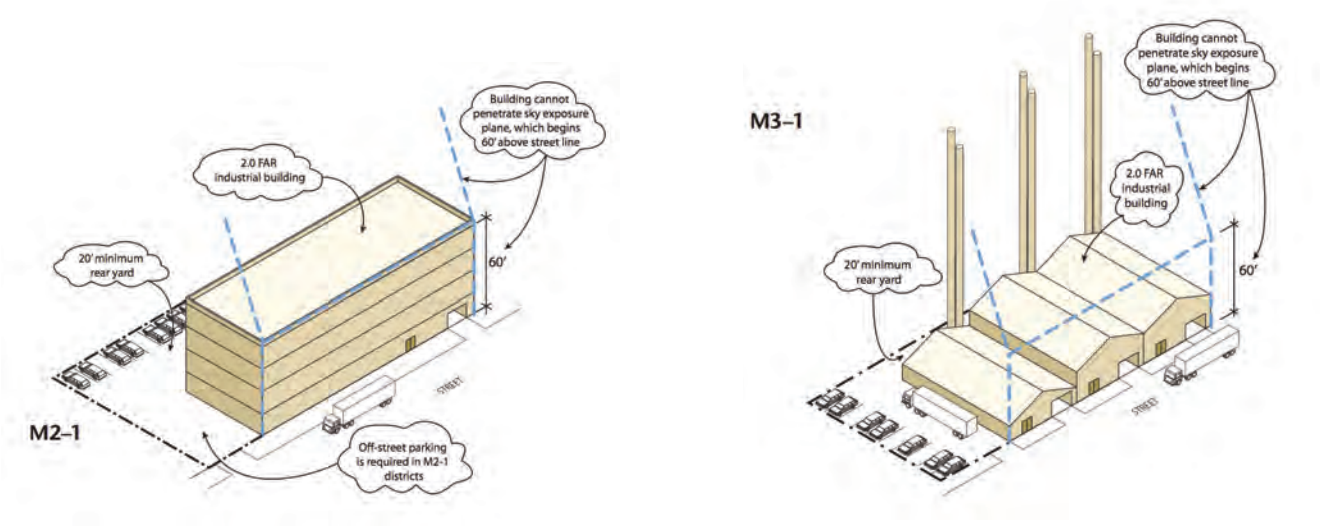
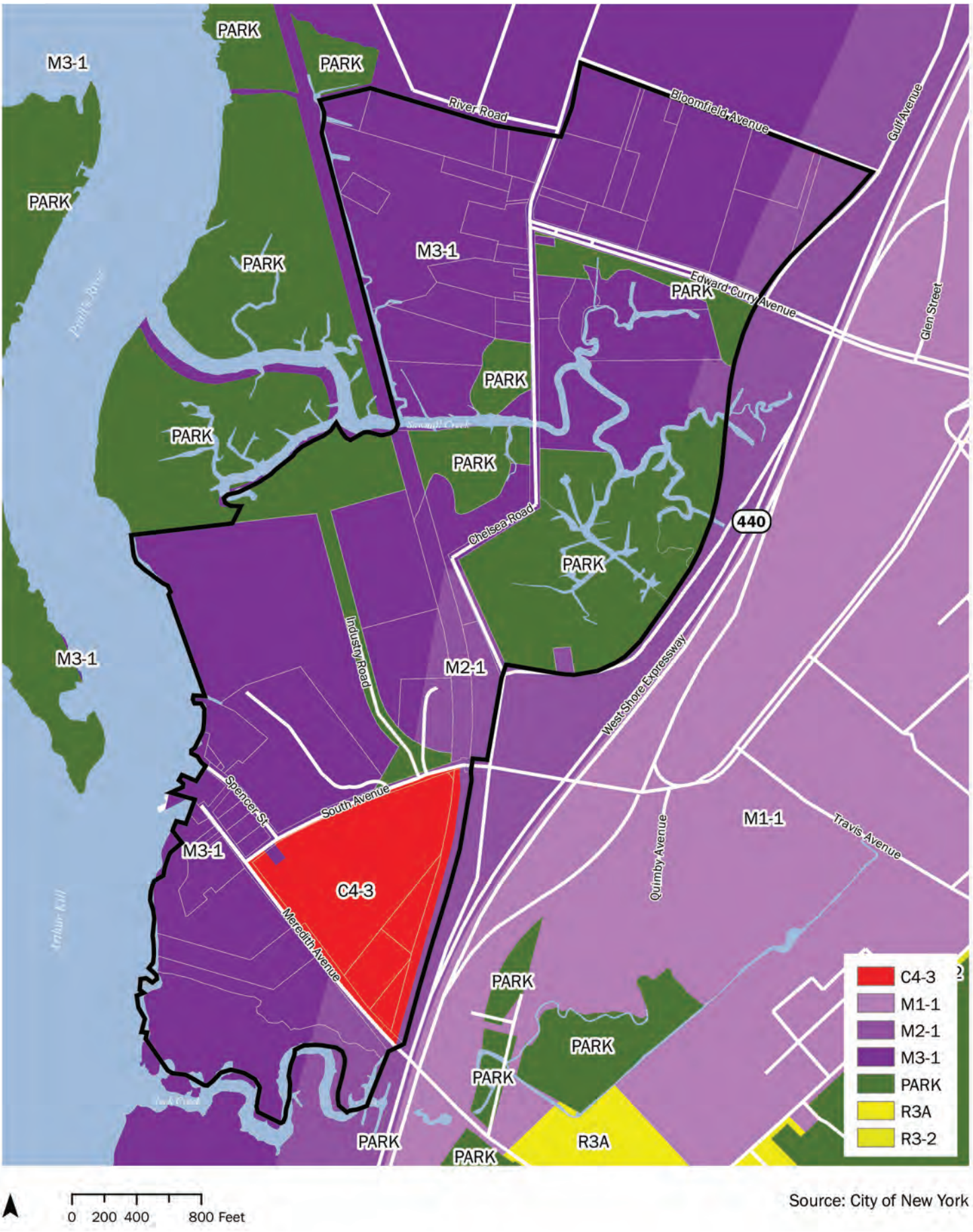


Figure 15. M2-1 and M3-1 Bulk Diagrams

Source: NYC Planning

Figure 16. Zoning Map



Strategic Sites

In close collaboration with SIEDC, the BOA team developed a shortlist of key strategic sites that could be catalysts for revitalization. The selection process began with SIEDC taking a list of all the sites in (and around) the West Shore BOA and classifying them as either “Occupied - High Use”, “Occupied - Low”, “Vacant - Developable” and “Vacant - Undevelopable”. They also marked each site as “Strategic” or not, a reason for it being strategic as well as issues and obstacles to development. The sites that were as either classified “Occupied - Low” or “Vacant - Developable” and “Strategic” were initially investigated. Some of the initial key sites included the Difazio Construction, SI Self Storage Corp, Vanbro, Rocky’s Construction, 501 Industry Road, River Road Site, Dealer Storage Corp, Island Charter Wetland Sites and 250 Meredith. See the full list below.

Following that exercise, SIEDC and the BOA Team held a series of meetings to discuss “Strategic Projects”, these projects were split up into three categories Land Use, Transportation, and Business Development. The Land Use projects were primarily based on a selection of the strategic sites identified earlier. Over the course of several months, the BOA Team and SIEDC discussed all the sites in detail and evaluated the pros and cons of each. Based on these meeting, the following sites were selected: 1. SI Sportsmen’s Club, 2. ADCO Backlot, 3. Hogan Asphalt, 4. 501 Industry Road Backlot, 5. WWC Waterfront, 6. Spencer Street Assemblage, 7. 250 Meredith Avenue. These sites are profiled in the Brownfield, Abandoned, Vacant and Underutilized Sites section.

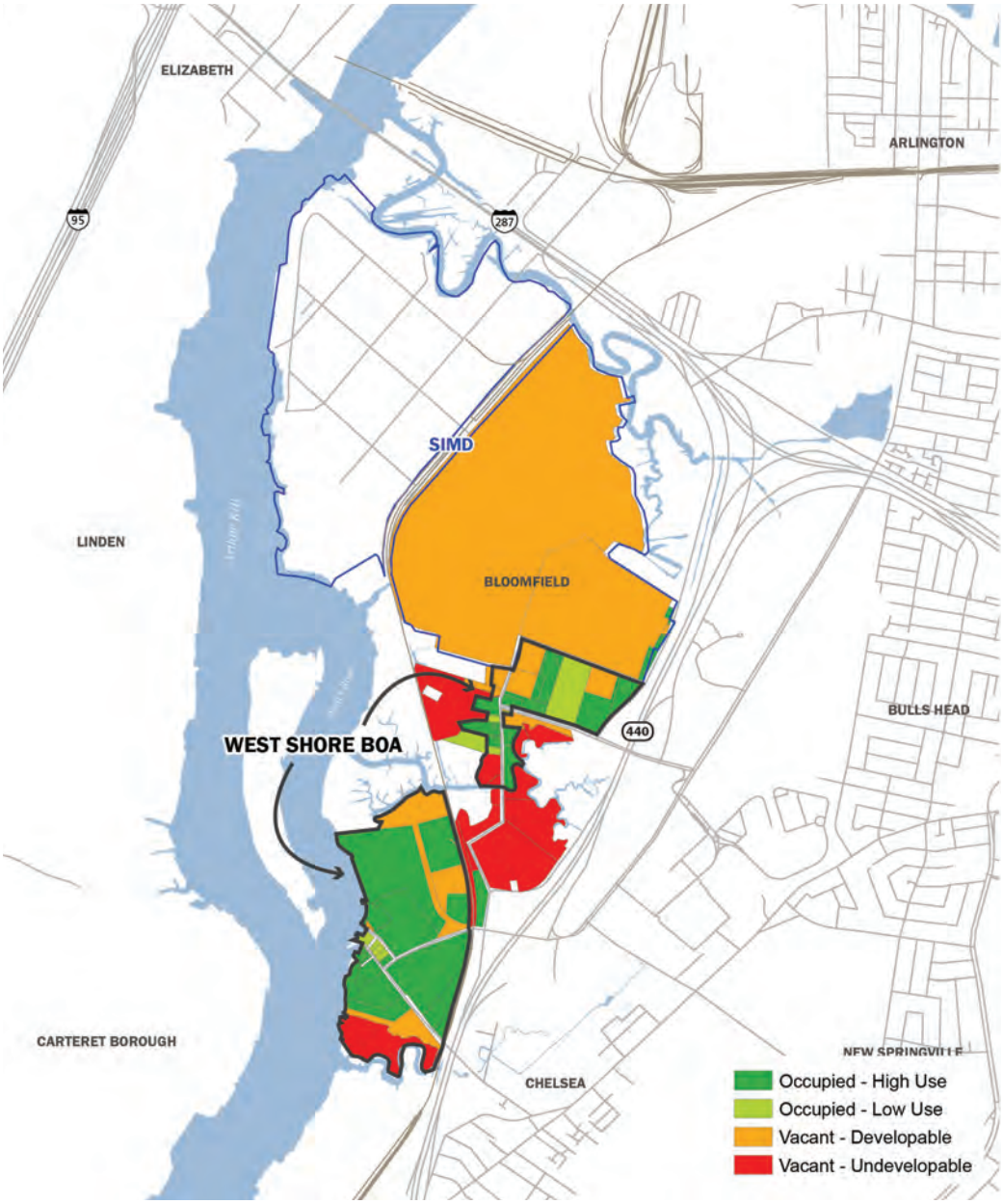


Figure 17. First Draft of Strategic Sites Map

Initial List of Strategic Sites

- Chelsea Self Storage Facility
- Dealer Storage Corp
- Difazio Construction
- Island Charter
- J & A Bruno
- JDR Properties
- Ram Cherukuri
- River Road
- Rockys Construction
- SI Self Storage Corp
- SIMD
- South Shore Enterprise
- Vanbro Corporation
- WWC Corp
- 410 Spencer Street
- 414 Spencer Street
- 422 Spencer Street
- 436 Spencer Street
- 501 Industry Road

Figure 18. Second Draft of Strategic Sites Map

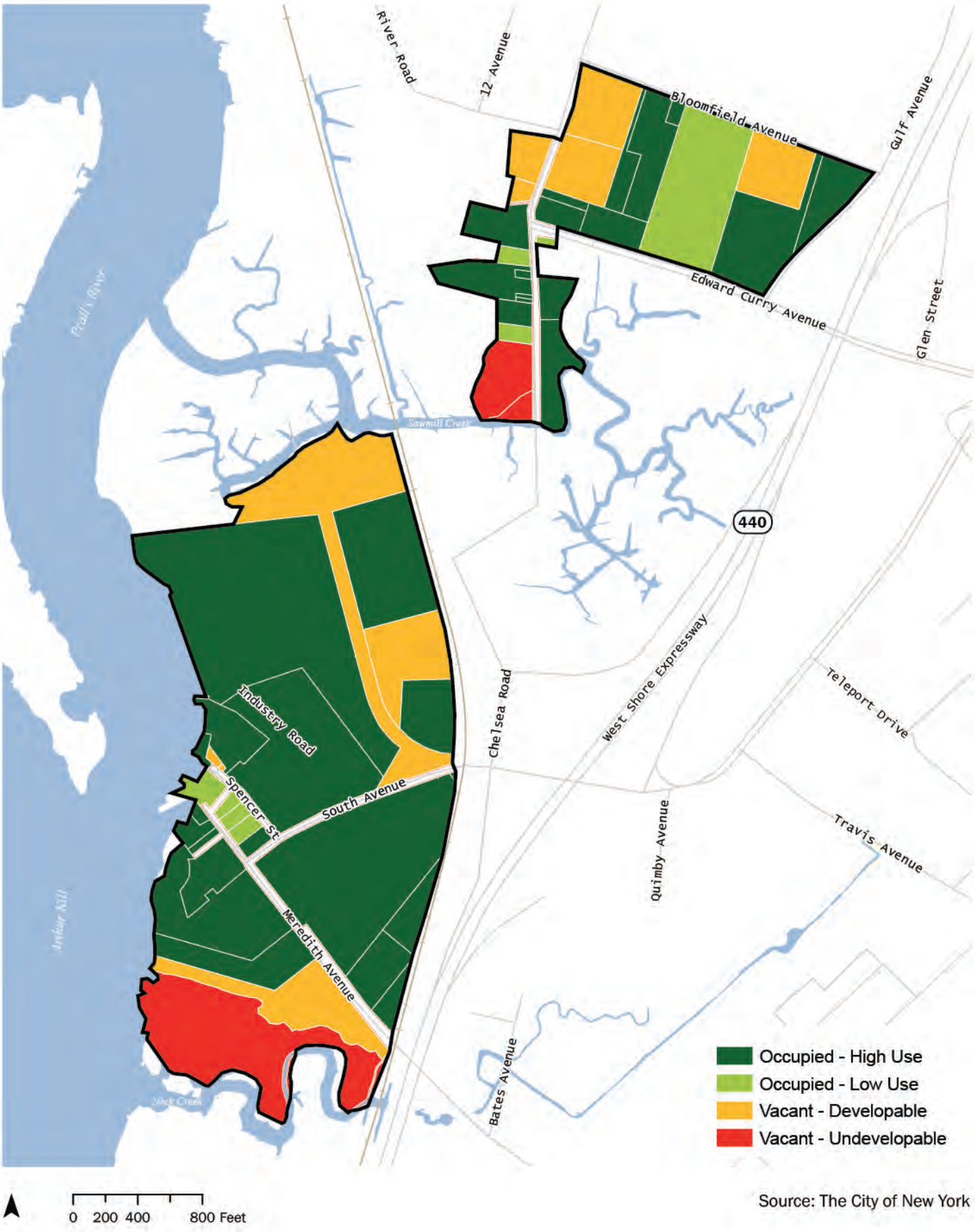
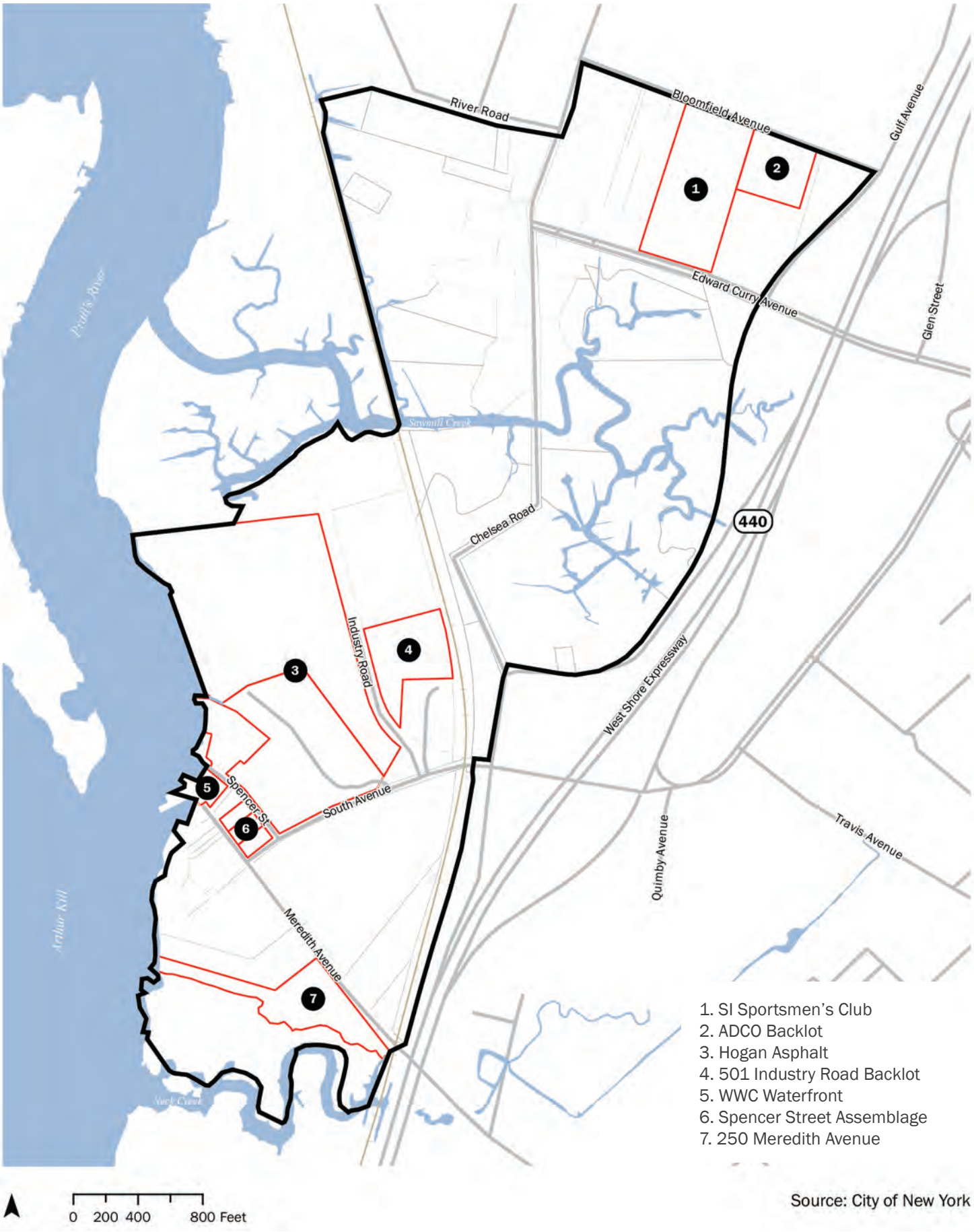


Figure 19. Final Strategic Sites Map



1. SI Sportsmen's Club
2. ADCO Backlot
3. Hogan Asphalt
4. 501 Industry Road Backlot
5. WWC Waterfront
6. Spencer Street Assemblage
7. 250 Meredith Avenue

Source: City of New York

Brownfield, Abandoned, Vacant and Underutilized Sites

Based on a review of various data sources (city, state and federal), aerial photography, site visits and extensive discussion, a number of vacant, underutilized and brownfield sites were identified throughout the West Shore BOA. Out of all the sites identified, seven key sites were determined to be relevant to the study (the same as the strategic sites): The ADCO Backlot, the Vanbro Site, 501 Industry Road Backlot, WWC Waterfront, Spencer Street Assemblage and 250 Meredith. A summary and analysis of each site are on the following pages. The sites that were not selected were either undevelopable, not a priority, or active sites with no known contamination. For environmental records of all the sites in the BOA see the environmental report in the addendum.

Brownfield Definition

A Brownfield is any real property (active, vacant or underused) where redevelopment or re-use may be complicated by the presence or potential presence of a hazardous waste, petroleum, pollutant, or contaminant (Source: NYCDEC). The goal of Brownfield redevelopment is to clean up land and convert vacant/underutilized sites to the highest and best use.

Relevant Brownfield, Abandoned, Vacant or Underutilized sites

1. SI Sportsmen's Club

2. ADCO Backlot

3. Hogan Asphalt

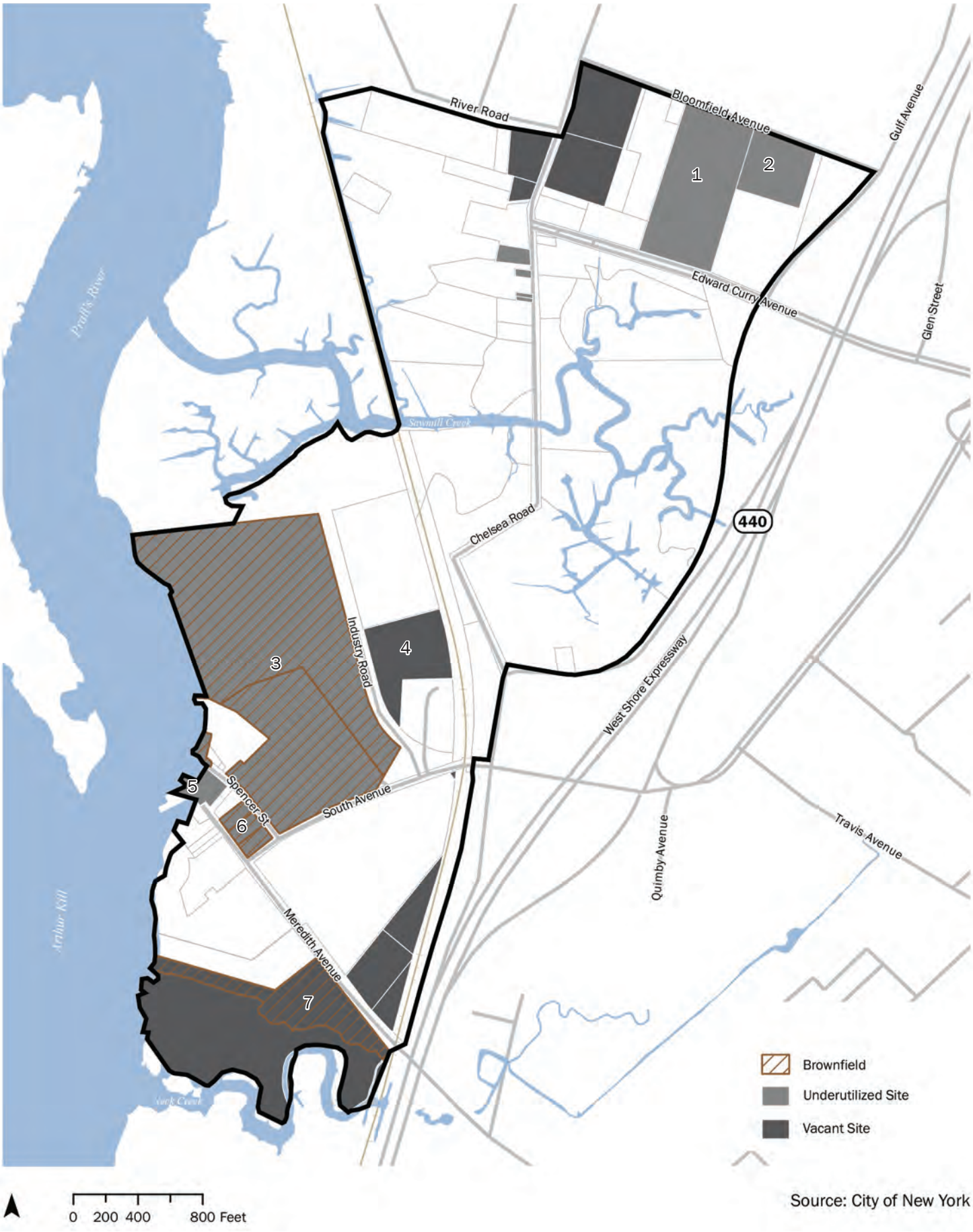
4. 501 Industry Road Backlot

5. WWC Waterfront

6. Spencer Street Assemblage

7. 250 Meredith

Figure 20. Underutilized Sites Location Map



1. SI Sportsmen's Club

Owner: SI Sportsmen's Club
Address: 170 Bloomfield Ave (Block 1780, Lot 164)
Size: 10.01 acres
Classification: Underutilized
Difficulty Ranking: 1

The Staten Island Sportsmen's Club is a semi-active trapshooting club located in the northeastern portion of the BOA. The site consists of a 2,000-square foot clubhouse, parking lot and shooting range. The club site sits in the M3-1 zone and is a non-conforming use. The site likely has all the utilities available for construction and there is direct access to Bloomfield Avenue and Edward Curry Avenue, as well as close proximity to Gulf Avenue and the West Shore Expressway. Since there was no previous industrial activity, it is unlikely there is any heavy contamination. Though due to its close proximity to the former GATX site it is possible there may be some light contamination that spread on the site. The site is underutilized and should be redeveloped to a more productive use consistent with the BOA's industrial activity.

Figure 21. SI Sportmen's Club Basemap

Figure 22. View of SI Sportmen's Club from Bloomfield Avenue

2. ADCO Backlot

Owner: Addwell LLC
Address: 160 Bloomfield Ave (Block 1780, Lot 186)
Size: 3.67 acres
Classification: Underutilized
Difficulty Ranking: 1

The ADCO backlot is a semi-vacant site also located in the northeastern portion of the BOA. Parts of it are currently used for a Transco natural gas transfer station and temporary staging for the Matrix Development. The site is split between M3-1 and M2-1 zones, though is primarily M3-1. There are likely all the necessary utilities available for construction and there is direct access to Bloomfield Avenue. The site is in close proximity to Edward Curry Avenue and the West Shore Expressway. Since the site was undeveloped until the early 2000s and has no previous industrial activity, it is unlikely there is any heavy contamination. Though due to its close proximity to the former GATX site it is possible there may be some light contamination that spread on the site. The site could be developed into another office building or into a light industrial facility.

Figure 23. ADCO Backlot Basemap

Figure 24. View of the ADCO Backlot from Bloomfield Avenue

3. Hogan Asphalt

Owner: Vanbro Corporation
Address: 1900 South Avenue (Block 1801, Lot 75, 35)
Size: 42.12 acres
Classification: Underutilized
Difficulty Ranking: 2

The Vanbro site is the largest property in the BOA, located across from the West Shore Plaza Mall. It is currently being leased by Hogan Asphalt /Richmond Recycling and is primarily used for aggregate recycling. It is zoned as M3-1. The site has all the necessary utilities for development available and according to the owner, it is "turn-key" for development. The site has direct access to South Avenue, the SI Rapid Transit freight line and the Arthur Kill. The Vanbro Site is directly adjacent to Saw Mill Creek Marsh, Dealer Storage, 501 Industry Road, Staten Island Recycling and Prall's River. According to historic aerials, the Vanbro site appears to be the oldest industrial site in the BOA. It was and is still partially owned by the Vanderbilt family and was used for shipping. At one point, there was dock connected to the site that extended all the way up Prall's River. Based on a review the use and environmental records there have been oil spills on site and is registered in EPA RCRA database. The site could be further developed into a full-scale resource recovery park or pick and pack warehouses.

Figure 25. Hogan Asphalt Basemap

Figure 26. View of the Hogan Asphalt site

4. 501 Industry Road Backlot

Owner: 501 Industry Road LLC
Address: 501 Industry Road (Block 1801, Lot 170)
Size: 5.39 Acres
Classification: Vacant
Difficulty: 2

The 501 Industry Road Backlot is a vacant undeveloped lot located behind the Indoor Extreme Sports building. It is zoned M3-1 and M2-1, though is primarily in the M3-1 zone. Since the site is undeveloped it likely does not have the needed utilities for development but could easily connect to the utilities for the Indoor Extreme Sports building. The site has access to South Avenue through the front lot, and could potentially connect to the SI Rapid Transit Freight line. The lot is currently heavily vegetated and due to recent adjacent development has become wetlands. Some of the adjacent properties include Dealer Storage, SI Rapid Transit Freight Line, 501 Industry Road Front lot and the inactive Industry Road – across from Industry Road is the Vanbro Site. The site had no previous record of development or industrial use, though due to its proximity to other industrial uses it may contain some level of contamination. The 501 Industry Road Backlot was previously owned by Superior Confections Inc and is now owned by 501 Industry Road LLC.

Figure 27. River Road Basemap

Figure 28. 501 Backlot

5. WWC Waterfront

Owner: JDR Properties Llc (Richard Martucci)
Address: 358 Meredith Ave (Block 1801, Lot 20)
Size: 0.69 Acres
Classification: Underutilized
Difficulty: 1

The WWC Waterfront is a waterfront property that sits on Prall's River/Arthur Kill. It has several docks with boats anchored, though the site is currently used as construction storage yard and office space. The site is zoned as M3-1. It has basic utilities for development, though those utilities likely need modernization. The site has access to Prall's River as well as Meredith Ave and Spencer Street. Some of the adjacent business include Vanbro, Staten Island Recycle, Total Relocation Services and SI Concrete (which has the same landowner). The site has been used for industrial purposes for over fifty years, therefore, there may be some contamination present. The site has potential to be modernized and become an active small port.

Figure 29. WWC Waterfront Basemap

Figure 30. WWC Waterfront

6. Spencer Street Assemblage

Owners: Block 1802 Realty LLC, 934 Crescent Street LLC, and Linda Russo
Address: 410, 414,420 Spencer Street (Block 1801, Lots 31,30,27)
Size: 1.37 Acres
Classification: Underutilized
Difficulty: 1

The Spencer Street Assemblage is a group of three small properties that sit between Meredith Avenue and Spencer Street. The sites are used for truck and equipment storage and offices. The current businesses include SWF Trucking, Design Plumbing and Heating Services and Venosa Louis Excavator. The sites are zoned M3-1. It is likely the properties have needed utilities for redevelopment, though would need to be modernized. All three sites have access to Meredith Avenue and Spencer Street and 410 Spencer Street also has direct access to South Avenue. While all three sites may have some level of contamination. 422 Spencer Street does have a record of an oil spill. Due to the fact, all structures in the assemblage are in poor condition and each site is small. It is recommended that they are demolished and sold to one developer.

Figure 31. Spencer Street Assemblage Basemap

Figure 32. View of Spencer Street Assemblage from South Avenue

7. 250 Meredith

Owner: Sam & Frank Mezzacappa
Address: 250 Meredith Avenue
Size: 7.36 acres
Classification: Vacant
Difficulty: 1

250 Meredith is a vacant site located at the bottom of the BOA. It was once the location of the Positive Chemical, a chemical waste storage company and a former New York State Superfund site, which was partially cleaned up in the 1990s and now sits unused. The site is zoned as both M2-1 and M3-1. The site likely has basic utilities available, but would likely need to be modernized. It has direct access to Meredith Road and is in close proximity to the West Shore Expressway. The site is directly adjacent to Meredith Woods Marsh and could be further cleaned up and developed for industrial use or recreational open space.

Figure 33. 250 Meredith site basemap

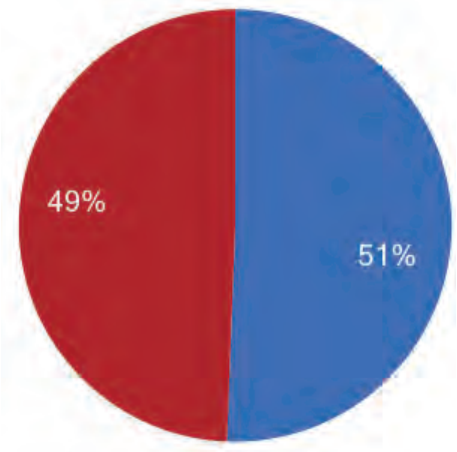
Figure 34. View of the 250 Meredith site from Meredith Street

Land Ownership Patterns

The land in the West Shore BOA is almost divided equally in half in terms of ownership. 51% (156.16 acres) of the land is publicly owned and 49% (152.33 acres) is privately owned. Of the sites that are publicly owned, all are owned by the city (as opposed to county or state), and all are either undeveloped land or official parks. The primary city agencies responsible for the city-owned properties are the NYC Department of Citywide Administrative Services (DCAS), NYC Department of Environmental Protection and NYC Parks. Saw Mill Creek Marsh and Meredith Woods make up the majority of the public land. See the following page to view which parcels are officially owned by NYC Parks (See the ownership table in the appendix for more details).

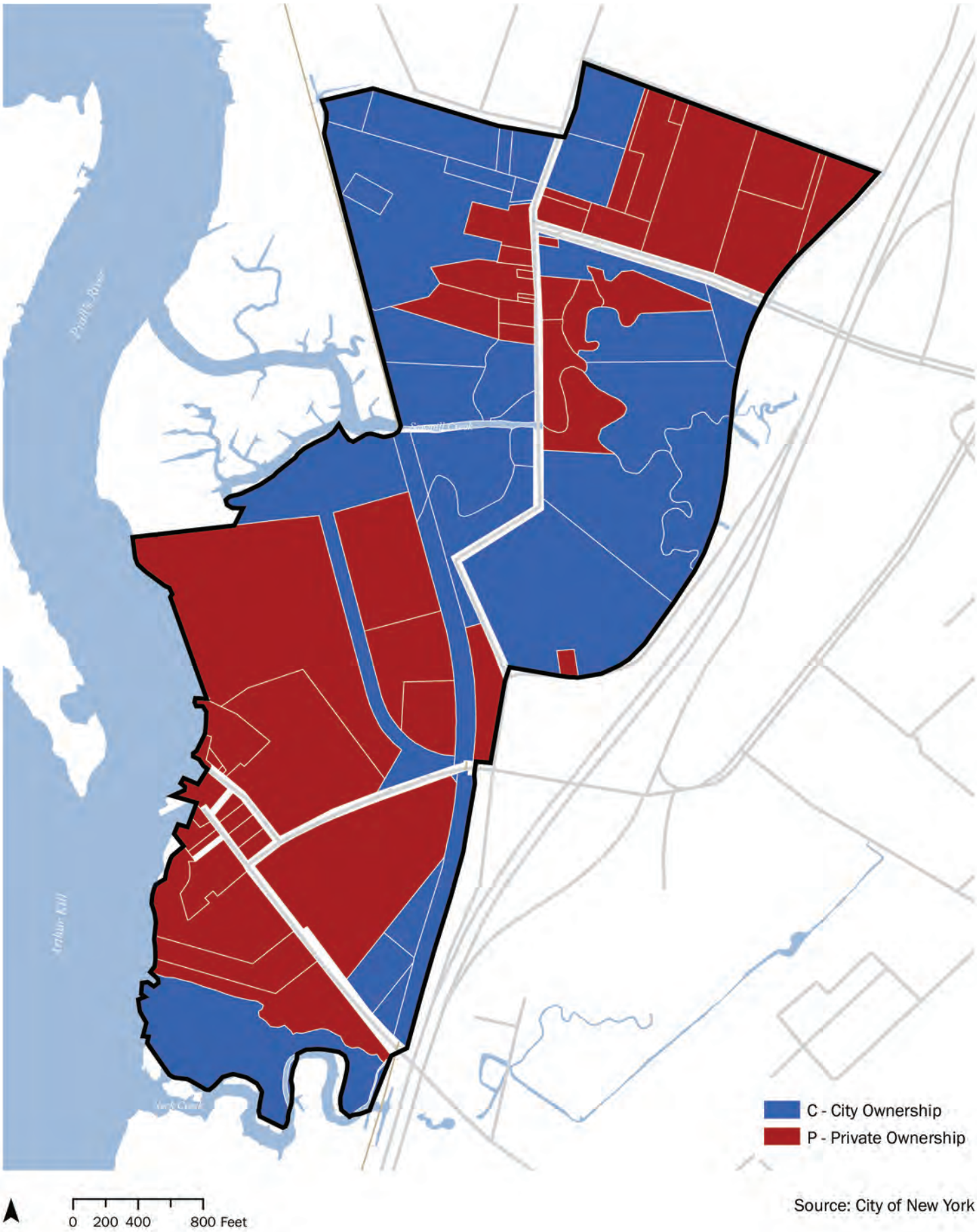
The majority of the brownfields in the BOA are privately owned, though there are a number of publicly owned sites that could be potentially brownfields such parts of Saw Mill Creek Marsh and Meredith Woods as well the River Road sites. The River Road sites are owned by the DCAS and partially inundated with water and partially usable. The portion that is inundated could be used for enhanced district stormwater management and Faztec Industries would be interested in purchasing the usable portion. There is also a portion of the Saw Mill Creek Marsh that is privately owned by Island Charter (Block 1780, Lot 250) that could be swapped for a parcel owned by NYC Park Department that is along the road (Block 1780, Lot 69), This swap would allow for further economic growth and more contiguous park land.

In regards to publicly owned right-of-way (ROW) -- Industry Road is an unmapped road and publicly owned ROW, though it is unused for circulation and is partially used by Dealer Storage for car parking. The owner of 501 Industry Road has expressed interest in purchasing public property in order to construct a tent structure for indoor soccer, though official access is needed to the Dealer Storage site, which currently uses the same access as Hogan Asphalt and Richmond Recycling.



Ownership	Area (Acres)
C - City Ownership	156.16
P - Private Ownership	152.33

Figure 35. Land Ownership Pattern Map



Parks & Open Space

The West Shore BOA includes two official city-owned parks and a variety of unofficial city-owned open space. Perhaps the most well-known park in the BOA is the Saw Mill Creek Marsh, which sits between the northern and the southern portions of the BOA. The Saw Mill Creek Marsh is one of the largest expanses of tidal marsh on Staten Island's West Shore and is currently the focus of a number of restoration initiatives including work by the NYC Parks' Salt Marsh Restoration Team and New York City's first wetland mitigation bank the MARSHES Initiative. Another notable park/open space is Meredith Woods, which is also a tidal marsh and is located in and around the southern portion of the BOA. Neck Creek runs through Meredith Woods. Other unofficial city-owned open space includes several sites near the intersection of River Road and the area behind the West Shore Plaza.

Furthermore, the West Shore BOA is adjacent to a number of notable other parks and open spaces. Prall's Island, an important wildlife bird sanctuary, sits right across the Prall's River west of the BOA and the Staten Island Industrial Park is right across the West Shore Expressway east of the BOA. Further north is Old Place Creek which is another named salt marsh and further south is William T. Davis Wildlife Refuge and Fresh Kills Park a 3600-acre former landfill now being transformed into a natural preserve intended to become a major tourist destination.

It's also worth mentioning, SIEDC and the WS BID support parks and open space in the West Shore BOA through a unique partnership with NYC Parks where they provide security and maintenance. SIEDC also assists the MARSHES Initiative with their federal applications.

Figure 36. Saw Mill Creek

Figure 37. Meredith Woods

Source: NYC Parks

Figure 38. Parks and Open Space Map

Building Inventory

Since the West Shore BOA primarily consists of low-density heavy industry, there are few large buildings compared to other parts of the city. According to the NYC Building data, there are 75 buildings total in the BOA though most are smaller – 68 out of the 75 are less than 10,000 square feet. Some of the key buildings include the ADCO Building and Island Charter/Chelsea Playground Building in the northern portion and the Extreme Sports building, West Shore Plaza Mall, MTA Bus Depot, and 280 Meredith Warehouse building in the southern portion. It also should be noted that there are a number of smaller buildings in the BOA that are in poor condition, such as the 422, 414, and 410 Spencer Street, that should be demolished.

Figure 39. ADCO Building

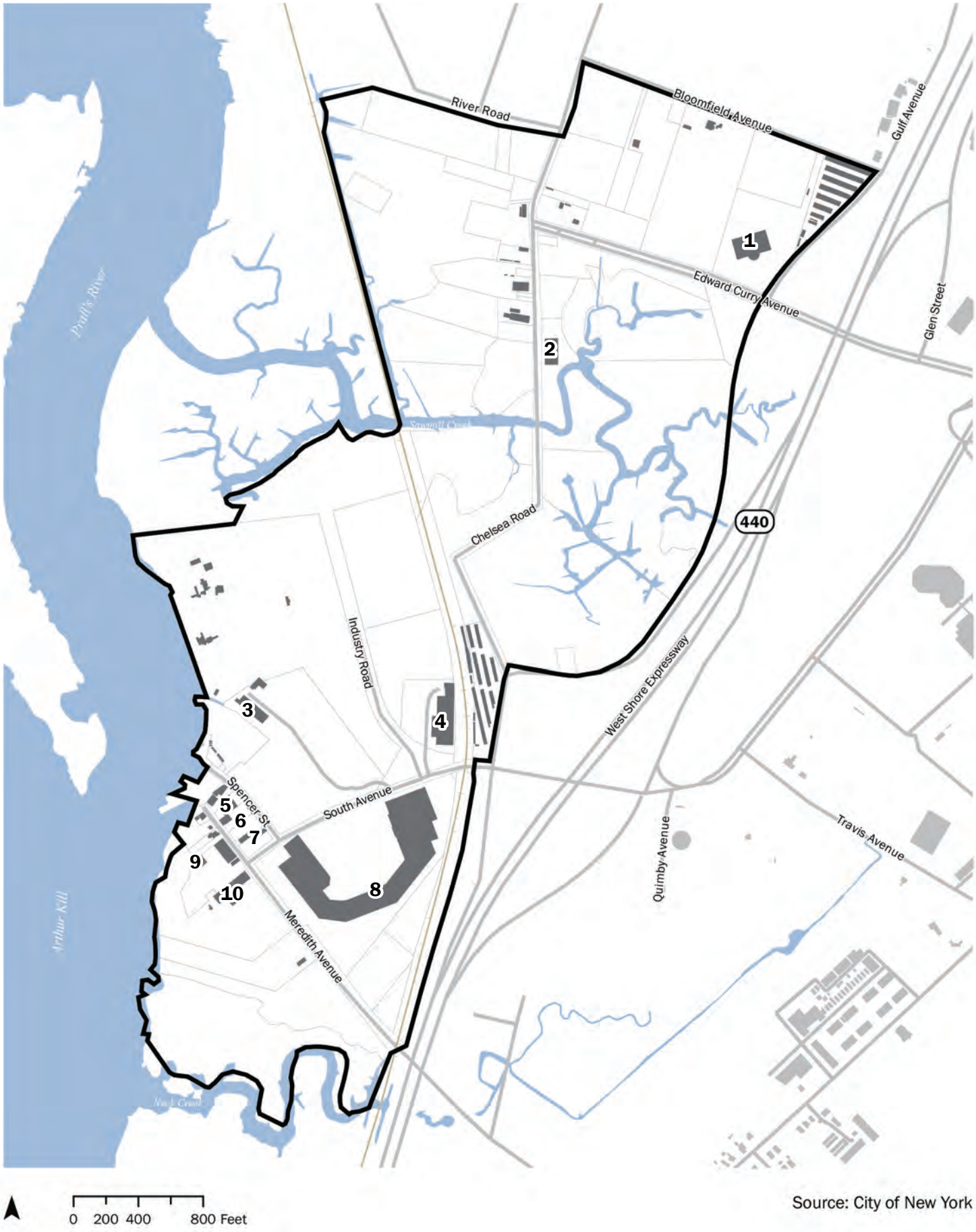
Figure 40. West Shore Plaza

Figure 41. Indoor Extreme Spots Building

Key Buildings

ID	Name	Constructed in	Elevation	Levels	Square Footage	Original Use	Current Use	Condition	Ownership
1	ADCO	2001	16	3	29,480	Office	Office	Good	Addwell LLC
2	Island Charter/Chelsea Playground	1972	10	1	12,984	Office and garage, Indoor Playground	Office and garage, Indoor Playground	Fair	I.C. Properties, LLC
3	Vanbro	1940	10	1	12,645	Storage	Storage	Fair	Vanbro Corporation
4	Indoor Extreme Sports	1975	8	1	40,152	Chocolate Factory	Sports Facility	Good	501 Industry LLC
5	SWF Trucking	1950	12	1	2,865	Unknown	Warehouse	Poor	Linda Russo, Trustee/ Mary Venosa
6	414 Spencer St	1989	11	1	2,453	Unknown	Warehouse	Poor	Block 1802 Realty, L
7	410 Spencer St	1989	10	1	1,456	Unknown	Warehouse	Poor	934 Crescent Street
8	West Shore Plaza Mall	1990	8	1	268,464	Mall	Mall	Good	Shore Plaza Llc C/O A
9	MTA Bus Depot	2009	9	1.5	14,690	Bus Depot	Bus Depot	Good	Bruno, John
10	280 Meredith Warehouse	1986	10	1	14,763	Warehouse	Warehouse	Good	J & A Family Limited

Figure 42. Buildings Inventory Map



Historic and Archaeologically Significant Sites

While the West Shore BOA does not include any official historic and archaeologically significant sites per se, there has been notable historical activity in the area. Based on New York City Parks records, the Saw Mill Creek Marsh was once used by the Lenni Lenape tribe and colonists for its abundance of oysters and growing corn, squash, and beans. And in the early 1900s, the area along the Arthur Kill was used for docking various boats and had several residential properties. According to an aerial photograph, the docks once extended all along Pralls River.

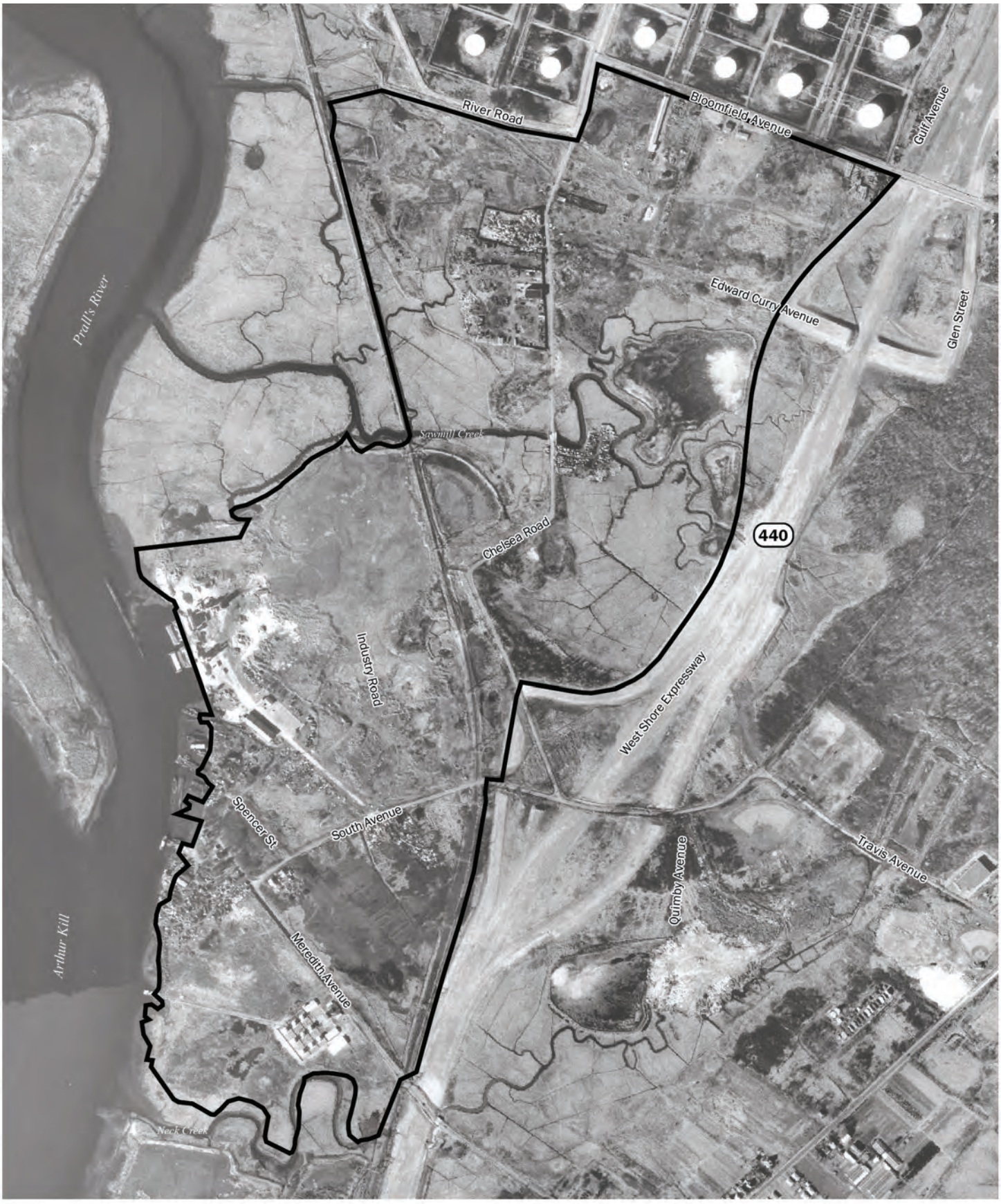
Apart from the Sportsmen's Club, Vanbro and Positive Chemical (250 Meredith), the BOA was largely undeveloped up until the 1970s when the West Shore Expressway was constructed (as shown on Figure 45). Following the construction of the Expressway, land use in the West Shore became dominated by industrial activities, most notably construction, with much of the land devoted to the storage of heavy equipment. In 1973, the area experienced the worst industrial disaster in Staten Island history when a liquefied natural gas tank exploded killing 40 people. It should also be noted that the neighboring Travis-Chelsea neighborhood was also once named 'Linoleumville" as a consequence of a linoleum factory having once been built there. A large Con Edison Substation and a number of stores on Victory Boulevard now stand where the site of the former linoleum factory was.

In the 1990s, the West Shore Plaza and a string of large office complexes were built along South Avenue which begins in the BOA and ends in the North Shore. Also, adjacent to the BOA is the Teleport, a high-tech industrial park built in the early 1980s for communications companies like AT&T. Other businesses arrived in the 2000s, including the Hilton Garden Inn in 2001.

Figure 44. Photo of United States Shipping Boat tied up from Spencer Ave in 1937 (Source: New York Public Library)

Figure 43. Homes on Meredith Ave in 1937 (Source: New York Public Library)

Figure 45. Historic Aerial (1970)



Source: Historic Aerials

Transportation Systems

The West Shore BOA is connected by a variety of different transportation systems including roads, rail and waterways. One of the most significant roads/highway is the West Shore Expressway-440 which runs north-south along the east side of the BOA. Visitors and trucks primarily use the West Shore Expressway and Exits 8-9 to get to and from the BOA. Within and around the BOA there several notable roads such as Bloomfield Avenue, Gulf Avenue, Glen Street, Edward Curry Avenue, Chelsea Road, South Avenue and Meredith Avenue. There are also two smaller dead-end streets, Spencer Street and Industry Road (which is unmapped and not accessible). A number of roads in the BOA experience flooding on a regular basis, on account of the low elevation and effects of flash flooding from rain or storm event. Few of the roadways have defined striping, curbs, or formalized widths, with the exception of Edward Curry Avenue.

The BOA also has several docks for maritime access to Pralls River and the Arthur Kill. These docks are located on the Vanbro/Hogan Asphalt and WWC Waterfront sites respectively. Since Pralls River is not dredged deep, only smaller boats and barges can access the docks.

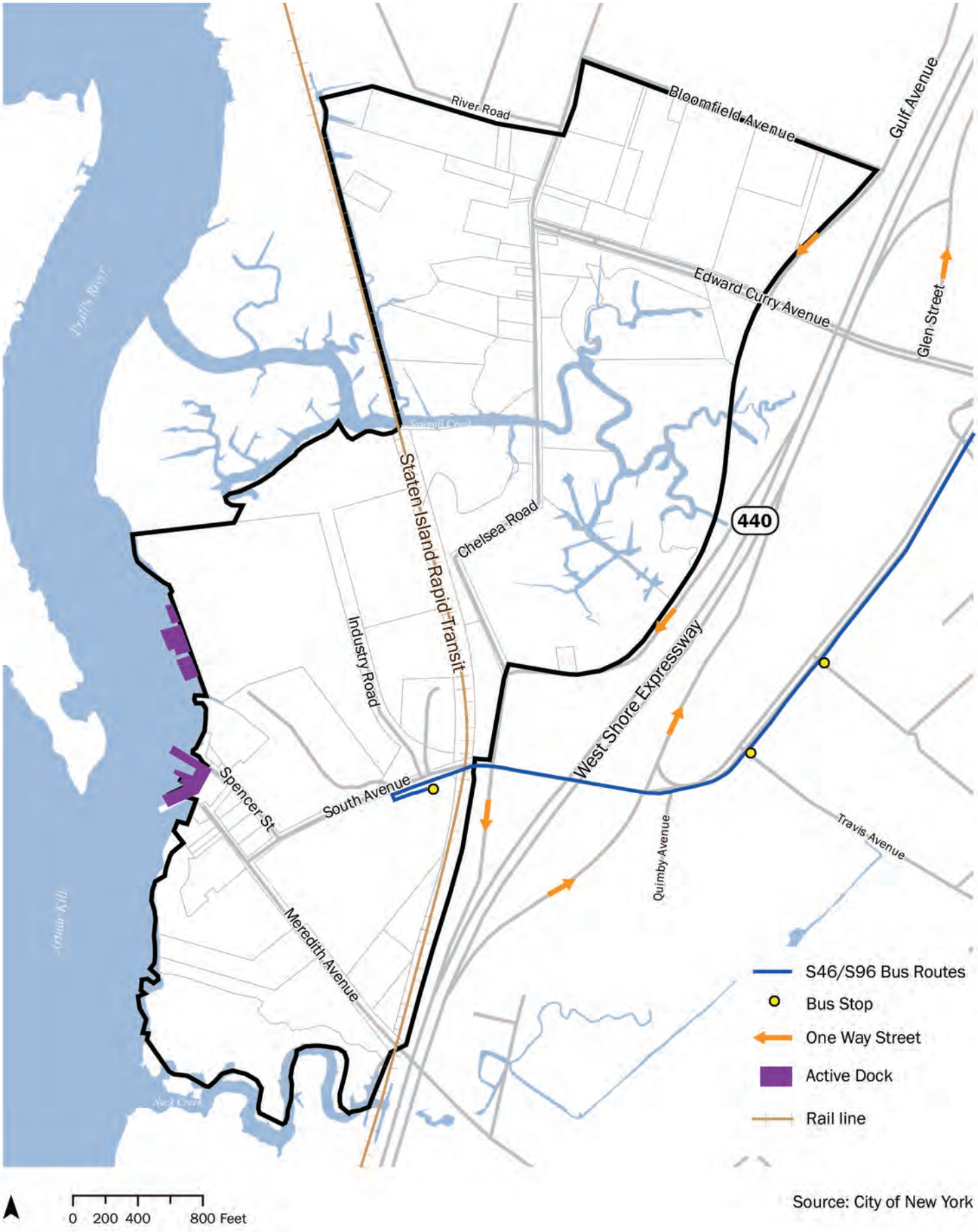
Finally, the Staten Island Rapid Transit freight rail line runs directly through the BOA, and while it currently doesn't stop in the BOA – it could. The Vanbro Site/Hogan Asphalt, in particular, has a spur that could easily accommodate freight access and the 501 Industry Road and Self-Storage sites sit directly on the line. While residential development is unlikely there is potential for industrial and commercial based transit-oriented development. Currently, there is a proposal for the line to become a passenger light rail line (West Shore Light Rail) that could stop in the BOA and allow residents from the residential neighborhoods from the north to take the train to and from the BOA for work.

Figure 46. South Avenue entrance to the BOA

Figure 48. Edward Curry entrance to the BOA

Figure 47. Staten Island Rapid Transit

Figure 49. Transportation Map



Infrastructure

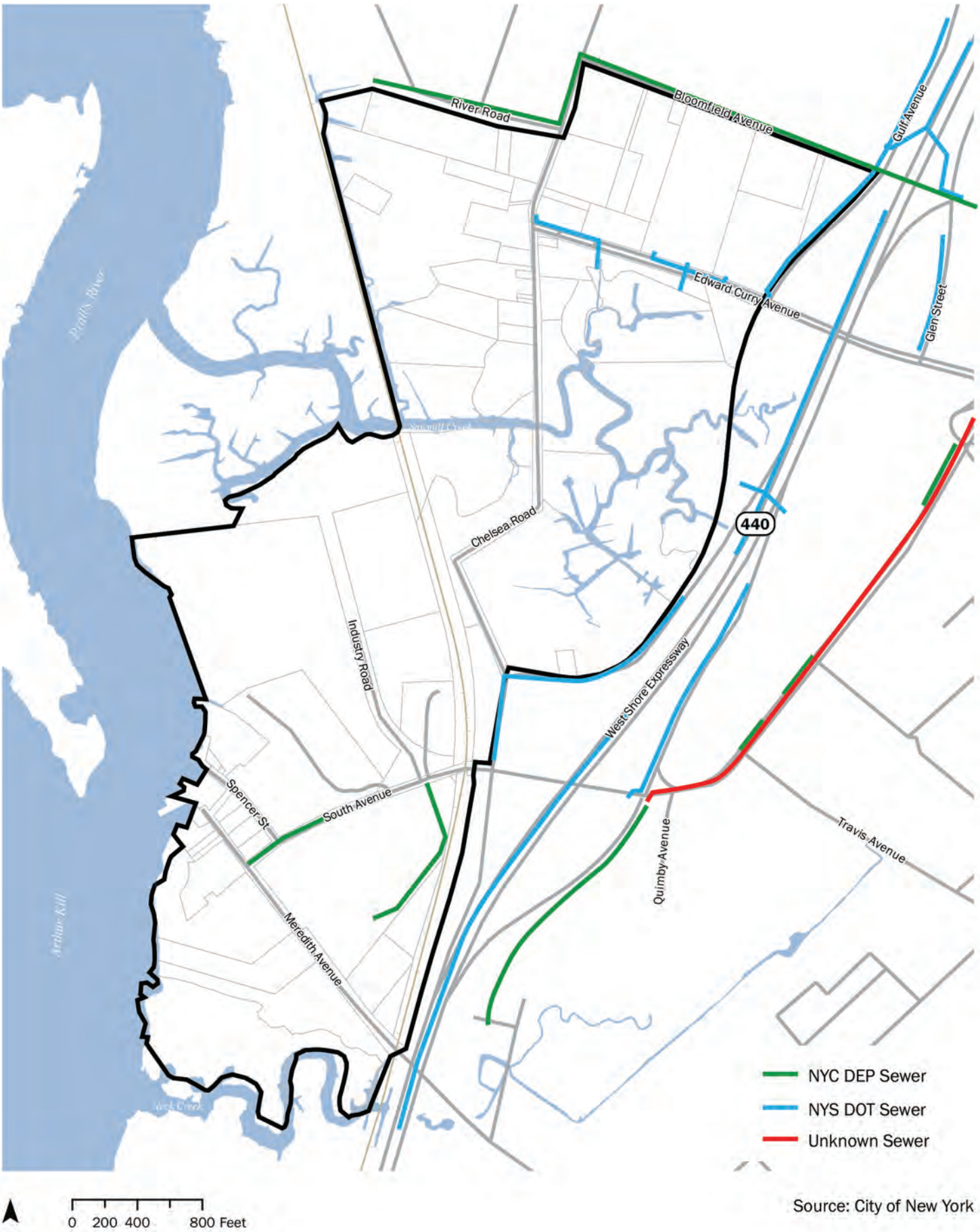
The infrastructure of the West Shore BOA is not incredibly complex compared to the rest of the city since it's a primarily low-density heavy industrial area primarily used for storing aggregate, materials, and cars/buses. It includes basic roads, a rail line, a bridge, several docks, above-ground power wires, sewers, etc. Figure 49 (on the previous page) shows the transportation system and Figure 52 shows the sewer system. There are two types of sewers in the BOA (combined sanitary and strictly stormwater) managed by two different agencies (NYC DEP and NYC DOT). The only sanitary sewer is under Bloomfield Avenue and is pumped to the Port Richmond Water Pollution Control Plant, the non-sanitary sewers drain the local waterways, which is problematic on many levels.

The infrastructure in the BOA suffers from a number of issues principally due to heavy use from trucks, flooding, and inadequate maintenance. Significant improvements are needed to maintain and improve the functionality of the BOA in the future and to be able to accommodate the planned redevelopment envisioned in this document. One of the most pressing issues is a collapsed sewer main on Bloomfield Ave which causes excessive flooding on the road. Further information is discussed in the findings and recommendations section.

Figure 50. Flooding on Bloomfield Avenue

Figure 51. Street conditions on Spencer Street

Figure 52. Infrastructure Map



Natural Resources & Environmental Features

As discussed in the Parks & Open Space section, the West Shore BOA includes two ecologically important areas and is near several others. The first and most notable is the Saw Mill Creek Marsh, which sits in the middle of the BOA, and is one of the largest expanses of tidal marshes in Staten Island as well as the first wetlands mitigation banks in New York City. The other is Meredith Woods, which is a marsh that runs along Neck Creek in the southern portion of the BOA. It is also worth mentioning Pralls Island, which is across Pralls River to the west of the BOA and is an important bird sanctuary and Staten Island Industrial Park which is across the West Shore Expressway to the east of the BOA. Old Place Creek is further north and William T. Davis Wildlife Refuge, as well as Fresh Kills Park,are also further east and south.

Perhaps the most important natural resources & environmental features in the BOA are the marshes/ wetlands. Marshes and wetlands, are home thousands of species, clean water and provide flood protection. As shown in Figure 57, there are four types of mapped wetlands in the BOA, high marsh, intertidal marsh, formerly connected and freshwater. In some cases freshwater overlaps with tidal which results in a brackish condition.

Finally, one cannot discuss the future of the BOA without mentioning flooding and sea level rise. Due to its direct adjacency to the Arthur Kill, and Pralls River, Saw Mill Creek and low elevation, the BOA is highly vulnerable to both. The following flood hazard and sea level rise map (Figure 58) shows that the majority of the BOA is at risk. The teal blue shows the FEMA 100 Year flood zone and the orange shows the 500 year. As can be seen, the majority of the marsh and unused land is within the 100 Year flood zone and the developed and used portions are within the 500 year. Also, shown on the map is 2-feet of sea level rise which may be the average high tides by 2050 and the 5-feet of sea level rise which maybe the average high tides by 2100. What is especially notable is that a large portion of the Hogan Asphalt Site and the Sportsmen's Club will be underwater if the sites are not elevated.

Figure 53. Saw Mill Creek Marsh Restoration

Figure 54. Saw Mill Creek Marsh Restoration

Figure 55. River Road Site

Figure 56. Natural Resources & Environmental Features Map

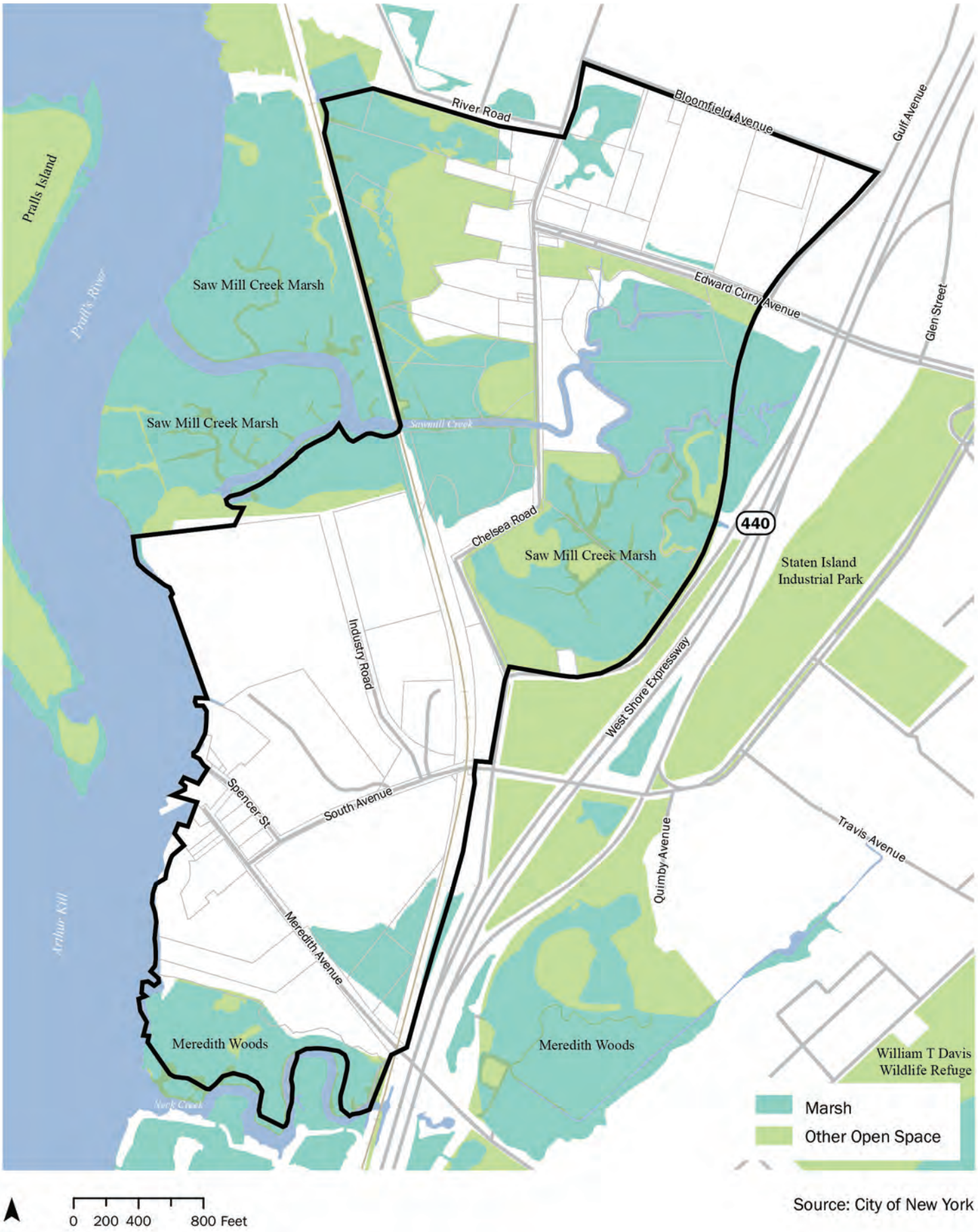


Figure 57. Wetlands Map

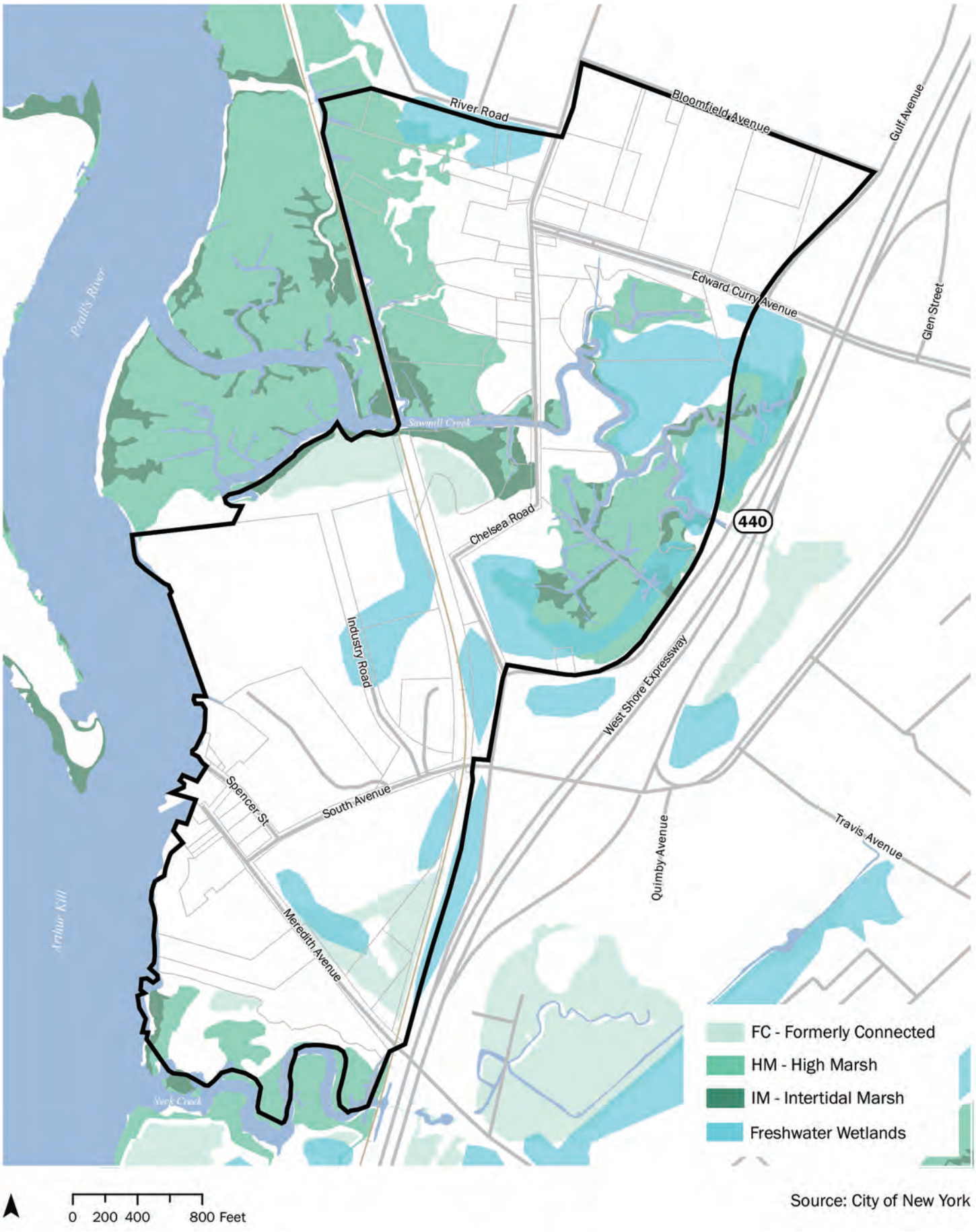
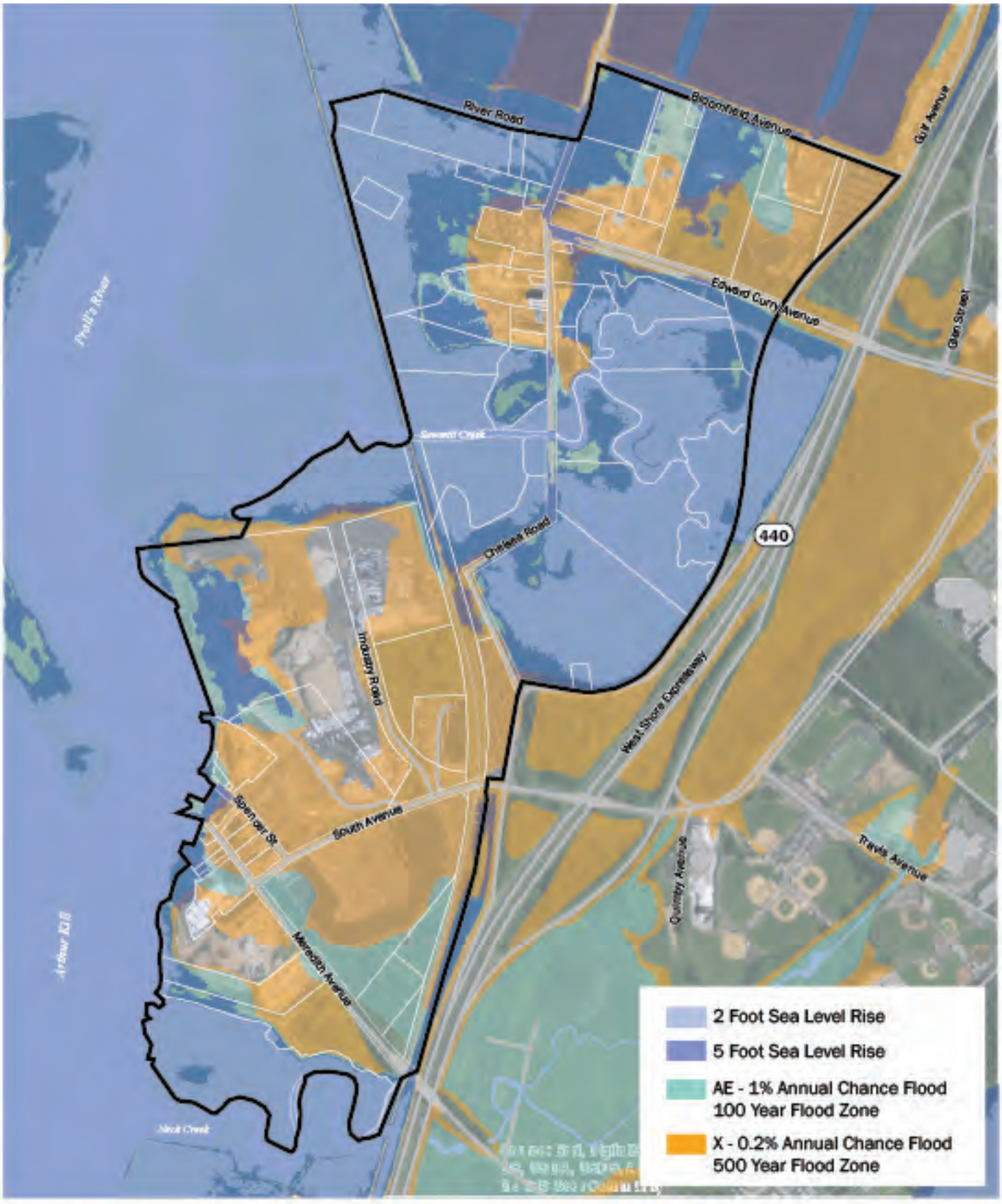


Figure 58. Sea Level Rise and FEMA Flood Zones Map



Source: City of New York

Economic and Market Analysis

Overview

Several types of economic activities and potential markets were evaluated as part of this revitalization plan, including; retail centers, medical and health related services, sports and entertainment, logistics and freight management, industry and eco-tourism as part of a natural resource protection and storm resiliency plan. The potential to grow existing business assets and develop new business was evaluated. This analysis also incorporates recommendations of the West Shore BOA Steering Committee, the Working West Shore 2030: Creating Jobs, Improving Infrastructure and Managing Growth and the Vision 2020 Comprehensive Waterfront Development Plan and is supported by data generated by the New York Metropolitan Transportation Council, the Port Authority of New York and New Jersey and the NYC Department of City Planning.

The micro economy for the area in and around the West Shore BOA includes a variety of sectors ranging from Hospitality, Energy, Government, Logistics and Entertainment/Local Sports. Hilton, UPS, NRG, National Grid, various Banking & Retail establishments and restaurants. These businesses have not developed to a larger extent within the BOA due to the lack of a residential population cluster within the BOA to support these businesses, undeveloped infrastructure and development challenges associated flooding within large portions of the BOA. While these micro economic activities are vital to the health of Staten Island, it is unlikely that there will be a significant expansion of these business sectors throughout the BOA due to environmental constraints. The BOA is a relatively low-lying wetlands habitat subject to storm-event flooding and the anticipated impacts from sea level rise associated with climate change.

The exception to this land use pattern is the West Shore Plaza Mall at the southern part of the BOA. The future of retail development is uncertain as it has been on the decline, nationally, due to the growth of on-line shopping. It is unlikely that this trend will reverse in the immediate future. Retail development is not identified as a development priority in the West Shore area.

The City University of New York (CUNY) and other health and wellness businesses surrounding the West Shore may provide development opportunities for off-site support services, such as research and development facilities or laboratories, within the BOA. There is not a residential population cluster within the BOA that will support the development of patient care medical and health care facilities within the BOA.

It is the West Shore role in the regional, national and global macro economy that may represent the greatest economic growth potential for the West Shore. The West Shore BOA is adjacent to the Howland Hook Marine Terminal to the north, home to the Global Container Terminal New York (GCT NY), part of the greater New York-New Jersey harbor complex. The Port Authority of New York and New Jersey (PANYNJ) and the New York Metropolitan Transportation Council (NYMTC) report that the New York-New Jersey harbor complex is the largest shipping port on the East Coast and the third largest shipping port in the United States. The NYMTC Regional Freight Plan 2018-2045 projects a 67% growth in freight movement through the New York metropolitan region by 2045.

The PANYNJ has made significant infrastructure investments to support port growth and maximize the competitive advantages of the New York-New Jersey port facilities. The PANYNJ 30-Year Port Master Plan describes these investments. A ten-year program to deepen the shipping channel to 50 feet was completed in 2016 at a cost of $1.6 billion. The decking of the Bayonne Bridge was raised at a cost of $240 million to accommodate the larger ships arriving here through the recently expanded Panama Canal. An ExpressRail network was developed to facilitate the movement of freight by rail, including an ExpressRail Staten Island line with connections to the Staten Island Railroad Main Line near Howland Hook Marine Terminal and Abington Yards. These are all investments that can and should be leveraged to support warehousing and industrial development in the West Shore.

The NYC Department of City Planning has zoned a majority of land within the BOA as M3-1, which is defined by as “designated for areas with heavy industries that generate noise, traffic or pollutants. Typical uses include power plants, solid waste transfer facilities and recycling plants, and fuel supply depots…M3 districts are usually located near the waterfront and buffered from residential areas”.

The BOA also includes several areas that are zoned as PARK which are owned by New York City and C4-3, which is the West Shore Plaza Mall. A small portion is also zoned as M2-1 which includes the ADCO buildings and Self-Storage Buildings in the northern portion and Indoor Extreme Sports building in the southern portion. The BOA does not have any historic or special districts, though the majority is in an IBZ (Industrial Business Zone).

The West Shore includes properties along and near the Arthur Kill, Pralls River and Saw Mill Creek that were impacted by the 2012 Superstorm Sandy, are flood prone during storm events and are not appropriate for development. These are the City-owned parklands and areas zoned PARK within the study area. The West Shore is not included in either the 2013 A Stronger, More Resilient New York Plan or in the Staten Island Bluebelt Stormwater Management System. This is likely due to the lack of existing infrastructure and development in most of the West Shore. The greatest economic use of these properties may be a combination of open space/conservation/eco-tourism and, perhaps, the production of sustainable green energy. Eco-tourism opportunities include improved public access, hiking trails, bird watching stations, fishing access, educational programs, guided nature tours and canoe/kayak rentals.

A more detailed description of the Staten Island population, labor force and earnings, transportation and the potential impact of a light rail system, a develop-able land inventory in the BOA and growth trends are included in the following sections.

Live, work, play continues to be the motivation of many young people making decisions on where to locate. Staten Island's long commute time and lack of mass transit inhibits the ability to attract these younger workers and small businesses. Taking advantage of first time home buyer and other programs to connect younger workers and small businesses owner to locate within the 5-mile ring that surrounds the West Shore would help to create a more 'local' connection to the West Shore. Partnerships with various Universities and Community Colleges to help market the live, work, play opportunities that Staten Island has to offer would help in attracting a younger workforce to the local field.

It will be essential to close the various locational funding and program assistance gaps that exists between New Jersey and Staten Island related to business location and retention. The concept of one stop small business assistance is critical to helping targeting industries locate in the West Shore. Land assemblage, permitting, financial assistance and support all remain critical to helping grow both the micro and macro economies that are the West Shore.

Population

The population of Staten Island, in general, is lower than that of the other boroughs of New York City. According to Census estimates for 2016, the borough only had 476,015 residents, compared to 1.5 million in the Bronx, 1.6 in Manhattan, 2.3 in Queens and 2.6 in Brooklyn. Population growth has also been rather low compared to the other boroughs. Between 2010 and 2015 the borough added a mere 7,913 residents, compared to the approximately 130,000 in Brooklyn. This comparatively overall lower population and growth rate is primarily due to the low-density land use and lack of public transportation, though there are neighborhoods that are growing on the North Shore because of the access to Manhattan and Brooklyn.

The West Shore however, has a relatively low population because of the predominance of industrial land use. According to the 2016 Census American Community Survey data, Tract 291.02, Block Group 1, which encompasses the West Shore BOA and some of the surrounding area such as the Matrix site and the bottom of Victory Boulevard only had 922 residents and that is only likely due to a small residential part of the Travis-Chelsea neighborhood.

Diversity

The island consists of three defined areas: The North Shore (Community District 1), Mid-Island, (Community District 2), and the South Shore (Community District 3). It is also the only borough with a non-Hispanic white majority. The majority of Staten Island residents identify as White (63.6 percent), with the next highest concentrations being Hispanic or Latino (17.6%), Black or African American (10.0 percent) and Asian (7.9%).

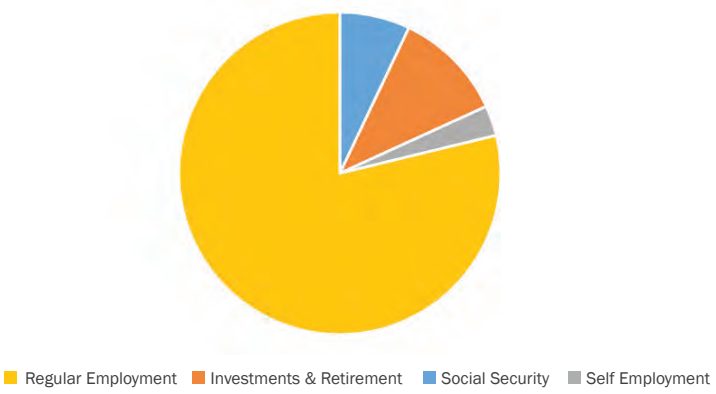
In 2011, 20.9 percent of Staten Island's population was foreign-born, an increase of 27.4 percent since 2000. Out of its 98,400 foreign-born residents, most were from Europe (36.1 percent), Asia (29.9 percent) or Latin America (23.7 percent). 32.1 percent of residents, both foreign-born and non-foreign born, reported having Italian ancestry which is a continuation of significant representation for Staten Island. Staten Island has the highest concentration of primarily English-speaking individuals in all five boroughs.

Labor Force and Earnings

The rate of unemployment in Staten Island has been consistently lower than that of New York City as well as generally lower than that of the entire US. Staten Island has the highest median income and the largest percentage of high school graduates in New York City as per the Borough Snapshot of Staten Island. However, these economic indicators vary greatly by neighborhood, with wealthier neighborhoods in the South Shore and Mid-Island skewing much of the data. Staten Island has very few large employers—businesses with fewer than five employees account for two thirds of the borough's businesses overall. It is particularly difficult for low-income young adults, who generally can't afford the commute to other areas of the city, to find work in their communities.

Staten Island Median Earnings is currently $58,030
Staten Island Median Household Income in 2007: $55,039
Staten Island Median Household Income in 2017: $74,021

Sources of Income in Staten Island:



Source: http://www.towncharts.com/New-York/Economy/Staten-Island-borough-NY-Economy-data.html

Economy Overview

Staten Island, NY Median Annual Earnings by Job Category:

Management, Business, and Financial - $81,077
Computer, Engineering, and Science - $78,435
Education, Legal, Community Service, Arts, Media - $59,413
Healthcare Practitioners, and Technology - $77,005
Protective Service - $81,949
Sales and Office - $48,475
Natural Resources, Construction, Maintenance - $57,563
Production, Transportation, Material Moving - $50,007

Staten Island has the highest household median income of all five boroughs which indicates that there is a significant portion of two-earner households. Staten Island has a large number of retirees from the public system. Teachers, fire, police, etc. This leaves the retired community, which usually has an artificially low income since they are on retirement, having a much higher number. There is a portion of the income data that is generated from jobs in other boroughs of New York City. There is evidence, however that a majority of high income earners are in the industries of construction and business management within companies on Staten Island.

Taxonomy of NYC Land Use and Employment

Employment growth concentrates in locations where there is demand or competitive advantage for specific sectors, as well as where suitable space exists for businesses. The built environment and zoning, which regulates where certain industries can locate, reinforces the relationship between employment patterns and sector growth. In particular, Industrial uses, collectively defined as "manufacturing" in the zoning resolution, typically include businesses with processes or operations that generate truck traffic, environmental impacts, and a need for large sites. The industries typically classified as industrial are manufacturing, wholesale, construction, auto repair, utilities, film production, and waste management and recycling. More than half of the almost 8,000 jobs gained in Staten Island were in the industrial sectors, accounting for seven percent of the citywide industrial job growth.

Based on the data provided by US Bureau of Labor Statistics, 16% of the private sector jobs on Staten Island are in retail, which is not a highly-paid area for jobs in New York State overall. While construction is better paying than retail, most of the type of construction activities in Staten Island does not involve high-rise buildings or new construction, but more so renovations, which accounts for the wages to be the lowest in residential and non-residential buildings in Staten Island. The only services where Staten Islanders average weekly earnings ranks in the middle of the City's boroughs is in the Staten Island's entire health care and social assistance industry. The wages are virtually identical to the national average.

Transportation Factors

Travel to work times have increased from a mean time of 26.2 minutes in 1980 to 39 minutes in 1990 to 43.9 minutes in 2000. Between 2000 and 2011, commuting time to work in Staten Island decreased by 5.9 percent to an average of 41.3 minutes. The shift of financial services from lower Manhattan to Midtown may mean that commute times will grow longer. Transit options on Staten Island are extremely limited. Most Staten Island residents work within the borough, though a significant amount also commute to jobs off-Island. Comparatively, a much smaller number of people commute to Staten Island for work. In 2012, the number of residents working within the borough increased substantially. There is evidence that shows that more Staten Islanders will work in the borough while the number of non-residents commuting to Staten Island will continue to decline.

Staten Island is the only borough that is not connected to the New York City subway system, due to its geographical separation. The Staten Island Ferry carries over 21 million passengers per year between St. George Terminal in Staten Island and Whitehall Terminal in Manhattan. On a typical workday, the ferry carries about 60,000 passengers in 109 trips using five boats. On weekends, three boats are used to make 75 trips each Saturday and 68 trips each Sunday.

Driving a car is not an option for many of the families now living in what were once auto-dependent outlying neighborhoods. At approximately $8,000 per year (the median cost of owning and operating a mid-priced car), the average cost of car ownership represents 20 to 25 percent of a moderate-income household's income, compared to the $2,688 cost for unlimited transit use by two adults.

General Economic Impact of Light Rail

According to the New York City Economic Development Corporation, Staten Island workers employed in the manufacturing and construction fields earn $54,200 annually on average. Retail, entertainment and food service workers in the borough earn on average $20,500 annually. Workers in Staten Island's fastest growing sector – medical and health industries– earn $44,000 annually. The West Shore Light Rail would not only support 9,380 new construction and full-time jobs but also represent over $419 million in new salaries and revenue.

General Economic Impact of Bus Rapid Transit (BRT)

Bus-Rapid Transit Lines, or BRT, is an innovative, high capacity, lower cost public transit solution that is a permanently integrated system using buses or specialized vehicles on roadways or dedicated lanes to efficiently transport passengers. Studies consistently show that better transit service is a positive for local shops. According to the American Public Transportation Association, every $10 million invested in transit operating costs yield $32 million in increased business sales. Moreover, a study by the Mineta Transportation Institute showed that between 2000 and 2010 six BRT regions experienced an increase in median income by more than 13% compared to 8% for the Detroit transit region.

Transit Region and BRT project in the region	2000	2009
HealthLine (Cleveland, OH)	$42,434	$47,982
EmX (Eugene, OR)	$36,942	$42,859
Busway (Pittsburgh, PA)	$37,574	$46,682
Troost MAX (Kansas City, MO)	$46,914	$56,672
Metro Rapid (Los Angeles, CA)	$45,293	$58,715
BHX (Las Vegas, NV)	$43,025	$54,254
Detroit Transit Region	$49,415	$53,581

Figure 59. Comparative Change in Median Income Between Detroit Transit Region and a number of BRT Regions

Source: CTOD. Sun Trans, "Commute to Work," http://www.suntran.com/commuter_taxben.php (accessed February 10, 2014).

A report Developed by the Pratt Center for Community Development and funded by the Rockefeller Foundation highlights the limitations of New York City's current public transit system, the adverse effects those limitations have on our economy and quality of life. The report suggests a BRT system to remedy these transit inequities and presents a route Mid-Staten Island / Manhattan (via Holland Tunnel) serving the community districts of Staten Island, Manhattan, Jersey City, and Bayonne. This BRT route idea could complement the Light Rail rout proposed for West Shore.

- Neighborhoods served: Eltingville, New Springville, Willowbrook, Bulls Head, Bayonne, Jersey City
- Total Population: 521,777
- Percentage of residents using transit: 39%
- Major destinations: Staten Island Mall, College of Staten Island, Port Richmond, Hudson-Bergen Light Rail, Tribeca, Lower Manhattan

The sample trip times in this report show a distance of 16.3 miles from College of Staten Island to Lower Manhattan. Currently, the best existing route is 97 minutes (standard fare), while a BRT system would provide a 50-minute commute (48% improvement).

Importance of Industry

Despite overall high education levels, Staten Island jobs are predominantly medium-skilled and low wage. 50% of Staten Island private jobs are in low wage health care and retail industries. The retail average is about $24,000, vs. $30,000 in adjacent New Jersey counties. The healthcare average wage is about $41,000 vs $47,000 in adjacent New Jersey counties. There is a significant need to provide more local employment choices. For instance, only approximately 20% of the West Shore is considered industrial use. Current centers of industrial activity are primarily at the New York Container Terminal, SI Corporate Park, the Teleport, and Bricktown.

Land Available for Development

The district sits on the West Shore of Staten Island in a contiguous M-zoned location. It includes industrial and commercial businesses, developable property as well as City-owned land on approximately 308 acres. There are no residential housing or residential zoning permissions within the WS-IBID. The area still does not possess many sanitary or storm sewers and consists of neglected roads. It is with the 122nd police Precinct District, the 50th New York City Council District, and Sanitation District 2.

- 72 parcels of land (229.75 total acres)

  - 52 parcels (131.6 acres) are privately owned.

  - 20 parcels (98.12 acres) are publicly owned (all by New York City and New York State). These agencies include: New York State Department of Environmental Conservation; New York State Department of General Services; NYC Department of Parks and Recreation; NYC Department of Citywide Administrative Services; NYC Office of Small Business Services; and NYC Economic Development Corporation.

- 57% of the WS-BID area is privately owned developed and/or developable land.

  - 13% of the privately-owned land is made up of vacant developable private property.

- Most of the District is an assortment of businesses of which 35% are owner-occupied.

Types of Potential Future Land Uses Most Appropriate for the Study Area

In order to better understand the real estate market trends in the BOA, the team analyzed existing inventory, price points, and vacancy rates. In cases where data was not readily available for the BOA, data was extrapolated from Staten Island as a whole.

Notable Trends and Opportunities for Growth

The population in Staten Island is gaining significant wealth and earnings potential which lends itself to increased disposable income and purchasing power. Financial services and health care have contributed to an increase in the middle class but there is still an increase in low-wage jobs. This trend, moving forward has several areas of concern for the future of Staten Island without the creation of sound policies and focused efforts to streamline key growth areas. The following are significant sectors for catalyzing this shift specifically for the West Shore Brownfield Opportunity Area.

Industrial and Office Market

Staten Island has generally seen an increase in affordable office, small business, corporate, medical and educational space in the past decade. The borough offers tens of millions of square feet of prime office and commercial space from north to south. The Teleport site on South Avenue is a prime location in the West Shore for demonstrating significant growth potential in the corporate office space. NYC Economic Development Authority and the Port Authority of New York and New Jersey have solicited a Request for Proposals to develop a 7.5-acre site locating within Staten Island's Industrial "Working West Shore" to generate quality manufacturing or industrial jobs, with potential for commercial office space.

Staten Island has the largest amount of M-Zoned land in New York City with nearly 1,000 acres of developable land for manufacturing, transportation, and industrial uses. Staten Island is also the only borough with both rail and maritime access including New York City's only freight rail bridge which connects to Elizabeth, New Jersey. Connections via the Verrazano-Narrows Bridge, the Outerbridge Crossing, Goethals Bridge, and Bayonne Bridge allow for direct access to major industrial nodes in New Jersey and Brooklyn.

Most of the built area in the BOA corresponds to flexible

space that could accommodate either office, industrial or warehousing activities if the appropriate upgrades are made. The area contains one of the largest assemblages of industrial plots on Staten Island's West Shore. With about 108,824 square feet of building inventory, the mix of buildings generally includes transportation companies, equipment storage, aggregate plants, recreational mixed-use, warehousing, asphalt and concrete plants. The 80,000-sq. ft. ADCO building on 201 Edward Curry Avenue represents one of the few corporate office sites in the BOA with 14 tenants in its building. All companies are privately held and there is a concentration of employees commuting from New Jersey. Privately owned properties represent the largest portion of property ownership in the BOA. City-owned property is largely classified as vacant or undevelopable. Rents per square foot vary with a higher concentration of for sale listings versus leasing.

The 672-acre Matrix Development site formerly known as GATX Terminal is the largest privately owned industrial site in New York City, located just outside the BOA boundaries and within the West Shore Industrial Business Improvement District. Once developed within the next two years, the site will potentially host one-975,00 square foot warehouse and two 450,00 square foot facilities with two more in the planning stages. It is expected to bring at least 1800 jobs to the West Shore.

Maritime Sector

The maritime sector represents one of the key market opportunities for Staten Island to create a vast number of well-paying jobs over the next couple of decades. Howland Hook Container Port is a proved job generator. Global trade, Post-Panamax shipping expansion, and a shortage of berth space in New Jersey and neighboring ports have all contributed to the continued viability of port activity in Staten Island. The New York Container Terminal has gone from handling 12,214 lifts in 1996 to 326,962 in 2006, an increase of 2,577 percent. The terminal continues to demonstrate a robust growth pattern, however, in recent years, spiraling tolls costs are being studied to have a direct effect on business at the terminal. Those effects are currently being studied by the Port Authority of New York and New Jersey (PANYNJ). The toll increase is cited to impose an unreasonable burden on the container terminal operation at Howland Hook and has placed NYCT at an unfair competitive advantage in comparison to container terminal operators in New Jersey. In addition, about $1 billion is being spent by the PANYNJ on raising the Bayonne Bridge to accommodate the new mega-ships coming through the Panama Canal. The work equates to $300 million in economic activity and 5,200 job-years of employment. Port commerce has been a key part of the economic prosperity of New York City and there is significant potential for growth for additional maritime services such as tugboat companies, barge, dry dock repair, dredging, and steamship agents.

Minority and Immigrant Entrepreneurs

Staten Island's growing minority and immigrant populations are going to be an area of growth for entrepreneurship and overall business growth. Neighborhoods from Port Richmond to Victory Boulevard and Bay Street are reinvigorating blighted neighborhoods. The number of foreign-born individuals on Staten Island who are self-employed increased from 3,500 in 1990 to 5,500 in 200, a 57 percent jump. About 10 percent of foreign-born people in the workforce in Staten Island are self-employed, versus 6 percent of all native-born individuals on the island. African-American-owned businesses on Staten Island have increased by 117 percent between 1997 and 2002 from 1,057 to 2,291. A key obstacle that these entrepreneurs face is having access to support for business development like what SIEDC provides for accessing start-up capital to navigating State and local regulations.

Partnership with Education, Colleges and Universities and Hire Local Program

Higher education is one of the leading job creators for New York and the nation. Staten Island's colleges and universities have a clear potential for growth in particular for the West Shore. There is potential for a public-private partnership with either the College of Staten Island and Wagner College. This partnership could assist private businesses that are looking for a central source for career readiness. New businesses in the West Shore such as Matrix Development could connect with the educational institutions to develop technical programs for the maritime, warehousing, logistics, and distribution markets.

Warehousing Sector

The growth of the warehousing sector is contingent upon the continued growth of Howland Hook container port. Port-related warehousing has been among the fastest-growing parts of the region's economy, generating higher wages than retail and personal services. The growth of cargo shipments has sparked significant development of warehousing by private developers such as Matrix Development in Staten Island. Industrial Parks in New Jersey are considered more competitive and has been considered a hotspot such as Heller-Industrial Park in Middlesex County. There have been 128 firms with 6,330 employees in Middlesex County in 2006. For New York, road tolls are affecting business location decisions in port commerce, warehousing, and freight carriage. As can be seen below the average New Yorker pays $105.39 per year on tolls compared to the average American which pays $23.45.

Revenue Source	US Per Capita	NYS Per Capita
•Federal Fuel Taxes –	$123.30	$73.78
•State & Local Fuel & Other -	$208.23	$115.93
•Tolls (AKA Road Pricing) –	$23.45	$105.39
•Total	$354.98	$295.10

Source: Land use and Port Infrastructure: Evaluating the Impact of Road Pricing and Congestion Costs on Port Drayage Markets, David A. King, Cameron E. Gordon, Jonathan R. Peters

Warehousing for Higher End Retail

There is an overall shortage of prestige stores on Staten Island. There is, however, the highest per capita income of all five boroughs. The lack of higher-end retail stores, such as Nordstrom, Lord & Taylor, Saks Fifth Avenue, and others suggest that Staten Islanders choose to do their shopping in New Jersey. There is significant untapped wealth in Staten Island. The BOA could serve as a key area for distributing high-end products such as perfumes and custom products at NY Fragrance.

Green Businesses and Market Demonstration Concepts

There is an opportunity to expand the marketability for additional green businesses through various available incentives. The BOA can look to engage in the recommendations from the Green Zone report which suggests securing tax incentives for local development of green industry. Additionally, Revolving Loan Funds could be used for the purchase of properties. The Green Zone could further the master-planning of the broader area by defining current development restrictions and development overlay districts.

New and existing businesses could look to New York Consolidated Funding Application which ties multiple sources of state funding to advance priorities of the Regional Economic Development Councils (REDC). Funding is currently available in 2016 for:

1. Direct Assistance to Businesses and Other Organizations
2. Community Development
3. Waterfront Revitalization
4. Energy
5. Environmental Improvements
6. Sustainability Planning and Implementation
7. Education/Workforce Development
8. Low Cost Financing

Entrepreneurs that are looking to venture into business concepts in the BOA could participate in NYCEDC's ecosystem of incentives, training, and innovative competitions in order to participate in untapped development areas. Current programs for entrepreneurs include: food, healthcare, industrial, life sciences, media and emerging technology, retail, social enterprise, urban innovation and sustainability.

There is a capacity to create multi-tiered employment in industries that restore ecological integrity and natural resources while enhancing the quality of life. Jobs in the green sector include the ability to produce goods and services that benefit the environment or conserve natural resources; and jobs in which workers' duties involve making their establishment's production processes more environmentally friendly or use fewer natural resources. Specific jobs that possess growth are in energy efficiency, construction, renewable energy, and manufacturing. In particular, CUNY and Solarize NYC are looking to create a pilot community in the West Shore for 2016 that can be host to development of green and clean energy models for the community. Concurrently, several local firms are involved in green activities such as solar panel installation, cogeneration plant installation, and energy performance of buildings.

Findings and Conclusions: Development Impacts and Benefits

The lack of public subsidy for industrial activity within Staten Island has resulted in increased interest in surrounding industrial business parks in New Jersey and other boroughs of New York City. However, with the assistance of City agencies and interested developers, there is potential to facilitate the growth of industrial businesses within the West Shore area. The NYC EDC and NYC SBS have expressed a renewed interest in exploring ways to facilitate industrial development through incentives and on-going discussions about the existing challenges. A deteriorated shoreline, a lack of adequate roadways, and a need for public access points and amenities are challenges that can be addressed with as-of-right incentives.

Fostering development as well with higher education and private industry will spur the creation of high-wage industrial based jobs. It will be important for organizations such as SIEDC to lead the advocacy for on-going workforce development programs that can be housed in higher-education campuses in Staten Island. SIEDC has recently secured funding for an employment program and the program is expected to launch in the coming months. Many recent job losses in Staten Island were in construction, transportation, and warehousing. The continuation of workforce development and the establishment of incentives for streamlining the increase of industrial activity will alleviate those losses by increasing the number of jobs in those sectors.

West Shore BOA Projects Table

Category	#	Project Name	Difficulty Ranking	Agency or Elected Official
Land Use / Strategic Sites	1	SI Sportsmen's Club	1	NYCDCP, NYCDEP, NYSDEC, CM Matteo
	2	ADCO Backlot	1	NYCDCP, NYCDOB
	3	Hogan Asphalt	2	NYCDCP, CM Matteo, Assm. Cusick, Sen. Lanza, BP Oddo
	4	501 Industry Road	1	NYCDCP, NYSDEC, Army Corps
	5	WWC Waterfront	1	NYCDCP, NYSDEC, Army Corps
	6	Spencer Street Assemblage	1	NYCDOB, NYCDCP, NYCMOER
	7	250 Meredith	1	NYCDCP, NYCOER, NYCDEP, NYSDEC, CM Matteo, Assm. Cusick, Sen. Lanza, BP. Oddo
Transportation & Circulation	8	Roadway Consolidation	4	NYCDOT, NYSDOT, NYSDEC, NYCDEP Assem. Cusick, CM Matteo, BP Oddo, Sen Lanza
	9	Gulf Avenue	2	NYSDOT, NYCDOT, Assem. Cusick, CM Matteo, Sen. Lanza, BP Oddo
	10	Glen Street	4	NYSDOT, NYCDOT, Assem. Cusick, CM Matteo, Sen. Lanza, BP Oddo
	11	Roadway Design Guidelines	2	NYC DOT, NYS DOT, BP Oddo,Assem Cusick, Cm Matteo, Sen Lanza
	12	Alternative Transit Improvements	1	NYCDOT, NYCT, CM Matteo, Assem Cusick, Sen Lanza, BP Oddo
Flood Protection & Wetlands	13	District Flood Resiliency	4	NYCDOT, NYCDEP, NYSDEC, NYCDDC, NYC EDC NYC Parks, BP Oddo, CM Matteo, Sen Lanza, Assem Cusick
Business Development	14	Blanket Permitting	3	CM Matteo, BP Oddo, Assem Cusick, Sen Lanza, NYC DOB, Empire State Dev., NYCSBS, NYCEDC, NYCDCP, NYC Parks
	15	Matrix Collaboration	3	CM Matteo, Sen Lanza, Assem Cusick, BP Oddo
	16	Access to grants	2	None
	17	Tax Incentives	2	None
	18	Attracting Companies	1	None
	19	Competitive Edge	2	Am. Cusick, CM Matteo, Sen Lanza, BP Oddo, NYCDOF, NYCEDC, NYCSBS, Empire State Development

* Difficulty Rankings are Categorized from 1 (Easiest to Achieve) to 4 (Most Difficult to Achieve)

Key Findings and Recommendations

The findings and recommendations for the West Shore BOA were developed over the course of several months of research. They are the result of careful inventory and analysis of the area and extensive discussion. Each recommendation started as a white paper and then was finally incorporated into this report. The recommendations are grouped into the four categories Land-Use/Strategic sites, Transportation & Circulation, Flood Protection & Wetlands, and Business Development. The following are detailed summaries of the 19 key recommendations with the conceptual overview.

Land Use/Strategic Sites

1. Have BID purchase SI Sportsmen's Club and sell it to local business or developer

2. Construct a green office building or vertical farm on ADCO backlot

3. Develop Hogan Asphalt site into a full-service resource recovery park or green "pick and pack" assembly/ warehousing

4. Conform 501 Industry Road

5. Redevelop WWC Waterfront site and modernize docks

6. Have one developer purchase all three Spencer Street Assemblage sites and build one larger structure

7. Redevelop and ecologically restore site or transfer to SI Sportsmen's Club

Transportation & Circulation

8. Consolidate roadway network

9. Convert Gulf Avenue to a two-way street

10. Convert Glen Street to a two-way street

11. Implement roadway design guidelines

12. Improve alternative transportation

Flood Protection & Wetlands

13. Build a flood resilient district

Business Development

14. Develop blanket permitting and create a local ombudsman

15. Collaborate with Matrix Development on alternative energy production, collaborative co-branding and public advocacy

16. Create better access to state, federal and foundation/ corporate grant programs

17. Offer tax abatements

18. Attract priority companies

19. Be competitive with New Jersey

Figure 60. Recommendation concepts diagram

Land Use / Strategic Sites

As discussed in the Strategic Sites section, the BOA team and SIEDC worked closely to develop a short list of sites in the BOA that may be catalysts for revitalization. The selection process began with SIEDC preparing a table of all sites in the BOA and marking each one marking each one for its strategic potential. The BOA Team then selected several sites based on analysis and weeks of discussion, and develop the following list. All these sites were selected for their revitalization potential.

The following is an overview of sites and their reuse potential.

1. SI Sportsmen's Club
2. ADCO Backlot
3. Vanbro
4. 501 Industry Road Backlot
5. WWC Waterfront Property
6. Spencer Street Assemblage
7. 250 Meredith Avenue

Figure 61. Strategic Sites map

1. SI Sportsmen's Club

Have WS IBID purchase land and sell it to local business or developer

The Staten Island Sportsmen's Club is recreational shooting club dedicated to trapshooting. The organization owns 170 Bloomfield Avenue (Block 1780, Lot 164). The property is a through-lot that sits between Bloomfield Ave to the north and Edward Curry Ave to the south. The Faztec Industries site is to the west and ADCO sites are to the east of the site. The Staten Island Sportsmen's Club meets very infrequently and this site could be more optimally used for industrial, office or other recreational space. Furthermore, the site sits at a low elevation and is highly prone to flooding and sea level rise (SLR). The following image below (Figure 63 shows the SI Sportsmen's Club under 5ft of SLR, which is highly possible to occur by the end of the century.

It is recommended that the WS BID help facilitate the relocation of the club, purchase the property and sell it to a developer who would raise the site. There are current business owners within the BID/BOA areas such as Faztec Industries and Indoor Extreme Sports that may be interested in purchasing the site for expanding existing operations. The site is zoned as "INST- Institutional" so any industrial or commercial use would require a variance. According to NYC PLUTO data, the total assessed value of the property is $314,100.

Figure 63. SI Sportmen's Club will be underwater with 5 ft of sea level rise
Source: Climate Central

Figure 62. Faztec Industries is interested in expanding

2. ADCO Backlot

Construct a green office building or vertical farm

The ADCO Backlot is located at 160 Bloomfield Ave, north of the current ADCO Office Building. Currently, the site is partitioned into three parts by chain link fence (Not shown on map). The northwest portion includes a Williams Partners LP Compressor Station for the Transco Natural Gas Pipeline; the southwest portion appears to be used for storage and the eastern portion is being temporarily used by Matrix Development as they develop the site to the north. SIEDC should work with the current owner Addwell LLC to see what assistance is needed to develop the property into a green office building or a controlled agriculture facility such as Aero Farms in Newark or Gotham Greens in Brooklyn. Urban agriculture can be viable because of the complementary uses for nearby industrial parks such as Matrix Development's 200-acre development. The zoning is M2-1 and M3-1; therefore, constructing an office building would likely require a use variance. It is recommended for SIEDC to work closely with Addwell LLC for promoting an innovative concept for future expansion and job creation.

Figure 64. NRG Headquarters – Princeton, NJ
Source: NRG

Figure 65. Aerofarms– Newark, NJ
Source: Aerofarms

3. Hogan Asphalt/Richmond Recycling

Develop site into a full-scale resource recovery park or green “pick pack” assembly/warehousing

The Hogan Asphalt/Richmond Recycling site is the largest site in the West Shore BOA and has some of the most development potentials due to its size and proximity to the Arthur Kill and the Staten Island Rapid Transit freight line. Currently, the site is owned by Vanbro Corp and leased by Hogan Asphalt and Richmond Recycling for basic aggregate recycling, though it could be developed into a full-service resource recovery park or green “pick and pack”/warehouse facility. An exemplary local example of a resource recovery park is Bayshore Recycling in Keansby, NJ and great local example of a Pick and Pack is Glenway Distribution in Cranbury, New Jersey. Bayshore Recycling is a Class-B Recycling facility which offers concrete, asphalt and brick recycling as well as remediation of petroleum contaminated soils. Glenway Distribution is premier green logistics, warehousing and distribution facility, it boasts various environmentally friendly practices such as solar panels on the roof, energy efficient systems and wetland preservation. SIEDC and the WS BID should work with Vanbro Corp and Richmond Recycling/Hogan Asphalt to develop a vision and business plan to further develop the site. Concept site plan designs for both scenarios can be found in the appendix.

Figure 66. Aerial View of Bayshore Recycling

Source: Bayshore Recycling

Figure 67. Glenway Distribution in Cranbury, New Jersey

Source: Glenway Distribution

4. 501 Industry Road

Build Fabric Structure in short term. Conform site in the long term.

The 501 Industry Road property consists of two parcels, an active front lot and an undeveloped backlot. The front lot was previously the Superior Confections Chocolate Factory and has recently been retrofitted into the Indoor Extreme Sports complex. The backlot is heavily vegetated undeveloped land that has become wetlands due to the adjacent development and poor stormwater management in the area. The whole property is owned by 501 Industry Road LLC and they would like to build a fabric structure on their property for an AstroTurf soccer field in the short term and redevelop the whole property in the long term. While building a fabric structure may require some lighter permitting, raising the site will require substantial permitting. Understanding how to navigate this process will be useful as other owners will need to do the same to their sites as sea level continues to rise. SIEDC and the WS BID should work with 501 Industry Road LLC to help with the permitting process and use the experience as a case study. Matrix Development has raised their property 14 feet in order to build warehouses and can serve as a model for sites in the BOA.

Figure 68. Example Fabric Structure

Figure 69. Matrix Site

Redevelop site and modernize docks

The WWC Waterfront site sits at the end of Meredith and Spencer Streets on the Arthur Kill/Prall's River and includes several docks and a loading area. The address is 358 Meredith Avenue. Currently, it is used as a construction storage yard and office space, though the owner, WWC Corporation/Richard Martucci, is interested in redeveloping the site into green docking operation. In 2009, he was quoted in silive.com as saying "We're interested in converting this whole area into a manufacturing and distribution center for green renewable products" and would like to "install solar panels on barges and tugboats".

The site has the potential to be a truly state of the art small-scale modern industrial dock. SI Asphalt, Staten Island Recycling and Hogan Asphalt are immediately adjacent to the site and the docks can serve as means to transport aggregate by boat. Also, Total Relocation is directly next to the site and could use docks for shipping. Though, WWC Corporation has experienced difficulty navigating regulatory issues and identifying ownership of a neighboring dock where there are abandoned boats. SIEDC and the WS BID should help support this redevelopment process and facilitate businesses working together and utilizing the site for maritime uses.

Figure 70. Examples of modernized docks

Figure 71. The Science Barge is an example of what could be docked at WWC Waterfront

6. Spencer Street Assemblage

Have one owner purchase all three sites and develop one larger green warehouse/ manufacturing facility

The Spencer Street Assemblage is a group of three properties that sit between Meredith Ave and Spencer Ave. The following table provides basic information about each site.

Spencer Street Assemblage Sites

Block	Lot	Address	Possible Business Name	Owner Name	Lot Area (sqft)	Building Area
1801	27	422 Spencer Street	SWF Trucking	Linda Russo, Trustee/ Mary Venosa	19,900	600
1801	31	410 Spencer Street	Design Plumbing and Heating Services	Block 1802 Realty, L	20,100	1,344
1801	30	414 Spencer Street	Venosa Louis Excavator	934 Crescent Street,	19,900	3,000

Currently, these sites are used for storing trucks and other equipment, and there are four derelict structures on the site. It is recommended the three properties are sold to one developer and those buildings be demolished in order to build one new larger structure. This larger structure could be a new green warehouse/manufacturing facility, where one or multiple businesses could operate. A good local example is Ram Cherukuri's building on Glen Avenue, which is a newly constructed building with one owner that includes three businesses.

Figure 72. Conceptual site design for Spencer Street Assemblage

Figure 73. 600 Gulf Ave

7. 250 Meredith Avenue

Redevelop and ecologically restore site or transfer to SI Sportsmen's Club

250 Meredith is an irregular shaped parcel that sits at the bottom of the West Shore BOA on Meredith Avenue. The site borders Meredith Woods to the south and a small portion touches the Arthur Kill to the east. The property was the previously owned by the Texaco Oil Corporation and leased out to Positive Chemicals -- a company that packaged and stored waste chemicals. At its peak, the site contained 2000 drums and nine 100,000 gallon tanks of oil. In the 1980s the site was listed a New York State Superfund Site and in 1990s the removal action was completed. While the site has been cleaned up to industrial standard and declassified from the NYS Registry of Inactive hazardous waste sites in 2012, some contaminants still remain.

Due to its connection to Meredith Woods, it is recommended that the site is redeveloped and further cleaned up/ ecologically restored similar to the Woodbridge Energy Center and Eco-Wetland Park. A portion of the site could be used for some sort of industrial use and the other can be a transition area to the marsh. Another option is for a third party to purchase the property for the SI Sportsmen's Club in order to relocate the firing range to the site and develop their current property. SIEDC and the WS BID should work with the owners Sam & Frank Mezzacappa to explore ways to sell, redevelop and cleaned-up/ecologically restore the site or facilitate the relocation of the SI Sportsmen's Club with the club and third party.

Figure 74. Woodbridge Energy Center and Eco-Wetland Park

Figure 75. Rendering of SI Sportsmen's Club at 250 Meredith

Transportation & Circulation

Critical to the BOA and to industrial retention along the West Shore is ease of access to the regional highway network. Access into the BOA and the larger industrial area only partly provides direct and easy access both north and south into the highway network. Current efforts to upgrade entrance roadways to the BOA include the NYCDOT's ongoing two-way conversion of Gulf Avenue at the north end of the BOA, which currently only offers travel in the southbound direction. By restriping the existing right of way to provide a hatched median as well as defined edge lines (neither of which exist today), vehicles will be able to both enter and exit the BOA without requiring the use of South Avenue or circuitous routing, providing a new critical direct exit route out of the BOA to the Goethals Bridge in the north. Gulf Ave will also serve as an entryway to the Matrix Development site and warehouses. Two-way Gulf Avenue will benefit the BOA by both improving traffic flow and better defining the area with additional signage and improved lighting.

The ingress and egress roadways providing vehicular and truck access to the BOA provide the first opportunity to attract potential businesses and employers. The condition, upkeep and general appearance of the roadway network need to reflect the pride and strength of the BOA as an attractive destination for industrial business growth. There are exemplary roadways within the BOA, namely Edward Curry Avenue, where signage, median plantings, and maintenance result in an attractive welcome. However, limitations of the roadway infrastructure in other portions of the BOA include crumbling roadways, narrow street widths, inconsistent signage, overgrowth right up to the lanes lines, illegal dumping, and inconsistent edge conditions. These deficiencies exacerbate the difficulties associated with attracting businesses to the area. Development and adoption of an industrial roadway typology would be useful as the BOA continues to strengthen its brand and formalize its sense of place.

Figure 78. Existing Truck Routes

Figure 76. Cross-section of Edward Curry Avenue shows tree plantings, curb edges, welcome signage and street lighting along the roadway

Figure 77. Cross-section of Gulf Avenue shows unmarked roadway conditions (view looking south-bound)

The roadway network within the BOA experiences chronic flooding and significant flood impacts and coastal high tide flooding during storm events. With the exception of Edward Curry Avenue, the roads within the industrial zone lack defined striping, curbs, lighting and sidewalks. Many roads lack guardrails and few have formalized edges or consistent widths. This plan sets forth recommendations for industrial road typologies to guide roadway reconstruction to accommodate the unique needs of this industrial district.

The roads throughout the entire district sit at an elevation that is at or close to sea level. Our plan looks at strategies for raising roads and creating natural stormwater management systems to mitigate against flooding and storm events. We look at the network and access requirements to prioritize roadway improvements that are most vital to the continued viable use of the industrial sites within the district.

The northern and southern portions of the BOA are connected by a single roadway, Chelsea Road, which is prone to chronic flooding and experiences the same deficiencies consistent with the rest of the network. As a part of our long-term strategy for access and movement in the district, we have evaluated the costs and benefits of roadway repair/reconstruction to develop a strategy for access that is consistent with local environmental policies and goals and optimal from a cost perspective to present a feasible longer-term strategy to ensure the long-term economic viability of the district as sea-level rise increases impacts on infrastructure. Proposed strategies have been considered holistically, in order to mitigate against potential negative impacts in access that could be perceived as an economic disincentive.

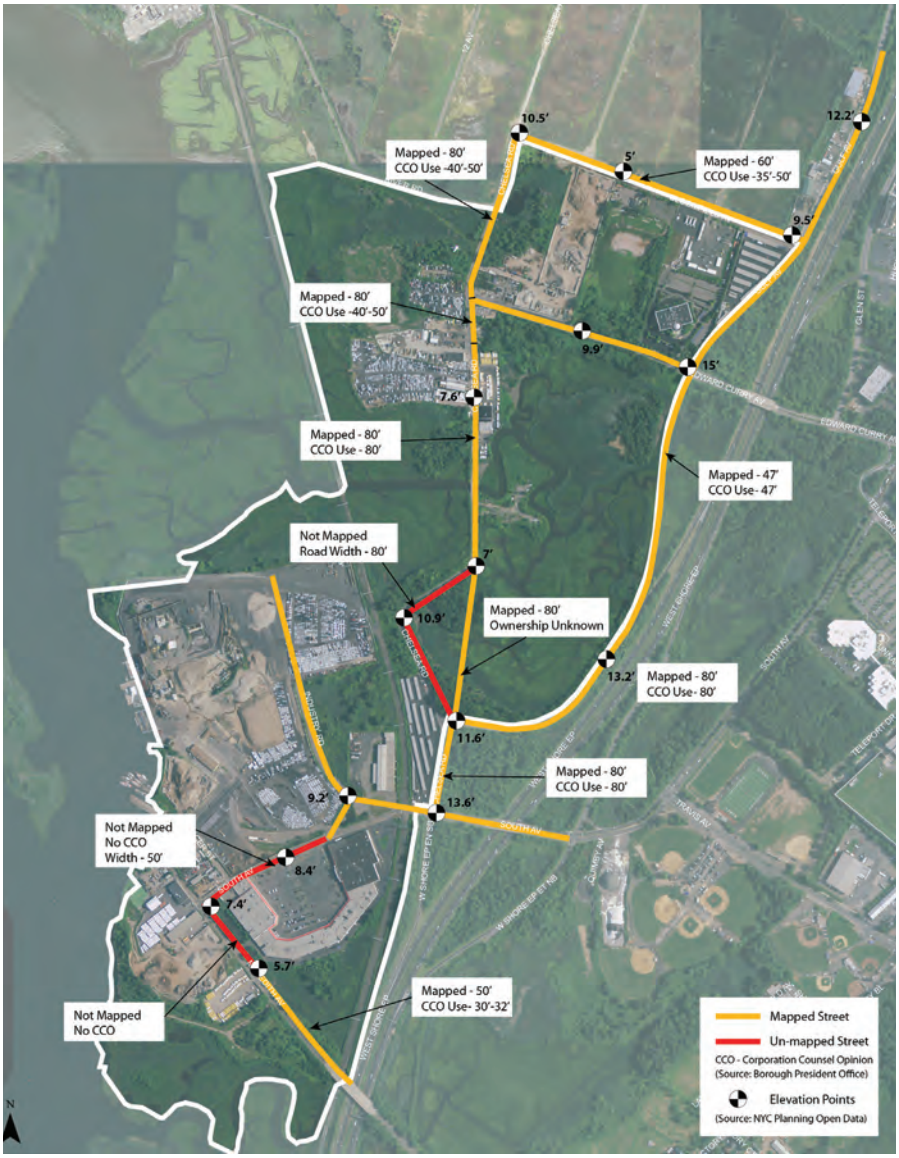


Figure 79. Existing Road Elevation and Status

Figure 80. Flooding on Bloomfield Ave

8. Roadway Consolidation

Consolidate roadway network

Beyond the physical state of the BOA roadways, as described in the Industrial roadway typology recommendations, some recommendations to the roadway network involve a longer-range set of recommendations that reflect longer-term environmental conditions. With sea level rise pushing many portions of the BOA's roadways at or below the water table, there are flooding conditions and natural (wetland) conditions which would benefit from a holistic approach, rather than on a parcel by parcel level.

The current network lacks direct connections to the highway system, as well as continuity within the district and creates unnecessary and unwelcome truck movement on the surrounding local street system. Activating Gulf Avenue as a two-way street opens up new opportunities to tweak the network to improve access and to reduce truck traffic on the larger roadway system. Most notably, owners and businesses along South Avenue are looking to reduce truck traffic along South Avenue. The district effectively separates into two industrial nodes, connected to each other by Chelsea Road which is the spine that unites the districts. Key to keeping regional access is the ability for both nodes to access the regional network both to the north and to the south. The overall consolidation of roadways would impact truck circulation to and from the BOA, in the case that Chelsea Road was to be partially closed from the area South of 400 Chelsea Road (described in more detail in the following sections). Additionally, orientation and street entrances for the properties located between Bloomfield Ave and Edward Curry Ave would have to be accounted for in the case that Bloomfield Ave is de-mapped as a street in the long term (also described in more detail in the following sections). Street consolidation will be a long-term process involving multi-agency and private business coordination by SIEDC.

Figure 81. Proposed truck circulation

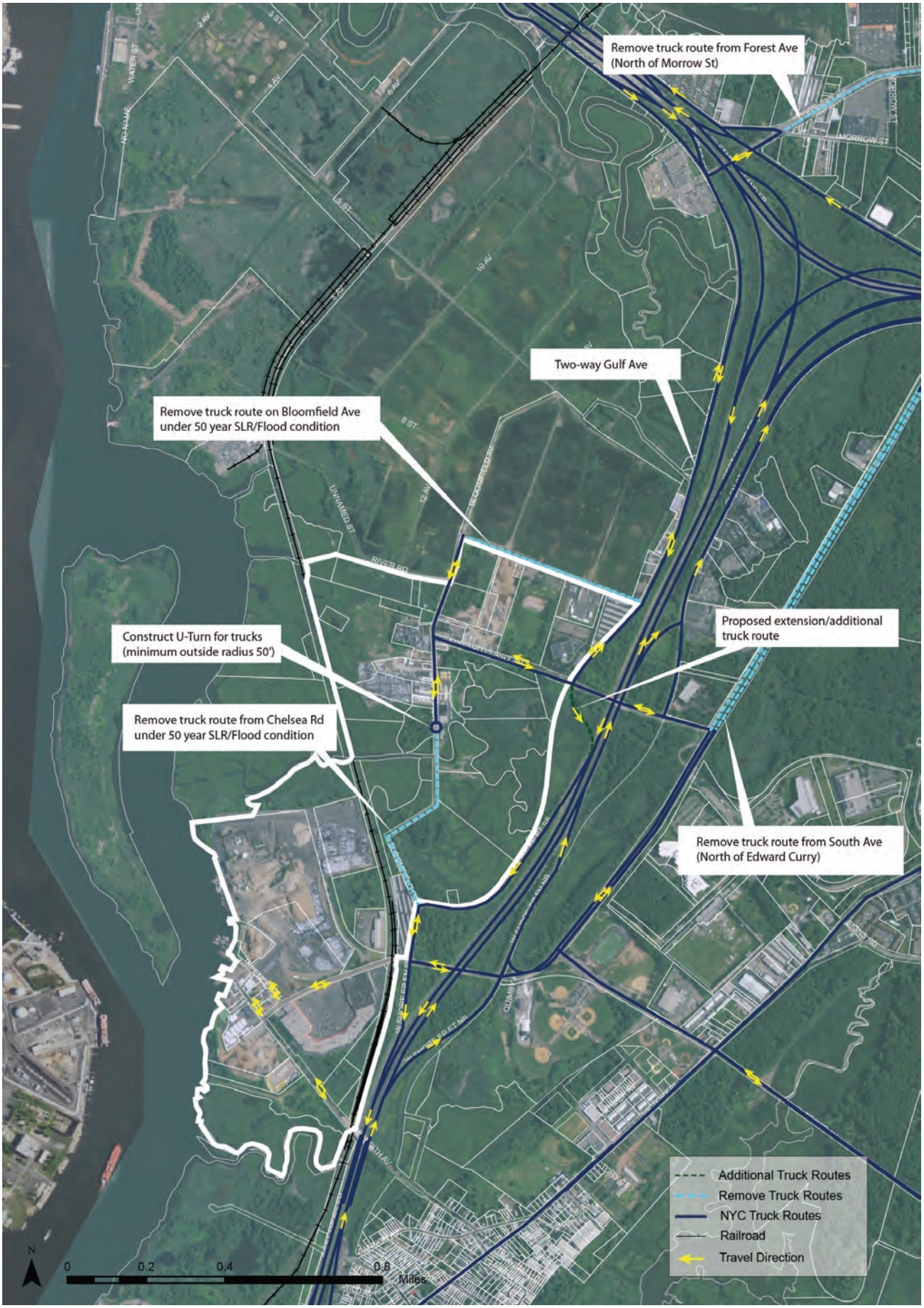


Figure 82. Proposed truck route

Industry Road and Vanbro Drive

Just to the west of the train tracks, where the road veers to the south, there is a large city-owned tax block and lot known as 1801/70. This lot is also identified as Industry Road and stretches far to the north where it intersects the Saw Mill Creek watershed and expands significantly in size to encompass a significant portion of the watershed. The lot is under the jurisdiction of the NYC EDC and under the management of the NYC Parks Department. At its southern end, it intersects South Avenue, however, formal access onto South Avenue does not currently exist. The long thin section of the lot sits adjacent to a property locally known as 501 Industry Road. 501 Industry Road would benefit from an easement or outright purchase from the City of a portion of this tax lot to enable the property to have direct access into the site from South Avenue and to activate a large 9-acre parcel which sits at the back of its assemblage and is inaccessible at present.

Slightly to the west along South Avenue, access to the large assemblage of Vanbro sites connects into South Avenue at a sharp angle. The sites to the north of South Avenue are some of the most valuable industrial properties in the district and a more formalized entrance into these sites would greatly enhance their street appeal. In the case of Vanbro assemblages, a new configuration for access that more effectively creates an intersection at South Avenue and creates an effective circulation system interior to its assemblages could establish the second industrial district access point along South Avenue. These new access points, in partnership with a new street paving and curb reconstruction effort along South would greatly improve the look of South for all properties that rely upon the roadway for access.

Figure 83. Aerial of Industry Road and Vanbro Drive

Figure 84. Photo of Industry Road

Figure 85. Photo of Vanbro Road

9. Gulf Avenue

Convert Gulf Avenue to a two-way street

Based upon recommendations made by SIEDC based upon prior study, the New York City Department of Transportation (NYCDOT) is committed to converting Gulf Avenue into a two-way street between Forest Avenue and Edward Curry Avenue, creating an important new northbound egress route to the regional highway network. Gulf Avenue currently serves as the service road to Route 440. Plans to implement the conversion are progressing and implementation of the two-way conversion is scheduled for the Summer of 2017. As the design progresses, there is an opportunity to influence the design approach to anticipate multi-modal opportunities.

Current plans for restriping do not include any provisions for bike lanes or locations for pull-off bus stops, both of which may be explored in the future as the BOA expands (Figure 86). The following figure illustrates an opportunity to build out critical intersections with pedestrian facilities that could support bus facilities as activity in the district expands with new development. SIEDC should continue to track the progress of the design and coordinate design effort to support economic development goals and objectives.

EXISTING GULF AVENUE (One-way)

PROPOSED GULF AVENUE (Two-way)

Figure 86. Proposed Gulf Avenue 2 Way Conversion

10. Glen Street

Convert Glen Street to a two-way street

Similar to the Gulf Avenue, Glen Street, the northbound service road to Route 440 from Vernon Avenue/Edward Curry Avenue to Fahy Avenue, could provide a more direct truck connection into the Green Zone. Trucks looking to access the northern section of the industrial zone from Route 440 currently exit onto South Avenue and travel along the southern section of South Avenue up to Vernon Avenue, where they turn left to access the zone. In focus group conversations, there was an expressed desire to limit the number of trucks relying upon South Avenue to access the industrial properties west of Route 440. Gulf Avenue two-way conversion, which has been accepted by NYC DOT and is moving forward towards implementation, will create a new northern route out of the district, removing northbound trucks from Travis Avenue to Goethals Road. Similarly, if Glen Street can be converted to a two-way road north of Edward Curry Avenue, then trucks coming from the south can take the Glen Street exit and turn right on to Glen Street and then right onto Edward Curry Avenue and travel more directly into the industrial district. This new route would remove trucks from the southern section of South Avenue and relieve some of the traffic from the intersections of South Avenue and the service road and South Avenue and Travis Avenue. Combined with the Two-Way conversion of Gulf Avenue, these two minor road reconstruction efforts would provide more direct access into the industrial district and remove truck traffic along the entire length of South Avenue.

Figure 87. Proposed truck circulation

Implement roadway design guidelines

SIEDC should establish a set of guidelines to inform construction and future improvements to its industrial roadways that will provide for a consistent, safe, and improved BOA. The characteristics provided in this report lay the framework for consideration.

According to the Institute of Transportation Engineers Recommended Practice on Planning Urban Roadway Systems, multimodal roadway systems must account for "connectivity, multi-modal and layered networks, and special situations, "all characteristics which apply to the roadways in the West Shore BOA. One recommendation for the BOA is to adopt design guidelines that will enable future roadway infrastructure upgrades to best enhance and embody the brand of the BOA. These improvements include the following:

- **Guardrails**. The goal of roadside safety devices may be twofold in the BOA. While the primary purpose is to "protect motorists from potentially serious hazards located near the travelway" (i.e., utility poles, bridge piers, or embankments), a secondary purpose is to prevent vehicles and individuals from traveling out of the bounds of the roadway to engage in activity such as illegal dumping of garbage. Preventing vehicular access to non-roadway areas would have the benefit of decreasing likelihood of dumping, an issue currently endemic to the West Shore BOA.

- **Street Lighting**. Street Lighting and the associated power network to support regular street lighting in the district is inconsistent. A consistent street lighting system would increase safety, reduce opportunities for illegal dumping and enhance the general aesthetic of the district.

  Given the challenges of building a complete power network, the SIEDC and the City of New York should look to the installation of solar street lighting to fill the gaps in the lighting system. Solar street lights act as self-contained systems, providing light without requirement of additional trenching or utility costs. They can be appropriate for highways and industrial roadways. Solar street lighting is a green energy lighting system, converting sunlight into electricity to charge LED lights. Systems can feature a modular design, decreasing maintenance costs.

- **Sidewalks**. Currently, there are inconsistent and incomplete sidewalk networks throughout the BOA and the district is generally not pedestrian-friendly. As roadways are reconstructed, providing sidewalks on at least one if not both sides of the road would improve access in the BOA. Consistent with the absence of many existing curbs, feasible options for sidewalk typology are curbless sidewalks or a "curb-and-sidewalk", which would

Figure 88. Example of Solar Lighting

Source: www.greenertech.ca

Figure 89. Sidewalk and Curb typologies

be less susceptible to damage if trucks were to pass over them.

- **Crosswalks**. Accompanying creation of a formal sidewalk network, pedestrian crosswalks should be marked clearly using painting or similar clear indicators. While numerous applications exist to denote pedestrian crossings (including raised roadways, brick pavers, colored asphalt, and lighting and signage), an appropriate initial recommendation for the West Shore BOA is crosswalk striping, which would clearly delineate pedestrian crossing locations.

- **Curbing**. Curbs in industrial areas are often subject to impact from trucks who have large turning radii, or where trucks pass one another at high speeds. Curbs also have an impact on water drainage, one of the major existing infrastructure concerns in the BOA. One recommendation appropriate to industrial roadway typology is a curbless sidewalk (See Figure 89).

- **Beautification at strategic entry points.** Developing and maintaining a brand for the BOA is consistent with giving the West Shore its own brand. Attractive signage has been developed and installed along South Avenue and at some entrance points to the BOA. Further, the iBID has developed and installed signage to denote the industrial business improvement district, using the design shown. Edward Curry Ave has median plantings and provides a sense of gateway to the industrial zone, no other BOA roads feature these components. Gateways to the BOA should strive to create a unified sense of place, welcoming employees and those coming to do business in the area alike.

Figure 90. Existing Signage typologies in the BOA and iBID

Piloting the Industrial Roadway Design Guidelines on South Avenue

South Avenue is an important gateway into the industrial "Green Zone" that provides access to both industrial and commercial enterprises. Currently, as you cross over Route 440 and the tracks for the Staten Island Railroad, the condition of the roadway deteriorates significantly. Sidewalks end, the edge of the road disappears into overgrowth and telephone and power lines lean precariously over the street. As part of a reconstruction of the road, in keeping with the new industrial roadway guidelines - new paving, and sidewalks, crosswalks to access the bus stop and new lighting – two new industrial site entrances could be formalized to increase the curb appeal of the industrial properties to the north of South Avenue.

12. Alternative Transit Improvements

Improve alternative transportation

The West Shore suffers from a significant lack of public transit options serving the area directly. While there are express and local bus routes which operate at the periphery of the BOA, there are no current transit stations within the BOA and only one within the larger industrial district at South Avenue. However, a series of new employment opportunities within the BOA may support transit services. While there may be development within the BOA and West Shore iBID, Matrix Development site (formerly Staten Island Marine Development [SIMD]) is expecting to open its first phase of warehouse operations in the summer of 2017. Estimates from Matrix on job creation are at 1,600 construction jobs in the short-term and over 3,000 long-term jobs within the site. This plan provides a set of transit recommendations for the BOA as well as the West Shore in general to better link the industrial area with nearby destinations and create opportunities for employees to choose to commute to work via mass transit.

West Shore Light Rail

One of most obvious ways to improve public transit in the would be to create a West Shore Light Rail on the existing SI Rapid Transit Line and have it stop in the BOA. This line would be 13.1 miles long and run from the South Shore of Staten Island to Bayonne, NJ connecting with the Bergen-Hudson line. The West Shore Light Rail would not only support 9,380 new construction and full-time jobs but also represent over $419 million in new salaries and revenue. It would also allow hundreds of workers to travel to and from work via public transportation reducing congestion and greenhouse gas emissions. The current status of the feasibility is that MTA will meet with SIEDC in December 2017 to review the process of the Alternative Analysis study. In particular, the West Shore Light Rail's route at full build-out would begin at the southern end of Staten Island in the Tottenville/Richmond Valley section and connect to the existing Staten Island Railway at the Nassau station. The line would then travel northbound along the median of the West Shore Expressway and serve various strategic sites, such as the West Shore Business Improvement District. The line would then connect for a short distance along the Staten Island Expressway running eastbound and then head northbound once again along the Dr. Martin Luther King Jr. Expressway to cross the Bayonne Bridge into Bayonne, New Jersey. The West Shore Light Rail would also have the opportunity to connect with the planned North Shore Bus Rapid Transit line which at full build-out would travel along the Richmond Terrace corridor from St. George to Arlington Yards, South Avenue or the West Shore Business Improvement District.

Improved Bus Access

The nearest bus service available to the BOA is via the MTA S46/96 service along South Avenue and at West Shore Plaza. In the far northern section of the district, the S40/90 dead-heads at the intersection of Forest Ave and Gulf Ave. Both of these local routes offer service to the St George Ferry Terminal. As described in the existing conditions report, express buses offering service to Manhattan and Brooklyn run on the West Shore Expressway (Route 440), but currently do not serve the BOA. There are challenges to increasing transit use within the BOA, including the lack of bus stops adjacent to existing and potential future BOA jobs.

Two recommended solutions could contribute to improved transit access to the area. The first potential to explore would be an extension of the S40/90 bus into the BOA from its current terminus at Forest Ave and Gulf Ave. With the two-way conversion of Gulf Ave comes an opportunity to provide additional transit access to the BOA through a minimally impactful change in routing. Implementation of a route extension will require coordination with New York City Transit and New York City DOT to both extend the route and to locate specific bus stops. A second opportunity for the BOA to explore is connectivity within the BOA and to a nearby bus hub. Approximately 2.5 miles east of the BOA is the Staten Island Mall, which serves today as a de facto transfer center, offering connections to 11 MTA bus routes. Offering private shuttle service in a circulator route through the BOA and to the Staten Island Mall would increase access opportunities for potential employees without transportation alternatives, as well as attract new employers to the BOA. A proposed connector shuttle route, as shown in Figure 91, would provide a short-term solution to transit connectivity from the BOA.

Bike Planning

Within the BOA, there are currently no bicycle facilities (i.e., bike parking, bike lanes, bike pavement markers or "sharrows", or signage for bicyclists). It is generally not a common mode of transit to and from the study area, but there is potential to encourage bicycling, either through a small bike share program. Future bike share opportunities should be located in proximity to bus circulator stops to facilitate the use of multi-modal travel.

A large last-mile shuttle operation is run in northern New Jersey from transportation hubs to serve places of employment which are not served by public transportation. The shuttle service, EZ Ride, is available during weekdays to serve commuters, businesses, commercial and industrial areas, as well as residential complexes.

EZ Ride shuttle service was funded by the FTA Job Access & Reverse Commute (JARC) program as well as through private partner investments. White JARC funds are no longer available, Urbanized Ares Formula Grants - Section 5307 funds could be utilized to implement a shuttle service in the West Shore BOA that connects to the Staten Island Mall hub.

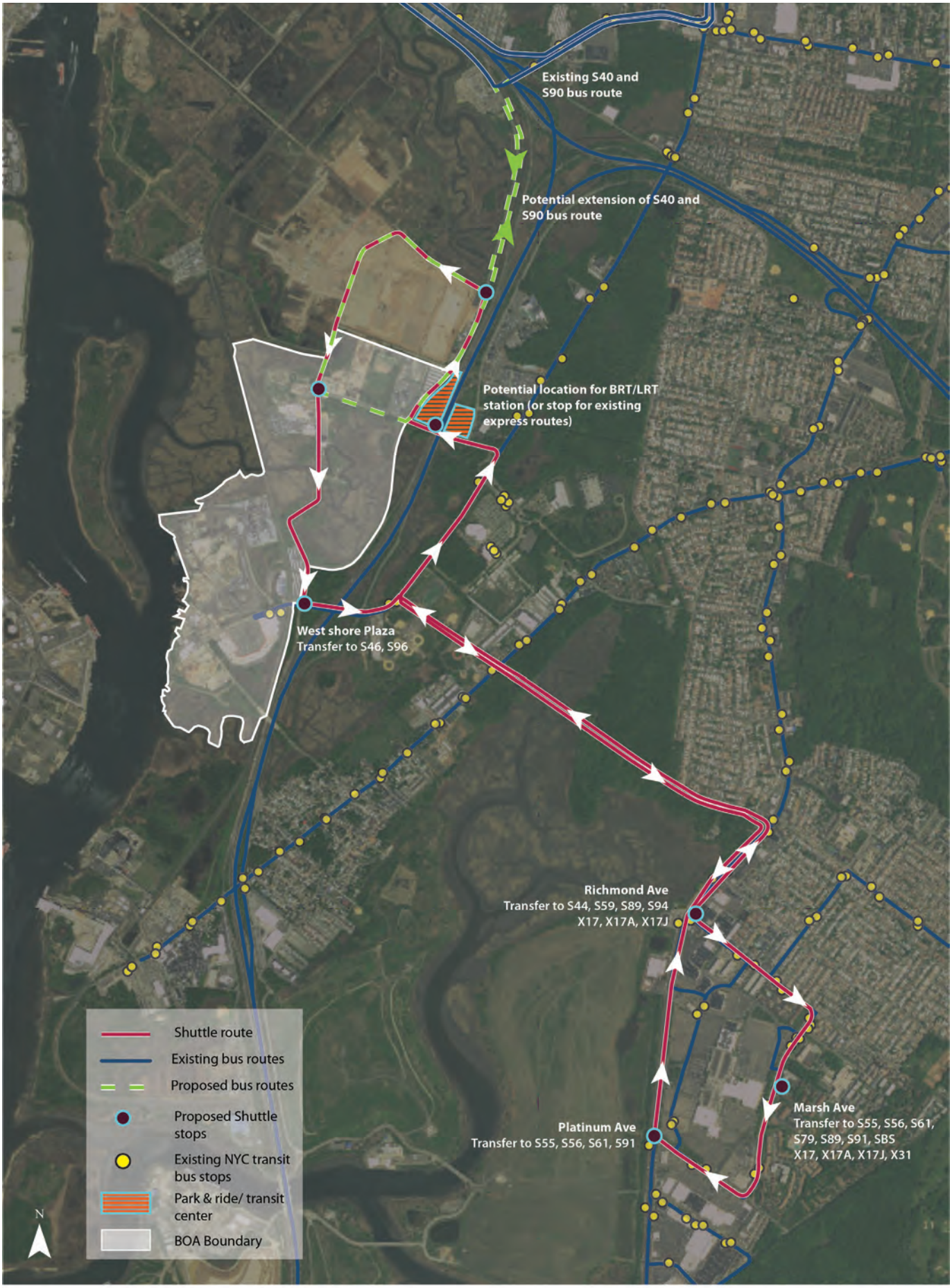


Figure 91. Proposed transit service map

Flood Protection & Wetlands

The low-lying condition of the area exacerbates flooding conditions and introduces a set of high-priority challenges for planning the area's redevelopment. The BOA's current stormwater and sewage infrastructure can be categorized as insufficient with the result that occupied sites must utilize on-lot septic systems to manage sewage and must tolerate periodic flooding of streets and developed properties. There are neither any area-wide watershed-based stormwater management practices nor ongoing efforts to address regulated water quality issues or drainage improvements, despite the fact that business owners have expressed concern with wet-weather flooding. The image shown in Figure 93 shows existing elevation and potential effects of Sea Level Rise compounded by a storm event along Bloomfield Ave.

Through the study process, interviews with local business owners provided additional insight into shortfalls regarding stormwater. John DiFazio of the family-owned and operated Faztec Industries, shared insights into the physical challenges of his property located at 200 Bloomfield Ave. The company runs a construction contracting business (milling, paving, sewer, water/trunk main), and has encountered a number of issues with regards to the existing sanitary and storm sewer maps, as well as current conditions and the effects of continual storm events.

For years, the flooding along the front of the DiFazio property has been a recurrent problem resulting in roadway flooding, as shown in the photo on Figure 92. In the summer of 2016, water appeared to be "bubbling up" through the asphalt along Bloomfield Avenue with the source likely coming from a collapsed stormwater sewer line under the roadway. Meetings with DOT and DEP have yet to result in the development of a viable reconstruction solution. DiFazio has spent company money and resources to construct multiple temporary flood mitigation efforts that allow for continued access and operation of the business. However, a more extensive and permanent solution is required for the business to continue operations. DiFazio feels that the solution requires more

Figure 92. Typical Flooding Conditions at 200 Bloomfield Ave. January 2016

extensive work underground, but has not been able to garner sufficient agency focus or coordination to develop a suitable action plan to resolve for the chronic flooding that plagues Bloomfield Avenue. However, the DiFazio site experiences a mostly consistent elevation changes from nearly 10' above sea level along Edward Curry Ave down to approximately 5' at Bloomfield Ave. The frontage along Bloomfield Ave currently has a low concrete wall of about 2-3 feet.

In order to facilitate new development within the BOA, the needs of a more densely occupied area will not be adequately met by on-lot systems and parcel-based best management practices (BMPs). Rather, a comprehensive strategy to extend sanitary sewer service and also enhance the capacity of the landscape to manage runoff without damage to property, infrastructure and natural resources will be required.

The BOA is surrounded by freshwater and tidal wetlands that are integral to the regional ecosystem. These wetlands are one of New York City's largest remaining wetland complexes and may boast the most diverse array of wetland types in the city.

These wetlands represent a unique regional asset. It is therefore critical that any new development in the BOA evaluate the effect it will have on surrounding wetlands. A comprehensive assessment of wetland health and value in the area would set a foundation for further study, capital priorities and private development in the district. Certain wetlands may be considered high priority after further study depending on an array of factors including percentage of open water, drainage connectivity, general health and species diversity, and extent of invasive species. Special consideration should be given to wetlands with tributary connections, such as the wetlands to the west of Edward Curry Avenue, to assist with the BOA's flooding and drainage.

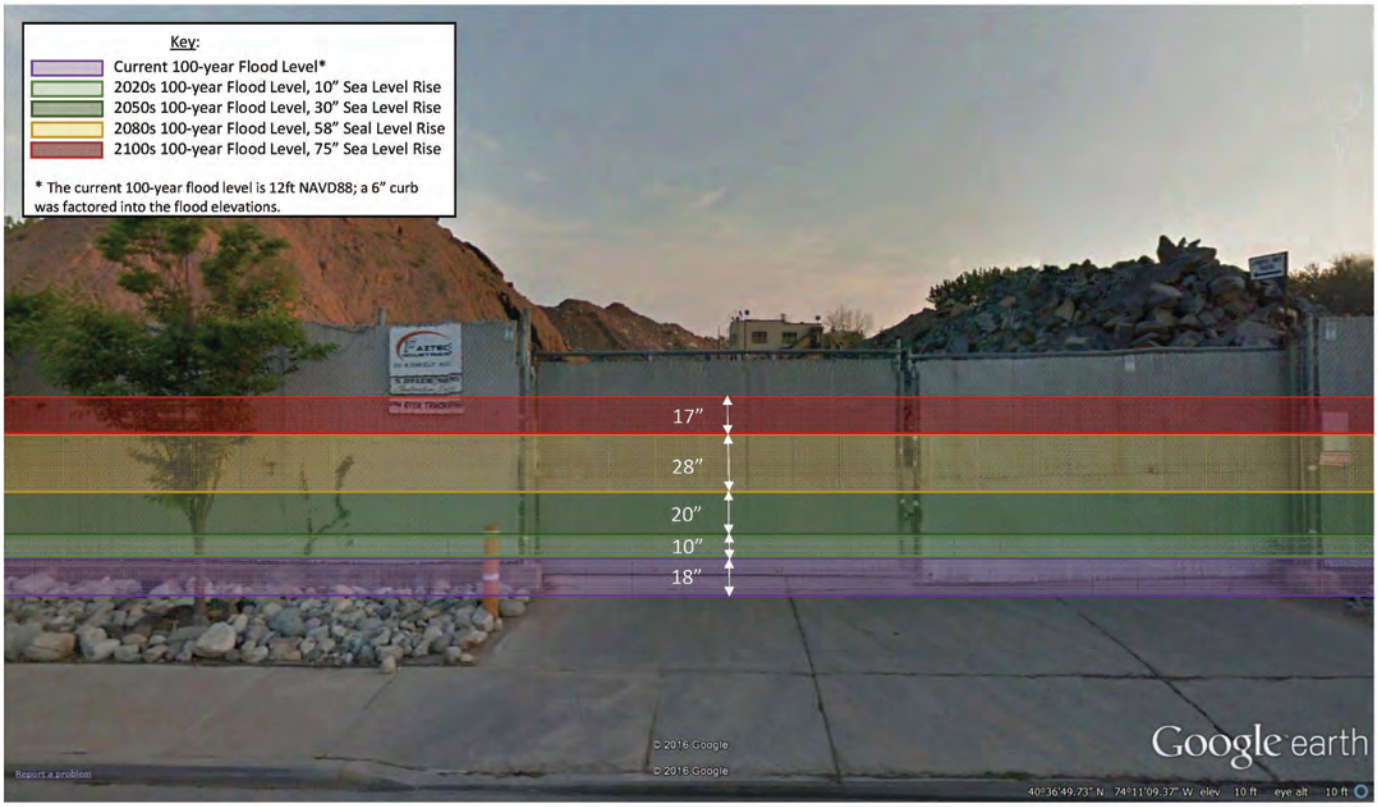


Figure 93. Bloomfield Ave Future Flood Levels

Source: The New York City Panel on Climate Change (NPCC), 2015 report on Climate projections of New York

13. District Flood Resiliency

Build a flood resilient district

Bloomfield Avenue, Chelsea Road, NYCDOT Sites and River Road Bluebelt

The proposed plan for the long-term roadway strategy for the BOA involves the reconstruction of roads to protect against chronic flooding and sea-level rise. Recognizing the significant wetland conditions in and around the local roadway network, our road raising strategy includes provisions for natural stormwater management strategies that will contribute to the overall viability and value of the wetlands in the district. Our roadway design concepts formulate bluebelt strategies that filter roadway run-off into the wetland system. Bluebelts are systems of natural and/or constructed wetlands that manage stormwater. They were pioneered on the South Shore of Staten Island as an alternative to traditional grey water piping system. A Bluebelt utilizes wetlands as natural 'holding tanks' and conveyance to restore predevelopment hydrology. Low elevations and flat topography in the BOA create drainage and stormwater management challenges which will only increase in the future as sea levels rise. Creation of a Bluebelt will address this issue and improve natural area value within the BOA. In the proposed plan, stormwater from neighboring parcels and roads would be directed into a constructed wetland (the Bluebelt) that will store and manage the water prior to discharging to tidal waters. The Bluebelt is proposed for the undeveloped parcel at 121 Bloomfield Avenue property.

The proposed Bluebelt property is owned by DCAS and at this time does not have constructed buildings or managed use. In the conceptual plan, this property would be developed into a constructed wetland with elevations designed to consider tidal conditions. The constructed wetland would connect to the tidally influenced area on the western side of Chelsea Road by means of a spillway. The soil surface of the Bluebelt would be designed at an elevation of approximately five feet NAVD88, one foot above mean high-high water. The site currently has an elevation of between five and seven feet NAVD88 and will need to be excavated to four feet NAVD88 and covered with one foot of clean soil. Wetland plantings would not only assist in filtering and cleaning of the collected stormwater but would also provide additional ecosystem benefits and soil stability. In order to route all stormwater to the Bluebelt and prevent future flooding issues, Chelsea Road must be raised to an elevation of eight feet NAVD88, which is a height differential from current elevations of up to three feet. This elevation will allow for two feet of extended detention within the Bluebelt and prevent flooding on Chelsea Road. Stormwater from Chelsea Road will be diverted to the Bluebelt.

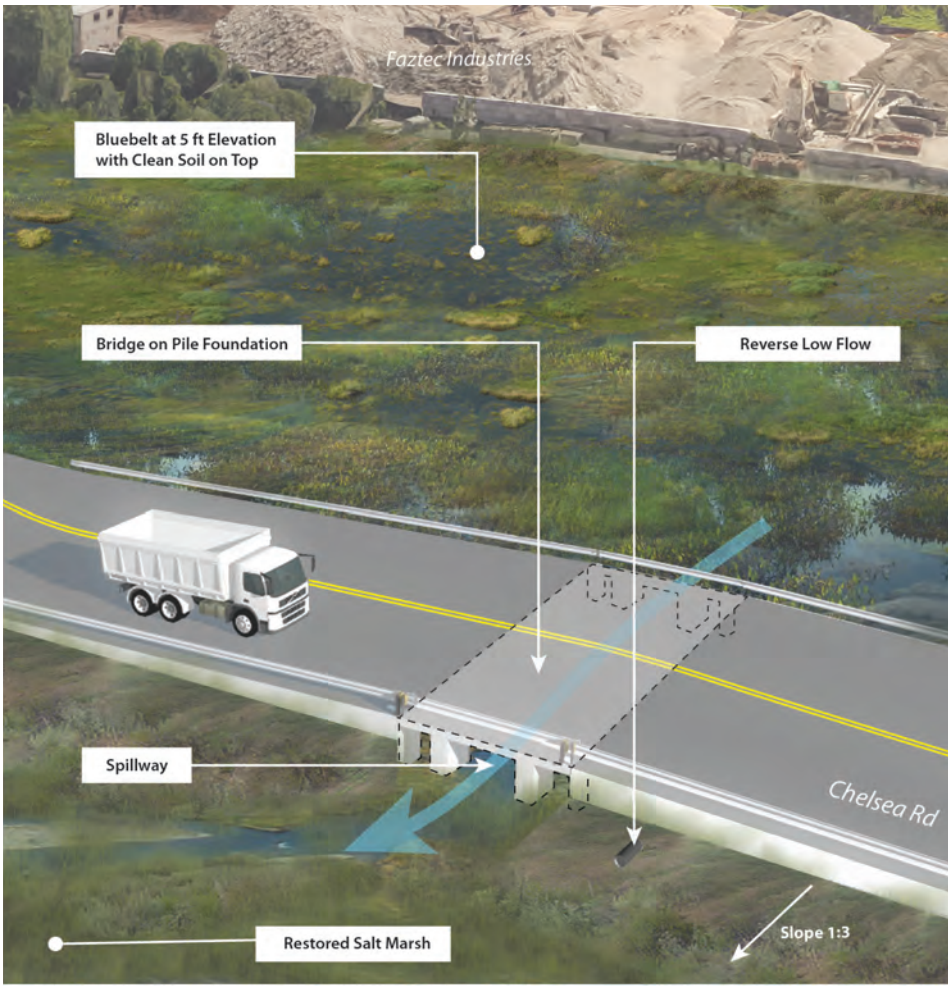


Figure 94. Rendering of propose raised Chelsea Road

In addition to the Bluebelt which treats freshwater, a salt marsh could be restored to the west of Chelsea Road across from the Bluebelt. Salt marshes grow in the upper ranges of the intertidal zone. A salt marsh restoration in the area would require excavation, importation of clean soil, and planting. Approximately five acres of salt marsh can be restored and potentially serve as mitigation for future development within the BOA.

Three distinct plans utilizing the Bluebelt approach have been analyzed for the BOA. Each of the three plans require raising of Chelsea Road as described above and provide the option for salt marsh restoration for mitigation of future development within the BOA in the 4.6-acre area directly west of Chelsea Road. In addition, two of the outlined plans provide further opportunity for salt marsh restoration and mitigation within a 12.3-acre tidal / upland transitional area south of Saw Mill Creek. Salt marsh restoration provides an opportunity for development within similar marine ecosystems elsewhere in the BOA. Though mitigation ratios vary among development projects, a 3:1 ratio is common within Region 2 of NYSDEC.

The three options call out specific combinations of components to create unique conceptual plans. These components include: Natural area restoration and wetland creation; road/site raising and conveyance improvements; the removal of Chelsea Road; and closure of Bloomfield Avenue.

Summary of Options

Options	Total Cost
Option 1: Raise Chelsea Road and Bloomfield Avenue with Optional Salt Marsh Restoration for Mitigation Purposes	$17,470,883
Option 2: Raise Chelsea Road and Bloomfield Avenue to Saw Mill Creek; Remove Chelsea Road South of Saw Mill Creek and Optional Salt Marsh Restoration for Mitigation Purposes	$31,387,385
Option 3: Raise Chelsea Road to Saw Mill Creek; Remove Chelsea Road South of Saw Mill Creek and Optional Salt Marsh Restoration for Mitigation Purposes; Closure of Bloomfield Avenue	$27,621,720

Existing Bloomfield Avenue

Proposed Natural Channel at Bloomfield Avenue

Figure 96. Bloomfield Bluebelt

Figure 95. Rendering of Chelsea Bridge Removed

Option 1: Raise Chelsea Road and Bloomfield Avenue with Optional Salt Marsh Restoration for Mitigation Purposes

Option One seeks to solve for flooding on both Chelsea Road and Bloomfield Avenue (see Figure 97). The first component of the plan aims to keep Chelsea Road and Bloomfield Avenue in their current configuration. New roadway elevations will allow for two feet of extended detention within the Bluebelt and prevent flooding on Chelsea Road, as shown in Figure 94. Stormwater from Chelsea Road will be diverted to the Bluebelt. Chelsea Road will need to be raised to eight feet NAVD88 to allow for extended detention within the Bluebelt and prevent future flooding. To keep Bloomfield Avenue operational within the plan and end the current persistent flooding issues, Bloomfield Avenue will need to be raised to an elevation of approximately 14 feet NAVD88. This constitutes an average elevation increase of approximately six and a half feet on Bloomfield Avenue. This elevation increase will place Bloomfield Avenue at roughly the same elevation as the new Matrix Development site to the north, reducing flooding and protecting Bloomfield from the effects of future sea level rise. A culvert would be installed beneath Bloomfield Avenue to divert stormwater to the Bluebelt property.

In order to fit within this conceptual plan and alleviate site flooding, sites located between Bloomfield Avenue and Edward Curry Avenue would need to be raised. The estimated required elevation for these sites is 14 feet NAVD88. This represents an average elevation increase of approximately four feet among the adjacent sites. Site raising is not only critical to the functionality of the plan but will also reduce the site's vulnerability to future sea level rise and associated increases in flooding and storm surges.

This solution would provide the opportunity for salt marsh restoration in the 4.6-acre area directly west of Chelsea Road. This restoration is optional, as the Bluebelt could function with the area in its current condition. However, it could provide mitigation for development elsewhere within the BOA.

The estimated order of magnitude cost estimate for this option assumes many conditions that have yet to be designed in this conceptual plan. Please see the Appendix for a detailed cost breakdown and the assumptions included within. The following table outlines the costs for each component of Option 1 and the total cost. The costs presented do not include raising adjacent properties to 14 feet NAVD 88.

SUMMARY- Option 1	
Raising Bloomfield Avenue	$6,023,332
Raising Chelsea Road	$1,950,718
Construction of Bluebelt	$5,126,044
Salt marsh restoration west of Chelsea Road (4.3 acres)	$4,370,789
TOTAL	$17,470,883

The benefits of this project are that both Chelsea and Bloomfield will be kept in operation and designed to mitigate against future sea-level-rise conditions. Some of the negatives associated with this option include the significant costs that would have to be born to implement the public realm improvements and the impacts upon adjacent properties and their operations and the costs associated with filling properties along Bloomfield to maintain the elevations necessary to maintain roadway access.

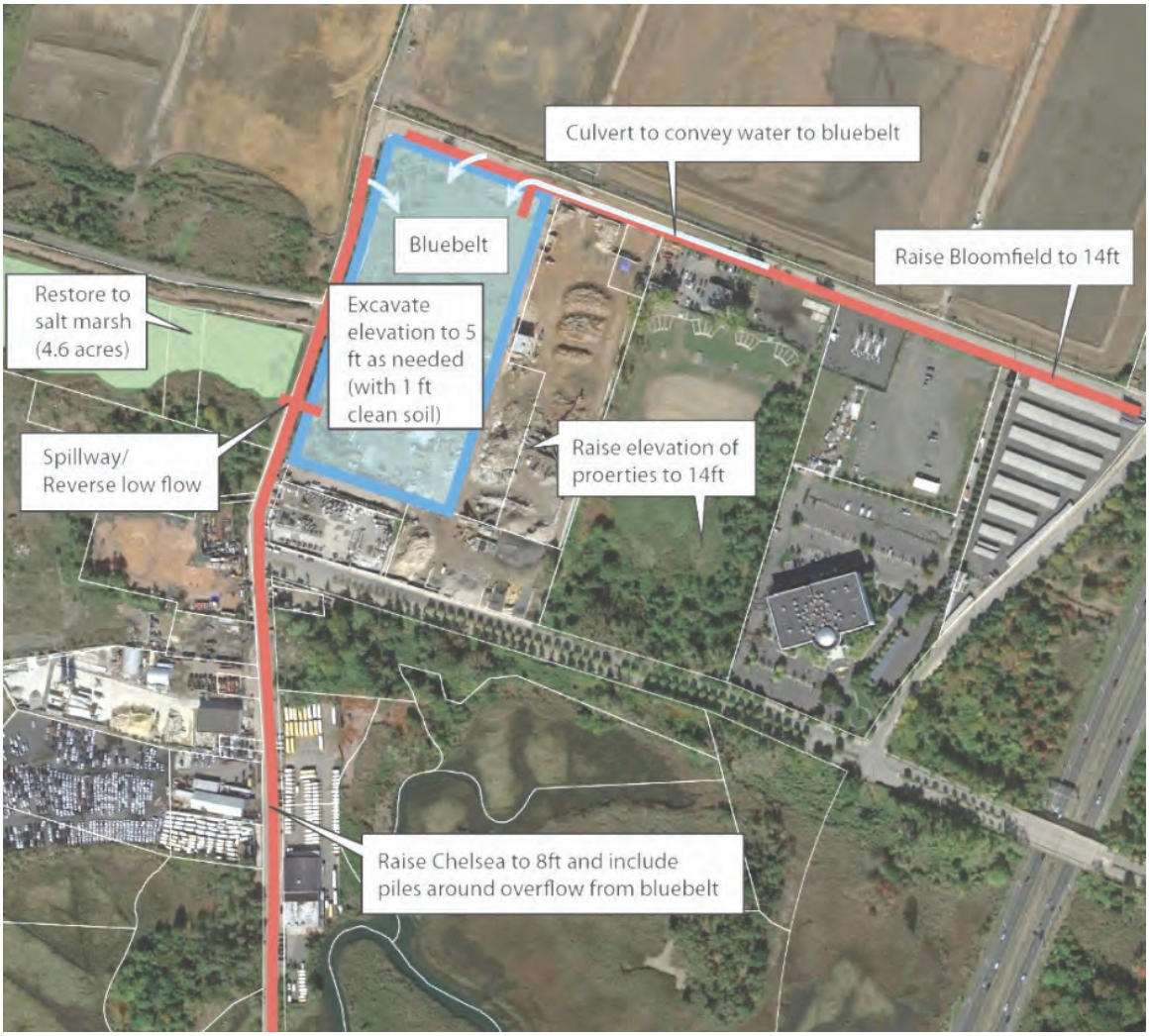


Figure 97. Resiliency District - Option 1

Option 2: Raise Chelsea Road and Bloomfield Avenue to Saw Mill Creek; Remove Chelsea Road South of Saw Mill Creek and Optional Salt Marsh Restoration for Mitigation Purposes

Option 2 includes the Bluebelt concept and salt marsh in Option 1 with the addition of closing Chelsea Road south of Saw Mill Creek, as shown in Figure 98. The portion of Chelsea Road between 400 Chelsea Road and the exit ramp from the West Shore Expressway would be removed. This option would improve wetland connectivity and provide further mitigation opportunities for salt marsh restoration. Construction of a traffic circle immediately north of Saw Mill Creek would provide vehicle access to 400 Chelsea Road and other properties to the south of Edward Curry Avenue An additional element may be necessary to ensure connectivity due to the closure of a portion of Chelsea Road, which serves as the gateway for traffic exiting the BOA traveling south along the West Shore Expressway. For traffic from the northern portion of the BOA, a ramp connecting the eastbound lane of Edward Curry Avenue to the southbound West Shore Expressway service road would offer a replacement route that keeps trucks and traffic away from South Avenue near the Teleport (further east). This option would include construction within a wetland area and requires further study to fully assess environmental and traffic impacts. In October 2016, New York State DOT announced plans to construct an auxiliary southbound lane on the West Shore Expressway, between Victory Boulevard and Muldoon/Arden Avenue exits , just south of the BOA. This encouraging commitment by the NYSDOT to keep the west shore moving efficiently and smoothly may be indicative of support for improved roadway access to bolster industrial growth.

The areas adjacent to the portion of Chelsea Road to be removed consist of non-native dominant plant communities within the intertidal and upland transitional zones. Removal of Chelsea Road will allow for restoration of salt marsh. Approximately twelve acres of new salt marsh could be created from road removal and restoration. Elevation is critical in the health and functionality of a salt marsh and this plan would require excavation. To reach the desired elevation, three quarters tide to mean high tide, approximately two and a half feet of soil will need to be removed and one foot of clean soil imported.

There are multiple benefits to this plan. Removing infrastructure and converting the area to salt marsh provides many ecological benefits. In a low-lying, flood-prone area, climate change and associated sea level rise is a concern. Road removal and restoration of the salt marsh is a holistic approach to managing this concern. The salt marsh will restore the connectivity of the natural areas and allow for improved drainage and mitigate flooding. Creation of the salt marsh area would also provide mitigation for development within the BOA. In addition, the deconstruction of this portion of Chelsea Road removes one of the area's most heavily susceptible to illegal dumping within the BOA.

The cost estimate for Option 2 follows the same process and includes the same assumptions as shown in Option 1, with the addition of the costs associated with the removal of Chelsea Road and accompanying salt marsh restoration. These costs do not include raising adjacent properties to 14 feet NAVD 88, nor do they include the cost of a ramp connection between Edward Curry Ave and the southbound West Shore Expressway, which require further environmental study. A full cost breakdown can be seen in the Appendix.

SUMMARY- Option 2	
Raising of Bloomfield Avenue	$6,023,332
Raising of Chelsea Road	$1,950,718
Construction of Bluebelt	$5,126,044
Salt marsh restoration west of Chelsea Road (4.3 acres)	$4,370,789
Salt marsh restoration south of Saw Mill Creek (12.5 acres)	$13,916,502
TOTAL	$31,387,385

Figure 98. Resiliency District - Option 2

Option 3: Raise Chelsea Road to Saw Mill Creek; Remove Chelsea Road South of Saw Mill Creek and Optional Salt Marsh Restoration for Mitigation Purposes; Closure of Bloomfield Avenue

Option 3 includes the Option 2 elements of raising Chelsea Road to Edward Curry Avenue and removing Chelsea Road south of Saw Mill Creek with optional salt marsh restoration. However, unlike Options a and 2, Option 3 recommends turning Bloomfield into a natural channel that conveys water to the Bluebelt instead of raising it to keep the road operational (See Figure 99).

As described above (reference section on Roadway Conditions), flooding on Bloomfield Avenue is a long-standing issue for the BOA. The road requires constant upkeep through temporary fixes that are costly, and ultimately unsuccessful. In addition, the Matrix Development site directly north of Bloomfield Avenue has been recently raised to an elevation of 14 feet NAVD88, further compounding the site's flooding issues by reducing flood storage.

In order for Bloomfield to remain operational, significant infrastructure reconstruction and road raising would be required (as discussed above in Options 1 and 2). In addition, keeping Bloomfield open requires raising of all properties between Bloomfield Avenue and Edward Curry Avenue. To avoid this substantial effort and provide a long-term, holistic solution, it is recommended that Bloomfield Avenue be closed to traffic and businesses be provided frontage on Edward Curry Avenue. In this plan, Bloomfield Avenue would be turned into a planted, natural conveyance path to the Bluebelt by excavating a 50 ft wide channel to approximately six feet NAVD88. The adjacent sites would only need to sit above six feet NAVD88 and current LIDAR data shows they currently are above this elevation. The exclusion of site raising would reduce effort and costs.

The cost estimate for Option 3 follows the same process and includes the same assumptions as that shown in Option 2, except the cost of raising of Bloomfield Avenue has been changed to the cost of converting Bloomfield Avenue to a natural channel. A full cost analysis, along with included assumptions, can be seen in the Appendix. The cost of reconfiguring adjacent sites to front Edward Curry Avenue are not included in the cost estimate.

SUMMARY- Option 3	
Conversion of Bloomfield Avenue to natural channel	$2,257,667
Raising of Chelsea Road	$1,950,718
Construction of Bluebelt	$5,126,044
Salt marsh restoration west of Chelsea Road (4.3 acres)	$4,370, 789
Salt marsh restoration south of Saw Mill Creek (12.5 acres)	$13,916,502
TOTAL	$27,621,720

The consulting team recommends adoption of Option 3 as it provides the maximum area of salt marsh restoration and associated mitigation opportunities, and by converting Bloomfield into a natural channel removes one of the most problematic flooding issues in the BOA (See Figure 96 – Bluebelt Strategy). The cost of converting Bloomfield into a conveyance channel is approximately half that of raising it to the needed elevation to remain operational. The elimination of site raising reduces additional costs and substantial effort. Implementation of this option would need to be coordinated with the owners that have property fronting on Bloomfield to determine if their operations could be revised to accommodate converting access over to Chelsea Avenue and the associated change to property usage that would result.

These options are presented as long-term strategies that shape approaches for raising capital funds to preserve local roadway infrastructure and continue economic viability for this industrial district. Combinations of approaches should be considered and phasing of roadway projects may need to be considered as funds can be identified for elements of the reconstructions. The costs for preserving all of the roadways in the district is prohibitive and will place a hefty financial burden on the city.

As of November 2017, all of the roads in the West Shore BID and BOA have been paved. Bloomfield Avenue no longer floods and has had proper drainage to Gulf Avenue. In addition, Borough President Oddo is assisting with setting up a meeting with Matrix Development to discuss coordination of lighting, sewers, etc. for January 2018.

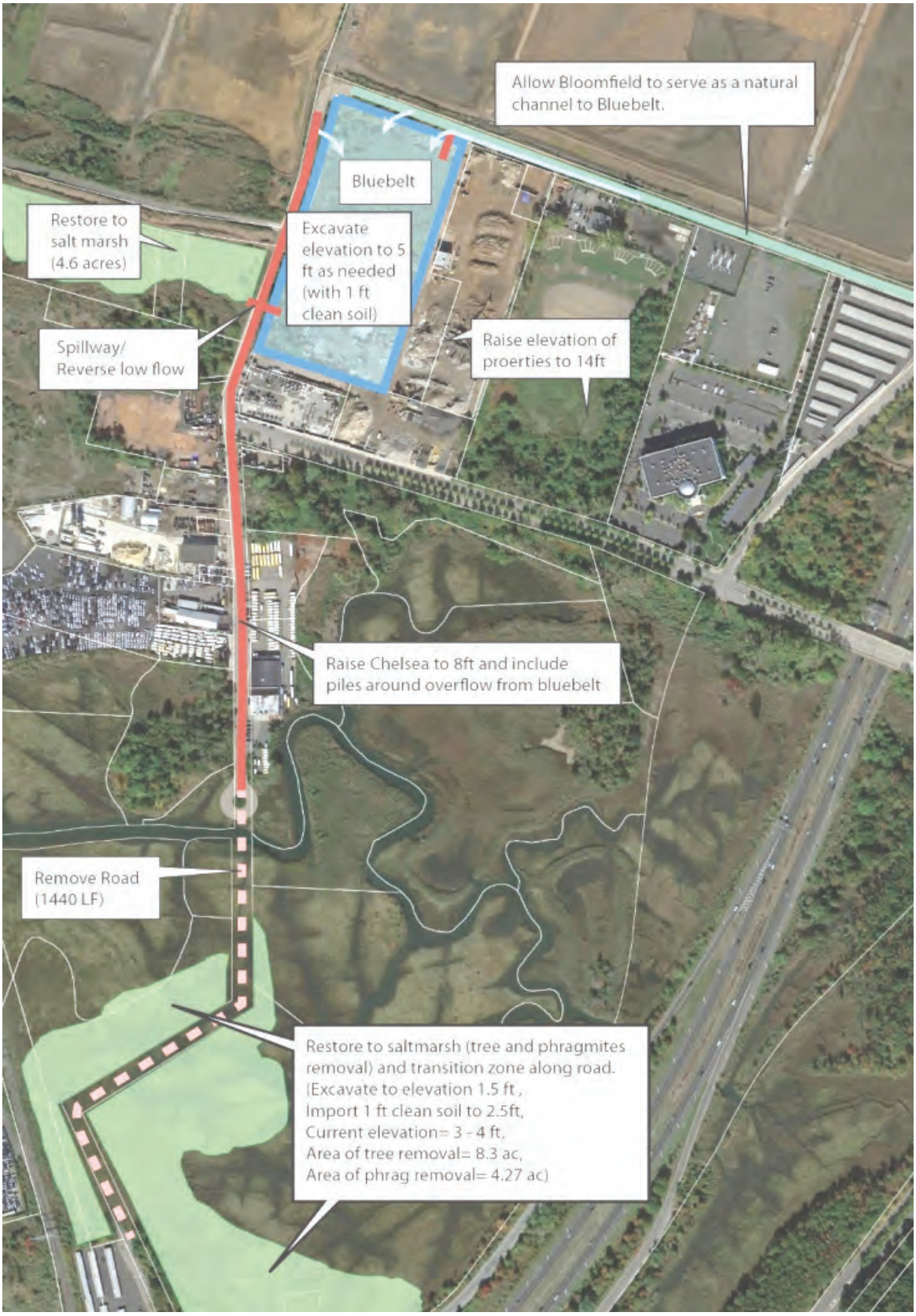


Figure 99. Resiliency District - Option 3

Business Development

In addition to identifying strategic sites, Greener by Design was tasked by SIEDC to examine the challenges of conducting business in Staten Island, with a focus on the West Shore Brownfield Opportunity Area. The cost of doing business on Staten Island is potentially one of the highest in the nation due to bridge tolls, fines and regulations, and taxes. In addition, launching and operating a business venture in Staten Island has unique elements than other boroughs of New York City. In order to achieve a successful implementation strategy for the revitalization of the West Shore area, it was essential that unique strategies were examined to incentives development and mitigate prohibitive costs. The following are recommendations of various focus areas that will pave the way for streamlining opportunities for growth.

SWOT Analysis of Doing Business in the West Shore BOA

Before developing projects and recommendations for this section a SWOT (Strengths Weaknesses, Opportunities, and Threats) analysis was conducted for the BOA. The following SWOT analysis (below) outlines existing conditions that a company looking to do business in the West Shore would encounter. From this analysis, further projects and recommendations were developed for Blanket Permitting/ District Planning, Collaboration with Matrix Development, creating better access to grant funding, offering tax incentives, and being competitive with New Jersey.

SWOT Analysis Table

Strengths • Location • Collaboration through the WS BID • Innovative companies • Name brand products • Recognized business leader	**Weaknesses** • Lack of utility infrastructure • Flooding • One-way streets • Need for Signage • Lack of connections to active freight • Traffic • Limited Public transportation • Industrial zoning limits commercial employment opportunities • Lack of retail store frontage accessibility
Opportunities • Creation of ombudsman to stream-line permitting needs • Two-way streets • Partnership with NYC SBS to further business promotion and grants • Incentives for marketing • Incentives for employment retention	**Threats** • Competition with neighboring industrial parks • Competition with New Jersey adjacent counties • Competition with e-commerce and businesses like Amazon

14. Blanket Permitting /District-Wide Planning

Develop blanket permitting/district-wide planning and create a local ombudsman

Staten Island is in dire need to remedy the challenges of opening a business and to streamline the approval processes for redevelopment and expansion projects.

New and expanding businesses in Staten Island face barriers in navigating paperwork amongst several New York City agencies. Once a new business purchases a new site, the reality is that this business might not get to start operation for several months to years due to bureaucratic red-tape. Some of these challenges are speculated to stem from the overwhelming rise of building permit applications. According to the most recent agency performance report from the Mayor's Office of Operations, the city's Department of Buildings can take nearly twice as long to complete the first plan review. DOB also attributes the backlog of applications following a surge in year-end filings. The economic climate has also contributed to the uptick in permit issuance. The numerous challenges businesses face with agencies has created a critical need for expediting services.

Blanket permitting is the consolidation of different permits in order to streamline the process. It would require coordination with various departments such as NYC Planning, NYC Parks, NYC Department of Environmental Protection, NYC Office of Environmental Remediation, New York State Department of Environmental Conservation, and others. Additionally, creations of programs for wetland mitigation and development right transfers will allow for better use of vital space. Land swaps can be implemented to increase economic benefits while preserving open space. Here are some current and past initiatives:

- NYC Small Business Services offer the Business Acceleration program: http://www.nyc.gov/html/nbat/html/home/home.shtml
- Reviving programs such as Code Notes which covers 15 common construction projects including Building Code, Zoning, Fire, Multiple Dwelling Law, and Energy Conservation Code into an easily digestible form would expedite the log-jam of new development projects. Improvements including New Opportunities for FAR Expansion as well as Public/Private Land Transfers

On a global scale, there is a much-needed consideration for a consolidation of permits through a pilot initiative with NYC DEC. Several property owners in the BOA have discussed the possible threat faced by the devaluation of property

due to sea-level rise and persistent flood events. In order to address these threats, the West Shore BID has promoted working as a unit rather than as individual property owners. In other terms, collective bargaining will be more effective than a series of one-off requests for elevations of property and filling of wetlands. There are two major overarching strategies that can assist in this effort. The first path would be to establish a Memorandum of Understanding for a mitigation strategy which would highlight the benefits of improved fresh and tidal wetlands, better economic activity and harden the infrastructure of flood-prone locations within the BOA. The second path and least favorable is to scope a draft Environmental Impact Statement for the BOA. The EIS could potentially be funded by the New York Regional Council.

On March 23, 2017, SIEDC and Greener by Design had a meeting with NYS DEC to discuss the agency's potential interest in advancing the goals of the BOA. The creation of an ombudsman was discussed and the feedback that was received was to create a listing of agencies that could participate in this concept. In addition, the concept of district-wide planning instead of blanket permitting came from the comparison of the Meadowlands in New Jersey that has a separate oversight commission. A third recommendation was the creation of an educational program for permitting aligned with planning reviews.

In regards to working with the NYC DEC and NYC EDC for permitting, the Marshes Program is in need of public advocacy from groups like SIEDC, elected officials, and the West Shore BID to continue the wetlands mitigation program. The Marshes: Saw Mill Creek Wetland Mitigation Bank is led by NYC EDC. The project is currently at a stalemate as there are unresolved issues for US Fish and Wildlife to 1) grantting of credit for removal of a portion of fill that appears to have been deposited after the effective date of DEC wetland regulations and 2) the fear that once restored, contaminated sediments that are endemic to the NY/NJ harbor estuary will settle out on the newly created saltmarsh and become an attractive nuisance to benthic fauna, fish, and wildlife. An MOA between the DOI and DOA regarding the dispute resolution via the 404(q) process is currently a challenge which strictly limits the process to projects that "will result in unacceptable adverse effects to aquatic resources of national importance." This project is designed to result in a net gain of aquatic resources which are certainly of regional importance and may be considered of national importance.

SIEDC should continue to pitch to NYC SBS and NYCEDC to enroll an ombudsman for assisting newly approved businesses entering Staten Island. This ombudsman would facilitate current offerings from NYC EDC and NYC SBS to entice new innovative businesses and would serve as a conduit for promoting available incentives. NYC SBS and NYC EDC have assisted SIEDC with working with businesses for access to their loan programs. For each fiscal year, the agencies track SIEDC's progress in helping about five to ten businesses access loans. There is some follow-up for ensuring that the businesses meet these goals. In 2005, this program was initiated by Mayor Bloomberg to enable SIEDC to identify issues then advocated to Small Business Services for all policy and permitting issues that arise. NYC SBS offers programs such as the Industrial and Commercial Abatement Program for the purchase of new equipment, and expansion opportunities. SIEDC should host regular events and conferences to have lenders and city officials speak about the variety of program offerings that range from small business loans to hardening business infrastructure for resiliency. One such conference was the NYC Development Finance Conference in 2014.

Timing is the most critical factor for a business when opening up in New York City. It is crucial for businesses to engage early on with funding agencies in order not to miss the window for deadlines. NYC EDC's Strategic Investment Group is key for expanding or moving to or within New York City as their focus is financing, incentives, and real estate, facilitating programs such as the New Markets Tax Credit. Larger projects can access tax incentives through the New York City Industrial Development Agency (NYCIDA) and Build NYC Resource Corporation (Build NYC). SIEDC should also create a list of pre-qualified consultants and expeditors who have experience in navigating government regulatory agencies. These expeditors would nest in various agencies to serve as the pool of key experts. SIEDC could include this within a membership program or create an online portal in which interested businesses and individuals can find prospective consultants.

15. Matrix Development

Collaborate with Matrix Development on alternative energy production, collaborative co-branding and public advocacy

a) Alternative Energy Production and Sale Proposal

The Matrix Development Group is currently developing a 200-acre industrial park north of Bloomfield Ave. The industrial park will include 3.5 million square feet of distribution logistics space and 120 acres of parking, detention basins and open space. There are two speculative buildings under construction, 975,000 SF and 450,000 SF. The site is master-planned as a Distribution Park with cross-docking. Cross-docking refers to moving product from a manufacturing plant and delivering directly to the customer with little or no material handling in between. Cross-docking reduces material handling and the need to store the products in the warehouse. There is potential space that could produce a substantial amount of energy using rooftop and ground-mounted solar panels.

SIEDC should reach out to Matrix Development to see if they are interested in installing solar panels on their site as well as collaboratively participating in the NYC Solar Partnership.

b) Collaborative Co-branding for the Industrial West Shore

As one of the largest new development project in New York City, there could be a substantial amount of attention toward The Matrix Development Industrial Park. SIEDC and West Shore iBID should work with Matrix Development Group to

Co-brand the West Shore in order to make it more attractive to potential tenants. Efforts to co-brand will be carried out by engaging the future tenants via WS iBID with a future vision plan. A comprehensive guide for buildings will include sustainable best practices from competing commercial real estate developers such as Prologis to further the goals of the Green Zone plan.

c) Matrix in New Jersey

Matrix has provided significant investment in mixed-use and industrial development in New Jersey, Pennsylvania and New York. Establishing public-private partnerships is a strong element of Matrix's real estate investment model. There are notable examples that Staten Island should gain an understanding to further the relationship with real estate companies similar to Matrix Development Group.

Notable public-private partnership transactions with Matrix:

- Establishment of a "Greenbelt" with a preservation of 80 acres of open space with the development of the Matrix Business Park at Exit 7A interchange within a foreign trade zone.
- Development of LEED medical office facilities at the Octagon Center in Bucks County, Pennsylvania

d) The Top Four Requests for Public Officials

- Encourage a comprehensive master plan of transportation and logistics with an understanding of daily operating hours. A part of the transportation plan may include employee commuting similar to MeadowLink in New Jersey.
- Incentive preservation and sustainable practices such as the preservation of open space
- Incentive the use of renewable energy and energy efficient measures
- Mandate the selection of Staten Island residents as a priority over other boroughs.

16. Access to Grants

Create better access to state, federal and foundation/corporate grant programs

In addition to incentives and programs available through NYC EDC and NYC SBS, there are potential grants and resources worth investigating at the federal and state level as well as through foundations and corporations. Project planning,

Figure 100. Future Matrix Site

needs statements/narratives, budgets, identifying potential partners, and keeping a close eye on funding cycles and program announcements are all key to gaining access to these opportunities. Descriptions or narratives for specifics sites need to include: basic site data, current use, square footage/ acreage, background history, future intentions for the site, and possible future costs. Additionally, there should be an ease of access for boroughs to apply for city/municipal grants. This may require pre-approved permission from city officials.

On the federal level, potential funding opportunities can be found focusing on Transportation: TIGER, CMAQ, FHA; Environmental: Environmental Protection Agency, Department of the Interior, Department of Agriculture; and Real Estate and Commerce Development: Commerce Department, US DOE, SBA. HUD. For example, USEDA Smart Growth America has a small scale-manufacturing and place-based technical assistance program while the US EPA Smart Growth Initiative provides a range of tools and resources. For communities impacted by brownfields that have received funding through the US EPA Brownfields Program, there is an upcoming opportunity through the Groundwork USA Program, designed to build community capacity to improve the environmental, economic and social conditions of the impacted communities.

On the state level, there are several state agencies that have relevant programs such as the NYS Department of State, NYS Department of Environmental Conservation, NYS Department of Transportation, Empire State Development and NYSERDA. Some of these fall under the incentive category such as the BOA Bump Up, an increase up to 5% of the allowable tangible property tax credit component of the brownfield redevelopment tax credit.

The NYSDEC's Environmental Restoration Program is currently being revised but DEC offers technical assistance grants and NYSERDA offers programs related to energy efficiency and renewable energy. NYSERDA's Cleaner Greener Communities Program has a new solicitation in development and NYSERDA's Industrial Strategic Energy Management Pilot program is soliciting industrial facilities for a year-long pilot program. A recent partnership between NYSDOT and NYSERDA invited proposals for projects that focused on smart transportation that has potential to reduce greenhouse gas emissions.

Building partnerships and developing strong contacts with local organizations that support local projects such as the Staten Island Foundation and Richmond County Savings Foundation is key to the ongoing success of these projects. Although grant program amounts may seem small, the recognition and community support are important to cultivate for the long-term success of the projects. Richmond County Savings Foundation, for example, has programs to help support green roof, bluebelt and solar projects.

- Ease of access to grants for cities and municipalities
- Prepare site-specific information to be teed up for grants
- Create a database of ongoing opportunities to be tracked regularly

Potential Funding Programs

Fed/State/City/Private	Program
Fed: US	EPA - Smart Growth
	EDA
State: NYS	Brownfield Redevelopment Tax Credits
	NYSERDA
	NYS DEC
City: NYC	EDC Emerging Developer Loan Fund
	Industrial Business Zone Relocation Tax Credit
	Industrial and Commercial Abatement Program
	Exempt Facilities Bond Program
	Open Industrial Uses Sales Tax Exemption program
	Manufacturing Facilities Bond Program
	NYC Food Manufacturers Growth Fund
	Salex Tax Exemption for Manufacturers
Private: Foundation/Corporate	Richmond County Savings Foundation
	The Staten Island Foundation
	Con Ed

17. Tax Incentives

Offer tax abatements

NYCEDC Amended Tax Abatements

- ICAP is the Industrial & Commercial Abatement Program that provides abatements for property taxes for periods of up to 25 years. To be eligible, industrial and commercial buildings must be built, modernized, expanded, or otherwise physically improved. 421-a and J-51 Tax Abatements will not be studied as they only relate to residential dwellings. http://www.nycedc.com/sites/default/files/filemanager/ICAP_Industrial.pdf
- Industrial Property: Buildings or structures where at least 75% of the property's total net square footage is used or immediately available for the assembly of goods or fabrication or raw materials
- GbD recommends that the aforementioned requirement for the ICAP be modified to be inclusive of sites that have a pending approval for a permanent building.

18. Attract Companies

Attract priority companies to relocate to the BOA

There are key emerging industries that would be interested in relocating to Staten Island's industrial nodes. Industrial manufacturing may include biogas/anaerobic digestion with ancillary industries such as food and beverage production. GbD recommends having SIEDC host a development/broker forum to highlight the potential for real estate brokers that are overlooking the area for industrial uses. GbD will work with SIEDC to invite interested contacts for SIEDC's Land and Finance Symposium in January. Select invites will be focused on private entities who are in need of expansion opportunities outside of the NJ market. The ideal contacts include attorneys, real estate brokers, and representatives of companies. From past interviews, brokers of industrial clients have expressed that there will be a future shortage of space for expansion opportunities in New Jersey. The key market trends that should be noted for the Land and Finance Symposium are:

- Deals are taking longer to close: as decision-making for site selection is becoming a longer process, potential developers and tenants are becoming more active. Retail tenants, in particular, are conducting more thorough financial analysis to make market decisions on site selection. One unique trend is the use of psycho-graphics for determining the type of consumer market in the surrounding area.
- Fulfillment logistics and cross-docking are key for new businesses: e-commerce order fulfillment, particularly at the last mile and the logistics for returns, are significant parts of the omnichannel issues that prospective businesses face.
- Follow the Investors: institutional investors are becoming more comfortable with chasing higher returns for mixed-use sites that range in deals from $20 million to $30 million

19. Competitive Edge

Be competitive with New Jersey

GbD explored analysis to vet the current challenges of doing business in Staten Island vs NJ. There is a combination of factors in NJ that has propelled the industrial market since the last great recession, which include tax incentives, a collaborative effort to be Post-Panamax ready, improvements in infrastructure via TIGER grants, and a greater understanding of port distribution supply chain. GbD particularly examined the key agencies responsible for business and economic development which include the New Jersey Economic Development Authority, New Jersey Business Action Center, Choose New Jersey, and the New Jersey Business and Industry Association (NJBIA). Choose NJ markets the five reasons to choose New Jersey with the following taglines: Highly Educated, Perfectly Located, World Class Infrastructure, Globally Connected, and Business Assistance. As the lead marketer for New Jersey, they have successfully championed the creation of upwards of 38,800 jobs. NJ EDA has is primarily responsible for the issuance of incentives. The NJ EDA streamlined their incentives for new business looking to relocate or expand under the Economic Opportunity Act of 2013. Incentives were given for more than 60 corporate operations that accounted for more than 12,600 jobs and nearly $1.4 billion in capital investment. The main two programs that have driven investment in job creation are Grow NJ and the Economic Redevelopment Growth program.

On the other hand, NJ routinely finishes near the bottom of state rankings in taxes with among the highest income, corporate, property, sales, and estate and inheritance taxes in the nation. Not only do the state's residents and businesses face an incredibly high tax burden, they are also burdened with many government regulations and mandates that increase the cost of doing business and make it very expensive for New Jersey residents to live. The following are key recommendations that have been prepared based on the examination of the key differences between conducting business in New Jersey and New York City:

- Streamline permitting, especially on projects that need multiple permits from multiple city and state agencies.
- Request an update to the NYC Planning Working West Shore 2030 plan to document existing and potential stakeholders who are interested in developments in land use and transportation
- Coordinate a public-private taskforce to examine the inefficiencies of port industry e.g. high costs of operations, fuel, tolls, travel time which impact bottom line and inability to efficiently use e-commerce
- Commission a taskforce to examine potential for a Hire Local program in partnership with education and emerging industries e.g. workforce development training

Summary of Analysis, Findings, and Recommendations

Economic and Market Trends Analysis

The West Shore is an industrial community that has great potential for growth. Staten Island has the ability to capitalize on companies that outgrow other boroughs such as Brooklyn and the Bronx. NYCEDC through its program managers for industrial development could further assist prospective companies for relocation and expansion opportunities. During outreach to several representatives of NYCEDC and the NYC Industrial Development Agency, there was a keen interest in keeping consistent communication to identify sites that are available for development along with as-of-right incentives.

Another guiding principle discovered during the analysis process was the support that is needed to grow the maritime industry. SIEDC should examine the Port of New York and New Jersey's study that was awarded to New York Container of Staten Island NY for Joint Study of Toll Increase Impact. It will be vital for Staten Island to assess the maritime commerce capacity at Howland Hook Marine Terminal. Container drayage operations were compared at New York Container Terminal versus New Jersey's Port Newark Container Terminal. The data that came from this study will determine challenges for attracting maritime companies. There is significant potential for services such as tugboat companies, barge, dry dock repair, dredging, and steamship agents. SIEDC will continue to promote the plan to enhance development of maritime commerce by hosting stakeholder meetings with New York City Department of Transportation in order to further evaluate the needed infrastructure improvements and enhanced connectivity between major modes of transportation.

Reuse and Development Opportunities and Needs

The West Shore BOA , which is predominantly zoned for manufacturing has experienced economic hardship, challenges for permitting development, and a need for understanding stormwater regulations. Yet there is considerable interest by private developers and business that are in need of industrial space. SIEDC has the unique position to serve as the leader for brokering deals between existing landowners and interested parties who seek re-location opportunities. There are about seven sites that are considered to experience blight, underutilized or vacant. The following are current opportunities that SIEDC can have a stake in leading redevelopment projects.

Strategic Brownfield Sites

While many of the sites within the West Shore BOA may be considered Brownfields, the project team identified several key relevant sites that can be catalysts for revitalization. These sites include the Hogan Asphalt site, WWC Waterfront, the Spencer Street Assemblage, and 250 Meredith. These sites are either vacant or underutilized and may have some levels of contamination. It is recommended that SIEDC and WS iBID coordinate with the owners and facilitate the clean-up and redevelopment of the sites to the suggested or optimal use.

Publicly Controlled and Other Lands and Buildings

There are a number of publicly controlled sites that could assist in the in the stormwater management and revitalization of the West Shore BOA. These sites are primarily clustered around the intersection of Chelsea Road and River Road. They currently sit vacant and are heavily vegetated. This plan recommends that these sites become engineered constructed wetlands that would be incorporated in a "Bluebelt" Stormwater management plan. More information can be found in the "Building a Flood Resilient District" section.

Necessary Infrastructure Improvements

As discussed in the Transportation & Circulation and Infrastructure & Stormwater recommendations, there are number improvements that need to be made in order to improve the current conditions of the BOA and ensure its future success. In terms of transportation and circulation, consolidating roadways, making certain streets two-ways and improving roads based on set design standards as well as improving access to public transportation were some of the key recommendations. In regards to Infrastructure & Stormwater, raising and removing certain roads will be needed as well as using a "bluebelt"/restored wetlands as stormwater management.

Access to Public Transportation

The proposed Staten Island West Shore Light Rail has been one of the most critical projects that has been advocated by the SIEDC, Assemblyman Cusick and Governor Cuomo. The project has secured $4 million from the Metropolitan Transportation Authority (MTA) for the Alternatives Analysis study for the West Shore corridor. The 13- mile route would connect to the Hudson Bergen light rail in Bayonne. SIEDC is expected to meet with MTA in December, 2017 to discuss the status of the Alternatives Analysis study including expected timelines and study details. The study might be subcontracted to a private firm or conducted in-house at MTA. A station could be constructed on several strategic sites including the Hogan Asphalt/Dealer Storage, 501 Industry Road, the Self-Storage or the east side of the West Shore Plaza Mall. Other smaller opportunities include creating and building around bus stops in the northern portions of the BOA. The next step is for SIEDC to secure funding and a sponsoring agency to perform the Environmental Impact Statement (EIS).

As-of-Right Incentives

While there is an array of available incentives for the business community of the West Shore BOA, there are still some pressing obstacles to obtaining competitive grants. It is fairly difficult for a small business to navigate the programs that exist without having considerable assistance from grant

experts and staff. Industrial businesses, in particular need support from public agencies to help navigate what they are eligible for. It is recommended that a comprehensive packet of available programs for site-specific parcels within the West Shore BOA. This packet would also serve as an introductory packet for any new business to the West Shore BOA and IBID. Another on-going strategy will be to enroll participation for larger regional grant opportunities such as the New York State Regional Economic Development Councils' Consolidated Funding Application. SIEDC and the WS IBID can continue to lobby for support for a comprehensive submittal for aforementioned project concepts in stormwater management. SIEDC has advanced its goals in providing additional support to the West Shore business community with a partnership with the Department of Small Business Services (SBS) under the Industrial Business Zone (IBZ) program. The IBZ provides local hands-on assistance for small business financing services as well as important work related to solving agency issues, educating businesses on tax benefits and program enrollment and most importantly, getting small businesses more aware and active in the local community. The SIEDC in the summer of 2017 hosted an Industrial Day in the West Shore that brought together several Staten Island businesses and representatives from National Grid, ITAC, NYCEDC, and NYC SBS. The roundtable presentations and discussion provided valuable guidance on how to pursue existing as-of-right incentives. An incentives guidebook called the Guide to Business Incentives and Programs for Staten Island that was prepared in partnership with NYC SBS and SIEDC is regularly provided at public meetings hosted by SIEDC.

Anticipated End or Future Land Uses

This revitalization plan doesn't propose a specific future end use per se, though it is recommended that the West Shore BOA eventually becomes a type of eco-industrial park. Eco-industrial parks are industrial parks where businesses cooperate with each other in order to efficiently share resources, reduce waste and pollution. Perhaps the most notable example of an eco-industrial park is Kalundborg Eco-Industrial Park in Denmark. Though, an example of an eco-industrial park that could serve as a model for the West Shore BOA in the United States is Reventure Park in Charlotte, North Carolina. Reventure Park includes recycling, energy production, manufacturing and habitat restoration.

In order for the West Shore BOA to become an eco-industrial park, as it develops new opportunities within and around the area should aim to be environmentally friendly and have symbiotic industrial uses, such as connecting to the proposed businesses to the WWC Contracting Waterfront for maritime transportation-related purposes or various recycling business could provide material to manufacturing. SIEDC and the WS iBID should help facilitate new collaborations, development opportunities and help further develop business plans and design concepts.

Figure 101. ReVenture Park Map

Potential Interim Land Uses

The West Shore BOA will not completely redevelop immediately, therefore there are a number of ways the land could be used in the interim. Some of these interim uses are already happening such as in the case of the ADCO Backlot, where there previously was an urban farm and is currently being used for staging equipment for construction of the Matrix Development. Though for some sites it may take longer before development occurs, such as 250 Meredith where it will require environmental cleanup/

restoration work or convincing of the SI Sportsmen's Club to move, therefore the site could be used for solar energy production in the meantime. Or in case of the Spencer Street Assemblage where all three sites would need to be purchased before redevelopment. These sites could be used for car or equipment storage in the interim as the sites are acquired.

Project Names and Key Recommendations

Land Use/Strategic Sites

1. SI Sportsmen's Club - Have WS BID purchase SI Sportsmen's Club and sell it to local business or developer

2. ADCO Backlot - Construct a green office building or vertical farm on ADCO backlot

3. Hogan Asphalt - Develop Hogan Asphalt site into a full-service resource recovery park or green "pick and pack" assembly/warehousing

4. 501 Industry Road - Conform 501 Industry Road

5. WWC Waterfront - Redevelop WWC Waterfront site and modernize docks

6. Spencer Street Assemblage - Have one developer purchase all three Spencer Street Assemblage sites and build one larger structure

7. 250 Meredith - Redevelop and ecologically restore site or transfer to SI Sportsmen's Club

Transportation & Circulation

8. Roadway Consolidation - Consolidate roadway network

9. Gulf Avenue - Convert Gulf Avenue to a two-way street

10. Glen Street - Convert Glen Street to a two-way street

11. Roadway Design Guidelines - Implement roadway design guidelines

12. Alternative Transit Improvements - Improve alternative transportation

Flood Protection & Wetlands

13. District Flood Resiliency - Build a flood resilient district

Business Development

14. Blanket Permitting - Develop blanket permitting and create a local ombudsman

15. Matrix Collaboration - Collaborate with Matrix Development on alternative energy production, collaborative co-branding and public advocacy

16. Access to Grants - Create better access to state, federal and foundation/corporate grant Programs

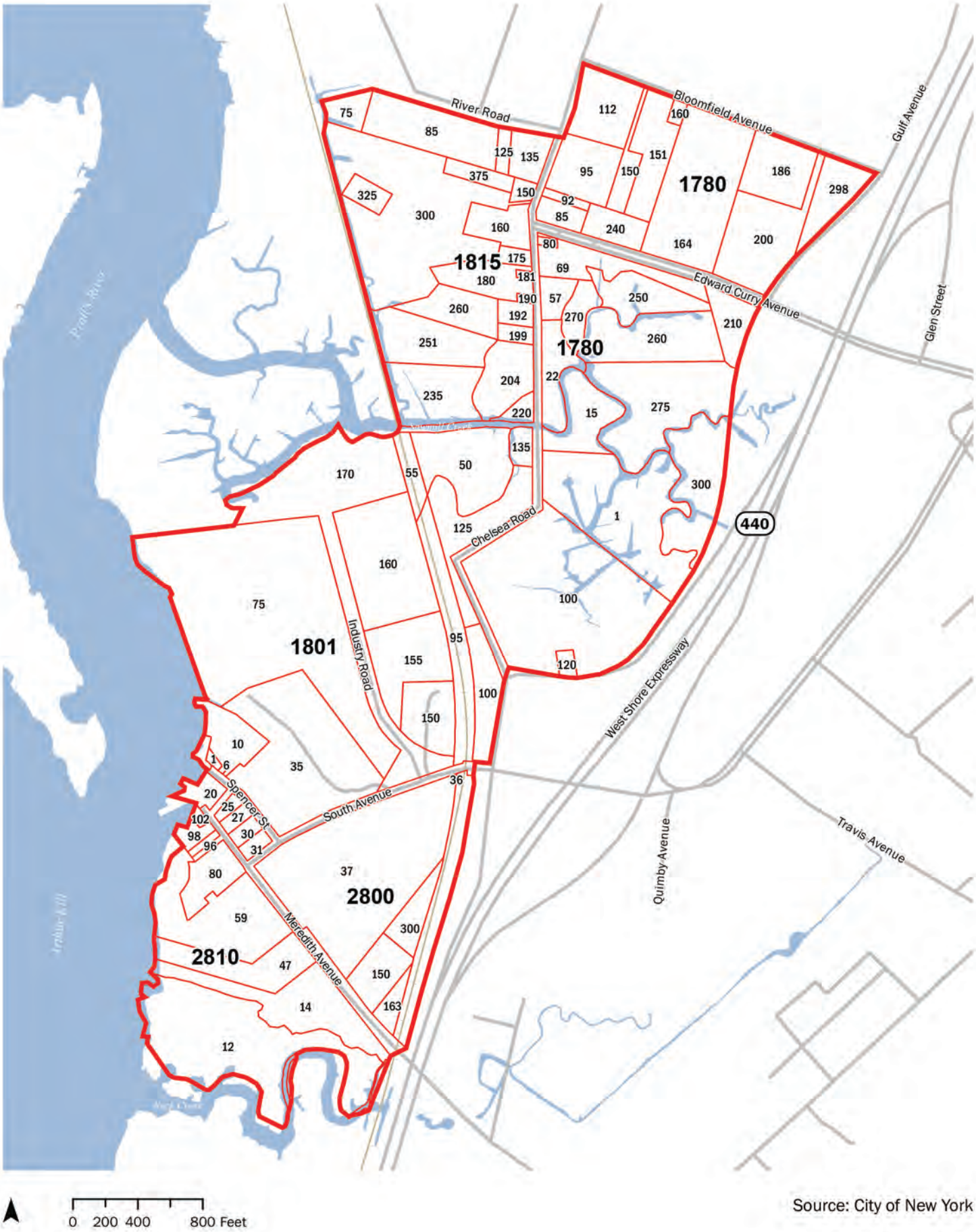
17. Tax Incentives - Offer tax abatements

18. Attract Companies - Attract priority companies

19. Competitive Edge - Be competitive with New Jersey

APPENDIX

BOA Properties



BOA Properties Table

Block	Lot	Address	Owner Name	Land Use	Zone Dist 1	Zone Dist 2	Owner Type	Lot Area (Acres)
1780	1	GULF AVENUE	PARKS DEPARTMENT	11			C	11.22
1780	15	CHELSEA ROAD	M & M GROUP, LLC.	11			P	3.42
1780	22	380 BLOOMFIELD ROAD	I.C. PROPERTIES, LLC	9	M3-1		P	2.40
1780	57	BLOOMFIELD AVENUE	I.C. PROPERTIES, LLC	5	M3-1		P	1.08
1780	69	BLOOMFIELD AVENUE	PARKS AND RECREATION	11			C	3.10
1780	80	298 CHELSEA ROAD	DITTA MALITO PROPERTY	6	M3-1		P	0.14
1780	85	BLOOMFIELD AVENUE	RICHMOND PRECAST INCO	6	M3-1		P	1.01
1780	92	270 CHELSEA ROAD	DEGARLIA HOLDINGS LLC	7	M3-1		P	0.38
1780	95	BLOOMFIELD AVENUE	NYC DCAS	6	M3-1		C	3.27
1780	112	BLOOMFIELD AVENUE	NYC DCAS	10	M3-1		C	3.76
1780	150	220 BLOOMFIELD AVENUE	NYC ECONOMIC DEV CORP	7	M3-1		P	1.27
1780	151	200 BLOOMFIELD AVENUE	S DIFAZIO & SONS CONS	11	M3-1		P	3.55
1780	160	200 BLOOMFIELD AVENUE	BLOOMFIELD MANAGEMENT	9	M3-1		P	0.31
1780	164	170 BLOOMFIELD AVENUE	S I SPORTSMENS CLUB	9	M3-1	M2-1	P	10.02
1780	186	BLOOMFIELD AVENUE	ADDWEL LLC	9	M2-1	M3-1	P	3.67
1780	200	201 EDWARD CURRY AVENUE	ADDWEL LLC	6	M2-1		P	5.83
1780	210	GULF AVENUE	PARKS AND RECREATION	11			C	1.95
1780	240	EDWARD CURRY AVENUE	DEGARLIA HOLDINGS LLC	9	M3-1		P	1.69
1780	250	BLOOMFIELD AVENUE	I.C. PROPERTIES, LLC	11			P	3.06
1780	260	BLOOMFIELD AVENUE	PARKS AND RECREATION	11			C	5.61
1780	270	BLOOMFIELD AVENUE	I.C. PROPERTIES, LLC	11			P	1.54
1780	275	BLOOMFIELD AVENUE	NYC PARKS	11			C	8.89
1780	298	780 GULF AVENUE	SI SELF STORAGE CORP	7	M2-1		P	2.67
1780	300	GULF AVENUE	PARKS AND RECREATION	11			C	5.88
1790	100	GULF AVENUE	PARKS AND RECREATION	11			C	19.13
1790	120	GULF AVENUE	SINGH SATNAM	11			P	0.41
1801	1	30 CHELSEA ROAD	SPENCER MARINE, LLC	11	M3-1		P	0.14
1801	6	461 SPENCER STREET	SPENCER MARINE LLC	11	M3-1		P	0.03
1801	10	451 SPENCER STREET	ANASTASIOS GLIKIS	6	M3-1		P	2.33
1801	20	358 MEREDITH AVENUE	JDR PROPERTIES LLC	6	M3-1		P	0.92
1801	25	436 SPENCER STREET	G.F.Y. PROPERTIES, IN	1	M3-1		P	0.32
1801	27	422 SPENCER STREET	LINDA RUSSO, TRUSTEE	6	M3-1		P	0.40
1801	30	414 SPENCER STREET	934 CRESCENT STREET,	10	M3-1		P	0.46
1801	31	410 SPENCER STREET	BLOCK 1802 REALTY, L	9	M3-1		P	0.44
1801	35	1900 SOUTH AVENUE	VANBRO CORPORATION	1	M3-1		P	12.97
1801	50	SOUTH AVENUE	PARKS AND RECREATION	11			C	5.41
1801	55	BLOOMFIELD AVENUE	THE CITY OF NEW YORK/	11			C	1.23
1801	75	1900 SOUTH AVENUE	VANBRO CORPORATION	6	M3-1		P	27.41
1801	95	CHELSEA ROAD	THE CITY OF NEW YORK/	11			C	4.29
1801	100	625 CHELSEA ROAD	CHELSEA SOUTH ASSOCIA	11			P	2.72
1801	125	BLOOMFIELD ROAD	DEPT OF ENVIRONMENTAL	11			C	4.45
1801	135	CHELSEA ROAD	PARKS AND RECREATION	11			C	0.75
1801	150	501 INDUSTRY ROAD	501 INDUSTRY ROAD LLC	6	M2-1	M3-1	P	3.07
1801	155	INDUSTRY ROAD	501 INDUSTRY ROAD LLC	8	M3-1	M2-1	P	4.90
1801	160	1800 SOUTH AVENUE	SOUTH AVENUE OWNER LL	5	M3-1		P	8.46
1801	170	INDUSTRY ROAD	NYC PARKS	5	PARK		C	8.66

1801	170	INDUSTRY ROAD	NYC PARKS		PARK		C	4.60
1815	75	BLOOMFIELD ROAD	PARKS AND RECREATION	11			C	1.14
1815	85	BLOOMFIELD ROAD	PARKS AND RECREATION	11			C	5.00
1815	125	BLOOMFIELD ROAD	STATEN ISLAND RAILWAY	11			C	0.51
1815	135	BLOOMFIELD ROAD	ECONOMIC DEVELOPMENT	6	M3-1		C	1.52
1815	150	BLOOMFIELD ROAD	NEW YORK CITY	6	M3-1		C	0.43
1815	160	291 CHELSEA ROAD	EMERSON INVESTORS, LL	5	M3-1		P	2.04
1815	175	BLOOMFIELD ROAD	ROCKYS CONSTRUCTION,	10	M3-1		P	0.49
1815	180	333 CHELSEA ROAD	CHELSEA ROAD REALTY,	7	M3-1		P	2.47
1815	181	BLOOMFIELD AVENUE	CHELSEA ROAD REALTY,	7	M3-1		P	0.11
1815	190	BLOOMFIELD AVENUE	SOUTH SHORE ENTERPRIS	7	M3-1		P	0.06
1815	191	BLOOMFIELD AVENUE	FIRST ATLANTIC PROPER	9	M3-1		P	0.06
1815	192	335 BLOOMFIELD AVENUE	SOUTH SHORE ENTERPRIS	9	M3-1		P	0.75
1815	199	BLOOMFIELD AVENUE	I C LAND, LLC	6	M3-1		P	0.53
1815	204	BLOOMFIELD AVENUE	NYC PARKS	6	PARK		C	3.05
1815	220	BLOOMFIELD AVENUE	NYC PARKS	7	M3-1		C	0.62
1815	235	BLOOMFIELD AVENUE	NYC PARKS	11			C	4.44
1815	251	BLOOMFIELD AVENUE	NYC PARKS	11			C	4.34
1815	260	BLOOMFIELD AVENUE	SOUTH SHORE ENTERPRIS	11			P	2.70
1815	300	BLOOMFIELD AVENUE	NYC PARKS	11			C	15.92
1815	325	BLOOMFIELD AVENUE	NYC PARKS	11			C	0.92
1815	375	BLOOMFIELD ROAD	NEW YORK CITY	11			C	1.00
2800	32	TRAVIS AVENUE	THE CITY OF NEW YORK/	11			C	4.03
2800	36	CHELSEA ROAD	ROBERT NEUHAUS	9	C4-3		C	0.03
2800	37	1745 SOUTH AVENUE	SHORE PLAZA LLC C/O A	7	C4-3		P	17.90
2800	150	MEREDITH AVENUE	NYC DCAS	6	C4-3		C	2.34
2800	163	MEREDITH AVENUE	NYC DCAS	6	C4-3		C	0.86
2800	300	MEREDITH AVENUE	DEPARTMENT OF PARKS &	10	C4-3		C	1.71
2810	12	MEREDITH AVENUE	PARKS AND RECREATION	6	M3-1	M2-1	C	13.89
2810	14	MEREDITH AVENUE	SAM & FRANK MEZZACAPP	11	M3-1	M2-1	P	6.07
2810	47	MEREDITH AVENUE	J & A BRUNO LLC	11	M3-1		P	3.91
2810	59	280 MEREDITH AVENUE	J & A FAMILY LIMITED	11	M3-1		P	7.19
2810	80	336 MEREDITH AVENUE	BRUNO, JOHN	11	M3-1		C	2.21
2810	96	356 MEREDITH AVENUE	364 MEREDITH AVENUE,	5	M3-1		P	0.23
2810	98	355 MEREDITH AVENUE	364 MEREDITH AVENUE,	7	M3-1		P	0.62
2810	102	364 MEREDITH AVENUE	364 MEREDITH AVENUE,	11	M3-1		P	0.20

Land Use Codes

01 - One &Two Family Buildings
02 - Multi-Family Walk-Up Buildings
03 - Multi-Family Elevator Buildings
04 - Mixed Residential & Commercial Buildings
05 - Commercial & Office Buildings
06 - Industrial & Manufacturing
07 - Transportation & Utility
08 - Public Facilities & Institutions
09 - Open Space & Outdoor Recreation
10 - Parking Facilities
11 - Vacant Land

Survey Questions

1. Site/Business:

2. Contact Person:

3. Site Address:

4. Define ownership as:
 a. Public
 b. Private

5. Please select from below:
 a. Are you the Landowner?
 b. Do you lease the Site?
 c. Any external interest to lease/purchase the Site?

Land-Use

6. What is the current land-use status of the Site? Choose from below:
 a. Developable
 b. Non-Developable
 c. Vacant-Developable
 d. Vacant-Non-Developable
 e. Occupied-Developable
 f. Occupied-Non-Developable

7. What is a potential use of the Site? Please advise if any plan for expansion.

8. Are you aware of any physical or other constraints on the site that would prevent or hinder your expansion plans? Please explain:

9. How long have you owned/leased the Site?

Resiliency

10. What are the Site conditions per season? Please explain challenges faced.
 a. Fall:
 b. Winter:
 c. Spring:
 d. Summer:

11. Does the Site have a standing water issue?
 a. Yes – entire Site
 b. Yes – in parts
c. No

12. Are there currently any flood protection/prevention facilities or structures on your site?
13. Was the Site affected by Sandy?
a. Did not own/lease the Site during Sandy
b. Yes. Please explain the Site damages caused due to Sandy.
c. No. Please explain how you took precautions to avoid any Site damages during Sandy.

14. Do you currently maintain flood hazard insurance on your premises and/or contents?

15. Are you aware of what the Site was used for prior to current occupancy?

16. Does your Site have any prior history of environmentally hazardous conditions?

17. What is the ground elevation to the nearest foot for Site-based drainage delineation?

18. What is the Sites ground flow routes/conditions (i.e., curbs, failed infrastructure due to flooding/flows, extreme weather etc.)?

19. Does your Site have a groundwater monitoring well?

20. Have you conducted a ground penetrating radar survey for the Site?

Transportation

21. How many employees do you have?

22. Where do they come from (do they have origin and destination)? Even on-island versus off-island #s would help?

23. How do they get to work – car or mass transit?

24. Do you have a count of customers that come via mass transit?

25. Is public transportation to your business location important? Select from the following:
 a. Yes. Public transportation is useful for my employees.
 b. Yes. Public transportation is useful for my customers.
 c. Yes. Public transportation is useful for both employees and customers.
 d. No. Public transportation is not important for my employees.

e. No. Public transportation is not important for my customers.
f. No. Public transportation is not important for my business.

26. Explain your reason for selecting the above answer.

27. Would employees/customers take mass transit if there was a better mass transit route? Name route or improvement needed.

28. Do you currently use or have you in the past used rail freight access for your business?

29. Would your business benefit from rail freight access?

Vanbro Site - Conceptual Design 1

Source: The City of New York

Vanbro Site - Conceptual Design 2

N

0 75 150 300 Feet

Source: The City of New York

ADDENDUM

Top 10 Priorities for the West Shore Industrial Business Improvement District

1. Prepare A Plan To Expand West Shore BID Boundary To Include Additional Properties Gulf Avenue Two-Way Conversion
2. Continue Spencer Street Improvements
3. Upgrade And Improve Cable, Gas, And Electric
4. Repurpose Illegally-Dumped Tires To Be Used As Flower Pots On Chelsea Road
5. Secure Funding For West Shore Light Rail Alternative Analysis Study
6. Apply For Funding To Implement Brownfield Opportunity Area Projects
7. Develop Chelsea Road S-Turn Cutback Schedule With Relevant Agencies
8. Implement ABCO Vegetation Cutback On River Road And Chelsea Road
9. Implement Year-Round Volunteer Cleanups And Beautification With PCCS-NY

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THE COUNCIL OF
THE CITY OF NEW YORK

STEVEN MATTEO

MINORITY LEADER

COUNCIL MEMBER • 50TH DISTRICT
STATEN ISLAND

COMMITTEES
FINANCE
SANITATION
PUBLIC SAFETY
RECOVERY AND RESILIENCY
STANDARD AND ETHICS
RULES, PRIVILEGES AND ELECTIONS

April 29, 2017

The Hon. Veronique Hakim
Acting Chair and CEO
Metropolitan Transportation Authority
2 Broadway
New York, New York 10004

Dear Acting Chair Hakim:

I am writing because I would like the Metropolitan Transportation Authority (MTA) to consider creating or expanding a bus line that would serve Gulf Avenue in the West Shore of my district.

As you know, I shepherded the creation of the West Shore Industrial Business Improvement District (BID) to completion. This is the only industrial BID in Staten Island and is the center of the burgeoning jobs coast for the borough. That is why I believe that with all of the development that is already occurring in the area that a new bus line would be advantageous not only to its economic development but would also anticipate a need that is already emerging. That is why I ask that the MTA conduct a study on this proposal.

I ask once again that you consider this request consistent with your rules and regulations. Please feel free to reach out to me directly at smatteo@council.nyc.gov or have the appropriate member of your staff contact my office to discuss further.

Thank you for your time and cooperation.

Very truly yours,

Steven Matteo
Minority Leader, 50th District

SM/dmc

MEMORANDUM OF AGREEMENT BETWEEN THE DEPARTMENT OF THE INTERIOR AND THE DEPARTMENT OF THE ARMY

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1. Authority: Section 404(q) of the Clean Water Act, 33 U.S.C. 1344(q).

2. Purpose: Establish policies and procedures to implement Section 404(q) of the Clean Water Act to "minimize, to the maximum extent practicable, duplication, needless paperwork and delays in the issuance of permits."

3. Applicability: This agreement shall apply to Regulatory authorities under: a) Section 10 of the Rivers and Harbors Act of 1899; b) Section 404 of the Clean Water Act; and c) Section 103 of the Marine Protection, Research and Sanctuaries Act.

4. General Rules: Policy and procedures for the Department of the Army Regulatory Program are established in 33 CFR Parts 320 through 330, and 40 CFR Part 230.

5. Organization: This Memorandum of Agreement (MOA) is subdivided into four distinct parts. The procedures for each part are specific to that part and do not necessarily relate to other parts. For example, different signature levels are established for Parts II, III, and IV.

PART I - BACKGROUND

1. The Army Corps of Engineers is solely responsible for making final permit decisions pursuant to Section 10, Section 404(a), and Section 103, including final determinations of compliance with the Corps permit regulations, the Section 404(b)(1) Guidelines, and Section 7(a)(2) of the Endangered Species Act. As such, the Corps will act as the project manager for the evaluation of all permit applications. As the project manager, the Corps is responsible for requesting and evaluating information concerning all permit applications. The Corps will obtain and utilize this information in a manner that moves, as rapidly as practical, the regulatory process towards a final permit decision. The Corps

will not evaluate applications as a project opponent or advocate -- but instead will maintain an objective evaluation, fully considering all relevant factors. The Corps will fully consider the Department of Interior (DOI) comments when determining compliance with the National Environmental Policy Act, the 404(b)(1) Guidelines, and other relevant statutes, regulations, and policies. The Corps will also fully consider the DOI's views when determining whether to issue the permit, to issue the permit with conditions and/or mitigation, or to deny the permit.

2. It is recognized that the DOI has an important role in the Department of the Army Regulatory Program under the Fish and Wildlife Coordination Act, the Clean Water Act, National Environmental Policy Act, Endangered Species Act, and other relevant statutes. When providing comments, only substantive, project-related information (within DOI's area of expertise and authority) on the impacts of activities being evaluated by the Corps and appropriate and practicable measures to mitigate adverse impacts will be submitted. The comments will be submitted within the time frames established in this agreement and applicable regulations.

3. National or regional issues relating to resources, policy, procedures, and regulation interpretation, can be elevated by either agency to their respective Washington Headquarters for resolution as prescribed in Part III - ELEVATION OF POLICY ISSUES. Individual permit decisions will not be delayed during the policy issue elevation process. Elevation of issues related to specific individual permit cases will be limited to those cases that involve aquatic resources of national importance. Procedures for elevation of such specific cases are provided in PART IV - ELEVATION OF INDIVIDUAL PERMIT DECISIONS.

4. For projects of other Federal agencies and Federally assisted projects for which a Federal agency takes responsibility for environmental analysis and documentation, Army will accept, where appropriate and legally permissible, the environmental documentation and decisions of those agencies.

5. This agreement does not diminish Army's authority to decide whether a particular individual permit should be granted, including determining whether the project is in compliance with the Section 404(b)(1) Guidelines.

6. The officials identified in this MOA cannot delegate their responsibilities unless specifically provided for in this MOA.

7. Days referred to in this MOA are calendar days. If the end of the specified time period falls on a weekend or holiday, the last calendar day will be the first business day following the weekend or holiday. The end of the specified time period shall mean the close of the business day on the last day of the specified time period.

8. This agreement is effective immediately upon the date of the last signature and will continue in effect until modified or revoked by agreement of both parties, or revoked by either party alone upon 30 calendar days written notice.

9. The Memorandum of Agreement between the Secretary of the Interior and the Secretary of the Army on Section 404(q) of the Clean Water Act dated November 8, 1985, is terminated. Those permit applications which have been elevated to the Assistant Secretary of the Army for Civil Works (ASA(CW)) under the November 8, 1985, MOA shall be processed according to its terms. Those permit applications for which Notices of Intent to Issue have been sent by the District Engineer in accordance with paragraph 7.b. of the November 8, 1985, MOA shall be governed by that MOA. All other permit applications shall be governed by this agreement. For permit applications where the basic or extended comment period has closed before the signature date of this MOA the Fish and Wildlife Service (FWS) Regional Director has 15 calendar days from the date of the last signature below to indicate which individual permit cases will be governed under Part IV by sending the District Engineer the letter required in Part IV, paragraph 3(b).

PART II - COORDINATION PROCEDURES

1. Purpose: The purpose of Part II is to provide and encourage communication and full consideration of each agencies' views concerning proposed projects within the resource limits of each agency and the time constraints of the regulatory process.

2. The Assistant Secretary for Fish and Wildlife and Parks, at the direction of the Secretary of the Interior, will be the point of contact for coordination with DOI and will provide comments, through the Director of the Fish and Wildlife Service, on behalf of DOI on permit applications evaluated through the Army Regulatory Program.

3. District Engineers and the FWS Regional Directors as representatives of DOI will direct the development, and approve, within six months of the date of this MOA, written procedures to ensure effective interagency coordination and to discuss issues, expedite comments, and foster strong professional partnerships and cooperative working

relationships. These professional partnerships will be based on DOI providing substantive, project specific comments and the Corps giving full consideration to FWS recommendations as the Corps makes its determination of compliance with the Section 404(b)(1) Guidelines and the decision on the permit application. The procedures will encourage, to the extent appropriate:

a. interagency pre-application consultation with prospective applicants;
b. interagency site visits;
c. interagency meeting(s) with applicants;
d. cooperation in acquiring and conveying site specific information needed by either agency to fulfill its responsibilities;
e. consistent with the time frames setforth in this MOA, an informal process for the timely resolution of issues at the field level to ensure that the permit evaluation proceeds as rapidly as practical.

4. The FWS Regional Director will inform the District Engineer, in writing, of the FWS officials who are authorized to provide official DOI comments, including, where appropriate, by category of activity or geographic area. All official DOI comments will be signed by either the FWS Regional Director or the designated official. Comments signed by any of the above mentioned officials will be considered DOI's response in accordance with Part II of this MOA. Notwithstanding the above, certain actions described in Part IV require the actual signature of the FWS Regional Director.

5. The Corps will ensure the timely receipt (within 2-3 days from the date of issuance) of public notices by FWS. DOI comments will be submitted in writing during the basic comment period specified in the public notice. To the maximum extent practical, DOI will immediately provide the Corps project manager with a faxed copy of DOI signed comments. Where the basic comment period is less than 30 calendar days and the situation is not an emergency, the District Engineer (or designee) shall, upon written or electronically transmitted request of an official authorized to provide official DOI comments, extend the comment period to 30 calendar days. An extension beyond 30 calendar days from the date of the public notice, must be requested in writing by the FWS Regional Director, Deputy Regional Director, or Assistant Regional Director/Enhancement. The written request must be received three calendar days prior to the end of the basic comment period and must demonstrate the reason for the extension (e.g., a joint coordination meeting occurs near the end of the comment period and DOI needs additional time to prepare substantive comments). The District Engineer or his designee will respond, in writing, within three calendar days of receipt of the request

letter. If the District Engineer or his designee denies the request for extension within three calendar days prior to the end of the basic comment period, the FWS will have five calendar days from the receipt of the denial letter to submit final DOI comments. The maximum comment period, including extension, will not exceed 60 calendar days, unless sought by the applicant.

6. Consistent with the procedures in Part IV, at the conclusion of the comment period, the Corps will proceed to final action on the permit application. The Corps will consider all comments submitted by DOI pursuant to Part IV, paragraphs 3(a) and 3(b).

7. The Corps may, in certain cases, request additional comments from or discuss issues relevant to the project with DOI after the close of the comment period to either clarify matters or obtain information relevant to the permit decision.

8. Consistent with Part IV, if the District Engineer's decision is to issue the permit over the objections of DOI or to issue the permit without conditions recommended by the DOI, the District Engineer will send a copy of the decision document to the DOI commenting official.

9. Notwithstanding any other provision of this agreement, nothing in this agreement shall be construed to affect the responsibility of the Corps of Engineers to comply with the provisions of Section 7(a)(2) of the Endangered Species Act, including the procedural provisions for interagency consultation established in 50 CFR 402.

PART III - ELEVATION OF POLICY ISSUES

1. Purpose: The purpose of Part III is to provide procedures for policy issue coordination and resolution.

2. If either agency considers that the nature of an action or series of actions raises concerns regarding the application of existing policy or procedure, or procedural failures in agency coordination, the District or Division Engineer, or FWS Regional Director acting on behalf of DOI, may initiate policy implementation review between the District and/or Division Engineer (or designee) and the FWS Regional Director, Deputy Regional Director, or Assistant Regional Director/Enhancement, through written notification. The written notification will describe the issue in sufficient detail and provide recommendations for resolving the issue. The District Engineer or Division Engineer (or

designee), depending on the level of the issue, or the Regional Director, Deputy Regional Director, or Assistant Regional Director/Enhancement, will resolve the issue within 60 calendar days of receipt of written notification to initiate policy implementation review.

3. In the context of Part III of this MOA, "resolve" means to review the issue, obtain the views of the requesting party, discuss those views as appropriate, fully consider those views, and then make the final determination, in writing, regarding the particular resource, policy, procedure, or regulation interpretation.

4. If during consultation, the FWS Regional Director, Deputy Regional Director, or Assistant Regional Director/Enhancement, or the Corps (District Engineer or Division Engineer, or designee) determine the issue cannot or should not be resolved at the field level, or that an issue has broader implications beyond the Division, the FWS Regional Director and Division Engineer will so notify the Assistant Secretary for Fish and Wildlife and Parks (A/S-FWP) and the ASA(CW), through the Director of Fish and Wildlife Service and the Director of Civil Works, respectively, in writing. Such notification will describe the nature of the issue and the reasons why the issue cannot, or should not, be resolved at the District or Division level or Regional level (e.g., national policy issue).

5. Either the A/S-FWP or the ASA(CW) may initiate informal or formal consultation concerning unresolved regional issues or national issues by meeting within 30 calendar days of receipt of notification under paragraph 4. above, or within 30 calendar days of receipt of notification of a policy or procedural issue or issues raised directly at Headquarters level. Within 60 calendar days of that meeting, the agencies will agree to provide direction, guidance, or joint guidance (e.g., general guidance on the Section 404(b)(1) Guidelines), where appropriate in response to the issues raised in 4., above.

6. At no time should individual permit decisions be delayed pending resolution of policy issues pursuant to PART III of this MOA. Similarly, changes in policy (i.e., new policies) that occur as a result of PART III should not affect applicants who have submitted a complete permit application prior to implementation of such policy change.

7. Upon resolving a particular policy or procedure, the Corps will determine if the policy is of sufficient importance to warrant public comment. All decisions will be implemented pursuant to the requirements of the Administrative Procedures Act, including public notice and comment rulemaking as necessary.

PART IV - ELEVATION OF INDIVIDUAL PERMIT DECISIONS

1. Purpose: The purpose of PART IV is to provide the exclusive procedures for the elevation of specific individual permit cases. The elevation of specific individual permit cases will be limited to those cases that involve aquatic resources of national importance. For example, cases that do not meet this resource value threshold cannot be elevated under this Part over a dispute concerning practicable alternatives. More specifically, the elevation of individual permit cases should be limited to those cases where the net loss (i.e., after considering mitigation) from the project (i.e., within the scope of impacts being evaluated by the Corps), will result in unacceptable adverse effects to aquatic resources of national importance. The final decision on the need to elevate a specific individual permit case and any subsequent case specific policy guidance rest solely with the ASA(CW).

2. Because delays associated with the process described within this Part IV can be costly to the regulated public, every effort will be taken to ensure that the process under paragraph 3(b) of this Part will be initiated only when absolutely necessary. Generic issues concerning the use of this Part IV may be elevated by either party using the procedures in Part III.

3. The following procedures will be utilized for the elevation of specific individual permit cases:

FIELD LEVEL PROCEDURES

(a) Within the basic or extended comment period the FWS Regional Director (or designee) must notify the District Engineer by letter that in the opinion of DOI the project may result in substantial and unacceptable impacts to aquatic resources of national importance as defined in paragraph 1 of this Part.

(b) For those individual permit cases identified in paragraph 3(a), within 25 calendar days after the end of the basic or extended comment period the FWS Regional Director must notify the District Engineer by letter (signed by the FWS Regional Director) that in the DOI's opinion the discharge will have a substantial and unacceptable impact on aquatic resources of national importance. The opinion will clearly state in detail: (1) why there will be substantial and unacceptable impacts to aquatic resource of national importance as defined in paragraph 1 of this Part and; (2) why the specific permit must be modified, conditioned, or denied to protect the aquatic resource of

national importance. The opinion, which should explain how the agency determination was made, should be based on site specific information and relate directly to matters within DOI's authority and expertise. A signed copy of the FWS Regional Director's letter should be immediately faxed to the Corps regulatory project manager.

(c) Notice of Intent to Proceed:

(1) If, following the receipt of the notification in Part IV paragraph 3(b), the District Engineer's proposed permit decision is contrary to the stated DOI written recommendation in paragraph 3(b), the District Engineer will, within five calendar days of his proposed decision, forward a copy of the draft permit and decision document by overnight mail to the FWS Regional Director.

(2) If, following the receipt of the notification in Part IV paragraph 3(b), the District Engineer believes that his proposed decision resolves the written concerns raised by DOI pursuant to paragraph 3(b), the District Engineer will, within five calendar days of his proposed decision, forward a copy of the draft permit and decision document by overnight mail to the FWS Regional Director.

(3) Alternatively, if the District Engineer, prior to reaching a decision on the permit (e.g., the final decision is pending resolution of issues not related to the concerns raised by DOI), determines that the project has been modified or conditioned sufficiently so there are no longer substantial adverse impacts on aquatic resources of national importance, the District Engineer will notify the FWS Regional Director, by letter including such project modifications and/or conditions that resolve DOI's concerns raised in paragraph 3(b).

(d) Within 15 calendar days from receipt of the draft permit under paragraphs 3(c)(1) or 3(c)(2) or notification under paragraph 3(c)(3), the FWS Regional Director will notify the District Engineer by faxed letter (signed by the FWS Regional Director) that:

(1) the FWS Regional Director will not request higher level review; or

(2) the FWS Regional Director has forwarded the issue to the A/S-FWP,

through the Director of the Fish and Wildlife Service with a recommendation to request review by the ASA(CW).

(e) When the FWS Regional Director requests elevation pursuant to paragraph 3(d)(2) of this Part the District Engineer will hold in abeyance the issuance of a permit pending completion of the Headquarters level review outlined below. Further, the District Engineer will provide CECW-OR and ASA(CW) a copy of the FWS Regional Director's letter notifying the District Engineer of the intent to request higher level review.

AGENCY HEADQUARTERS REVIEW (AS NECESSARY)

(f) Within 20 calendar days from the FWS Regional Director's letter notifying the District Engineer of the intent to request higher level review (paragraph 3(d)(2)), the A/S-FWP will either:

(1) notify the ASA(CW) that the A/S-FWP will not request further review (the ASA(CW) will immediately notify CECW-OR of the A/S-FWP's decision, CECW-OR will immediately notify the district regulatory chief); or

(2) request the ASA(CW) to review the permit decision document.

(g) Within 30 calendar days from the A/S-FWP's request for review, the ASA(CW), through the Director of Civil Works, will review the permit decision document and either:

(1) inform the District Engineer to proceed with final action on the permit decision; or

(2) inform the District Engineer to proceed with final action in accordance with case specific policy guidance; or

(3) make the final permit decision in accordance with 33 CFR 325.8.

(h) The ASA(CW) will immediately notify the A/S-FWP in writing of its decision in paragraph 3(g) above.

Assistant Secretary for Fish and
Wildlife and Parks
Department of Interior

21 Dec 92
Date

Assistant Secretary of the Army
for Civil Works
Department of the Army

18 Dec 92
Date

West Shore BOA
501 INDUSTRY RD, STATEN ISLAND, NY 10314
Prepared for: SIEDC
Ref: West Shore BOA

Tuesday, November 07, 2017

Environmental Radius Report

2055 E. Rio Salado Pkwy
Tempe, AZ 85381
480-967-6752

Summary

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National Priorities List (NPL)

This database returned 1 results for your area.

The Superfund Program, administered under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) is an EPA Program to locate, investigate, and clean up the worst hazardous waste sites throughout the United States. The NPL (National Priorities List) is the list of national priorities among the known releases or threatened releases of hazardous substances, pollutants, or contaminants throughout the United States and its territories. The NPL is intended primarily to guide the EPA in determining which sites warrant further investigation. The boundaries of an NPL site are not tied to the boundaries of the property on which a facility is located. The release may be contained with a single property's boundaries or may extend across property boundaries onto other properties. The boundaries can, and often do change as further information on the extent and degree of contamination is obtained.

National Priorities List (NPL)

Location	40.6075, -74.21027
Distance to site boundary	4276 ft / 0.81 mi
Site Summary	Federal Register Notice: July 28, 1998 (PDF) (7 pp, 179K, About PDF) </td> Conditions at Proposal (September 1997): The LCP Chemicals Inc (LCP) site is located in an industrial area on the Tremley Point Peninsula adjacent to Arthur Kill, in Linden, Union County, New Jersey. The site is bordered by South Branch Creek to the east, the General Aniline and Film Corporation (GAF) to the north, and Northville Industries, BP Corporation, and Mobil to the northeast, south and west, respectively. LCP purchased the 26-acre chlorine production facility in 1972 from GAF, which had owned the facility since 1942. From 1972 to 1982, LCP utilized a mercury cell electrolysis process to produce chlorine, sodium hydroxide, hydrochloric acid (HCL), and anhydrous HCL. The production process involved the electrolysis of a sodium chloride (brine) solution in the presence of metallic mercury. The residual mercury-sodium solution was then used to hydrolyze water forming sodium hydroxide and hydrogen gas. The metallic mercury was partially recovered and recycled in a brine purification process. The remaining mercury-tainted sludge was placed into the brine sludge lagoon (BSL), which received up to 20 tons per day of both brine sludge and wastewater treatment sludge. Supernatant overflows from the BSL to South Branch Creek were observed by the New Jersey Department of Environmental Protection (NJDEP) on October 30, 1972 and February 7, 1974. The overflow locations, quantities, and nature of LCP's response are unknown. In June 1975, a brine recycle pump failed and a breach in the BSL occurred. As a result, an undetermined quantity of brine entered South Branch Creek for an estimated period of nine hours. On August 15, 1979, a sodium chloride blockage occurred in the facilities' east saturator, causing sodium chloride brine contaminated with mercury to overflow the top of the saturator. Because the surge of flow exceeded the surge capacity of the wastewater system, an estimated 10,000 to 20,000 gallons of the brine flowed into South Branch Creek. Chemical analysis of a sample collected from the spill indicated mercury concentrations to be 8.6 parts per million in the wastestream. The generation of brine ceased at the site in March 1982. Closure and post closure plans for the lagoon were submitted in July 1982 and were approved by the NJDEP in 1983. As part of its closure, the BSL was dewatered, compacted, and capped with a two-foot layer of clay overlain by six inches of drainage media and six inches of soil capable of supporting vegetative cover. The closure of the lagoon was completed in 1984. On December 14, 1994, the U.S. Environmental Protection Agency (EPA) conducted an on-site reconnaissance at the LCP site. During this reconnaissance it was noted that all site storage/transfer activities had ceased and that all of the mercury cells and other production equipment had been removed from the site. A subsequent EPA sampling event was conducted at the LCP site on January 11, 1995. As part of this sampling event, three surficial soil samples, 10 surface water and eight sediment samples were collected. Analysis of the soil samples indicated the presence of mercury in the attribution samples at greater than three times the level detected in the background sample. Analysis of the surface water/sediment samples documented an observed release of mercury from the site to South Branch Creek. In addition, the analytical results of the surface water/sediment samples identified a zone of actual contamination that contains 0.45 mile of wetlands frontage and a state designated area for the maintenance and protection of aquatic life. All of the analytical data from this sampling event were analyzed and validated through the EPA Contract Laboratory Program.
Primary Name	LCP CHEMICALS NJ
Address	S WOOD AVE
City	LINDEN
State	NJ
EPA Identifier	110029582841
CERCLIS Identifier	NJD079303020
NPL Status	final

National Priorities List (NPL)

Site Score	50.00

CERCLIS List

This database returned no results for your area.

The United States Environmental Protection Agency (EPA) investigates known or suspected uncontrolled or abandoned hazardous substance facilities under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). EPA maintains a comprehensive list of these facilities in a database known as the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS). These sites have either been investigated or are currently under investigation by the EPA for release or threatened release of hazardous substances. Once a site is placed in CERCLIS, it may be subjected to several levels of review and evaluation and ultimately placed on the National Priority List (NPL).

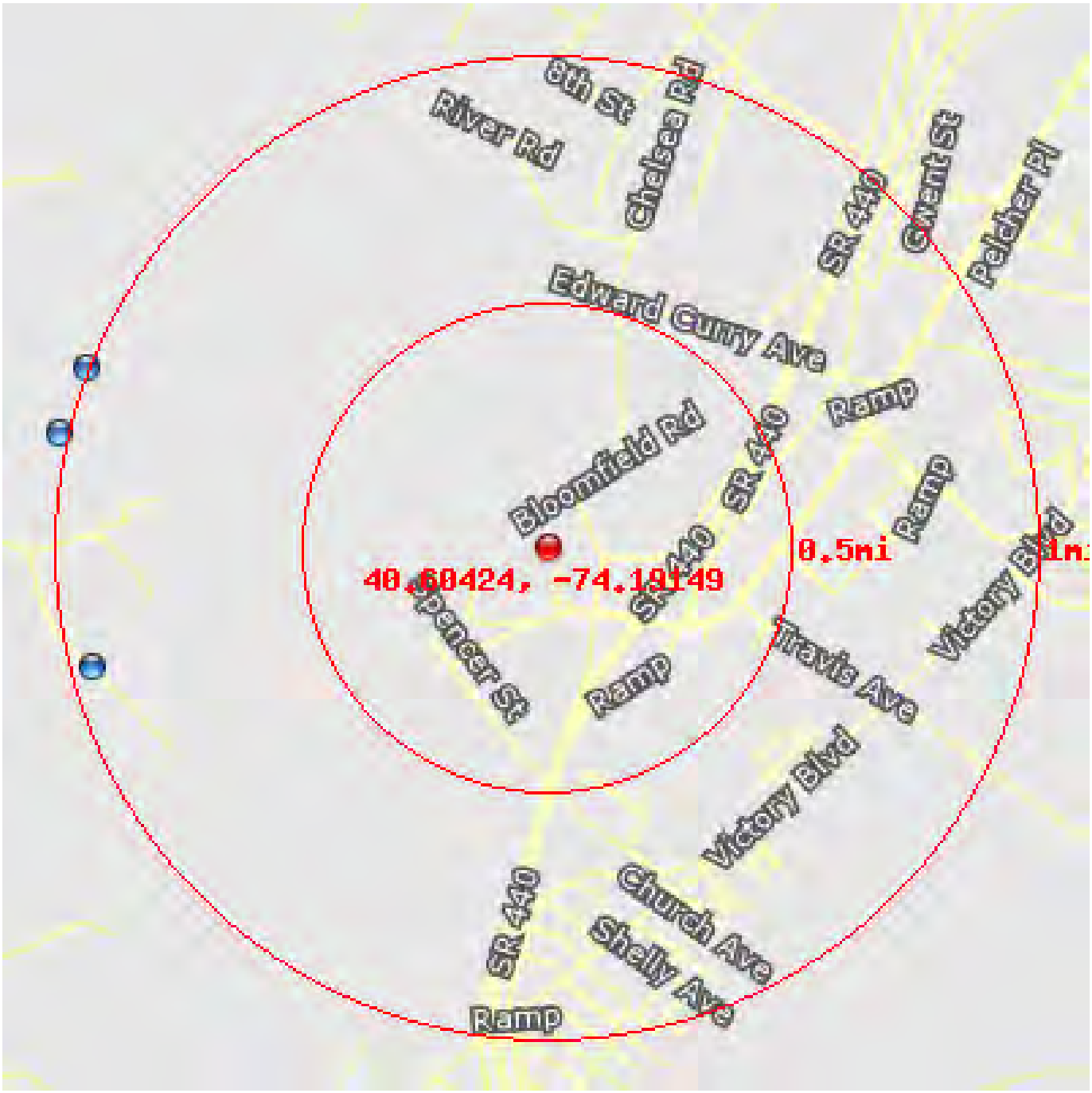
CERCLIS sites designated as "No Further Remedial Action Planned" (NFRAP) have been removed from CERCLIS. NFRAP sites may be sites where, following an intitial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund Action or NPL consideration.

CERCLIS NFRAP

This database returned no results for your area.

As of February 1995, CERCLIS sites designated "No Further Remedial Action Planned" NFRAP have been removed from CERCLIS. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the site being placed on the NPL, or the contamination was not serious enough to require Federal Superfund action or NPL consideration.
EPA has removed these NFRAP sites from CERCLIS to lift unintended barriers to the redevelopment of these properties. This policy change is part of EPA"s Brownfields Redevelopment Program to help cities, states, private investors and affected citizens promote economic redevelopment of unproductive urban sites.

RCRA CORRACTS Facilities



This database returned 2 results for your area.

The United States Environmental Protection Agency (EPA) regulates hazardous waste under the Resource Conservation and Recovery Act (RCRA). The EPA maintains the Corrective Action Report (CORRACTS) database of Resource Conservation and Recovery Act (RCRA) facilities that are undergoing "corrective action." A "corrective action order" is issued pursuant to RCRA Section 3008(h) when there has been a release of hazardous waste or constituents into the environment from a RCRA facility. Corrective actions may be required beyond the facility"s boundary and can be required regardless of when the release occurred, even if it predated RCRA.

RCRA CORRACTS Facilities

Location	40.60067, -74.20898
Distance to site	5016 ft / 0.95 mi W
Site Name	AMERICAN CYANAMID CO CYTEC INDUSTRIES
EPA Facility Website	http://oaspub.epa.gov/enviro/fac_gateway.main?p_regid=110000498284
Facility Registry ID	110000498284
Address	4900 TREMLEY POINT ROAD
City	LINDEN
State	NJ
Zip	07036

Location	40.60944, -74.20917
Distance to site	5253 ft / 0.99 mi W
Site Name	ISP ENVIRONMENTAL SERVICES INC
EPA Facility Website	http://oaspub.epa.gov/enviro/fac_gateway.main?p_regid=110002468669
Facility Registry ID	110002468669
Address	FOOT OF SOUTH WOOD AVENUE
City	LINDEN
State	NJ
Zip	07036

RCRA non-CORRACTS TSD Facilities

This database returned no results for your area.

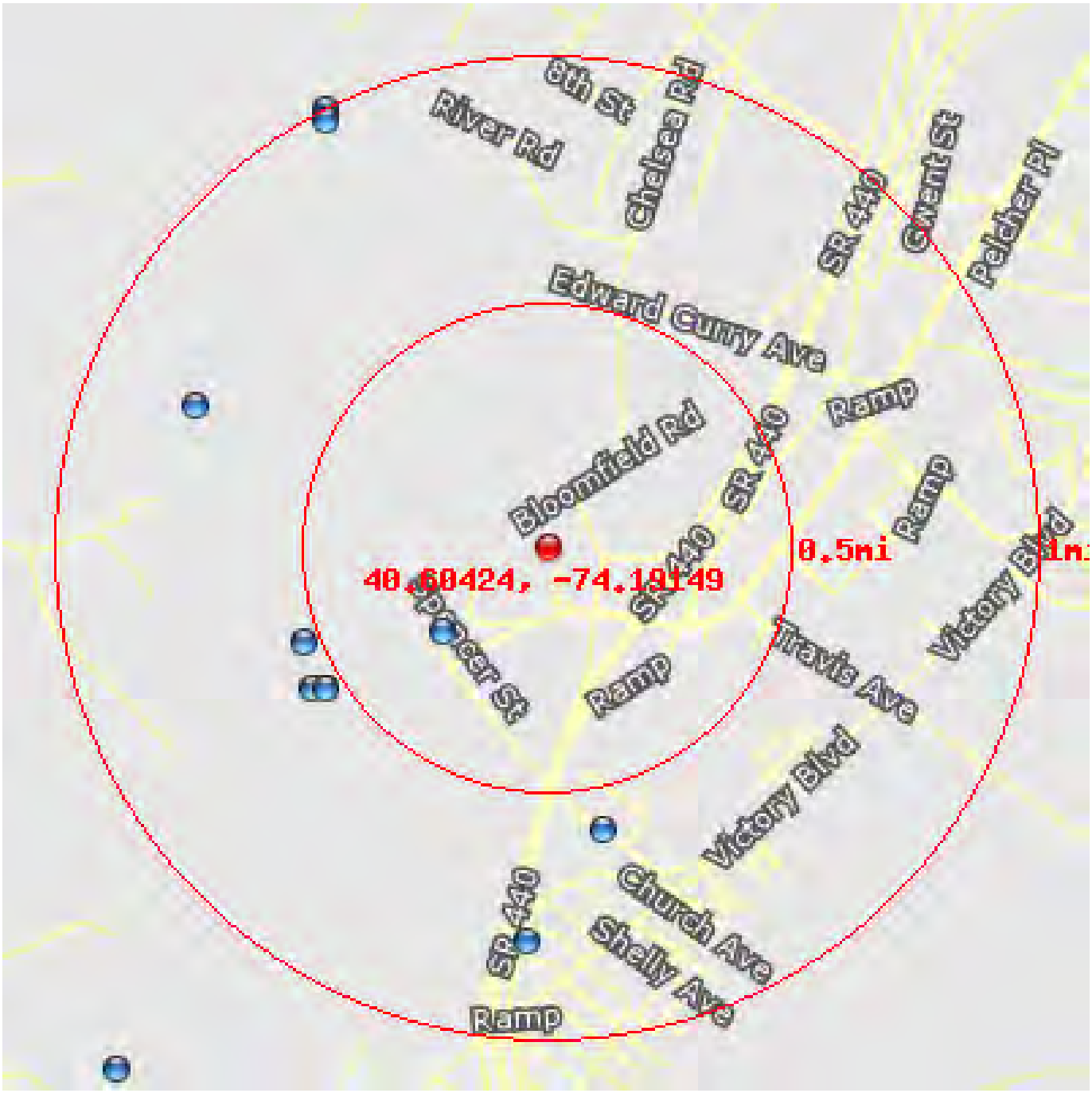
The United States Environmental Protection Agency (EPA) regulates hazardous waste under the Resource Conservation and Recovery Act (RCRA). The EPA"s RCRA Program identifies and tracks hazardous waste from the point of generation to the point of disposal. The RCRA Facilites database is a compilation by the EPA of facilities that report generation, storage, transportation, treatment, or disposal of hazardous waste. RCRA Permitted Treatment, Storage, Disposal Facilities (RCRA-TSD) are facilities which treat, store and/or dispose of hazardous waste.

Federal Institutional Control / Engineering Control Registry

This database returned no results for your area.

Federal Institutional Control / Engineering Control Registry

Emergency Response Notification System (ERNS)



This database returned 10 results for your area.

The Emergency Response Notification System (ERNS) is a national computer database used to store information on unauthorized releases of oil and hazardous substances. The program is a cooperative effort of the Environmental Protection Agency, the Department of Transportation Research and Special Program Administration"s John Volpe National Transportation System Center and the National Response Center. There are primarily five Federal statutes that require release reporting: the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) section 103; the Superfund Amendments and Reauthorization Act(SARA) Title III Section 304; the Clean Water Act of 1972(CWA) section 311(b)(3); and the Hazardous Material Transportation Act of 1974(HMTA section 1808(b).

Emergency Response Notification System (ERNS)

Location	40.6017, -74.19547
Distance to site	1441 ft / 0.27 mi SW
Incident	CALLER REPORTED THAT A COMPANY IS DUMPING USED OIL ONTO THE GROUND AND INTO THE DRAINS.
Incident Date	2/23/2013 11:00
Year Reported	2013
Address	436 SPENCER STREET
City	STATEN ISLAND
State	NY
County	RICHMOND (STATEN ISLAND)

Location	40.60139, -74.20084
Distance to site	2790 ft / 0.53 mi W
Incident	WHILE DISCHARGING GASOLINE CARGO AT THE ST LINDEN DOCK, A HYDRAULIC HOSE RUPTURED RELEASING 5 LITERS OF HYDRAULIC FLUID INTO THE WATER .
Incident Date	1/11/2001 0:01
Incident location	ST LINDEN
Year Reported	2001
State	NJ
County	UNION

Location	40.6, -74.2
Distance to site	2819 ft / 0.53 mi SW
Incident	UNKNOWN / UNKNOWN SHEEN SIGHTING, SHEEN SIZE: UNDETERMINED/THICK, DARK,RAINBOW SHEEN
Incident Date	3/22/1994 2:00
Year Reported	1994
Address	ARTHUR KILL WATERWAY
City	LINDEN
State	NJ
County	UNION

Location	40.6, -74.2
Distance to site	2819 ft / 0.53 mi SW
Incident	UNKNOWN / UNKNOWN - SHEEN SIGHTING ON FRESH KILL.
Incident Date	12/18/1990 8:50
Year Reported	1990
Address	40-36.5 N
City	STATEN ISLAND
State	NY
County	RICHMOND (STATEN ISLAND)

Emergency Response Notification System (ERNS)

Location	40.6, -74.20055
Distance to site	2949 ft / 0.56 mi SW
Incident	UNKNOWN / UNKNOWN SHEEN SIGHTING SHEEN SIZE: 1/4 MILE BY 1/2 MILECOLOR: LIGHT RAINBOW
Incident Date	8/10/1992 14:00
Year Reported	1992
City	LINDEN
State	NJ
County	UNION

Location	40.59591, -74.18934
Distance to site	3097 ft / 0.59 mi S
Incident	CALLER IS REPORTING THAT A BUS COMPANY HAS OIL AND ANTI FREEZE ON THE GROUND.
Incident Date	4/8/2013 15:00
Year Reported	2013
Address	MEREDITH AVE
City	STATEN ISLAND
State	NY
County	RICHMOND (STATEN ISLAND)

Location	40.60833, -74.205
Distance to site	4031 ft / 0.76 mi W
Incident	CALLER IS REPORTING A RELEASE OF AN UNKNOWN MATERIAL. CALLER STATED THAT THE MOTOR VESSEL CALLED IN TO REPORT THAT A PINHOLE LEAK IN A PIPELINE ON A JETTY SPRAYED THE UNKNOWN MATERIAL ON THE SIDE OF THE VESSEL.
Incident Date	8/24/2011 19:45
Incident location	NUSTAR TERMINAL
Year Reported	2011
Address	SEE LAT/LONG
State	NY
County	RICHMOND (STATEN ISLAND)

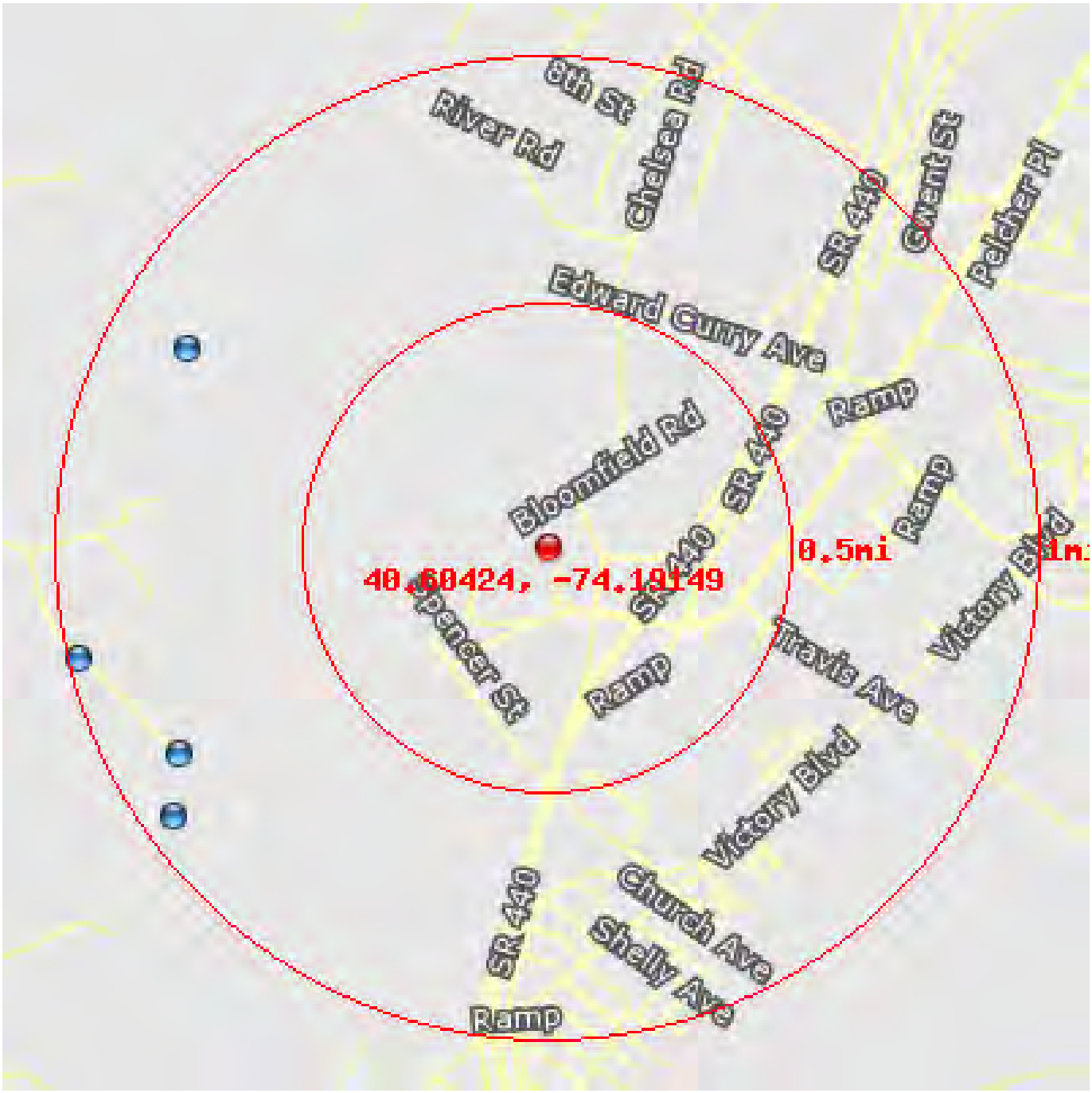
Location	40.59261, -74.19228
Distance to site	4247 ft / 0.8 mi S
Incident	CALLER STATES A CRANE COLLAPSED AND GASOLINE SPILLED ON THE ROAD SURFACE AND POSSIBLE INTO A STORM DRAIN.
Incident Date	8/18/2011 10:10
Year Reported	2011
Address	GLEN STREET
City	STATEN ISLAND
State	NY
County	RICHMOND (STATEN ISLAND)

Emergency Response Notification System (ERNS)

Location	40.61666, -74.2
Distance to site	5111 ft / 0.97 mi NW
Incident	CALLER STATED THAT THE VESSEL PELAGOS SPOTTED A SHEEN COMING FROM THE VESSEL PERSEVERANCE, DUE TO UNKNOWN CAUSES.
Incident Date	9/21/2004 8:15
Incident location	BAY WAY TERMINAL
Year Reported	2004
State	NJ
County	UNION

Location	40.61694, -74.2
Distance to site	5202 ft / 0.99 mi NW
Incident	//////////////DRILL/////////////// THE CALLER STATED THAT A VESSEL IS MOORED. DURING DISCHARGE TRANSFER OPERATIONS, A VESSEL COLLIDED WITH THE MOORED VESSEL.
Incident Date	8/15/2005 9:00
Incident location	CONOCO/PHILLIPS BAYWAY REFINERY / ARTHUR KILL
Year Reported	2005
City	LINDEN
State	NJ
County	UNION

US Toxic Release Inventory



This database returned 4 results for your area.

The Toxics Release Inventory (TRI) is a publicly available EPA database that contains information on toxic chemical releases and other waste management activities reported annually by certain covered industry groups as well as federal facilities. TRI reporters for all reporting years are provided in the file.

US Toxic Release Inventory

Location	40.60999, -74.20534
Distance to site	4374 ft / 0.83 mi NW
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002468669*
EPA Identifier	110002468669
Primary Name	ISP ENVIRONMENTAL SERVICES INC
Address	FOOT OF SOUTH WOOD AVENUE
City	LINDEN
County	UNION
State	NJ
Zipcode	07036
NAICS Codes	022132, 325613
SIC Codes	2841, 2843, 4952
SIC Descriptions	SEWERAGE SYSTEMS, SOAP AND OTHER DETERGENTS, EXCEPT SPECIALTY CLEANERS, SURFACE ACTIVE AGENTS, FINISHING AGENTS, SULFONATED OILS, AND ASSISTANTS
Programs	BR, ICIS, NJ-NJEMS, NPDES, RCRAINFO, TRIS
Program Interests	CESQG, FORMAL ENFORCEMENT ACTION, HAZARDOUS WASTE BIENNIAL REPORTER, ICIS-NPDES NON-MAJOR, STATE MASTER, TRI REPORTER
Updated On	31-DEC-2015 12:18:57
Recorded On	01-MAR-2000 00:00:00
NAICS Descriptions	SURFACE ACTIVE AGENT MANUFACTURING.

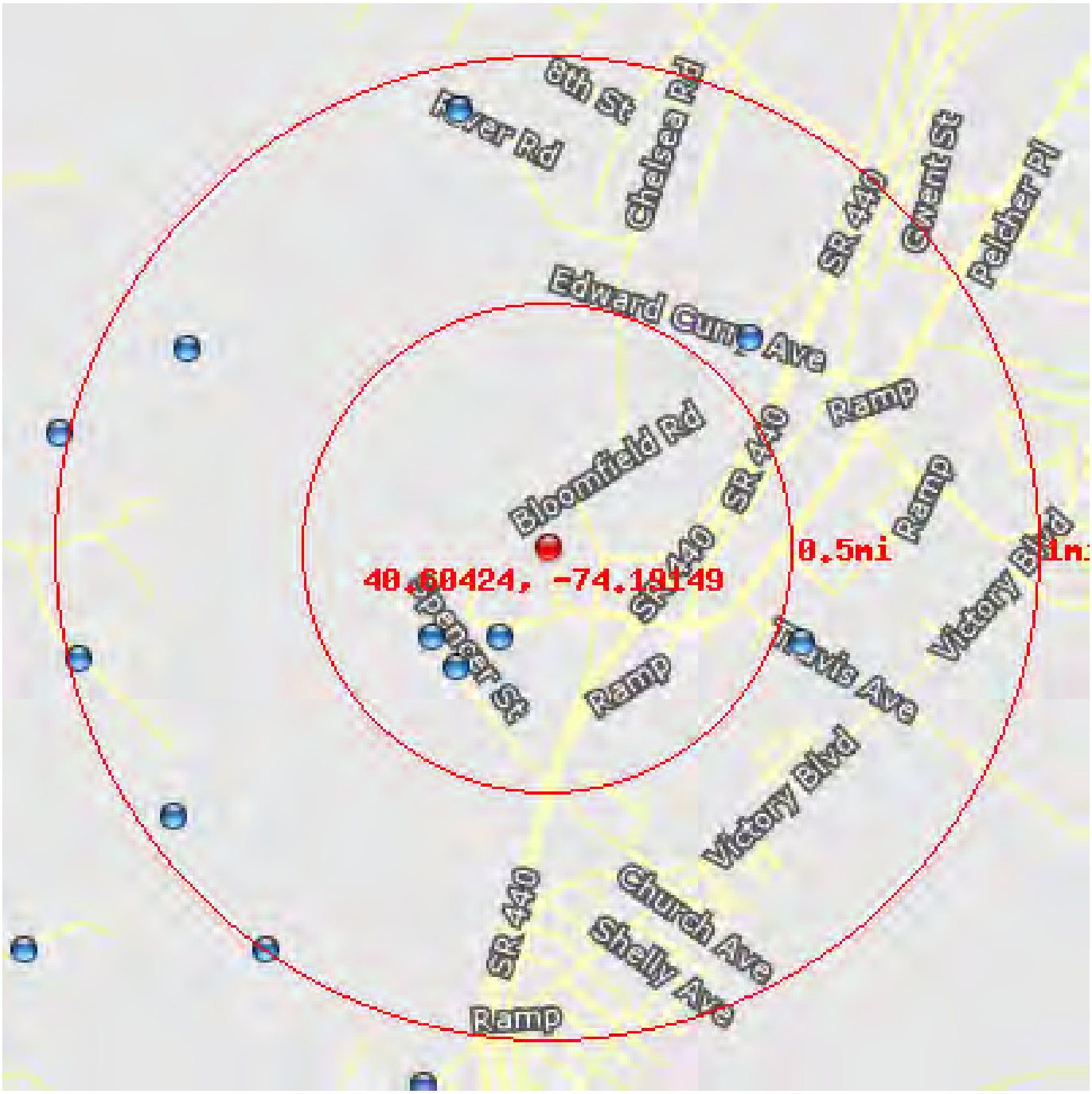
Location	40.59811, -74.20561
Distance to site	4507 ft / 0.85 mi SW
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110000498284*
EPA Identifier	110000498284
Primary Name	CYTEC INDUSTRIES INC
Address	4900 TREMLEY POINT ROAD
City	LINDEN
County	UNION
State	NJ
Zipcode	07036
NAICS Codes	325188, 325613, 423930
SIC Codes	2834, 2836, 2843, 2869, 3842
SIC Descriptions	BIOLOGICAL PRODUCTS, EXCEPT DIAGNOSTIC SUBSTANCES, INDUSTRIAL ORGANIC CHEMICALS, NOT ELSEWHERE CLASSIFIED, ORTHOPEDIC, PROSTHETIC, AND SURGICAL APPLIANCES AND SUPPLIES, PHARMACEUTICAL PREPARATIONS, SURFACE ACTIVE AGENTS, FINISHING AGENTS, SULFONATED OILS, AND ASSISTANTS
Programs	ICIS, NJ-NJEMS, RCRAINFO, TRIS
Program Interests	FORMAL ENFORCEMENT ACTION, STATE MASTER, TRI REPORTER, UNSPECIFIED UNIVERSE
Updated On	31-DEC-2015 10:40:50
Recorded On	01-MAR-2000 00:00:00
NAICS Descriptions	ALL OTHER BASIC INORGANIC CHEMICAL MANUFACTURING., RECYCLABLE MATERIAL MERCHANT WHOLESALERS., SURFACE ACTIVE AGENT MANUFACTURING.

US Toxic Release Inventory

Location	40.59632, -74.20585
Distance to site	4917 ft / 0.93 mi SW
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110000318497*
EPA Identifier	110000318497
Primary Name	ST LINDEN TERMINAL
Address	4501 TREMLEY POINT RD
City	LINDEN
County	UNION
State	NJ
Zipcode	07036
NAICS Codes	049319, 424710, 493110
SIC Codes	4226, 5171
SIC Descriptions	PETROLEUM BULK STATIONS AND TERMINALS, SPECIAL WAREHOUSING AND STORAGE, NOT ELSEWHERE CLASSIFIED
Programs	AIR, AIRS/AFS, BR, EIS, ICIS, NJ-NJEMS, NPDES, OTAQREG, RCRAINFO, RFS, TRIS
Program Interests	AIR EMISSIONS CLASSIFICATION UNKNOWN, AIR MAJOR, ENFORCEMENT/COMPLIANCE ACTIVITY, ETHANOL FACILITY, FORMAL ENFORCEMENT ACTION, GASOLINE AND DIESEL PRODUCERS, HAZARDOUS WASTE BIENNIAL REPORTER, ICIS-NPDES NON-MAJOR, LQG, STATE MASTER, TRI REPORTER
Updated On	01-MAR-2016 14:37:12
Recorded On	01-MAR-2000 00:00:00
NAICS Descriptions	GENERAL WAREHOUSING AND STORAGE., PETROLEUM BULK STATIONS AND TERMINALS.

Location	40.60092, -74.20952
Distance to site	5139 ft / 0.97 mi W
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110000318424*
EPA Identifier	110000318424
Primary Name	CITGO PETROLEUM CORP
Address	4801 SOUTH WOOD AVENUE
City	LINDEN
County	UNION
State	NJ
Zipcode	07036-6543
NAICS Codes	424710
SIC Codes	4959, 5171
SIC Descriptions	PETROLEUM BULK STATIONS AND TERMINALS, SANITARY SERVICES, NOT ELSEWHERE CLASSIFIED
Programs	BR, EIS, ICIS, NJ-NJEMS, NPDES, OTAQREG, RCRAINFO, TRIS
Program Interests	ENFORCEMENT/COMPLIANCE ACTIVITY, GASOLINE AND DIESEL PRODUCERS, HAZARDOUS AIR POLLUTANT MAJOR, HAZARDOUS WASTE BIENNIAL REPORTER, ICIS-NPDES NON-MAJOR, LQG, STATE MASTER, TRI REPORTER
Updated On	31-MAY-2016 11:03:28
Recorded On	01-MAR-2000 00:00:00
NAICS Descriptions	PETROLEUM BULK STATIONS AND TERMINALS.

US RCRA Generators (CESQG, SQG, LQG)



This database returned 10 results for your area.

The United States Environmental Protection Agency (EPA) regulates hazardous waste under the Resource Conservation and Recovery Act (RCRA). EPA maintains a database of facilities, which generate hazardous waste or treat, store, and/or dispose of hazardous wastes.

Conditionally Exempt Small Quantity Generators (CESQG) generate 100 kilograms or less per month of hazardous waste, or 1 kilogram or less per month of acutely hazardous waste.

Small Quantity Generators (SQG) generate more than 100 kilograms, but less than 1,000 kilograms, of hazardous waste per month.

Large Quantity Generators (LQG) generate 1,000 kilograms per month or more of hazardous waste, or more than 1 kilogram per month of acutely hazardous waste.

US RCRA Generators (CESQG, SQG, LQG)

Location	40.60154, -74.19329
Distance to site	1105 ft / 0.21 mi SW
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110001587863*
EPA Identifier	110001587863
Primary Name	VANBRO CORPORATION
Address	1900 SOUTH AVENUE
City	STATEN ISLAND
County	RICHMOND
State	NY
Zipcode	10314-3605
NAICS Codes	324121
SIC Codes	2951, 3273, 3295
SIC Descriptions	ASPHALT PAVING MIXTURES AND BLOCKS, MINERALS AND EARTHS, GROUND OR OTHERWISE TREATED, READY-MIXED CONCRETE
Programs	AIR, AIRS/AFS, EIS, FIS, ICIS, NPDES, RCRAINFO
Program Interests	AIR SYNTHETIC MINOR, ENFORCEMENT/COMPLIANCE ACTIVITY, ICIS-NPDES NON-MAJOR, LQG, STATE MASTER, UNSPECIFIED UNIVERSE
Updated On	09-MAY-2016 09:13:24
Recorded On	01-MAR-2000 00:00:00
NAICS Descriptions	ASPHALT PAVING MIXTURE AND BLOCK MANUFACTURING.

Location	40.6015, -74.19585
Distance to site	1569 ft / 0.3 mi SW
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110015588210*
EPA Identifier	110015588210
Primary Name	NYSDOT BIN 1075170
Address	MEREDITH AVE OVER WESTSHORE
City	STATEN ISLAND
County	RICHMOND
State	NY
Zipcode	10314
Programs	BR, RCRAINFO
Program Interests	HAZARDOUS WASTE BIENNIAL REPORTER, LQG
Updated On	28-MAR-2014 20:42:11
Recorded On	15-AUG-2003 11:13:38

US RCRA Generators (CESQG, SQG, LQG)

Location	40.60063, -74.19498
Distance to site	1633 ft / 0.31 mi SW
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110043648005*
EPA Identifier	110043648005
Primary Name	NYCT - MEREDITH DEPOT
Address	336 MEREDITH AVE
City	STATEN ISLAND
County	RICHMOND
State	NY
Zipcode	10314
Programs	RCRAINFO
Program Interests	SQG
Updated On	28-MAR-2014 20:44:32
Recorded On	20-JUL-2011 13:53:05

Location	40.60134, -74.18161
Distance to site	2935 ft / 0.56 mi E
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110004460583*
EPA Identifier	110004460583
Primary Name	UPS PROPERTY - BLOCK 2162 LOTS 1 & 139
Address	1331 TRAVIS AVENUE
City	STATEN ISLAND
County	RICHMOND
State	NY
Zipcode	10314-3401
SIC Codes	4215, 5541, 8999
SIC Descriptions	COURIER SERVICES, EXCEPT BY AIR, GASOLINE SERVICE STATIONS, SERVICES, NOT ELSEWHERE CLASSIFIED
Programs	AIR, AIRS/AFS, FIS, NPDES, RCRAINFO
Program Interests	AIR MINOR, CESQG, ICIS-NPDES NON-MAJOR, STATE MASTER, STORM WATER INDUSTRIAL, UNSPECIFIED UNIVERSE
Updated On	05-FEB-2016 15:53:18
Recorded On	01-MAR-2000 00:00:00

US RCRA Generators (CESQG, SQG, LQG)

Location	40.61027, -74.18364
Distance to site	3095 ft / 0.59 mi NE
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110016721172*
EPA Identifier	110016721172
Primary Name	NYSDOT BIN 1075190
Address	EDWARD CURRY AVE OVER
City	STATEN ISLAND
County	RICHMOND
State	NY
Zipcode	10314
Programs	BR, RCRAINFO
Program Interests	HAZARDOUS WASTE BIENNIAL REPORTER, LQG
Updated On	28-MAR-2014 20:42:25
Recorded On	13-FEB-2004 18:00:23

Location	40.60999, -74.20534
Distance to site	4374 ft / 0.83 mi NW
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002468669*
EPA Identifier	110002468669
Primary Name	ISP ENVIRONMENTAL SERVICES INC
Address	FOOT OF SOUTH WOOD AVENUE
City	LINDEN
County	UNION
State	NJ
Zipcode	07036
NAICS Codes	022132, 325613
SIC Codes	2841, 2843, 4952
SIC Descriptions	SEWERAGE SYSTEMS, SOAP AND OTHER DETERGENTS, EXCEPT SPECIALTY CLEANERS, SURFACE ACTIVE AGENTS, FINISHING AGENTS, SULFONATED OILS, AND ASSISTANTS
Programs	BR, ICIS, NJ-NJEMS, NPDES, RCRAINFO, TRIS
Program Interests	CESQG, FORMAL ENFORCEMENT ACTION, HAZARDOUS WASTE BIENNIAL REPORTER, ICIS-NPDES NON-MAJOR, STATE MASTER, TRI REPORTER
Updated On	31-DEC-2015 12:18:57
Recorded On	01-MAR-2000 00:00:00
NAICS Descriptions	SURFACE ACTIVE AGENT MANUFACTURING.

US RCRA Generators (CESQG, SQG, LQG)

Location	40.61699, -74.19487
Distance to site	4747 ft / 0.9 mi N
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110009485039*
EPA Identifier	110009485039
Primary Name	CON ED GOETHALS SUBSTATION
Address	100 RIVER ROAD
City	STATEN ISLAND
County	RICHMOND
State	NY
Zipcode	103141713
NAICS Codes	221122
Programs	BR, FIS, RCRAINFO
Program Interests	HAZARDOUS WASTE BIENNIAL REPORTER, SQG, STATE MASTER
Updated On	29-OCT-2014 07:01:04
Recorded On	01-MAR-2000 00:00:00
NAICS Descriptions	ELECTRIC POWER DISTRIBUTION.

Location	40.59632, -74.20585
Distance to site	4917 ft / 0.93 mi SW
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110000318497*
EPA Identifier	110000318497
Primary Name	ST LINDEN TERMINAL
Address	4501 TREMLEY POINT RD
City	LINDEN
County	UNION
State	NJ
Zipcode	07036
NAICS Codes	049319, 424710, 493110
SIC Codes	4226, 5171
SIC Descriptions	PETROLEUM BULK STATIONS AND TERMINALS, SPECIAL WAREHOUSING AND STORAGE, NOT ELSEWHERE CLASSIFIED
Programs	AIR, AIRS/AFS, BR, EIS, ICIS, NJ-NJEMS, NPDES, OTAQREG, RCRAINFO, RFS, TRIS
Program Interests	AIR EMISSIONS CLASSIFICATION UNKNOWN, AIR MAJOR, ENFORCEMENT/COMPLIANCE ACTIVITY, ETHANOL FACILITY, FORMAL ENFORCEMENT ACTION, GASOLINE AND DIESEL PRODUCERS, HAZARDOUS WASTE BIENNIAL REPORTER, ICIS-NPDES NON-MAJOR, LQG, STATE MASTER, TRI REPORTER
Updated On	01-MAR-2016 14:37:12
Recorded On	01-MAR-2000 00:00:00
NAICS Descriptions	GENERAL WAREHOUSING AND STORAGE., PETROLEUM BULK STATIONS AND TERMINALS.

US RCRA Generators (CESQG, SQG, LQG)

Location	40.60092, -74.20952
Distance to site	5139 ft / 0.97 mi W
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110000318424*
EPA Identifier	110000318424
Primary Name	CITGO PETROLEUM CORP
Address	4801 SOUTH WOOD AVENUE
City	LINDEN
County	UNION
State	NJ
Zipcode	07036-6543
NAICS Codes	424710
SIC Codes	4959, 5171
SIC Descriptions	PETROLEUM BULK STATIONS AND TERMINALS, SANITARY SERVICES, NOT ELSEWHERE CLASSIFIED
Programs	BR, EIS, ICIS, NJ-NJEMS, NPDES, OTAQREG, RCRAINFO, TRIS
Program Interests	ENFORCEMENT/COMPLIANCE ACTIVITY, GASOLINE AND DIESEL PRODUCERS, HAZARDOUS AIR POLLUTANT MAJOR, HAZARDOUS WASTE BIENNIAL REPORTER, ICIS-NPDES NON-MAJOR, LQG, STATE MASTER, TRI REPORTER
Updated On	31-MAY-2016 11:03:28
Recorded On	01-MAR-2000 00:00:00
NAICS Descriptions	PETROLEUM BULK STATIONS AND TERMINALS.

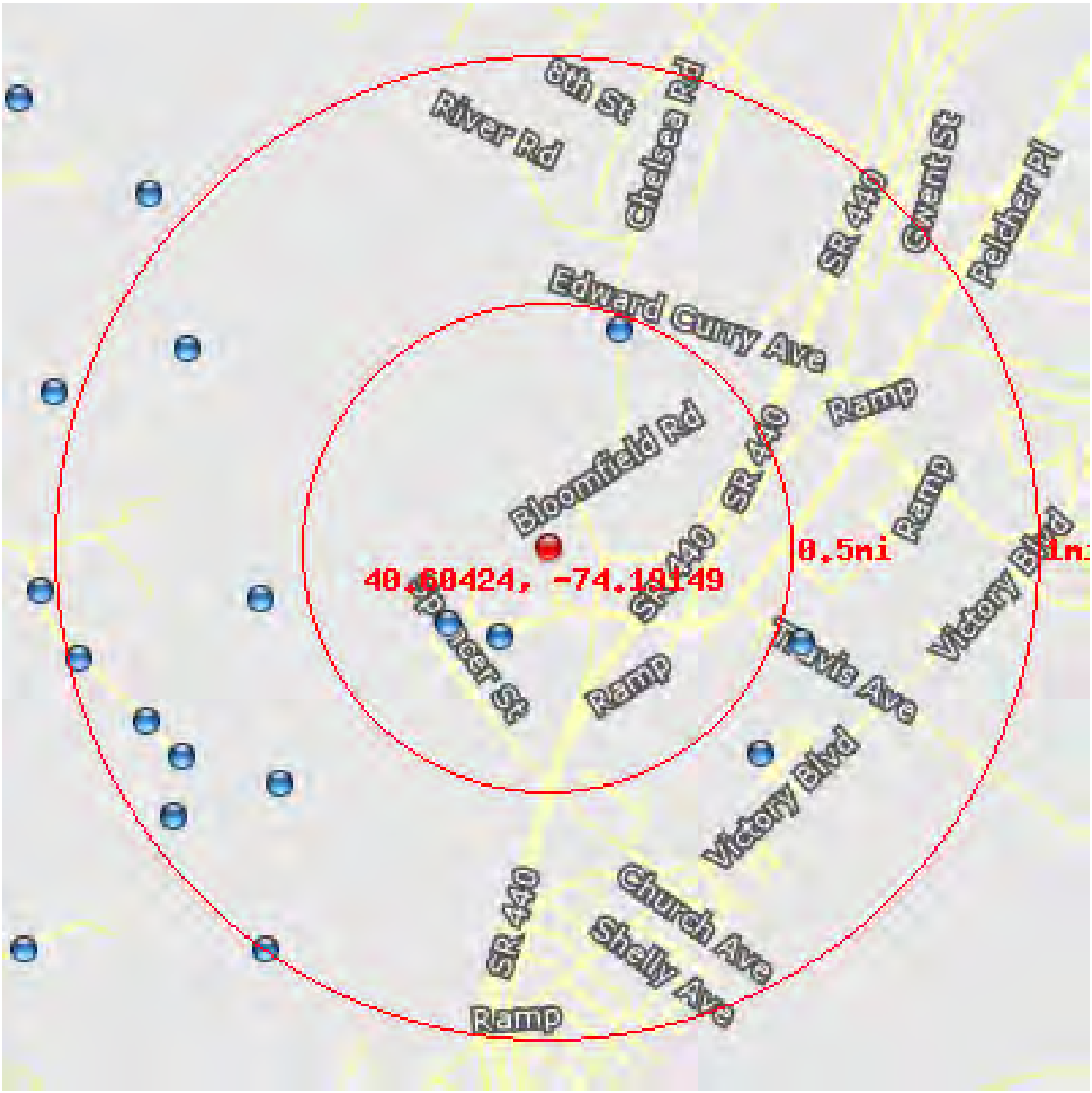
Location	40.59236, -74.20225
Distance to site	5260 ft / 1 mi SW
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110000866386*
EPA Identifier	110000866386
Primary Name	ARTHUR KILL GENERATING STATION
Address	4401 VICTORY BOULEVARD
City	STATEN ISLAND
County	RICHMOND
State	NY
Zipcode	10314-6736
NAICS Codes	221112
SIC Codes	4911, 5541
SIC Descriptions	ELECTRIC SERVICES, GASOLINE SERVICE STATIONS
Programs	AIR, AIRS/AFS, BR, CAMDBS, E-GGRT, EGRID, EIA-860, EIS, FIS, ICIS, NCDB, NPDES, RCRAINFO
Program Interests	AIR MAJOR, AIR PROGRAM, COMPLIANCE ACTIVITY, ELECTRIC GENERATOR, ELECTRIC POWER GENERATOR (GAS BASED), ENFORCEMENT/COMPLIANCE ACTIVITY, FORMAL ENFORCEMENT ACTION, GREENHOUSE GAS REPORTER, HAZARDOUS AND CRITERIA AIR POLLUTANT MAJOR, HAZARDOUS WASTE BIENNIAL REPORTER, ICIS-NPDES MAJOR, LQG, STATE MASTER, UNSPECIFIED UNIVERSE
Updated On	08-OCT-2016 10:23:29
Recorded On	01-MAR-2000 00:00:00
NAICS Descriptions	FOSSIL FUEL ELECTRIC POWER GENERATION.

US ACRES (Brownfields)

This database returned no results for your area.

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties protects the environment, reduces blight, and takes development pressures off greenspaces and working lands. The Assessment, Cleanup and Redevelopment Exchange System (ACRES) is an online database for Brownfields Grantees to electronically submit data directly to The United States Environmental Protection Agency (EPA)

US NPDES



This database returned 13 results for your area.

The NPDES module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

US NPDES

Location	40.60154, -74.19329
Distance to site	1105 ft / 0.21 mi SW
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110001587863*
EPA Identifier	110001587863
Primary Name	VANBRO CORPORATION
Address	1900 SOUTH AVENUE
City	STATEN ISLAND
County	RICHMOND
State	NY
Zipcode	10314-3605
NAICS Codes	324121
SIC Codes	2951, 3273, 3295
SIC Descriptions	ASPHALT PAVING MIXTURES AND BLOCKS, MINERALS AND EARTHS, GROUND OR OTHERWISE TREATED, READY-MIXED CONCRETE
Programs	AIR, AIRS/AFS, EIS, FIS, ICIS, NPDES, RCRAINFO
Program Interests	AIR SYNTHETIC MINOR, ENFORCEMENT/COMPLIANCE ACTIVITY, ICIS-NPDES NON-MAJOR, LQG, STATE MASTER, UNSPECIFIED UNIVERSE
Updated On	09-MAY-2016 09:13:24
Recorded On	01-MAR-2000 00:00:00
NAICS Descriptions	ASPHALT PAVING MIXTURE AND BLOCK MANUFACTURING.

Location	40.60192, -74.19522
Distance to site	1335 ft / 0.25 mi SW
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110024410225*
EPA Identifier	110024410225
Primary Name	TPE ENTERPRISES
Address	436 SPENCER ST
City	STATEN ISLAND
County	RICHMOND
State	NY
Zipcode	10314
Programs	NPDES
Program Interests	ICIS-NPDES UNPERMITTED
Updated On	03-MAY-2015 15:42:16
Recorded On	30-JAN-2006 18:19:55

US NPDES

Location	40.61051, -74.18866
Distance to site	2421 ft / 0.46 mi NE
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110037106609*
EPA Identifier	110037106609
Primary Name	MASTER MIX LLC
Address	333 CHELSEA RD
City	STATEN ISLAND
County	RICHMOND
State	NY
Zipcode	10314
SIC Codes	3273, 3531
SIC Descriptions	CONSTRUCTION MACHINERY AND EQUIPMENT, READY-MIXED CONCRETE
Programs	AIR, AIRS/AFS, FIS, NPDES
Program Interests	AIR MINOR, ICIS-NPDES NON-MAJOR, STATE MASTER, STORM WATER INDUSTRIAL
Updated On	05-JUL-2016 13:58:03
Recorded On	22-AUG-2008 14:22:34

Location	40.60134, -74.18161
Distance to site	2935 ft / 0.56 mi E
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110004460583*
EPA Identifier	110004460583
Primary Name	UPS PROPERTY - BLOCK 2162 LOTS 1 & 139
Address	1331 TRAVIS AVENUE
City	STATEN ISLAND
County	RICHMOND
State	NY
Zipcode	10314-3401
SIC Codes	4215, 5541, 8999
SIC Descriptions	COURIER SERVICES, EXCEPT BY AIR, GASOLINE SERVICE STATIONS, SERVICES, NOT ELSEWHERE CLASSIFIED
Programs	AIR, AIRS/AFS, FIS, NPDES, RCRAINFO
Program Interests	AIR MINOR, CESQG, ICIS-NPDES NON-MAJOR, STATE MASTER, STORM WATER INDUSTRIAL, UNSPECIFIED UNIVERSE
Updated On	05-FEB-2016 15:53:18
Recorded On	01-MAR-2000 00:00:00

US NPDES

Location	40.60267, -74.20255
Distance to site	3116 ft / 0.59 mi W
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110029978479*
EPA Identifier	110029978479
Primary Name	CONOCOPHILLIPS TREMLEY POINT
Address	S WOOD AVE
City	LINDEN
County	UNION
State	NJ
Zipcode	07036
NAICS Codes	424710
SIC Codes	5171
SIC Descriptions	PETROLEUM BULK STATIONS AND TERMINALS
Programs	ICIS, NJ-NJEMS, NPDES, RCRAINFO
Program Interests	FORMAL ENFORCEMENT ACTION, ICIS-NPDES NON-MAJOR, STATE MASTER, UNSPECIFIED UNIVERSE
Updated On	05-JUL-2016 10:10:59
Recorded On	11-MAY-2007 20:58:17
NAICS Descriptions	PETROLEUM BULK STATIONS AND TERMINALS.

Location	40.59812, -74.18319
Distance to site	3205 ft / 0.61 mi SE
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110064233093*
EPA Identifier	110064233093
Primary Name	STERICYCLE
Address	33 BARON BLVD
City	STATEN ISLAND
County	RICHMOND
State	NY
Zipcode	10314
Programs	FIS, NPDES
Program Interests	ICIS-NPDES NON-MAJOR, STATE MASTER, STORM WATER INDUSTRIAL
Updated On	11-JAN-2016 14:03:51
Recorded On	09-MAY-2015 07:06:16

US NPDES

Location	40.59723, -74.2018
Distance to site	3834 ft / 0.73 mi SW
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110055033627*
EPA Identifier	110055033627
Primary Name	CYTEC INDUSTRIES INC
Address	WARNERS PLANT
City	LINDEN
County	UNION
State	NJ
Zipcode	07036
SIC Codes	2869
SIC Descriptions	INDUSTRIAL ORGANIC CHEMICALS, NOT ELSEWHERE CLASSIFIED
Programs	NPDES
Program Interests	ICIS-NPDES NON-MAJOR
Updated On	11-JAN-2016 19:11:39
Recorded On	07-FEB-2013 07:48:41

Location	40.60999, -74.20534
Distance to site	4374 ft / 0.83 mi NW
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002468669*
EPA Identifier	110002468669
Primary Name	ISP ENVIRONMENTAL SERVICES INC
Address	FOOT OF SOUTH WOOD AVENUE
City	LINDEN
County	UNION
State	NJ
Zipcode	07036
NAICS Codes	022132, 325613
SIC Codes	2841, 2843, 4952
SIC Descriptions	SEWERAGE SYSTEMS, SOAP AND OTHER DETERGENTS, EXCEPT SPECIALTY CLEANERS, SURFACE ACTIVE AGENTS, FINISHING AGENTS, SULFONATED OILS, AND ASSISTANTS
Programs	BR, ICIS, NJ-NJEMS, NPDES, RCRAINFO, TRIS
Program Interests	CESQG, FORMAL ENFORCEMENT ACTION, HAZARDOUS WASTE BIENNIAL REPORTER, ICIS-NPDES NON-MAJOR, STATE MASTER, TRI REPORTER
Updated On	31-DEC-2015 12:18:57
Recorded On	01-MAR-2000 00:00:00
NAICS Descriptions	SURFACE ACTIVE AGENT MANUFACTURING.

US NPDES

Location	40.59803, -74.20556
Distance to site	4509 ft / 0.85 mi SW
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110054980482*
EPA Identifier	110054980482
Primary Name	CYTEC INDUSTRIES
Address	FOOT OF TREMLEY POINT ROAD
City	LINDEN
County	UNION
State	NJ
Zipcode	07036
Programs	NPDES
Program Interests	ICIS-NPDES NON-MAJOR
Updated On	11-JAN-2016 09:30:54
Recorded On	06-FEB-2013 13:14:17

Location	40.5991, -74.20689
Distance to site	4660 ft / 0.88 mi W
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110035771297*
EPA Identifier	110035771297
Primary Name	LINDEN TRANSLOAD TERMINAL LLC
Address	4801 TREMLRY PT RD
City	LINDEN
County	UNION
State	NJ
Zipcode	07036
Programs	NPDES
Program Interests	ICIS-NPDES NON-MAJOR
Updated On	05-MAR-2013 10:04:57
Recorded On	26-APR-2008 18:15:03

US NPDES

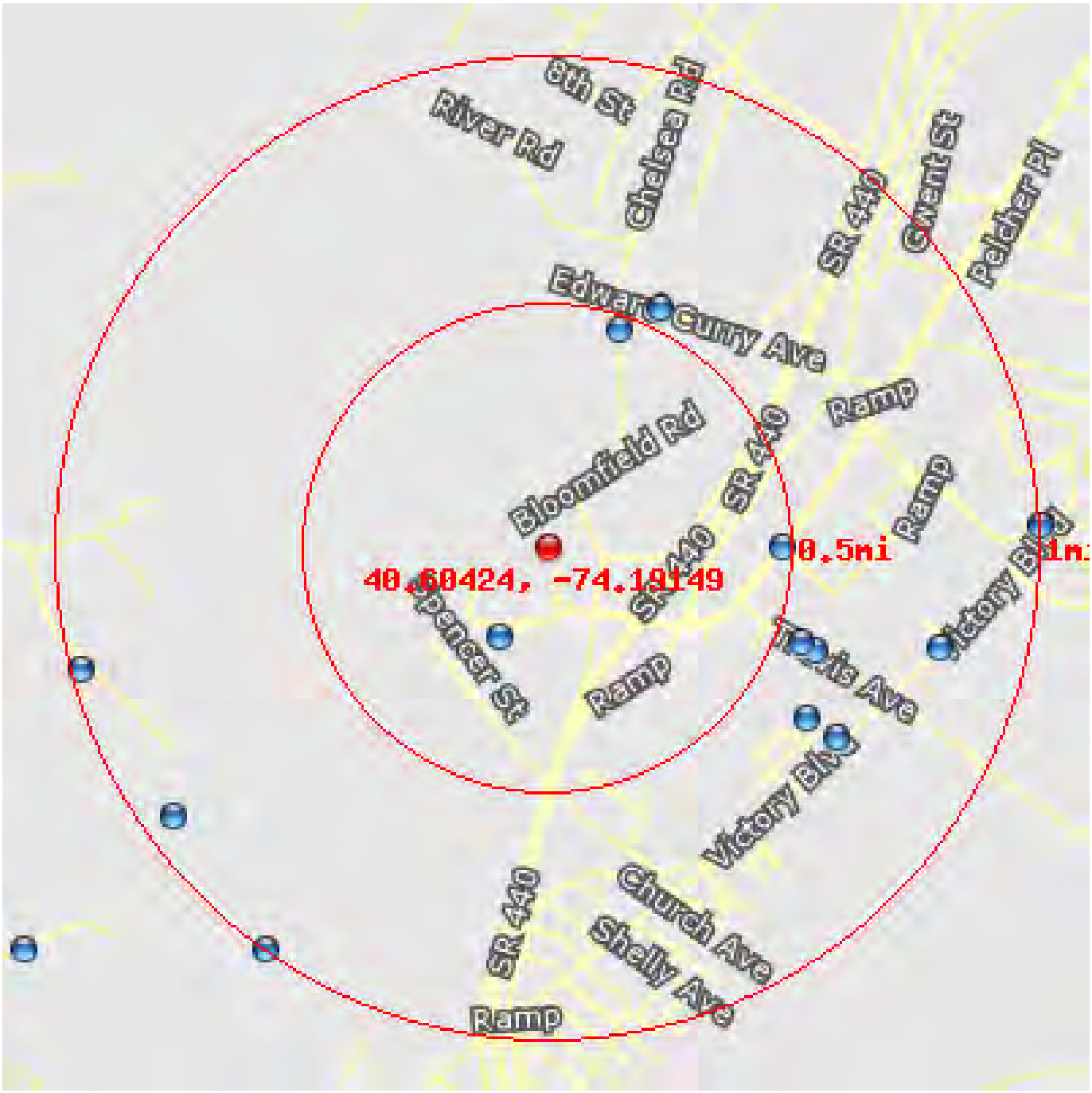
Location	40.59632, -74.20585
Distance to site	4917 ft / 0.93 mi SW
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110000318497*
EPA Identifier	110000318497
Primary Name	ST LINDEN TERMINAL
Address	4501 TREMLEY POINT RD
City	LINDEN
County	UNION
State	NJ
Zipcode	07036
NAICS Codes	049319, 424710, 493110
SIC Codes	4226, 5171
SIC Descriptions	PETROLEUM BULK STATIONS AND TERMINALS, SPECIAL WAREHOUSING AND STORAGE, NOT ELSEWHERE CLASSIFIED
Programs	AIR, AIRS/AFS, BR, EIS, ICIS, NJ-NJEMS, NPDES, OTAQREG, RCRAINFO, RFS, TRIS
Program Interests	AIR EMISSIONS CLASSIFICATION UNKNOWN, AIR MAJOR, ENFORCEMENT/COMPLIANCE ACTIVITY, ETHANOL FACILITY, FORMAL ENFORCEMENT ACTION, GASOLINE AND DIESEL PRODUCERS, HAZARDOUS WASTE BIENNIAL REPORTER, ICIS-NPDES NON-MAJOR, LQG, STATE MASTER, TRI REPORTER
Updated On	01-MAR-2016 14:37:12
Recorded On	01-MAR-2000 00:00:00
NAICS Descriptions	GENERAL WAREHOUSING AND STORAGE., PETROLEUM BULK STATIONS AND TERMINALS.

Location	40.60092, -74.20952
Distance to site	5139 ft / 0.97 mi W
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110000318424*
EPA Identifier	110000318424
Primary Name	CITGO PETROLEUM CORP
Address	4801 SOUTH WOOD AVENUE
City	LINDEN
County	UNION
State	NJ
Zipcode	07036-6543
NAICS Codes	424710
SIC Codes	4959, 5171
SIC Descriptions	PETROLEUM BULK STATIONS AND TERMINALS, SANITARY SERVICES, NOT ELSEWHERE CLASSIFIED
Programs	BR, EIS, ICIS, NJ-NJEMS, NPDES, OTAQREG, RCRAINFO, TRIS
Program Interests	ENFORCEMENT/COMPLIANCE ACTIVITY, GASOLINE AND DIESEL PRODUCERS, HAZARDOUS AIR POLLUTANT MAJOR, HAZARDOUS WASTE BIENNIAL REPORTER, ICIS-NPDES NON-MAJOR, LQG, STATE MASTER, TRI REPORTER
Updated On	31-MAY-2016 11:03:28
Recorded On	01-MAR-2000 00:00:00
NAICS Descriptions	PETROLEUM BULK STATIONS AND TERMINALS.

US NPDES

Location	40.59236, -74.20225
Distance to site	5260 ft / 1 mi SW
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110000866386*
EPA Identifier	110000866386
Primary Name	ARTHUR KILL GENERATING STATION
Address	4401 VICTORY BOULEVARD
City	STATEN ISLAND
County	RICHMOND
State	NY
Zipcode	10314-6736
NAICS Codes	221112
SIC Codes	4911, 5541
SIC Descriptions	ELECTRIC SERVICES, GASOLINE SERVICE STATIONS
Programs	AIR, AIRS/AFS, BR, CAMDBS, E-GGRT, EGRID, EIA-860, EIS, FIS, ICIS, NCDB, NPDES, RCRAINFO
Program Interests	AIR MAJOR, AIR PROGRAM, COMPLIANCE ACTIVITY, ELECTRIC GENERATOR, ELECTRIC POWER GENERATOR (GAS BASED), ENFORCEMENT/COMPLIANCE ACTIVITY, FORMAL ENFORCEMENT ACTION, GREENHOUSE GAS REPORTER, HAZARDOUS AND CRITERIA AIR POLLUTANT MAJOR, HAZARDOUS WASTE BIENNIAL REPORTER, ICIS-NPDES MAJOR, LQG, STATE MASTER, UNSPECIFIED UNIVERSE
Updated On	08-OCT-2016 10:23:29
Recorded On	01-MAR-2000 00:00:00
NAICS Descriptions	FOSSIL FUEL ELECTRIC POWER GENERATION.

US Air Facility System (AIRS / AFS)



This database returned 12 results for your area.

The Air Facility System (AIRS / AFS) contains compliance and permit data for stationary sources of air pollution (such as electric power plants, steel mills, factories, and universities) regulated by EPA, state and local air pollution agencies. The information in AFS is used by the states to prepare State Implementation Plans (SIPs) and to track the compliance status of point sources with various regulatory programs under Clean Air Act.

US Air Facility System (AIRS / AFS)

Location	40.60154, -74.19329
Distance to site	1105 ft / 0.21 mi SW
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110001587863*
EPA Identifier	110001587863
Primary Name	VANBRO CORPORATION
Address	1900 SOUTH AVENUE
City	STATEN ISLAND
County	RICHMOND
State	NY
Zipcode	10314-3605
NAICS Codes	324121
SIC Codes	2951, 3273, 3295
SIC Descriptions	ASPHALT PAVING MIXTURES AND BLOCKS, MINERALS AND EARTHS, GROUND OR OTHERWISE TREATED, READY-MIXED CONCRETE
Programs	AIR, AIRS/AFS, EIS, FIS, ICIS, NPDES, RCRAINFO
Program Interests	AIR SYNTHETIC MINOR, ENFORCEMENT/COMPLIANCE ACTIVITY, ICIS-NPDES NON-MAJOR, LQG, STATE MASTER, UNSPECIFIED UNIVERSE
Updated On	09-MAY-2016 09:13:24
Recorded On	01-MAR-2000 00:00:00
NAICS Descriptions	ASPHALT PAVING MIXTURE AND BLOCK MANUFACTURING.

Location	40.61051, -74.18866
Distance to site	2421 ft / 0.46 mi NE
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110037106609*
EPA Identifier	110037106609
Primary Name	MASTER MIX LLC
Address	333 CHELSEA RD
City	STATEN ISLAND
County	RICHMOND
State	NY
Zipcode	10314
SIC Codes	3273, 3531
SIC Descriptions	CONSTRUCTION MACHINERY AND EQUIPMENT, READY-MIXED CONCRETE
Programs	AIR, AIRS/AFS, FIS, NPDES
Program Interests	AIR MINOR, ICIS-NPDES NON-MAJOR, STATE MASTER, STORM WATER INDUSTRIAL
Updated On	05-JUL-2016 13:58:03
Recorded On	22-AUG-2008 14:22:34

US Air Facility System (AIRS / AFS)

Location	40.60418, -74.18241
Distance to site	2516 ft / 0.48 mi E
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110046098165*
EPA Identifier	110046098165
Primary Name	MLPF&S INC - 10 TELEPORT DR
Address	10 TELEPORT DR
City	STATEN ISLAND
County	RICHMOND
State	NY
Zipcode	10311
NAICS Codes	522110
SIC Codes	6021
SIC Descriptions	NATIONAL COMMERCIAL BANKS
Programs	AIR, AIRS/AFS, FIS
Program Interests	AIR SYNTHETIC MINOR, STATE MASTER
Updated On	09-MAY-2016 08:29:37
Recorded On	25-JUN-2012 08:06:46
NAICS Descriptions	COMMERCIAL BANKING.

Location	40.61117, -74.18707
Distance to site	2811 ft / 0.53 mi NE
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110043978522*
EPA Identifier	110043978522
Primary Name	FAZTEC INDUSTRIES
Address	331 EDWARD CURRY AVE
City	STATEN ISLAND
County	RICHMOND
State	NY
Zipcode	10314
SIC Codes	2951
SIC Descriptions	ASPHALT PAVING MIXTURES AND BLOCKS
Programs	AIR, AIRS/AFS, FIS
Program Interests	AIR SYNTHETIC MINOR, STATE MASTER
Updated On	05-FEB-2016 15:53:04
Recorded On	31-OCT-2011 15:36:41

US Air Facility System (AIRS / AFS)

Location	40.60134, -74.18161
Distance to site	2935 ft / 0.56 mi E
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110004460583*
EPA Identifier	110004460583
Primary Name	UPS PROPERTY - BLOCK 2162 LOTS 1 & 139
Address	1331 TRAVIS AVENUE
City	STATEN ISLAND
County	RICHMOND
State	NY
Zipcode	10314-3401
SIC Codes	4215, 5541, 8999
SIC Descriptions	COURIER SERVICES, EXCEPT BY AIR, GASOLINE SERVICE STATIONS, SERVICES, NOT ELSEWHERE CLASSIFIED
Programs	AIR, AIRS/AFS, FIS, NPDES, RCRAINFO
Program Interests	AIR MINOR, CESQG, ICIS-NPDES NON-MAJOR, STATE MASTER, STORM WATER INDUSTRIAL, UNSPECIFIED UNIVERSE
Updated On	05-FEB-2016 15:53:18
Recorded On	01-MAR-2000 00:00:00

Location	40.6011, -74.18107
Distance to site	3107 ft / 0.59 mi E
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110042327880*
EPA Identifier	110042327880
Primary Name	EQUAMOBIL BODYSHOP CORP.
Address	1303 TRAVIS AVE.
City	STATEN ISLAND
County	RICHMOND
State	NY
Zipcode	10314
SIC Codes	3711
SIC Descriptions	MOTOR VEHICLES AND PASSENGER CAR BODIES
Programs	AIR, AIRS/AFS
Program Interests	AIR MINOR
Updated On	05-JUN-2015 13:22:58
Recorded On	19-NOV-2010 11:59:10

US Air Facility System (AIRS / AFS)

Location	40.59915, -74.18141
Distance to site	3353 ft / 0.63 mi SE
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110001606067*
EPA Identifier	110001606067
Primary Name	ENZO'S FINE ART FINISHING INC
Address	90 WAKEFIELD AVE
City	STATEN ISLAND
County	RICHMOND
State	NY
Zipcode	10314
SIC Codes	2599
SIC Descriptions	FURNITURE AND FIXTURES, NOT ELSEWHERE CLASSIFIED
Programs	AIR, AIRS/AFS, FIS
Program Interests	AIR SYNTHETIC MINOR, STATE MASTER
Updated On	05-FEB-2016 16:01:00
Recorded On	01-MAR-2000 00:00:00

Location	40.59859, -74.18031
Distance to site	3721 ft / 0.7 mi SE
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110006525698*
EPA Identifier	110006525698
Primary Name	AL & DAVE INC
Address	16 SHENANDOAH AVENUE
City	STATEN ISLAND
County	RICHMOND
State	NY
Zipcode	10314-3652
SIC Codes	2499
SIC Descriptions	WOOD PRODUCTS, NOT ELSEWHERE CLASSIFIED
Programs	AIR, AIRS/AFS, FIS
Program Interests	AIR SYNTHETIC MINOR, STATE MASTER
Updated On	05-FEB-2016 15:45:20
Recorded On	01-MAR-2000 00:00:00

US Air Facility System (AIRS / AFS)

Location	40.60122, -74.17625
Distance to site	4365 ft / 0.83 mi E
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002365681*
EPA Identifier	110002365681
Primary Name	NEW HOLLYWOOD FRENCH CLEANERS
Address	3555 VICTORY BOULEVARD
City	STATEN ISLAND
County	RICHMOND
State	NY
Zipcode	10314-6707
NAICS Codes	812320
SIC Codes	7216
SIC Descriptions	DRYCLEANING PLANTS, EXCEPT RUG CLEANING
Programs	AIR, AIRS/AFS, FIS
Program Interests	AIR MINOR, STATE MASTER
Updated On	05-FEB-2016 15:26:50
Recorded On	01-MAR-2000 00:00:00
NAICS Descriptions	DRYCLEANING AND LAUNDRY SERVICES (EXCEPT COIN-OPERATED).

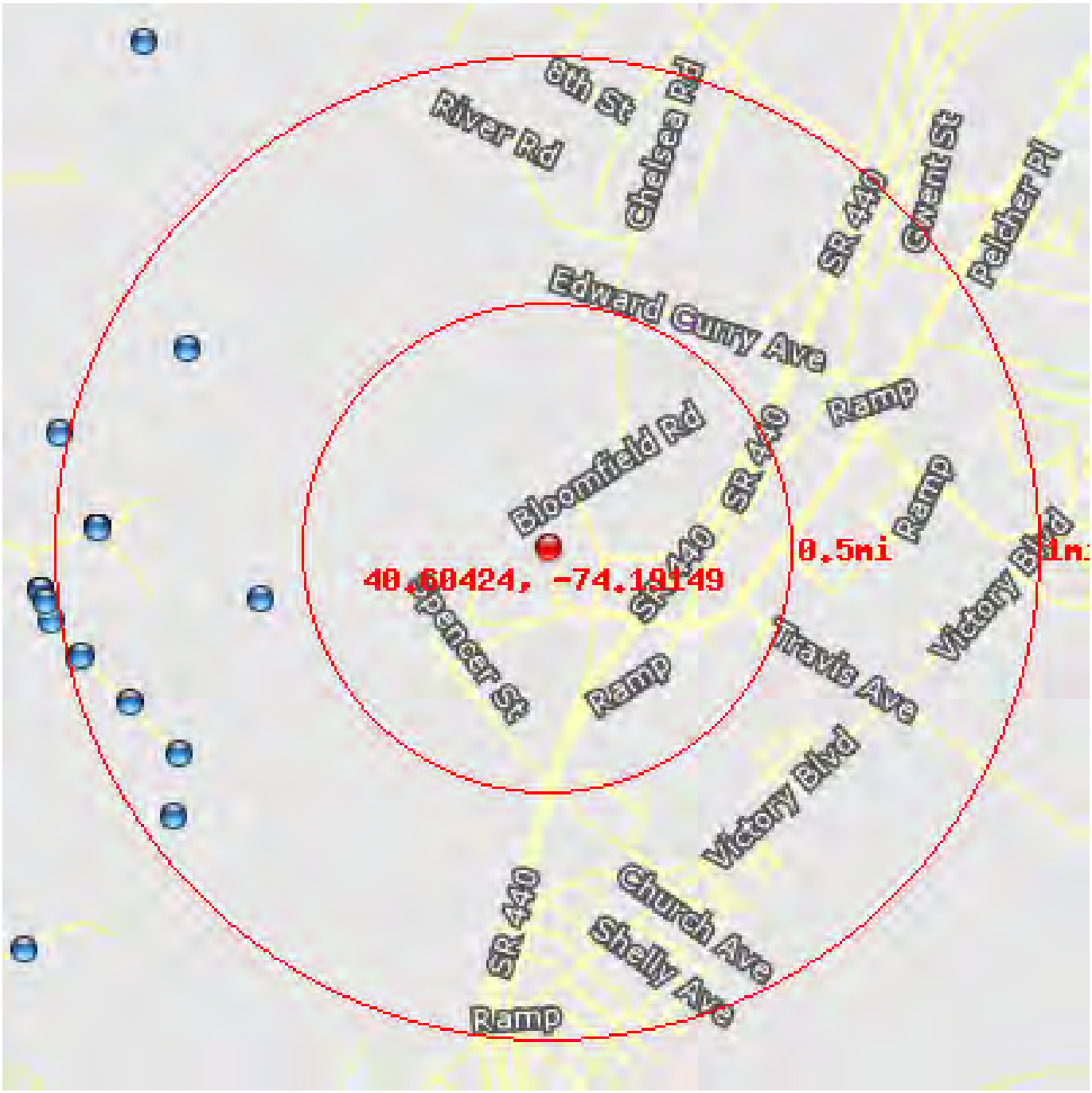
Location	40.59632, -74.20585
Distance to site	4917 ft / 0.93 mi SW
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110000318497*
EPA Identifier	110000318497
Primary Name	ST LINDEN TERMINAL
Address	4501 TREMLEY POINT RD
City	LINDEN
County	UNION
State	NJ
Zipcode	07036
NAICS Codes	049319, 424710, 493110
SIC Codes	4226, 5171
SIC Descriptions	PETROLEUM BULK STATIONS AND TERMINALS, SPECIAL WAREHOUSING AND STORAGE, NOT ELSEWHERE CLASSIFIED
Programs	AIR, AIRS/AFS, BR, EIS, ICIS, NJ-NJEMS, NPDES, OTAQREG, RCRAINFO, RFS, TRIS
Program Interests	AIR EMISSIONS CLASSIFICATION UNKNOWN, AIR MAJOR, ENFORCEMENT/COMPLIANCE ACTIVITY, ETHANOL FACILITY, FORMAL ENFORCEMENT ACTION, GASOLINE AND DIESEL PRODUCERS, HAZARDOUS WASTE BIENNIAL REPORTER, ICIS-NPDES NON-MAJOR, LQG, STATE MASTER, TRI REPORTER
Updated On	01-MAR-2016 14:37:12
Recorded On	01-MAR-2000 00:00:00
NAICS Descriptions	GENERAL WAREHOUSING AND STORAGE., PETROLEUM BULK STATIONS AND TERMINALS.

US Air Facility System (AIRS / AFS)

Location	40.60056, -74.20944
Distance to site	5152 ft / 0.98 mi W
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110064153632*
EPA Identifier	110064153632
Primary Name	CITGO PETROLEUM CORP
Address	TREMLEY POINT ROAD
City	LINDEN
County	UNION
State	NJ
Zipcode	07036
NAICS Codes	424710
SIC Codes	5171
SIC Descriptions	PETROLEUM BULK STATIONS AND TERMINALS
Programs	AIR, AIRS/AFS
Program Interests	AIR MAJOR
Updated On	07-OCT-2016 16:50:21
Recorded On	09-MAY-2015 06:46:56
NAICS Descriptions	PETROLEUM BULK STATIONS AND TERMINALS.

Location	40.59236, -74.20225
Distance to site	5260 ft / 1 mi SW
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110000866386*
EPA Identifier	110000866386
Primary Name	ARTHUR KILL GENERATING STATION
Address	4401 VICTORY BOULEVARD
City	STATEN ISLAND
County	RICHMOND
State	NY
Zipcode	10314-6736
NAICS Codes	221112
SIC Codes	4911, 5541
SIC Descriptions	ELECTRIC SERVICES, GASOLINE SERVICE STATIONS
Programs	AIR, AIRS/AFS, BR, CAMDBS, E-GGRT, EGRID, EIA-860, EIS, FIS, ICIS, NCDB, NPDES, RCRAINFO
Program Interests	AIR MAJOR, AIR PROGRAM, COMPLIANCE ACTIVITY, ELECTRIC GENERATOR, ELECTRIC POWER GENERATOR (GAS BASED), ENFORCEMENT/COMPLIANCE ACTIVITY, FORMAL ENFORCEMENT ACTION, GREENHOUSE GAS REPORTER, HAZARDOUS AND CRITERIA AIR POLLUTANT MAJOR, HAZARDOUS WASTE BIENNIAL REPORTER, ICIS-NPDES MAJOR, LQG, STATE MASTER, UNSPECIFIED UNIVERSE
Updated On	08-OCT-2016 10:23:29
Recorded On	01-MAR-2000 00:00:00
NAICS Descriptions	FOSSIL FUEL ELECTRIC POWER GENERATION.

NJ Environmental Management System



This database returned 12 results for your area.

The New Jersey Department of Environmental Protection (NJDEP) has several large databases of environmental information. The New Jersey Environmental Management System (NJEMS) is an integrated transactional Oracle database that contains the NJDEP's major program databases. NJEMS consolidates many existing individual data management systems across NJDEP and across many media (e.g., air, water, and land). In effect it is an integrated department-wide data management system to be used primarily for permit, reporting, and enforcement activities.

NJ Environmental Management System

Location	40.60267, -74.20255
Distance to site	3116 ft / 0.59 mi W
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110029978479*
EPA Identifier	110029978479
Primary Name	CONOCOPHILLIPS TREMLEY POINT
Address	S WOOD AVE
City	LINDEN
County	UNION
State	NJ
Zipcode	07036
NAICS Codes	424710
SIC Codes	5171
SIC Descriptions	PETROLEUM BULK STATIONS AND TERMINALS
Programs	ICIS, NJ-NJEMS, NPDES, RCRAINFO
Program Interests	FORMAL ENFORCEMENT ACTION, ICIS-NPDES NON-MAJOR, STATE MASTER, UNSPECIFIED UNIVERSE
Updated On	05-JUL-2016 10:10:59
Recorded On	11-MAY-2007 20:58:17
NAICS Descriptions	PETROLEUM BULK STATIONS AND TERMINALS.

Location	40.60999, -74.20534
Distance to site	4374 ft / 0.83 mi NW
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002468669*
EPA Identifier	110002468669
Primary Name	ISP ENVIRONMENTAL SERVICES INC
Address	FOOT OF SOUTH WOOD AVENUE
City	LINDEN
County	UNION
State	NJ
Zipcode	07036
NAICS Codes	022132, 325613
SIC Codes	2841, 2843, 4952
SIC Descriptions	SEWERAGE SYSTEMS, SOAP AND OTHER DETERGENTS, EXCEPT SPECIALTY CLEANERS, SURFACE ACTIVE AGENTS, FINISHING AGENTS, SULFONATED OILS, AND ASSISTANTS
Programs	BR, ICIS, NJ-NJEMS, NPDES, RCRAINFO, TRIS
Program Interests	CESQG, FORMAL ENFORCEMENT ACTION, HAZARDOUS WASTE BIENNIAL REPORTER, ICIS-NPDES NON-MAJOR, STATE MASTER, TRI REPORTER
Updated On	31-DEC-2015 12:18:57
Recorded On	01-MAR-2000 00:00:00
NAICS Descriptions	SURFACE ACTIVE AGENT MANUFACTURING.

NJ Environmental Management System

Location	40.59811, -74.20561
Distance to site	4507 ft / 0.85 mi SW
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110000498284*
EPA Identifier	110000498284
Primary Name	CYTEC INDUSTRIES INC
Address	4900 TREMLEY POINT ROAD
City	LINDEN
County	UNION
State	NJ
Zipcode	07036
NAICS Codes	325188, 325613, 423930
SIC Codes	2834, 2836, 2843, 2869, 3842
SIC Descriptions	BIOLOGICAL PRODUCTS, EXCEPT DIAGNOSTIC SUBSTANCES, INDUSTRIAL ORGANIC CHEMICALS, NOT ELSEWHERE CLASSIFIED, ORTHOPEDIC, PROSTHETIC, AND SURGICAL APPLIANCES AND SUPPLIES, PHARMACEUTICAL PREPARATIONS, SURFACE ACTIVE AGENTS, FINISHING AGENTS, SULFONATED OILS, AND ASSISTANTS
Programs	ICIS, NJ-NJEMS, RCRAINFO, TRIS
Program Interests	FORMAL ENFORCEMENT ACTION, STATE MASTER, TRI REPORTER, UNSPECIFIED UNIVERSE
Updated On	31-DEC-2015 10:40:50
Recorded On	01-MAR-2000 00:00:00
NAICS Descriptions	ALL OTHER BASIC INORGANIC CHEMICAL MANUFACTURING., RECYCLABLE MATERIAL MERCHANT WHOLESALERS., SURFACE ACTIVE AGENT MANUFACTURING.

Location	40.59963, -74.20756
Distance to site	4759 ft / 0.9 mi W
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110029412400*
EPA Identifier	110029412400
Primary Name	BARNIN TANK TRUCKS
Address	4800 TREMLEY POINT RD
City	LINDEN
County	UNION
State	NJ
Zipcode	07036
Programs	NJ-NJEMS
Program Interests	STATE MASTER
Updated On	29-DEC-2014 19:01:52
Recorded On	26-APR-2007 08:14:40

NJ Environmental Management System

Location	40.60471, -74.20874
Distance to site	4782 ft / 0.91 mi W
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110030536285*
EPA Identifier	110030536285
Primary Name	BP OIL & EXPLORATION LINDEN TREMLEY
Address	TREMLEY POINT RD
City	LINDEN
County	UNION
State	NJ
Zipcode	07036
Programs	NJ-NJEMS
Program Interests	STATE MASTER
Updated On	18-DEC-2009 18:55:33
Recorded On	11-JUN-2007 16:03:28

Location	40.60471, -74.20874
Distance to site	4782 ft / 0.91 mi W
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110028867073*
EPA Identifier	110028867073
Primary Name	MARITRANS OPERATING PARTNERS @ ARTHUR KILL
Address	TREMLEY POINT RD
City	LINDEN
County	UNION
State	NJ
Zipcode	07036
Programs	NJ-NJEMS
Program Interests	STATE MASTER
Updated On	29-DEC-2014 18:48:23
Recorded On	20-APR-2007 05:43:19

Location	40.60471, -74.20874
Distance to site	4782 ft / 0.91 mi W
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110032444638*
EPA Identifier	110032444638
Primary Name	TREMLEY POINT MARINE TRANSFER STATION
Address	TREMLEY POINT RD
City	LINDEN
County	UNION
State	NJ
Zipcode	07036
Programs	NJ-NJEMS
Program Interests	STATE MASTER
Updated On	29-DEC-2014 19:21:11
Recorded On	05-NOV-2007 13:47:16

NJ Environmental Management System

Location	40.60471, -74.20874
Distance to site	4782 ft / 0.91 mi W
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110029387447*
EPA Identifier	110029387447
Primary Name	TEXAS EASTERN PIPELINE @ ARTHUR KILL
Address	TREMLEY POINT RD
City	LINDEN
County	UNION
State	NJ
Zipcode	07036
Programs	NJ-NJEMS
Program Interests	STATE MASTER
Updated On	29-DEC-2014 19:02:47
Recorded On	26-APR-2007 01:32:31

Location	40.60471, -74.20874
Distance to site	4782 ft / 0.91 mi W
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110032441800*
EPA Identifier	110032441800
Primary Name	NORTHWAY PETROLEUM TRANSPORT
Address	TREMLEY POINT RD
City	LINDEN CITY
County	UNION
State	NJ
Zipcode	07036
Programs	NJ-NJEMS
Program Interests	STATE MASTER
Updated On	29-DEC-2014 19:22:07
Recorded On	05-NOV-2007 13:41:23

NJ Environmental Management System

Location	40.59632, -74.20585
Distance to site	4917 ft / 0.93 mi SW
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110000318497*
EPA Identifier	110000318497
Primary Name	ST LINDEN TERMINAL
Address	4501 TREMLEY POINT RD
City	LINDEN
County	UNION
State	NJ
Zipcode	07036
NAICS Codes	049319, 424710, 493110
SIC Codes	4226, 5171
SIC Descriptions	PETROLEUM BULK STATIONS AND TERMINALS, SPECIAL WAREHOUSING AND STORAGE, NOT ELSEWHERE CLASSIFIED
Programs	AIR, AIRS/AFS, BR, EIS, ICIS, NJ-NJEMS, NPDES, OTAQREG, RCRAINFO, RFS, TRIS
Program Interests	AIR EMISSIONS CLASSIFICATION UNKNOWN, AIR MAJOR, ENFORCEMENT/COMPLIANCE ACTIVITY, ETHANOL FACILITY, FORMAL ENFORCEMENT ACTION, GASOLINE AND DIESEL PRODUCERS, HAZARDOUS WASTE BIENNIAL REPORTER, ICIS-NPDES NON-MAJOR, LQG, STATE MASTER, TRI REPORTER
Updated On	01-MAR-2016 14:37:12
Recorded On	01-MAR-2000 00:00:00
NAICS Descriptions	GENERAL WAREHOUSING AND STORAGE., PETROLEUM BULK STATIONS AND TERMINALS.

Location	40.60098, -74.20938
Distance to site	5098 ft / 0.97 mi W
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110041867824*
EPA Identifier	110041867824
Primary Name	CONOCO PHILLOIPS
Address	4701 TREMLEY POINT RD
City	LINDEN
County	UNION
State	NJ
Zipcode	07036
Programs	NJ-NJEMS
Program Interests	STATE MASTER
Updated On	29-DEC-2014 23:19:37
Recorded On	23-AUG-2010 13:57:14

NJ Environmental Management System

Location	40.60092, -74.20952
Distance to site	5139 ft / 0.97 mi W
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110000318424*
EPA Identifier	110000318424
Primary Name	CITGO PETROLEUM CORP
Address	4801 SOUTH WOOD AVENUE
City	LINDEN
County	UNION
State	NJ
Zipcode	07036-6543
NAICS Codes	424710
SIC Codes	4959, 5171
SIC Descriptions	PETROLEUM BULK STATIONS AND TERMINALS, SANITARY SERVICES, NOT ELSEWHERE CLASSIFIED
Programs	BR, EIS, ICIS, NJ-NJEMS, NPDES, OTAQREG, RCRAINFO, TRIS
Program Interests	ENFORCEMENT/COMPLIANCE ACTIVITY, GASOLINE AND DIESEL PRODUCERS, HAZARDOUS AIR POLLUTANT MAJOR, HAZARDOUS WASTE BIENNIAL REPORTER, ICIS-NPDES NON-MAJOR, LQG, STATE MASTER, TRI REPORTER
Updated On	31-MAY-2016 11:03:28
Recorded On	01-MAR-2000 00:00:00
NAICS Descriptions	PETROLEUM BULK STATIONS AND TERMINALS.

NJ Groundwater Contamination Area (CEA)

This database returned no results for your area.

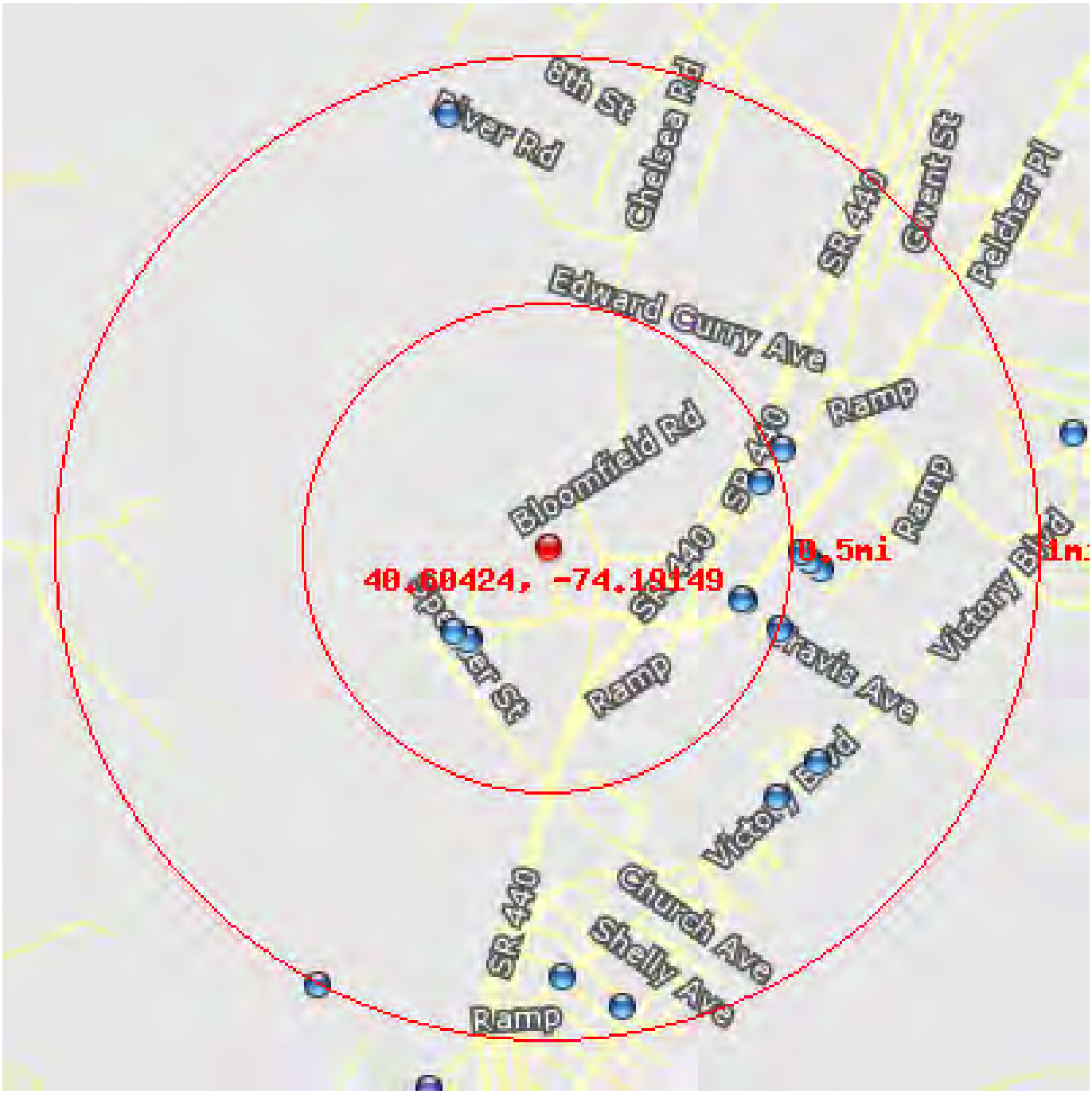
This data identifies those sites where groundwater contamination has been identified and, where appropriate, the NJDEP has established a Classification Exception Area (CEA). CEAs are institutional controls in geographically defined areas within which the New Jersey Ground Water Quality Standards for specific contaminants have been exceeded. When a CEA is designated for an area, the constituent standards and designated aquifer uses are suspended for the term of the CEA. A public understanding of where ground water is known to be contaminated can help prevent inappropriate well placement, preventing potential health risks and can minimize unitended contaminant plume migration.

NJ Groundwater Contamination Area (CKE)

This database returned no results for your area.

This data layer contains information about areas in the state which are specified as the Currently Known Extent (CKE) of ground water pollution. CKE areas are geographically defined areas within which the local ground water resources are known to be compromised because the water quality exceeds drinking water and ground water quality standards for specific contaminants.

NY Underground Storage Tanks



This database returned 18 results for your area.

Underground Storage Tanks (UST) containing hazardous or petroleum substances are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The New York Department of Environmental Conservation Quality (DEC) maintains a list of registered USTs.

NY Underground Storage Tanks

Location	40.60146, -74.19445
Distance to site	1304 ft / 0.25 mi SW
Facility Status	ACTIVE
Address	1900 SOUTH AVENUE
Zip Code	10314
Expiration Date	1/7/2013 12:00:00 AM
City	STATEN ISLAND
County	RICHMOND
Facility Name	VANBRO CORPORATION
Site Type	PBS
Site Number	2-240869

Location	40.60149, -74.19456
Distance to site	1314 ft / 0.25 mi SW
Facility Status	ACTIVE
Address	451 SPENCER STREET
Zip Code	10314
Expiration Date	9/9/2014 12:00:00 AM
City	STATEN ISLAND
County	RICHMOND
Facility Name	ANASTASIOS GLIKIS/T.M. MAINTENANCE INC
Site Type	PBS
Site Number	2-604227

Location	40.60173, -74.19506
Distance to site	1347 ft / 0.26 mi SW
Facility Status	ACTIVE
Address	436 SPENCER STREET
Zip Code	10314
Expiration Date	4/11/2010 12:00:00 AM
City	STATEN ISLAND
County	RICHMOND
Facility Name	PHILKAT LEASING & MAINT. INC
Site Type	PBS
Site Number	2-609911

NY Underground Storage Tanks

Location	40.60263, -74.18398
Distance to site	2161 ft / 0.41 mi E
Facility Status	ACTIVE
Address	1331 TRAVIS AVENUE
Zip Code	10314
Expiration Date	10/23/2015 12:00:00 AM
City	STATEN ISLAND
County	RICHMOND
Facility Name	UPS
Site Type	PBS
Site Number	2-482285

Location	40.60254, -74.1838
Distance to site	2219 ft / 0.42 mi E
Facility Status	UNREGULATED
Address	1321 TRAVIS AVENUE
Zip Code	10310
Expiration Date	8/23/1993 12:00:00 AM
City	STATEN ISLAND
County	RICHMOND
Facility Name	UNITED PARCEL SERVICE
Site Type	PBS
Site Number	2-452513

Location	40.60609, -74.18324
Distance to site	2383 ft / 0.45 mi E
Facility Status	ACTIVE
Address	600 WEST SERVICE ROAD
Zip Code	10314
Expiration Date	7/2/2014 12:00:00 AM
City	STATEN ISLAND
County	RICHMOND
Facility Name	STATEN ISLAND TRANSFER STATION
Site Type	PBS
Site Number	2-609619

NY Underground Storage Tanks

Location	40.60609, -74.18323
Distance to site	2387 ft / 0.45 mi E
Facility Status	UNREGISTERED
Address	600 WEST SERVICE RD
Zip Code	10314
City	STATEN ISLAND
County	RICHMOND
Facility Name	STATEN ISLAND TRANSFER STATION
Site Type	PBS
Site Number	2-610752

Location	40.60176, -74.18243
Distance to site	2669 ft / 0.51 mi E
Facility Status	ACTIVE
Address	1305 B TRAVIS AVE
Zip Code	10314
Expiration Date	9/19/2007 12:00:00 AM
City	STATEN ISLAND
County	RICHMOND
Facility Name	TRAVIS AUTO ROMAIR CENTER
Site Type	PBS
Site Number	2-608033

Location	40.60699, -74.1824
Distance to site	2711 ft / 0.51 mi E
Facility Status	ACTIVE
Address	450 WEST SERVICE RD.
Zip Code	10314
Expiration Date	2/1/2013 12:00:00 AM
City	STATEN ISLAND
County	RICHMOND
Facility Name	STATEN ISLAND COMPOST FACILITY
Site Type	PBS
Site Number	2-610753

NY Underground Storage Tanks

Location	40.604, -74.18165
Distance to site	2728 ft / 0.52 mi E
Facility Status	UNREGULATED
Address	5 TELEPORT DRIVE
Zip Code	10311
Expiration Date	4/29/2011 12:00:00 AM
City	STATEN ISLAND
County	RICHMOND
Facility Name	AT & T TELEPORT (NY1258)
Site Type	PBS
Site Number	2-600065

Location	40.604, -74.18165
Distance to site	2728 ft / 0.52 mi E
Facility Status	UNREGULATED
Address	5 TELEPORT DRIVE
Zip Code	10311
Expiration Date	6/28/2001 12:00:00 AM
City	STATEN ISLAND
County	RICHMOND
Facility Name	NOMURA RESEARCH INSTITUTE;AMERICA
Site Type	PBS
Site Number	2-600190

Location	40.60375, -74.18127
Distance to site	2838 ft / 0.54 mi E
Facility Status	ACTIVE
Address	7 TELEPORT DRIVE
Zip Code	10311
Expiration Date	6/5/2011 12:00:00 AM
City	STATEN ISLAND
County	RICHMOND
Facility Name	TELEHOUSE CENTER OF NEW YORK
Site Type	PBS
Site Number	2-600146

NY Underground Storage Tanks

Location	40.6035, -74.18091
Distance to site	2944 ft / 0.56 mi E
Facility Status	ACTIVE
Address	10 TELEPORT DRIVE
Zip Code	10311
Expiration Date	6/22/2014 12:00:00 AM
City	STATEN ISLAND
County	RICHMOND
Facility Name	MERRILL LYNCH DATA CENTER
Site Type	PBS
Site Number	2-476633

Location	40.59681, -74.1826
Distance to site	3662 ft / 0.69 mi SE
Facility Status	UNREGULATED
Address	3808 VICTORY BLVD
Zip Code	10314
Expiration Date	3/24/1992 12:00:00 AM
City	STATEN ISLAND
County	RICHMOND
Facility Name	MOHLENHOFF & SONS INC
Site Type	PBS
Site Number	2-083305

Location	40.5979, -74.18103
Distance to site	3708 ft / 0.7 mi SE
Facility Status	UNREGULATED
Address	3730 VICTORY BOULEVARD
Zip Code	10314
Expiration Date	7/28/2013 12:00:00 AM
City	STATEN ISLAND
County	RICHMOND
Facility Name	ENGINE COMPANY 154
Site Type	PBS
Site Number	2-358371

NY Underground Storage Tanks

Location	40.5916, -74.19082
Distance to site	4616 ft / 0.87 mi S
Facility Status	ACTIVE
Address	4108 VICTORY BLVD
Zip Code	10314
Expiration Date	6/28/2013 12:00:00 AM
City	STATEN ISLAND
County	RICHMOND
Facility Name	PUBLIC SCHOOL 26-STATEN ISLAND
Site Type	PBS
Site Number	2-351091

Location	40.61682, -74.1953
Distance to site	4712 ft / 0.89 mi N
Facility Status	UNREGULATED
Address	RIVER ROAD/FOREST AVENUE
Zip Code	10303
Expiration Date	8/23/1998 12:00:00 AM
City	STATEN ISLAND
County	RICHMOND
Facility Name	GOETHALS CENTRAL SUBSTATION
Site Type	PBS
Site Number	2-453064

Location	40.59072, -74.18854
Distance to site	5000 ft / 0.95 mi S
Facility Status	ACTIVE
Address	150 WILD AVE
Zip Code	10314
Expiration Date	7/21/2014 12:00:00 AM
City	STATEN ISLAND
County	RICHMOND
Facility Name	SCHMUL PARK
Site Type	PBS
Site Number	2-611444

NJ Chromate Waste Sites

This database returned no results for your area.

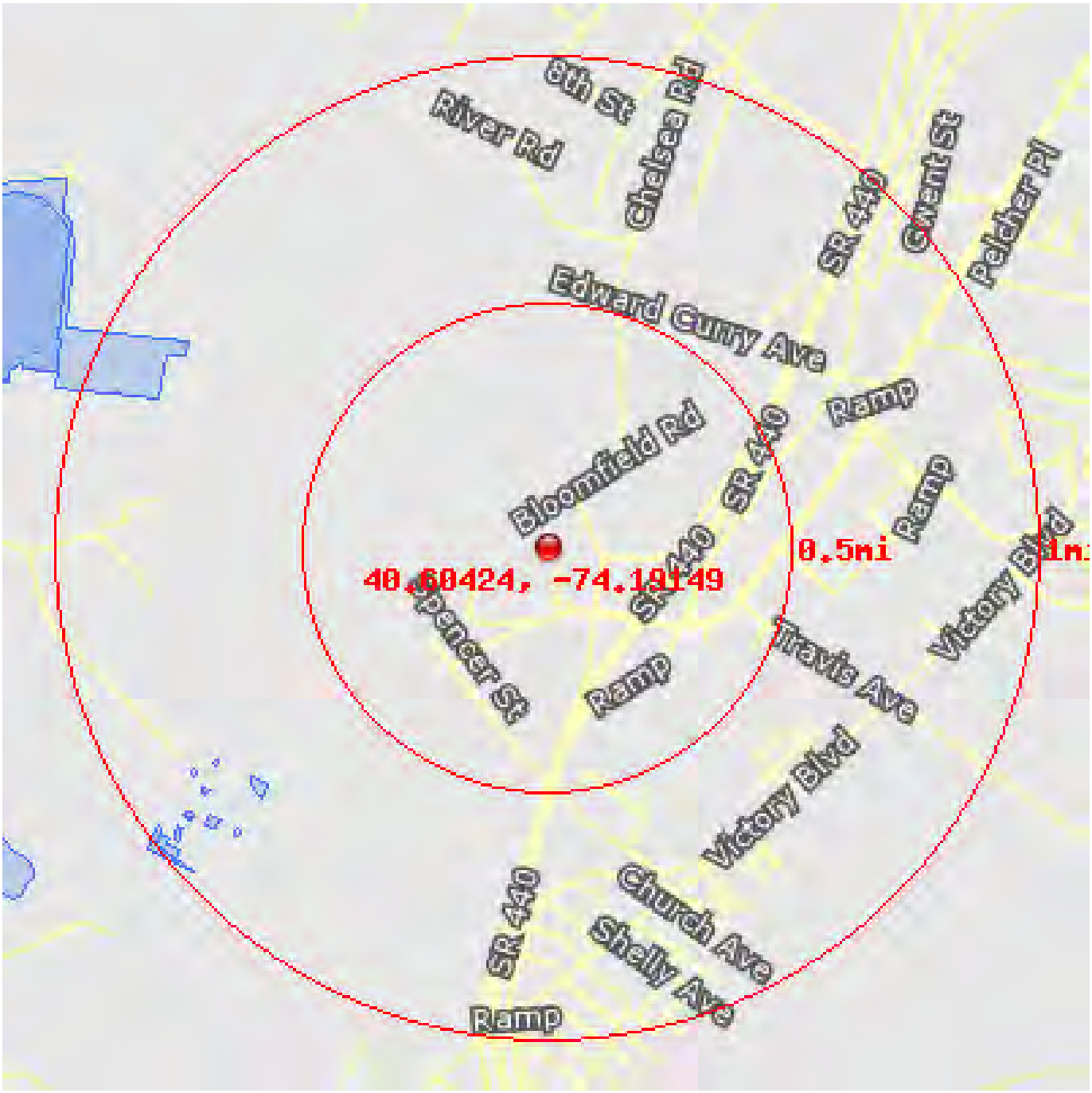
The New Jersey Department of Environmental Protection (NJDEP) maintains a list of known sites with chromate contamination. Included are those sites within New Jersey where chromate contamination of soil or ground water has been identified; This list of chromate waste sites include sites where remediation is either currently under way, required but not yet initiated or has been completed. The data included here dates from 1995. It is important to note that since some of the cases included may have been fully remediated and they should no longer be listed; however information confirming completion of the remediation has not reached NJDEP. Additionally more chromate waste sites may yet be identified and accordingly are not included here.

NY Brownfields

This database returned no results for your area.

New York State Department of Environmental Conservation (DEC) maintains a database of contaminated and abandoned properties known as brownfield sites. Left untouched, brownfields pose environmental, legal and financial burdens on a community and its taxpayers. However, after cleanup, these sites can again become the powerful engines for economic vitality, jobs and community pride that they once were. Promoting site cleanups: New York offers incentives in the form of technical and financial assistance, as well as liability relief, to encourage the cleanup and reuse of contaminated sites. Incentive programs target both the public and private sector. DEC also oversees cleanups of inactive hazardous waste disposal sites and petroleum/chemical spills

NJ Activity and Use Limitations



This database returned 10 results for your area.

Activity and Use Limitations (AULs), also known as Environmental Land-Use Controls (LUCs) – An AUL is a restriction, covenant or notice concerning the use of real property, which is imposed on real property. AULs and LUCs are further categorized as Institutional Controls (ICs) and Engineering Controls (ECs). An IC is a legal or regulatory restriction on the use of a property, limiting the use of groundwater and excavations or preventing such businesses as day care centers or schools on the property. An EC involves physical means of restricting site access or use in order to prevent the spreading or exposure of a contaminant. Frequently implemented engineering controls include requiring black top on the surface, building of structures to prevent exposure or even notices to the public that are posted on the grounds warning of contaminants. This data layer identifies those Known Contaminates Sites (KCS) or sites on Site Remediations Programs' (SRP) Comprehensive Site List (CSL) that have been assigned a Deed notice.

NJ Activity and Use Limitations

Location	40.59727, -74.20263
Distance to site	3998 ft / 0.76 mi SW
Case Name	CYTEC - Area I
Address	4900 Tremley Point Rd.
Legal: Block & Lot	587-8
Municipality	Linden City
County	Union
Known Contaminated Site ID	NJD002173144
Site Acreage	0.49434869

Location	40.59797, -74.20428
Distance to site	4218 ft / 0.8 mi SW
Case Name	CYTEC - Area H
Address	4900 Tremley Point Rd.
Legal: Block & Lot	587-8
Municipality	Linden City
County	Union
Known Contaminated Site ID	NJD002173144
Site Acreage	0.04736212

Location	40.59767, -74.20511
Distance to site	4470 ft / 0.85 mi SW
Case Name	CYTEC - Area D
Address	4900 Tremley Point Rd.
Legal: Block & Lot	587-8
Municipality	Linden City
County	Union
Known Contaminated Site ID	NJD002173144
Site Acreage	0.06071875

Location	40.59714, -74.20469
Distance to site	4482 ft / 0.85 mi SW
Case Name	CYTEC - Area E
Address	4900 Tremley Point Rd.
Legal: Block & Lot	587-8
Municipality	Linden City
County	Union
Known Contaminated Site ID	NJD002173144
Site Acreage	0.08001460

NJ Activity and Use Limitations

Location	40.59591, -74.20345
Distance to site	4494 ft / 0.85 mi SW
Case Name	CYTEC - Area G
Address	4900 Tremley Point Rd.
Legal: Block & Lot	587-8
Municipality	Linden City
County	Union
Known Contaminated Site ID	NJD002173144
Site Acreage	0.07399413

Location	40.59621, -74.20439
Distance to site	4620 ft / 0.88 mi SW
Case Name	CYTEC - Area B
Address	4900 Tremley Point Rd.
Legal: Block & Lot	587-8
Municipality	Linden City
County	Union
Known Contaminated Site ID	NJD002173144
Site Acreage	0.30919534

Location	40.59642, -74.20531
Distance to site	4774 ft / 0.9 mi SW
Case Name	CYTEC - Area C
Address	4900 Tremley Point Rd.
Legal: Block & Lot	587-8
Municipality	Linden City
County	Union
Known Contaminated Site ID	NJD002173144
Site Acreage	0.13144995

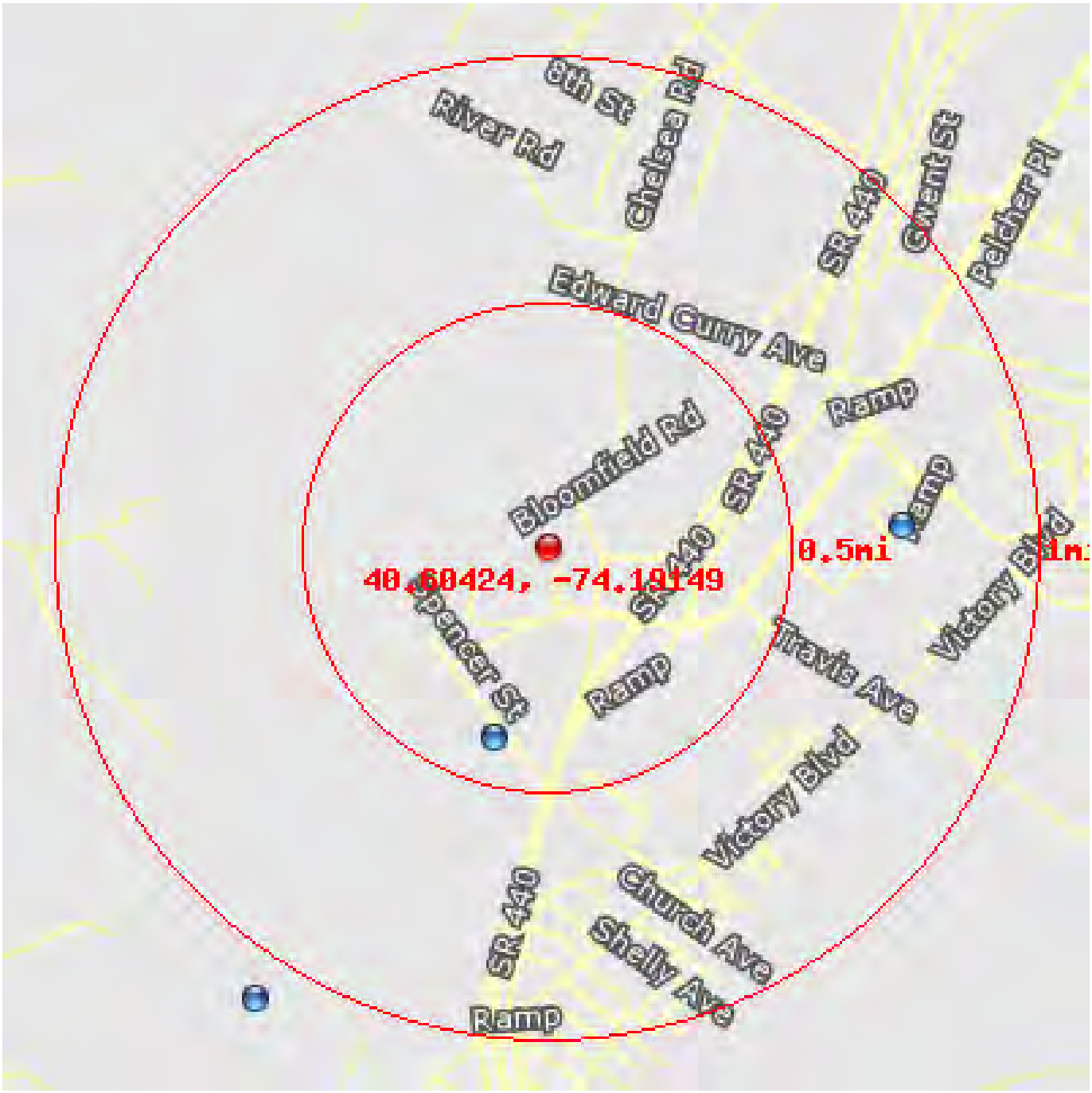
Location	40.59587, -74.20574
Distance to site	4990 ft / 0.95 mi SW
Case Name	CYTEC - Area F
Address	4900 Tremley Point Rd.
Legal: Block & Lot	587-8
Municipality	Linden City
County	Union
Known Contaminated Site ID	NJD002173144
Site Acreage	0.21808920

NJ Activity and Use Limitations

Location	40.59548, -74.20616
Distance to site	5171 ft / 0.98 mi SW
Case Name	CYTEC - Area A1
Address	4900 Tremley Point Rd.
Legal: Block & Lot	587-8
Municipality	Linden City
County	Union
Known Contaminated Site ID	NJD002173144
Site Acreage	0.69690555

Location	40.59542, -74.20638
Distance to site	5231 ft / 0.99 mi SW
Case Name	CYTEC - Area A2
Address	4900 Tremley Point Rd.
Legal: Block & Lot	587-8
Municipality	Linden City
County	Union
Known Contaminated Site ID	NJD002173144
Site Acreage	0.78041568

NY State Superfund Program



This database returned 2 results for your area.

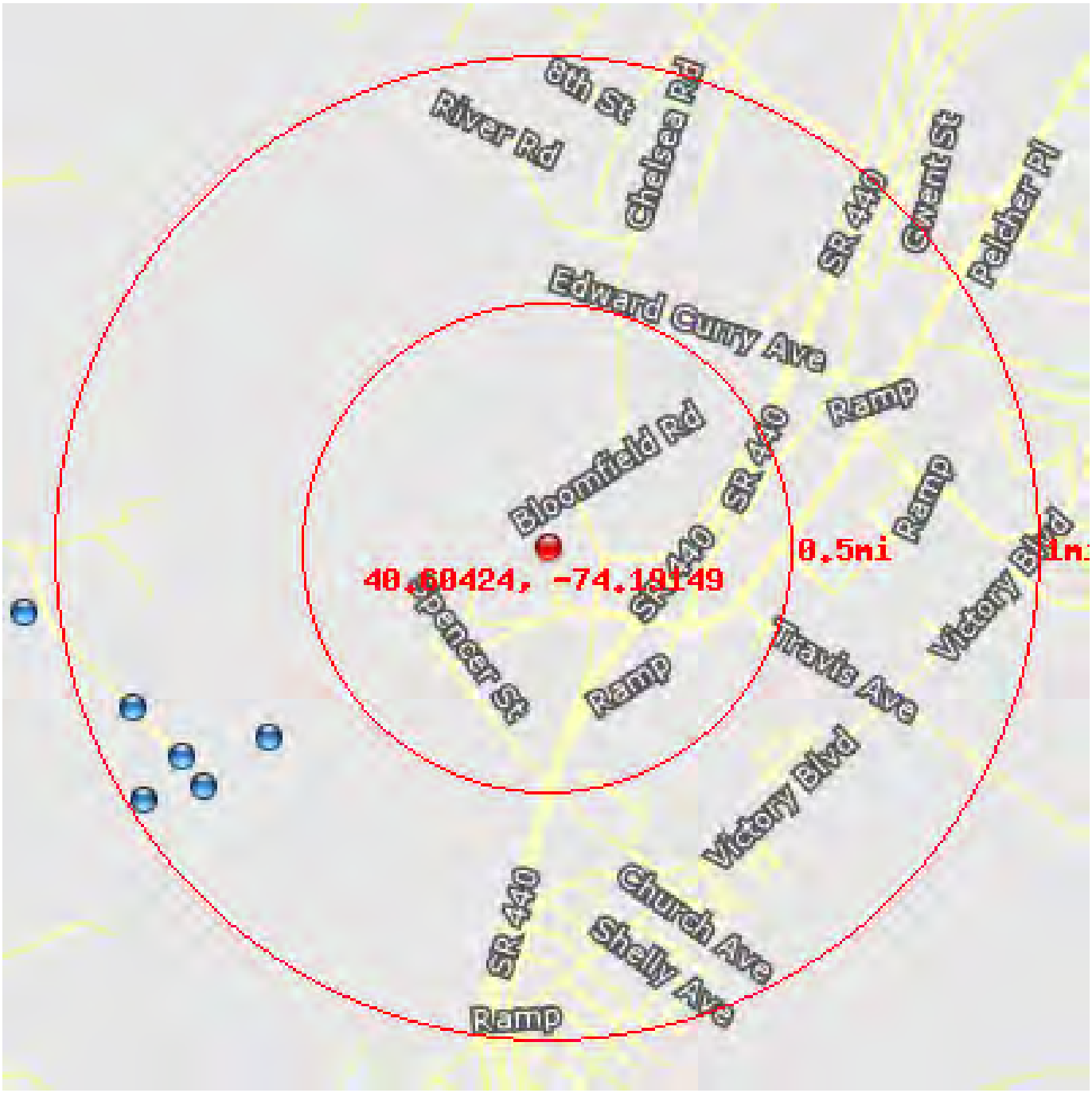
The State Supefund Program (also known as The Inactive Hazardous Waste Disposal Site Remedial Program) is an enforcement program whose mission is to identify and characterize suspected inactive hazardous waste disposal sites and to investigate and remediate those sites found to pose a significant threat to public health and environment.

NY State Superfund Program

Location	40.5986, -74.19349
Distance to site	2131 ft / 0.4 mi S
Object ID	1568
Site Code	243001
Site Name	Positive Chemical
Program	State Superfund Program
Site Class	05
Address	250 Meredith Avenue
Locality	Staten Island
Zip Code	10314
County	Richmond
Town	New York City
Region	2

Location	40.60476, -74.17779
Distance to site	3801 ft / 0.72 mi E
Object ID	1565
Site Code	243009
Site Name	Teleport, Staten Island
Program	State Superfund Program
Site Class	C
Address	Bloomfield Industrial Park
Locality	Staten Island
Zip Code	10048
County	Richmond
Town	New York City
Region	2

NJ Known Contaminated Sites



This database returned 5 results for your area.

The New Jersey Department of Environmental Protection (NJDEP) maintains a list of Known Contaminated Sites. The Known Contaminated Sites List (KCSNJ) for New Jersey (Non-Homeowner) 2009 are those non-homeowner sites and properties within the state where contamination of soil or groundwater has been confirmed at levels equal to or greater than applicable standards. This list of Known Contaminated Sites may include sites where remediation is either currently under way, required but not yet initiated or has been completed.

NJ Known Contaminated Sites

Location	40.59855, -74.20222
Distance to site	3626 ft / 0.69 mi SW
Site ID	930
Address	S WOOD AVE
Status	Active
Status Date	1993-04-27
Site Name	EI DUPONT DENEMOURS & CO
Remediation Level	D: Multi-Phased RA - Multiple Source/Release to Multi-Media Including GW
Classification Exception Area	Lifted

Location	40.59714, -74.20467
Distance to site	4477 ft / 0.85 mi SW
Site ID	14718
Address	4900 TREMLEY POINT RD
Status	NFA-A (Restricted Use)
Status Date	2002-11-26
Site Name	WARNERS PLANT AMERICAN CYANAMID
Remediation Level	D: Multi-Phased RA - Multiple Source/Release to Multi-Media Including GW
Classification Exception Area	None

Location	40.59804, -74.20557
Distance to site	4511 ft / 0.85 mi SW
Site ID	38688
Address	3301A TREMLEY POINT RD
Status	Active
Status Date	1995-03-15
Site Name	LINDEN WAREHOUSE AMER CYANAMID
Remediation Level	C3: Multi-Phased RA - Unknown or Uncontrolled Discharge to Soil or GW
Classification Exception Area	None

Location	40.59946, -74.20742
Distance to site	4745 ft / 0.9 mi W
Site ID	14454
Address	4801 WOOD AVE
Status	Active
Status Date	1997-05-22
Site Name	CITGO PETROLEUM CORP
Remediation Level	D: Multi-Phased RA - Multiple Source/Release to Multi-Media Including GW
Classification Exception Area	None

NJ Known Contaminated Sites

Location	40.59678, -74.20697
Distance to site	5079 ft / 0.96 mi SW
Site ID	14447
Address	S WOOD AVE
Status	Active
Status Date	1997-01-22
Site Name	CONOCOPHILLIPS TREMLEY POINT TERMINAL
Remediation Level	C3: Multi-Phased RA - Unknown or Uncontrolled Discharge to Soil or GW
Classification Exception Area	None

NY Voluntary Cleanup Program

This database returned no results for your area.

New York established its Voluntary Cleanup Program (VCP) to address the environmental, legal and financial barriers that often hinder the redevelopment and reuse of contaminated properties. The Voluntary Cleanup Program was developed to enhance private sector cleanup of brownfields by enabling parties to remediate sites using private rather than public funds and to reduce the development pressures on "greenfield" sites.

New York's Voluntary Cleanup Program is a cooperative approach among the New York State Department of Environmental Conservation (Department), lenders, developers and prospective purchasers to investigate and/or remediate contaminated sites and return these sites to productive use. Under the Voluntary Cleanup Program, a volunteer performs remedial activities pursuant to one or more Department approved work plans. The volunteer agrees to remediate the site to a level which is protective of public health and the environment for the present or intended use of the property. Investigation and remediation is carried out under the oversight of the Department and the New York State Department of Health (DOH) and the volunteer pays the State's oversight costs. When the volunteer completes work, a release from liability from the Department is provided with standard reservations.

NJ Underground Storage Tanks

This database returned no results for your area.

NY Environmental Restoration Program

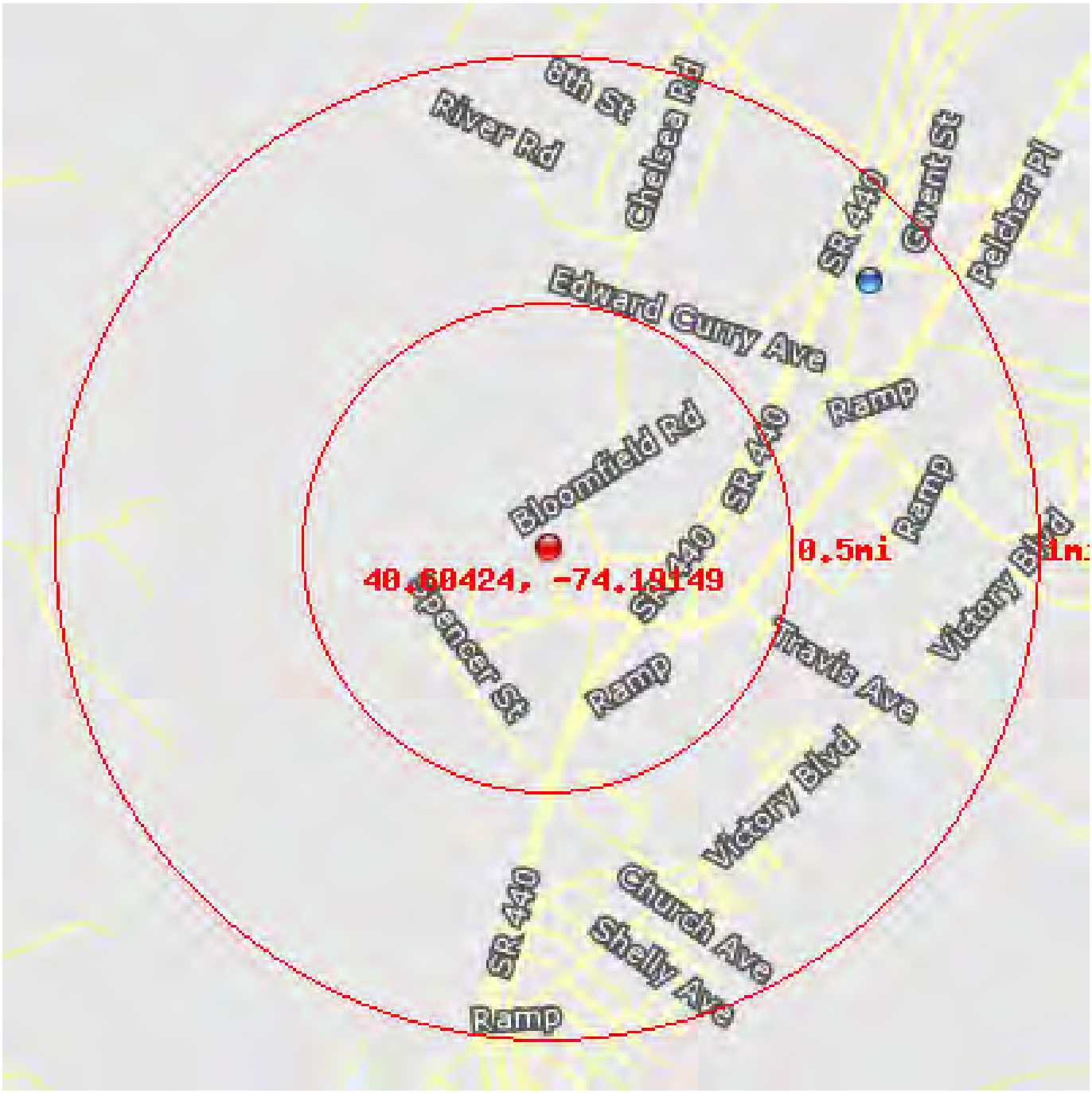
This database returned no results for your area.

The Environmental Restoration Program (ERP) provides grants to municipalities to reimburse up to 90 percent of on-site eligible costs and 100 percent of off-site eligible costs for site investigation and remediation activities. Once remediated, the property may then be reused for commercial, industrial, residential or public use.

NJ Closed Landfills

This database returned no results for your area.

NY Leaking USTs and Spills



This database returned 1 results for your area.

The New York Department of Environmental Conservation maintains a database of leaking underground storage tanks (LUST) and spills.

NY Leaking USTs and Spills

Location	40.61186, -74.1788
Distance to site	4483 ft / 0.85 mi NE
Spill Number	708590
Date Reported	11/7/2007
Spill Name	DEPT OF SANITATION
County	New York
City	NEW YORK
Address	2 BLOOMFIELD STREET