

Greenpoint-Williamsburg Rezoning EIS

EXECUTIVE SUMMARY

A. INTRODUCTION

The New York City Department of City Planning (DCP) is proposing zoning map and zoning text amendments, changes to the city map involving street demapping and, in association with the NYC Department of Parks and Recreation, establishment of a park (collectively, “the proposed action”), affecting the Greenpoint and Williamsburg areas of northern Brooklyn within Community District 1. The area affected by the proposed action covers approximately 184 blocks in Greenpoint and Williamsburg, and is bounded generally by the East River, the Williamsburg Bridge, the Brooklyn-Queens Expressway, and McGuinness Boulevard (refer to Figure S-1). In the proposed action area, existing manufacturing zoning and special mixed-use district designations would be changed to permit residential use on the waterfront, residential and mixed use on most of the upland area, and to restrict certain areas currently zoned M3 to light industrial uses.

As discussed below, a reasonable worst case development scenario (RWCDs) for development associated with the proposed action has been identified. The RWCDs includes two development scenarios, identified throughout the EIS as Scenario A and Scenario B. Scenario A assumes that the current proposal by TransGas Energy Systems, LLC, to construct a 1,100 megawatt power plant on the site of the Bayside Fuel facility is not approved, whereas Scenario B assumes that the power plant is approved.¹ As such, under Scenario A, Bayside Fuel is assumed to continue to occupy its current site in the future without the proposed action, and would be displaced by the proposed park in the future with the proposed action. Under Scenario B, the TransGas power plant is assumed to be an approved development in the future without the proposed action, which would remain in the future with the proposed action, and that site would be excluded from the proposed park.

Projected developments, considered likely to occur in the foreseeable future, i.e., a ten-year period following the adoption of the proposed action, are expected to occur on 76 sites, and potential developments, which are considered possible but less likely, have been identified for 264 sites. Compared to conditions absent the proposed action, it is anticipated that the proposed action under Scenario A would result in a net change on the 76 projected sites as follows: a net increase of approximately 7,391 dwelling units and 253,698 sf of commercial/retail space as well as a new park; and a decrease of approximately 949,997 sf of vacant land, 642,686 sf of vehicle and open storage uses, 557,906 sf in vacant buildings, 1,136,269 sf of industrial/manufacturing/warehousing space, and 24,876 sf of automotive uses. For Scenario B, the net changes would be the same, except that the proposed park would be smaller, the

¹ On November 12, 2004, TransGas filed a purported “amendment” to its original Article X application setting forth a new design for its power plant, in which many of the structures would be constructed below ground and the site would include approximately 6 acres of open space at the ground level. The City has opposed this submission on the basis that it is not legally permitted and that the radical re-design set forth therein is not technically feasible and continues to conflict with the City’s planned use for the site. For informational purposes, the open space ratio calculations for the proposed action under Scenario B with this new design are set forth in Appendix I to the FEIS.

reduction in industrial/manufacturing/warehousing space would be 1,076,864 sf, and the reduction in vacant land would be 555,764 sf.²

This Environmental Impact Statement (EIS) has been prepared in conformance with applicable laws and regulations, including Executive Order No. 91, New York City Environmental Quality Review (CEQR) regulations, and follows the guidance of the *CEQR Technical Manual*, October 2001.

The EIS includes review and analysis of all impact categories identified in the *CEQR Technical Manual*. The EIS contains a description and analysis of the proposed action and its environmental setting; the environmental impacts of the proposed action, including its short and long term effects, and typical associated environmental effects; identification of any significant adverse environmental effects that can be avoided through incorporation of corrective measures into the proposed action; a discussion of alternatives to the proposed action; the identification of any irreversible and irretrievable commitments of resources that would be involved in the proposed action should it be implemented; and a description of any necessary mitigation measures proposed to minimize significant adverse environmental impacts.

As the proposed action would rezone a large area encompassing approximately 184 blocks, and a ten-year period is typically believed to be the length of time over which a projection can be made on changes due to the rezoning, the EIS considers an Analysis year of 2013.

B. PURPOSE AND NEED FOR PROPOSED ACTION

The proposed action is intended to provide opportunities for new residential and commercial development and enhancement and upgrade of the waterfront areas, including new parkland on the waterfront to provide waterfront access and recreational opportunities. Over the last two decades, the Greenpoint and Williamsburg areas have experienced substantial growth in their residential population, resulting in a housing shortfall and increasing demands for new dwelling units. While the residential population dramatically increased, the industrial sector has declined, leaving many large properties vacant or underutilized. In addition, as a result of the 1961 rezoning efforts, existing residential buildings in manufacturing districts became non-conforming uses, barred from continued residential occupancy when vacant for two years, and not allowed to expand or rebuild when substantially damaged by fire.

The decline of industrial activity, particularly water-dependent industry, during recent decades has been pronounced in Greenpoint and Williamsburg. Industrial sectors such as garment and textile manufacturing, which once dominated Williamsburg, have nearly disappeared from the area as companies have closed or moved their operations abroad. At the same time, residential activity has spread beyond its traditional boundaries in Greenpoint-Williamsburg. In particular, the conversion of loft buildings to residential use has been widespread, showing a strong demand for new housing. Analysis conducted by DCP has revealed over 100 industrial buildings in the proposed action area already containing residential

² During the period in which the FEIS was being prepared for publication, information became available which indicates that three potential development sites in the RWCDs (Sites 3.1, 222, and 327) may be developed within the foreseeable future. In order to provide for a more conservative assessment, Appendix J therefore includes a technical memorandum which considers the environmental effects of the proposed action under a revised RWCDs which considers these sites as projected development sites for analysis purposes. FEIS chapters analyzing the proposed action should be read in conjunction with this technical memorandum.

use. In addition to the observed loft conversion activity, there has been residential development and conversion activity in recent years within those portions of Williamsburg and surrounding areas where zoning permits them as-of-right. In Greenpoint, in addition to loft conversion activity, there has been new residential construction activity in recent years within the Franklin Street Special Mixed Use District, as well as in nearby residential districts.

The proposed action would create opportunities for new housing development on underutilized and vacant land formerly used for manufacturing, where there is no longer a concentration of industrial activity and where strong demand for housing exists. It would bring existing non-conforming residential uses into conformance. In addition, the mixed-use districts proposed in certain areas would permit the continuation of light industrial uses as well as the residential re-use of underutilized and vacant land. Replacing the Northside and Franklin Street Special District designations with residential and Special Mixed Use District (MX) designations has a range of benefits, including greater flexibility for residential and mixed-use development, such as infill development, as well as more flexible home occupation provisions. In addition, the proposed action would facilitate the redevelopment of the area's derelict East River waterfront, establishing a blueprint for a revitalized waterfront with a continuous public walkway and enlarged parks along approximately two miles of the East River, including the mapping of a new 27.8-acre park along the waterfront between North 9th Street and the northern edge of Bushwick Inlet. The proposed action would produce new waterfront development with a sensitive transition to the adjoining neighborhoods, a pedestrian-friendly streetscape, and a compelling skyline. Light industry and residences would be permitted to coexist in mixed-use areas, and manufacturing zoning would be retained in areas where concentrations of industrial activity exist.

C. DESCRIPTION OF THE PROPOSED ACTION

The New York City Department of City Planning is proposing zoning map and text amendments, changes to the city map involving street demapping and, in association with the NYC Department of Parks and Recreation, establishment of a park (collectively, "the proposed action") affecting the Greenpoint and Williamsburg areas of northern Brooklyn within Community District 1. As shown in Figure S-1, the area affected by the proposed action covers approximately 184 blocks in Greenpoint and Williamsburg, and is bounded generally by the East River, the Williamsburg Bridge, the Brooklyn-Queens Expressway, and McGuinness Boulevard. Each component of the proposed action is discussed below.

Proposed Zoning Map Changes

The proposed zoning map changes would replace the Franklin Street and Northside Special Mixed Use Districts and portions of M3-1, M1-1, M1-2, C8-1, C8-2, R6, and R6/C1-3 districts with residential, commercial overlay, and Special Mixed Use Districts. Under the proposal, upland areas that are occupied primarily by residential and community facility uses would be rezoned as residential districts. Proposed residential districts occur along Franklin Street, in the heart of the Northside neighborhood of Williamsburg on blocks surrounding Bedford Avenue, to the east of McCarren Park, and near Grand Street. Special Mixed Use Districts are proposed for areas where residential buildings built prior to the 1961 zoning exist among industrial buildings as well as fully or partially converted loft buildings. Contextual zoning would be employed in most of the residential and mixed use districts to ensure that new development on the upland portion of the neighborhood respects the existing low-rise character.

Height factor zoning is proposed for blocks near tall structures such as bridges and elevated highways and on blocks with irregularly shaped lots. The proposal would map light industrial districts (M1-2) in the area between McCarren Park and Kent Avenue/Franklin Street, and along Newtown Creek just west of the Pulaski Bridge. On the waterfront, R6 and R8 districts are proposed, with commercial overlays proposed on the waterfront side of West Street, Kent Avenue, Commercial Street, and on portions of Franklin Street and Quay Street. Commercial overlays are also proposed along Grand Street, Bedford Avenue, Green Street, Greenpoint Avenue, and North 6th Street.

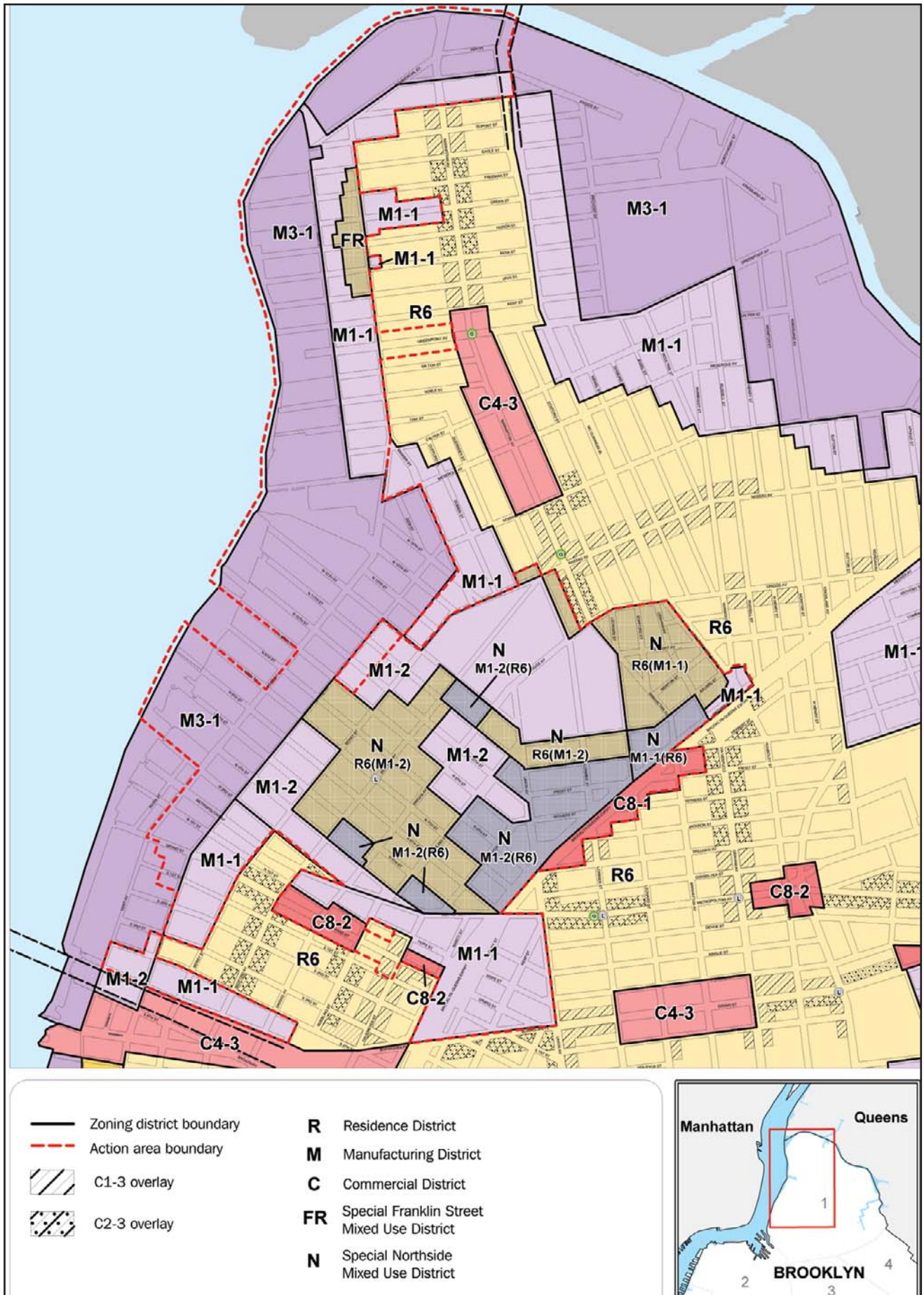
As shown in Figure S-2, the area proposed for rezoning encompasses a number of non-residentially zoned districts, including M3-1 (floor area ratio (FAR) of 2.0), M1-2 (2.0 FAR), M1-1 (1.0 FAR), C8-1 (1.0 FAR), and C8-2 (2.0 FAR) districts, as well as the Special Franklin Street Mixed Use District and the Special Northside Mixed Use District. The Special Franklin Street Mixed Use District allows new residential uses as-of right with a maximum FAR of 2.43. The Special Northside Mixed Use District contains portions (R6(M1-2), R6(M1-1)) that allow new residential uses and minor enlargements of light manufacturing uses as-of-right, and portions (M1-2(R6), M1-1(R6)) that allow light manufacturing use and certain small residential developments as-of-right.

With the proposed zoning map amendments, those areas would be rezoned to residential and mixed use districts. Figure S-3 illustrates the proposed zoning designations, and Table S-1 provides a summary of the changes proposed to zoning districts in the proposed action area. With the proposed zoning map amendments, the upland areas would be rezoned to: R6, R6A, R6B, M1-2/R6, M1-2/R6A, M1-2/R6B, M1-2/R7A, R6/C1-4, R6A/C1-4, R6B/C1-4, R6/C2-4, R6A/C2-4, and R6B/C2-4. On the waterfront, R6 (2.43 FAR) and R8 (6.02 FAR) districts are proposed, yielding an average of 4.3 FAR on waterfront parcels. C2-4 commercial overlays are also proposed for portions of waterfront sites. Zoning text changes would establish special bulk rules for this waterfront area, in order to produce new waterfront development with a compelling skyline, a sensitive transition to the adjoining neighborhoods, and a pedestrian-friendly streetscape. Commercial overlays are proposed on the waterfront side of West Street, Commercial Street, Kent Avenue, and portions of Quay Street and Franklin Street, as well as along Green Street, Greenpoint Avenue, Bedford Avenue, Grand Street, and North 6th Street. The proposed action would also result in the elimination of the Special Northside and Special Franklin Street Mixed Use Districts, which would be replaced with R6, R6A, R6A/C1-4, R6B/C1-4, M1-2/R6, R6B, M1-2/R6A, M1-2/R6B, M1-2/R7A, and R6B, C2-4/R6B, R6A, and M1-2/R6A districts, respectively. In addition, the proposal would rezone an area between McCarren Park and Kent Avenue/Franklin Street, as well as two blocks between Manhattan Avenue and the Pulaski Bridge, from M3-1 to M1-2.

Proposed Zoning Text Amendments

Greenpoint-Williamsburg Waterfront Access Plan (WAP)

A Waterfront Access Plan (WAP) tailors the public access requirements of waterfront zoning to the specific conditions of a particular location on the waterfront. The proposed action includes the creation of a WAP for the Greenpoint-Williamsburg waterfront between Manhattan Avenue and North 3rd Street, in order to provide a coordinated network of waterfront open spaces. As per section 62-80 of the Zoning Resolution, this WAP would modify the general public access requirements of waterfront zoning within this area, identifying locations and parameters for the configuration of required shore public walkways, upland connections, supplemental public access areas, and visual corridors. The WAP does not increase the total public access requirement on a given parcel.



Source: NYC Department of City Planning (March 2004)

**TABLE S-1
Summary of Proposed Zoning Changes**

Existing Zoning District	Proposed Zoning District
M3-1	M1-2 M1-2/R6 M1-2/R6A M1-2/R6B R6 C2-4/R6 R8 C2-4/R8
M1-2	R6B M1-2/R6A M1-2/R6B M1-2/R6
M1-1	R6 R6B R6A C2-4/R6A M1-2/R6A M1-2/R6B M1-2/R6
FR	R6B C2-4/R6B R6A M1-2/R6A
N - M1-2(R6)	M1-2/R7A M1-2/R6A M1-2/R6B M1-2/R6 R6
N - M1-1(R6)	M1-2/R6A M1-2/R6
N - R6(M1-2)	R6 R6A R6B C1-4/R6A C1-4/R6B M1-2/R6A M1-2/R6B
N - R6(M1-1)	R6B M1-2/R6 M1-2/R6A M1-2/R6B
C8-1	M1-2/R6
C8-2	C1-4/R6 C2-4/R6
R6	C2-4/R6 C1-4/R6
C1-3/R6	C1-4/R6

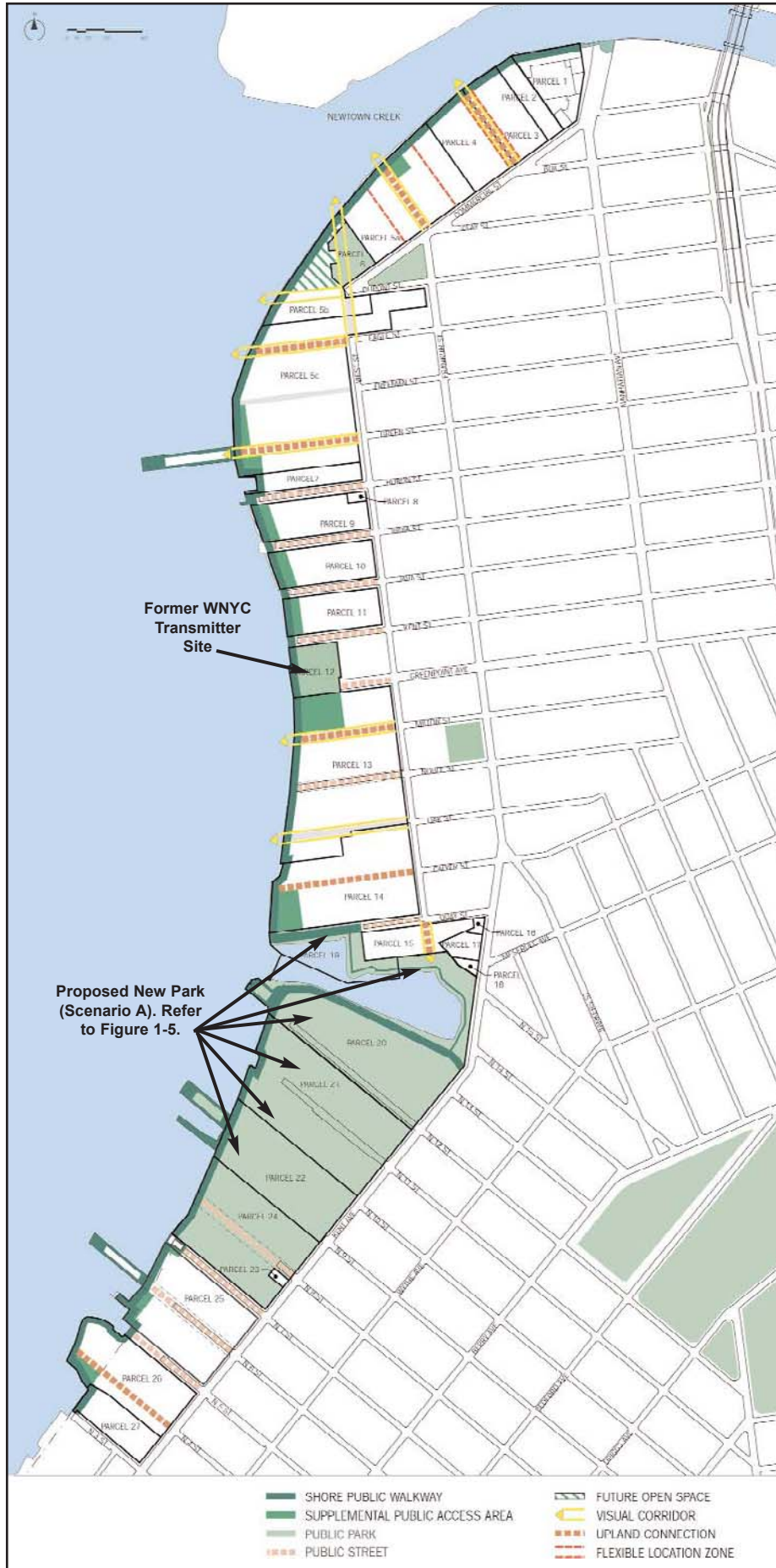
FR - Special Franklin Street Mixed Use District

N - Special Northside Mixed Use District

The Greenpoint-Williamsburg WAP, which becomes part of the zoning text, is being proposed in order to establish a coordinated framework for public access to the Greenpoint-Williamsburg waterfront in advance of development. The Greenpoint-Williamsburg WAP takes advantage of this opportunity to enlarge existing waterfront park spaces and to mandate connections to the neighborhood at important locations.

Together with existing waterfront parks and proposed new parkland, the Greenpoint-Williamsburg WAP would provide a mechanism for coordinated, site-by-site development of an interconnected public open space network. As illustrated in Figure S-4, the elements of this open space network would include:

- Existing and proposed waterfront parks, including Newtown Barge Park, the former WNYC transmitter site at the end of Greenpoint Avenue, the planned State Park on the Williamsburg waterfront between North 7th and North 9th Streets, and the planned street-end park at Manhattan Avenue.
- Mapped parkland. As part of the Greenpoint- Williamsburg rezoning, the waterfront blocks between North 9th Street and the northern edge of Bushwick Inlet would be mapped as parkland(a total of approximately 27.8 acres, not including land under water). Together with the state park, the proposed mapped park would accommodate venues for Olympic events such as beach volleyball and aquatics, as identified within NYC2012's Olympic bid. Development Scenario B would result in a smaller park, extending only from North 9th Street to the southern edge of North 12th Street.
- A continuous shore public walkway. The WAP envisions a continuous shore public walkway running from the end of Manhattan Avenue in Greenpoint to the end of North 3rd Street in Williamsburg. Subject to design standards, this path would generally trace the water's edge, linking the open spaces along the East River.
- Public access to piers. Pedestrian public access would be required on all piers, in accordance with the requirements of waterfront zoning.
- Supplemental access areas. Where sites generate supplemental access requirements, the WAP applies them strategically to enlarge other waterfront open spaces. Supplemental access is mapped adjacent to parks (e.g., the former WNYC transmitter site), alongside shore public walkways, and at other locations where they provide important connections. Where supplemental access requirements widen the shore public walkway, features could include tot lots, landscaped sitting areas, or access points to the water.
- Upland connections. In locations where access is not available via public streets, the WAP requires upland connections to provide publicly accessible walkways connecting to upland streets. For instance, an upland connection is mandated at Green Street, creating an important east-west connection between a commercial corridor and a pier that would not be required without the WAP.
- Visual corridors. Visual corridors, which require unobstructed views to the water, can be located within mapped streets or on private property. The WAP proposes visual corridors both in conjunction with upland connections (e.g., at Green Street), and at locations where upland connections cannot be mandated (e.g., at Oak Street), in order to extend views from the street grid to the water at every possible location.



Source: NYC Department of City Planning (July 2004)

Together, this combination of parks and publicly accessible open spaces would create an open space network comprising up to approximately 49 acres above water along the Greenpoint-Williamsburg waterfront.

Special Regulations Applicable in WAP Area

The proposal includes special bulk and use regulations applicable within the waterfront area between Manhattan Avenue and North 3rd Street which is governed by the Greenpoint-Williamsburg Waterfront Access Plan. These regulations would:

- Establish height and setback regulations to ensure that buildings at the upland end of waterfront blocks meet the neighborhood at a characteristic scale, and to allow taller buildings with a variety of heights closer to the water. Buildings within 100 feet of the first upland street would be limited to 65 feet in height. Buildings in other portions of R6 districts would be subject to a maximum base height of 65 feet, with a height of 85 feet permitted after a setback, and a maximum height of 150 feet subject to floor plate and setback regulations. Buildings in R8 districts would be subject to a maximum base height of 70 feet, with a height of 85 feet permitted after a setback, and a maximum height of 250 feet subject to floor plate and setback regulations. For sites with multiple towers in R8 districts, up to half those towers could rise to a maximum height of 350 feet subject to floor plate and setback regulations.
- Modify tower floor plate regulations to facilitate site plans containing fewer towers, while ensuring that towers do not exceed a maximum length or width. Towers in R8 districts would be permitted floor plates of up to 11,000 square feet (compared to 7,000 sf for zoning lots less than 1.5 acres or 8,100 sf for larger lots under standard waterfront zoning regulations). Towers in R6 districts would be subject to the existing floor plate maximum of 8,100 sf. No dimension of the rectangle in which a tower floor plate is inscribed may exceed 170 feet.
- Modify building setback regulations. Under the proposed changes, buildings must set back above a maximum base height of 65 feet in R6 districts and 70 feet in R8 districts. Buildings exceeding 110 feet in R6 districts, or 210 or 310 feet in R8 districts, would be required to set back at 110, 210, or 310 feet as applicable, such that the building floor plate above this height is no more than 85 percent of the building floor plate below this height.
- Permit small retail uses, limited to 10,000 square feet per establishment, at other locations on waterfront blocks, in order to activate streets and public access areas. Docks for water taxis (with capacity limited to 99 passengers) would be a permitted use on the waterfront throughout the WAP area.
- Allow floor area, as well as public access requirements, to be distributed without regard to district boundaries or mapped streets, within parcels as established within the WAP.
- Establish streetscape regulations, including requirements for streetwall development along Commercial Street, West Street, Franklin Street, and Kent Avenue, restrictions on the ground-floor street frontage of parking structures, and street tree planting requirements.
- Establish a process to allow the phased development of required public access elements on large sites undergoing phased development, subject to CPC certification.

Proposed Changes to the City Map

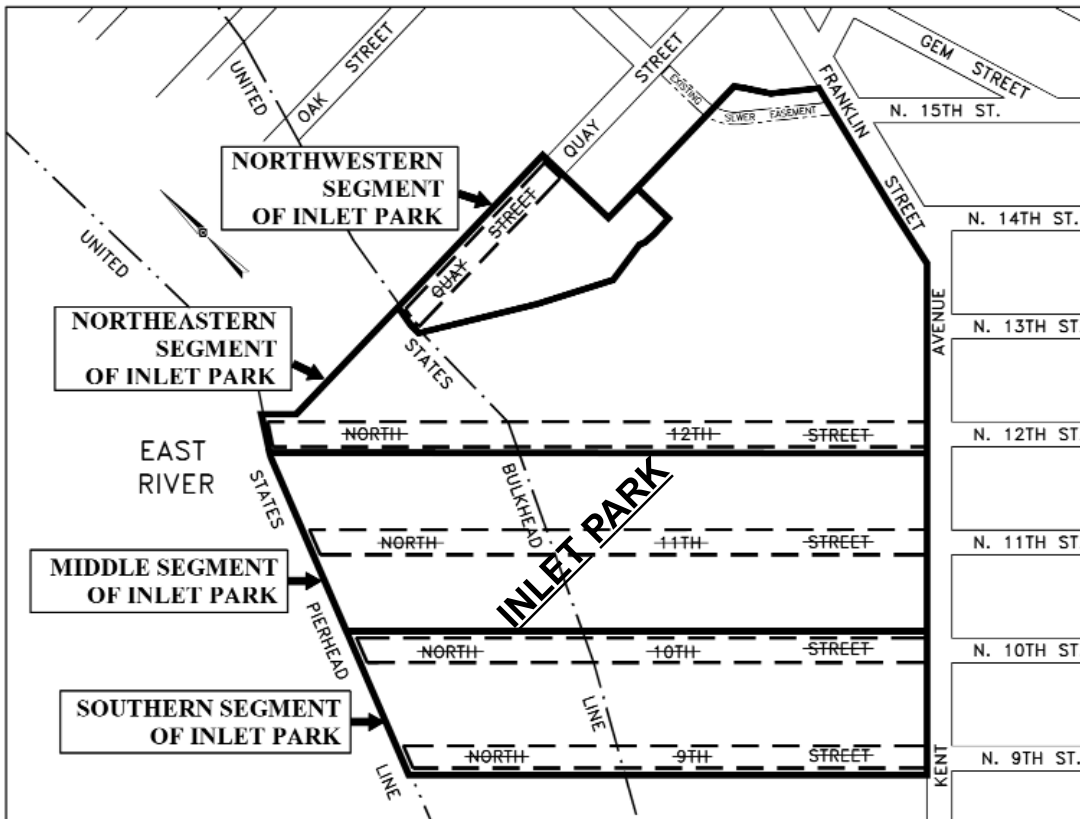
The proposed action includes amendments to the City Map to demap portions of several streets and map the resultant parcel as park. The park would be mapped in four contiguous segments. The mapping action would be different for each of the two scenarios analyzed in the EIS, as detailed below.

Scenario A

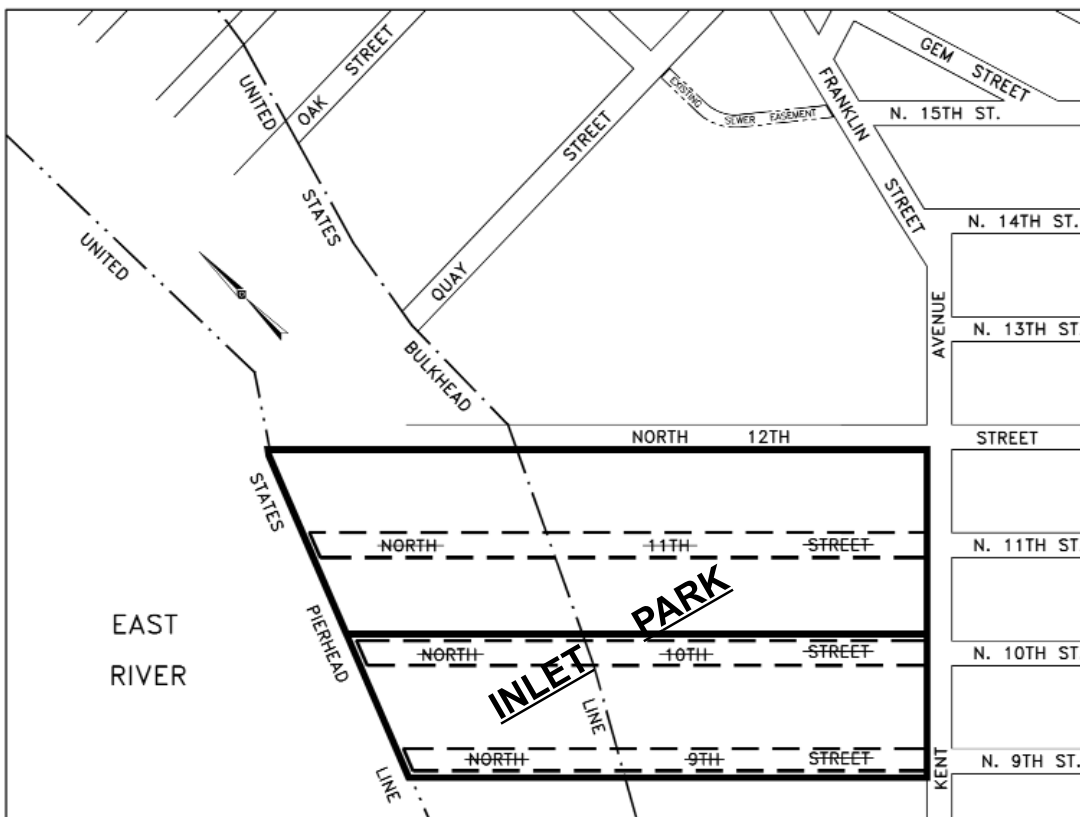
- The demapping of North 9th Street between Kent Avenue and U.S. Pierhead Line. This segment of the street is currently mapped but not built.
- The demapping of North 10th Street between Kent Avenue and U.S. Pierhead Line. This segment of the street is currently mapped but not built.
- The demapping of North 11th Street between Kent Avenue and U.S. Pierhead Line. This street segment, which is mapped at a width of 60 feet, handles very low traffic volumes, as it serves mostly to provide access to a record storage warehouse on the waterfront and a Department of Sanitation (DOS) parking lot further inland on the block.
- The demapping of North 12th Street between Kent Avenue and U.S. Pierhead Line. Traffic volumes on this street segment, which is mapped at a width of 60 feet, are relatively light, as it serves mostly to provide access to a record storage warehouse and a Bayside Fuel depot on the waterfront, and a Department of Sanitation (DOS) parking lot further inland on the block.
- The demapping of a portion of Quay Street between West Street and U.S. Bulkhead Line. This segment of the street is mapped at a width of 60 feet but not built. Half the width of the street is currently occupied as private parking.
- The establishment of the “Inlet” Park within the area bounded by North 9th Street, Kent Avenue, Franklin Street, Quay Street and U.S. Pierhead Line, extending from North 9th Street to the northern edge of Bushwick Inlet as a public park. The mapping would be undertaken in four segments. As shown in Figure S-5, the northeastern and northwestern segments of the park would extend from North 12th Street to the northern edge of Bushwick Inlet encompassing the area bounded by North 12th Street, Kent Avenue, Franklin Street, Quay Street and the U.S. Pierhead Line; the middle segment would extend from the northern line of North 10th Street to the southern line of North 12th Street, and the southern segment would extend from the southern line of North 9th Street to the northern line of North 10th Street. The overall park parcel would comprise approximately 45.5 acres, including an estimated 17.7 acres of land under water, for a net of approximately 27.8 acres.

Scenario B

- The demapping of North 9th Street between Kent Avenue and U.S. Pierhead Line. This segment of the street is currently mapped but not built.
- The demapping of North 10th Street between Kent Avenue and U.S. Pierhead Line. This segment of the street is currently mapped but not built.



SCENARIO A



SCENARIO B

- The demapping of North 11th Street between Kent Avenue and U.S. Pierhead Line. This street segment, which is mapped at a width of 60 feet, handles very low traffic volumes, as it serves mostly to provide access to a record storage warehouse on the waterfront and a Department of Sanitation (DOS) parking lot further inland on the block.
- The establishment of the “Inlet” Park within the area bounded by North 9th Street, Kent Avenue, North 12th Street, and U.S. Pierhead Line, extending from North 9th Street to the southern edge of North 12th Street as a public park. The mapping would be undertaken in two segments, which would be the same as the middle and southern segments described under Scenario A above. The overall park parcel would comprise approximately 25.4 acres, including an estimated 9.5 acres of land under water, for a net of approximately 15.9 acres.

(E) Designations

As described in greater detail in the Hazardous Materials, Air Quality, and Noise chapters of this document, the proposed zoning map changes include an (E) designation for hazardous materials remediation on all of the projected and potential development sites, with the exception of Site 211 (which would be subject to additional testing and/or remediation as part of either its acquisition by the City during the park mapping process or by TransGas during site development under the New York State Department of Environmental Conservation oversight if the power plant is approved.); as well as an (E) designation on 45 projected and potential development sites for noise abatement, on 4 sites for air quality HVAC emissions and on 10 sites for air quality industrial source emissions. The (E) designation is a mechanism which ensures that no significant adverse impacts would result from a proposed action because of steps which would be undertaken prior to the development of a rezoned site. The (E) designation would ensure that these identified sites would not be developed unless necessary remedial measures are implemented.

D. PROJECTED DEVELOPMENT SCENARIO

A reasonable worst case development scenario (RWCDs) for both “future no-action” and “future with-action” conditions is analyzed for an Analysis year of 2013. For area-wide rezonings not associated with a specific development, an approximately ten-year period is typically believed to be the length of time over which developers would act on the change in zoning and the effects of the proposed action would be felt.

The future with-action (or With-Action) scenario identifies the amount, type, and location of development that is expected to occur by 2013 as a result of the proposed action. The future without the action (or No-Action) scenario identifies similar development projections for 2013 absent the proposed action. The incremental difference between the With-Action and No-Action scenarios serves as the basis for the impact analyses.

To determine the scenarios, standard methodologies have been used following *CEQR Technical Manual* guidelines and employing reasonable, worst-case assumptions. These methodologies have been used to identify the amount and location of future residential, commercial, and community facility growth. In projecting the amount and location of new residential development, several factors have been considered,

including known development proposals, past development trends, and the Department of City Planning's standard "soft site" criteria, for identifying likely development sites. In formulating the projections, DCP was aware that there is a large demand for new housing in the area, but that the demand has been constrained by zoning that does not permit such development as-of-right. Generally, for area-wide rezonings, which create a broad range of development opportunities, new development could be expected to occur on selected, rather than all, sites within a rezoning area. The first step in establishing the development scenarios was to identify those sites where new development could reasonably be expected to occur.

To produce a reasonable, conservative estimate of future growth, these sites were then divided into two categories – projected development sites and potential development sites. The sites most likely to undergo new development were chosen from among this group, based on size, location and degree of underutilization. These are called projected development sites. The projected sites are those sites considered most likely to be developed in the foreseeable future, the 10-year period following the proposed action. The identification of projected non-waterfront sites is based on recent housing growth in the area, including adjustments to reflect possible future growth trends in the future with the proposed action. Waterfront sites are large and likely to take many years to develop; however, in order to achieve conservative projections, those waterfront sites considered most likely to develop within the foreseeable future are projected to build out completely by the Analysis year of 2013. Potential sites are considered less likely to be developed over the approximately 10-year analysis period. However, the analysis recognizes that a number of potential sites could be developed under the proposed action in lieu of one or more of the projected sites in accommodating the development anticipated in the RWCDs. The potential sites are therefore also addressed in the EIS for site-specific effects. Potential development sites generally consist of smaller assemblages, and/or irregular-shaped parcels.

In the future without the proposed action, some as-of-right and BSA-approved developments are expected to occur both within the proposed action area and the surrounding area, including developments on some of the identified projected development sites, as well as other sites in the area. Because of the scarcity of sites on which residential development would be possible as-of-right in the future without the proposed action, it is assumed herein that none of the units developed in the proposed action area in the future without the proposed action would be low-to moderate-income units.

In the future with the proposed action, it is anticipated that a total of approximately 8,257 dwelling units and approximately 337,160 square feet of local commercial/retail space would be developed on the 76 upland and waterfront projected development sites. Residential development would consist of new construction (approximately 7,465 units), and reactivation/loft conversion (approximately 792 units). Seventy-two non-waterfront sites are identified as projected development sites, with a total of 2,713 new housing units projected under the proposed action. Four projected development sites are located on the waterfront. Three of these waterfront sites are projected to develop fully, with a total of 5,544 housing units. Of these units, 2,351 units are projected to develop on Site 3 in Greenpoint, 1,999 units are projected to develop on Site 56, and the remaining 1,194 units are projected on Site 199 in Williamsburg. The fourth waterfront site (Site 211) would be mapped as park as part of the proposed action, with the entire site mapped under Scenario A, and only the portion of the site south of North 12th Street mapped as park in Scenario B. The analyses of the proposed action will be performed for a ten year period (Analysis year 2013).

New residential construction on non-waterfront sites is expected to consist primarily of 4- to 7-story buildings, in keeping with the character of existing buildings in the neighborhood. Waterfront sites are expected to develop with low-rise, 4- to 6-story buildings on the upland portions as well as taller, 15- to

35-story buildings near the waterfront. It is anticipated that developers would use Quality Housing provisions, which are mandated in R6A, R6B, and R7A districts and optional in R6 districts.

In the future with the action, 152,160 square feet of retail space is expected to be created on non-waterfront sites, in new residential buildings and in industrial buildings that convert to commercial use. In addition, 185,000 square feet of retail space is projected to be developed on waterfront sites. Of this retail space, 105,000 square feet, including two supermarkets of approximately 25,000 and 40,000 sf, are projected along West Street and Kent Avenue on Sites 3, 56, and 199. The remaining 80,000 square feet of projected retail space includes three 10,000 square foot restaurants facing the waterfront one each on Sites 3, 56 and 199) and 50,000 square feet of retail space in commercial overlays along Green and North 6th Streets. The total amount of new retail space projected in the future with the action is 337,160 square feet.

A total of 264 sites, which include industrial and commercial buildings as well as vacant parcels and a few vacant or underbuilt residential buildings, were considered less likely to be developed within the foreseeable future, and were thus considered potential development sites. The potential sites are deemed less likely to be developed because they did not closely meet the criteria listed above. However, the analysis recognizes that a number of potential sites could be developed under the proposed action in lieu of one or more of the projected sites in accommodating the development anticipated in the RWCDs. The potential sites are therefore also addressed in the EIS for site-specific effects.

All projected development sites identified for the future with-action conditions are analyzed for density-related and site-specific impacts in this EIS, whereas potential development sites are only analyzed for site-specific potential impacts. Density-related impacts are dependent on the amount of development projected on a site; i.e., the number of dwelling units and the resulting population's impact on traffic, mobile-source air quality, community facilities and services, and open space. Site-specific impacts relate to individual site conditions and are not dependent on the density of projected development. Site-specific impacts include analysis for historic resources, shadows, urban design and visual resources, hazardous materials, stationary-source air quality, and noise.

Reasonable Worst-Case Development Scenario (RWCDs)

The 76 projected development sites currently have 122 DUs, 14,962 sf of commercial uses, 1,455,168 sf of industrial/manufacturing/warehousing space, 694,866 sf of vehicle and open storage, 43,609 sf of automotive uses, 946,756 sf in vacant buildings, and 994,281 sf of vacant land. The RWCDs for Scenario A and Scenario B under No-Action and With-Action conditions is discussed below, and Table S-2 provides a summary of the RWCDs for the 76 projected development sites for each scenario.

Scenario A

The Future Without the Proposed Action

In the future without the proposed action (No-Action), some as-of-right and variance development is expected to occur on these sites. The No-Action development program is expected to consist of 866 DUs, 83,462 sf of commercial/retail, 1,294,281 sf of industrial/manufacturing/warehousing space, 642,686 sf of vehicle and open storage, 32,309 sf of automotive uses, 619,913 sf in vacant buildings, and 949,997 sf of vacant land (refer to Table S-2).

The Reasonable Worst-Case Development Scenario (RWCDs) identified by DCP for No-Action conditions identified potential development on 87 of the 264 potential development sites that could occur

as-of-right pursuant to existing zoning in the future without the proposed action. However, these potential developments are considered less likely to occur under No-Action conditions, and are therefore considered only for site-specific effects, where applicable.

The Future With the Proposed Action

With the redevelopment of these 76 projected development sites, it is expected that most of the No-Action uses would be replaced, although in a few cases some No-Action uses would remain while development rights would be used for the rest of a site to maximize permitted as-of-right development.

Under this scenario, the new development in the future with the proposed action would consist of 8,257 DUs, and 337,160 sf of commercial/retail, in addition to a new park with a land area of approximately 27.8 acres extending from North 9th Street to the northern edge of Bushwick Inlet (this includes not just the increment compared to no-action conditions, but all development induced by the proposed action in this scenario). As shown in Table S-2, the projected incremental (net) change that would result from the proposed action at the 76 projected development sites under Scenario A is 7,391 DU. There would also be 253,698 sf of local retail, a new park with approximately 27.8 acres of land area, -949,997 sf of vacant land, -642,686 sf of vehicle and open storage uses, -557,906 sf in vacant buildings, 1,136,269 sf of industrial/manufacturing/warehousing space, and -24,876 sf of automotive uses.

TABLE S-2
Summary of RWCDs for Scenario A and Scenario B on Projected Development Sites ⁽¹⁾

USE	FUTURE NO-ACTION		FUTURE WITH-ACTION		NET INCREMENT	
	Scenario A	Scenario B	Scenario A	Scenario B	Scenario A	Scenario B
Residential (DUs)	866	866	8,257	8,257	7,391	7,391
Commercial (SF)	83,462	83,462	337,160	337,160	253,698	253,698
Mapped Park (acres - upland only)	N.A.	N.A.	27.8	15.9	27.8	15.9
Industrial/Manufacturing (SF)	1,294,281	1,422,001	158,012	345,137	-1,136,269	-1,076,864
Vehicle & Open Storage (SF)	642,686	642,686	0	0	-642,686	-642,686
Automotive (SF)	32,309	32,309	7,433	7,433	-24,876	-24,876
Vacant Buildings (SF)	619,913	619,913	62,008	62,008	-557,905	-557,905
Vacant Land (SF)	949,997	949,997	0	394,233	-949,997	-555,764

⁽¹⁾ The RWCDs summary shown is for the 76 identified projected development sites only.

Scenario B

The Future Without the Proposed Action

As with Scenario A, some as-of-right and variance development is expected to occur on projected development sites in the future without the proposed action (No-Action) under this scenario. In addition, Scenario B assumes that a 1,100 Megawatt power plant (with an estimated 187,125 sf) would be developed on the Bayside Fuel site under No-Action conditions and would continue to occupy the site in the future with the proposed action, and a smaller park would be developed.

The No-Action development program for Scenario B would be identical to that under Scenario A, except that it would include slightly more industrial/manufacturing/warehousing space as a result of the power plant development (see Table S-2). The No-Action development program under Scenario B is expected to consist of 866 DUs, 83,462 sf of commercial/retail, 1,422,001 sf of industrial/manufacturing/

warehousing space, 642,686 sf of vehicle and open storage, 32,309 sf of automotive uses, 619,913 sf in vacant buildings, and 949,997 sf of vacant land (refer to Table S-2).

As with Scenario A, the RWCDS identified by DCP for no-action conditions identified potential development on 87 of the 264 potential development sites that could occur as-of-right pursuant to existing zoning in the future without the proposed action. The No-Action development program on these 87 sites would be identical to that under Scenario A. However, as with Scenario A, these potential developments are considered only for site-specific analyses, where applicable.

The Future With the Proposed Action

Like Scenario A, the new development induced by the proposed action under Scenario B would consist of 8,257 DUs, and 337,160 sf of commercial/retail, but the new park would be smaller, with a land area of approximately 15.9 acres, and extending only from North 9th Street to the southern edge of North 12th Street. Moreover, under Scenario B, the 1,100 MW power plant assumed under No-Action conditions would continue to occupy the Bayside Fuel site in the future with the proposed action, and the area at the northern edge of Bushwick Inlet would continue to be vacant. As shown in Table S-2, the projected incremental (net) change that would result from the proposed action at the 76 projected development sites under Scenario B is 7,391 DUs, 253,698 sf of local commercial/retail space, a new park with approximately 15.9 acres of land area, -555,764 sf of vacant land, -642,686 sf of vehicle and open storage uses, -557,906 sf in vacant buildings, -1,076,864 sf of industrial/manufacturing/warehousing space, and -24,876 sf of automotive uses.

Under both Scenario A and Scenario B, 264 potential development sites have been identified, which were considered less likely to be developed within the foreseeable future. As noted earlier, the proposed action includes special regulations applicable in the WAP area, which would allow docks for water taxis (with capacity limited to 99 passengers) as a permitted use on the waterfront throughout the WAP area. Therefore, the development of a water taxi stop at the Green Street pier on the Greenpoint waterfront is projected in the RWCDS under both Scenario A and Scenario B. The service is not being proposed as part of the action, it is only being evaluated as part of the RWCDS. This service would supplement the other transportation resources available in the area, providing residents of the immediate area with water taxi service to other points on the East River and Hudson River waterfronts.

Based on data from the 2000 Census, the average household size was estimated for the proposed action area and an approximate ¼-mile radius around it. Based on 2000 Census data, the average household size in this area is 2.27 persons per household. Based on this ratio, the approximately 7,391 net new dwelling units projected for development by the Analysis year of 2013 are estimated to generate approximately 16,778 new residents due to the proposed rezoning.

E. REQUIRED APPROVALS

The proposed action requires City Planning Commission (CPC) and City Council approvals through the Uniform Land Use Review Procedure (ULURP), and includes the following:

- A zoning map amendment to change the zoning in the affected areas from M1-1, M1-2, M3-1, C8-1, C8-2, R6, R6/C1-3, Special Northside Mixed Use District and Special Franklin Street Mixed Use District designations to residential and mixed use districts. The upland areas would

be rezoned to: R6, R6A, R6B, M1-2/R6, M1-2/R6A, M1-2/R6B, M1-2/R7A, R6/C1-4, R6A/C1-4, R6B/C1-4, R6/C2-4, R6A/C2-4, and R6B/C2-4, with commercial overlays proposed along Grand Street, Bedford Avenue, North 6th Street, Green Street, and Greenpoint Avenue. R6 and R8 districts are proposed on the waterfront, with commercial overlays on West Street, Kent Avenue, Commercial Street, and a portion of Franklin Street, and with zoning text changes establishing special bulk rules for this waterfront area. In addition, the proposal would rezone an area between McCarren Park and Kent Avenue/Franklin Street, as well as two blocks between Manhattan Avenue and the Pulaski Bridge, from M3-1 to M1-2. The zoning map amendment would affect approximately 184 blocks in the Williamsburg, Greenpoint, and Bushwick Inlet areas.

- Zoning text amendments to: (a) establish a Waterfront Access Plan (WAP) for the Greenpoint-Williamsburg waterfront between Manhattan Avenue and North 3rd Street, in order to provide for a coordinated network of waterfront open spaces; and (b) delete the Special Franklin Street and Special Northside Mixed Use Districts. The WAP would identify specific locations for required shore public walkways, upland connections, supplemental public access areas, and visual corridors. The WAP also modifies the underlying use and bulk regulations applicable within the area governed by the Greenpoint-Williamsburg Waterfront Access Plan, to encourage varied building heights, control tower dimensions, and ensure that new development respects adjacent neighborhood scale on the portions of blocks that adjoin to the upland.
- Amendments to the City Map to demap portions of several streets and map the resulting parcel as parkland. Two different scenarios will be analyzed in the EIS, as detailed below:
Scenario A: demap North 9th, North 10th, North 11th, and North 12th Streets, and a portion of Quay Street west of Kent Avenue, and map the resultant approximately 45.5-acre parcel between North 9th Street to the south and the northern edge of Bushwick Inlet to the north as park. The proposed park in this scenario includes approximately 17.7 acres of land under water, for a net of 27.8 acres, including approximately 5.7 acres within street segments being demapped.
Scenario B: demap North 9th, North 10th, and North 11th Streets west of Kent Avenue, and map the resultant approximately 25.4-acre parcel encompassing the area between North 9th Street and the southern edge of North 12th Street as park. The proposed park in this scenario includes approximately 9.5 acres of land under water, for a net of 15.9 acres, including approximately 3.5 acres within street segments being demapped.

These actions are also subject to the City Environmental Quality Review (CEQR) procedures.

F. THE FUTURE WITH THE PROPOSED ACTION (WITH-ACTION)

Land Use, Zoning and Public Policy

In the future with proposed action, there are no significant adverse impacts anticipated for land use, zoning, or public policy in the primary or secondary study areas. The proposed action would provide a framework that would accommodate existing trends by facilitating the expansion of residential and local commercial land use and addressing continuing demand for light industrial and mixed-use areas. New residential uses anticipated under the proposed action would replace underutilized uses and the proposed

action would provide an orderly, planned framework for the continuation of existing trends which likely would otherwise proceed in an ad-hoc unplanned manner in the future without the proposed action via the residential conversions of non-residential buildings, mostly through BSA applications. This framework would also provide opportunities for industrial uses in mixed-use districts, while providing appropriate land use guidelines, zoning controls, and necessary environmental safeguards. In addition, the proposed action would dramatically improve public access to the waterfront, and the waterfront park included in the proposal would serve as an important recreational amenity to the area.

The proposed zoning would create a framework that is both responsive to the uses present in the proposed action area and compatible with the surrounding zoning designations in the surrounding areas. On waterfront blocks, R6 and R8 districts and zoning text changes would require development to provide a transition from the scale of the adjoining upland neighborhood to areas closer to the shoreline, where taller buildings could be located. In upland areas, the use of contextual zoning districts in both residential and mixed-use areas would ensure that the scale and bulk of new buildings is sensitive to and consistent with existing developments. Lastly, the proposed action directly addresses the land use, development, and waterfront revitalization goals that are set forth by the public policies that govern the proposed action area.

Socioeconomic Conditions

Direct Residential Displacement

According to the *CEQR Technical Manual*, a direct displacement impact may be significant if the persons being displaced represent more than five percent of the study area population, and a population with a similar profile would not be able to relocate within the neighborhood. The nine residents who would be displaced under the proposed action represent such a small fraction of the approximately 17,738 persons living in the proposed action area and the 127,450 people living in the broader Greenpoint-Williamsburg study area that no further analysis is necessary. Direct displacement due to the proposed action would not result in significant adverse impacts.

Direct Business Displacement

The *CEQR Technical Manual* defines direct business displacement as the involuntary displacement of businesses from the site of (or a site directly affected by) a proposed action. A preliminary assessment of direct business displacement looks at the employment and business value characteristics of the affected businesses to determine the significance of the potential impact. A significant direct displacement impact may exist if the businesses provide substantial economic value to the City or region, are the subject of regulations or publicly adopted plans to preserve, enhance or otherwise protect them, or substantially contribute to a defining element of the neighborhood. The impact assessment found that the direct business displacement under the proposed action would not conflict with any of these criteria and would not result in a significant impact.

In addition, between the availability of space in the Brooklyn In Place Industrial Parks (IPIP), the 300-acre Brooklyn Navy Yard, the five IPIPs in Queens and the Bronx, and the general availability of industrial space throughout Brooklyn and the City as a whole, it is concluded that the businesses subject to displacement should find available relocation space. The proposed action would also support goals set out in DCP's 1994 Plan for the Brooklyn Waterfront. One of the four main goals of that plan is to promote new uses on the redeveloping waterfront, where land uses have recently changed or where vacant

and underutilized properties suggest potential for beneficial change. As described above under “Description of the Proposed Action,” the plan calls for the rezoning of waterfront property in the study area from industrial to residential to allow redevelopment of these properties, as well as a zoning change from heavy manufacturing uses to light manufacturing uses (M3 to M1). In the manufacturing zoned areas, as well as the mixed-use zoning districts, zoning would allow the continuance of light “high performance” industry which is consistent with the Plan for the Brooklyn Waterfront as well as the 197-a plans. As a result, while there are no policies or regulations that directly protect the businesses that are expected to be displaced, and the proposed action therefore does not require a detailed assessment of this impact, it can be concluded that the proposed action is also consistent with plans and policies to revitalize the waterfront and accommodates policy objectives for preserving “high performance” industry.

In general, residential development under the proposed action is expected to occur on the underutilized properties in the proposed action area. Allowing development of these properties while permitting the continuation of light industrial and commercial uses would ensure the diversity of neighborhood character, while allowing for growth and investment in the community with a mix of uses. The proposed action also maintains manufacturing zoning in the portion of the Newtown Creek Significant Maritime Industrial Area (SMIA) affected by the proposed action, which is consistent with both the Plan for the Brooklyn Waterfront and the new Waterfront Revitalization Program (WRP).

Indirect Residential Displacement

According to the *CEQR Technical Manual*, indirect displacement of a residential population can occur when an action increases property values and thus rents throughout a study area, making it difficult for some current residents (or residents in the No-Action) to continue to afford to live in the community. The *CEQR Technical Manual* suggests that a population increase of 5 percent or more could be large enough to trigger a socioeconomic change that would negatively affect a population at risk of displacement.

The proposed action would introduce 17,731 residents to the area, approximately 15,872 or 78 percent more than anticipated under No-Action conditions. This would represent a population increase of 18 percent over the future No-Action condition in the combined proposed action area and the primary study area, and a 12 percent increase in the combined proposed action area, primary and secondary study areas. This increase far exceeds the 5 percent threshold laid out in the *CEQR Technical Manual*. However, in recent years, the proposed action area has experienced a substantial amount of new market rate residential development and an influx of residents with higher-income occupations. As a whole, the socioeconomic characteristics of the population living in the proposed action area is already changing and is likely to continue to change over the next several years under No-Action conditions. Nonetheless, low- and moderate- income residents living in unprotected housing units in several census tracts within the proposed action and primary study area constitute a “population at risk” that is potentially subject to indirect displacement under the proposed action.

In total, it is estimated that vulnerable population in the Greenpoint-Williamsburg study area is limited to approximately 2,510 residents who could be subject to indirect displacement pressures under the proposed action. These people are living in approximately 838 housing units located in the proposed action area and primary study area. Roughly 620 of those residents live in the far eastern portion of the proposed action area, in Census tract 499. The remaining 1,890 residents live in the primary study area—in Census tracts 525 and 527 to the south of the proposed action area boundary, and in Census tract 579 in the far northern section of Greenpoint. According to *CEQR Technical Manual* guidelines, the proposed action has the potential to cause a significant indirect residential displacement impact. See “Mitigation” below for proposed mitigation measures. In addition, a new project alternative developed after publication

of the DEIS, the Revised Affordable Housing Bonus and Incentives (Revised AHBI) Alternative, would serve to reduce and partially mitigate the significant adverse indirect residential displacement impact by introducing approximately 1,398 affordable housing units to the proposed action area. The Revised AHBI Alternative is described in Chapter 23, "Alternatives."

Indirect Business Displacement

Indirect business displacement is the involuntary displacement of businesses that results from a change in socioeconomic conditions created by a proposed action. The issue for indirect business displacement is when an action increases property values and rents, making it difficult for some categories of business to remain at their current locations. A preliminary assessment was performed for the study area, examining conditions and trends in employment; physical and economic conditions; trends in real estate values and rents; zoning and other regulatory controls; the presence of categories of vulnerable businesses/institutions or employment; and underlying trends in the City's economy. Based on the screening criteria outlined in the *CEQR Technical Manual*, the proposed action would not: 1) introduce enough of a new economic activity to alter existing economic patterns; 2) add to the a particular sector of the local economy that significantly alters or accelerate trends; 3) displace uses that have a "blighting" effect on commercial property or values in the area; 4) directly displace uses that support businesses in the area, or bring people to the area and form a customer base for local businesses; 5) directly or indirectly displaces residents, workers, or visitors who form the existing customer base; or 6) alter land use patterns and trends or impede efforts to attract investment to the area, or create a climate for disinvestment that could lower property values. Thus, it is concluded the proposed action is not expected to result in significant adverse impacts regarding indirect business displacement.

Community Facilities and Services

Community facilities and services in and around the proposed action area are not expected to be adversely affected by the increased demand that would result from the projected development sites by 2013 with the exception of elementary schools serving the Greenpoint sub-area. In the future with the proposed action, utilization of elementary schools within the Greenpoint sub-area would be at 135 percent of capacity, a deficit of 778 elementary school seats, and, in the ½-mile study area, there would be a deficit of 409 seats (105 percent utilization), resulting in a significant adverse impact. See "Mitigation" below for proposed mitigation measures.

Although the proposed action would result in a greater than five percent increase in population over No-Action conditions, it is anticipated that the three library branches within the study area would adequately serve the expanded population, and there would be no significant adverse impacts on libraries. As new residential development generated by the proposed action is not anticipated to include low-to moderate-income housing units, which can affect demand for publicly financed day care or local public health care services, no significant adverse impacts on day care or public health care services are anticipated by 2013 as a result of these new developments. It should be noted however that a new alternative was added to Chapter 23, "Alternatives" of this FEIS, which analyzes a modified action that includes affordable housing units.

The NYPD expects that, with residential and retail development that would occur as a result of the proposed action, the area would require additional resources; however, the NYPD would be able to allocate resources as necessary and along with the pace of development. There would be no direct displacement of existing NYPD facilities in 2013 with the proposed action and, with continued

adjustments in deployment of personnel and equipment, NYPD does not anticipate significant adverse effects on its operations. As with the NYPD, the FDNY would continue to evaluate area operations on a semi-annual or annual basis, and additional fire and EMS units would be considered as development progresses in the proposed action area. Therefore, no significant adverse impacts on FDNY services are anticipated as a result of the proposed action, and no mitigation is proposed.

Open Space

In the future with the proposed action, there would be an increase in the ratio of open space to population, though the shortage of open space exhibited in the study area under both Existing and No-Action conditions would continue. The proposed action is anticipated to increase the population by an increment of 12.3 percent from No-Action conditions, but would also provide an increase of 41 percent in the amount of open space under Scenario A. Scenario B would provide a 26.4 percent increase in open space.

Under Scenario A, the total open space ratio in the Greenpoint sub-area would increase by 3.5 percent, the active open space ratio would decrease by 8.4 percent, and the passive open space ratio would increase by 17.4 percent. Given the increase in the total open space ratio, no significant adverse impact is anticipated within Greenpoint under Scenario A. While there would be a decrease in the active open space ratio in this sub-area under Scenario A, several factors would offset this decrease including the provision of access to the waterfront and public access areas in connection with waterfront development, and the central location of the proposed new Inlet Park.

Under Scenario B, the Greenpoint sub-area would undergo a decrease in its total open space ratio of 10.3 percent, a 21.2 percent decrease in its active open space ratio, and a 2.5 percent increase in its passive open space ratio. The decrease in the total open space ratio under this scenario would constitute a significant adverse impact on the sub-area's open space resources. See "Mitigation" below for proposed mitigation measures for Scenario B.

The Williamsburg sub-area is well served in both scenarios in the future with the proposed action, experiencing increases in its total, active, and passive open space ratios. It therefore would not experience a significant adverse impact on its open space resources as a result of the proposed action. Although Williamsburg would generally gain more under Scenario A with the full development of Inlet Park, both scenarios provide the additional open space to accompany the projected residential growth within that sub-area.

Shadows

According to CEQR guidelines, an adverse shadow impact is considered to occur when a shadow of a structure built as a result of the proposed action falls on publicly accessible open spaces, important natural features, or historic landscapes or other historic resources if the features that make the resource significant depend on sunlight. In general, shadows on City streets and sidewalks or other buildings are not considered significant under CEQR. Therefore, the assessment of potential shadow impacts is limited to new shadows long enough to reach publicly accessible open spaces or sunlight sensitive historic resources. Sensitive features on a historic structure include details or characteristics that make the resource significant. Examples of sensitive features include stained glass windows that are best viewed in the sunlight.

Shadow analyses were performed for four days of the year: June 21, May 6, March 21, and December 21. The *CEQR Technical Manual* defines the temporal limits of a shadow analysis period to fall between an hour and a half after sunrise to an hour and a half before sunset.

As detailed in Chapter 6, “Shadows,” the projected and potential development that could result from the proposed action would cast new incremental shadows on a number of publicly accessible open spaces and sunlight sensitive historic resources within the proposed action area, including the Greenpoint Historic District, Russian Orthodox Cathedral of the Transfiguration of Our Lord, Greenpoint Park, Newtown Barge Park, American Playground, McCarren Park, Macri Square, and P.S. 84 William Sheridan Playground. In addition, the proposed locations for the proposed new Inlet Park, which is part of the proposed action, and the East River State and WNYC Transmitter parks, which are planned under No-Action conditions, were assessed for potential shadow impacts that could result from new development along the waterfront, to help determine the design of the parks in terms of placement of facilities and features that would require an ample amount of sunlight.

The shadow analyses indicate that, although shadows would be cast on the above resources as a result of the proposed action, they would not affect the utilization of any of the public open spaces, nor would they affect the growth of plants within those spaces. The longest shadows cast by projected/potential development would typically occur on December 21. However, winter shadows, although longest, move the most quickly along their paths (because of the earth’s tilt) and do not affect the growing season of outdoor trees and plants. According to the *CEQR Technical Manual*, trees, many plants, and many activities can require a minimum of four to six hours of sunlight, particularly between April and October. As discussed in Chapter 6, for all of the public open space resources analyzed, each would continue to receive a minimum of four hours of sunlight during the growing season. As such, the proposed action would not result in significant adverse shadow impacts on those open space resources.

For example, all five parcels of McCarren Park would experience short incremental shadows cast by the projected/potential development within the Williamsburg sub-area which would not extend very far into the park and be limited to a small area along the southern edge of the park. In addition, all five parcels would not be cast in shadow through the entire shadow duration on the March, May, and June analysis periods, and the features within the portions of the park that would be cast in shadow do not depend on sunlight for their usability. As such, given the small portion of the park affected by the incremental shadows, the projected/potential development resulting from the proposed action is not anticipated to impact the programming, utilization, or the amenities of McCarren Park.

The analyses also found that the proposed action would not result in significant adverse shadow impacts on the Russian Orthodox Cathedral. The church features large arched stained glass windows on all four facades of the building. Development resulting from the proposed action would cast new incremental shadows on the east and west facades of the church, although they would not be considered significant. As discussed in Chapter 6, “Shadows,” none of the stained glass windows on the east and west facade of the church would be cast in shadow by the projected/potential development for extended periods of time, nor would they be affected at all times of the year. The incremental shadows cast by the proposed action on the church would only occur on December 21 and June 21, and would range from 10 minutes to one hour and 57 minutes. In addition, neither window would ever be completely cast in shadow. Although the church would experience new incremental shadows as a result of the proposed action, the duration of the shadows would not be so long as to significantly detract from the church’s essential functions or its architectural or historic significance, nor would they significantly impact the enjoyment of the stained glass windows by the parishioners. Therefore, the proposed action would not result in significant adverse shadow impacts to the church.

A shadow analysis was also performed for the planned East River State Park and the proposed Inlet Park. As discussed in Chapter 6, the proposed Inlet Park would experience incremental shadows during the December and March analysis periods, while the East River Park would experience incremental shadows on all four analysis periods. No new incremental shadows from the projected/potential development would extend into the Bushwick Inlet or the portion of the proposed Inlet Park located north of the inlet. Although the specific program for the proposed parks is not known at the time, it is unlikely that the projected/potential development would have significant adverse shadow impact on the proposed parks.

Historic Resources

Fourteen projected development sites and 50 potential development sites include lots which have been determined by the Landmarks Preservation Commission to be sensitive for nineteenth century archaeological resources, mostly cisterns and privies. Resources within portions of the development sites where new construction could occur, absent prior disturbance, would likely be destroyed by action-induced development. This would constitute a significant adverse impact. No mitigation measures are feasible, because the area to be rezoned is privately-owned. Private ownership of the land would prevent the City from conducting or requiring an archaeological testing program to test for potential archaeological remains, or from mandating the preservation or documentation of such remains, should they exist.

The buildings comprising the Greenpoint Terminal Market site, which may be eligible for S/NR listing, would likely be demolished in part or entirely to facilitate residential and local commercial development on projected development Sites 56 and 60 and potential development Site 61. As these buildings are privately owned, such demolition can be carried out as long as no federal, state, or City governmental discretionary permits or funding are involved. The redevelopment of the Greenpoint Terminal Market site would constitute a significant adverse impact. No mitigation measures are feasible, however, because the site is privately-owned and the structures are not designated as landmarks, which prevents the City from mandating possible mitigation measures described above. Consequently, the impact would remain unmitigated.

Any new construction taking place on Site 102, which would be adjacent to the Russian Orthodox Cathedral, has the potential to cause damage to this historic building from ground-borne construction vibrations. However, development on this site is anticipated under No-Action conditions as well, and under both No-Action and With-Action conditions, new development is expected to consist of the conversion of the adjacent building, which would not involve any in-ground construction (digging for new foundations, etc.). As such, no significant adverse construction-related impacts to this historic building are anticipated as a result of the proposed action.

Although any future development on this site pursuant to the proposed zoning would be as-of-right, the City's Building Code has procedures for avoidance of damage to historic structures from adjacent construction. In addition, the New York City Department of Buildings' Technical Policy and Procedure Notice (PPN) #10/88 supplements these procedures by requiring a monitoring program to reduce the likelihood of construction damages to adjacent historic structures and to detect at an early stage the beginnings of damage so that construction procedures can be changed. Therefore, construction period impacts on any designated historic resources would be minimized, and these historic structures would be protected, by ensuring that adjacent development projected as a result on the proposed action adheres to all applicable construction guidelines and follows the requirements laid out in PPN #10/88.

Should the former Northside Savings Bank building or the former Williamsburg Trust Company building (which are adjacent to potential development sites 291 and 334 and 335, respectively), or the Austin-Nicols Warehouse at 184 Kent Avenue (which is adjacent to potential development Site 222) become designated as historic resources prior to approval of the proposed action, they would also be subject to the construction protection procedures discussed above. However, potential development Site 334 would entail conversion of an existing building, and would therefore be unlikely to result in any vibration impacts on any adjacent resources. Site 335 is also adjacent to the Williamsburg Trust Company building. However, site 335 is projected to be developed with a new residential building under both No-Action and With-Action conditions, pursuant to a granted BSA variance, and therefore no new construction-related impacts would occur at this site as a result of the proposed action. Therefore, the only development sites that would entail new construction and are adjacent to an eligible resource are Sites 222 and 291, which are adjacent to the former Northside Savings Bank and 184 Kent Avenue, respectively. If the eligible structures are not designated however, they would not be subject to the above construction protection procedures, and may therefore be adversely impacted by adjacent development resulting from the proposed action. This would constitute a significant adverse impact. No mitigation measures are feasible, however, because the sites are privately-owned and the structures are not designated as landmarks, which prevents the City from mandating or enforcing construction protection measures. Consequently, the impact would remain unmitigated.

Potential development Site 118 encompasses the Hecla Iron Works Office Building, which was recently designated by the NYC Landmarks Preservation Commission as an individual New York City Landmark. As the RWCDs identifies this site as a conversion site, no alterations to this historic resource are anticipated as a result of the proposed action. However, any alteration to this building's exterior would require LPC's review and approval, which would ensure that no significant adverse impacts would occur to this designated resource.

The Eberhard Faber "Pencil" Building at 61 Greenpoint Avenue (projected/potential development Site 55) and seven other projected/potential development sites (Sites 50, 53, 195, 247, 266, 275, and 323) have been identified as eligible for LPC and/or S/NR designation. However, Site 55 is identified as a projected commercial conversion site in the RWCDs, and as such no significant changes to this eligible resource are anticipated as a result of the proposed action, and no significant adverse impacts would be expected. Likewise, all of the seven other sites are identified as conversion sites in the RWCDs, and as such no significant changes to those eligible resources are anticipated as a result of the proposed action, and no significant adverse impacts would be expected.

Finally, four structures located outside the proposed action area have also been determined to be eligible for LPC and/or S/NR designation. These are the former Sparrow Shoe Factory (185-195 Broadway), former Opera House Building (253 Roebling Street), former Bedford Avenue Theater (101 and 109 South 6th Street), and the loft building at 103 Broadway. Those four eligible structures are located outside the boundaries of the proposed action area, and are not adjacent to or near any projected or potential development sites. As such, they would not be affected by the proposed action.

Urban Design/Visual Resources

The proposed action would alter the urban design of the study area, yielding significant, but not adverse, changes along the waterfront and nearby upland areas. The introduction of medium-density residential uses along the waterfront would convey appreciable differences in building bulk, height, and scale when compared to the low-density structures and open lots of varied condition that are presently characteristic

of the industrial waterfront. The introduction of new open spaces, waterfront esplanades, streetscape improvements, and ground-floor retail use that would accompany development would extend corridors of activity from upland areas to the currently desolate waterfront, fundamentally improving the way in which the waterfront spaces are used and how they connect to upland areas. Zoning changes in the upland areas will formalize existing trends of nonconforming use but are not anticipated to significantly impact the streetscapes given proposed contextual zoning controls which would maintain streetwalls and bulk with existing structures. Waterfront zoning would also ensure a sensitive transition of bulk and scale as the waterfront areas interface with the upland neighborhoods.

The proposed action is also not expected create a significant adverse impact upon visual resources as it is anticipated to improve the visual quality of the proposed action area through the replacement of dilapidated, and often vacant, lots and structures with new and more active uses. The proposed waterfront access plan (WAP), which is included in the proposed action, will maintain and improve many significant visual and access corridors to the waterfront. Although the addition of new buildings along the waterfront will preclude skyward views at certain vantage points, the development controls in the waterfront zoning will provide new and unencumbered public vantage points for pedestrians at the water's edge, whereas the existing closures of streets and lots at the waterfront presently provide little opportunity for public access.

Neighborhood Character

The proposed action would result in a change in the character of Greenpoint-Williamsburg with respect to land use, urban design and visual resources, and street-level pedestrian activity. Were the proposed action not to change the character of the area, it would fail to achieve the project's goals. While a number of significant adverse traffic impacts were identified, the majority of these impacts occur in locations that would already be congested in 2013 in the absence of the proposed action. It is expected that these transportation impacts would not significantly alter neighborhood character. The neighborhood character of the area would not be impacted by noise resulting from the proposed action. In addition, the proposed action would not affect historic resources so as to affect neighborhood character.

Under the proposed action, the characteristics of Greenpoint-Williamsburg would be enhanced by simultaneously maintaining and fostering the neighborhood's mix of residential, commercial and light industrial uses, reinforcing the neighborhood's street walls and traditional streetscape, and establishing a distinctive urban fabric with new large scale residential development along the waterfront and contextual districts along upland portions of the project area to ensure that new development in this area integrates appropriately with the existing low-rise character. Therefore, significant adverse impacts to overall neighborhood character are not expected to result from the proposed action.

Natural Resources

Potential impacts to natural resources were determined based on factors such as changes in terrestrial habitat; water quality and aquatic resources impacts; alteration to fish habitats and essential fish habitat species; dredging or disturbance of habitats; and shading effects. Direct impacts can include construction of new structures, landscaping, and removal of vegetation. These impacts are not considered significant for the proposed action at the upland sites due to the minimal natural vegetative coverage and low habitat value. The proposed action also includes the creation of a 27.8-acre park south of Bushwick Inlet, which would provide the potential for an expanded open space/ecological resource along the waterfront. This

park would provide opportunity for expanding habitat diversity for wildlife, particularly birds. This is a positive impact of the project.

Waterfront development would affect approximately 3,410 linear feet of shoreline that is presently bulkhead/riprap at the projected development sites. In addition, there are another 3,230 linear feet of shoreline that could potentially be developed. Assuming a reasonable worst case, it would not be expected that this development would result in significant natural resource impacts for the following reasons:

- The wetlands along the project area are low-quality habitats. For example, there are no known submerged aquatic vegetation SAV habitats. Therefore, no high-quality wetland environments would be impacted.
- Any impacts to wetlands and water quality would be temporary and confined. It is not expected that any of the site developments would place fill in the river or build over the river. Rather, there would be the repair and replacement of existing shoreline protection structures and piers. The impacts of such activities are temporary and are typically not significant.
- Any impacts to existing aquatic resources would be limited due to the generally degraded quality of the existing habitats. In addition, the types of species that would be impacted are likely to quickly recolonize the area. Likewise, impacts on primary organisms should be short-term or minimal.
- Fish species of the East River would not be significantly impacted. No primary or secondary habitats for these species would be affected. In addition, in-water activities would be minimal, with little impact on bottom habitats or the migratory paths along the river, since no major in-water structures are proposed.

It is important to note that each waterfront development site is expected to be subject to its own waterfront permitting requirements. As part of that process, additional site design details would be prepared and more detailed site-specific environmental impacts would be addressed. However, based on the assumptions above (e.g., no major filling or dredging, no structures out over the water), it is concluded that the proposed action would not result in any significant adverse direct or indirect impacts and would not result in significant adverse impacts on water quality or aquatic resources.

The proposed action assumes a new park at Bushwick Inlet that could include some recreational boating facilities for small craft (e.g., kayaks, canoes), as well as the construction of a water taxi landing and the operation of a water taxi from the existing pier on the end of Green Street. Plans for Bushwick Inlet Park are conceptual at this time and it is not expected that the City would operate such a water taxi service. However, that the City may issue a franchise for a water taxi operation and it is also likely that the infrastructure to support such an operation, such as new docks and pilings, would require Federal and State permits. For ferries and other motorized transportation boats, the potential for impacts vary by boat size, type, and level of service. Propeller wash and wakes, are some of the potential impacts that can occur. However, smaller water taxis generally do not cause such impacts. In addition, since the shoreline is largely stabilized with a bulkhead or riprap, any wake or propeller impacts should not result in any significant impacts on wetlands. A water taxi or a landing dock for kayaks or canoes may need a floating dock or platform, which would increase the amount of shaded aquatic habitat. However, the extent of shaded area could be minimized in the design, thus minimizing impacts. Potential impacts associated with construction of a floating platform or ferry dock should also be minimal and not significant.

In sum, the degree to which any significant adverse impacts could occur depends on the amount of in-water structure and on operational/maintenance practices. However, potential impacts could be minimized by:

1. Avoiding or minimizing dredging;
2. Limiting the footprint of piers or any other in-water construction;
3. Design the project to avoid creating a net increase in platform coverage (if feasible);
4. Minimizing activities that impact littoral zones;
5. Providing opportunities for habitat enhancement;
6. Minimizing uses of harmful pesticides, herbicides and fertilizers for management of vegetated areas; and
7. Abiding by seasonal restrictions for in-water construction.

These impact-avoidance techniques would be examined during the permitting process for these facilities.

No significant adverse impacts would occur to threatened and endangered species or species of special concern.

Under Scenario B, the Bayside Fuel site is developed with the proposed TransGas power plant. In this scenario, the proposed park is approximately 16 acres in size. This smaller waterfront open space reduces the opportunity for new ecological habitat on the waterfront and the positive impacts described above.

Hazardous Materials

With the exception of Site 211 (which is proposed to be mapped as park and acquired by the City), all of the remaining 339 projected and potential developments would be mapped with Environmental (E) designations (see Table S-3). A Phase I Environmental Site Assessment was prepared for Site 211, which indicated that the site had a history that included use as an oil refinery and later bulk petroleum storage, a manufactured gas plant and a rail yard. Testing on this site has confirmed the presence of contaminants consistent with the cited historic use of the site. Therefore, as part of the property acquisition process associated with the proposed park mapping, the City will ensure that all appropriate testing at the proposed park site is completed, and that all necessary remediation measures are undertaken, as necessary, following acquisition and prior to construction.

The (E) designation status of the 340 projected and potential development sites is shown in Table S-3. Any site that has been (E)-designated will require that the fee owner of the site conduct a testing and sampling protocol, and develop a remediation plan, where appropriate, to the satisfaction of the New York City Department of Environmental Protection (NYCDEP) before the issuance of a building permit by the Department of Buildings (pursuant to Section 11-15 Zoning Resolution - Environmental Requirements). The (E) designation also includes mandatory construction-related health and safety plans which must be approved by the NYCDEP. The scope of a Phase II Site Investigation is dependent on the nature of the recognized environmental conditions. Any recognized environmental condition should be adequately addressed or considered before further development of a Site. The text of the (E) designations is as follows:

**TABLE S-3
Hazardous Materials (E) Designation Status of Projected and Potential Development Sites**

Site #	Tax Blocks/Lots	(E) Designation	Site #	Tax Blocks/Lots	(E) Designation	Site #	Tax Blocks/Lots	(E) Designation
1	2472/410	yes	37	2531/12	yes	75	2698/5	yes
2	2472/425	yes	38	2531/35, 36	yes	76	2698/7	yes
3	2494/1; 2502/1; 2472/2; 2520/57; 2510/1	yes	39	2531/20	yes	77	2698/11, 15	yes
3.1	2472/32, 2494/6	yes	40	2532/1	yes	78	2698/25, 26	yes
3.2	2472/100	yes	41	2538/1	yes	79	2699/9	yes
4	2482/1, 4, 6	yes	42	2539/1, 8	yes	80	2699/15, 17	yes
5	2482/7, 8	yes	43	2539/27, 29	yes	81	2701/1, 2, 50	yes
6	2482/53	yes	44	2543/1	yes	82	2713/9, 13	yes
7	2482/21	yes	45	2549/1	yes	83	2713/1	yes
8	2482/26, 39	yes	46	2549/10	yes	84	2714/33	yes
9	2483/61,62	yes	47	2549/14	yes	85	2714/13	yes
10	2483/11, 12	yes	48	2549/25	yes	86	2714/30, 32	yes
11	2483/14, 15	yes	49	2549/28	yes	87	2719/1, 4, 8, 11	yes
12	2483/17, 19, 20	yes	50	2549/36	yes	88	2719/13, 14, 16	yes
13	2483/59, 60	yes	51	2556/45, 46	yes	89	2719/31, 32	yes
14	2483/48	yes	52	2556/55, 57, 58	yes	90	2720/9, 10, 12	yes
15	2483/25	yes	53	2557/1, 3	yes	91	2720/19, 41	yes
16	2483/45	yes	54	2557/7	yes	92	2720/43, 44, 45, 46	yes
17	2487/10, 12, 17, 18, 20, 21, 72,	yes	55	2557/24	yes	93	2724/1, 30, 31, 33, 34, 37	yes
18	2503/1	yes	56	2567/1; 2570/36; 2556/1; 2564/1	yes	94	2724/7, 10, 12	yes
19	2511/1	yes	57	2562/1, 10	yes	95	2724/18	yes
20	2511/11, 12, 14	yes	58	2562/37, 39	yes	96	2727/1, 47	yes
21	2511/31	yes	59	2562/29	yes	97	2289/14	yes
22	2512/60	yes	60	2565/1	yes	98	2290/5	yes
23	2512/52, 54	yes	61	2568/1	yes	99	2290/10	yes
24	2520/1	yes	62	2570/1	yes	100	2291/1	yes
25	2521/1	yes	63	2571/1, 9	yes	101	2291/17	yes
26	2521/5, 6, 7	yes	64	2571/18	yes	102	2292/29, 33	yes
27	2521/11, 12, 13	yes	65	2589/5	yes	103	2292/11, 12	yes
28	2521/32	yes	66	2589/13	yes	104	2721/8	yes
29	2521/19	yes	67	2590/1	yes	105	2721/11	yes
30	2522/10	yes	68	2590/210, 215, 222	yes	106	2722/34, 36	yes
31	2522/16, 18	yes	69	2644/43	yes	107	2722/8	yes
32	2522/24	yes	70	2679/46	yes	108	2722/10	yes
33	2522/31	yes	71	2697/16	yes	109	2722/13, 15, 16	yes
34	2530/1, 55, 56	yes	72	2697/7	yes	110	2722/19	yes
35	2531/1, 2, 3	yes	73	2697/1	yes	111	2722/21	yes
36	2531/9, 10, 110	yes	74	2698/1	yes	112	2722/25	yes

TABLE S-3 (continued)
Hazardous Materials (E) Designation Status of Projected and Potential Development Sites

Site #	Tax Blocks/Lots	(E) Designation	Site #	Tax Blocks/Lots	(E) Designation	Site #	Tax Blocks/Lots	(E) Designation
113	2723/1	yes	149	2307/31, 33, 36, 38	yes	184	2746/39	yes
114	2723/5, 7	yes	150	2307/1	yes	185	2317/1, 3, 5, 6, 7, 8, 36,	yes
115	2723/29, 30	yes	151	2307/14, 16, 19	yes	186	2317/12, 13	yes
116	2723/33, 36	yes	152	2307/25, 27	yes	187	2317/16, 17	yes
117	2723/37, 38	yes	153	2736/1, 9, 48	yes	188	2317/18	yes
118	2296/14	yes	154	2736/20, 23	yes	189	2319/31	yes
119	2297/5	yes	155	2737/10, 11	yes	190	2320/15	yes
120	2297/1	yes	156	2738/3, 5	yes	191	2321/36, 37, 38	yes
121	2298/31	yes	157	2738/10	yes	192	2319/31; 2321/13, 14	yes
122	2298/29	yes	158	2738/13, 15	yes	193	2321/18	yes
122	2298/13	yes	159	2738/21, 24	yes	194	2321/25	yes
124	2298/21	yes	160	2309/5, 13	yes	195	2322/1	yes
125	2299/1	yes	160.1	2309/1	yes	196	2322/6	yes
126	2299/9	yes	161	2309/17	yes	197	2322/10, 11, 28, 30	yes
127	2299/21	yes	162	2310/9, 10, 11	yes	198	2323/9, 10	yes
128	2300/1, 5	yes	163	2312/22	yes	199	2324/1; 2332/1	yes
129	2300/20, 26	yes	164	2313/1	yes	200	2325/4, 5, 103	yes
130	2731/1	yes	165	2313/5, 7	yes	201	2325/11, 12	yes
131	2731/44, 45, 47	yes	166	2313/11, 13, 22	yes	202	2325/24, 25, 26	yes
132	2731/38, 41	yes	167	2313/15	yes	203	2325/27, 28, 29	yes
133	2731/35, 36	yes	168	2313/23, 24, 26	yes	204	2325/31, 32	yes
134	2732/33	yes	169	2313/27, 28, 29	yes	205	2326/32, 33, 34, 35	yes
135	2732/5	yes	170	2314/1	yes	206	2326/17, 18, 19	yes
136	2732/27, 30	yes	171	2314/5	yes	207	2327/2	yes
137	2733/6, 7, 10	yes	172	2315/14	yes	208	2327/4, 5	yes
138	2734/3, 4, 5, 7, 11	yes	173	2315/21	yes	209	2327/16, 17, 18	yes
139	2734/13	yes	174	2741/3, 7, 8	yes	210	2327/19, 31, 34	yes
140	2734/35, 38	yes	175	2741/47	yes	211	2277/1; 2287/1, 16, 30; 2294/1, 5; 2301/1, 50, 60, 70; 2590/25, 100	NO
141	2304/36, 37	yes	176	2741/13	yes	212	2331/7, 8	yes
142	2304/10, 12, 13, 14	yes	177	2741/15	yes	213	2331/42	yes
143	2304/15	yes	178	2741/19	yes	214	2333/1	yes
144	2305/15, 16, 17	yes	179	2742/2, 4, 5, 9	yes	215	2334/1, 3, 28, 30, 40, 45, 50	yes
145	2305/18	yes	180	2742/15	yes	216	2334/22, 23	yes
146	2306/1, 11, 15, 27, 28, 30	yes	181	2742/17, 20	yes	217	2335/6, 10, 12	yes
147	2306/9	yes	182	2742/35	yes	218	2335/13, 14, 15	yes
148	2306/18	yes	183	2746/40, 41, 42	yes	219	2337/20	yes

TABLE S-3 (continued)
Hazardous Materials (E) Designation Status of Projected and Potential Development Sites

Site #	Tax Blocks/Lots	(E) Designation	Site #	Tax Blocks/Lots	(E) Designation	Site #	Tax Blocks/Lots	(E) Designation
220	2338/1	yes	261	2366/32	yes	302	2379/24, 27	yes
221	2339/7	yes	262	2366/16, 21	yes	302.1	2381/1	yes
222	2340/1	yes	263	2367/7	yes	303	2381/14, 15, 16	yes
223	2341/9	yes	264	2367/15	yes	304	2382/28	yes
224	2342/1	yes	265	2367/27, 28	yes	305	2384/8	yes
225	2342/16	yes	266	2368/1	yes	306	2384/22, 23, 24, 25	yes
226	2342/23, 26	yes	267	2368/18, 19, 21, 22	yes	307	2386/7, 12, 14	yes
227	2343/5	yes	268	2368/26, 27, 28	yes	308	2387/2	yes
228	2343/18, 19	yes	269	2368/ 31, 32, 33, 34	yes	309	2387/6, 7, 12	yes
229	2344/5	yes	270	2369/4, 6, 7	yes	310	2399/1, 8	yes
230	2344/26	yes	271	2369/14	yes	311	2411/1, 12	yes
231	2344/25	yes	272	2369/19	yes	312	2390/15	yes
232	2344/16	yes	273	2369/27	yes	313	2390/16, 17	yes
233	2346/30	yes	274	2369/37, 38	yes	314	2393/14	yes
234	2346/26	yes	275	2369/40	yes	315	2393/23, 24	yes
235	2349/1, 15, 18, 21	yes	276	2371/1, 3, 5, 10	yes	316	2404/1, 5	yes
236	2350/1	yes	277	2371/33	yes	317	2416/7, 8	yes
237	2350/2	yes	278	2371/40, 42	yes	318	2416/27	yes
238	2350/4	yes	279	2371/48	yes	319	2428/28, 29, 30	yes
239	2350/24	yes	280	2372/1	yes	320	2441/4, 104, 107	yes
240	2350/26	yes	281	2372/5	yes	321	2441/41, 47	yes
241	2351/40, 2351/1	yes	282	2372/9	yes	321.1	2441/38	yes
242	2351/28	yes	283	2374/1	yes	322	2441/12	yes
243	2352/20	yes	284	2374/7	yes	323	2441/24	yes
244	2353/6, 8	yes	285	2374/27, 28, 31	yes	324	2442/11	yes
245	2353/13, 26, 28	yes	286	2375/1	yes	325	2442/21	yes
246	2357/1, 4	yes	287	2375/5	yes	326	2442/25	yes
247	2357/25	yes	288	2375/10	yes	327	2443/6, 37, 41	yes
248	2357/, 18, 20, 21, 22, 24	yes	289	2375/12	yes	328	2443/13	yes
249	2358/1, 38	yes	290	2375/16	yes	329	2443/23	yes
250	2358/4, 36	yes	291	2378/40	yes	330	2443/29, 30	yes
251	2358/6, 29, 31	yes	292	2378/1, 2, 3	yes	331	2444/2, 3, 4, 5	yes
252	2358/11, 14, 15	yes	293	2378/11	yes	332	2444/11	yes
253	2358/22	yes	294	2378/14	yes	333	2444/28	yes
254	2358/24, 25, 27, 28	yes	295	2378/21, 26	yes	334	2446/68	yes
255	2363/2, 3	yes	296	2378/29, 32	yes	335	2446/78	yes
256	2363/36, 38	yes	297	2378/35, 36	yes			
257	2363/9, 28	yes	298	2379/42, 43, 44	yes			
258	2363/20, 26	yes	299	2379/8, 9	yes			
259	2364/15, 16, 17	yes	300	2379/12, 13	yes			
260	2366/1	yes	301	2379/16, 19	yes			

Task 1 - The applicant must submit to the NYCDEP Office of Environmental Planning and Assessment (OEPA), for review and approval, a soil and groundwater testing protocol including a description of methods and a site map with all sampling locations clearly and precisely represented.

No sampling program should begin until written approval of a protocol is received from DEP. The number and location of sample sites should be selected to adequately characterize the site, the specific source of suspected contamination (i.e., petroleum based contamination and non-petroleum based contamination) and the remainder of the site's condition. The characterization should be complete enough to determine what remediation strategy (if any) is necessary after review of sampling data. Guidelines and criteria for selecting sampling locations and collecting samples will be provided by DEP upon request.

Task 2 - A written report with findings and a summary of the data must be submitted to DEP after completion of the testing phase and laboratory analysis for review and approval. After receiving such tests results, a determination will be made by DEP if the results indicate that remediation is necessary.

If DEP determines that no remediation is necessary, written notice shall be given by DEP.

If remediation is indicated from the test results, a proposed remediation plan must be submitted to DEP for review and approval. The applicant must complete such remediation as determined necessary by DEP. The applicant should then provide proper documentation that the work has been satisfactorily completed.

A DEP-approved construction-related health and safety plan would be implemented during excavation and construction activities to protect workers and the community from potentially significant adverse impacts associated with contaminated soil and/or groundwater. This Plan would be submitted to NYCDEP for review and approval prior to implementation.

With the requirements of the (E) designation on development sites, there would be no impact from the potential presence of contaminated materials.

All of the remediation of Site 211 would be performed under the purview of the NYSDEC and/or the New York City Department of Environmental Protection (NYCDEP) under a Health and Safety Plan (HASP) minimizing the potential for impacts to site workers or the adjacent neighborhoods. The remediation requirements would be performed to be protective of the end use as a park.

Demolition of interiors, portions of buildings or entire buildings are regulated by the NYC Building Department requiring abatement of asbestos prior to any intrusive construction activities including demolition. OSHA regulates construction activities to prevent excessive exposure of workers to contaminants in the building materials including lead in paint. New York State Solid Waste regulations control where demolition debris and contaminated materials associated with construction are handled and disposed. Adherence to these existing regulations would prevent impacts from development activities any of the development sites or potential development sites in the study area.

Waterfront Revitalization Program

The proposed action would encourage public access to the East River waterfront, water-dependent uses, and other residential and commercial redevelopment in an area currently characterized by underutilized waterfront properties. It would also significantly increase waterfront recreation opportunities by mapping an approximately 27.8-acre public park (15.9 acres under Scenario B) in the Bushwick Inlet area. The proposed action would not result in adverse impacts to the aquatic life and water quality of the East River ecosystem. The proposed action would also be generally consistent with all other LWRP policies.

Infrastructure

By the Analysis year of 2013, the proposed action is expected to generate net new water usage of about 2.16 million gallons per day (mgd) under Scenario A and 2.22 mgd under Scenario B. Net new wastewater flows would total 1.14 mgd at the projected development sites under Scenario A, and 1.19 mgd under Scenario B. As the municipal services are expected to have adequate capacity to meet these increases in demand for water and the treatment of sewage, no significant adverse impacts are expected to result to these services.

As discussed in Chapter 10, the increased dry weather sewage resulting from the proposed action would increase the frequency and volume of CSO discharges. An assessment was conducted to predict the increased frequency and volume of CSOs within the entire Newtown Creek drainage area resulting from the additional dry weather sanitary flows, and the associated changes in pollutant mass loadings. Results of the predictions are presented in Appendix K, and showed that increased CSO frequency, volume, and pollutant mass loadings resulting from the increased dry weather sewage flows were insignificant. Those predictions conservative due to the fact that no credit was taken for the additional open space under the proposed action or the additional on-site stormwater detention discussed in Chapter 13, "Infrastructure".

Solid Waste and Sanitation Services

Development pursuant to the proposed action would occur in an area which is currently served by New York City Department of Sanitation (DOS) residential trash and recycling pick-ups. The proposed action would not affect the delivery of these services, or place a significant burden on the City's solid waste management system. The resulting net increase in solid waste to be picked up by DOS is relatively small (about 23 tons per day) when compared to the estimated 12,000 tons of residential and institutional refuse and recyclables collected by DOS per day. In addition, due to the proposed action, non-residential waste serviced by private carters would decrease in the area and so would not overburden the private system. No significant adverse impacts to sanitation services are therefore expected to result from the proposed action.

Energy

The proposed action would result in an incremental increase of approximately 1.04 trillion BTUs in annual energy use compared to No-Action conditions, under both project scenarios. This annual demand would represent approximately 0.28 percent of the City's forecasted peak summer load of 12,396 MW in 2013, and is therefore not expected to be a significant additional load.

Under Scenario B, the TransGas power plant would increase the energy supply in the City. The available energy supply is anticipated to be sufficient to accommodate the additional demand generated by the proposed action and the operational energy from the proposed action would not have significant adverse impacts.

Traffic and Parking

In the 2013 future with the proposed action, projected developments would result in a net increase of 206 inbound and 880 outbound vehicle trips in the AM peak hour (auto, taxi and truck), 318 inbound and 318 outbound vehicle trips in the midday, and 851 inbound and 409 outbound vehicle trips in the PM peak hour. This new demand would create significant traffic impacts (see Table S-4) at 10 signalized and three unsignalized intersections in one or more peak periods by 2013, with the PM peak hour having the most impacts, with nine impacted intersections (eight signalized, one unsignalized), followed by the AM and the midday, with five (three signalized, two unsignalized) and four (all signalized) impacted intersections, respectively. See “Mitigation” below for proposed mitigation measures.

TABLE S-4
Summary of Traffic Impacted Intersections

Signalized Intersections		AM	MD	PM
Franklin Street @	Calyer Street		X	
	Quay Street			X
Kent Avenue @	South 3 rd Street			X
Manhattan Avenue @	Driggs Avenue			X
McGuinness Boulevard @	Green Street	X	X	X
	Greenpoint Avenue			X
	Calyer Street	X		X
	Meserole Avenue		X	X
Driggs Avenue @	North 7 th Street	X		
Metropolitan Avenue @	Union Avenue		X	X
Unsignalized Intersections		AM	MD	PM
Kent Avenue @	North 6 th Street			X
	North 7 th Street	X		
Manhattan Avenue @	Green Street	X		
X impacts to one or more movements in the peak hour.				

It is expected that the accessory off-street parking capacity provided under the proposed action would be sufficient to accommodate peak retail/commercial demand in the weekday midday, and approximately 61 percent of the peak overnight demand generated by projected residential development. The remaining

39 percent of overnight residential parking demand (approximately 2,193 vehicles) could be readily accommodated by the available on-street supply. No significant adverse impacts to study area parking conditions would therefore result from the proposed action.

Transit and Pedestrians

In the 2013 future with the proposed action, projected developments would result in a net increase in person-trips by subway of 368 inbound and 2,631 outbound in the AM peak hour and 2,575 inbound and 1,028 outbound in the PM peak hour. Person-trips by local bus would total 43 inbound and 282 outbound in the AM peak hour and 328 inbound and 182 outbound in the PM. Trips by walking, bicycle or other non-vehicular/transit modes would total 474 inbound and 1,081 outbound in the AM peak hour, and 1,846 inbound and 1,757 outbound in the PM. At the Bedford Avenue (L) subway station, new subway demand would significantly impact Stair S3 at the southeast corner of Bedford Avenue and North 7th Street in both the AM and PM peak hours. Manhattan-bound subway demand generated by the proposed action would also result in a significant adverse line haul impact to Manhattan-bound L trains in the AM peak hour. In addition, new local bus trips generated by projected development sites would result in a significant PM peak hour impact to NYC Transit's B61 bus route in the northbound direction. New pedestrian demand would not, however, result in any significant adverse impacts to analyzed sidewalks, corner areas or crosswalks in either peak hour. The Crosstown (G) Line would continue to operate below capacity in both peak hours. See "Mitigation" below for proposed mitigation measures.

Air Quality

Air quality analyses were undertaken to determine the potential for impacts under the proposed action. These impacts can be either direct or indirect. Direct impacts come from stationary sources at a development site, such as emissions from heating systems. Indirect impacts are defined as the potential for emissions due to mobile sources/vehicles generated by the projected and potential developments. Pollutants that are examined for mobile sources are carbon monoxide (CO) and respirable particulate matter (PM₁₀ and PM_{2.5}). An analysis of potential parking garage impacts was also prepared as well as an analysis of elevated receptors for development sites that may be along major highway corridors, such as the Brooklyn Queens Expressway and the ramps to the Williamsburg Bridge. In addition, a stationary source analysis was undertaken to determine if there could be any air quality impacts from the emission of fuel oil or natural gas fired HVAC systems at the projected and potential development sites.

The potential for mobile source impacts on CO concentrations were determined for the 2013 analysis year using the currently accepted methodologies. Modeling was based on the traffic analyses, under traffic scenarios both with and without the proposed traffic mitigation, for six study area intersections. In addition, the proposed parking facilities were analyzed. The results of these analyses showed that the future maximum CO concentrations with the proposed action did not exceed National Ambient Air Quality Standards (NAAQS) or impacts defined by the *City Environmental Quality Review (CEQR) Technical Manual*, which includes no exceedances of National Ambient Air Quality Standards (NAAQS), or any increases in CO concentrations that are more than half the difference between the No Action concentrations and the CO standard.

In addition, an analysis was performed at three elevated receptor sites to determine if the proposed action could result in any impacts on future residential uses that are sited near major highway corridors. This analysis found that the maximum predicted CO concentrations were also well within the NAAQS.

Lastly, analyses were performed to determine the potential for impacts from particulate matter (PM₁₀ and PM_{2.5}). The results of these analyses disclosed that the future maximum predicted 24-hour and annual average particulate matter concentrations would not result in any violations of the PM₁₀ standard, and the incremental increase in PM_{2.5} concentrations would be less than NYCDEP interim guidance criteria.

The HVAC analysis was performed assuming both natural gas and No. 2 fuel oil as the HVAC systems' fuel types. The majority of the development sites passed the *CEQR Technical Manual* screening analysis using No. 2 fuel oil. Four sites did not meet the minimum distance specified in *CEQR Technical Manual* using No. 2 fuel oil (a less clean burning fuel). A more refined analysis using natural gas was then performed and three of those sites failed the CEQR screening criteria. Therefore, to preclude the potential for significant adverse air quality impacts on other proposed projected developments from the HVAC emissions, an (E) designation would be incorporated into the proposed action for each of the affected sites. The text of the (E) designations is as follows:

Block 2565, Lot 1 (Projected Development, Site 60)

Any new residential and/or commercial development on the above-referenced property must use natural gas as the type of fuel for HVAC systems.

Block 2570, Lot 36 (Projected Development, Site 56c)

Any new residential and/or commercial development on the above-referenced property must ensure that the heating, ventilating and air conditioning stack(s) is located at least 78 feet from the lot line facing West Street and parallel with Oak Street, to avoid any potential significant air quality impacts.

Block 2721, Lot 11 (Projected Development, Site 105)

Any new residential and/or commercial development on the above-referenced property must ensure that the heating, ventilating and air conditioning stack(s) is located at least 100 feet from the lot line facing Richardson Street and parallel with Union Avenue, to avoid any potential significant air quality impacts.

Block 2332, Lot 1 (Projected Development, Site 199b)

Any new residential and/or commercial development on the above-referenced property must ensure that the heating, ventilating and air conditioning stack(s) is located at least 100 feet from the lot line facing Kent Avenue and parallel with North 6th Street, to avoid any potential significant air quality impacts.

Cumulative HVAC impacts were also examined for development "clusters" using the SCREEN3 model. Proposed developments in close proximity to each other (e.g., along development corridors) and of a similar development height were grouped as area sources. The results of this analysis found there were no significant impacts and all results were within NAAQS standards.

Air Toxics Analysis From Industrial Sources

Pollutants emitted from the exhaust vents of existing permitted industrial facilities were examined to identify potential adverse impacts on future residents on projected and potential development sites. To assess and estimate the potential effects on the proposed action from existing industrial operations in the surrounding area, an analysis investigation was conducted. All industrial air pollutant emission sources within 400 feet of the proposed action area boundaries and within the proposed action area were considered for inclusion in the air quality impact analyses. NYCDEP-BEC, NYSDEC, and EPA permit

records were used to identify existing sources of industrial emissions. A total of 96 permitted facilities (consisting of 192 sources) were identified and analyzed within 400 feet of at least one development site.

At most of the sites, the maximum concentration levels were below the guideline levels and health risk criteria established by regulatory agencies. However, at certain projected and potential development sites in the vicinity of existing industrial sources, concentrations of individual air toxic pollutants were found to result in potential significant impacts. Consequently, the analysis concluded that the proposed action would have the potential to result in significant adverse industrial source impacts at the projected and potential development sites listed in Table S-5. To preclude the potential for significant adverse industrial source air quality impacts at those locations, an (E) designation for air quality will be incorporated into the rezoning proposal. The text of the (E) designations is as follows:

Block 2344, Lot 26 (Projected Development, Site 230):

- **If the dioctyl phthalate and formaldehyde emissions affecting this property continue, any new residential and/or commercial development, enlargement, or change of use on the above referenced property must either: have inoperable windows and may not include air intakes; or, must incorporate alternative design features and technologies approved by NYCDEP.**

Block 2556, Lots 55, 57 and 58 (Potential Development, Site 52):

- **If the dioctyl phthalate emissions affecting this property continue, any new residential and/or commercial development, enlargement, or change of use on the above-referenced property must either: have inoperable windows and may not include air intakes; or, must incorporate alternative design features and technologies approved by NYCDEP.**

Block 2557, Lot 7 (Potential Development, Site 54):

- **If the particulate matter and dioctyl phthalate emissions affecting this property continue, any new residential and/or commercial development, enlargement, or change of use on the above referenced property must either: have inoperable windows and may not include air intakes; or, must incorporate alternative design features and technologies approved by NYCDEP.**

Block 2571, Lot 18 (Potential Development, Site 64):

- **If the dioctyl phthalate emissions affecting this property continue, any new residential and/or commercial development, enlargement, or change of use on the above-referenced property must either: have inoperable windows and may not include air intakes; or, must incorporate alternative design features and technologies approved by NYCDEP.**

Block 2644, Lot 43 (Potential Development, Site 69):

- **If the dioctyl phthalate emissions affecting this property continue, any new residential and/or commercial development, enlargement, or change of use on the above-referenced property must either: have inoperable windows and may not include air intakes; or, must incorporate alternative design features and technologies approved by NYCDEP.**

Block 2714, Lot 33 (Potential Development, Site 84):

- **If the dioctyl phthalate and formaldehyde emissions affecting this property continue, any new residential and/or commercial development, enlargement, or change of use on the above referenced property must either: have inoperable windows and may not include air intakes; or, must incorporate alternative design features and technologies approved by NYCDEP.**

**Table S-5
Projected and Potential Development Sites Receiving Air
Quality (E) Designation for Industrial Sources**

Site	Block	Lot
<i>Projected Development Sites</i>		
230	2344	26
<i>Potential Development Sites</i>		
52	2556	55, 57, 58
54	2557	7
64	2571	18
69	2644	43
84	2714	33
85	2714	13
115	2723	29, 30
116	2723	33, 36
154	2736	20, 23

Block 2714, Lot 13 (Potential Development, Site 85):

- **If the formaldehyde emissions affecting this property continue, any new residential and/or commercial development, enlargement, or change of use on the above-referenced property must either: have inoperable windows and may not include air intakes; or, must incorporate alternative design features and technologies approved by NYCDEP.**

Block 2723, Lots 29 and 30 (Potential Development, Site 115); Block 2723, Lots 33 and 36 (Potential Development, Site 116):

- **If the particulate matter emissions affecting these properties continue, any new residential and/or commercial development, enlargement, or change of use on the above-referenced properties must either: have inoperable windows and may not include air intakes; or, must incorporate alternative design features and technologies approved by NYCDEP.**

Block 2736, Lots 20 and 23 (Potential Development, Site 154):

- **If the diocetyl phthalate emissions affecting this property continue, any new residential and/or commercial development, enlargement, or change of use on the above-referenced property must either: have inoperable windows and may not include air intakes; or, must incorporate alternative design features and technologies approved by NYCDEP.**

The procedures to be followed for satisfaction of the (E) designation shall require that the fee owner(s) of the lot which is restricted by this (E) designation demonstrate that the requirements of the (E) designation have been satisfied or that the restrictions of the (E) designation are no longer necessary due to a change in conditions. To demonstrate that the requirements of the (E) designation are no longer necessary due to a change in conditions, the fee owner(s) of the lot restricted by the (E) designation will be required to prepare a written report to be submitted to NYCDEP indicating that the impact identified for the lot would no longer occur. Examples of the types of changes in conditions which would no longer necessitate the (E) designation would be that the emissions at the source, or exposure pathways to the affected lot, have been eliminated or reduced to below impact levels. Upon request, NYCDEP will provide guidelines and criteria for performing the technical analyses

to be used to demonstrate that the requirements of the (E) designation are no longer necessary. If it is determined by the NYCDEP that the requirements of the (E) designation have been satisfied or are no longer necessary, the NYCDEP shall issue a Notice of Satisfaction for the lot. The procedures set forth in Section 11-15 of the Zoning Resolution with respect to the satisfaction of requirements and removal of (E) designation shall apply.

Other Stationary Sources

An analysis was also performed of the potential stationary source impacts from the New York Power Authority North 1st Street facility, as well as the proposed TranGas Energy Facility. The results of these analyses showed the predicted concentrations for all pollutants were well below the NAAQS standards. Therefore, no significant air quality impacts would occur.

Noise

A total of 31 sites were monitored for potential noise impacts under the proposed action. The analysis examined the potential for impacts from both net increases in traffic under the proposed action as well as the current ambient noise and the potential for future residential uses to be impacted by ambient noise. The analysis showed that there would not be any impacts from traffic generated noise. The largest increase in $L_{eq(1)}$ would be 1.4 and the *CEQR Technical Manual* describes a significant increase as an increase of 3dBA. Thus, the ambient noise increases with the proposed action are well below the *CEQR Technical Manual* definition of a significant noise impact.

As part of the proposed action, a public park is proposed at the Bayside Oil site along Kent Avenue between North 9th Street and North 15th Street and south of Bushwick Inlet. Monitoring results for receptor Sites 8 and 14 which were located at this site recorded ambient noise levels of 79.1 dBA. These noise levels are higher than those recommended for parks and places of outdoor activities and would exceed the CEQR Exposures Guideline value of 55 dBA L_{10} for park uses. However, these are comparable to noise levels at many existing City parks that are adjacent to roadways, and would not be considered a significant adverse impact. There are no feasible mitigation measures to reduce noise levels at an urban park such as this. However, it would also be expected that these noise levels would diminish at locations in the park that are further from the street (i.e., nearer the water).

As described in the *CEQR Technical Manual*, the City has established interior noise values for residential buildings that are 45 dBA or lower. When the ambient noise exceeds these levels, noise attenuation is recommended so that buildings are designed to achieve interior noise levels of 45 dBA or lower.

Based upon the measured ambient L_{10} noise levels in the area of the proposed action, noise attenuation would be required at certain sites due to the high existing background noise levels in order to achieve interior residential noise levels of 45 dBA or lower in residential zoning districts. This zoning attenuation would be required for both the projected and potential development sites in one of two ways: 1) through the zoning resolution, which requires noise attenuation in mixed use districts; and 2) through the use of an (E) designation.

As shown in Table S-6 below, a total of 45 projected and potential sites would be mapped with an (E) designation for noise attenuation. There are two levels of required noise attenuation depending upon the ambient noise levels. One level of attenuation is 30 dBA and the higher level of attenuation is 35 dBA. As shown in Table S-6, there are 38 sites where the 30 dBA level of noise attenuation would be required,

Table S-6
Development Sites Receiving (E) Designation for Noise

30 dBA Attenuation			
Site #	Block	Tax Lot	Minimum Required Building Attenuation (dBA)
<i>Projected Development Sites</i>			
3	2494 2502 2472 2520 2510	1 1 2 57 1	30
10	2483 2483	11 12	30
15	2483	25	30
19	2511	1	30
22	2512	60	30
26	2521 2521 2521	5 6 7	30
43	2539 2539	29 27	30
56	2567 2570 2556 2564	1 36 1 1	30
302.1	2381	1	30
314	2393	14	30
<i>Potential Development Sites</i>			
1	2472	410	30
2	2472	425	30
3.1	2472 2494	32 6	30
3.2	2472	100	30
20	2511 2511	11 14	30
21	2511	31	30
24	2520	1	30
27	2521 2521 2521	11 12 13	30
34	2530 2530 2530	1 55 56	30
36	2531 2531 2531	9 10 110	30
37	2531	12	30
38	2531 2531	35 36	30
40	2532	1	30

30 dBA Attenuation (continued)			
Site #	Block	Tax Lot	Minimum Required Building Attenuation (dBA)
41	2538	1	30
42	2539 2539	1 8	30
44	2543	1	30
51	2556 2556	45 46	30
52	2556 2556 2556	55 57 58	30
62	2570		30
67	2590	1	30
68	2590 2590 2590	210 215 222	30
142	2304 2304 2304 2304	10 12 13 14	30
298	2379 2379 2379	42 43 44	30
302	2379 2379	24 27	30
303	2381 2381 2381	14 15 16	30
306	2384 2384 2384 2384	22 23 24 25	30
315	2393 2393	23 24	30
316	2404 2404	1 5	30
35 dBA Attenuation			
<i>Projected Development Sites</i>			
199	2324 2324	29 33	35
<i>Potential Development Sites</i>			
222	2340	1	35
233	2346	30	35
234	2346	26	35
304	2382	28	35
317	2416	27	35
318	2416	27	35

10 of which are projected development sites and 28 of which are potential development sites. The text for the (E) designation for sites requiring 30 dBA of attenuation would be as follows:

In order to ensure an acceptable interior noise environment, future residential/commercial uses must provide a closed window condition with a minimum of 30 dBA window/wall attenuation on all façades in order to maintain an interior noise level of 45 dBA. In order to maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, central air conditioning or air conditioning sleeves containing air conditioners or HUD approved fans.

For sites requiring 35 dBA of noise attenuation, the following (E) designation text would apply:

In order to ensure an acceptable interior noise environment, future residential/commercial uses must provide a closed window condition with a minimum of 35 dBA window/wall attenuation on all façades in order to maintain an interior noise level of 45 dBA. In order to maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, central air conditioning or air conditioning sleeves containing air conditioners or HUD approved fans.

With the attenuation measures specified above, the proposed action would not result in any significant adverse noise impacts, and would meet CEQR guidelines.

The potential impacts of the proposed TransGas power plant on the proposed park were also evaluated. Under this scenario (Scenario B), the TransGas site would be excluded from the proposed park and a power facility would be developed. Based on the data provided in the noise assessment conducted for the proposed TransGas power plant, the resultant noise levels at the nearest receptors were examined to determine their consistency with the proposed action. It was found that noise due to the operation of the plant alone would produce an $L_{eq(1)}$ of 35 dBA at the nearest sensitive receptor in the park. This projected increase in noise levels would add less than 0.1 dBA to the ambient noise, which is below the CEQR impact threshold. Similarly, noise due to operation of the plant alone would generate noise levels of 45 dBA at the northeastern property line (Kent Avenue/North 13th Street). Here the increase would also be less than 3 dBA, which is the CEQR impact threshold. Therefore, with the proposed action under Scenario B, there would not be any significant noise impacts from the TransGas facility on the proposed park.

Construction Impacts

Construction-related activities resulting from the proposed action are not expected to have any significant adverse impacts on natural resources, architectural resources, traffic, air quality, noise, or hazardous materials conditions. Construction does have the potential for adverse impacts on archaeological resources. However, such impacts cannot be mitigated because the projected development sites are privately owned and could be redeveloped with or without the proposed action. Moreover, the construction process in New York City is highly regulated to ensure that construction period impacts are eliminated or minimized. The construction process requires consultation and coordination with a number of City and/or State agencies, including NYC Department of Buildings (DOB), NYCDOT, NYCDEP, and NYSDEC (where applicable), among others.

Public Health

Based on a preliminary screening analysis in accordance with the *CEQR Technical Manual* guidelines, it was determined that a full assessment of the proposed action's potential impacts on public health is not necessary and that no significant adverse impacts are expected as a result of the proposed action.

G. MITIGATION

Socioeconomic Conditions

The proposed action has the potential to cause significant indirect residential displacement impacts. The action would increase the population of the proposed action area by more than 5 percent and introduce residents with socioeconomic characteristics that are significantly different from the characteristics of residents in parts of the study area, and the study area contains a population that could be vulnerable to displacement pressures. In total, it is estimated that vulnerable population in the Greenpoint-Williamsburg study area is limited to approximately 2,510 residents who could be subject to indirect displacement pressures under the proposed action. These people are living in approximately 838 housing units located in the proposed action area and primary study area.

The City could mitigate indirect residential displacement impacts caused by the proposed action in a variety of ways. One option is for the Department of Housing and Preservation (HPD) to work with local Community Development Corporations to counsel displaced tenants and connect them to affordable housing resources. Another is for HPD to utilize publicly controlled properties in the Greenpoint-Williamsburg area for the development of affordable housing. Under current HPD policy, existing Greenpoint or Williamsburg residents would be entitled to 50 percent of any affordable units constructed on publicly-controlled property. A third mitigation option would involve the use of inclusionary zoning policies and existing city housing programs to preserve existing affordable units and increase the affordable housing supply available to displaced residents.

These mitigation options and their potential to fully or partially mitigate displacement impacts caused by the proposed action were more thoroughly explored after the DEIS was completed. In an effort to provide a rezoning scenario in which the potential for a significant adverse indirect residential displacement impact would be reduced, a new project alternative was developed: the Revised Affordable Housing Bonus and Incentives (RAHBI) Alternative. With the use of incentive packages, the RAHBI Alternative would provide approximately 1,398 affordable housing units. Under HPD's community preference policy, eligible residents of Brooklyn Community District 1 would receive preference for half of the affordable units in any given development, if built under city-sponsored programs, and most of the displaced residents would likely qualify for the affordable units. However, the population of potentially displaced residents is expected to comprise only a portion of the households selected for the affordable units, and not all of the potentially displaced population are expected to be able to rent these units. Therefore, significant adverse impacts resulting from indirect residential displacement are only partially mitigated under this alternative. The RAHBI Alternative is more fully discussed in Chapter 23, "Alternatives."

The affordable housing program analyzed in the Revised AHBI Alternative has been incorporated into the modified zoning text application (N050110(A)ZRK) filed subsequent to the issuance of the DEIS.

However, this program is not part of the original zoning text application (N050110ZRK). Therefore, the partial mitigation for the indirect residential displacement impact that is provided by the Revised AHBI Alternative is not provided under the proposed action. Therefore, under the proposed action, the indirect residential displacement impact would remain unmitigated.

Community Facilities

In the future with the proposed action, elementary schools within the Greenpoint sub-area would be at 135 percent of capacity, a potential shortfall of 778 elementary school seats, whereas the ½-mile study area would operate at 105 percent of capacity, a potential shortfall of 409 seats. If the Greenpoint-Williamsburg rezoning is approved, the City would construct or lease a new elementary or K-8 school in the project area as part of the Department of Education's Five Year Capital Plan, 2010-2014, as the development associated with the proposed action proceeds. Planning for this mitigation would be provided for in the Department of Education's Five Year Capital Plan, 2005-2009, as amended in FY2005. This mitigation would be supplemented through administrative actions that the DOE would undertake to mitigate the shortfall in school seats, such as adjusting catchment areas and/or reorganizing grade levels within schools. DOE would continue to monitor trends in demand for school seats in the area. The DOE responses to identified demand could take place in stages and include administrative actions and/or enlargement of existing schools, followed by the later construction or lease of new school facilities at an appropriate time.

In general, the proposed action would allow for the development of community facility space, including new school facilities, within the project area. It should also be noted that any new school facility would be subject to its own site selection and environmental reviews.

Open Space

The development of a 1,100 megawatt power plant on the site of the Bayside Fuel facility (Block 2277, Lot 1) under Scenario B is subject to State approvals which the City believes are unlikely to occur. However, in the event that development of the power plant proceeds, possible mitigation measures identified to eliminate open space impacts within the Greenpoint sub-area under Scenario B include the redevelopment of McCarren Park pool site, and the addition of approximately 1.5 acres of additional active open space resources throughout the Greenpoint sub-area. New open space resources could also be created on vacant or underutilized, preferably City-owned sites throughout the Greenpoint sub-area. Potential locations for the creation of new active open space resources identified to date are Block 2472, Lot 425, currently the site of an MTA bus maintenance facility and part of the MTA master lease; and Block 2472, Lot 32, currently leased to the Greenpoint Lumber Exchange and the site of a DEP loading dock associated with the sludge storage tank. The City would proceed to establish these and/or other sites upon a final determination that development of the power plant is proceeding.

In addition to the creation of 1.5 acres of open space resources throughout the Greenpoint sub-area, another possible identified mitigation measure includes the redevelopment of the McCarren Park pool site, which has been closed since 1984, for active recreation. Coordination with the New York City Parks Department and other City agencies would be necessary to determine possible funding and rehabilitation plans for the site. If refurbished and upgraded, this facility would add approximately 5.5 acres of active open space to the study area, of which half, or approximately 2.75 acres, would be included within the Greenpoint sub-area for analysis purposes.

The addition of 1.5 acres of open space to the Greenpoint sub-area and the redevelopment of the McCarren Park pool would add a total of 4.25 acres of open space (100 percent active) to the Greenpoint sub-area, fully mitigating the project's open space impact on the Greenpoint sub-area under Scenario B.

Traffic

Demand from projected development sites would result in significant adverse traffic impacts at 10 signalized and three unsignalized intersections in one or more peak periods by 2013. These impacted locations are listed in Table S-7. A traffic mitigation plan was therefore developed to address these impacts. Mitigation measures associated with this plan include minor signal timing changes and implementation of exclusive left-turn phases, new curbside parking restrictions on impacted approaches, and the installation of new traffic signals at unsignalized intersections.

TABLE S-7
Summary of Mitigated Traffic Impacts

Signalized Intersections		A	M	P
		M	D	M
Franklin Street @	Calyer Street		X	
	Quay Street			X
Kent Avenue @	South 3 rd Street			X
Manhattan Avenue @	Driggs Avenue			X
McGuinness Boulevard @	Green Street	X	X	X
	Greenpoint Avenue	U		X
	Calyer Street	X		X
	Meserole Avenue		X	X
Driggs Avenue @	North 7 th Street	X		
Metropolitan Avenue @	Union Avenue		X	X
Unsignalized Intersections		A	M	P
		M	D	M
Kent Avenue @	North 6 th Street			X
	North 7 th Street	X		
Manhattan Avenue @	Green Street	X		
X: All impacts fully mitigated.				
U: One or more unmitigated impacts in the peak period.				

As shown in Table S-7, the proposed traffic mitigation plan would fully address all impacts at five intersections in the AM peak hour, four in the midday and nine in the PM peak hour. Twelve out of 13 intersections impacted by the proposed action would no longer be impacted with implementation of the proposed mitigation plan. However, one unmitigable impact would remain on the eastbound Greenpoint Avenue approach to McGuinness Boulevard in the AM peak hour. At this location, NYCDOT provided an updated signal plan and additional mitigation measures were researched, considered and evaluated between the issuance of the DEIS and FEIS. However, no successful measures were identified, and the projected significant adverse impact at Greenpoint Avenue McGuinness Boulevard would remain unmitigated in the AM peak hour.

Transit and Pedestrians

Subway Stations

In the future with the proposed action, demand from projected development sites would significantly impact Stair S3 on the southeast corner of Bedford Avenue and North 7th Street at the Bedford Avenue (L) station in both peak periods. Mitigation measures to address subway station stairway impacts typically involve physically widening an affected stairway in order to increase its capacity, or implementing measures that would decrease demand, typically by providing new and/or more convenient access points. At Stair S3, a two to three-foot widening would be required to restore this stair to acceptable levels of service in both the AM and PM peak periods.

Stair S3 is located adjacent to the building line on the south sidewalk of North 7th Street east of Bedford Avenue. Currently, this sidewalk is approximately 15 feet in width at this location, and there is approximately 8.5 feet of existing clearance between the stairway and the curb. As discussed in Chapter 17, "Transit and Pedestrians," by 2013 it is anticipated that NYCDOT will have installed a transit neckdown at this location, widening the sidewalk adjacent to Stair S3 to a total of approximately 23 feet in order to accommodate the installation of bicycle racks. With Stair S3 widened by upwards of three feet, a minimum of 8.5 feet of clearance would remain between the stair and the curbside bicycle racks, equivalent to the existing clearance adjacent to the stair. Based on anticipated peak hour pedestrian volumes, flow conditions with this amount of clear sidewalk space would be an acceptable 10 PFM or less in the 2013 future with the proposed action. Further detailed development of this proposed mitigation would be undertaken in consultation with NYC Transit - Operations Planning and the New York City Department of Transportation.

Subway Line Haul

Although Manhattan-bound L trains would be less crowded in the future with the proposed action than they are under existing conditions, under CEQR criteria, new subway demand generated by the proposed action would significantly impact Manhattan-bound L trains on the Canarsie/14th Street Line in the AM peak hour. Accommodating this new demand, totaling approximately 1,013 trips in the hour, would require the addition of one new peak hour Manhattan-bound train (capacity 1,440). As standard practice, New York City Transit routinely conducts periodic ridership counts and adjusts subway frequency to meet its service criteria, within fiscal and operating constraints. Therefore, no project-specific mitigation is proposed for the potential impact to Manhattan-bound L-train service in the AM peak hour.

Bus Service

The results of the analysis of local bus conditions in the future with the proposed action show that demand from projected development sites would significantly impact northbound B61 service in the PM peak period. In the PM, eastbound B61 buses would experience a capacity shortfall of 26 spaces at their maximum load point at York and Gold Streets. According to current NYC Transit guidelines, increases in bus load levels to above their maximum capacity at any load point is considered a significant adverse impact as it would necessitate the addition of more bus service along that route. The addition of a single eastbound bus on the B61 route in the AM peak hour would provide sufficient capacity to accommodate projected new demand. As standard practice, New York City Transit routinely conducts periodic ridership counts and adjusts bus service frequency to meet its service criteria, within fiscal and operating constraints. Therefore, no project-specific mitigation is proposed for the potential impact to northbound B61 service.

H. ALTERNATIVES

Seven alternatives to the proposed Greenpoint-Williamsburg Rezoning project were considered in this EIS, to examine reasonable and practicable options that avoid or reduce action-related significant adverse impacts and may still allow for the achievement of the stated goals and objectives of the proposed action. The environmental effects of the alternatives are compared in Table S-8 and discussed below.

No Action Alternative

The No Action Alternative assumes that the proposed zoning changes and other land use actions would not be implemented. The benefits expected from the proposed action on land use, urban design, and neighborhood character would not be realized under this alternative. In addition, the No Action Alternative would fall far short of the objectives of the proposed action in facilitating opportunities for new residential development; and enhancing the public environment, ground-floor uses, and streetscapes to make the proposed action area a more appealing place to live, work, and visit.

No Impacts Alternative

The No Impacts Alternative would limit development on the projected sites to a net increment (from No-Action conditions) of approximately 593 new housing units, whereas the proposed action would result in a net increment of 7,391 units. The No Impacts Alternative would avoid the proposed action's identified significant adverse impacts.

This No Impacts Alternative is not an acceptable alternative to the proposed action. By significantly reducing the number of sites to be developed and the overall level of development, particularly along the waterfront, this alternative would fail to meet the objectives of the proposed action, which include: the expansion of housing supply in an area that has been experiencing an increase in the number of residences and a rise in housing demand; facilitating the redevelopment of vacant and underutilized lots, especially those located along the waterfront; legalizing existing loft conversions; the creation of new parkland and

TABLE S-8: Summary of Environmental Effects of Analyzed Alternatives

Projected Impacts By Technical Area	Proposed Action	ALTERNATIVES					
		No Action	No Impacts	Lesser Density	AWD	Urban Design	<u>Revised AHBI</u>
Land Use							
Socioeconomic Conditions	X <i>(indirect residential displacement)</i>			X <i>(indirect residential displacement)</i>	X <i>(indirect residential displacement)</i>	X <i>(indirect residential displacement)</i>	<u>X</u> <i>(indirect residential displacement)</i>
Community Facilities & Services <i>Schools (elementary)</i> <i>Libraries</i> <i>Day Care</i> <i>Health Care</i>	X <i>(Greenpoint sub-area & ½ mile study area)</i>			X <i>(Greenpoint sub-area)</i>	X <i>(Greenpoint sub-area, & ½ mile study area)</i>	X <i>(Greenpoint sub-area & ½ mile study area)</i>	<u>X</u> <i>(Greenpoint sub-area & ½ mile study area)</i> <u>X</u>
Open Space <i>Scenario A</i> <i>Scenario B</i>	X <i>(Greenpoint sub-area)</i>			X <i>(Greenpoint sub-area)</i>	X <i>Greenpoint sub-area, Williamsburg sub-area, & ½ mile study area)</i>	X <i>(Greenpoint sub-area)</i>	<u>X</u> <i>(Greenpoint sub-area)</i>
Shadows							
Historic Resources	X			X	X	X	<u>X</u>
Urban Design							
Neighborhood Character							
Natural Resources							
Hazardous Materials							
Infrastructure/Solid Waste/Energy							
Traffic and Parking	X <i>13 Intersections</i>			X <i>13 Intersections</i>	X <i>14 Intersections</i>	X <i>13 Intersections</i>	<u>X</u> <i>13 Intersections</i>
Transit and Pedestrians	X			X	X	X	<u>X</u>
Air Quality							
Noise							
Construction	X (archaeology, architectural)			<u>X</u> (archaeology)	<u>X</u> (archaeology)	<u>X</u> (archaeology)	<u>X</u> (archaeology)

Revised AHBI: Revised Affordable Housing Bonus and Incentives Alternative
 AWD: Additional Waterfront Development Alternative

public waterfront access associated with new residential development on the waterfront; and creating a vibrant, multi-use urban environment that serves the residents, businesses, and light industrial users of the Greenpoint-Williamsburg area and its surrounding communities.

Moreover, such an alternative would result in a highly irregular and impractical zoning map, and would therefore not be a feasible option for the City. Eliminating those sites identified for archaeological sensitivity from the rezoning area would leave pockets of manufacturing zoning districts within the larger rezoned residential and mixed-use contextual districts. As such, this alternative would not meet the goals and objectives of the proposed action.

Lesser Density Alternative

The Lesser Density Alternative considers a lower density zone than the proposed action on some waterfront sites to produce an average FAR of 4.0 on waterfront sites where R6 and R8 districts are mapped (compared to an average FAR of 4.3 with the proposed action), as well as lower density residential designations on specified upland sites. This alternative would result in a total of 7,731 dwelling units compared to 8,257 units with the proposed action

Overall, the Lesser Density Alternative with a 6.4 percent reduction in the total number of dwelling units would have similar, but slightly smaller effects on the environmental areas analyzed, compared to the proposed action. The slightly lower development density projected under this alternative would avoid a significant adverse impact on public elementary schools in the study area as a whole, but would not eliminate the significant adverse impacts identified for the proposed action in the areas of archaeological resources, indirect residential displacement, public elementary schools in the Greenpoint sub-area, open space, traffic, subway stair or subway line haul. All of the mitigation measures required for the proposed action would also be required for this alternative. The Lesser Density Alternative would meet, albeit to a lesser extent, the objectives of the proposed action in facilitating opportunities for new residential development; and enhancing the public environment, ground-floor uses, and streetscapes to make the proposed action area a more appealing place to live, work, and visit.

Additional Waterfront Development (AWD) Alternative

Under the Additional Waterfront Development (AWD) Alternative, the middle and southern segments of the proposed park would not be mapped, and the blocks between North 9th and North 12th Streets would be zoned to R6 and R8 districts. The development scenario for this alternative includes 9,787 projected housing units (compared to 8,257 with the proposed action), which would result in a net increment of 8,921 units from No-Action conditions (compared to a net increment of 7,391 units with the proposed action), which is a 20.7 percent increase versus the proposed action. This alternative would also result in a smaller park than the proposed action under Scenario A, and no new park at all under Scenario B.

The AWD Alternative would result in similar but greater effects on most of the technical areas analyzed in this EIS. While site-specific potential impacts in areas such as hazardous materials and archaeology would be the same under this Alternative as with the proposed action, for density-related potential impacts, the effects of the AWD Alternative have the potential to be substantially greater in magnitude as this alternative would result in 20.7 percent more dwelling units and therefore more residents than the proposed action. As a result, the AWD is expected to result in greater impacts on public elementary

schools, open space resources, and transportation. There would likely be one newly impacted traffic intersection with this alternative—McGuinness Boulevard and India Street, which would increase the total number of impacted intersections to 14 versus 13 for the proposed action. An expansion of the mitigation measures required for the proposed action would be required for this alternative, and new measures would be needed for the newly impacted intersection. The AWD Alternative would meet the objectives of the proposed action in facilitating opportunities for new residential development; and enhancing the public environment, ground-floor uses, and streetscapes to make the proposed action area a more appealing place to live, work, and visit. However, this alternative would not fully meet the proposed action's goal of creating new parkland along the waterfront.

Waterfront Urban Design Alternative

This alternative considers a maximum height of 250 feet for buildings on waterfront parcels where R8 districts are mapped, and includes zoning text changes to allow additional flexibility for towers to be located further from the shoreline.

This alternative would be identical to the proposed action in terms of the number of projected development sites and the anticipated new additional development that would occur on those sites. This alternative would also have the same breakdown as the proposed action in terms of development on the waterfront versus the upland area. Therefore, for those CEQR technical areas affected by density-related potential impacts (e.g., community facilities, open space, traffic, transit, etc.), the effects of the Waterfront Urban Design Alternative would be identical to those of the proposed action. Moreover, as the projected development sites for this alternative are the same as for the proposed action, site-specific potential impacts (e.g., hazardous materials, archaeology) would also be the same, as these relate to individual site conditions, although its effects on Urban Design would be somewhat different. Mitigation measures required for the proposed action would also be required for this alternative.

The Waterfront Urban Design Alternative would result in shorter buildings on the waterfront, but would result in a more uniform and monotonous skyline, which would lack the variety of building heights and the ensuing visual interest at the waterfront that would be expected to result from the proposed action. In addition, as the maximum allowable FAR would remain the same under this alternative, the reduction in the maximum permitted building heights on the waterfront would likely result in the development of more towers to fully accommodate the permitted floor area on each projected development site on the waterfront. Whereas the proposed action would limit buildings within 100 feet of the first upland street to 65 feet in height, this alternative would allow taller buildings to be located along the first upland street, Kent Avenue and West Street. As a result, the taller developments along the first upland street would not be in context with the upland area, and could create a visual barrier to the waterfront. Therefore, unlike the proposed action, this alternative would not ensure that buildings at the upland end of waterfront blocks meet the neighborhood at a characteristic scale. The Waterfront Urban Design Alternative would meet the objectives of the proposed action in facilitating opportunities for new residential development; and enhancing the public environment, ground-floor uses, and streetscapes to make the proposed action area a more appealing place to live, work, and visit.

Affordable Housing Zoning District (AHZD) Alternative

The AHZD alternative was suggested by the office of City Councilman David Yassky during the public scoping process for this DEIS. Under the AHZD Alternative, a mandatory affordable housing requirement

would be applied in the rezoning area, including both waterfront and upland areas. Although the AHZD Alternative would not alter the proposed densities or heights for new development within the proposed action area, it would impose mandatory affordability requirements for new residential developments of 10 units or more. The AHZD Alternative would require the same type of discretionary approvals and public actions as the proposed action.

While the proposed action is framed as a comprehensive effort to create new opportunities for housing, including affordable housing, to address the strong demand for housing in the area, the AHZD Alternative contemplates restrictions on housing development that would tend to decrease the amount of housing developed within the proposed action area, with adverse effects on both the proposed action area and the surrounding residential neighborhoods. A reduction of housing development on the waterfront would reduce the amount of open space provided under the Waterfront Access Plan, which would undermine the goal of replacing an underutilized, inaccessible waterfront with a vibrant neighborhood and public access to the water's edge.

Although the AHZD Alternative would result in redevelopment within the proposed action area, it would add substantial uncompensated costs, coupled with permanent affordability requirements, to developments. Some developments would be unable to combine the mandatory program with an available public subsidy. None would be able to access a permanent ongoing subsidy that would match the affordability obligation. Unlike the Revised AHBI Alternative, in which detailed analyses by HPD have resulted in a careful balancing of the financial incentives offered to developers with the public interest in promoting an economically integrated community, in the AHZD Alternative, the developer's obligation would be substantially greater while the available public subsidies would be no greater than under the Revised AHBI Alternative. As a consequence, the effect of the AHZD Alternative on development would fall short of fulfilling the established goals and objectives of the proposed action.

Revised Affordable Housing Bonus and Incentives (Revised AHBI) Alternative

Following the issuance of the DEIS on October 4, 2004, the Department of City Planning submitted a modified ULURP application (ULURP Nos. N050110(A)ZRK and C050111(A)ZMK) for the zoning map and text amendments for the proposed action. The Revised Affordable Housing Bonus and Incentives (Revised AHBI) Alternative evaluates the modified application and replaces the Affordable Housing Bonus and Incentives (AHBI) Alternative analyzed in the DEIS. The modified application was prepared in response to comments received during the public review process, and is the basis of this alternative. Under the Revised AHBI Alternative, zoning-based mechanisms to encourage affordable housing are evaluated and incorporated into the proposed action, together with some changes to height and setback regulations in the waterfront area and minor changes to the zoning map. This alternative incorporates an enriched Inclusionary Housing program developed by the Department of City Planning and Department of Housing Preservation and Development for Greenpoint-Williamsburg, which would combine a zoning bonus with existing financial programs to create an incentive for the development and preservation of affordable housing in conjunction with the Greenpoint-Williamsburg Rezoning.

In both the waterfront and upland areas, developments providing affordable housing would be eligible for a floor area bonus. City, state, and federal housing subsidy programs could be coupled with the zoning bonus, and units used to earn the zoning bonus would remain affordable in perpetuity.

On the waterfront, in the area governed by the Greenpoint-Williamsburg Waterfront Access Plan, developments utilizing the Inclusionary Housing zoning bonus under this alternative would be eligible

for an increase in the maximum Floor Area Ratio (FAR) permitted. Sites zoned with a blend of R6 and R8 districts would be subject to a maximum FAR of 4.0 (reduced from 4.3 FAR in the proposed action) without the Inclusionary Housing bonus. With the bonus, these sites could achieve a maximum FAR of 4.7. In order to achieve this, the modified text allows a bonus from the base FAR of 2.43 in R6 districts up to 2.75. In R8 districts, the modified text establishes a reduced base FAR of 5.5, which can be increased up to 6.5 with the bonus. Waterfront developments utilizing the Inclusionary Housing bonus would be eligible for an increase in the overall height limits in R8 districts, to 300 and 400 feet (including the 40-foot penthouse allowance). There would be no increase in the height limits for R6 districts.

Due to the FAR bonus provided by the Inclusionary Housing program under this alternative, there would be an increase in the number of units on the three waterfront projected development sites and approximately 42 of the projected development sites in the upland. Because market demand in the upland areas is considered to be fixed, certain projected development sites in the upland area were changed to potential development sites to keep the total number of projected units in the upland consistent. As such, five upland sites in Williamsburg which were identified as projected development sites with the proposed action are identified as potential development sites under this alternative (Sites 125, 160, 215, 270, and 309). The projected and potential development sites in Greenpoint remain the same as with the proposed action.

The development scenario for this alternative includes a total of 8,780 projected housing units in the proposed action area, which reflects maximum utilization of the inclusionary housing bonus mechanism on projected development sites, as well as approximately 347,160 sf of local retail (compared with 8,257 units and 337,160 sf of commercial/retail with the proposed action). Approximately 1,398 of the 7,914 net increment in projected residential units would be affordable units, which would be available to low-income, moderate-income, and middle-income households. Low-income households are defined as earning 80% or less of Area Median Income (AMI), moderate-income households are defined as those earning 125% or less of AMI, and middle-income households are defined as those earning 175% or less of AMI³. Assuming maximum utilization of the inclusionary housing bonus mechanism on projected development sites, this alternative would generate an estimated 893 low-income units (708 units on the waterfront and 185 units in upland developments), 202 moderate-income units (on the waterfront) and 303 middle-income units (on the waterfront), and the remaining 6,516 units would be unsubsidized (compared to 7,391 unsubsidized units and no affordable units with the proposed action).

The Revised AHBI Alternative would result in similar effects with respect to site-specific areas such as hazardous materials and archaeology as under the proposed action. For density-related potential impacts, the effects of the Revised AHBI Alternative have the potential to be greater in magnitude as this alternative would result in more dwelling units and therefore more residents than the proposed action. As a result, the Revised AHBI is expected to result in greater impacts on public elementary schools and open space resources (under Scenario B), requiring greater degrees of mitigation than the proposed action, and would also result in impacts on public day care facilities which would not occur with the proposed action. This alternative would also slightly exacerbate traffic and transit impacts. All of the traffic and transit mitigation measures required for the proposed action would also be required for this alternative, with some minor adjustments. By providing approximately 1,398 affordable housing units, the Revised AHBI Alternative would serve to reduce and partially mitigate the potential for the indirect residential displacement impact identified for the proposed action. The Revised AHBI Alternative would meet the objectives of the proposed action in facilitating opportunities for new residential development; and enhancing the public environment, ground-floor uses, and streetscapes to make the proposed action area

³ The HUD 2004 AMI for the New York City PMSA is \$62,800.

a more appealing place to live, work, and visit. This alternative, which would provide zoning incentives for affordable housing that could be combined with housing subsidy programs, would result in a greater mix of housing and income groups in the future than the proposed action.

I. UNAVOIDABLE ADVERSE IMPACTS

Most of the potential significant adverse impacts of the proposed action could be avoided or mitigated by implementing a broad range of measures. However, there are a number of significant adverse impacts for which there are no reasonably practical mitigation measures or reasonable alternatives that would eliminate the impacts and meet the purpose and need of the proposed action. These include unavoidable adverse effects on archaeological resources, architectural resources, and traffic.

Historic Resources

Because development could potentially occur on any of the identified 76 projected and 264 potential development sites subsequent to the proposed action, there is a potential for disturbance of archaeological resources on any of the projected or potential development sites where such resources exist. Fourteen of the projected development sites and 50 of the potential development sites include lots which have been determined to be sensitive for nineteenth century archaeological resources. Resources within portions of the development sites where new construction could occur, absent prior disturbance, would likely be destroyed by action-induced development. This would constitute a significant adverse impact. No mitigation measures are feasible and practicable because the area to be rezoned is privately-owned and private ownership of the land prevents the City from mandating the preservation or documentation of such remains, should they exist. As such, the project's archaeological impact is considered to be an unmitigated impact of the proposed action.

The buildings comprising the Greenpoint Terminal Market site, which may be eligible for S/NR listing, would likely be demolished in part or entirely to facilitate residential and local commercial development on projected development Sites 56 and 60 and potential development Site 61. This would constitute a significant adverse impact. The proposed action would also facilitate new construction on Sites 222 and 291, which are adjacent to two eligible resources. If the eligible structures are not designated, they would not be subject to the City's construction protection procedures, and may therefore be adversely impacted by adjacent development resulting from the proposed action. This would constitute a significant adverse impact. No mitigation measures are feasible and practicable for the proposed action, because the area to be rezoned and the sites identified for projected and potential development are privately-owned. In the future, if the sites are developed as-of-right in accordance with the new zoning, private ownership of the land prevents the City from requiring any of the above mitigation measures. As such, the architectural impacts identified in Chapter 7 are considered to be unmitigated impacts of the proposed action.

Traffic

The mitigation measures proposed for the intersection of McGuinness Boulevard and Greenpoint Avenue would mitigate the identified impact in the PM peak hour. In the AM peak hour, however, the impact to

the eastbound approach would remain unmitigated. Additional measures were therefore evaluated to address this impact. However, further signal timing adjustments to return this approach to its No-Action condition would be impractical as they would result in new or worsened impacts on other approaches and a reduction in pedestrian crossing time on McGuinness Boulevard. Increasing capacity through changes to curbside regulations or modifications to lane striping was also found to be ineffective, as was widening the approach to achieve an additional lane. Therefore, the proposed action's impact to eastbound Greenpoint Avenue at McGuinness Boulevard in the AM peak hour would remain unmitigated.

J. GROWTH INDUCING ASPECTS OF THE PROPOSED ACTION

The proposed action would result in more intensive land uses (generating new residents, daily workers, and visitors). However, it is not anticipated that it would have significant spillover or secondary effects resulting in substantial new development in nearby areas since, as the proposed rezoning has been developed to be responsive to observed and projected land use trends and would result in sufficient available density to meet all projected demands for projected residential, commercial and light industrial development in Greenpoint and Williamsburg. Moreover, the substantial growth in residential population in the Greenpoint and Williamsburg areas is a trend that has been ongoing over the last two decades, resulting in a housing shortfall and increasing demands for new dwelling units. While the residential population dramatically increased, the industrial sector has declined, leaving many large properties vacant or underutilized.

By providing a significant new supply of housing and local commercial space in the proposed action area, the proposed action would help stabilize or reduce the pressure for new development and changes in land use in areas adjoining the rezoning area.

K. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

Resources, both natural and man-made, would be expended in the construction, renovation, reuse and operation of developments projected to occur as a result of the proposed action. The construction of the approximately 8,257 residential units and 337,160 sf of local commercial uses that are expected to be developed on the 76 projected development sites as a result of the proposed rezoning and related land use actions would also require the irreversible and ir retrievable commitment of energy, construction materials, human effort, and funds. It is estimated that the 76 projected development sites would use approximately 1.28 trillion BTUs of energy annually in the future with the proposed action under Scenario A, and approximately 1.29 trillion BTUs annually under Scenario B. Therefore, the proposed action would result in an incremental increase of approximately 1.04 trillion BTUs in annual energy use compared to No-Action conditions, under both scenarios.

The land use changes associated with the rezoning action may also be considered a resource loss. Projected and potential development under the proposed action constitutes a long-term commitment of sites as land resources, thereby rendering land use for other purposes infeasible. Further, funds committed

to the design, construction/renovation, and operation of projected or potential developments under the proposed action are not available for other projects.

The public services provided in connection with the projected and potential developments under the proposed action (e.g., police and fire protection and public school seats, as well as the acquisition and development of a new waterfront park) also constitute resource commitments that might otherwise be used for other programs or projects, although the proposed action would also generate tax revenues to provide additional public funds for such activities.