CHAPTER 6 ENVIRONMENTAL REVIEW: GREENPOINT CONVERTED MTS

6.1 Introduction

The results of the environmental analyses of the Greenpoint Converted MTS are presented in the following sections:

- 6.2 Land Use, Zoning and Public Policy
- 6.3 Socioeconomic Conditions
- 6.4 Community Facilities
- 6.5 Open Space and Parklands
- 6.6 Cultural Resources
- 6.7 Urban Design and Visual Quality
- 6.8 Neighborhood Character
- 6.9 Traffic and Transportation
- 6.10 Air Quality
- 6.11 Odor
- 6.12 Noise
- 6.13 Infrastructure and Energy
- 6.14 Natural Resources
- 6.15 Water Quality
- 6.16 Waterfront Revitalization Program
- 6.17 Hazardous Materials

Section 2.4 provides a summary description of the site and important characteristics of the facility design. A detailed discussion of the methodologies that were applied in conducting each analysis is provided in Chapter 3. Supplemental information on the site or the study area is provided in the following sections when appropriate to the analysis.

6.2 Land Use, Zoning, and Public Policy

6.2.1 Existing Conditions

6.2.1.1 Definition of Study Areas

The primary study area for the land use, zoning, and public policy analyses is defined as the area within ¼ mile of the site (Figure 6.2-1). The secondary study area is defined as the area between ¼ mile and ½ mile of the site (Figure 6.2-2). Section 3.4 describes the methodology employed in these analyses and Section 2.4 provides information on existing land uses and operations on the site.

6.2.1.2 Land Use Patterns

6.2.1.2.1 General Context

The site is located on the heavily industrial Newtown Creek waterfront in Greenpoint, Brooklyn. It is surrounded by large-lot, primarily truck-dependent, heavy industrial uses on both the Queens and Brooklyn sides of the creek. These uses include various municipal facilities, petroleum (outdoor loading) facilities, and warehousing.

6.2.1.2.2 Land Uses in the Primary Study Area

The primary study area is comprised almost exclusively of heavy industrial uses concentrated along Newtown Creek and dominated by the Newtown Creek WPCP. The WPCP, which occupies a large area immediately south of the site, is currently being expanded to the east and to the north (west of Whale Creek Canal), across from the site. A DOT asphalt production facility and private recycling center for construction debris and fill are located east of the site on Kingsland Avenue. The Queens side of Newtown Creek is also characterized by industrial uses such as Case Paper Manufacturers, The Exhibit Company, and numerous warehouses fronting on Borden and Review Avenues across from the site.

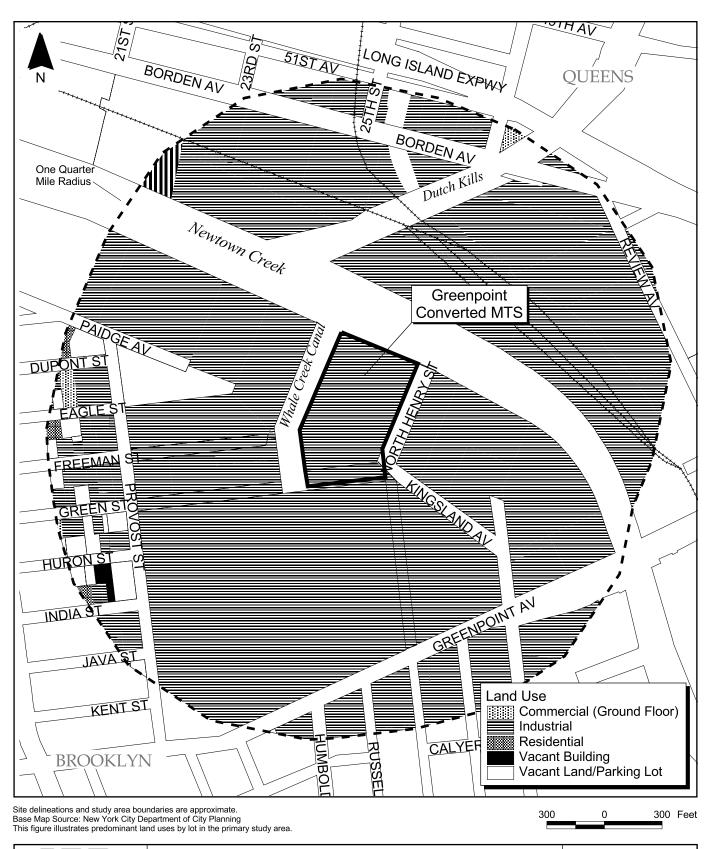




Figure 6.2-1 Land Use in the Primary Study Area Greenpoint Converted MTS

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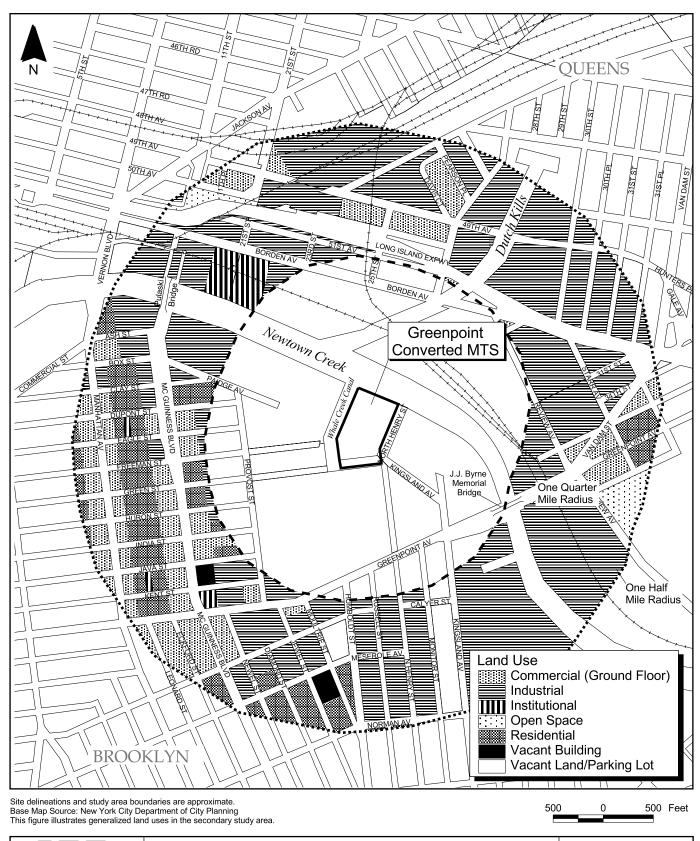




Figure 6.2-2 Land Use in the Secondary Study Area Greenpoint Converted MTS

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In addition to the uses bordering the site, the blocks south of the site along the west side of Provost Street are almost exclusively warehouses. Most of these are active, though there are some vacant warehouse buildings and vacant lots scattered throughout. Southeast of the site beyond a private recycling center and WPCP sites are Metro Fuel Oil Depot petroleum outdoor-loading facilities.

6.2.1.2.3 Land Uses in the Secondary Study Area

Within the secondary study area, heavy industrial uses are concentrated along both sides of Newtown Creek and Dutch Kills, and in about half of the study area in Brooklyn, particularly south of Greenpoint Avenue. West of the site in the secondary study area is a residential area comprised mostly of three- to four-story apartment buildings, whose ground-floor commercial uses line McGuinness Boulevard and Manhattan Avenue. In this area, an apartment building recently converted from industrial uses stands west of Provost Street on Dupont Street. South of Meserole Avenue in the southern portion of the study area, residential uses are interspersed with active warehouses.

The portion of the secondary study area that lies north of the site in Queens is comprised almost entirely of industrial uses and warehouses with the exceptions of the Salvation Army Veterans Residence northwest of the site at 21st Street and Borden Avenue, and some commercial uses north of the site along 49th Avenue and east of the site along Greenpoint Avenue.

6.2.1.3 Current Zoning on and near the Site

6.2.1.3.1 Zoning within the Primary Study Area

The site and the entire primary study area lie within manufacturing zoning districts. In Brooklyn, an M3-1 district extends along the southern side of Newtown Creek. In Queens, an M3-2 zoning district defines the area west of the Dutch Kills and an M3-1 defines the area to its east. (See Figure 6.2-3 and Table 3.4-1: Zoning District Characteristics.).

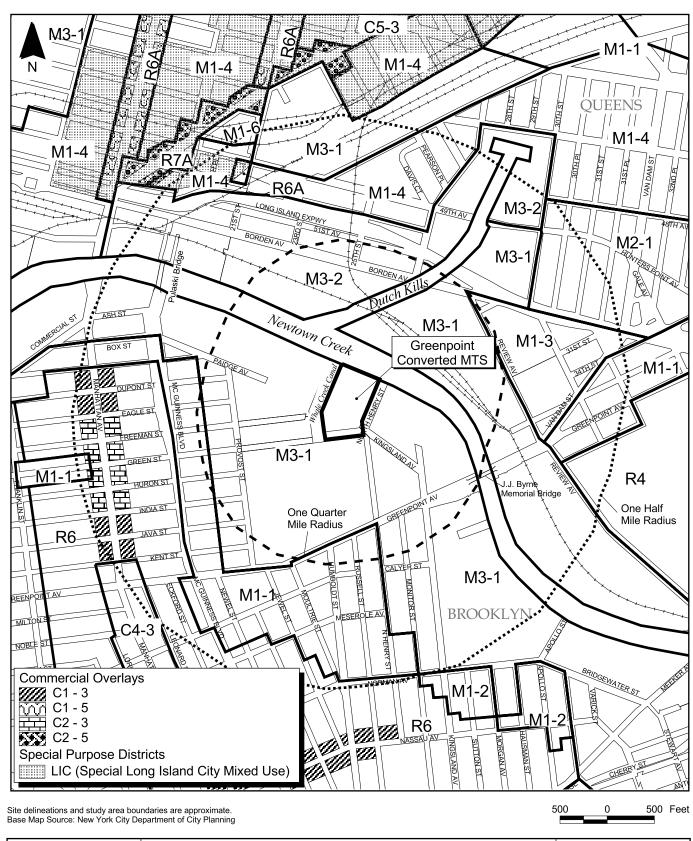




Figure 6.2-3 Zoning

Greenpoint Converted MTS

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6.2.1.3.2 Zoning within the Secondary Study Area

The secondary study area in Brooklyn is zoned M3-1 along the creek, and M1-1 inland, serving as a buffer between the heavier industrial district and residentially zoned (R6) district to the west and south. Nearly all of the secondary study area in Queens is zoned for manufacturing (M1-1, M1-3, M1-4, M2-1, M3-1, and M3-2), except for part of a block in the northwestern section, which is zoned R6A. The Long Island City Mixed Use District (overlay zone), intended to spur new mixed-use development, includes the R6A block and extends northward to cover a large area outside the secondary study area.

6.2.1.4 Plans and Policies

The FY 2002/2003 Community District Needs Statement for Brooklyn Community District 1 contains only one recommendation that applies to the site and study area. It states explicitly that the community is opposed to any reopening of the Greenpoint Incinerator and recommends that it be demolished as soon as possible. Otherwise, the community expresses its concern over hosting new large-scale waterfront facilities, such as power plants, and its general dissatisfaction with hosting a large number of private waste transfer stations. Also, the Board requests that DSNY garages for District 3 be relocated to District 3 and that the construction of new garages for Districts 1 and 4 proceed.

The Community District Needs Statement for Queens Community District 2 states the community's concerns over air quality and the effects of waste transfer stations on air quality, but does not make reference to recommended or anticipated physical development affecting the site or primary or secondary study areas.

The Greenpoint 197-a Plan has been prepared for an area in Brooklyn approximating the 11222 zip code district, which extends to Newtown Creek to the north, the East River to the west, and far enough south to include McCarren Park and east to include the Keyspan site on Newtown Creek east of the Brooklyn Queens Expressway. The plan overall supports redevelopment of the waterfront, but it notes a necessary balance between existing necessary

uses, such as DSNY facilities, and the desire to have a waterfront that is accessible and enjoyable to the public. To this end, the plan notes those artistic and community open space elements that are planned to be incorporated in the Newtown Creek WPCP upgrade. (See Future No-Build Conditions, Section 6.2.2 for details regarding the WPCP design features likely to be complete by 2006.) Regarding the DSNY site, the plan refers to the community's concern with dismantling the incinerator in a way that is environmentally sensitive. Although several areas of rezoning are proposed, Newtown Creek is planned to remain M3, thus suitable for heavy industry and municipal uses.

Reach 13, Newtown Creek, is a tidal inlet of the East River, stretching eastward to include English Kills. The plan for Reach 13 states that there are many economic opportunities in this vicinity given its proximity to rail lines and deep water access. The area is identified as an SMIA and continues to be an important location for manufacturing, wholesale, distribution and municipal uses. The plan recommends maintenance of these activities and enhancements to accommodate water-dependent uses. It also calls for coordinated efforts to resolve existing environmental problems and to safeguard against new ones.

One recommendation of the plan is to develop environmentally sound designs and clear performance standards for municipal uses in Newtown Creek, including coordinating municipal agencies with the public and encouraging the consideration of such site development mitigation strategies as the use of landscape buffers, odor control measures and truck routing guidelines.

The plan for Reach 13 makes the point that the reach is not an appropriate location for the development of public access to the waterfront. Public access does not exist, and the best views of the creek are from sidewalks on the Pulaski Bridge and the J.J. Byrne Memorial Bridge, which are used by pedestrians and cyclists. The plan suggests that communities in neighboring reaches provide better opportunities for public access to the waterfront. (See Section 6.16 for a review of consistency with the Waterfront Revitalization Program.)

6.2.2 Future No-Build Conditions

It is reasonable to anticipate that Future No-Build Conditions in the primary and secondary study areas generally will resemble the Existing Conditions. The site will remain DSNY property and the existing, inactive MTS will remain, as will the associated DSNY parking. The DSNY auxiliary field force will continue to use some interior spaces of the defunct incinerator until the incinerator is demolished prior to 2006.

Planned developments near the site generally will maintain existing development intensity and reinforce the existing land use pattern. Figure 6.2-4 shows the planned development sites. The Newtown Creek WPCP, southeast of the site, is in the midst of major expansion/rehabilitation on the adjacent block between Kingsland Avenue and Greenpoint Avenue. The WPCP support building, under construction west of the Whale Creek, and the adjacent landscaped nature walk along the water, are scheduled for completion in 2004. The redeveloped WPCP will also feature a pool and park for children and a series of 10 public art projects to be installed along the 10-block-long chain link fence surrounding the facility.

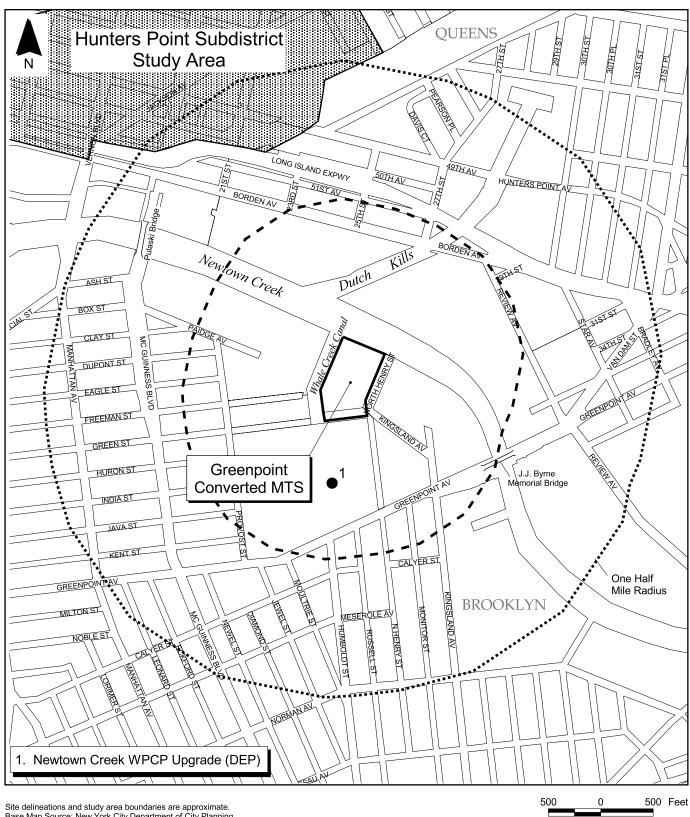
Current planning in the area involves the Hunters Point Subdistrict Study, which applies to a small portion of the secondary study area (Figure 6.2-4). The goal of the study is to determine how the traditional retail streets in Hunters Point might be strengthened by the development of new residential and retail uses. Currently, however, there are no projections available regarding the results of the study or any planning recommendations that may result.

6.2.3 Potential Impacts with the Greenpoint Converted MTS

6.2.3.1 Land Use and Zoning

The Greenpoint Converted MTS would entail replacement of the existing MTS with a similar, new facility that would include containerization functions. The new facility would be constructed further inland from the location of the incinerator; thus, somewhat decreasing the density of the site and its waterfront. The Greenpoint Converted MTS, which would be situated in relative isolation amid an increasingly industrial context, would not affect the use of the site, nor would it likely affect the surrounding land uses or zoning patterns.

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Site delineations and study area boundaries are approximate. Base Map Source: New York City Department of City Planning



Figure 6.2-4 Planned Development Sites **Greenpoint Converted MTS**

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6.2.3.2 Consistency with Public Plans and Policies

The Greenpoint Converted MTS would be consistent with the stated objectives of the pertinent plans and policies affecting the site and environs, primarily because development of the facility would maintain the waterfront industrial uses and zoning and incorporate environmentally sound design, as recommended in the Reach 13 plan. The Greenpoint Incinerator already will have already been demolished.

6.3 Socioeconomic Conditions

6.3.1 Existing Conditions

6.3.1.1 Definition of the Study Areas

Two study areas were used for the analysis of socioeconomic conditions: (1) a demographic study area based roughly on census tracts within ¼ mile of the site, and (2) a study area related to economic activity that generally covers a larger area that extends ½ mile from the site. (See Section 3.5 for a more detailed description of study area delineation.) In this case, the demographic study area is comprised of Census Tract 579 in Brooklyn (Figure 6.3-1), which has a northeastern boundary of Newtown Creek and is bounded on the west, south and east roughly by McGuiness Boulevard, Calyer Street, and Greenpoint Avenue. For comparison purposes, census data were also gathered at the Borough and City levels.

Detailed socioeconomic information referred to in the text but not presented in table form may be found in Appendix B.

6.3.1.2 Demographic Characteristics

6.3.1.2.1 *Population*

In 2000, the study area population consisted of 1,440 persons (see Table 6.3-1). In terms of total population growth from 1990 to 2000, the study area experienced a greater percentage increase (12 percent) than did the Borough (7 percent) and the City (9 percent) during the same period.

The age-sex distribution for the area was slightly different from the population distribution of the Borough and the City, with a slightly greater proportion of males to females. The study area contained relatively the same percentage of children and teenagers as the Borough or City; approximately 28 percent of the study area population was under the age of 20, compared to 30 percent for the Borough and 27 percent for the City.

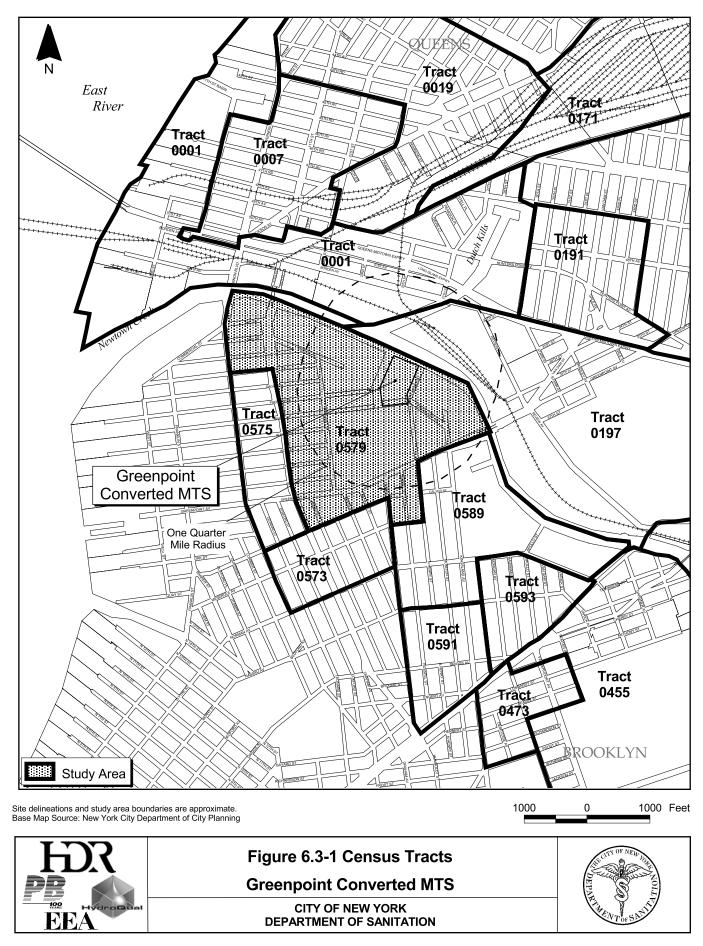


Table 6.3-1 1980-1990 Population

	Study Area	Brooklyn	City
2000	1,440	2,465,326	8,008,278
1990	1,288	2,300,664	7,322,564
Percent Change	+11.8%	+7.2%	+9.4%

Source: U.S. Census, 1990, 2000

6.3.1.2.2 Racial and Ethnic Characteristics

The 2000 study area population had a far greater proportion (59 percent) of people of Hispanic origin (all races) than did Brooklyn (20 percent) or the City (27 percent). Of the 41 percent not of Hispanic origin, 6 percent were Black, 74 percent were White, and 12 percent were Asian. In Brooklyn and the City, Blacks represented approximately 43 and 33 percent of the non-Hispanic populations, respectively, while Whites represented 43 and 48 percent, respectively, and Asians represented 9 and 13 percent, respectively.

From 1990 to 2000, the number of study area residents of Hispanic origin increased by a greater rate (18 percent) than in the Borough (9 percent) but a smaller rate than in the City (24 percent) during the same period. Because the 2000 Census introduced the option for respondents to identify themselves as two or more races, racial categories are not directly comparable with 1990.

6.3.1.2.3 Families and Households

There were 325 families in the study area in 2000 and the percentage of these families that had children under the age of 18 (47 percent) was slightly smaller than those families in Brooklyn with children under 18 (51 percent) and in the City (49 percent). There was roughly the same percentage of married-couple families in the study area (61 percent) as in the Borough (59 percent) or the City (62 percent), and 55 percent of these families in the study area had children, more than those of Brooklyn (50 percent) and the City (48 percent).

Twenty-nine percent of families in the study area were headed by a female householder, similar to the Borough (33 percent) and the City (30 percent). Forty percent of the female householder families in the study area had children under the age of 18, a percentage noticeably lower than the percentage in the Borough and the City, which were equal (55 percent).

There were 543 households in the study area in 2000. The average number of persons per household in 1990 was nearly the same for the study area (2.7 persons), Brooklyn (2.8 persons), and the City (2.6 persons).

From 1990 to 2000, the number of households in the study area increased by 21 percent, compared with a 6 percent increase in the Borough and a 7 percent increase in the City.

6.3.1.2.4 *Employment*

In 2000, the labor force and employment rate for the three areas was approximately the same. Within the study area, 59 percent of persons age 16 and older participated in the labor force in 2000, compared to 55 percent in Brooklyn and 58 percent in the City. The majority of these people in all three areas were employed as private wage and salary workers.

In the study area, 13 percent of employed persons 16 years of age and older were government workers, slightly less than the proportion in Brooklyn (19 percent) and the City (16 percent). Four percent of the study area's working population was self-employed, about the same proportion as in Brooklyn (5 percent) and the City (6 percent).

From 1990 to 2000, the number of employed persons within the three areas remained steady. However, among employed persons, while the study area showed an increase in government workers, the Borough and City decreased. Those engaged in government jobs increased by 6 percent in the area, compared to a 14 percent decrease in the Borough and a 10 percent decrease in the City.

Current estimates indicate that about 68,241 employees worked in Brooklyn Community District 1 in 2002, which was about 10 percent of the borough's total employment.¹

6.3.1.2.5 Housing

Most housing units (80 percent) in the study area were constructed before 1960, which is more than in Brooklyn and the City (73 percent and 67 percent, respectively). As of 2000, there were 521 housing units in the study area with a vacancy rate of about 7 percent, slightly higher than the Borough (5 percent) and the City (6 percent). Like the Borough and the City, there were more renters than owners. Nearly all of the housing units were renter-occupied (88 percent), considerably greater than the Borough (69 percent) and the City (66 percent).

Although the 2000 median value of housing units in the study area (\$233,900) was similar to those of Brooklyn (\$224,100) and the City (\$211,900), the change in value from 1990 to 2000 was much different. The median housing unit increased in value by 450 percent compared to a 15 percent increase in the Borough and a 13 percent increase in the City. Additionally, while the value of the housing units in the study area was higher than those of Brooklyn and New York City, the median gross rents (\$585) were lower than those in the Borough (\$672) and City (\$705).

The turnover in the study area (42 percent) from 1995 until 2000 was roughly equal to that of the Borough and the City (both 43 percent).

From 1990 to 2000, a total of 12 housing units were added in the study area, representing a 2 percent increase, lower than the Borough and the City (both 7 percent).

¹ New York Metropolitan Transportation Council, Employment Interim Projections data set, approved 7-17-03.

6.3.1.2.6 Education

In 2000, the school enrollment for the three areas was roughly the same, with the study area at 30 percent, the Borough at 31 percent, and the City at 29 percent. Of those enrolled in school within the study area, 67 percent were enrolled in elementary school or high school and 19 percent were enrolled in college or beyond. In Brooklyn, 64 percent were enrolled in elementary or high school, 24 percent in college or beyond, while 62 percent of the City's enrolled population was in elementary or high school and 27 percent in college or beyond.

The study area witnessed a 12 percent increase in the number of persons enrolled in school from 1990 to 2000 (141 more people), with the largest increase in enrollments occurring at the pre-primary school level (1,325 percent, or from 4 people to 57). Brooklyn and the City experienced tremendous growth in the pre-primary school age group also (145 percent and 150 percent, respectively).

A markedly smaller proportion (29 percent) of the study area population age 25 and over had a college degree or some college education compared to Brooklyn (42 percent) and the City (48 percent). Compared to the Borough and the City, a larger portion of the study area population (age 25 and older) did not graduate from high school. A higher percentage of people in the study area (21 percent) had some high school education but lacked a diploma versus 18 percent in the Borough and 16 percent in the City. Additionally, the study area had twice the proportion of people over the age of 25 with less than a 9th grade education (27 percent) as those of the Borough (13 percent) and the City (12 percent).

Despite the lower educational levels, from 1990 to 2000 the study area witnessed slightly rising levels of educational attainment. The number of college graduates in the study area increased 8 percent, although the trend in the Borough and the City was much greater (41 percent and 29 percent, respectively).

6.3.1.2.7 Income and Poverty

In 2000, both median household income (\$23,445) and median family income (\$25,594) were lower than in Brooklyn (\$32,135 and \$36,188, respectively) and the City (\$38,293 and \$41,887, respectively). Compared to the larger two areas, a greater percentage of study area households were concentrated at the lowest income levels, with the majority of annual household incomes (55 percent) below \$25,000. About 30 percent of the area households had annual incomes less than \$10,000, compared with 19 percent in Brooklyn and 16 percent in the City. Only 21 percent of households in the study area had incomes of \$50,000 and above, compared with 33 percent in the Borough and 40 percent in the City.

A similar percentage of persons under the age of 18 were living below the poverty level in the study area (32 percent), the Borough (34 percent) and the City (30 percent) in 2000. The 2000 Census also reported that a greater percentage of the population aged 65 and older were living below the poverty level in the study (33 percent) compared to Brooklyn (22 percent) and the City (18 percent).

From 1990 to 2000, the percentage of people living below the poverty level in the study area decreased by 8 percent, compared to an increase in Brooklyn by 19 percent and in the City by 20 percent.

6.3.1.3 Economic Conditions

The study area contains a range of industrial uses concentrated along Newtown Creek, from warehouse and distribution facilities to oil loading facilities and private waste transfer operations. In Brooklyn, DSNY-owned property used as a storage yard and the DEP Newtown Creek WPCP occupy large areas adjacent to the site, with a DOT asphalt production facility nearby. Further southeast, are the outdoor-loading facilities of the Metro Fuel Oil Depot. The Queens side of Newtown Creek has similar industries, with Case Paper Manufacturers, the Exhibit Company and other warehouses fronting on Borden Avenue and Review Avenue.

Further beyond the surrounding industrial uses are ground-floor stores on the north-south avenues west of the site, along McGuinness Boulevard and Manhattan Avenue. Small-scale commercial establishments line the south side of Greenpoint Avenue south of the site. Further to the south along Meserole Avenue is a mix of residential uses and warehouses.

6.3.2 Future No-Build Conditions

6.3.2.1 Demographic Characteristics

Regional projections indicate that the population of census tract 579 will remain the same as current estimates.²

6.3.2.2 Economic Conditions

The study area contains stable industrial areas that are not expected to see significant new business development by the Future No-Build year. South of the site, the DEP plans to expand and double the capacity of the WPCP, adding approximately 14 new government sector jobs as a result of the plant upgrade.

Regional projections indicate that employment in Brooklyn Community District 1 will increase to 69,002, about a 1 percent increase in employment between 2002 and 2006.³

The near-term economic health of industrial areas such as Greenpoint may be supported by established City programs available through IDA. Programs such as the Industrial Incentive Program and the Small Industry Incentive Program provide business tax incentives for capital renovation and expansion projects. However, no significant changes are expected through 2006.

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² New York Metropolitan Transportation Council, Employment Interim Projections data set, approved 7-17-03.

³ New York Metropolitan Transportation Council, Employment Interim Projections data set, approved 7-17-03.

6.3.3 Potential Impacts with the Greenpoint Converted MTS

The Greenpoint Converted MTS represents the reactivation of solid waste transfer operations on the site with added containerization operations. Therefore, it would not result in socioeconomic changes in the study area. No significant direct or indirect impacts are anticipated related to socioeconomic conditions.

6.3.3.1 Residential Impacts

No direct displacement of residential uses would occur as a result of the Greenpoint Converted MTS, and land use and neighborhood character analyses predict no adverse impacts.

6.3.3.2 Direct Business and Institutional Impacts

The Greenpoint Converted MTS would not result in direct displacement of businesses or institutional uses nearby.

6.3.3.3 Indirect Business and Institutional Impacts

The businesses adjacent to and near the Greenpoint Converted MTS are industrial uses that would not be affected by reactivating MTS operations and added containerization activities.

6.3.3.4 Employment Impacts

The Greenpoint Converted MTS is expected to generate approximately 85 jobs, including supervisors, equipment operators, mechanics, laborers, and clerical personnel. In addition to the direct positive employment impacts, the new workers would generate a minor amount of indirect economic benefits through local spending.

6.4 Community Facilities and Services

6.4.1 Existing Conditions

6.4.1.1 Definition of the Study Areas

The primary study area is defined as the area within ¼ mile of the site. The secondary study area is defined as the area between ¼ and ½ mile from the site.

6.4.1.2 Summary of Community Facilities and Services

Consistent with its industrial character, the primary study area contains no community facilities. Nine community facilities are located within the secondary study area and nine are outside the secondary study area. Community facilities serving or located within or near the study area are listed in Table 6.4-1 and shown in Figure 6.4-1.

6.4.2 Future No-Build Conditions

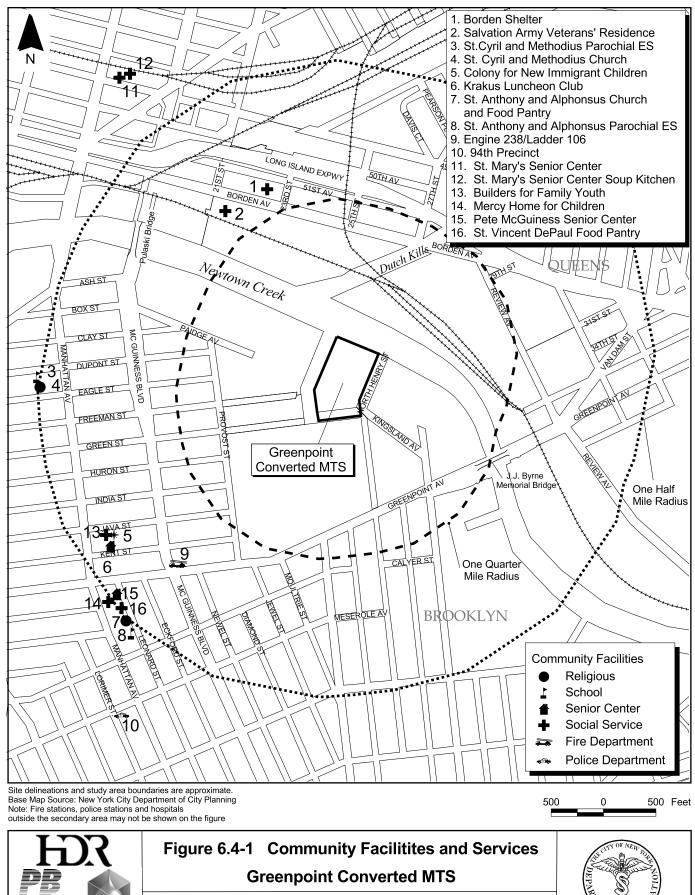
There are no known changes planned for the community facilities and services within the primary and secondary study areas by the Future No-Build year. Therefore, anticipated Future No-Build Conditions are expected to be fundamentally the same as Existing Conditions regarding availability of facilities and services and their capacity or adequacy of delivery.

6.4.3 Potential Impacts with the Greenpoint Converted MTS

The Greenpoint Converted MTS would create no significant new demand on services and community facilities and would not displace facilities or disrupt services. No significant adverse impacts to service delivery are expected. The New York City Fire Department states that it would have no problem supporting the Greenpoint Converted MTS (see Appendix A).

Table 6.4-1 Community Facilities and Services

Name	Address		
Within the Secondary Study Area			
Senior Centers			
Krakus Luncheon Club	177 Kent Street		
Pete McGuinness Senior	715 Leonard		
Day Care Centers			
Colony for New Immigrant Child	176 Java Street		
Religious and Cultural Institutions			
St. Cyril and Methodius Church	96 Dupont Street		
Health Care Facilities and Social Services			
Borden Shelter	21-10 Borden Avenue		
Salvation Army Veteran's Residence	21-20 Borden Avenue		
Builders for Family and Youth	174 Java Street		
St. Vincent DePaul Food Pantry	715 Leonard		
Fire			
1st Engine Company - Engine 238 and	205 Greenpoint Avenue		
1st Ladder Company – Ladder 106			
Outside the Secondary Study Area			
Schools			
St. Anthony and Alphonsus Parochial ES	725 Leonard Street		
St. Cyril and Methodius School	96 Dupont Street		
Senior Centers			
St. Mary's Senior Center	10-15 49th Avenue		
Religious and Cultural Institutions			
St. Anthony and Alphonsus Church (food	725 Leonard Street		
pantry)			
Health Care Facilities and Social Services			
St. Mary's Senior Center Soup Kitchen	10-15 49th Avenue		
Mercy Home for Children	878 Manhattan Avenue		
Fire			
2nd Engine Company – Engine 259 and 2nd	33-51 Greenpoint Avenue		
Ladder Company – Ladder 128			
Police			
94th Police Precinct	100 Meserole Avenue		
108th Police Precinct	5-47 50th Avenue		





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6.5 Open Space and Parklands

6.5.1 Existing Conditions

6.5.1.1 Definition of the Study Area

The study area for open space and parklands is defined as being the area within a ½-mile radius of the site.

6.5.1.2 Summary of Open Space and Parklands in the Study Area

Currently the only designated open space in the study area is an undeveloped park area northwest of the site situated adjacent to the north side of the Long Island Expressway (see Figure 6.5-1). Though mapped parkland, it is not suitable for use by visitors, nor is it landscaped to provide visual relief in this heavily trafficked area.

6.5.2 Future No-Build Conditions

The nature walk and children's pool and park that are planned as part of the Newtown Creek WPCP support building construction west of Whale Creek Canal would be completed during the final stages of WPCP construction in 2004. There are no DPR plans for new open space resources in the study area or improvements by the Future No-Build year.

6.5.3 Potential Impacts with the Greenpoint Converted MTS

No impacts to either the existing park area along the northern edge of the Long Island Expressway or the planned open space features of the WPCP would result from the Greenpoint Converted MTS. Newtown Creek and the Long Island Expressway buffer the existing park area from the site.

The landscaped walkway has been designed under the assumption that the existing Greenpoint MTS would remain in operation throughout the construction period. Because the Greenpoint Converted MTS would be a similar use to the former one and in the same approximate location,

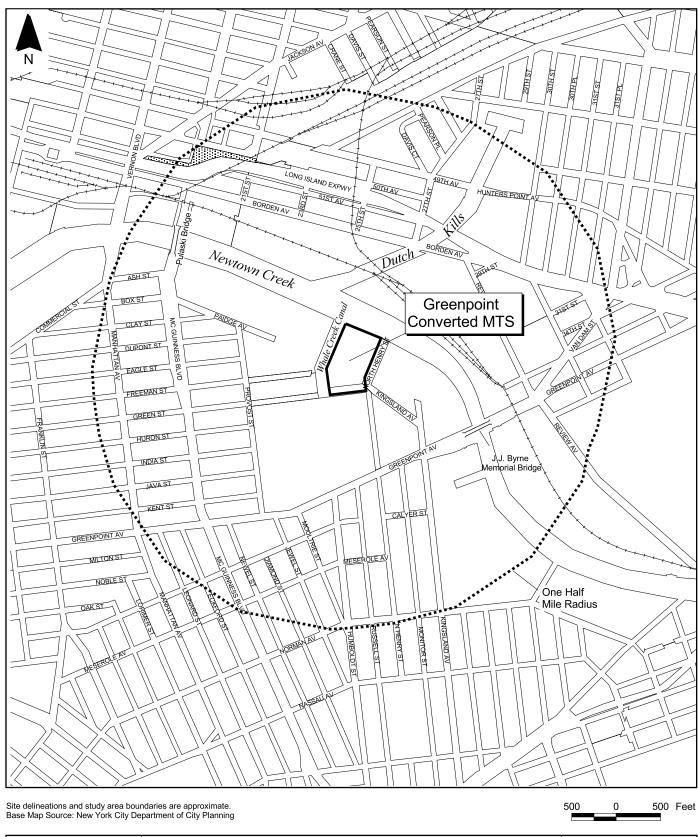




Figure 6.5-1 Open Space/Parkland Greenpoint Converted MTS

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it would not present any notable new challenges to be assumed in the design and use of the publicly accessible area. However, views of the Greenpoint Converted MTS from the future nature walk west of Whale Creek Canal would include the barge loading area, where gantry cranes would load containerized waste onto barges moored in the canal, not unlike other industrial views on both sides of the creek.

6.6 Cultural Resources

6.6.1 Existing Conditions

6.6.1.1 Definition of the Study Area

The study area for cultural resources is defined as the area within ½ mile of the site.

6.6.1.2 Development History of the Area

The 946-acre triangular parcel of land that is now known as Greenpoint was bought by Dutch settlers in 1638 from the Keshaechqueren Indians and named for a grassy expanse that extended into the East River. In the early nineteenth century, Greenpoint was sparsely populated by Dutch Huguenot descendents and by 1850 it had become an industrial center. Greenpoint was the site of "the five black arts: printing, pottery, petroleum and gas refining, glassmaking, and iron making." Shipbuilding industries also developed along the East River, supporting the Brooklyn Navy Yard to the south. Consequently, area streets were named for people, places, and items important to local industries. Major industrial firms of the time were located here, such as the Continental Iron Works, which built the ironclad ship the *Monitor* used in the Civil War, and the Astral Oil Works, which was opened by Charles Pratt and merged with the Standard Oil Company in 1874. The Astral Apartments on Franklin Street, built by Pratt in 1886 to provide workers with decent housing, are now land-marked by the City as significant examples of model tenements.

The history of Newtown Creek, which forms the boundary separating Brooklyn from Queens, is an important part of the study area's history. It was the route to Maspeth taken by European colonists in 1642. The British spent the winter near the creek during the Revolutionary War, and in the early 1800s it was a major channel for commercial vessels and small boats.

The first oil and coal oil refineries opened along its banks around 1860. Long Island City and Sunnyside were home to waterside industrial uses such as oil refineries and factories for varnish, ceramic pipe, and cooperage in the mid- to late-1800s. Due to the practice of dumping sludge and acids into the creek, the creek was already well known for its foul odors and pollution by 1900, with water corroding the paint on ships and leaving noxious deposits on the shore.

The State and City tried to improve Newtown Creek, and the channel was constantly dredged and widened by the federal government. Ship building, manufacturing, and warehousing gradually diminished during the first half of the 20th century, with the active factory life of Greenpoint largely ending after World War II. After World War II, the creek was no longer important for marine traffic with waterborne transport being replaced by trucks and airplanes, but many industries continued to be located along the creek.

6.6.1.3 Cultural Resources on the Site

There are no elements of architectural or archaeological significance within the site.

6.6.1.4 Cultural Resources within the Study Area

A small portion of the Greenpoint Historic District lies at the study area's southwestern edge (Figure 6.6-1). This City-designated district is listed on the State and National Registers of Historic Places and it contains a wide variety of buildings and types dating to the 1860s and 1870s.

6.6.2 Future No-Build Conditions

There are no additional elements of potential architectural or archaeological significance slated for review. Therefore, anticipated Future No-Build Conditions are assumed to be the same as Existing Conditions.

6.6.3 Potential Impacts with the Greenpoint Converted MTS

As there are no existing or anticipated architecturally or archaeologically significant resources on the site or the study area, the Greenpoint Converted MTS would have no effect on any cultural resources. SHPO has concluded that the project would have no impact upon cultural resources in, or eligible for inclusion on, the State and National Registers of Historic Places. The LPC has stated that the site contains no architectural or archaeological significance (see Appendix A).

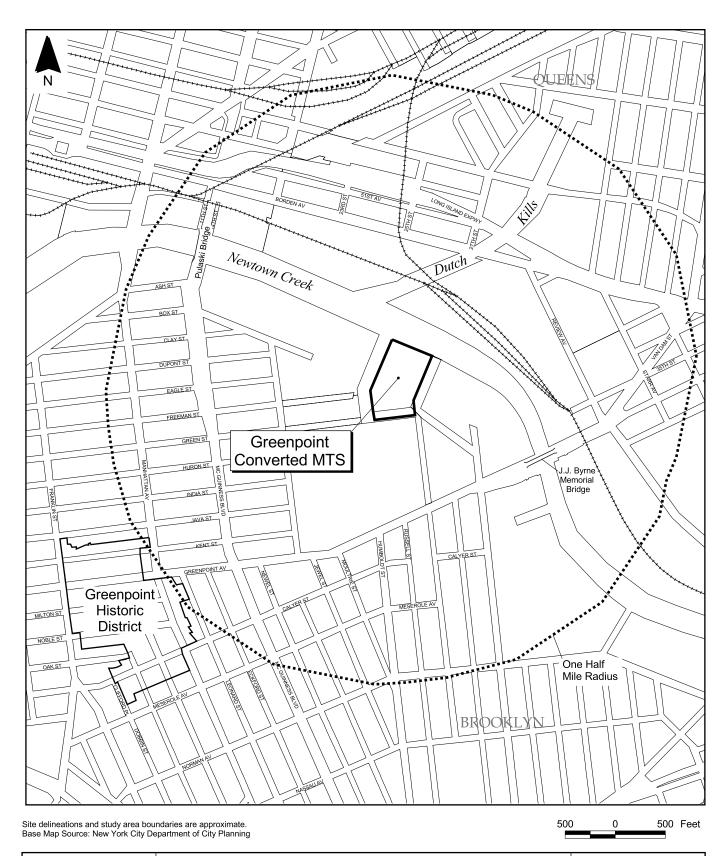




Figure 6.6-1 Cultural Resources Greenpoint Converted MTS

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6.7 Urban Design and Visual Quality

6.7.1 Existing Conditions

6.7.1.1 Definition of the Study Area

The urban design and visual quality study area is the same as the neighborhood character study area (Figure 6.8-1). The site has been developed in a manner consistent with adjacent properties and the overall study area. It is a non-sensitive industrial area, in terms of urban design and visual quality assessment. There are no sensitive view corridors or publicly accessible open areas or points of waterfront access areas that would reasonably be expected to experience visual-quality impacts from the proposed development.

6.7.1.2 Description of the Site

The existing MTS and non-operational incinerator comprise most of the on-site development. The five-story main building of the incinerator blocks much of the existing MTS and Newtown Creek waterfront from inland views (Figure 6.7-1). A fenced-in parking area is located south of the incinerator and the remainder of the site is paved. There is no formal landscaping on the site, although tall grass and a few small trees are present along the edges of Whale Creek Canal and the slip along North Henry Street, as described in Section 6.14.1.4.

6.7.1.3 Urban Design & Visual Quality of the Study Area

The visual quality of the study area is characterized by the wide streets and industrial uses that surround the site, dominated by the Newtown Creek WPCP located to the south and west of the site and an auto scrap yard across Newtown Creek (in Queens) to the north (Figure 6.7-1 and Figure 6.7-2).



Figure 6.7-1: View toward site from Green Street.

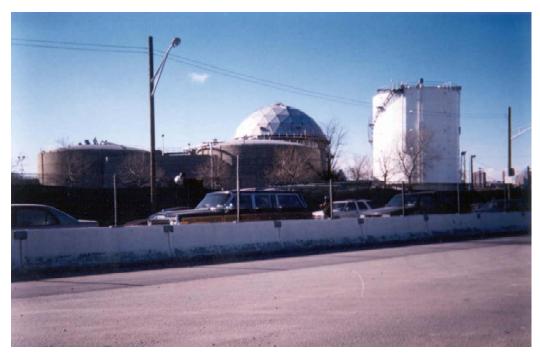


Figure 6.7-2: Newtown Creek WPCP, looking west along Green Street.



Figure 6.7-1 and 6.7-2 Urban Design and Visual Quality Greenpoint Converted MTS

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The only publicly accessible views of the existing MTS are from North Henry Street and Kingsland Avenue, neither of which are through-streets used by the general public. Rather, these streets serve primarily as access roads to the site and the surrounding industrial uses. A portion of North Henry Street north of Greenpoint Avenue and a segment of Kingsland Avenue at Green Street and Greenpoint Avenue have been demapped as part of the WPCP expansion; thus, further insulating the site from the community (Figure 6.7-3).

The area around the site is almost entirely paved. In fact, because there are many truck-dependent uses in the area, the wide streets and sidewalks, where they exist, tend to be used for truck parking. There is little or no pedestrian activity.

6.7.2 Future No-Build Conditions

The only plans for the surrounding environs that would lead to changes in urban design or visual quality conditions by Future No-Build year are those related to the expansion of the Newtown Creek WPCP and removal of the Greenpoint Incinerator. This multi-site WPCP development would intensify the industrial character of the area but not change the visual conditions significantly. It would however, further isolate the site from view. The planned nature walk, children's pool and park, and art installations along the WPCP site perimeter are to be completed around 2004, introducing a new recreational opportunity to the study area. Otherwise, the anticipated Future No-Build Conditions are fundamentally the same as Existing Conditions.

6.7.3 Potential Impacts with the Greenpoint Converted MTS

The Greenpoint Converted MTS would replace the existing MTS with a similar, new containerization facility on a widened platform. It would be located further inland, where the incinerator, which will have been demolished, stood, and an administration building and parking lot would be built south of it. The Greenpoint Converted MTS would be more visible from North Henry Street and Kingsland Avenue than the existing MTS because it would be larger and no incinerator would block it from view. The container storage area near the northern edge of the platform may be visible from North Henry Street as well. Views from the proposed walkway

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Figure 6.7-3: Newtown Creek Water Pollution Control Plant construction area.



Figure 6.7-3 Urban Design and Visual Quality Greenpoint Converted MTS

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across the canal would be of industrial operations including containerization barge loading activities. The development, however, would be in keeping with the established industrial urban design and visual character of the area, and so no significant adverse impacts to urban design or visual quality would result.

6.8 Neighborhood Character

6.8.1 Existing Conditions

6.8.1.1 Definition of the Study Area

The neighborhood character study area is defined by predominantly industrial land use and visual quality, which are the two major factors contributing to the neighborhood character of the site and surrounding properties. The study area is defined by physical landscape elements that distinctly mark the edge of a specific neighborhood character, visually insulate the site and study area or physically obstruct pedestrian and vehicular access to it from outlying areas.

With these criteria, the study area is bounded by McGuinness Boulevard and the Pulaski Bridge, Paidge Avenue, and Provost Street to the west; Greenpoint Avenue and the J. J. Byrne Memorial Bridge to the south and east and Borden Avenue to the north (Figure 6.8-1). It includes a portion of the industrial waterfront in Sunnyside, Queens, north of the site across Newtown Creek. Although the creek clearly is a physical barrier limiting access to the site from the north, this portion of the Queens waterfront is included in the study area because it mirrors the industrial character of the study area south of the creek and is visually connected with it. While the land uses and visual quality along most of the Newtown Creek waterfront beyond the study area are similar to that within the study area, Greenpoint Avenue and McGuinness Boulevard—the major arterial roadways that cross the creek—effectively define the eastern and western ends of the study area.

6.8.1.2 Description of Neighborhood Character

The study area, which encompasses a working waterfront, is characterized by large-scale, municipal facilities and water-dependent industrial uses on large lots. It contains no residential uses, although there are some midblock residential uses just beyond, west of Provost Street on the Brooklyn side. Consistent with a heavily industrial area, there are no sensitive visual resources or unique features, and the streets are generally not well suited to pedestrian activity.

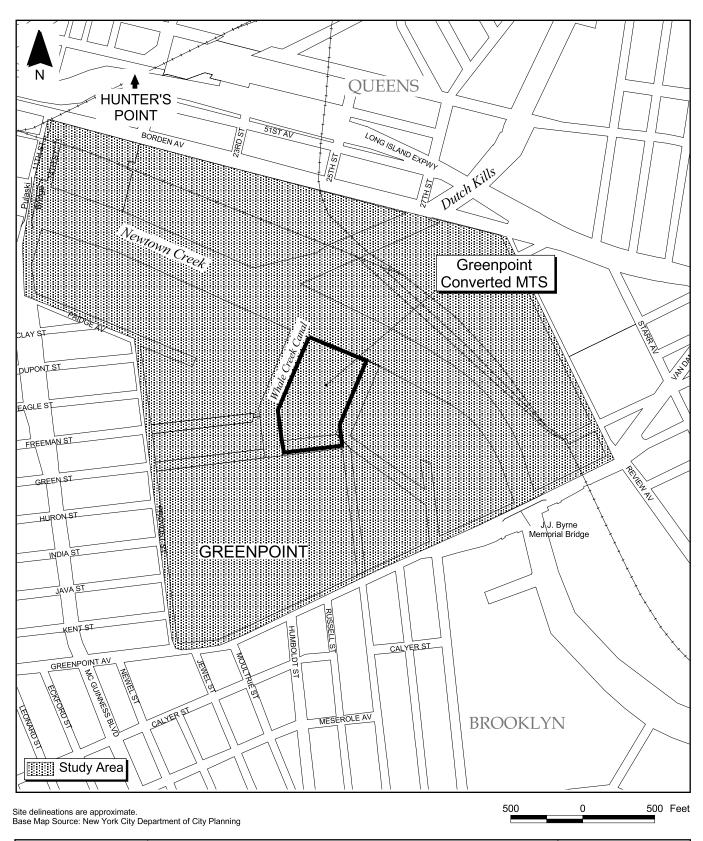




Figure 6.8-1 Neighborhood Location Greenpoint Converted MTS



The Newtown Creek WPCP to the south of the site comprises a large portion of the study area. In addition, there are fuel storage facilities along the waterfront and entire blocks under construction for the Newtown Creek WPCP expansion. Similarly, the northern portion of the study area in Queens, is comprised of industrial activities and related unbuilt spaces.

6.8.2 Future No-Build Conditions

The expansion of the Newtown Creek WPCP would contribute to the industrial character of the area and will change the street pattern in the immediate area. Designs for the WPCP expansion include a nature walk, a pool and park for children adjacent to it and the incorporation of public art installations along the perimeter of the WPCP site. However, there are no other known plans for development on the site or in the study area that would potentially lead to changes in neighborhood character. This portion of industrial waterfront would be more isolated in 2006 than currently by the expansive WPCP facility. The incinerator will be demolished, but the site will remain DSNY property and Future No-Build Conditions are otherwise expected to be the same as Existing Conditions.

6.8.3 Potential Impacts with the Greenpoint Converted MTS

No change to the industrial neighborhood character would be expected because the Greenpoint Converted MTS would be a reactivation of waste-handling operations on a site that, except for the demolition of the incinerator, would remain otherwise unchanged. Technical analyses predict no unmitigatible impacts associated with traffic, air, odor or noise would result. Moreover, the area will be more industrial and isolated, making it less likely that the site would be observable from much of its surroundings in the Neighborhood Character study area. Therefore, no impacts to neighborhood character are predicted.

6.9 Traffic and Transportation

6.9.1 Introduction

The Greenpoint Converted MTS would receive waste from DSNY and other agency collection vehicles. Therefore, pursuant to CEQR guidelines, a traffic analysis was performed on the projected net increase in collection vehicles in the study area (which is defined below) and on other site-generated traffic. (See Section 3.10 for a discussion of CEQR analysis thresholds.)

6.9.2 Existing Conditions

6.9.2.1 Definition of Study Area

The traffic analysis study area is broad and includes the Greenpoint and Long Island City neighborhoods of Brooklyn and Queens, respectively. It includes the corridor along Greenpoint Avenue that is bounded by McGuiness Boulevard on the west and the LIE on the east. The traffic study area is predominantly light industrial in nature. There are no CEQR defined areas of concern located within the study area. Figure 6.9-1 shows the locations of the intersections selected for analysis (locations A through D). Intersections analyzed were selected using the procedures defined in Section 3.10.2.

The analysis of collection vehicle routing to the site included highway access points more than ½-mile away in conjunction with local truck routes. Eastbound and westbound collection vehicles would approach the site along Greenpoint Avenue and turn northbound onto Kingsland Avenue. Northbound collection vehicles would approach from the south via Kingsland Avenue.

6.9.2.2 Surface Network

Two major highways, the predominantly east-west LIE and the predominantly north-south BQE, service the traffic analysis study area. Greenpoint Avenue is a local truck route that provides access from the east and west of the site. McGuiness Boulevard and Kingsland Avenue are local truck routes that provide access from south of the site. A map showing all major truck routes and local truck routes in Brooklyn is provided in Section 3.10.2.1 (Figure 3.10-3).

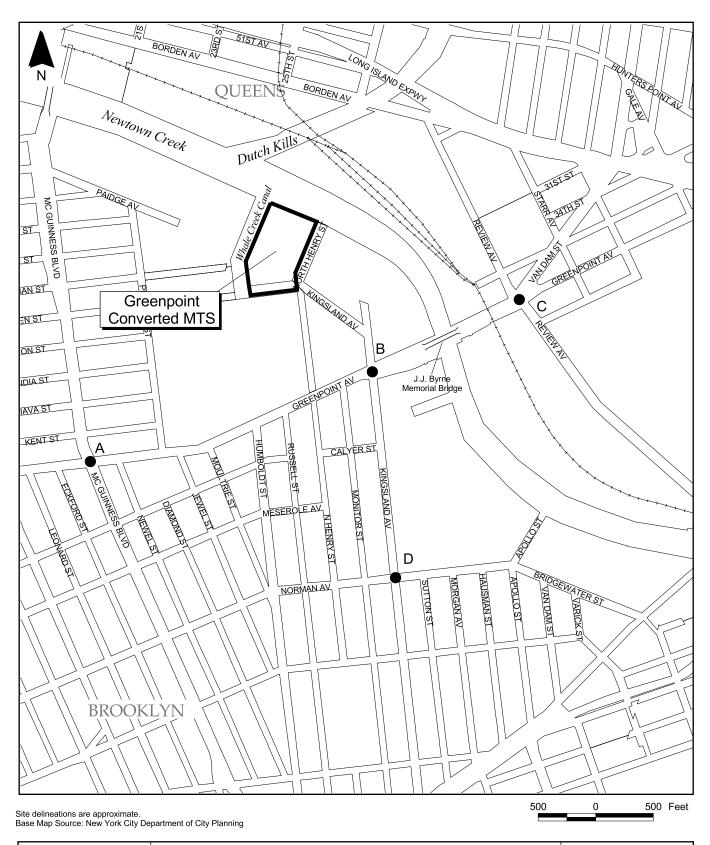




Figure 6.9-1 Traffic Analysis Study Area Greenpoint Converted MTS



6.9.2.3 Existing Traffic Operations

The four intersections listed below were identified for analysis because they are the most likely to be impacted by the Greenpoint Converted MTS. Diagrams of these intersections are included in Technical Backup submitted to NYCDOT.

- Greenpoint Avenue and McGuiness Boulevard Signalized Intersection (Figure 6.9-1 – location A);
- Greenpoint Avenue and Kingsland Avenue Signalized Intersection (Figure 6.9-1 – location B);
- Greenpoint Avenue and Review Avenue and Van Dam Street Signalized Intersection (Figure 6.9-1 – location C); and
- Norman Avenue and Kingsland Avenue Signalized Intersection (Figure 6.9-1 location D).

Greenpoint Avenue (and Van Dam Street in Queens) and McGuiness Boulevard are principal arterials that provide access to the LIE and BQE, respectively. Norman Avenue is a minor arterial that provides east-west access through the industrial areas of Greenpoint. Kingsland Avenue is a northbound collector road for local traffic and provides access for local and industrial traffic between the BQE (and points south) and Greenpoint Avenue. Review Avenue is a minor arterial that services the industrial areas north and adjacent to Newtown Creek in Queens.

A traffic data collection program that consisted of manual turning movement counts with vehicle classifications and ATR counts was undertaken to define existing weekday traffic operations (see Section 3.10.6 for a discussion on traffic data collection). Manual turning movement counts were conducted between February 4 and February 6, 2003, while ATR counts were conducted between February 3 and February 7, 2003. Figures 6.9-2, 6.9-3, and 6.9-4 depict the existing traffic volumes for AM, Facility, and PM peaks at the intersections analyzed. The AM peak generally occurred between 7:30 a.m. and 8:30 a.m., the Facility peak between 10:00 a.m. and 11:00 a.m., and the PM peak between 4:45 p.m. and 5:45 p.m. Table 6.9-1 presents the v/c ratio, delay, and LOS for the four intersections during the AM, Facility, and PM peaks.

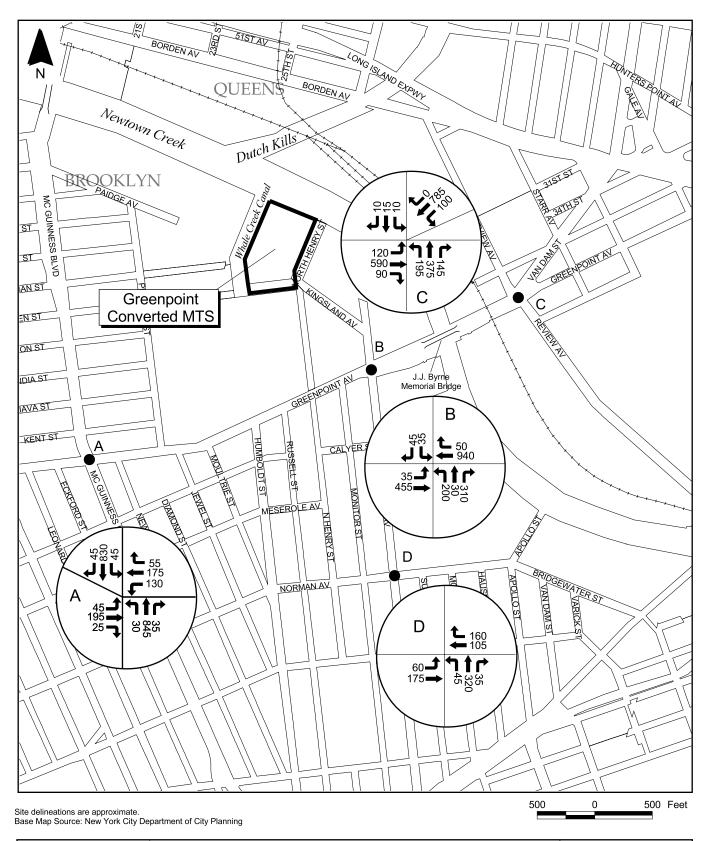
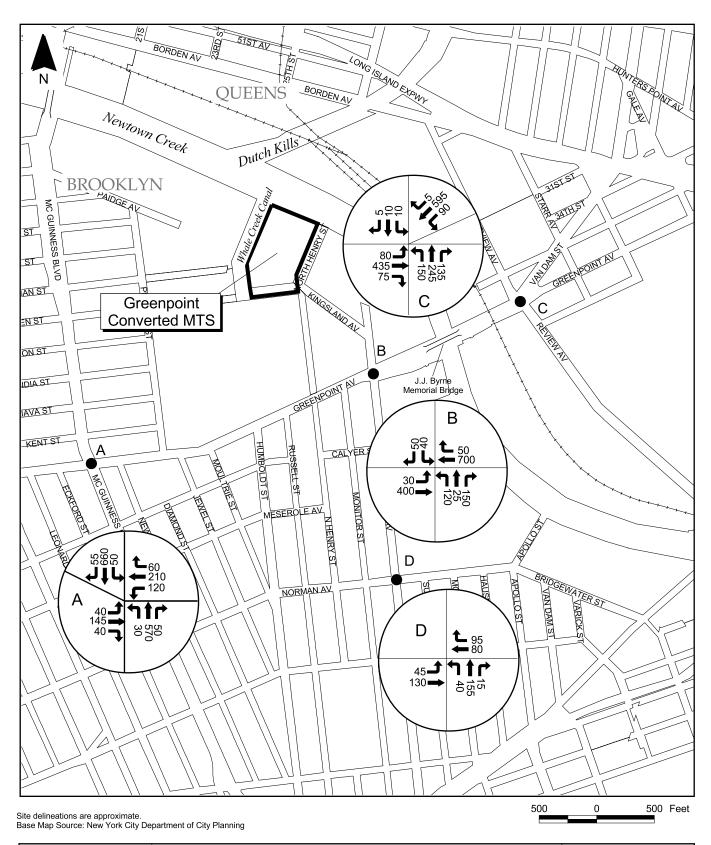




Figure 6.9-2 Existing Traffic Volumes - AM Peak
Greenpoint Converted MTS

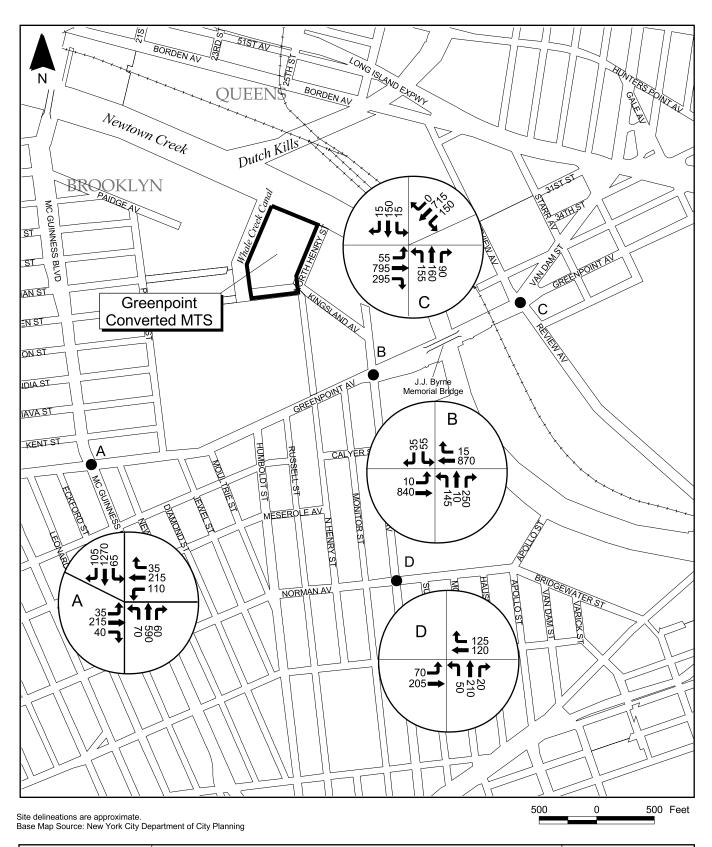




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Figure 6.9-3 Existing Traffic Volumes Facility Peak Greenpoint Converted MTS





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Figure 6.9-4 Existing Traffic Volumes - PM Peak
Greenpoint Converted MTS



Table 6.9-1 HCM Analysis⁽¹⁾ – Existing Conditions Greenpoint Converted MTS

	AM Peak Hour (7:30 a.m. – 8:30 a.m.)		Facility Peak Hour (9:30 a.m. – 10:30 a.m.)			PM Peak Hour (4:45 p.m. – 5:45 p.m.)			
Intersection &	V/C	Delay	·	V/C	Delay		V/C	Delay	
Lane Group	Ratio	(sec/veh)	LOS	Ratio	(sec/veh)	LOS	Ratio	(sec/veh)	LOS
Greenpoint Avenue & McGuinness Boulevard (signalized)									
EB LTR	0.73	50.6	D	0.69	48.4	D	0.77	52.2	D
WB LTR	0.78	46.5	D	1.04	86.9	F	1.04	87.4	F
NB L	0.15	3.8	A	0.10	3.3	A	0.53	16.1	В
NB TR	0.49	4.7	A	0.40	4.1	A	0.39	4.1	A
SB L	0.18	4.2	A	0.16	3.8	A	0.21	4.3	A
SB TR	0.51	4.8	A	0.41	4.2	A	0.80	9.3	A
OVERALL		16.0	В		25.1	C		23.4	C
Norman Avenue	Norman Avenue & Kingsland Avenue (signalized)								
EB L	0.52	16.3	В	0.38	13.7	В	0.67	20.6	C
WB TR	0.60	18.4	В	0.41	14.2	В	0.50	15.2	В
SB LTR	0.50	14.1	В	0.29	11.8	В	0.33	12.2	В
OVERALL		15.9	В		13.1	В		16.1	В
Greenpoint Aven	ue & King	sland Avenu	e (signali	ized)					
EB LT	0.41	6.9	A	0.39	6.8	A	0.64	9.3	A
WB TR	0.68	9.4	A	0.55	7.9	A	0.62	8.6	A
NB LTR	0.71	22.4	C	0.48	17.8	В	0.54	18.8	В
SB L	0.33	21.7	C	0.23	17.4	В	0.55	28.5	C
SB R	0.19	15.7	В	0.24	16.6	В	0.16	15.3	В
OVERALL		12.5	В		10.2	В		11.6	В
Greenpoint Avenue & Van Dam Street / Review Avenue (signalized)									
EB LTR	0.98	36.9	D	0.67	12.8	В	0.97	29.7	C
WB LTR	0.88	20.6	C	0.71	13.5	В	1.05	57.5	E
NB LTR	0.76	21.5	C	0.63	18.4	В	0.44	15.2	В
SB LTR	0.08	12.1	В	0.07	12.1	В	0.34	14.4	В
OVERALL		26.2	C		14.6	В		35.1	D

Notes:

(I) HCM output is included in technical backup submitted to the NYCDOT.

NB = northbound

SB = southbound

EB = eastbound

WB = westbound

Existing truck traffic through most of the intersections was relatively high. The percentages of trucks increases steadily during the morning hours, remaining at between 20 percent and 25 percent during mid-day hours, then decreases to 12 percent or lower during the PM peak hours.

6.9.2.3.1 LOS at Signalized Intersections

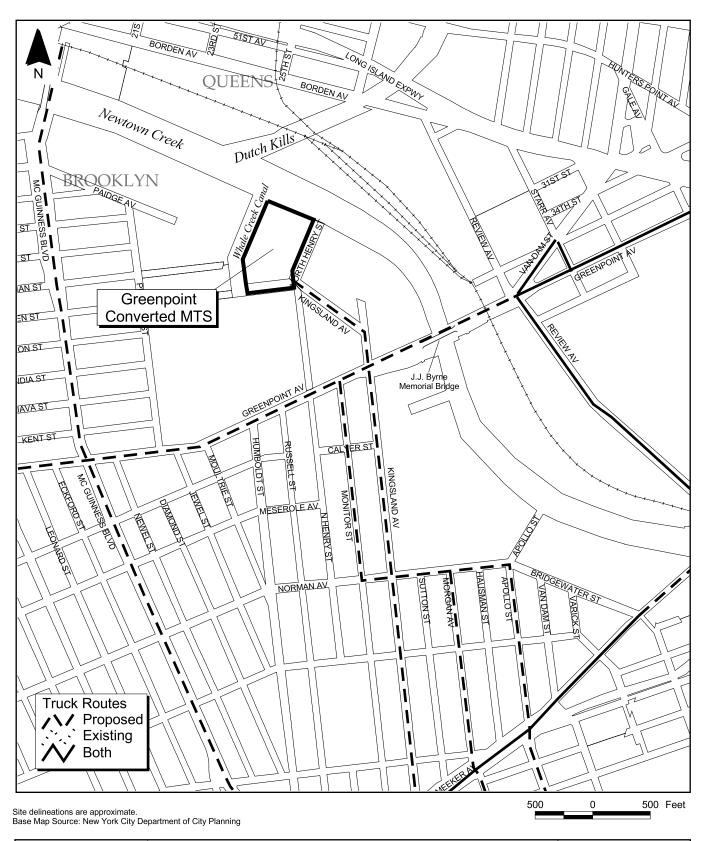
Table 6.9-1 shows that the signalized intersections generally operated at an overall LOS of B or C with the following exceptions. The lane group with the least favorable LOS was the westbound approach at the intersection of Greenpoint Avenue and McGuiness Boulevard. During both the Facility and PM peak hours, this approach operated at LOS F with delays of 86.9 and 87.4 seconds, respectively. During the PM peak hour, the westbound approach at the intersection of Greenpoint Avenue and Review Avenue and Van Dam Street operated at LOS E with 57.5 seconds of delay. Several other lane groups at various intersections operated at LOS D during various peak hours.

6.9.2.3.2 LOS at Unsignalized Intersections

No unsignalized intersections were analyzed.

6.9.2.4 Existing DSNY-Related Traffic

The privately-owned Waste Management-Review transfer facility, located on Review Avenue between Greenpoint Avenue and Laurel Hill Boulevard in the nearby West Maspeth section of Queens, accepts waste from Queens Community Districts 2, 3, 4, 5, 6, and 14. The existing DSNY-related traffic in the vicinity of the Greenpoint Converted MTS is generated by the Review Avenue facility. Within the study area, DSNY-related traffic is primarily routed along Greenpoint Avenue, Review Avenue, and Van Dam Street. The existing routes to the commercial vendors are presented in Figure 6.9-5.



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Figure 6.9-5 Existing and Proposed Sanitation Truck Routes Greenpoint Converted MTS



6.9.2.5 Public Transportation

Subway and bus service are provided within the vicinity of the site. The "Greenpoint Avenue" stop on MTA's "G" subway line is located approximately 1-mile southwest of the site at the Greenpoint Avenue/Manhattan Avenue intersection. The MTA operates one bus line, B24, along Greenpoint Avenue. Bus stops are located at the Greenpoint Avenue/McGuiness Boulevard and Greenpoint Avenue/Review Avenue/Van Dam Street intersections and scheduled stops occur at various times during the day.

6.9.2.6 Pedestrian Activity

Pedestrian activity is generally low within the study area. Striped crosswalks and pedestrian signals are provided at all signalized study intersections. During several field visits, pedestrian activity was minimal and it is not expected to affect the capacity analysis significantly.

6.9.3 Future No-Build Conditions

6.9.3.1 Traffic Conditions

Future No-Build traffic volumes were determined by applying a growth rate of 1% per year to existing traffic volumes in accordance with the 2001 CEQR Technical Manual. Additional traffic generated in the Future No-Build year (2006) generally amounted to less than 100 vehicles per intersection. There are no new developments planned in the study area that would affect Future No-Build traffic volumes in the study area.

Figures 6.9-6, 6.9-7 and 6.9-8 depict the Future No-Build traffic volumes for AM, Facility, and PM peaks at the intersections analyzed. Table 6.9-2 (Future No-Build Conditions) shows the Future No-Build v/c ratio, delay and LOS for the studied intersections. Overall, signalized intersections experienced relatively small increases in delay (less than 5 seconds) and are projected to remain at their Existing Condition LOS, with the following exceptions:

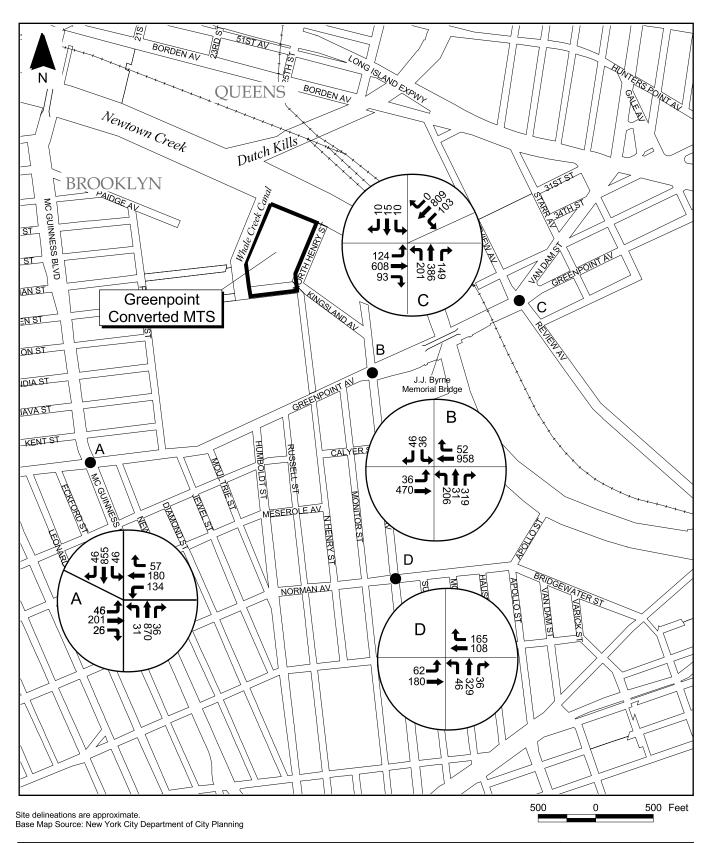
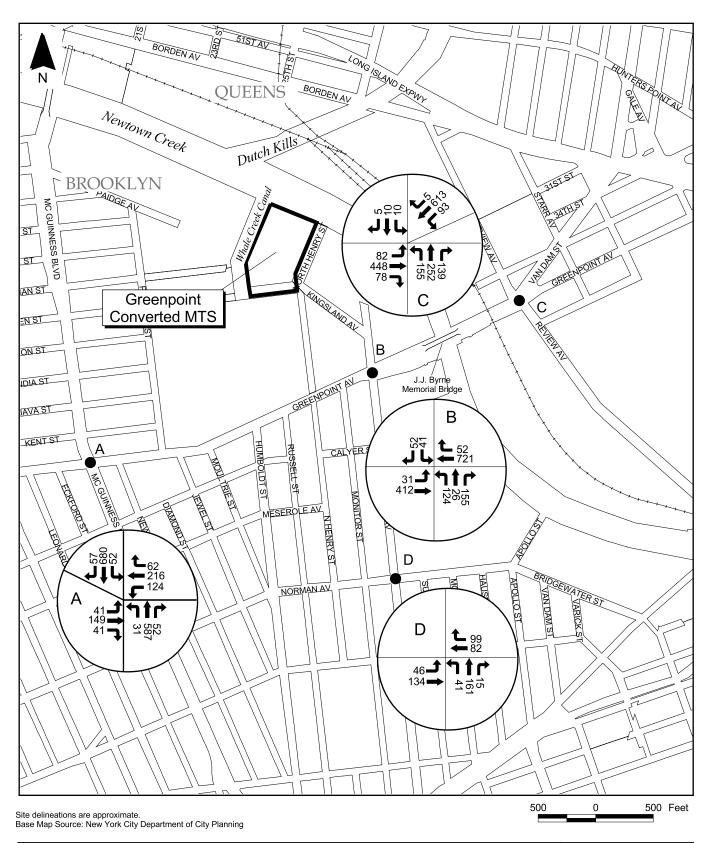




Figure 6.9-6 Future No-Build Traffic Volumes AM Peak Greenpoint Converted MTS





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Figure 6.9-7 Future No-Build Traffic Volumes Facility Peak Greenpoint Converted MTS



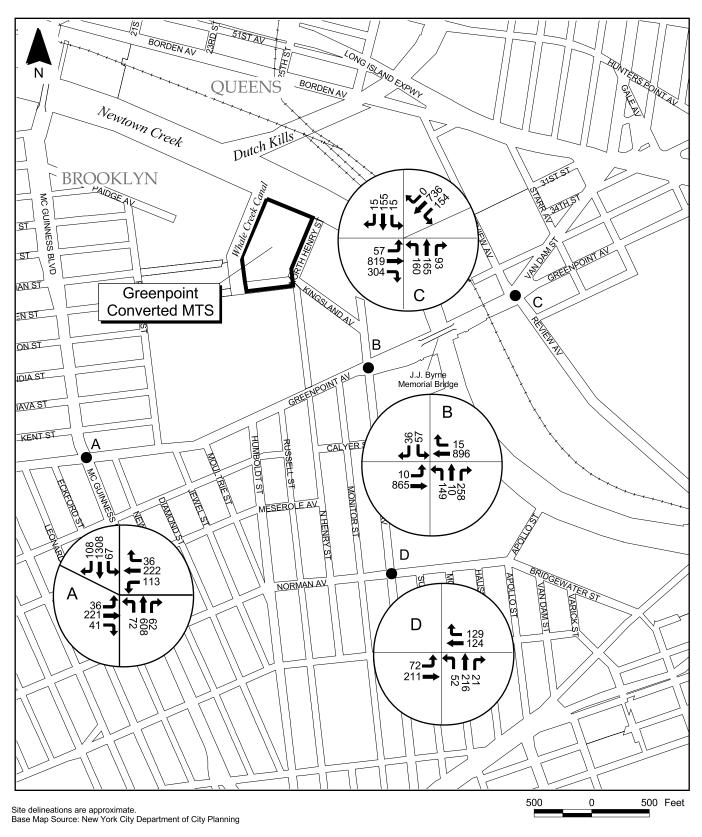




Figure 6.9-8 Future No-Build Traffic Volumes PM Peak Greenpoint Converted MTS



Table 6.9-2 HCM Analysis⁽¹⁾ – Future No-Build Conditions **Greenpoint Converted MTS**

	AM Peak Hour		Facility Peak Hour			PM Peak Hour			
Turkamanatian 0	(7:30 a.m. – 8:30 a.m.)		(9:30 a.m. – 10:30 a.m.)			(4:45 p.m. – 5:45 p.m.)			
Intersection &	V/C	Delay	T 0.0	V/C	Delay	T 00	V/C	Delay	T 00
Lane Group	Ratio	(sec/veh)	LOS	Ratio	(sec/veh)	LOS	Ratio	(sec/veh)	LOS
Greenpoint Avenue & McGuinness Boulevard (signalized)									
EB LTR	0.77	53.5	D	0.72	49.9	D	0.80	54.5	D
WB LTR	0.81	48.3	D	1.08	99.8	F	1.08	100.0	F
NB L	0.16	4.0	A	0.11	3.4	A	0.59	20.1	C
NB TR	0.51	4.8	A	0.42	4.2	A	0.41	4.2	A
SB L	0.19	4.4	A	0.17	3.9	A	0.23	4.4	A
SB TR	0.52	4.9	A	0.43	4.3	A	0.83	10.1	В
OVERALL		16.8	В		27.7	C		25.8	C
Norman Avenue	& Kingsla	and Avenue (s	ignalized	l)					
EB L	0.54	16.8	В	0.40	13.9	В	0.70	21.9	C
WB TR	0.62	18.9	В	0.42	14.5	В	0.51	15.6	В
SB LTR	0.51	14.3	В	0.30	11.9	В	0.34	12.3	В
OVERALL		16.3	В		13.3	В		16.7	В
Greenpoint Aven	ue & Kin	gsland Avenu	e (signali	zed)					
EB LT	0.43	7.0	A	0.41	6.9	A	0.66	9.6	A
WB TR	0.70	9.8	A	0.57	8.1	A	0.63	8.9	A
NB LTR	0.73	23.0	C	0.49	18.0	В	0.56	19.1	В
SB L	0.35	22.6	C	0.24	17.7	В	0.58	30.5	C
SB R	0.20	15.8	В	0.25	16.7	В	0.16	15.4	В
OVERALL		12.9	В		10.4	В		11.9	В
Greenpoint Aver	Greenpoint Avenue & Van Dam Street / Review Avenue (signalized)								
EB LTR	1.04	51.2	D	0.70	13.4	В	1.00	37.4	D
WB LTR	0.92	25.0	C	0.74	14.4	В	1.11	75.6	Е
NB LTR	0.78	22.4	C	0.65	18.8	В	0.46	15.4	В
SB LTR	0.08	12.1	В	0.07	12.1	В	0.35	14.5	В
OVERALL		32.9	C		15.3	В		44.3	D

 $\begin{tabular}{ll} \hline Notes: \\ \hline \hline $^{(1)}$ HCM output is included in technical backup submitted to the NYCDOT. \\ \hline \end{tabular}$

LTR = left, through and right movements

NB = northboundSB = south bound

EB = eastboundWB = westbound

- During the AM peak hour, the delay of the eastbound approach at the intersection of Greenpoint Avenue and Review Avenue and Van Dam Street increased from 36.9 to 51.2 seconds (LOS D in both cases).
- During the Facility peak hour, the delay of the westbound approach at the intersection of Greenpoint Avenue and McGuiness Boulevard increased from 86.9 to 99.8 seconds (LOS F in both cases).
- During the PM peak hour, the delay of the westbound approach at the intersection of Greenpoint Avenue and McGuiness Boulevard increased from 87.4 to 100.0 seconds (LOS F in both cases). Also during this period, both the eastbound (29.7 to 37.4 seconds) and westbound (57.5 to 75.6 seconds) approaches at the Greenpoint Avenue and Review Avenue and Van Dam Street intersection experienced an increase in delay.

6.9.3.2 Public Transportation

Future No-Build Conditions are expected to remain the same as Existing Conditions.

6.9.3.3 Pedestrian Activity

Future No-Build Conditions are expected to remain the same as Existing Conditions.

6.9.4 Potential Impacts with the Greenpoint Converted MTS

The Greenpoint Converted MTS would receive waste from Brooklyn (Districts 1, 3, 4, 5, and the Auxiliary Field Force), Queens (Districts 1, 2, 3, 4, 5, and 6), and Manhattan (Auxiliary Field Force). Potential traffic impacts may result from the increase in DSNY and other agency collection vehicle trips to and from the site during all peak hours. Additionally, employee trips to and from the site may result in traffic impacts during the AM peak hour.

6.9.4.1 2006 Future Build Traffic Conditions

2006 Future Build Conditions assume that the Greenpoint Converted MTS would generate 846 net inbound collection vehicles per average peak day. As per NYCDOT Title 34, truck trips to and from the site are restricted to travel along local truck routes directly to the site or the intersection closest to the site if the streets adjacent to the site are not designated truck routes.

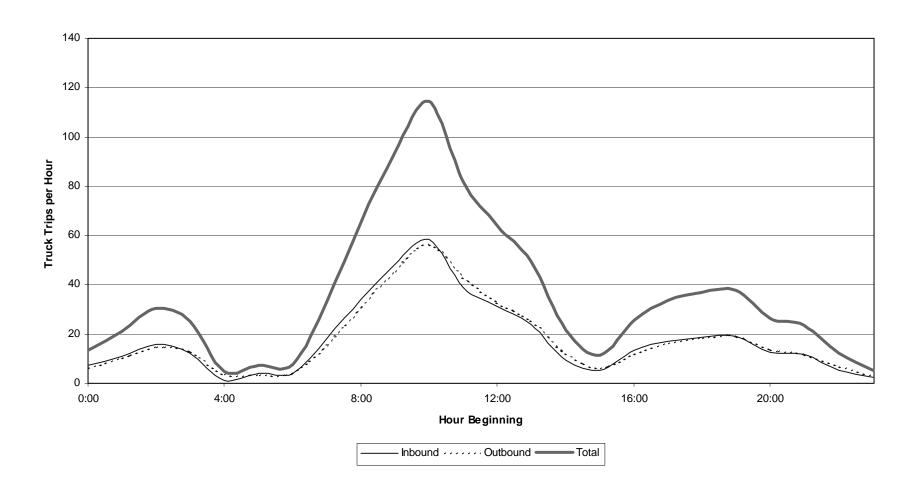
The proposed collection vehicle truck routes for the Greenpoint Converted MTS are shown in Figure 6.9-5.

Figure 6.9-9 presents the average peak day temporal distribution of collection vehicles for the Greenpoint Converted MTS. Section 3.10.3.1 provides a detailed explanation of DSNY collection and delivery operational shifts (priority, non-priority, and relay). As shown, the number of collection vehicles generated by the Greenpoint Converted MTS is expected to vary between approximately 5 to 30 truck trips per hour in the late evening/early morning, 10 to 118 truck trips per hour in the mid-morning/early afternoon, and 10 to 40 truck trips per hour in the late afternoon/early evening. The peak hourly number of collection vehicle truck trips (118) occurs at approximately 10:00 a.m.

Employee trips generated as a result of the Greenpoint Converted MTS are expected to be about 44 per shift (22 coming in and 22 leaving). Employee shifts are projected to run from 8:00 a.m. to 4:00 p.m., 4:00 p.m. to 12:00 a.m., and 12:00 a.m. to 8:00 a.m. Therefore, during shift changes employees would arrive about ½ hour before the start of a shift and leave about ½ hour after the end of a shift. With these projections, employee trips are expected between 7:30 a.m. and 8:30 a.m., 3:30 p.m. and 4:30 p.m., and 11:30 p.m. and 12:30 a.m.

Because only the AM peak (7:30 a.m. to 8:30 a.m.) coincided with a projected employee shift change (7:30 a.m. to 8:30 a.m.), employee trips both to and from the Greenpoint Converted MTS during the shift change (44) were considered as part of the net increase in site-generated traffic. Figures 6.9-10, 6.9-11, and 6.9-12 show the intersections analyzed with the net increase in site-generated traffic added to the Future No-Build traffic levels. Figures 6.9-13, 6.9-14, and 6.9-15 show the intersections analyzed with only the net increase in site generated traffic. Traffic volumes indicated by a dash (-) are the result of changing the disposal location from the existing commercial vendor facilities to the Greenpoint Converted MTS. These projected net increases were routed through the intersections for each of the three peak hours. The highest net increase in trucks in the ingress or egress direction was 60. The highest net increase at any one intersection was 118 trucks. Both of these net increases occurred at the intersection of Greenpoint and Kingsland Avenues.

Figure 6.9-9
Truck Trips Per Hour
Greenpoint Converted MTS



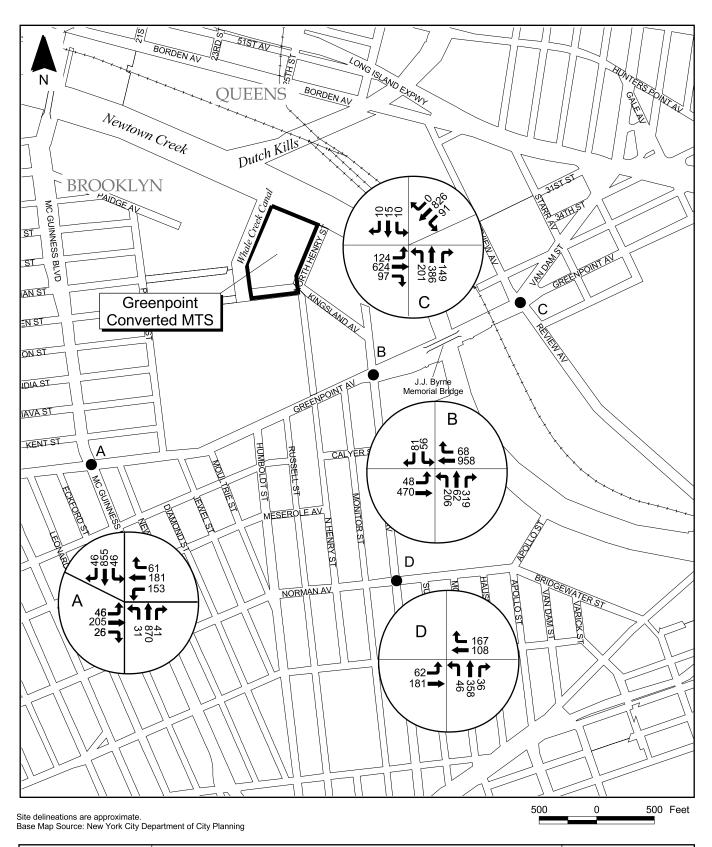




Figure 6.9-10 2006 Build Traffic Volumes AM Peak

Greenpoint Converted MTS



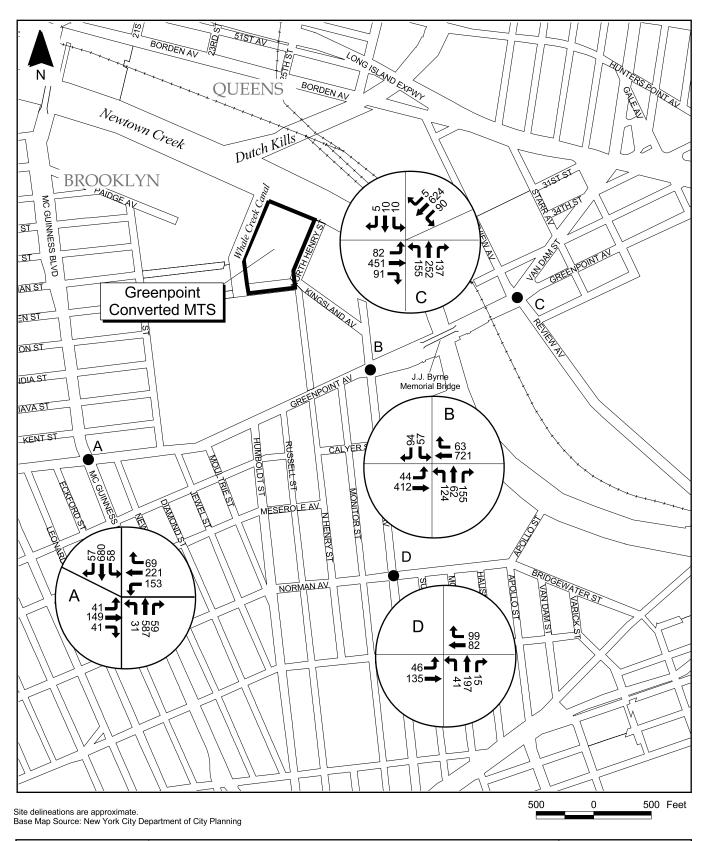
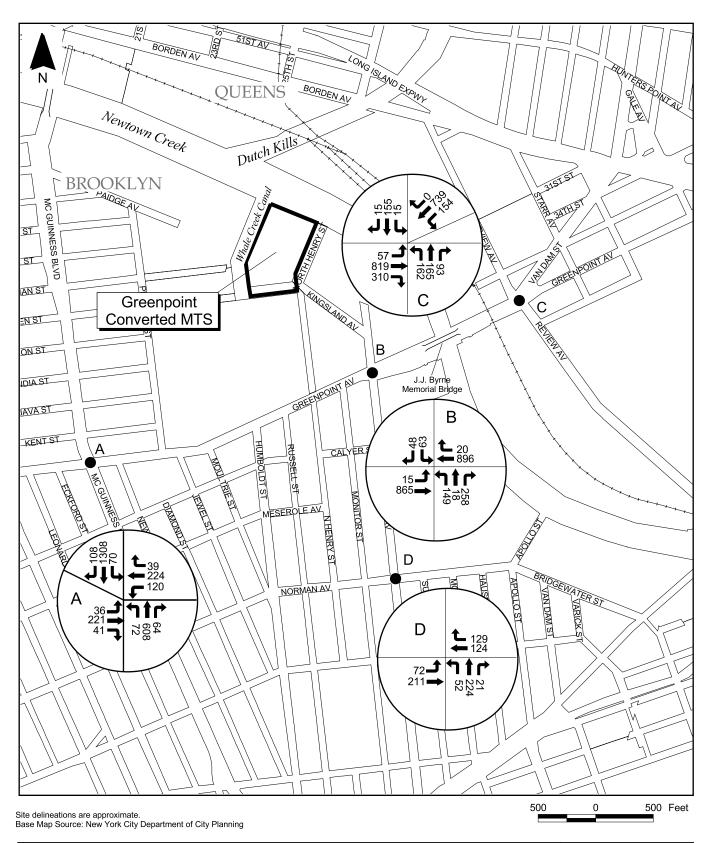




Figure 6.9-11 2006 Build Traffic Volumes Facility Peak Greenpoint Converted MTS





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Figure 6.9-12 2006 Build Traffic Volumes PM Peak Greenpoint Converted MTS



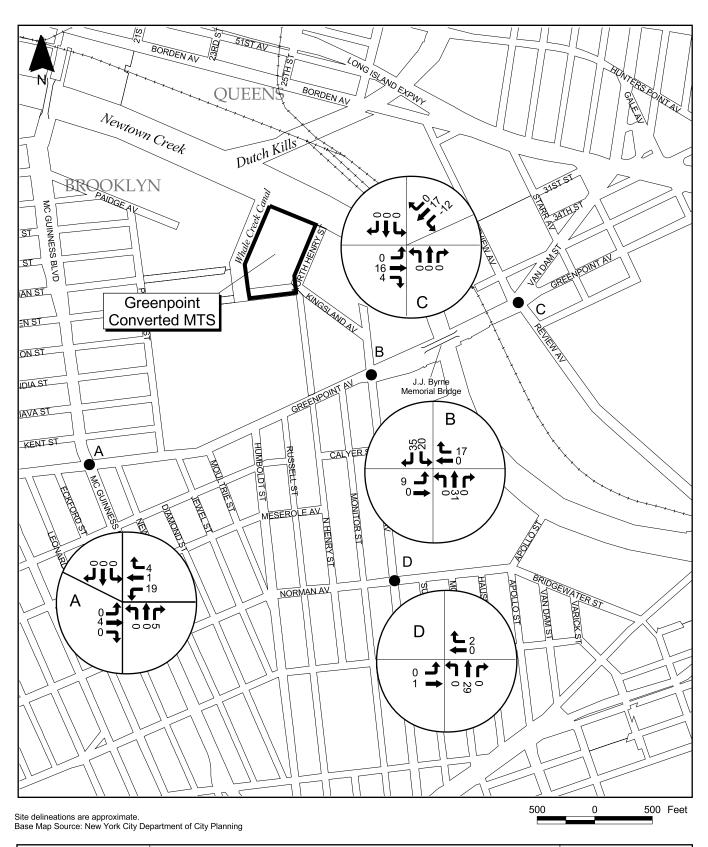
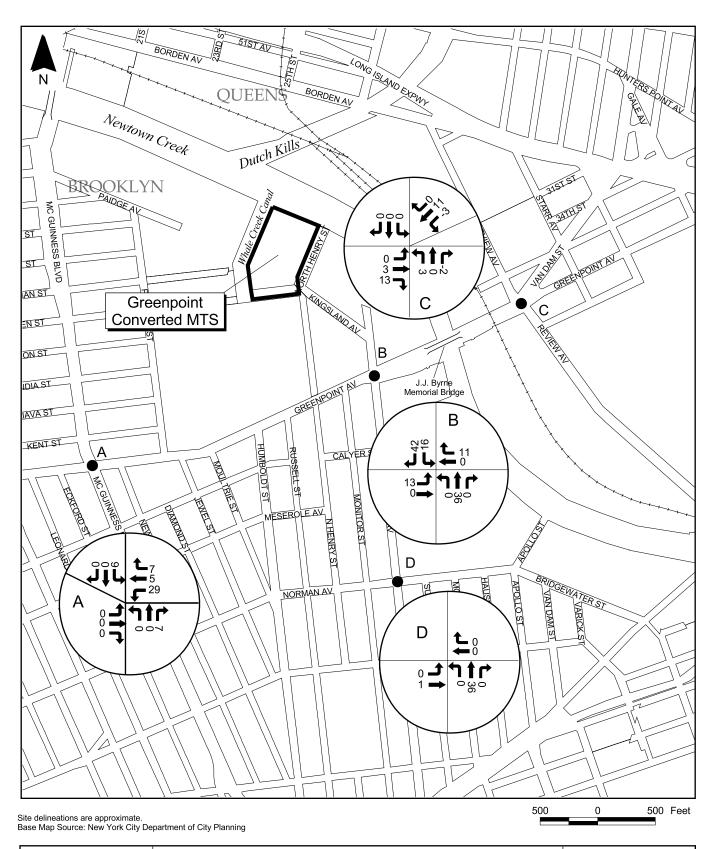




Figure 6.9-13 2006 Net Traffic - AM Peak Greenpoint Converted MTS

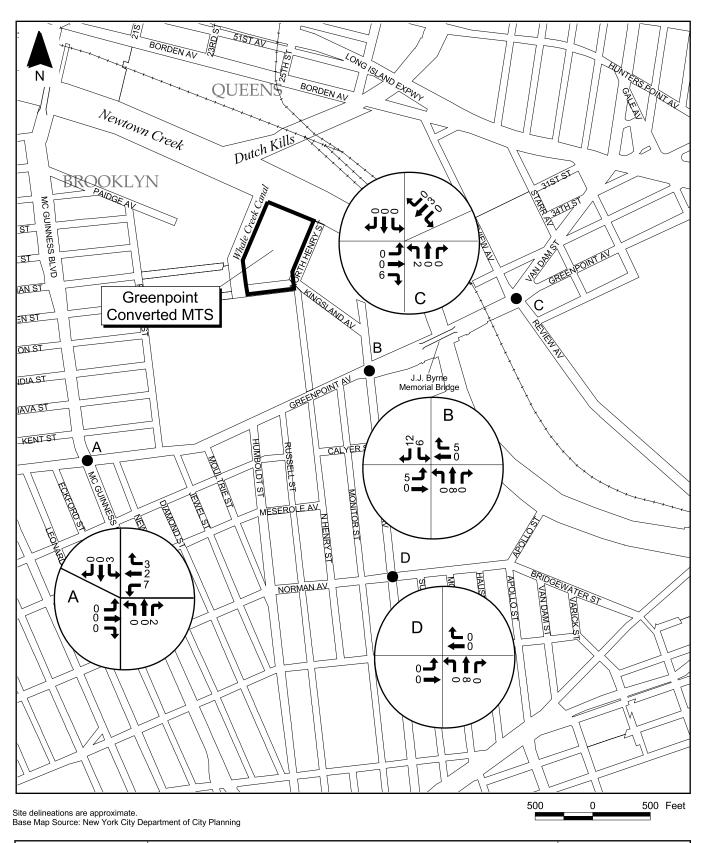




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Figure 6.9-14 2006 Net Traffic - Facility Peak Greenpoint Converted MTS





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Figure 6.9-15 2006 Net Traffic - PM Peak Greenpoint Converted MTS



The need for Saturday analysis was considered. However, a traffic analysis was not performed on the projected net increases on Saturday truck trips because the total net increase in collection vehicles delivering waste on Saturdays would be approximately 75 percent of the inbound loads delivered during a typical average peak day. Additionally, traffic data indicated that the weekend background traffic volumes were approximately 55 percent of weekday traffic volumes. Table 6.9-3 illustrates the decrease in weekday background traffic and the decrease in DSNY and other agency collection vehicle traffic on the weekend. No analysis was performed for Sunday because the Greenpoint Converted MTS would not operate on Sundays. It was, therefore, judged that peak weekday analysis would represent the worst overall case conditions

Table 6.9-3 Weekday and Weekend Traffic Greenpoint Converted MTS

	Other Agency ehicle Traffic	Background Traffic EB and WB on Greenpoint Avenue (1)			
Average Peak Day Saturday Trucks/		Weekday average	Weekend average		
Trucks/ Day Day		vehicles/Day	vehicles/Day		
422 318		29,296	16,171		

Note:

Table 6.9-4 shows the 2006 Future Build v/c ratio, delay time and LOS for the intersections analyzed during the AM, Facility, and PM peak times associated with the Greenpoint Converted MTS. Over an average peak day, the intersections should not experience an extended increase in delay. The three intersections that may experience potentially significant impacts are discussed in Section 6.9.4.2 and summarized in Table 6.9-5.

6.9.4.2 Impacts and Mitigation

Three of the four intersections may experience impacts great enough to be considered significant during one of the peak times analyzed; however, 2001 CEQR Technical Manual Guideline requires mitigation for significant impacts regardless of the duration, as discussed in Section 3.10.1. The potential impacts identified and the mitigation measures analyzed are presented below; their effectiveness is summarized in Table 6.9-5.

EB and WB traffic data collected from ATR counts taken on Greenpoint Avenue between Kingsland Avenue and Monitor Street from September 11 to 17, 2003.

Table 6.9-4 HCM Analysis – Future Build Conditions Greenpoint Converted MTS

	AM Peak Hour			ility Peak Ho		PM Peak Hour			
T	(7:30 a.m. – 8:30 a.m.)		(9:30 a.m. – 10:30 a.m.)		(4:45 p.m. – 5:45 p.m.)		o.m.)		
Intersection &	V/C	Delay		V/C	Delay		V/C	Delay	
Lane Group	Ratio	(sec/veh)	LOS	Ratio	(sec/veh)	LOS	Ratio	(sec/veh)	LOS
Greenpoint Avenue & McGuinness Boulevard (signalized)									
EB LTR	0.71	48.3	D	0.75	52.0	D	0.82	56.1	Е
WB DFL	0.84	60.8	E	-	-	-	-	-	-
WB TR	0.70	44.9	D	-	-	-	-	-	-
WB LTR	-	-	-	1.23	156.6	F	1.15	125.0	F
NB L	0.16	4.0	A	0.11	3.4	A	0.59	20.1	C
NB TR	0.51	4.8	A	0.42	4.3	A	0.41	4.2	A
SB L	0.22	4.7	A	0.21	4.3	A	0.24	4.6	A
SB TR	0.52	4.9	A	0.43	4.3	Α	0.83	10.1	В
OVERALL		16.9	В		40.6	D		29.8	C
Norman Avenue	& Kingsl	and Avenue (s	signalized	l)					
EB L	0.54	16.9	В	0.40	14.0	В	0.70	21.9	C
WB TR	0.63	19.2	В	0.42	14.5	В	0.51	15.6	В
SB LTR	0.56	15.0	В	0.37	12.6	В	0.36	12.5	В
OVERALL		16.5	В		13.4	В		16.7	В
Greenpoint Aven	ue & Kin	gsland Avenu	e (signali	ized)					
EB LT	0.47	7.5	A	0.48	7.7	A	0.69	10.0	В
WB TR	0.72	10.1	В	0.59	8.3	A	0.64	9.0	A
NB LTR	0.78	24.9	C	0.56	19.0	В	0.58	19.5	В
SB L	0.57	35.0	C	0.43	23.7	C	0.71	40.5	D
SB R	0.40	19.6	В	0.55	24.1	C	0.24	16.6	В
OVERALL		14.2	В		11.7	В		12.9	В
Greenpoint Aver	ue & Var	n Dam Street /	Review	Avenue (si	gnalized)		•		
EB LTR	1.07	60.3	Е	0.73	14.3	В	1.01	39.8	D
WB LTR	0.87	19.9	В	0.75	14.8	В	1.12	79.4	Е
NB LTR	0.78	22.4	C	0.65	18.7	В	0.46	15.4	В
SB LTR	0.08	12.1	В	0.07	12.1	В	0.35	14.5	В
OVERALL		34.6	C		15.8	В		46.5	D

Notes:
(1) HCM output is included in technical backup submitted to the NYCDOT.

DFL = defacto left

LTR = left, through and right movements

NB = northboundSB = south boundEB = eastboundWB = westbound

Table 6.9-5 HCM Analysis – Future Mitigated Conditions Greenpoint Converted MTS

	2006 Entrus No Build		2006 Entres Devild			2006 Future Build			
Intersection &	2006 Future No-Build			2006 Future Build V/C Delay			after Mitigation V/C Delay		
Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Ratio	Delay (sec/veh)	LOS	Ratio	Delay (sec/veh)	LOS
						LUS	Kauo	(sec/veii)	LUS
Greenpoint Aver			`	0 /			0.50	20.0	Ъ
EB LTR	0.77	53.5	D	0.71	48.3	D	0.59	39.8	D
WB DFL	-	-	-	0.84	60.8	E	0.78	50.7	D
WB TR	- 0.01	40.2	- D	0.70	44.9	D	0.60	38.1	D
WB LTR	0.81	48.3	D	0.16	-	-	0.17	-	_
NB L	0.16	4.0	A	0.16	4.0	A	0.17	6.3	A
NB TR	0.51	4.8	A	0.51	4.8	A	0.55	7.7	A
SB L	0.19	4.4	A	0.22	4.7	A	0.24	7.7	A
SB TR	0.52	4.9	A	0.52	4.9	A	0.56	7.9	A
OVERALL	2.7.	16.8	В		16.9	В		16.6	В
Greenpoint Aven			1					T 2	
EB LTR	0.72	49.9	D	0.75	52.0	D	0.62	41.2	D
WB LTR	1.08	99.8	F	1.23	156.6	F	1.09	99.2	F
NB L	0.11	3.4	A	0.11	3.4	A	0.12	5.4	A
NB TR	0.42	4.2	A	0.42	4.3	A	0.45	6.9	A
SB L	0.17	3.9	A	0.21	4.3	A	0.22	6.6	A
SB TR	0.43	4.3	A	0.43	4.3	A	0.45	6.9	A
OVERALL		27.7	C		40.6	D		27.9	С
Greenpoint Aver	nue & Mc	Guinness Bou	levard (s	ignalized)	– PM Peak				
EB LTR	0.80	54.5	D	0.82	56.1	Е	0.75	49.0	D
WB LTR	1.08	100.0	F	1.15	125.0	F	1.07	94.8	F
NB L	0.59	20.1	С	0.59	20.1	С	0.63	25.3	С
NB TR	0.41	4.2	A	0.41	4.2	A	0.42	5.1	A
SB L	0.23	4.4	A	0.24	4.6	Α	0.25	5.6	A
SB TR	0.83	10.1	В	0.83	10.1	В	0.85	12.4	В
OVERALL		25.8	С		29.8	С		26.3	С
Greenpoint Aven	ue & Kir			ized) – PM				1	•
EB LT	0.66	9.6	À	0.69	10.0	В	0.71	11.2	В
WB TR	0.63	8.9	A	0.64	9.0	A	0.66	10.1	В
NB LTR	0.56	19.1	В	0.58	19.5	В	0.55	18.2	В
SB L	0.58	30.5	C	0.71	40.5	D	0.67	35.2	D
SB R	0.16	15.4	В	0.24	16.6	В	0.23	15.6	В
OVERALL		11.9	В		12.9	В		13.2	В
Greenpoint Aver	ue & Va	n Dam Street	Review	Avenue (si		M Peak		•	•
EB LTR	1.04	51.2	D	1.07	60.3	Е	1.02	43.7	D
WB LTR	0.92	25.0	C	0.87	19.9	В	0.84	16.7	В
NB LTR	0.78	22.4	C	0.78	22.4	С	0.82	24.9	C
SB LTR	0.08	12.1	В	0.08	12.1	В	0.09	12.8	В
OVERALL		32.9	C		34.6	C		28.3	C
No.4aa	L			<u> </u>			1		

Notes:

(1) HCM output is included in technical backup submitted to the NYCDOT.

LTR = left, through and right movements

NB = northboundSB = southboundEB = eastboundWB = westbound

Greenpoint Avenue/McGuiness Boulevard – During the AM peak hour, a potential impact was identified on the westbound approach when the increase in delay created a defacto left movement operating at LOS E with a delay of 67.6 seconds. During the Facility peak hour, the same (westbound) approach is expected to experience an increase in delay from 99.8 seconds to 185.3 seconds (LOS F in both cases). During the PM peak hour, the delay of the westbound approach is expected to increase from 100.0 seconds to 126.0 seconds (LOS F in both cases). During both the AM and Facility peak hours, an increase in green time of five seconds for the eastbound and westbound approaches should eliminate this unacceptable increase in delay.

This mitigation measure would detract five seconds from the northbound and southbound approach green time, but would improve the LOS for the westbound approach to below Future No-Build Condition levels with minimal increases to the delay of the northbound and southbound approaches. During the PM peak hour, an increase in green time of two seconds for the eastbound and westbound approaches should eliminate this unacceptable increase in delay. This mitigation measure would detract two seconds from the northbound and southbound approach green time, but would improve the LOS for the westbound approach (again) to below Future No-Build Condition levels with minimal increases to the delay of the northbound and southbound approaches.

<u>Greenpoint Avenue/Kingsland Avenue</u> – During the PM peak hour, a potential impact was identified on the southbound left movement when the delay increased from 30.5 seconds to 40.5 seconds (LOS C to LOS D).

An increase in green time of one second for the northbound and southbound approaches should eliminate this unacceptable increase in delay. This mitigation measure would detract one second of green time from the eastbound and westbound approaches, but would reduce the delay for the southbound left movement from 40.5 seconds to 35.2 seconds. The delay of both the northbound and southbound (right) approaches would decrease by approximately one second. The eastbound and westbound approach delays would increase by approximately one second. This mitigation should not generate any adverse impacts on other lane groups during other time periods.

6-68

<u>Greenpoint Avenue/Review Avenue/Van Dam Street</u> – During the AM peak hour, a potential impact was identified on the eastbound approach when the delay increased from 51.2 seconds to 60.3 seconds (LOS D to LOS E).

An increase in green time of one second for the eastbound and westbound approaches should eliminate this unacceptable increase in delay. This mitigation measure would detract one second of green time from the northbound and southbound approaches, but would reduce the delay for the eastbound approach from 60.3 seconds to 43.4 seconds. The delay of the westbound approach would decrease by 3.5 seconds. The eastbound and westbound approach delays would increase by 2.5 seconds and 0.7 seconds, respectively. This mitigation should not generate any adverse impacts on other lane groups during other time periods.

Overall, the mitigation measures suggested would greatly enhance the intersection performance by reducing the delays to LOSs similar to those under the Future No-Build Condition.

6.9.4.3 Public Transportation

Future Build Conditions are expected to remain the same as Future No-Build Conditions.

6.9.4.4 Pedestrian Activity

Future Build Conditions are expected to remain the same as Future No-Build Conditions.

6.10 Air Quality

6.10.1 Definition of the Study Areas

The study area for the on-site air quality analysis for criteria pollutants (except $PM_{2.5}$) is defined as the area within 500 meters (0.3 miles) of the property line in all directions. The study area for the on-site analysis for $PM_{2.5}$ is defined as the area within 500 meters from the highest impact location of the Greenpoint Converted MTS. The study area for the off-site air quality analysis is defined as the area or intersection listed in Section 6.10.4.2.

6.10.2 Existing Conditions

Applicable air quality data collected at the monitoring station(s) nearest to the study area are shown in Table 6.10.1. These data were compiled by NYSDEC for 2002, the latest calendar year for which applicable data are currently available. The monitored levels do not exceed national and state ambient air quality standards.

Table 6.10.1
Representative Ambient Air Quality Data (2001)
Greenpoint Converted MTS

Pollutant	Monitor	Averaging Time	Value	NAAQS	
СО	Brooklyn	8-Hour	$2,635 \mu g/m^3$	$10,000 \mu g/m^3$	
CO	Diookiyii	1-Hour	$3,321 \mu g/m^3$	$40,000 \ \mu g/m^3$	
NO_2	College Point Post Office	Annual	56 μg/m ³	100 μg/m ³	
	Greenpoint	Annual	$23 \mu g/m^3$	$50 \mu g/m^3$	
PM_{10}	Greenpoint	24-Hour	$57 \mu g/m^3$	$150 \mu \text{g/m}^3$	
		3-Hour	$189 \mu g/m^3$	$1,300 \ \mu g/m^3$	
SO_2	Greenpoint	24-Hour	$87 \mu g/m^3$	$365 \mu g/m^3$	
		Annual	$21 \mu g/m^3$	$80 \mu g/m^3$	

Note:

Values are the highest pollutant levels recorded during the 2001 calendar year.

Source: U.S. EPA Airdata Database.

6.10.3 Future No-Build Conditions

The primarily commercial/industrial nature of the study area is not expected to change by the Future No Build 2006 analysis year. As such, no changes to air quality levels are anticipated, and Future No Build Conditions are assumed to be the same as Existing Conditions for all pollutants except CO. CO concentrations are expected to be lowered by increasingly stringent, federally-mandated vehicular emission controls, although any effects may be offset by increases in regional traffic volumes.

6.10.4 Potential Impacts with the Greenpoint Converted MTS

6.10.4.1 On-Site Analysis

6.10.3.1.1 Sources Considered in the Analysis

The sources of emissions and the number of each type of source that are anticipated to be in operation during the peak hour and under daily average conditions are provided in Table 6.10-2. Figure 6.10-1 shows the locations of these sources within the site.

6.10.2.1.2 Results of the Criteria Pollutant Analysis

The highest estimated criteria pollutant concentrations at any of the receptor locations considered are presented in Table 6.10-3. These values are below the national and state ambient air quality standards for the appropriate averaging time periods. In addition, the highest estimated changes in 24-hour and annual PM_{2.5} concentrations from Greenpoint Converted MTS-generated vehicles at any of the receptor locations considered, which are also presented in Table 6.10-3, are below the STV. Based on the results presented in Table 6.10-3, operations at the Greenpoint Converted MTS would not significantly impact air quality in the area.

6.10.2.1.3 Results of the Toxic Pollutant Analysis

The results of the toxic pollutant analysis are summarized in Table 6.10-4. The highest estimated non-carcinogenic toxic air pollutant impacts are below the short-term (acute) and long-term (chronic) hazard index thresholds specified in New York State's Air Guide 1. In addition, the highest

Table 6.10-2 Emission Sources Considered for On-site Air Quality Analysis ⁽¹⁾ Greenpoint Converted MTS

Type of Emission Source	Number of Sources Operated During Peak Hour	Number of Sources Operated During 24-hour and Annual Average Hour
Within Processing Building	1	
Wheel Loaders	2	1
Tamping Cranes	1	1
Mini-Sweepers	1	1
Moving/Queuing Collection Vehicles	46	18
Space Heaters	10	10
Boiler	1	1
Outside Processing Building		
Moving Street Sweepers	1	1
Moving Collection Vehicles	46	18
Queuing Collection Vehicles ⁽²⁾	16 in, 1 out	3 in, 1 out
Oceangoing Tugboats	1	1

Notes:

Emission factors used and emission rates estimated for each of these sources are included in Technical Backup provided to the NYCDEP.

Peak 8-hour and 3-hour average number of queuing collection vehicles outside building is 6. Theoretically, the 3-hour value should be no less than one-third of the peak 1-hour value (16), but for this analysis, the 3-hour and 8-hour values are more realistic estimates of actual peak queuing activity, while the 1-hour peak is simply a conservative assumption based on the maximum available physical queuing space on the entrance road/ramp.

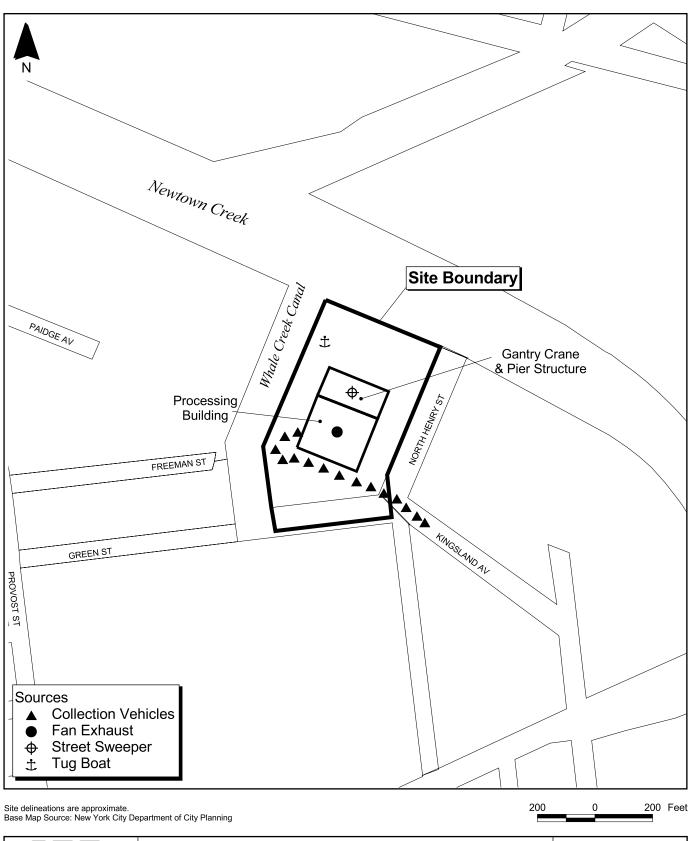




Figure 6.10-1 On-Site Air Quality Analysis Greenpoint Converted MTS



Table 6.10-3 Highest Estimated Concentrations of the Criteria Pollutants from On-site Emissions Greenpoint Converted MTS

Pollutant	Averaging Time Period	Maximum Impacts from On-site Emission Sources (1)	Background Pollutant Concentrations (2)	Highest Estimated On-site Pollutant Concentrations	NAAQS ⁽³⁾	STV ⁽⁴⁾
Carbon Monoxide (CO),	1-hour ⁽⁶⁾	1,335	2,635	3,970	40,000	NA
$\mu g/m^3$	8-hour ⁽⁶⁾	445	3,321	3,766	10,000	NA
Nitrogen Dioxide (NO ₂), μg/m ³	Annual	2	56	58	100	NA
Particulate Matter (PM ₁₀),	24-hour ⁽⁷⁾	25	57	82	150	NA
$\mu g/m^3$	Annual	3	23	26	50	NA
	24-hour	2	-	-	NA	5
Particulate Matter (PM _{2.5}), µg/m ³	Annual Neighborhood Average	$0.016^{(5)}$	-	-	NA	0.1
Sulfur Dioxide (SO ₂),	3-hour ⁽⁶⁾	51	189	240	1,300	NA
$\mu g/m^3$	24-hour ⁽⁶⁾	6	87	93	365	NA
	Annual	0.4	21	21	80	NA

Notes:

NA = Not Applicable

The highest estimated pollutant concentrations found at any of the off-site receptor locations.

(2) Background concentrations were obtained from the NYCDEP on April 18, 2003.

⁽³⁾ NAAQS = National Ambient Air Quality Standard
(4) Screening Threshold Value (STV) established by the NYCDEP and NYSDEC

⁽⁵⁾ Average PM_{2.5} concentration over 1 km x 1 km "neighborhood-scale" receptor grid.

⁽⁶⁾ The standards for these averaging periods allow one exceedance per year, so the use of the overall maximum concentration in this provides a very conservative comparison with standards.

⁽⁷⁾ The 24-hour PM10 NAAQS is based on a 99th percentile concentration, which means that the high, 4th high concentration is appropriate for comparison with the standard. Therefore, the use of the overall highest concentration in this comparison is quite conservative.

Table 6.10-4
Greenpoint Converted MTS
Highest Estimated Non-Cancer Hazard Index and Cancer Risk of Toxic Air Pollutant from On-site Emissions

		Acu	ite Non-Cancer Risl	k	Chro	nic Non-Cancer Ri	sk	Ca	ncer Risk	
No.	Toxic Air Pollutants	Highest Estimated Short-Term (1-hr) Pollutant Conc. ⁽¹⁾ (µg/m³)	Short-Term (1-hr) Guideline Conc. (SGCs) ⁽²⁾ (µg/m³)	Acute Non- Cancer Hazard Index ⁽³⁾	Highest Estimated Long-Term (Annual) Pollutant Conc. ⁽⁴⁾ (µg/m³)	Long-Term (Annual) Guideline Conc. (AGCs) ⁽⁵⁾ (µg/m³)	Chronic Non- Cancer Hazard Index ⁽⁶⁾	Highest Estimated Long-Term (Annual) Pollutant Conc. ⁽⁴⁾ (µg/m³)	Unit Risk Factors ⁽⁷⁾ (µg/m³)	Maximum Cancer Risk (8,9)
1	Benzene	4.31E-01	1.30E+03	3.31E-04	2.39E-03	1.30E-01	1.84E-02	2.39E-03	8.30E-06	1.98E-08
2	Formaldehyde	5.45E-01	3.00E+01	1.82E-02	3.02E-03	6.00E-02	5.04E-02	3.02E-03	1.30E-05	3.93E-08
3	1,3 Butadiene	1.81E-02		-	1.00E-04	3.60E-03	2.78E-02	1.00E-04	2.80E-04	2.80E-08
4	Acetaldehyde	3.54E-01	4.50E+03	7.87E-05	1.96E-03	4.50E-01	4.37E-03	1.96E-03	2.20E-06	4.32E-09
5	Benzo(a)pyrene	8.68E-05	-	-	4.82E-07	2.00E-03	2.41E-04	4.82E-07	1.70E-03	8.19E-10
6	Propylene	1.19E+00	-	-	6.61E-03	3.00E+03	2.20E-06	6.61E-03	NA	NA
Non-	Carcinogenic Pollutant	ts ⁽¹⁰⁾								
7	Acrolein	4.27E-02	1.90E-01	2.25E-01	2.37E-04	2.00E-02	1.18E-02	2.37E-04	NA	NA
8	Toluene	1.89E-01	3.70E+04	5.10E-06	1.05E-03	4.00E+02	2.62E-06	1.05E-03	NA	NA
9	Xylenes	1.32E-01	4.30E+03	3.06E-05	7.30E-04	7.00E+02	1.04E-06	7.30E-04	NA	NA
10	Anthracene	8.63E-04	-	ı	4.79E-06	2.00E-02	2.39E-04	4.79E-06	NA	NA
11	Benzo(a)anthracene	7.76E-04	-	ı	4.30E-06	2.00E-02	2.15E-04	4.30E-06	NA	NA
12	Chrysene	1.63E-04	-	ı	9.04E-07	2.00E-02	4.52E-05	9.04E-07	NA	NA
13	Naphthalene	3.92E-02	7.90E+03	4.96E-06	2.17E-04	3.00E+00	7.24E-05	2.17E-04	NA	NA
14	Pyrene	2.21E-03	-	-	1.22E-05	2.00E-02	6.12E-04	1.22E-05	NA	NA
15	Phenanthrene	1.36E-02	-	-	7.53E-05	2.00E-02	3.76E-03	7.53E-05	NA	NA
16	Dibenz(a,h)anthracene	2.69E-04	-	-	1.49E-06	2.00E-02	7.47E-05	1.49E-06	NA	NA
			ted Acute Non-		Total Estimated Chronic		tal Estimated Chronic Total Estimated Combin		Combined	
		Cancer Hazai		2.43E-01		Non-Cancer Hazard Index 1.18E-01 Cancer Risk			9.23E-08	
		Acute Non-C Index Thresh	Cancer Hazard old (11)	1.0E+00	Chronic Non-Ca Index Threshold		1.0E+00	Cancer Risk Thres	hold ⁽¹¹⁾	1.0E-06

Notes to Table 6.10-4:

- (1) Estimated by multiplying the total 1-hr HCs concentration by the ratio of the emission factor for that pollutant to the emission factor of the total hydrocarbons.
- (2) Short-term (1-hr) guideline concentrations (SGC) established by NYSDEC
- Estimated by dividing the maximum 1-hr concentrations of each pollutant by the SGC value of that pollutant and summing up the resulting values to obtain hazard index for all of the pollutants combined.
- Estimated by multiplying the total annual HCs concentration by ratio of the emission factor for that pollutant to the emission factor of the total hydrocarbons.
- (5) Long-term (annual) guideline concentrations (AGC) established by NYSDEC
- Estimated by dividing the maximum annual concentration of each of the individual pollutants by the AGC value of that pollutant and summing up the resulting values to obtain hazard index for all of the pollutants combined.
- Unit risk factors established by USEPA and other governmental agencies for the inhalation of carcinogenic air pollutants.
- (8) The maximum cancer risk of each of the individual pollutant was estimated by multiplying the estimated annual concentration of each pollutant by its unit risk factor.
- (9) The total incremental cancer risk from all of the pollutants combined was estimated by summing the maximum cancer risk of each of the individual pollutants.
- Some of the pollutants included in the group of non-carcinogenic pollutants, such as anthracene, benzo(a)anthracene and chrysene, may also have carcinogenic effects. As these pollutants do not have established unit risk factors, they were evaluated using the hazard index approach for non-carcinogens.
- Hazard index and cancer risk thresholds based on NYSDEC "Guidelines for the Control of Toxic Ambient Air Contaminants" dated November 12, 1997. Estimated values below these threshold limits are considered to be insignificant impacts.

estimated carcinogenic impacts are less than the one-in-a-million threshold level that is defined by NYSDEC as being significant. As such, the potential impacts of the toxic pollutant emissions from the on-site operations of the Greenpoint Converted MTS are not considered to be significant.

6.10.4.2 Off-Site Analysis

6.10.4.2.1 Pollutants Considered and Analyses Conducted

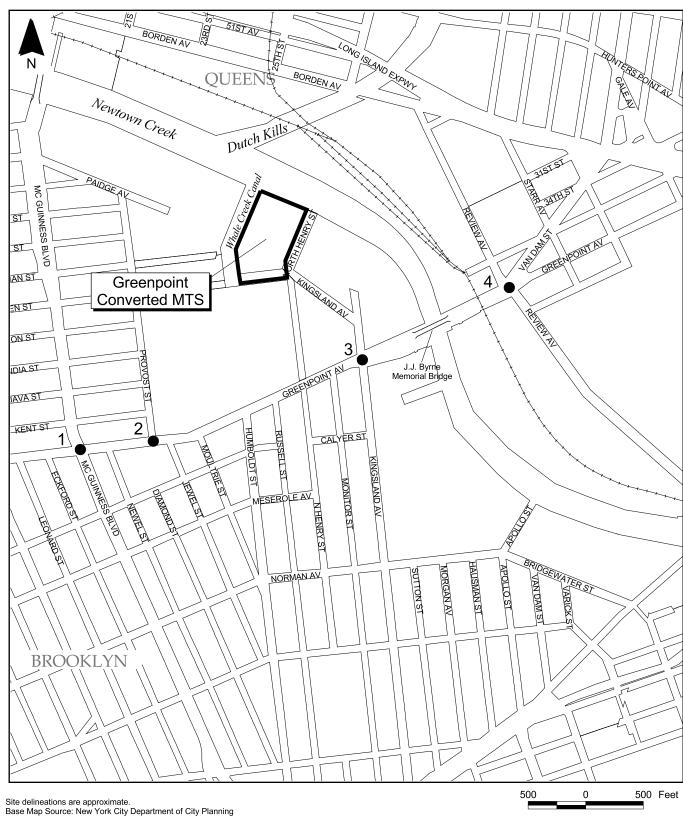
Locations potentially affected by DSNY and other collection agency's collection vehicles were identified using *CEQR Technical Manual Guidelines* outlined in Section 3.11.5. Following these guidelines, mobile source analyses were conducted at the following locations:

- The intersections of Kingsland Avenue at Greenpoint Avenue and Kingsland Avenue at Norman Avenue to determine whether Greenpoint Converted MTS-generated traffic has the potential to cause exceedances of NYCDEP's 8-hour CO "de minimus" value or a violation of the 8-hour NAAQS;
- The intersections of Kingsland Avenue at Greenpoint Avenue; Kingsland Avenue at Norman Avenue; Greenpoint Avenue at Review Avenue and Van Dam Street; and Greenpoint Avenue at McGuiness Boulevard and Provost Street to determine whether Greenpoint Converted MYS-generated traffic has the potential to cause exceedances of NYCDEP's and NYSDEC's 24-hour and annual PM2.5 STVs; and
- The intersections of Kingsland Avenue at Greenpoint Avenue; Kingsland Avenue at Norman Avenue; Greenpoint Avenue at Review Avenue and Van Dam Street; and Greenpoint Avenue at McGuiness Boulevard and Provost Street to determine whether Greenpoint Converted MTS-generated traffic has the potential to cause exceedances of the 24-hour and annual PM10 NAAQS.

The roadway intersections selected for the mobile source analysis are shown in Figure 6.10-2.

6.10.4.2.2 Results of the Off-Site Analysis

Applicable pollutant concentrations estimated near each selected intersection, which are shown in Table 6.10-5, are all within (less than) the applicable state and federal ambient air quality standards, STVs (for $PM_{2.5}$), and/or "de minimus" impact values (for CO). The off-site operations of the Greenpoint Converted MTS, therefore, are not considered to be significant.





CITY OF NEW YORK DEPARTMENT OF SANITATION



Table 6.10-5
Estimated Pollutant Concentration Near Selected Roadway Intersection
Greenpoint Converted MTS

	CO	PN	I_{10}			PM	2.5		
Air Quality Receptor Site	8-hr CO Conc. ⁽¹⁾ ppm (NAAQS: 9 ppm)	24-hr PM ₁₀ Conc. ⁽¹⁾ μg/m ³ (NAAQS: 150 μg/m ³)	Annual PM ₁₀ Conc. ⁽¹⁾ μg/m ³ (NAAQS: 50 μg/m ³)	Impacts from On-Site Emission Sources ⁽²⁾ µg/m³ (STV: 5 µg/m³)	Impacts from Off-Site Emission Sources ⁽³⁾ µg/m ³ (STV: 5 µg/m ³)	Total Combined Impacts from On and Off-Site Emission Sources µg/m³ (STV: 5 µg/m³)	Impacts from On-Site Emission Sources ⁽²⁾ µg/m³ (STV: 0.1 µg/m³)	Impacts from Off-Site Emission Sources ⁽⁴⁾ µg/m³ (STV: 0.1 µg/m³)	Total Combined Impacts from On and Off-Site Emission Sources µg/m³ (STV: 0.1 µg/m³)
Kingsland Ave., Greenpoint									
Ave. & Norman Ave.									
Existing Conditions	5.2	104	43						
Future No Build Conditions	4.8	105	43						
Future Build Conditions	NA ⁽⁵⁾	105	43						
Future Build Incremental				0.22	0.8	1.02	0.0076	0.1	0.10
Greenpoint Ave., Review									
Ave. & VanDam St.									
Existing Conditions	NA (5)	118	49						
Future No Build Conditions	NA (5)	102	40						
Future Build Conditions	NA (5)	103	40						
Future Build Incremental				0.13	0.4	0.53	0.0047	0.1	0.10
Greenpoint Ave.,									
McGuiness Blvd. & Provost	(5)								
Existing Conditions	NA (5)	104	40						
Future No Build Conditions	NA (5)	105	40						
Future Build Conditions	NA (5)	106	41						
Future Build Incremental				0.13	0.5	0.63	0.0030	0.1	0.10

Notes for Table 6.10-5:

- CO and PM₁₀ concentrations are the maximum concentrations estimated using the AM, midday, and PM peak traffic information plus background concentration (8 hr CO=2.3ppm; 24-hr PM₁₀ = 57 μ g/m³; Annual PM₁₀=23 μ g/m³).
- The maximum incremental concentrations of the on-site emissions at the intersection considered.
- The PM_{2.5} concentrations are the maximum modeled incremental PM_{2.5} impacts (due to project-induced (or future build) traffic only) estimated by taking the difference between the maximum PM_{2.5} concentrations for the Future No Build and Future Build scenarios at any receptor 3 meters from the edge of the roadways using AM, midday or PM peak traffic information.
- The PM_{2.5} concentrations are the maximum modeled incremental PM_{2.5} impacts (due to project-induced (or future build) traffic only) estimated by taking the difference between the maximum PM_{2.5} concentrations for the Future No Build and Future Build scenarios at any receptor 15 meters from the edge of the roadways using AM, midday or PM peak traffic information.
- (5) Incremental 1-hour vehicular trips were below CEQR CO air quality screening thresholds.

ppm: Parts per million

μg/m^{3:} Microgram per cubic meter

6.11 Odor

6.11.1 Existing Conditions

The existing MTS is not in operation, and there are no existing sources of odor at the site. The study area is within 500 meter (0.3 miles) from the facility boundary. The locations for sensitive receptors in this analysis are the same as those used in the noise analysis. The nearest sensitive receptor is the apartment building located on Van Dam Street southwest of the LIE, approximately 1,188 feet away from the site boundary.

6.11.2 Future No-Build Conditions

No additional odor-producing sources are anticipated in the vicinity of the Greenpoint Converted MTS. Thus, Existing Conditions are assumed to be representative of Future No-Build Conditions.

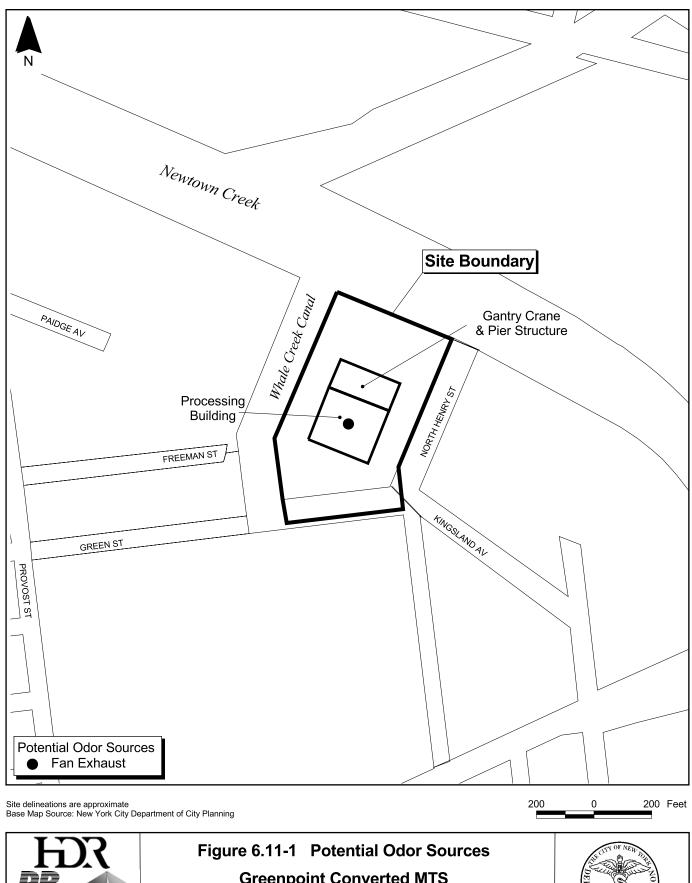
6.11.3 Potential Impacts with the Greenpoint Converted MTS

6.11.3.1 Odor Source Types and Locations Considered in the Analysis

The anticipated number and type of odor sources that would be associated with waste processing operations at peak design capacity at the Greenpoint Converted MTS are provided in Table 6.11-1. Figure 6.11-1 shows the locations of these sources within the site.

Table 6.11-1 Odor Sources Included in Odor Analysis Greenpoint Converted MTS

	Number of Sources
	Operated During Peak
Type of Emission Source	Design Capacity
Exhaust Fans from Processing Building	1





Greenpoint Converted MTS

CITY OF NEW YORK DEPARTMENT OF SANITATION



An odor control system (e.g., scrubber, neutralizing agent misting system injected into the exhaust duct work system, etc.) would be included in the design to control odorous emissions from the processing building. Odor control systems can remove between 90 percent and 99 percent of odorous compounds. For purposes of modeling odor dispersion, a 90 percent reduction of odorous emissions was conservatively assumed for the Greenpoint Converted MTS.

6.11.3.2 Results of the Odor Analysis

The highest estimated odor concentrations at any of the receptor sites considered and the concentrations at the closest sensitive receptor are presented in Table 6.11-2. The predicted odor unit values at sensitive receptor locations are compared to an odor unit of 5, which represents the level of odor impact that would begin to be detected by an average observer. The highest predicted odor unit associated with the Greenpoint Converted MTS at any nearby sensitive receptor is less than 1, so odors from the Greenpoint Converted MTS would not be detectable by off-site sensitive receptors and the facility would comply with NYSDEC requirements for effective odor control. Therefore, no significant adverse impacts from odors on receptors are expected to occur as a result of this facility.

Table 6.11-2
Highest Predicted Odor Concentration(s) from On-site Sources
Greenpoint Converted MTS

Parameter	Resulting Odor Unit ⁽¹⁾
Estimated Detectable Concentration	1.0
Highest Result	0.12
Type Of Receptor	Fence Line Receptor
Location of Receptor ⁽²⁾	Site Boundary
Closest Sensitive Receptor Result	0.017
Type Of Receptor	Apartment Building
Distance To Receptor ⁽³⁾	1,188 Feet

Notes:

⁽¹⁾ D/T ratio is dimensionless.

⁽²⁾ Measured from the site boundary.

⁽³⁾ Measured from the site property line.

6.12 Noise

The noise analysis addresses on-site and off-site sources of noise emissions from Greenpoint Converted MTS-related solid waste management activities. It is based on Section R of the CEQR Technical Manual for both on-site and off-site sources, and for on-site sources only the Performance Standards of the New York City Zoning Code for Manufacturing Districts, and the New York City Noise Code. Section 3.14 provides a general discussion of the relevant regulatory standards and methodologies used in this analysis.

6.12.1 Existing Conditions

6.12.1.1 Introduction

Figure 6.12-1 shows the location of the Greenpoint Converted MTS and the surrounding area. The nearest noise-sensitive receptor is an apartment building on Van Dam Street southwest of the LIE, approximately 362 meters (1,188 feet) from the Greenpoint Converted MTS property line.

6.12.1.2 On-site Noise Sources

Existing on-site noise sources consist of noise created by the activities and events on and immediately surrounding the site. Existing noise levels were monitored hourly for a 24-hour period at the property line closest to the nearest noise-sensitive receptor. Noise monitoring data recorded hourly included: L_{eq} , L_{min} , L_{max} , and the statistical metrics of L_{10} , L_{50} , and L_{90} . Table 6.12-1 presents monitored noise levels. As shown, the quietest hour at the monitoring location occurred between 2:00 a.m. and 3:00 a.m. and had an $L_{eq}(h)$ of 65.9 dBA on January 10, 2003. Activities and events that contribute to the on-site noise levels are as follows:

- Heavy truck traffic in the area;
- Boat traffic on Newtown Creek;
- Construction at the Newtown Creek WPC; and
- Train traffic on Long Island Rail Road tracks.

⁴ Terms L_{eq} , L_{min} , L_{max} are defined in Section 3.14.2.

⁵ Terms L_{10} , L_{50} , L_{90} are defined in Section 3.14.2.

Table 6.12-1
Existing Hourly (Monitored) Noise Levels On-Site⁽¹⁾
Greenpoint Converted MTS

	L _{eq} (h)	L_{90}	L_{50}	L_{10}	L_{min}	\mathbf{L}_{max}
Time of Measurement	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)
3:00-4:00 p.m.	75.4	70.4	73.7	78.0	67.7	93.9
4:00-5:00 p.m.	72.0	68.2	70.1	75.0	66.3	82.8
5:00-6:00 p.m.	69.8	67.2	68.8	71.5	65.8	82.5
6:00-7:00 p.m.	70.3	67.3	69.3	72.8	65.8	81.8
7:00-8:00 p.m.	70.9	67.9	70.1	73.2	66.0	80.9
8:00-9:00 p.m.	68.6	66.2	68.2	70.6	64.0	76.3
9:00-10:00 p.m.	70.0	64.7	68.7	72.6	61.6	87.7
10:00-11:00 p.m.	68.6	63.4	65.8	71.3	61.7	84.7
11:00-12:00 a.m.	70.6	64.5	68.2	73.1	62.1	86.8
12:00-1:00 a.m.	71.4	66.6	70.1	74.0	62.2	83.7
1:00-2:00 a.m.	67.1	62.1	66.0	69.8	60.5	79.4
2:00-3:00 a.m.	65.9	61.1	63.0	68.5	59.5	80.9
3:00-4:00 a.m.	74.7	62.4	66.6	74.1	59.9	98.4
4:00-5:00 a.m.	74.6	63.9	69.8	78.6	60.5	90.9
5:00-6:00 a.m.	72.6	65.1	69.5	75.9	62.1	89.5
6:00-7:00 a.m.	74.3	70.0	72.8	77.0	66.8	86.1
7:00-8:00 a.m.	76.0	71.7	74.3	78.7	69.6	89.6
8:00-9:00 a.m.	76.1	71.3	74.8	78.5	69.1	91.8
9:00-10:00 a.m.	79.8	70.4	73.9	82.4	68.2	99.9
10:00-11:00 a.m.	83.0	73.3	78.8	86.7	69.3	99.2
11:00-12:00 p.m.	83.5	72.6	78.6	86.6	69.6	102.7
12:00-1:00 p.m.	80.2	71.9	76.9	83.6	68.4	94.1
1:00-2:00 p.m.	76.9	70.7	74.1	80.1	68.1	93.4
2:00-3:00 p.m.	76.3	69.9	73.1	79.4	67.5	90.8

Note:

6.12.1.3 Off-site Noise Sources

Existing off-site noise sources consist of the existing traffic and other background noise. A screening analysis was conducted to determine if noise monitoring would be required along the Greenpoint Converted MTS-related truck routes due to an increase in traffic caused by the DSNY and other agency collection vehicles. As a result of this screening, which is described in Section 3.14.5.2, no off-site noise analysis was required. Therefore, no noise monitoring data were collected for off-site noise sources.

The 24-hour background noise levels were measured at the site boundary nearest to the closest sensitive receptor to identify the quietest background hour.

6.12.2 Future No-Build Conditions

6.12.2.1 On-site Noise Levels

No appreciable changes in on-site noise levels are anticipated by 2006; therefore, Future No-Build Conditions are expected to be the same as Existing Conditions.

6.12.2.2 Off-site Noise Levels

Off-site noise levels for the Future No-Build Conditions in 2006 were calculated using the annual growth rates for traffic volume provided in Section O: Traffic of the CEQR Manual. Table 6.12-2 below presents the existing traffic volume and the Future No-Build traffic volume for the hour expected to receive the largest change in noise levels (when the difference between traffic noise levels and background noise levels is greatest) during the daytime (if any) and nighttime for roadways where there is a possible impact based on the second level screening.

Table 6.12-2 Off-site Noise Traffic Volume Greenpoint Converted MTS

		Existing Traffic	Future No-Build Traffic
Location	Hour	Volume	Volume
Greenpoint Avenue east of McGuiness Boulevard	2:00 a.m.	88	92
Greenpoint Avenue east of McGuiness Boulevard	10:00 a.m.	766	797
McGuiness Boulevard east of Kingsland Avenue	2:00 a.m.	152	159
McGuiness Boulevard north of India Street	2:00 a.m.	39	40

6.12.3 Potential Impacts with the Greenpoint Converted MTS

6.12.3.1 On-site Noise Levels

Equipment assumed to be operating at the Greenpoint Converted MTS and its reference noise levels used in the CEQR and Noise Code analysis are shown in Table 6.12-3. Spectral noise levels used in the Performance Standards analysis are shown in Table 6.12-4. The number and type of equipment assumed for this analysis was based on the facility's peak design capacity.

Figure 6.12-1 shows the Greenpoint Converted MTS layout and the locations of the points along the facility boundary where overall noise predictions were calculated, and the predicted 55 dBA contour line.

Table 6.12-3
Equipment Modeled in the Noise Analysis and Reference Noise Levels
Greenpoint Converted MTS

Equipment Name (quantity)	Reference Noise Level ⁽¹⁾ at 50 feet (dBA)
Indoor	, ,
Wheel Loaders (2)	81
Tamping Crane (1)	81
Bridge Crane (1)	70
Mini-Sweeper (1)	76
Moving and Queuing Collection	
Vehicles (7)	73
Outdoor	
Moving and Queuing Collection	
Vehicles (21)	67
Container Car Pullers (3)	45
Gantry Cranes (1)	78
Oceangoing Tugboats (1)	73

Note:

(1) See Section 3.14.7.1 for sources.

Table 6.12-4
Equipment Modeled in the Noise Analysis and Spectral Noise Levels
Greenpoint Converted MTS

		Reference Noise Level at 50 feet (dB)									
Equipment		Frequency (Hz)									
	63	125	250	500	1000	2000	4000	8000			
Indoor											
Wheel Loaders (2)	78	77	75	76	77	74	68	60			
Tamping Crane (1)	95	90	85	85	81	78	73	64			
Bridge Crane (1)	77	78	77	71	74	71	69	57			
Mini-Sweeper (1)	71	74	69	74	71	68	64	56			
Outdoor											
Container Car Pullers (3)	31	30	47	44	36	35	42	46			
Gantry Cranes (1)	79	82	82	79	78	73	64	56			
Oceangoing Tugboats (1)	97	85	79	75	72	66	59	52			

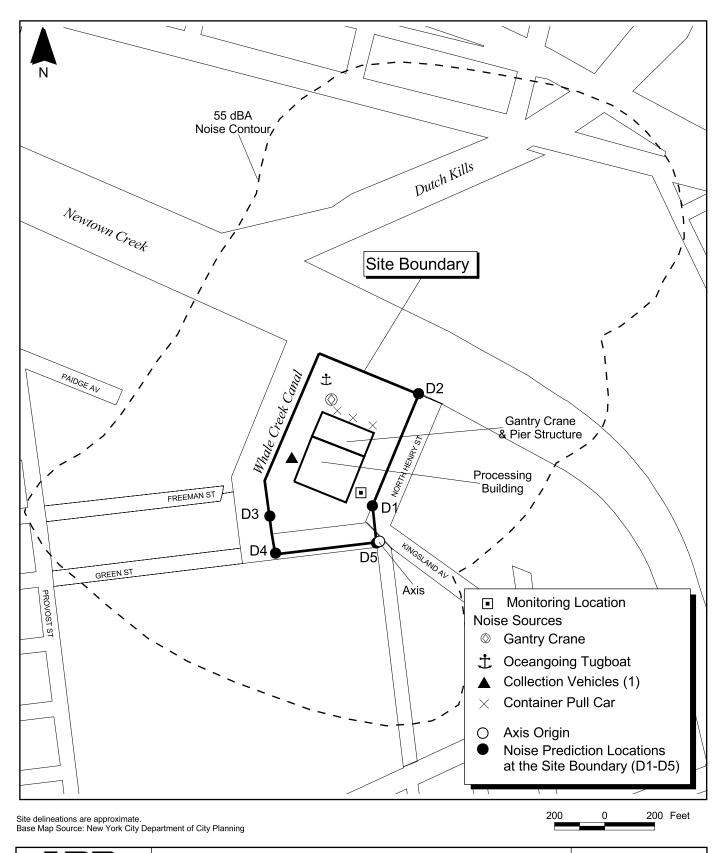




Figure 6.12-1 Noise Sources and Receptors

Greenpoint Converted MTS

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DEPARTMENT OF SANITATION



6.12.3.2 CEQR Analysis

A screening analysis was conducted to determine if a detailed noise analysis would be required for the on-site operations at the Greenpoint Converted MTS. Noise levels from indoor and outdoor sources were combined to determine the location of the 55 dBA contour line. The 55 dBA contour line is 128 meters (420 feet) from the property line in the direction of the nearest noise-sensitive receptor, which is 362 meters (1,188 feet) from the site boundary. The 55 dBA contour line was selected as a limit for the study area because 55 dBA, (i.e., the point off-site where noises generated on-site attenuate to 55 dBA), is considered an acceptable noise level in an urban environment. Section 3.14.5.1 discusses this concept in greater detail. The results of the screening analysis show that receptors are not located within the 55 dBA contour line, therefore, on-site noise monitoring and an on-site noise analysis was not required.

6.12.3.3 Performance Standards for Zoning Code Analysis

Overall noise predictions were calculated at the locations of the points along the facility boundary to determine the total noise level for each octave band from indoor and outdoor sources, not including DSNY and other agency collection vehicles, in accordance with the New York City Zoning Code Performance Standards for Manufacturing Districts (see Table 6.12-5 below). Based on this analysis, no exceedances to the Performance Standards are predicted in the direction of a noise sensitive receptor.

Table 6.12-5 Spectral Noise Analysis Greenpoint Converted MTS

	Frequency Range									
Manufacturing District	63	125	250	500	1K	2K	4K	8K		
Regulation (M3)	79	74	69	63	57	52	48	45		
Total Lp dB: D1	72.9	68.2	59.8	56.6	53.2	45.9	36.0	26.7		
Total Lp dB: D2	75.6	66.5	62.2	58.8	56.8	50.9	40.5	31.4		
Total Lp dB: D3	73.7	63.6	58.3	54.8	52.3	46.1	35.7	25.7		
Total Lp dB: D4	67.5	58.9	52.2	48.7	45.7	38.9	28.2	17.5		
Total Lp dB: D5	69.2	64.3	56.9	53.7	50.8	44.0	33.5	23.9		

6.12.3.4 Noise Code Analysis

Overall noise predictions were calculated at the locations of the points along the facility boundary to determine the Total L_{eq} from all indoor and outdoor sources. This is shown in Table 6.12-6 below. Based on this analysis, the Total L_{eq} does not exceed the Noise Code Standard of 70 dBA.

Table 6.12-6 Noise Code Analysis Greenpoint Converted MTS

Location at Plant Boundary	Total L _{eq} Contribution at Plant Boundary (dBA)
D1	59.4
D2	60.7
D3	61.9
D4	58.1
D5	58.1

6.12.3.5 Off-site Noise Analysis

A screening analysis was conducted to determine if noise monitoring would be required along the truck routes. As a result of this screening, which is described in Section 3.14.5.2, no off-site noise analysis was required. Screening results for the hour expected to receive the largest change in noise levels (when the difference between traffic noise levels and background noise levels is greatest) during the daytime (if any) and nighttime for roadways where there is a possible impact based on the second level screening are provided in Table 6.12-7 below.

Table 6.12-7
Off-site Noise Screening Results
Greenpoint Converted MTS

Location	Hour	Future No- Build PCEs ⁽¹⁾	Collection Vehicles	Employee Vehicles	Future Build PCEs ⁽¹⁾⁽²⁾	Possible Impact ⁽³⁾
Greenpoint Avenue east of McGuiness Boulevard	2:00 a.m.	1132	13	0	611	No
Greenpoint Avenue east of McGuiness Boulevard	10:00 a.m.	5644	46	0	2162	No
McGuiness Boulevard east of Kingsland Avenue	2:00 a.m.	1891	11	0	517	No
McGuiness Boulevard north of India Street	2:00 a.m.	161	3	0	141	No

Notes:

Since the screening results presented above showed that the PCEs would not double on a roadway due to DSNY and other agency collection vehicles coming to or going from the Greenpoint Converted MTS, a detailed off-site noise analysis was not required.

Total PCEs are rounded to the nearest whole number.

⁽²⁾ Future Build PCEs include Greenpoint Converted MTS-related collection vehicles and employee vehicles.

There is a possible impact if the Future Build PCEs are double the Future No-Build PCEs.

6.13 Infrastructure & Energy

6.13.1 Existing Conditions

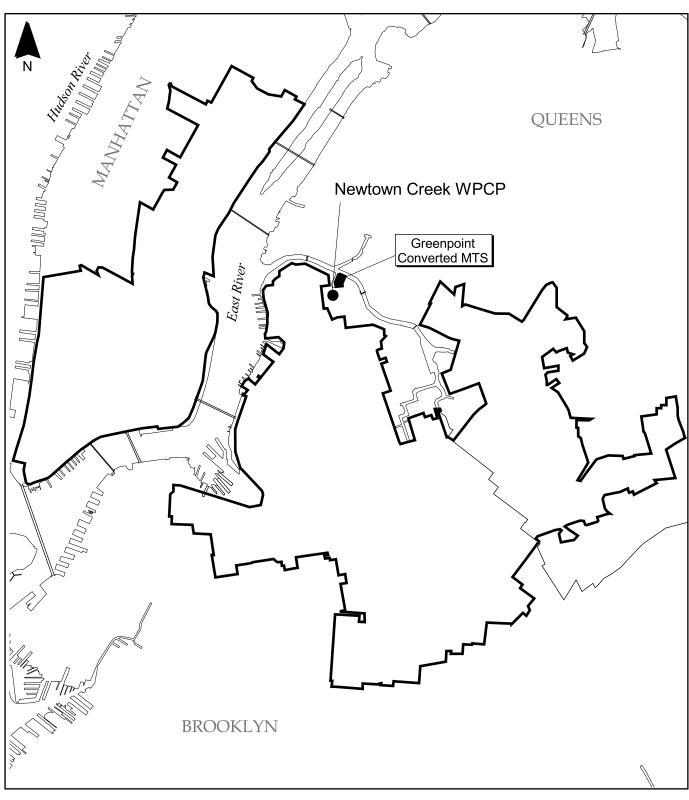
6.13.1.1 Water Supply

Water is supplied to the existing Greenpoint MTS from the Delaware and Catskill reservoir systems through the City's municipal water distribution system. A 6-inch diameter water line provides potable water for both process and sanitary requirements. Adjacent to the existing site is a pump house connected to an incoming 6-inch water line, which ensures adequate pressure for the fresh water fire system. Water pressure throughout the City system is generally maintained at about 20 pounds per square inch (psi), which is the minimum pressure acceptable for uninterrupted service (CEQR Technical Manual, 2001).

6.13.1.2 Sanitary Sewage and Storm Water

A review of NYCDEP infiltration and inflow (I&I) maps shows that the site is served by the Newtown Creek WPCP, which serves portions of Manhattan, Queens and Brooklyn. The WPCP drainage area is illustrated in Figure 6.13-1. From July 2001 through June 2002, the WPCP treated an average of 216 million gallons per day (mgd) of wastewater during dry weather flow (Table 6.13-1). The maximum dry weather flow during this period was 239 mgd in August 2001. Effluent from the plant is discharged to the East River and is regulated by NYSDEC under the State Pollutant Discharge Elimination System (SPDES). The current SPDES permit limit for flow to the Newtown Creek WPCP is 310 mgd. It is estimated that current on-site employee water usage is about 75 gallons per day (gpd). This estimate is based on three employees (one guard per shift, three shifts per day) using 25 gallons per person per day (CEQR Technical Manual, 2001). As the facility does not currently accept waste, no significant process water is used and no operations personnel are currently assigned to the site.

Duplex sewage ejection pumps within the existing Greenpoint MTS convey wastewaters to the municipal sewer system through a 6-inch diameter pipe that discharges to a 15-inch sewer (combined sanitary and storm water system) running south along North Henry Street. The sewer connects to an interceptor that eventually conveys the wastewater to the Newtown Creek WPCP for treatment.



Site delineations are approximate. 5000 0 5000 Feet



Figure 6.13-1 Existing WPCP Drainage Area Greenpoint Converted MTS

CITY OF NEW YORK DEPARTMENT OF SANITATION



Table 6.13-1
Average Monthly Dry Weather Flows
Newtown Creek Water Pollution Control Plant
Fiscal Year 2002

Month	Dry Weather Flow (mgd)				
July 2001	221				
August	239				
September	230				
October	214				
November	212				
December	215				
January 2002	211				
February	206				
March	210				
April	209				
May	211				
June	218				
Average Effluent	216				

6.13.1.3 Solid Waste

Based on solid waste generation information from the CEQR Technical Manual, it was estimated that each of the three employees at the existing MTS produces approximately 9 pounds of solid waste per week for a facility total of 27 pounds per week (approximately 4 pounds per day). The solid waste is collected by DSNY personnel and transported by truck to an appropriately licensed solid waste management facility.

6.13.1.4 Energy

Consolidated Edison of New York supplies electrical service to the facility. A review of applicable service plans shows electric lines along North Henry Street. Utility maps from KeySpan show that there is a 2-inch gas main running up North Henry Street that serves the facility. Current electricity and gas utilization is negligible due to the low staffing levels for security.

6.13.2 Future No-Build Conditions

The Greenpoint MTS would continue to not accept waste. Potable water use, process and sanitary wastewater generation, solid waste generation and energy use would remain at or near the Existing Conditions levels for security employees.

6.13.3 Potential Impacts with the Greenpoint Converted MTS

6.13.3.1 Water Supply

The Greenpoint Converted MTS would have up to 60 employees working three shifts per day. They would require approximately 1,500 gallons of potable water per day plus an additional 180 gpd for truck and tipping floor washdown and dust control. The combined total usage of 1,680 gpd of potable water would represent an increase of 1,605 gpd above current consumption levels.

The Greenpoint Converted MTS would have no impact on the existing system's ability to supply water reliably. According to NYCDEP, the water pressure in the area is about 45 pounds per square inch (psi). Under worst-case conditions, the increased usage would not have significant impacts on water pressure in the system.

6.13.3.2 Sanitary Sewage

Based on the estimated water usage of 1,680 gpd for the Greenpoint Converted MTS, the small quantities of wastewater sent to the Newtown Creek WPCP would not significantly impact the sewage flow rate or the ability of the Newtown Creek WPCP to meet its SPDES permit limits. The Newtown Creek facility treated an average of 216 mgd in fiscal year 2002 and has a design operating capacity of 310 mgd.

6.13.3.3 Solid Waste

Solid waste transfer station facility use is not cited under the solid waste generation rates

provided in the CEQR Technical Manual, so rates for a commercial office building (1.3 lbs/day

per employee) were used as a basis for a conservative estimate of waste generation. For an

estimated 60 facility employees per day, 468 pounds of solid waste would be generated per week

(78 lbs/day) and would represent an incremental increase of approximately 444 pounds per week

(74 lbs/day) above current waste generation levels. This volume would be managed at the

Greenpoint Converted MTS and would not significantly impact the system.

The Greenpoint Converted MTS would be in compliance with DSNY's siting regulations for solid

waste transfer stations. Subsequent to adoption of the City's Final Solid Waste Management Plan,

the Greenpoint Converted MTS facility, if incorporated in the Plan, would be subject to permitting as

a solid waste management facility by NYSDEC and DSNY.

6.13.3.4 Energy

The Greenpoint Converted MTS would require approximately 1.11E+10 BTU/year of electricity to

operate the facility. Natural gas facility heating would be used with an estimated demand of

1.34E+08 BTU/year.

Consolidated Edison has been notified of the power requirements of the Greenpoint Converted MTS

and has stated that all demands generated by the facility could be met without an impact on the

power requirements of the surrounding community and without the need for additional power

generation capacity.

Brooklyn Union Gas has been notified of the gas requirements for the Greenpoint Converted MTS,

but had not responded at the time of this writing.

6-97

March 2004

6.14 Natural Resources

6.14.1 Existing Conditions

Existing Conditions include stressed aquatic and terrestrial communities that are typical of this area of Brooklyn. Conditions associated with the presence of natural resources, including water resources and endangered species and habitats, were investigated within the defined study area to identify potential impacts that might arise from the Greenpoint Converted MTS.

6.14.1.1 Definition of Study Area

The study area includes the site and the waterfront section that is bulkheaded and bounded by Newtown Creek to the north and Whale Creek Canal to the west (Figure 2.4-1). The existing MTS, incinerator and associated parking areas occupy the entire upland portion of the site. This part of the study area and the surrounding neighborhood areas are completely developed and, therefore, have very limited terrestrial natural resources. Such resources that do exist are discussed in following sections. Because the Future Build Conditions would include dredging of bottom sediments and construction of a new MTS, a description of aquatic communities is included.

6.14.1.2 Geology

According to the permit renewal report prepared by DSNY in October 1995, the depth to bedrock at the site ranges from approximately 50 feet to more than 100 feet. Subsurface material consists of moderately hard, medium- to fine-grained seamy, weathered gray gneiss with quartz intrusions. Overburden consists of soft, black organic silt and sand at a depth of 5 feet to 15 feet. Surface sediment collected from the site in 2003 indicates the sediment makeup to be light grey sludge and dark grey to blackish grey clay and slit with trace sand, and approximately 49,000 mg/kg total organic carbon. Sediment was found to be somewhat degraded due to contaminants in the sample material.

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6-98

⁶ Engineering Report Greenpoint Avenue Marine Transfer Station Solid Waste Management Facility, 1995. Prepared for NYSDEC and DSNY by HydroQual, Inc.

6.14.1.3 Floodplains

The site is constructed within the 100-year coastal floodplain (Figure 6.14-1). No intertidal wetlands exist on the study area. Newtown Creek and Whale Creek, which are NYSDEC-designated littoral zones, are part of the study area (Figure 6.14-2).

6.14.1.4 Ecosystems

The site is essentially fully developed with the existing MTS and incinerator buildings. Parking areas and paved roadways comprise the remainder of the site, leaving little terrestrial natural resources to be impacted. A few opportunistic species of Japanese knotweed (*Polygonum cuspidatum*), eastern cottonwood (*Populus deltoides*), and tree-of-heaven (*Ailanthus altissima*), were observed on the far side of the barge basin bordering the adjacent property on the east side of the study area and to the south along the fence line between the incinerator and the adjacent oil storage facility. The vegetative cover was too sparse in these areas to be mapped.

The aquatic natural resources of the study area are limited due to the high level of contaminants in the sediment and storm water runoff from the surrounding urban areas. The communities of benthic invertebrates present in the sediment are representative of opportunistic species capable of surviving in an environment with high levels of contaminants and nutrient loading. The water of Newtown Creek is not suitable for the survival of most fish species due to low, dissolved oxygen and the lack of food sources; however, transient finfish have been found in the area when colder temperatures enable the water to hold higher concentrations of dissolved oxygen.

A field program that commenced in January 2003 and is scheduled to end in December 2003 was designed to fully characterize the marine biological resources of the study area. The program includes monthly sampling for finfish, fish eggs, and larvae, and quarterly sampling for benthic organisms and sessile colonizing organisms. Results of the program through the second quarter samplings are included in this Draft MTS Environmental Evaluation. Results of the annual program will be included in the Final MTS Environmental Evaluation.

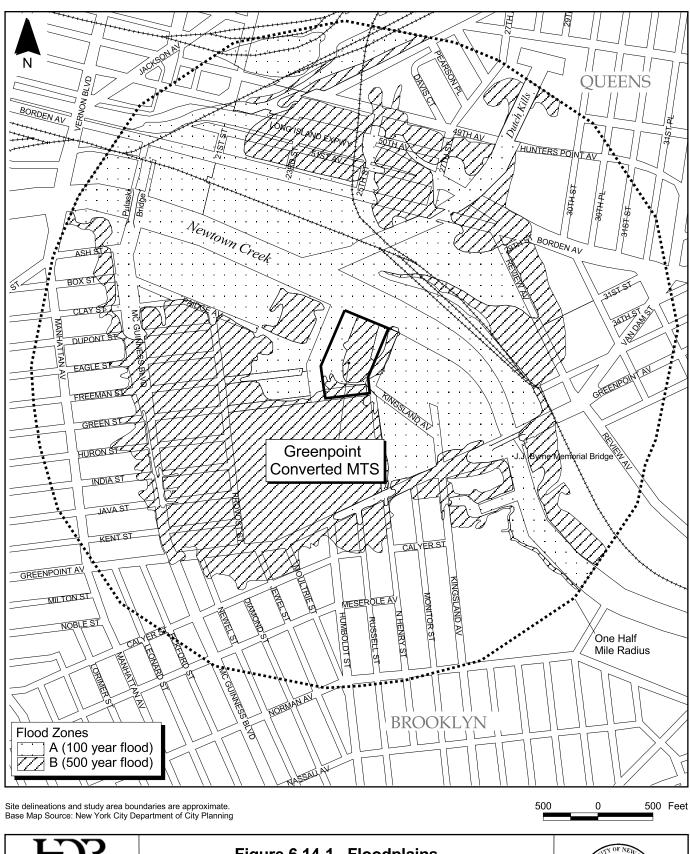




Figure 6.14-1 Floodplains Greenpoint Converted MTS

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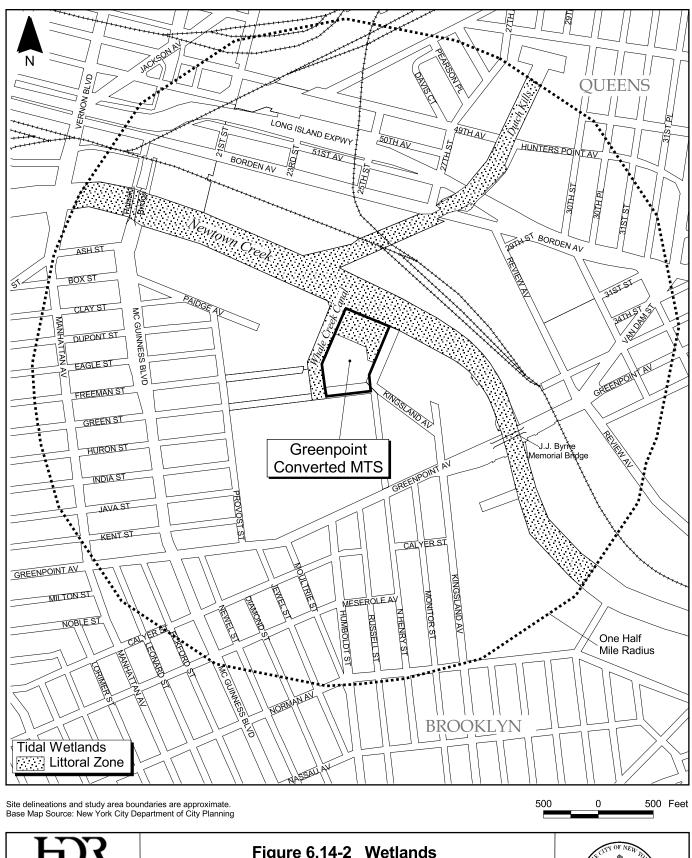




Figure 6.14-2 Wetlands Greenpoint Converted MTS

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While the study was not complete at the time of this writing, a number of finfish species had been identified, including Atlantic silverside (Menidia menidia), naked goby (Gobiosoma bosc), Atlantic menhaden (Brevoortia tyrannus), striped searobin (Prionotus evolans), Tautog (Tautoga onitis), bay anchovy (Anchoa mitchilli), white perch (Morone Americana), American shad (alosa sapidissima), and Atlantic tomcod (Microgadus tomcod). A species of special concern, striped bass (Morone saxatilis), was also caught during the study. In addition, the following EFH species were caught: winter flounder (Pseudopleuronectes americanus), summer flounder (Parlichthys dentatus), and Atlantic herring (Clupea harengus). Larval fish collected include winter flounder (Pseudopleuronectes americanus), Atlantic herring (Clupea harengus), fourbeard rockling (Enchelyopus cimbrius), grubby (Myoxocephalus aeneus), American sandlance (Ammodytes americanus) and rock gunnel (Pholis gunnellus). Invertebrates collected include say mud crabs (Dyspanopeus sayi), Pacific grapsid shore crabs (Hemigrapsus sanguineus), blue crabs (Callinectes sapidus), grass shrimp (Hippolyte sp.), Atlantic mud crabs (Panopeus herbstii), eastern mudsnails (Ilyanassa obsoleta), sevenspine bay shrimp (Crangon septemspinosa), sea grapes (Molgula manhattensis), ivory barnacles (Balanus eburneus), red beard sponges (Microciona prolifera), hydroids, and algae. The results of infaunal benthic invertebrate studies were not fully analyzed at the time of this writing, but partial lab results indicate the polychaete worms (Capitellidae, Etone sp., Notomastus sp. and Streblospio benedicti).

NYSDEC Breeding Bird Atlas records list the common nighthawk (*Chordeiles minor*) as a species suspected of breeding in the area surrounding the study area. The state legal status of this wild bird is Protected-Special Concern, which includes those species that are not yet recognized as endangered or threatened, but for which documented concern exists for their continued welfare in New York, and that are federally protected wild birds. The peregrine falcon (*Falco peregrinus*), a federally listed endangered species, was not listed as present for this site in the recent response from the U.S. Department of the Interior Fish and Wildlife Service.

6.14.2 Future No-Build Conditions

The study area would remain as it is except for the demolition and removal of the incinerator. The limited aquatic and terrestrial natural resources will remain, and the study area will continue to be an ecologically unproductive and stressed urban area.

6.14.3 Potential Impacts with the Greenpoint Converted MTS

6.14.3.1 Geology

The geology of the study area would not be impacted as a result of the Greenpoint Converted MTS, other than potential dredging activity and the expansion of the land area of the facility by bulkheading and backfilling. The dredging activity would remove layers of sediment deposited over time and further alter the profile of the submarine geological features of the study area, but no significant impact would occur.

6.14.3.2 Floodplains

Potential development of the Greenpoint Converted MTS would have no affect on the elevation of the site. The facility would be constructed within the 100-year floodplain, and it would not include any provisions for raising any portions of the site over this level.

6.14.3.3 Ecosystems

Construction of the Greenpoint Converted MTS would involve removal of the existing MTS and construction of a new, upland facility. This would result in 0.82 acre of unshaded marine environment that was previously shaded by the existing MTS. Assuming normal operations, this procedure should not involve any measurable impacts to the aquatic or terrestrial natural resources. During the demolition of the existing MTS, the upper organic silts lying beneath the structure that was above water would be disturbed to some degree, resulting in resuspension of the sediment. However, the amount of resuspended sediment is expected to be low, and the impacts, if any, highly localized. Turbidity and short-term, lowered, dissolved oxygen are possible, but not measurable against the normal background fluctuations. Any dredging

6-103

activities in the area to accommodate barges would result in an immediate, short-term destruction of the macrobenthic invertebrates in the area; however, recolonization of the area by macrobenthic invertebrates could be expected within 6 months to 12 months after cessation of dredging activities. Given the relatively small size of the project and the existing impacts to the natural resources of the study area, minimal impact is expected from the disturbance of the environment associated with the Greenpoint Converted MTS.

Construction of the new upland facility would not have any significant impact on the few areas of vegetation present on the site. Existing on-site buildings and paved parking areas have precluded any opportunity for natural resources to establish themselves and, as such, native species of vegetation have probably been absent from the site since its original construction. Vegetation observed on the site was opportunistic weeds and plants, none of which were rare, endangered, or particularly important from an ecological perspective. No significant terrestrial impacts would result from the Greenpoint Converted MTS because the site is already fully developed and the creek is heavily contaminated. Removal of the above-water section of the existing MTS eliminates shading of the marine environment in this area. The only shading that would take place under the Future Build Condition would be temporary due to temporary barge dockage and, therefore, any impacts of shading would also be temporary.

According to the Atlas of Breeding Birds in New York State, the common nighthawk nests on flat-roofed structures in cities and towns, and feeds upon insects during flight. The Greenpoint Converted MTS is not likely to directly impact any potential nesting habitat or prey species that the nighthawk depends upon.⁷

6-104

Andrle, R.F. & Carroll, J.R., eds., 1988. "The Atlas of Breeding Birds in New York State" Cornell University Press. Ithaca.

6.15 Water Quality

6.15.1 Existing Conditions

6.15.1.1 Definition of Study Area

The water quality study area encompassed the East River, Newtown Creek, and Whale Creek Canal, and also included discharges from point sources and CSOs within ½ mile of the site.

6.15.1.2 Water Quality

The water quality data for the following monitoring stations, shown in Figure 6.15-1, are generally representative of water quality in the study area:

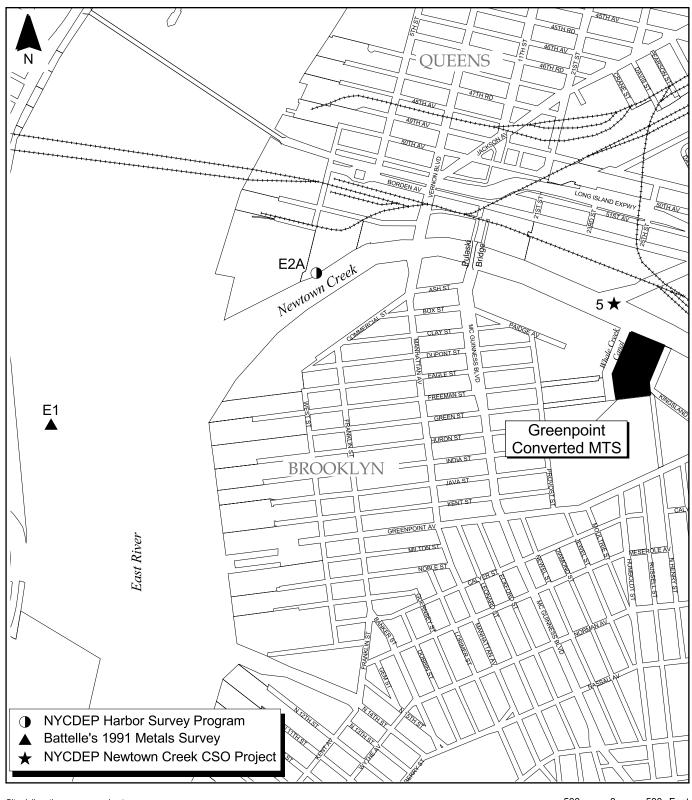
- NYCDEP Harbor Survey Program Station E-2A at Newtown Creek; and
- Battelle's 1991 Metals Survey Station E-1 in the lower East River

These data, along with NYSDEC's water quality standards and guidance values, are presented in Table 6.15-1. These standards and guidance values for the waters in the vicinity of the site correspond to "Class SD," which indicates fish survival only.

As shown in Table 6.15-1, the data indicate that on average, NYSDEC standards and guidance values are met. The mercury concentration for Battelle Station E-1 did not conform to the water quality standard for mercury.

6.15.1.3 Permitted Discharges

A review of the most recently available NYSDEC and USEPA databases indicated that there are sixteen permitted discharges in the vicinity of the site. Those within a ½-mile radius are shown in Figure 6.15-2 and listed in Table 6.15-2. These discharges consist of eleven combined sewer outflows (CSOs) and five industrial sites, all of which are permitted by the NYSDEC.



Site delineations are approximate.
Base Map Source: New York City Department of City Planning





Figure 6.15-1 Ambient Water Quality Stations Greenpoint Converted MTS

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Table 6.15-1 Existing Water Quality Conditions and Standards Greenpoint Converted MTS Study Area

Average Concentration						
Parameter	Units	Station E2A ⁽¹⁾	Station E1 ⁽²⁾	NYS Class SD Standards		
Dissolved Oxygen (surface/minimum)	mg/L	7.1 (4) / 3.3 (5)		3.0		
Dissolved Oxygen (bottom/minimum)	mg/L	6.7 (4) / 3.4 (5)		3.0		
BOD (surface)	mg/L	2.4 (8)				
BOD (bottom)	mg/L	2.4 (8)				
Total Coliform (surface)	MPN / 100 mL	2,579 ⁽⁹⁾				
Total Coliform (bottom)	MPN / 100 mL	1,982 (9)				
Fecal Coliform (top)	MF	384				
Fecal Coliform (bottom)	MF	35				
Total Suspended Solids (surface)	mg/L	10				
Total Suspended Solids (bottom)	mg/L	19				
NH3-N	mg/L	0.429				
(NO3 + NO2)	mg/L	0.363				
Total Phosphorous	mg/L	0.433 (10)				
Dissolved PO4	mg/L					
Chlorophyll-a	μg/L	11.4				
Arsenic	μg/L			120 (11,12)		
Cadmium	μg/L		0.06 (11)	21 (11,12)		
Chromium	μg/L					
Copper	μg/L		1.93 (13)	7.9 (12,13)		
Lead	μg/L		0.27 (11)	204 (11,12)		
Mercury	μg/L		0.0048 (11)	0.0026 (11,12)		
Nickel	μg/L		1.60 (11)	74 (11,12)		
Silver	μg/L		0.0566 (14)	2.3 (11,14)		
Zinc	μg/L		7.40 (11)	95 (11,12)		
Cyanide	μg/L			1.0 (12)		

- Average concentrations for 1999 NYCDEP Harbor Survey site E-2A located at Newtown Creek.
- (2) Average concentrations for 1991 Battelle Ambient Survey site E-1, located at the lower East River.
- (3) Represents average between March and December 1999.
- ⁽⁴⁾ Minimum between June 1, 1999 and September 30, 1999.
- (5) Represents average between February and September 1990.
- ⁽⁶⁾ Minimum between June 1, 1990 and September 30, 1990.
- (7) Latest available data 1997.
- (8) Latest available data 1996.
- (9) Latest available data 1998.Guidance values and data are for dissolved metals.
- (10) NYSDEC Guidance Value (NYSDEC TOGS 1.1.1, June 1998, errata sheet January 1999 and addendum April 2000). (11) Site specific chronic and acute criteria for dissolved copper in NY/NJ Harbor.
- (12) Guidance value and data are for acid-soluble metal.

Table 6.15-2 Existing Permitted Discharges Greenpoint Converted MTS Study Area

Combined Sewer Overflows (CSOs)							
Outflow Location /WPCP	Permit Number	County	Receiving Water Body				
McGuiness Blvd./Newtown Creek	NY0026204-022	Kings	Newtown Creek				
McGuiness Blvd./Newtown Creek	NY0026204-021	Kings	Newtown Creek				
Greenpoint Ave./Bowery Bay	NY0026158-011	Queens	Newtown Creek				
35th St./Bowery Bay	NY0026158-012	Queens	Newtown Creek				
Borden Ave./Bowery Bay	NY0026158-004	Queens	Dutch Kills				
Hunterspoint Ave./Bowery Bay	NY0026158-009	Queens	Dutch Kills				
Midtown Tunnel /Bowery Bay	NY0026158-010	Queens	Dutch Kills				
49th Ave./Bowery Bay	NY0026158-040	Queens	Dutch Kills				
27th St./Bowery Bay	NY0026158-042	Queens	Dutch Kills				
11th St./Bowery Bay	NY0026158-043	Queens	Newtown Creek				
11th St./Bowery Bay	NY0026158-013	Queens	Newtown Creek				
Point Sources							
Company Name	Permit Number	County	Receiving Water Body				
Metro Terminals Corp.	NY0007676	Kings	Newtown Creek				
Getty Terminal Corp.	NY0028452	Queens	Newtown Creek				
Newtown Creek WPCP	NY0026204	Kings	Newtown Creek				
Motiva Enterprises LLC	NY0006131	Kings	Newtown Creek				
Exxon Mobile Oil Corp.	NY0004995	Kings	Newtown Creek				

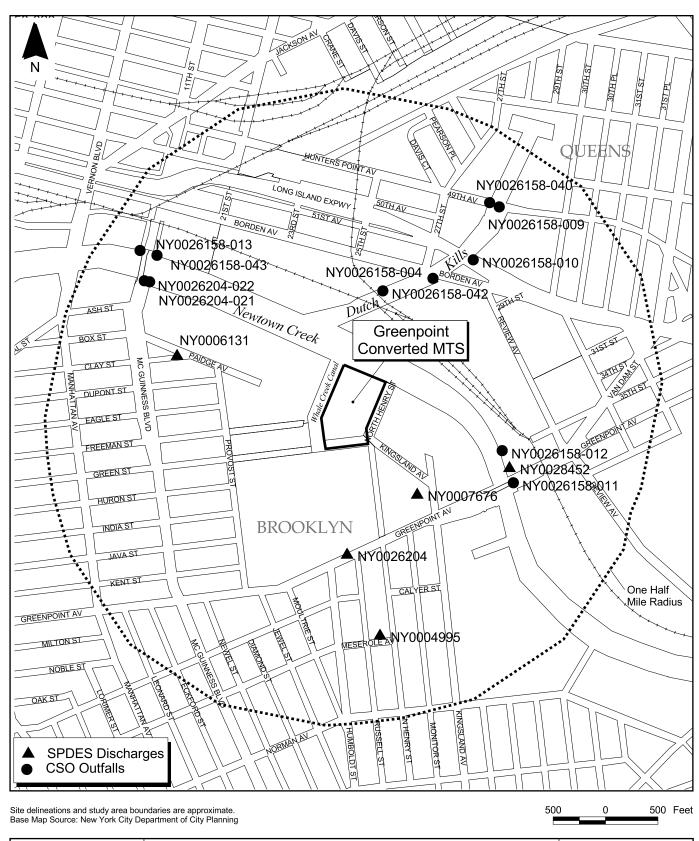




Figure 6.15-2 Permitted Outfalls and CSO Locations Greenpoint Converted MTS

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6.15.1.4 Existing Pollutant Loads and Stormwater Runoff

Using available databases on stormwater pollutant concentrations and local precipitation data, estimates of stormwater pollutant loadings were calculated. The existing paved areas were assumed to be completely impervious, and the existing unpaved areas were assumed to have 100 percent storage and infiltration. A runoff flow of 0.341 cfs was calculated using the impervious site area (5.7 acres), an average rainfall intensity per storm of 0.06 inches/hour, and a runoff coefficient of 1. The resulting stormwater loads, shown in Table 6.15-3, represent the existing loads at the site.

Table 6.15-3
Estimated Existing Pollutant Loads and Runoff Flows for an Average Storm
Greenpoint Converted MTS Study Area

Pollutant	Concentration	Pollutant Loading (lbs/day)		
Fecal Coliform MPN/100 mL	34,000	62,577 ⁽¹⁾		
BOD mg/L	11	20		
Heavy Metals				
Copper µg/L	35	0.064		
Lead μg/L	28	0.052		
Zinc µg/L	154	0.283		
Total Impervious Area (acre) = 5.69		Runoff Coefficient (C) = 1.00		
Average Rainfall Intensity per Storm (i	$nch/hour) = 0.06^{(2)}$	Runoff Flow (cfs) = 0.341		

Notes:

6.15.2 Future No-Build Conditions

Water quality would be expected to remain the same or improve. Water quality improvements would be due to the ongoing NYCDEP CSO Abatement Program, which will reduce untreated discharges to receiving waterways, nitrogen removal activities, which will reduce nitrogen loads from the City WPCPs, as well as other programs.

Coliform loads are not shown in pounds/day. Values shown are input to the 208 Model, with output results comparable to MPN/100 ml.

⁽²⁾ Based on Central Park Rain Data (1969-2002); The National Climatic Data Center.

6.15.3 Potential Impacts with the Greenpoint Converted MTS

With the development and operation of the Greenpoint Converted MTS, there would be a

decrease in the impervious area and therefore the stormwater loadings at the site would decrease.

Table 6.15-4 shows the existing impervious area, the change in the impervious area, and

pollutant loads. With the development of the Greenpoint Converted MTS, conditions would not

be significantly different from Future No-Build Conditions.

All solid waste processing at the Greenpoint Converted MTS would occur within structures on

the site. All process wastewater from waste handling operations in the facility, such as

washdown water, would be routed to an on-site pretreatment system (e.g., oil/water separation).

After treatment, the process wastewater would be discharged to the municipal sewer system and,

ultimately, to the Newtown Creek WPCP, where it would be treated prior to discharge to the East

River and, therefore, would not adversely affect water quality.

Stormwater loads and the impervious area for the Greenpoint Converted MTS, shown in

Table 6.15-4, would be expected to decrease from Existing Conditions. According to the

208 Model, the decreased loads would have no significant impact on water quality in the

adjacent surface waters.

Unimpeded operation of the Greenpoint Converted MTS may also require dredging activities to

construct the waterfront structures and improve existing water depths in the immediate vicinity

of the site. All dredging activities would be conducted in compliance with applicable federal,

state, and local regulations and required permits would be acquired prior to any proposed

dredging activities. Applicable and appropriate measures (e.g., closed clamshell buckets, silt

curtains, etc.) would be implemented during any and all dredging activities to minimize and/or

eliminate any short-term impacts to local water quality. Short-term impacts could include an

increase in turbidity during active dredging operations; however, dredging would not result in

any significant adverse long-term impacts.

6-111

Table 6.15-4 Impervious Area and Estimated Pollutant Loads Greenpoint Converted MTS

			Estin	Estimated Pollutant Loadings/Incremental Cha				
Condition	Total Impervious Area (acres)	Change in Impervious Area (acres)	Fecal Coliform ⁽²⁾	BOD (lbs/day)	Copper (lbs/day)	Lead (lbs/day)	Zinc (lbs/day)	
Existing Conditions	5.69	0.0	62,577/NA	20/NA	0.064/NA	0.052/NA	0.283/NA	
Future Build Conditions	4.90	-0.79	53,908/-8,670	17/-3	0.055/-0.008	0.044/-0.007	0.244/-0.039	

Notes:

⁽¹⁾ Incremental change refers to the difference in pollutant loading between the Existing Conditions and Future Build Conditions

⁽²⁾ Coliform loads are not shown in pounds/day. Values shown are input to the 208 Model, with output results comparable to MPN/100 mL.

6.16 Waterfront Revitalization

6.16.1 Introduction

The Federal Coastal Zone Management Act of 1972 established coastal zone management programs to preserve, protect, develop and restore the coastal zone of the U.S. Due to its proximity to the waterfront of Newtown Creek, the Greenpoint Converted MTS would be within New York City's coastal zone boundary (Figure 6.16-1). According to "The New Waterfront Revitalization Program," the Greenpoint Converted MTS would be classified as a water-dependent industrial use and would be located within Reach 13/Newtown Creek as indicated within the "New York City Comprehensive Waterfront Plan-Reclaiming the City's Edge" and the "Plan for the Brooklyn Waterfront." The site would also be located within the Newtown Creek SMIA. The Greenpoint Converted MTS is subject to review under the 10 primary policies and the 32 subpolicies identified within "The New Waterfront Revitalization Program" that address the waterfront's important natural, recreational, industrial, commercial, ecological, cultural, aesthetic, and energy resources.

The Greenpoint Converted MTS was reviewed to determine its general consistency with each of these policies and subpolicies. This review identified several subpolicies that were not applicable. These include subpolicies 1.1, 1.2, 2.2, 3.1, 4.4, 6.2, 6.3, and 8.5. All policies and subpolicies, including those identified as not applicable, are listed in Table 3.18.1. Further discussion is provided below for those policies or subpolicies needing more clarification or found to be inconsistent with a component of the Greenpoint Converted MTS. A description of waste handling operations that would occur at the Greenpoint Converted MTS is provided in Section 2.4.



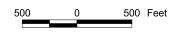




Figure 6.16-1 Coastal Zone Boundary **Greenpoint Converted MTS**

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6.16.2 Consistency Assessment

Policy 1: Support and facilitate commercial and residential redevelopment in areas well-suited to such development.

1.3 Encourage redevelopment in the coastal area where public facilities and infrastructure are adequate or will be developed.

A review of available information indicates that there are sufficient public services and facilities to support the Greenpoint Converted MTS. As part of the Southwest Brooklyn Converted MTS, connections from the new facility to existing utilities (e.g., sewer and electrical connections, etc) in the vicinity would be established.

Policy 2: Support water-dependent and industrial uses in New York City coastal areas that are well-suited to their continued operation.

2.1 Promote water-dependent and industrial uses in Significant Maritime and Industrial Areas.

The Greenpoint Converted MTS would be located within the Newtown Creek SMIA and would be located within an existing M3-1 zoning designation at the site of the existing MTS. It would involve the conversion of the existing over-water, truck-to-barge waste MTS into an upland truck-to-container-to-barge (TCB) transfer station that would transport DSNY-managed waste to remote out-of-City disposal facilities via marine transport. A large portion of the Greenpoint Converted MTS would be located on the site of the existing Greenpoint incinerator building, which will be demolished under the Future No-Build Conditions.

The Greenpoint Converted MTS site, as described in Section 2.3.2, would largely represent the reactivation of an existing industrial and water-dependent use. It would serve to maintain this use while restoring and revitalizing existing industrial waterfront property, and it would be compatible with existing neighboring industrial uses. Upland development would involve construction of four primary components: (1) an elevated access ramp; (2) an enclosed processing building, including the tipping floor, loading floor and pier level; (3) an outside gantry crane system; and (4) a bulkhead/fendering system. The Greenpoint Converted MTS would be consistent with existing land uses in the immediate vicinity of the site and the "Plan for the Brooklyn Waterfront," which recommends the continued industrial use of the site. Although the Greenpoint Converted MTS would not encourage or facilitate the sighting of any additional water-dependent uses, it would represent an upland expansion and reactivation of an existing water-dependent use and would be compatible with surrounding uses.

2.3 Provide infrastructure improvements necessary to support working waterfront uses.

The Greenpoint Converted MTS would involve the demolition of the existing MTS and the construction of a new MTS within the upland portions of the site. It would allow for marine transport of solid waste to licensed out-of-City disposal facilities. Upland development would involve four primary components: (1) an elevated access ramp; (2) an enclosed processing building, which includes the tipping floor, loading floor and pier level; (3) an outside gantry crane system; and (4) a rehabilitated bulkhead and fendering system. The entire pier deck floor area serviced by the gantry cranes would be located outside the confines of the enclosed facility. The Greenpoint Converted MTS would be consistent with existing waterfront uses in the vicinity of the site.

The Greenpoint Converted MTS would require dredging to improve existing water depths at and in the immediate vicinity of the site and allow for the unimpeded operation of barges and tug boats once it became operational. All dredging would be conducted in compliance with applicable federal, state and local regulations. Required permits would be acquired prior to any proposed dredging activities.

Policy 3: Promote use of New York City's waterways for commercial and recreational boating and water-dependent transportation centers.

3.2 Minimize conflicts between recreational, commercial, and ocean-going freight vessels.

The Greenpoint Converted MTS would be located within an existing, heavily industrialized area and would not interfere with any maritime industrial, commercial or recreational vessel activities in the area. Activities within Newtown Creek resulting from the Greenpoint Converted MTS would be limited to barge loading along the pier level and the periodic swapping of loaded barges at the slips. Four of five barges would be filled on a daily basis. These swapping activities would be similar to previous barge activities at the site. Therefore, no adverse impact to other uses within the water body would be anticipated. The Greenpoint Converted MTS would be consistent with this subpolicy.

3.3 Minimize impact of commercial and recreational boating activities on the aquatic environment and surrounding land and water uses.

The Greenpoint Converted MTS would involve the conversion of the existing over water MTS where loose waste was placed in open barges into an upland TCB where DSNY-managed waste would be transferred into containers that would be sealed and placed into modified hopper barges, then transported to an out-of-City disposal site. All solid waste handling would be done within an

environment and surrounding land and water uses. Building ventilation would be maintained under negative pressure, which would maintain dust inside the building. Additional dust, odor and vector control systems would also be used to minimize impacts to the surrounding environment. Litter control methods, such as routine sweeping and washing of the tipping floor, would also be implemented at the facility to minimize or eliminate the potential for litter entering surface waters. All process wastewaters would be treated on-site prior to being discharged to the municipal sewer system. In addition, any on-site storage of petroleum and handling of unauthorized wastes would be managed in accordance with applicable federal, state, and local regulations.

Policy 4: Protect and restore the quality and function of ecological systems within the New York coastal area.

4.1 Protect and restore the ecological quality and component habitats and resources within the Special Natural Waterfront Areas, Recognized Ecological Complexes, and Significant Coastal Fish and Wildlife Habitats.

Based upon a review of SNWA, Recognized Ecological Complexes and Significant Coastal Fish and Wildlife Habitat, the Greenpoint Converted MTS would not be located within any designated areas. It would represent an upland expansion in size of a previous over-water use and would not be anticipated to result in any long-term impacts to natural resources in the vicinity of the site and would be consistent with this subpolicy.

4.2 Protect and restore tidal and freshwater wetlands.

A review of NYSDEC tidal and freshwater wetland and National Wetland Inventory (NWI) maps was conducted to determine the presence of wetlands. As noted in Section 6.14.1, the site contains no freshwater wetlands. The Greenpoint

Converted MTS would be within Newtown Creek, which is identified as a littoral zone, a state-designated wetland. The demolition of the existing MTS and subsequent development of the Greenpoint Converted MTS would result in limited, short-term impacts to these tidal wetlands.

Impacts to littoral zones would be minimized due to the impacted nature of the existing waterway, previous and ongoing industrial activities at and in the vicinity of the site, and permitted dredging activities that have historically occurred at the site. The Greenpoint Converted MTS would be largely land-based and would require the demolition of the existing MTS. It will be sited at the approximate location of the Greenpoint incinerator, which will be demolished as part of the Future No-Build Conditions. Dredging would be required to improve existing water depths at and in the immediate vicinity of the site and allow for the unimpeded operation of barges and tugboats once the Greenpoint Converted MTS is operational. Potential impacts due to dredging would be short-term and localized. All dredging would be conducted in compliance with applicable federal, state and local regulations. Required permits would be acquired prior to any dredging activities. Mitigation, if required, would be proposed during the environmental review and permitting of the Greenpoint Converted MTS to address any potential impacts to wetlands that may occur due to its development.

4.3 Protect vulnerable plant, fish and wildlife species, and rare ecological communities. Design and develop land and water uses to maximize their integration or compatibility with the identified ecological community.

There are no known vulnerable fish or plant species found within the vicinity of the Greenpoint Converted MTS. A review of the "Atlas of Breeding Birds in New York," indicates the Common Nighthawk (*Chordeiles minor*) as a species suspected to be breeding in the area. The Common Nighthawk is classified by the State as a Protected-Special Concern species. As noted in Section 6.14.3, the Greenpoint Converted MTS would not impact these species and their habitats.

The Greenpoint Converted MTS would involve the demolition of the existing MTS and construction of the new facility, which will be located upland to minimize potential impacts to natural resources. Upland development would include an elevated access ramp; an enclosed processing building, which includes the tipping floor, loading floor and pier level; an outside gantry crane system; and a rehabilitated bulkhead and fendering system. Development of the Greenpoint Converted MTS would involve dredging, however, but potential impacts to plant, fish and wildlife species would be minimized and all dredging would be conducted in compliance with applicable federal, state and local regulations. Required permits would be obtained prior to any dredging activities.

In addition, all handling and containerization of solid waste would be performed inside the processing building, thereby limiting the risk of an introduction of hazardous wastes or other pollutants into the environment that could impact surrounding fish and wildlife resources. Sanitary and process wastewaters would be routed to on-site treatment systems and would then be discharged to the municipal sewer systems. Storm water runoff from the Greenpoint Converted MTS and the storage of any petroleum products would be conducted in accordance with applicable federal, state and local regulations. The Greenpoint Converted MTS would, therefore, be consistent with this subpolicy.

Policy 5: Protect and improve water quality in the New York City coastal area.

5.1 Manage direct or indirect discharges to waterbodies

The Greenpoint Converted MTS would be developed in accordance with applicable federal, state and local regulations. Consistent with this subpolicy, the processing areas would be cleaned on a regular basis. All sanitary and process wastewaters (e.g., floor washdown waters, etc.) would be conveyed to an on-site disposal treatment system that would include an oil-water separator, and then discharged to the municipal sewer system. In addition, the slope of the tipping

floor would prevent the build-up of free liquids by directing all liquids to drains. Storm water runoff from the Greenpoint Converted MTS would be managed in accordance with applicable regulations.

5.2 Protect the quality of New York City's waters by managing activities that generate nonpoint source pollution.

During the development and operation of the Greenpoint Converted MTS, BMPs would be used to the extent possible to minimize any nonpoint discharges. The Greenpoint Converted MTS would comply with applicable federal, state and local requirements concerning the management of stormwater runoff and erosion. All handling and containerization of solid waste would be performed inside the enclosed processing building; limiting the risk for the introduction of hazardous wastes or other pollutants into the environment. In addition, litter control methods would be implemented at the facility to minimize or eliminate the potential for litter to enter surface waters.

5.3 Protect water quality when excavating or placing fill in navigable waters and in or near marshes, estuaries, tidal marshes, and wetlands.

Development of the Greenpoint Converted MTS would include demolition of the existing MTS. Barges would be staged along a refurbished or reconstructed bulkhead wall for loading and unloading of containers. Dredging would be needed to remove accumulated sediments in the barge berthing areas to provide adequate draft for barges and tugboats. Potential impacts due to dredging would be short-term and localized. All dredging would be conducted in compliance with applicable federal, state and local regulations and removed materials would be disposed of at permitted facility.

5.4 Protect the quality and quantity of groundwater, streams, and the sources of water for wetlands.

The Greenpoint Converted MTS would result in no adverse impact to the quality or quantity of groundwaters or surface waters at or in the immediate vicinity of the site. Applicable and appropriate measures would be implemented at the Greenpoint Converted MTS in accordance with federal, state and local regulations. The Greenpoint Converted MTS would be consistent with this subpolicy.

Policy 6: Minimize loss of life, structures and natural resources caused by flooding and erosion.

6.1 Minimize losses from flooding and erosion by employing non-structural and structural management measures appropriate to the condition and use of the property to be protected and the surrounding area.

According to review of the FEMA National Flood Insurance Program maps, the site is located within the 100-year flood plain (Zone A) and the 500-year flood plain boundary (Zone B). Development of the Greenpoint Converted MTS would not affect the potential for flooding or erosion. All demolition and redevelopment activities would comply with applicable building code requirements and to the extent practicable and necessary, non-structural or structural measures would be implemented to minimize damage from flooding or erosion.

Policy 7: Minimize environmental degradation from solid waste and hazardous substances.

7.1 Manage solid waste material, hazardous wastes, toxic pollutants, and substances hazardous to the environment to protect public health, control pollution and prevent degradation of coastal ecosystems.

The Greenpoint Converted MTS would involve the management and processing of solid waste through a TCB system. Waste would be transported in waterproof, airtight, sealed containers. All waste handling operations would occur inside an enclosed processing building, which would minimize the escape of litter into the surrounding waterbody. Unless emergencies close the facility, solid waste would generally be containerized within 24 hours of tipping. All solid waste handling operations would be conducted in accordance with NYSDEC Part 360 regulations (6NYCRR Parts 360-1 and 360-11) for solid waste transfer stations, which would be incorporated by reference into the permit to construct and operate the Greenpoint Converted MTS. Radiation detection equipment would be located at the facility, and contingency plans would be in place in the event of unauthorized waste and/or other situations that could disrupt the operation of the facility. Litter control methods would be implemented at the facility to minimize or eliminate the potential for litter entering surface waters. The Greenpoint Converted MTS would not result in adverse impacts and would operate in a manner to ensure that there would be no impact to ground and surface water supplies, significant fish and wildlife habitats, recreational areas and scenic resources.

On-site storage of petroleum or hazardous materials related to the operation of the Greenpoint Converted MTS would be minimal and all storage would be in accordance with applicable federal, state and local regulations. Spill prevention and control plans would be used to prevent any hazardous materials from entering the environment.

7.2 Prevent and remediate discharge of petroleum products.

See response to Subpolicy 7.1.

7.3 Transport solid waste and hazardous substances and site solid and hazardous waste facilities in a manner that minimizes potential degradation of coastal resources.

See response to Subpolicy 7.1.

Policy 8: Provide public access to and along New York City's coastal waters.

8.1 Preserve, protect and maintain existing physical, visual and recreational access

to the waterfront.

Due to the existing, heavy industrial uses at and in the immediate vicinity of the

Greenpoint Converted MTS, public access would generally not be compatible

with the principal use of the site. Therefore, this subpolicy is not applicable.

8.2 Incorporate public access into new public and private development where

compatible with proposed land use and coastal location.

The Greenpoint Converted MTS would be a stand-alone, water dependent facility

fronting Newtown Creek. Public access would not be compatible with the

Greenpoint Converted MTS, however, its development would not preclude any

future development of the public access along Newtown Creek.

8.3 Provide visual access to coastal lands, waters and open space where physically

practical.

The Greenpoint Converted MTS would be compatible and consistent with

adjacent properties along the waterfront and would not obstruct or impair visual

access to coastal lands, waters or open space. It would involve construction of a

new TCB MTS at the location of the incinerator, which will have been

demolished, but it would have little affect on the visual quality of its industrial

setting. The barge slip gantry cranes were designed as slender structures to

minimize their visual impact. As discussed in Section 6.7.3, visual access to the

coastal lands is minimal and, therefore, no impacts to visual access would be

anticipated. See also response to Subpolicy 9.1.

6-124

8.4 Preserve and develop waterfront open space and recreation on publicly owned land at suitable locations.

No mapped parklands or open space areas have been identified at or within the

immediate vicinity of the site. Therefore, this subpolicy is not applicable.

Policy 9: Protect scenic resources that contribute to the visual quality of the New York City

coastal area.

9.1 Protect and improve visual quality associated with New York City's urban context

and the historic and working waterfront.

The Greenpoint Converted MTS would not result in a significant impact on views

as noted in Section 6.7.3. Based on the information discussed in that section, the

Greenpoint Converted MTS would be consistent with this subpolicy.

9.2 Protect scenic values associated with natural resources.

The Greenpoint Converted MTS would be an upland expansion of an existing

over-water use and would pose no new impacts to scenic values associated with

natural resources. It would be compatible with surrounding buildings and would

be consistent with this subpolicy.

Policy 10: Protect, preserve and enhance resources significant to the historical, archaeological

and cultural legacy of the New York City coastal area.

10.1 Retain and preserve designated historic resources and enhance resources

significant to the coastal culture of New York City.

6-125

No effects on cultural resources would result from the Greenpoint Converted MTS, as stated in Section 6.6.3. Based on the information presented in that section, the Greenpoint Converted MTS would be consistent with this subpolicy.

10.2 Protect and preserve archaeological resources and artifacts.

No archaeologically significant resources are located at the site or in the immediate vicinity of the site. This subpolicy is, therefore, not applicable.

6.17 Hazardous Materials

6.17.1 Existing Conditions

Existing Conditions associated with the presence of hazardous materials in soil, groundwater, and building components/equipment were investigated within the defined study area. The Hazardous Materials Assessment was performed in accordance with the guidelines for a preliminary assessment presented in the CEQR Manual (October 2001) and is consistent with the requirements for a Phase I ESA established by the American Society for Testing and Materials (ASTM E-1527). The assessment was performed in April 1999 and updated in February 2003. It included a historical land use review, regulatory agency database review, reconnaissance of the study area and surrounding area, and surface and subsurface drainage evaluation.

The historical land use review included an assessment of *Sanborn* fire insurance maps for the study area, if available, and a Freedom-of-Information Law request to the New York City Fire Department for underground storage tank records. Standard federal and state environmental databases were assessed for records of sites within the study area that had evidence of hazardous waste activity or spills. A written request to NYCDEP was made to solicit records pertaining to hazardous or toxic materials activities within the study area. A pedestrian reconnaissance of accessible interior and exterior areas within the study area was conducted, most recently in February 2003. During the reconnaissance, visual evidence was sought of hazardous materials handling or storage, including the presence of tanks, drums, transformers, and unusual stains and odors. Topographic maps, visual observations, and readily available geologic information sources were reviewed if off-site potential sources of contamination were identified.

6.17.1.1 Definition of Study Area

The study area includes the site and neighboring properties within a 1,000-foot radius (Figure 6.17-1).

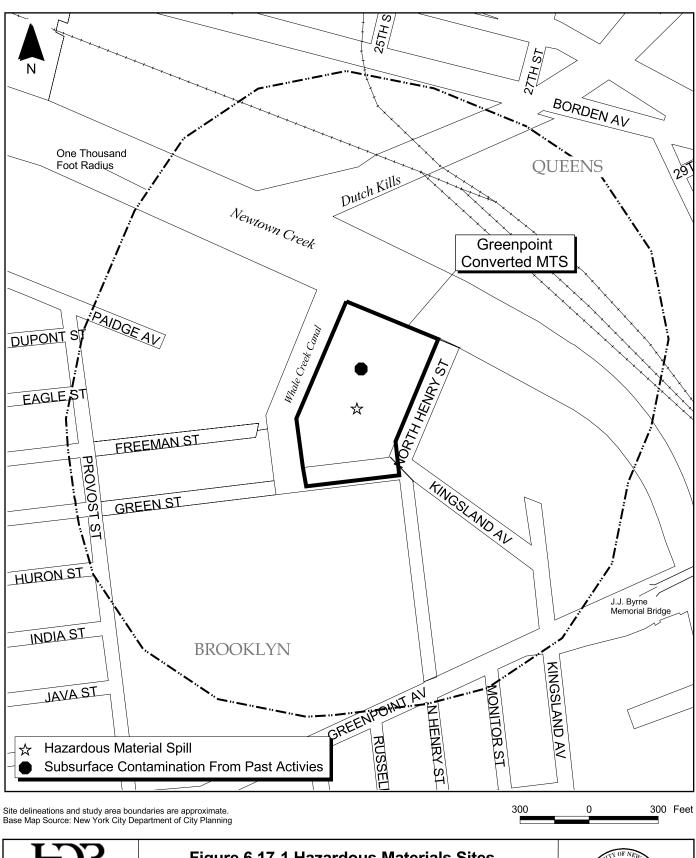




Figure 6.17-1 Hazardous Materials Sites Greenpoint Converted MTS

CITY OF NEW YORK
DEPARTMENT OF SANITATION



6.17.1.2 Delineation of Area of Concern

Areas of concern are defined as parts of the soil, groundwater, and building components/ equipment within the study area where the presence or likely presence of hazardous materials exists and implementation of the Greenpoint Converted MTS could lead to an increased exposure of people or the environment to those hazardous materials. The areas of concern at the site include:

- Residual contamination of the subsurface soils and groundwater may exist. Portions of the site were occupied by manufacturing facilities and an oil storage terminal. In addition, the site was filled with soils and ash that may have contained hazardous materials.
- The site is adjacent to the former Mobil Oil Brooklyn Terminal, which is listed on the NPL for cleanup under Superfund. The site was assigned an NFRAP designation by the USEPA. An NFRAP designation means that USEPA has completed its preliminary assessment and determined that no further steps are to be taken to list this site on the NPL.
- The incinerator building may contain ACMs and lead-based paints.
- A 5,000 capacity underground oil tank is located in the building adjacent to the incinerator. On February 22, 2001, the underground tank failed tightness testing. NYSDEC information indicated there was a minimal potential for hazard; however, the spill report is still administratively "active."

6.17.2 Future No-Build Conditions

The site would remain as is except for the demotion of the incinerator. Any asbestos containing building materials found in the incinerator building would be removed prior to demolition in a manner that is consistent with City building codes and practices. Any subsurface contamination existing in the soils and groundwater would remain. Exposure to contaminated soils is minimal because most of the site is paved or built over.

6.17.3 Potential Impacts with the Greenpoint Converted MTS

Historical contamination is most likely present at the existing MTS; however, this contamination should not prevent development of the site. If the Greenpoint Converted MTS were implemented, any residual contaminated soil would require appropriate disposal in a manner that is consistent with the level of contamination found during the demolition/construction phase. The necessary and appropriate health and safety measures would be used during construction to mitigate and minimize any exposure risk to workers or the general public.