A. INTRODUCTION

The proposed action would add a sizable number of new residents to the area over the next ten years following the adoption of the proposed action, and map a new public park, and therefore has the potential to affect the way residents of the surrounding community use parks, playgrounds, and other open spaces in the area. In accordance with guidelines established in the *CEQR Technical Manual*, this chapter assesses the adequacy of those resources in the area and the project's effect on their use. An open space assessment may be necessary if a proposed action could potentially have a direct or indirect effect on open space resources in the proposed action area. A direct effect would "physically change, diminish, or eliminate an open space or reduce its utilization or aesthetic value." An indirect effect may occur when the population generated by a proposed project would be sufficient to noticeably diminish the ability of an area's open space to serve the existing or future population. According to the guidelines established in the *CEQR Technical Manual*, a project that would add fewer than 200 residents or 500 employees, or a similar number of other users to an area, is typically not considered to have indirect effects on open space.

The proposed action would result in the net addition of approximately 7,391 DUs and 253,698 sf of ground-floor local and general retail, and a decrease in industrial space, vehicle and open storage uses, and vacant land. This anticipated development would add an estimated 16,778 net new residents and approximately 805 net new retail employees to the study area over the next ten years following the adoption of the proposed action. The proposed action would also map a new 27.8-acre park along the waterfront under Scenario A, or a new 15.9-acre park under Scenario B, and establish a Waterfront Access Plan (WAP) to provide for a coordinated network of additional waterfront open spaces.

As the proposed action would add 16,778 new residents, a detailed quantitative open space assessment was conducted to examine the change in total population relative to total public space in the area, in order to determine whether the increase in user population due to the proposed action would significantly reduce the amount of open space available for the area's population. This entails the calculation of the existing open space ratio, as well as the open space ratios in the future without and with the proposed action in place. The open space ratio is expressed as the amount of public open space acreage per 1,000 user population.

With an inventory of available resources and potential users, the adequacy of open space in the study area can be assessed both quantitatively and qualitatively. The quantitative approach computes the ratio of open space acreage to the population in the study area and compares this ratio with certain guidelines. The qualitative assessment examines other factors that can affect conclusions about adequacy, including proximity to additional resources beyond the study area, the availability of private recreational facilities, and the demographic characteristics of the area's population.

As discussed below in the following section, the proposed action would not exceed the 500-employee CEQR screening threshold, and therefore an assessment of the effects of the new worker population associated with the proposed action is not warranted. Therefore, this chapter focuses exclusively on the proposed action's residential demands on open space resources.

B. OPEN SPACE SCREENING FOR WORKER POPULATION

Although the proposed action is expected to add approximately 253,698 sf of net local retail space with an estimated 805 net new retail employees to the study area by 2013, it would also result in net decreases of 1,136,269 sf of industrial/manufacturing space, 642,686 sf of vehicle and open storage uses, and 24,876 sf of automotive uses (for Scenario A). With the projected decrease in industrial/manufacturing, vehicle/open storage, and automotive spaces, the proposed action is not expected to result in a net increase of more than 500 workers-as discussed below and summarized in Table 5-1.

Scenario A

As shown in Chapter 3, "Socioeconomic Conditions," the 76 projected development sites are estimated to contain approximately 727 employees associated with existing uses. In the future without the proposed action, it is anticipated that development would occur on some of the 76 projected development sites, which would result in a reduction of approximately 200 employees associated with industrial/ manufacturing/storage/automotive employees, and an increase of approximately 205 employees associated with retail uses. As such, it is estimated that there would be approximately 732 employees on the 76 projected development sites in the future without the proposed action.

	Number of Emp	ployees By	v Use
	Industrial/Storage/ Automotive	Retail	TOTAL
EXISTING CONDITIONS	727		727
NO-ACTION CONDITIONS			
SCENARIO A	527	205	732
SCENARIO B	555	205	760
ACTION CONDITIONS			
SCENARIO A	0	1,010	1,010
SCENARIO B	40	1,010	1,050
NET INCREMENT (NO-ACTION TO ACTION)			
SCENARIO A	-527	805	278
SCENARIO B	-515	805	290

TABLE 5-1

Employees on Projected	Development Sites Und	er No-Action and With	Action Conditions
	20,010,0110,0100,0110		

In the future with the proposed action, under Scenario A, the remaining industrial/manufacturing/ storage/automotive uses on the projected development sites would be displaced, resulting in a reduction of approximately 527 employees, whereas there would be an anticipated 337,160 sf of new retail development (refer to Table 1-1 in Chapter 1, "Project Description" for details). The new retail uses projected in the future with the proposed action are estimated to generate approximately 1,010 employees.

As such, it is expected that in the future with the proposed action, the uses on the 76 projected development sites would have a total of approximately 1,010 employees.

Compared to future conditions without the proposed action, the proposed action would result in a net increase of approximately 278 employees, which is less than the CEQR threshold of 500 additional employees.

Scenario B

The 76 projected development sites are estimated to contain approximately 727 employees associated with existing uses. As with Scenario A, in the future without the proposed action, it is anticipated that development would occur on some of the 76 projected development sites, which would result in a reduction in employees associated with industrial/manufacturing/storage/automotive employees and an increase in employees associated with retail uses. In addition, under Scenario B, the Bayside fuel site would be replaced by a power plant with an estimated 40 permanent power plant operators.¹ This would result in a net increase of 28 employees on that particular site. Therefore, it is estimated that there would be a total of approximately 760 employees on the 76 projected development sites in the future without the proposed action under Scenario B (refer to Table 5-1).

In the future with the proposed action, under Scenario B, the power plant discussed above would remain, although the other industrial/manufacturing/storage/automotive uses on the projected development sites would be displaced, resulting in a reduction of approximately 527 employees, whereas there would be an anticipated 337,160 sf of new retail development. The remaining power plant is estimated to have approximately 40 employees, whereas the new retail uses projected in the future with the proposed action are estimated to generate approximately 1,010 employees. As such, it is expected that in the future with the proposed action under Scenario B, the uses on the 76 projected development sites would have a total of approximately 1,050 employees.

Compared to future conditions without the proposed action, the proposed action under Scenario B would result in a net increase of approximately 290 employees, which is also less than the CEQR threshold of 500 additional employees.

As neither Scenario A nor Scenario B would trigger the CEQR threshold for the analysis of open space needs associated with the worker population, an analysis of the future open space demands of the future worker population associated with the proposed action is not warranted and is not provided in this chapter. This chapter focuses exclusively on the open space needs of the residential population.

C. OPEN SPACE STUDY AREA

In accordance with the guidelines established in the *CEQR Technical Manual*, the open space study area is generally defined by a reasonable walking distance that users would travel to reach local open space and recreational resources. That distance is typically a ¹/₂-mile radius for residential projects. For purposes

¹ TransGas Energy Facility's Application for a Certificate of Environmental Compatibility and Public Need Pursuant to Article X of the New York State Public Service Law; December 2002. Volume 2, page 12-17.

of analysis, the study area was determined by identifying a $\frac{1}{2}$ -mile radius around the boundaries of the proposed action area. Per *CEQR Technical Manual* guidelines, census tracts with 50 percent or greater of their area located within the $\frac{1}{2}$ -mile radius were included in the calculation of population and open space; those with less than 50 percent of their area in the $\frac{1}{2}$ -mile radius were excluded. As shown in Figure 5-1, the open space study area includes 40 census tracts in their entirety. As also shown in the figure, the open space study area is further divided into two sub-areas, the Greenpoint sub-area, and the Williamsburg sub-area. Greenpoint is largely defined by the zip code boundaries of 11222. However, where the zip code boundaries fall within a given census tract, the percentage of the tract's area within each sub-area is estimated, and that tract's population and open space are divided accordingly.

D. EXISTING CONDITIONS

Study Area Population

To determine the residential population served by existing open space resources, 2000 Census data were compiled for the census tracts comprising the study area as a whole, as well as for the Greenpoint and Williamsburg sub-areas. With an inventory of available open space resources and the number of potential users, open space ratios can be calculated and compared with existing citywide averages and planning goals set forth by the NYC Department of City Planning.

Greenpoint Sub-Area

Figure 5-1 and Table 5-2 show that the Greenpoint sub-area is comprised of 17 census tracts. However, four of those tracts fall partially within the Greenpoint sub-area. It is estimated that approximately half of tracts 477, 515 and 517 fall within the Greenpoint sub-area, whereas approximately 40% of census tract 577 is estimated to fall within the Greenpoint sub-area. The populations of those tracts have been divided between the two sub-areas accordingly.

Table 5-2 presents data from the 2000 Census and indicates that the Greenpoint sub-area has a residential population of approximately 38,994 people. In addition, based on the NYC Department of Finance's Real Property Assessment Division (RPAD) data and final certificate of occupancy records, it is estimated that approximately 169 residential dwelling units have been added to the Greenpoint sub-area of the open space study area since 2000. Since a breakdown of the study area into unsubsidized and low- to moderate-income units is not available, the community district average of 2.88 residents per unit was assumed in estimating the added population. Based on the community district average, it is estimated that approximately 487 new residents have been added to the Greenpoint sub-area since 2000, bringing the estimated total residential population of the Greenpoint sub-area to approximately 39,481. It should be noted that although the census data presented in Table 5-2 do not include the new population added since 2000, for analysis purposes, it is assumed that these new residents have an age breakdown similar to the rest of the sub-area.

The median population age for individual census tracts within the Greenpoint sub-area ranges from a high of 39.8 years (census tract 571) to a low of 29.6 years (census tract 579) as shown in Table 5-2. The average median age for the Greenpoint sub-area is 36 years, which is older than the median age for the

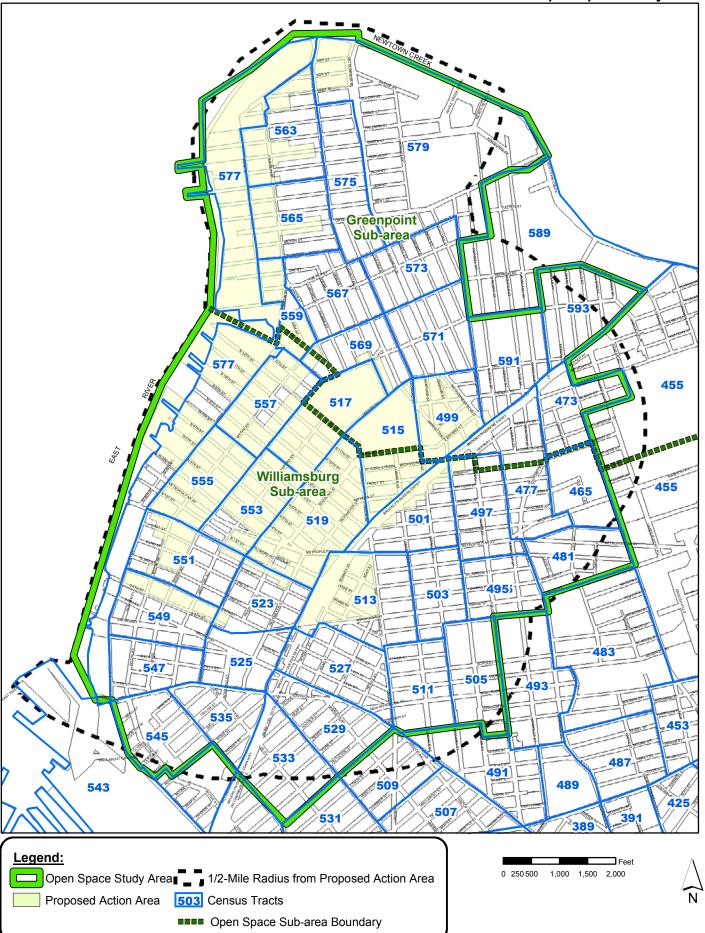


TABLE 5-2 Population and Age Group Distribution for Open Space Sub-Areas and Overall Study Area

Census	Residential	Under 5 Ye	ears	5 - 9 Yea	rs	10 -14 Y	rs	15 - 19 Ye	ars	20 - 64 Yea	ars	65+ Year	s	Median
Tract	Population	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Age
GREENPOINT SUB-ARE	4													
473	704	49	7.0	45	6.4	46	6.5	34	4.8	449	63.8	81	11.5	33.
477	1,138	55	4.8	44	3.9	48	4.2	45	4.0	759	66.7	186	16.3	36.
499	1,649	88	5.3	70	4.2	57	3.5	82	5.0	1,126	68.3	226	13.7	37.
515	438	24	5.5	19	4.3	17	3.9	21	4.8	292	66.7	64	14.6	34.3
517	757	35	4.6	21	2.8	25	3.3	30	4.0	550	72.7	93	12.3	35.
559	160	7	4.4	6	3.8	4	2.5	8	5.0	109	68.1	26	16.3	37.
563	4,307	253	5.9	227	5.3	215	5.0	229	5.3	2,956	68.6	427	9.9	34.
565	3,530	149	4.2	156	4.4	148	4.2	172	4.9	2,524	71.5	381	10.8	36.
567	3,568	150	4.2	154	4.3	139	3.9	179	5.0	2,540	71.2	406	11.4	38.
569	1,664	68	4.1	88	5.3	57	3.4	71	4.3	1,185	71.2	195	11.7	36.
571	5,083	209	4.1	239	4.7	195	3.8	255	5.0	3,523	69.3	662	13.0	39.
573	2,787	127	4.6	132	4.7	133	4.8	133	4.8	1,975	70.9	287	10.3	38.
575	5,006	243	4.9	264	5.3	258	5.2	329	6.6	3,373	67.4	539	10.8	36.
577	76	2	2.6	2	2.6	0	0.0	1	1.3	71	93.2	1	1.3	33.
579	1,362	108	7.9	102	7.5	87	6.4	84	6.2	887	65.1	94	6.9	29.
591	4,277	227	5.3	204	4.8	200	4.7	240	5.6	2,849	66.6	557	13.0	37.
593	2,488	143	5.7	165	6.6	150	6.0	169	6.8	1,665	66.9	196	7.9	34.
Greenpoint Sub-Area Subtotal	38,994	1,937	5.0	1,938	5.0	1,779	4.6	2,082	5.3	26,833	68.8	4,421	11.3	36.
New Population Since 2000	487													
Total	39,481													
WILLIAMSBURG SUB-A	REA													
465	2,341	157	6.7	192	8.2	232	9.9	246	10.5	1,289	55.1	225	9.6	30.9
477	1,138	55	4.8	45	4.0	48	4.2	45	4.0	760	66.7	186	16.3	36.
481	2,772	193	7.0	211	7.6	134	4.8	145	5.2	1,723	62.2	366	13.2	31.
495	2,727	152	5.6	184	6.7	153	5.6	146	5.4	1,835	67.3	257	9.4	31.
497	2,228	68	3.1	85	3.8	76	3.4	67	3.0	1,539	69.1	393	17.6	36.
501	2,646	110	4.2	122	4.6	134	5.1	102	3.9	1,710	64.6	468	17.7	34.
503	2,735	148	5.4	141	5.2	126	4.6	176	6.4	1,827	66.8	317	11.6	32.
505	4,211	278	6.6	294	7.0	278	6.6	318	7.6	2,441	58.0	602	14.3	34.0
			6.5				7.2		7.0					
511	3,730	244		281	7.5	269		273	7.3	2,189	58.7	474	12.7	34.0
513	4,362	264	6.1	328	7.5	313	7.2	322		2,801	64.2	334	7.7	29.
515	439	24	5.5	20	4.6	18	4.1	21	4.8	292	66.5	65	14.8	34.3
517	757	36	4.8	22	2.9	26	3.4	31	4.1	551	72.7	94	12.4	35.
519	3,043	151	5.0	110	3.6	120	3.9	106	3.5	2,241	73.6	315	10.4	31.
523	5,729	469	8.2	481	8.4	465	8.1	462	8.1	3,494	61.0	358	6.2	28.
525	3,537	408	11.5	352	10.0	353	10.0	330	9.3	1,643	46.5	451	12.8	25.
527	7,277	623	8.6	706	9.7	600	8.2	674	9.3	4,277	58.8	397	5.5	27.4
529	4,295	814	19.0	551	12.8	471	11.0	407	9.5	1,814	42.2	238	5.5	18.9
533	7,560	1,440	19.0	1,040	13.8	833	11.0	797	10.5	2,815	37.2	635	8.4	17.
535	4,880	860	17.6	666	13.6	586	12.0	540	11.1	1,904	39.0	324	6.6	18.
545	7,741	904	11.7	988	12.8	1,096	14.2	1,026	13.3	3,018	39.0	709	9.2	19.0
547	3,364	567	16.9	508	15.1	382	11.4	327	9.7	1,450	43.1	130	3.9	18.
549	1,488	117	7.9	94	6.3	95	6.4	100	6.7	1,030	69.2	52	3.5	29.
551	4,313	235	5.4	308	7.1	306	7.1	298	6.9	2,930	67.9	236	5.5	30.
553	2,583	86	3.3	106	4.1	84	3.3	139	5.4	1,851	71.7	317	12.3	35.
555	868	35	4.0	11	1.3	20	2.3	23	2.6	706	81.3	73	8.4	32.
557	1,151	47	4.1	36	3.1	28	2.4	37	3.2	902	78.4	101	8.8	35.
577	114	2	1.8	2	1.8	0	0.0	2	1.8	106	93.2	101	0.0	33.
Williamsburg Sub-Area Subtotal	88,029	8,487	9.6	7,884	9.0	7,246	8.2	7,160	8.1	49,138	55.8	8,118	9.2	29.
		0,407	9.0	1,004	9.0	1,240	0.2	7,100	0.1	49,138	00.0	0,110	9.2	29.
New Population Since 2000 Total	1,561 89 590													
Total	89,590													
						<u> </u>								
1/2 Mile Study Area Subtotal	127,023	10,424	8.2	9,822	7.7	9,025	7.1	9,242	7.3	75,971	59.8	12,539	9.9	31.
New Population since 2000	2,048													
Study Area Total	129,071													
Study Area Total	0,0.1													
Brooklyn CD1	160,338	13,657	8.5	13,141	8.2	12,351	7.7	12,476	7.8	02 252	58.2	15,460	9.6	29.7
BIOOKIVII CD'I	100,000	13,057	0.0	13,141	U.2					93,253				
	0.465.000	400 500	7 4	400 077	~ ~ !	400 000	7 4	477 004	7 0		E0 0	000 000		
All Brooklyn New York City	2,465,326 8,008,278	182,599 540,878	7.4 6.8	189,677 561,115	7.7 7.0	182,866 530,816	7.4 6.6	177,281 520,641	7.2 6.5	1,450,245 4,916,971	58.8 61.4	282,658 937,857	11.5 11.7	33. 34.

Source: 2000 US Census Data; Summary File 1, Table P-1 and Table P-104.



Census Tracts 477, 515, 517, and 577 fall within both sub-areas. Therefore, their populations are split 50-50 between Greenpoint and Williamsburg, except for Tract 577, which is estimated at 40% within Greenpoint and 60% in Williamsburg, and its population is divided accordingly.

Williamsburg sub-area and the $\frac{1}{2}$ -mile open space study area as a whole (see discussion below). Approximately 68.8 percent of the Greenpoint sub-area's population falls between the ages of 20 and 64, whereas approximately <u>11.3</u> percent of the sub-areas's residents are 65 years of age and older. When compared to the entire New York City population, Greenpoint has a higher median age (36 years in contrast to 34.2 years Citywide), a lower percentage of persons under the age of 20 (19.9 percent in contrast to 26.9 percent Citywide), and a lower percentage of people who are above the age of 65 (11.3 percent versus 11.7 percent Citywide.) As also shown in Table 5-2, approximately 5 percent of the sub-area's residents are under the age of 5, 5.0 percent are between the ages of 15 an 19. These percentages are considerably lower than the percentages of the Williamsburg sub-area, the entire open space study area, and the entire New York City area in the same age groups. This is indicative of the more mature nature of the Greenpoint sub-area's population. With these demographic characteristics, the Greenpoint sub-area has a need for a range of active and passive recreation facilities, particularly those geared toward adults.

Williamsburg Sub-Area

Figure 5-1 and Table 5-2 show that the Williamsburg sub-area is comprised of 27 census tracts. However, as discussed above, four of those tracts fall only partially within the Williamsburg sub-area, and the populations of those tracts have been distributed between the two sub-areas accordingly.

2000 Census data indicate that the Williamsburg sub-area has a residential population of approximately 88,029 people, as shown in Table 5-2. In addition, based on RPAD data and final certificate of occupancy records, it is estimated that approximately 542 residential dwelling units have been added to the Williamsburg sub-area of the open space study area since 2000. Based on the community district average of 2.88 residents per residential unit, it is estimated that approximately 1,561 new residents have been added to the Williamsburg sub-area since 2000, bringing the estimated total residential population of the sub-area to approximately 89,590. Although the census data presented in Table 5-2 do not include the new population added since 2000, for analysis purposes, it is assumed that these new residents have a similar age breakdown to the rest of the sub-area.

The median population age for individual census tracts within the Williamsburg sub-area ranges from a high of 36.5 years (census tract 497) to a low of 17.9 years (census tract 533), as shown in Table 5-2. The average median age for the Williamsburg sub-area is 29.7 years, which is younger than the median age for the Greenpoint sub-area and the $\frac{1}{2}$ -mile open space study area as a whole. Approximately 55.8 percent of the Williamsburg sub-area's population falls between the ages of 20 and 64, whereas approximately 9.2 percent of the sub-areas's residents are 65 years of age and older. When compared to the entire New York City population, Williamsburg has a lower median age (29.7 years in contrast to 34.2 years Citywide), a higher percentage of persons under the age of 20 (34.9 percent in contrast to 26.9 percent Citywide), and a lower percentage of people who are above the age of 65 (9.2 percent versus 11.7 percent Citywide.)

As also shown in Table 5-2, approximately 9.6 percent of the sub-area's residents are under the age of 5, 9.0 percent are between the ages of five and nine, 8.2 percent are between 10 and 14 years old, and 8.1 percent are between the ages of 15 an 19. These percentages are higher than the percentages of the Greenpoint sub-area, the entire open space study area, and the entire New York City area in the same age groups. This is indicative of the younger nature of the Williamsburg sub-area's population.

¹/₂-Mile Open Space Study Area

As shown in Table 5-2, 2000 Census data indicate that the study area has a residential population of approximately 127,023 persons. This figure was further adjusted to include new residential developments or conversions that have occurred within the ½-mile study area since 2000. Based on RPAD data and final certificate of occupancy records, it is estimated that approximately 711 residential dwelling units have been added to the open space study area since 2000. Based on the community district average of 2.88 residents per residential unit, it is estimated that approximately 2,048 new residents have been added to the study area since 2000. This brings the total residential population of the study area to 129,071.

Table 5-2 also provides age group distribution for the census tracts comprising the study area, and compares the study area to Brooklyn Community District 1, Brooklyn, and New York City as a whole. These census figures do not include the 2,048 new residents that have been added since 2000, but for analysis purposes it is assumed that these new residents have a similar age breakdown to the rest of the study area.

As shown in Table 5-2, the median age of the population for individual census tracts ranges from a high of 39.8 years (census tract 571) to a low of 17.9 years (census tract 533). The average median age for the census tracts comprising the study area is 31.9 years, which is younger than the 33.1 median age for Brooklyn as a whole and the 34.2 median age for all of New York City, but older than the 29.7 median age for Community District (CD) 1. Approximately 59.8 percent of the study area's population falls between the ages of 20 and 64, compared to 58.2 percent for CD1, 58.8 for Brooklyn as a whole and 61.4 percent for the entire City. Census tract 577 has the highest percentage of adult population, with 93.2 percent of the population falling between the ages of 20 and 64, whereas census tract 533 has the lowest percentage of adult population, at 37.2 percent.

Approximately 9.9 percent of the study area's residents are 65 years of age and older, less than the average for Brooklyn (11.5 percent) and for the City (11.7 percent) and only slightly more than the 9.6 percent figure for CD1. As shown in Table 5-2, approximately 8.2 percent of the study area's residents are under the age of 5, 7.7 percent are between the ages of five and nine, 7.1 percent are between 10 and 14 years old, and 7.3 percent are between the ages of 15 and 19. These percentages are slightly lower than the percentages of CD1 in the same age groups, but are equivalent to the figures for Brooklyn generally, and higher than the figures for New York City as a whole.

With these demographic characteristics, the study area has need for a range of active and passive recreation facilities, including those geared toward both children and adults. A population's age characteristics can affect the use of open space and the type of open space that would be most appropriate for that population. Typically, children 4 years old or younger use traditional playgrounds that have play equipment for toddlers and preschool children. Children ages 5 through 9 typically use traditional playgrounds, as well as grassy and hard-surfaced open spaces, which are important for ball playing, running, skipping rope, etc. Children ages 10 through 14 use playground equipment, court spaces, little league fields, and ball fields. Teenagers' and young adults' needs tend toward court game facilities such as basketball and field sports. Adults between the ages of 20 and 64 continue to use court game facilities and fields for sports, as well as more individualized recreation such as rollerblading, biking, and jogging, requiring bike paths, promenades, and vehicle-free roadways. Adults also gather with families for picnicking, ad-hoc active sports such as frisbee, and recreational activities in which all ages can participate. Senior citizens engage in active recreation such as handball, tennis, gardening, and swimming, as well as recreational activities that require passive facilities.

Inventory of Publicly-Accessible Open Space

According to the *CEQR Technical Manual*, open space may be public or private and may be used for active or passive recreational purposes. Public open space is defined as facilities open to the public at designated hours on a regular basis and is assessed for impacts under CEQR. Private open space is not accessible to the general public on a regular basis and should only be considered qualitatively.

An open space is determined to be active or passive by the uses which the design of the space allows. Active open space is the part of a facility used for active play such as sports or exercise and may include playground equipment, playing fields and courts, swimming pools, skating rinks, golf courses, lawns, and paved areas for active recreation. Passive open space is used for sitting, strolling, and relaxation, with benches, walkways, and picnicking areas.

Publicly accessible open space facilities within the study area were inventoried in May 2003 and April 2004 and identified by their location, size, owner, type, utilization, equipment, hours, and condition of available open space. The condition of each open space facility was categorized as "Excellent," "Good", "Fair", or "Poor." A facility was considered in excellent condition if the area was clean, attractive, and all equipment was present and in good repair. A good facility had minor problems such as litter, or older but operative equipment. A fair facility was one which was poorly maintained, had broken or missing equipment, or other factors which would diminish the facility's attractiveness. A poor facility exhibited characteristics serious deficiencies in cleanliness, security, and landscaping. Determinations were made subjectively, based on a visual assessment of the facilities. Table 5-3, Open Space Inventory, identifies the address, ownership, hours, acreage of active and passive open spaces in the study area, and their condition and utilization. Figure 5-2 provides a map of their locations. The Map Key number provided in the first column of Table 5-3 indicates the appropriate marker for each open space in Figure 5-2. As with the demographic statistics, the open space inventory is provided for the Greenpoint and Williamsburg sub-areas as well as for the ½-mile radius as a whole.

Judgments as to the intensity of use and conditions of the facilities were qualitative, based on an observed degree of activity or utilization. If a facility seemed to be at or near capacity, i.e., the majority of benches or equipment was in use, then utilization was considered heavy. If the facility or equipment was in use, but could accommodate additional users, utilization was considered moderate. If a playground or sitting area had few people, usage was considered light.

As shown in Table 5-3, the study area has a number of publicly accessible open space facilities, ranging from large neighborhood parks to playgrounds and small plazas. In total, 47 sites have been identified, which include approximately 48.19 acres for active recreation and 24.37 acres for passive use, for a total of approximately 72.56 acres of open space in the study area. Approximately 41.6% of that acreage is located within a single open space facility, the 35.7-acre McCarren Park² (indicated as #8 in Figure 5-2). As McCarren Park is located in two census tracts that fall within both the Greenpoint and Williamsburg sub-areas, that park's acreage is assumed to be equally divided between the two sub-areas in calculating the open space ratios.

2

Although McCarren Park is 35.7 acres in size, 30.2 acres were used in calculations for analysis, due to the closure of McCarren Pool.

Figure 5-2 Open Space Resources

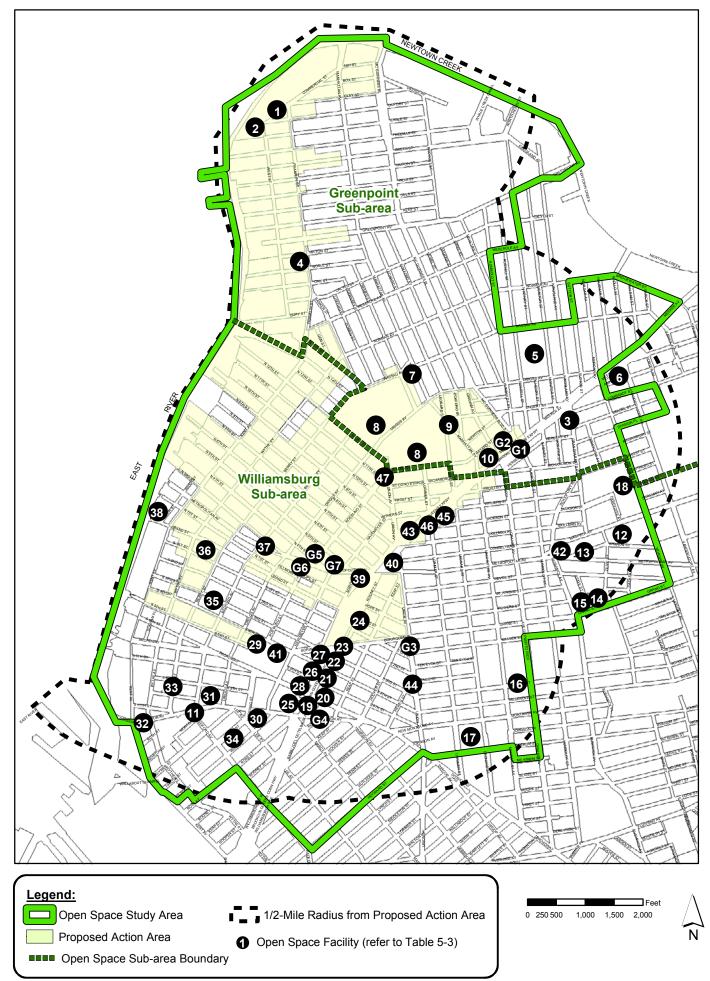


TABLE 5-3Inventory of Existing Open Space and Recreational Facilities

MAP					HOURS OF	TOTAL	ACT	IVE	PAS	SIVE	CONDITION &
KEY #	NAME	ADDRESS	OWNER	DESCRIPTION	ACCESS	ACRES	%	Acres	%	Acres	UTILIZATION
GREEN	POINT SUBAREA										
	Greenpoint Park (a.k.a. Right Triangle Park)	Commercial, Franklin, Dupont Sts.	NYCDPR	Playground, Benches	Dawn to dusk	0.50	40%	0.20	60%	0.30	Fair/Low
2	Newtown Barge Park	Commercial, Dupont, & West Streets	NYCDPR	Baseball Field, Handball Courts	Dawn to dusk	1.20	85%	1.02	15%	0.18	Fair/Moderate
3	Fidelity Memorial Park	Meeker, Engert Ave., Monitor St.	NYCDPR	Sculpture, trees	Benches always open; trees closed	0.01	0%	0.00	100%	0.01	Fair/Low
4	American Playground	Franklin Street, between Noble and Milton Streets	NYCDPR	Playground, Basketball courts, Handball Courts, Comfort Station, Spray Showers, sitting area	Dawn to dusk	0.90	90%	0.81	10%	0.09	Good/Moderate-High
5	Monsignor McGolrick Park	Driggs to Nassau Aves., Russell to Monitor Sts.	NYCDPR	Playground, Sculptures, Benches, Picnic Tables, Game Tables, landscaping	Dawn to dusk	9.13	0%	0.00	100%	9.13	Good/High
6	Sgt. William Dougherty Playground	Anthony St., Vandervoot Ave., Cherry St.	NYCDPR	Basketball Courts, Playground	Dawn to dusk	0.76	40%	0.30	60%	0.46	Poor/Low
7	Father Popieluszko Square	Bedford Ave., Nassau St.		Benches, Statues, Trees, Flag Post	Dawn to dusk	0.40	0%	0.00	100%	0.40	Good/Moderate
8	McCarren Park (1), (2)	Nassau Ave., Bayard, Leonard, N. 12th Sts.	NYCDPR	Baseball, Basketball, Football, Soccer, Tennis, Track, spray showers, Playground	Dawn to dusk	15.11	90%	13.59	10%	1.51	Fair-Good/Moderate- High
	J.H.S. 126 Playground (a.k.a. Ericsson Playground)	Manhattan Ave. & Leonard St.	NYCDOE	Playground, Basketball Courts	Dawn to dusk	1.15	100%	1.15	0%	0.00	Poor-Fair/Low
10	Park Strip/Lentol Garden	Graham, Meeker Aves., Bayard St.	NYCDPR	Sitting Area	Closed; locked gate	0.76	0%	0.00	100%	0.76	Fair/Low
				GREENPOINT SUB-A	REA SUBTOTAL	29.91		17.08		12.83	
WILLIA	MSBURG SUBAREA		1							1	
8	McCarren Park (1), (2)	Nassau Ave., Bayard, Leonard, N. 12th Sts.	NYCDPR	Baseball, Basketball, Football, Soccer, Tennis, Track, spray showers, Playground	Dawn to dusk	15.11	90%	13.59	10%	1.51	Fair-Good/Moderate- High
11	Harold W. Cohn Memorial Square	Bedford & Division Sts.	NYCDPR	Trees, Grass	Dawn to dusk	0.07	0%	0.00	100%	0.07	Good/Low
12	Cooper Park	Sharon, Olive Streets, Maspeth & Morgan Aves.	NYCDPR	Basketball Courts, Handball Courts, Softball, Game Tables, Bocce Courts, Playground, Sitting area	Dawn to dusk	6.40	60%	3.84	40%	2.56	Fair/Moderate
13	Cooper Gore (Orient Grove)	Metropolitan & Orient Ave.	NYCDPR	Trees, Sitting Area	Closed; locked gate	0.15	0%	0.00	100%	0.15	Good/Low
14	St. Nicholas - Olive Street Garden	Olive St., Devoe St., Powers St.	NYCDPR	Garden	Closed; locked gate	0.18	0%	0.00	100%	0.18	Good/Low
15	St. Nicholas - Powers Street Garden	Powers St., Bushwick Ave., Grand St., Olive Ave.	NYCDPR	Garden	Dawn to dusk	0.12	0%	0.00	100%	0.12	Good/Low
16	Thelma Martinez Playground	Scholes St., Manhattan to Graham Aves.	NYCDPR	Basketball Courts, Playground	Dawn to dusk	2.00	80%	1.60	20%	0.40	Poor-Fair/Low
	Frances Hamburger Sternberg Park	Montrose Ave., Boerum, Lorimer, Leonard Sts.	NYCDPR	Basketball Courts, Baseball Fields, Handball Courts, Playground, Benches, Picnic Tables, Comfort Station	Dawn to dusk	4.04	80%	3.24	20%	0.81	Good/Moderate

TABLE 5-3 (continued)Inventory of Existing Open Space and Recreational Facilities

MAP	AP				HOURS OF TOTAL		TOTAL ACTIVE		PAS	SIVE	CONDITION &
KEY #	NAME	ADDRESS	OWNER	DESCRIPTION	ACCESS	ACRES	%	Acres	%	Acres	UTILIZATION
18	Cooper Houses Playground (Frost Playground)	Maspeth Ave., Frost St, Kingsland Ave., Morgan Ave.	NYCDPR	Playground	Dawn to dusk	0.74	95%	0.70	5%	0.04	Fair-Good/Low-Moderate
19	Rodney Park South	Division Ave., Rodney St., S. 9th St.	NYCDPR	Basketball Courts, Benches, walkways	Dawn to dusk	0.39	95%	0.37	5%	0.02	Good/Moderate
20	Rodney Park Center	Broadway, Rodney St., S. 5th St.	NYCDPR	Handball Courts, Benches	Dawn to dusk	0.24	100%	0.24	0%	0.00	Good/Moderate
21	Rodney Park North	S. 4th St., Rodney St., S. 5th St.	NYCDPR	Basketball Courts, Benches, walkways	Dawn to dusk	0.38	100%	0.38	0%	0.00	Good/Moderate
22	Rodney Playground South	Rodney St., S. 3rd St., S. 4th St.	NYCDPR	Playground, Comfort Station, Picnic Tables, Benches	Dawn to dusk	0.32	90%	0.29	10%	0.03	Good/High
23	Rodney Playground Center	Rodney, Borinquen, S. 3rd Sts.	NYCDPR	Playground, Game Tables, Picnic Tables, Benches	Dawn to dusk	0.19	25%	0.05	75%	0.14	Good/Low
24	Rodney Playground North	Grand St., Rodney St., S. 1st St.	NYCDPR	Playground, Basketball Courts, Benches	Dawn to dusk	0.29	95%	0.28	5%	0.01	Good/Low
25	Marcy Park South	Division Ave., Marcy Ave., S. 9th St.	NYCDPR	Benches	Dawn to dusk	0.36	0%	0.00	100%	0.36	Fair/Low
26	Marcy Green Center	Marcy Ave., S. 4th & S. 5th Sts.	NYCDPR	Benches	Dawn to dusk	0.20	0%	0.00	100%	0.20	Fair/Low
27	Marcy Green North	Marcy Ave., S. 4th St., S. 3rd St.	NYCDPR	Benches	Dawn to dusk	0.15	0%	0.00	100%	0.15	Fair/Low
28	Marcy Green South	Broadway, Marcy Ave., S. 5th St.	NYCDPR	Benches	Dawn to dusk	0.14	0%	0.00	100%	0.14	Fair/Low
29	Continental Army Plaza	Roebling, S. 4th St. & S. 5th St.	NYCDPR	Benches, Plantings, Sculptures, Performance Area	Dawn to dusk	0.76	0%	0.00	100%	0.76	Fair-Good/Low-Moderate
30	Louis Sobel Park	Lee & Division Aves., Roebling St.	NYCDPR	Playground, Sitting Area	Dawn to dusk	0.14	20%	0.03	80%	0.11	Good/Moderate
31	Bedford Playground	Bedford Ave., S. 9th Street, Division Ave.	NYCDPR	Playground, Basketball Courts, Handball Courts, Spray Shower, Benches, Game Tables	Dawn to dusk	0.88	85%	0.75	15%	0.13	Fair/Low
32	Park	Division St., between Wythe & Kent Aves.	NYCDPR	Baseball Field	Dawn to dusk	1.24	95%	1.18	5%	0.06	Good/Moderate
33	Epiphany Park	Berry St., S. 9th & S. 10th Sts.	NYCDPR	Basketball Courts, Playground, Benches, Spray Showers, Garden Area	Dawn to dusk	0.50	90%	0.45	10%	0.05	Good/Moderate
34	P.S. 16 Playground	Wilson & Lee Aves., Taylor St., Bedford Ave.	NYCDOE	Playground, Basketball Courts	Dawn to dusk	1.23	90%	1.11	10%	0.12	Good/Moderate
35	Berry Playground	S. 3rd St., Berry St., Bedford Ave.	NYCDPR	Playground, Spray Shower, Benches, Artwork	Dawn to dusk	0.33	95%	0.31	5%	0.02	Good/Low
36	P.S. 84 William Sheridan Playground	Wythe Ave., Berry St., Grand St., S. 1st St.	NYCDOE	Playground, Basketball Courts	Dawn to dusk	0.79	95%	0.75	5%	0.04	Good/High
37	Metropolitan Pool - Public Bath & Indoor Pool	SE corner of Bedford & Metropolitan Aves.	NYCDPR	Indoor Pool, Athletic Facility	Dawn to dusk	0.18	100%	0.18	0%	0.00	Good/Moderate-High
38	Grand Ferry Park	Grand St. between River St. and East River	NYCDPR	Benches, Sculpture, trees, rip-rap, seating	Dawn to dusk	1.55	0%	0.00	100%	1.55	Fair/Moderate
39	Jaime Campiz Playground	Metropolitan Ave., Meeker Ave., Marcy Ave.	NYCDPR	Playground	Dawn to dusk	0.75	85%	0.64	15%	0.11	Fair/Low

TABLE 5-3 (continued)Inventory of Existing Open Space and Recreational Facilities

MAP					HOURS OF	TOTAL	ACT	ACTIVE P		SIVE	CONDITION &
KEY #	NAME	ADDRESS	OWNER	DESCRIPTION	ACCESS	ACRES	%	Acres	%	Acres	UTILIZATION
40	Macri Square	Metropolitan, Union, Meeker Aves.	NYCDPR	Sitting Area	Dawn to dusk	0.57	0%	0.00	100%	0.57	Fair/Moderate
41	LaGuardia Playground	Havemeyer to Roebling Sts., S. 4th to S. 5th Sts.	NYCDPR	Playground, Basketball Courts	Dawn to dusk	1.88	60%	1.13	40%	0.75	Fair/Moderate
42	Memorial Gore	Bushwick, Maspeth, Metropolitan Aves.	NYCDPR	Sitting Area	Dawn to dusk	0.07	0%	0.00	100%	0.07	Good/Low
43	Mt. Caramel Square	Union & Meeker Aves., Jackson Street	NYCDPR	Sitting Area, Sculpture,	Dawn to dusk	0.10	0%	0.00	100%	0.10	Good/Low
44	Lithuania Square	S. 2nd St. & Hewes St., Union Ave.	NYCDPR	Sitting Area	Dawn to dusk	0.02	0%	0.00	100%	0.02	Good/Low
45	Park/Badame Sessa Triangle	Leonard St., Withers St., Meeker Ave.	NYCDPR	Sitting Area	Dawn to dusk	0.07	25%	0.02	75%	0.05	Fair/Low
46	Father Giorgio Square	Jackson, Lorimer Streets, Meeker Ave.	NYCDPR	Sitting area, benches, trees	Always open	0.10	0%	0.00	100%	0.10	Good/Low
47	Private Frank Sonsire Square	Union Ave., N. 11th St., Roebling St.	NYCDPR	Sitting Area, Benches, Trees, Shrubs	Dawn to dusk	0.04	0%	0.00	100%	0.04	Fair/Low
				WILLIAMSBURG SUB-AREA	SUBTOTAL	42.65	73%	31.11	27%	11.54	
	TOTAL FOR ENTIRE HALF-MILE STUDY AREA						66.4%	48.19	33.6%	24.37	

GREENSTREETS

	GREENSTREETS								
G1	Greenstreet	Humboldt St, Meeker Ave.	NYCDOT/ NYCDPR	Joint NYCDOT/NYCDPR Landscaped Area	Always open	NA			
G2		Bayard St., McGuinness Blvd., Meeker Ave.	NYCDOT/ NYCDPR	Joint NYCDOT/NYCDPR Landscaped Area	Always open	NA			
G3	Greenstreet	Union Ave., S. 1st St.	NYCDOT/ NYCDPR	Joint NYCDOT/NYCDPR Landscaped Area	Always open	NA			
G4	Greenstreet	Rodney St., Division St.	NYCDOT/ NYCDPR	Joint NYCDOT/NYCDPR Landscaped Area	Always open	0.02			
G5	Greenstreet	Roebling St., N. 4th St.	NYCDOT/ NYCDPR	Joint NYCDOT/NYCDPR Landscaped Area	Always open	NA			
G6	Greenstreet	Metropolitan Ave., Roebling St., N. 4th St.	NYCDOT/ NYCDPR	Joint NYCDOT/NYCDPR Landscaped Area	Always open	0.06			
G7	Greenstreet	Metropolitan Ave., N. 5th St., Havemeyer St.	NYCDOT/ NYCDPR	Joint NYCDOT/NYCDPR Landscaped Area	Always open	NA			

Notes:

(1) The acreage of McCarren Park has been adjusted to exclude the approximate acreage of the swimming pool (estimated at 5.5 acres), as the pool is not currently in use.

(2) As McCarren Park is located within two census tracts that are equally divided between the Greenpoint and Williamsburg Subareas, the park acreage is divided between both subareas accordingly.

Greenpoint Sub-Area

Approximately 41% percent of the open space in the study area is contained within 10 open space resources located in Greenpoint.³ Approximately 17.08 acres of active recreation and 12.83 acres of passive recreation, for a total of approximately 29.91 acres of open space, are located within the Greenpoint sub-area. Most of these facilities are located along the southern boundary of the neighborhood, while a few facilities are located to the northwest.

Most of the open space in Greenpoint is located within McCarren Park, which is the largest open space facility within the entire study area. It is located along the southern edge of Greenpoint, and is one of the few recreational facilities readily accessible to both the Greenpoint and Williamsburg neighborhoods. The park, previously known as Greenpoint Park, occupies approximately four super-blocks, and is identified as open space resource #8 in Figure 5-2. All four parcels were acquired by the City between 1903 and 1905, and two playgrounds with outdoor gymnastic apparatus were developed soon thereafter, one for boys at the corner of Bedford and North 14th Street, and one for girls at the corner of Manhattan and Driggs Avenues. In the 1910s, state-of-the-art athletic facilities, including a ¼-mile track, a field that was adapted for use as an ice rink in winter, tennis courts, a platform for dancing, play equipment for small children, and fields for baseball, football and soccer were added to the facility. A large pool, the eighth of eleven built by the Works Progress Administration, opened in 1936. With an original capacity for 6,800 swimmers, the pool served as the summertime social hub for Greenpoint and Williamsburg. The pool was closed in 1984, and remains closed today. As such, the acreage shown in Table 5-3 excludes the estimated acreage of the pool, as it is not currently accessible to the public, and an acreage of 30.21 acres is assumed for the purpose of quantitative analysis.

At approximately 9.13 acres, Monsignor McGolrick Park is the second largest open space facility in the entire study area. Occupying approximately two blocks between Russell and Monitor Streets from Driggs to Nassau Avenues, this park serves mainly the residents of Greenpoint and is indicated as open space resource #5 in Figure 5-2. Monsignor McGolrick Park consists almost exclusively of passive open space. Originally known as Winthrop Park, the facility was developed in 1891, and was later renamed for Monsignor McGolrick in 1941. One of the most striking features of Monsignor McGolrick Park is a handsome shelter pavilion which was erected in 1910 and rehabilitated in 1985. Designed by the architecture firm of Helmle and Huberty, the curved building of brick and limestone features an elegant wood colonnade connecting two comfort station buildings. The building also accommodates a community room and kitchenette. The structure is listed on the National Register of Historic Places, and is a recognized New York City Landmark. In addition, the park contains two monuments, including the World War I memorial designed by Carl Augustus Heber and the Monitor and the Merrimac by sculptor Antonio de Filippo.

Directly east of McCarren Park is Lentol Garden (shown as #10 in Figure 5-2), a passive open space resource which is also accessible to both the Greenpoint and the Williamsburg neighborhoods. The land for Lentol Garden was acquired by the City in 1946 during the proceedings leading to the creation of the Brooklyn-Queen Expressway, and was named by local law in 1992. The NYC Department of Parks and Recreation (NYCDPR) and the Bayard Block Association maintain the site as a garden that features a varied stock of fragrant flowers.

To the north of McCarren Park are Ericsson Playground and Father Popieluszko Square, (#9 and #7 in Figure 5-2, respectively). Ericsson Playground, also known as J.H.S. 126 Playground, is located at the

3

Greenpoint is largely defined by the 11222 Zip Code boundary.

intersection of Manhattan Avenue and Leonard Street, and is a 100% active recreational facility serving the neighborhood of Greenpoint. Jointly operated by the NYC Parks Department and the NYC Department of Education, the playground features an asphalt playing field, two basketball/volleyball courts, two handball courts, a sitting area with tables for basic board games, as well as various trees and several scattered planters. Father Popieluszko Square, originally part of McCarren Park, is located across Bedford Street at the intersection of Nassau Avenue and Lorimer Street (indicated as #7 in Figure 5-2). The land which currently constitutes Popieluszko Square was acquired by the NYC Parks Department in the early 1900s. The square as it exists today was constructed in 1930. It contains a commemorative flagpole dedicated to those who sacrificed their lives during World War II and two monuments to commemorate Father Popieluszko.

East of Monsignor McGolrick Park is Sgt. William Dougherty Playground, a 0.76 acre playground bounded by Anthony Street, Vandervoot Avenue and Cherry Street (indicated as #6 in Figure 5-2). Sgt. William Dougherty Playground, an asphalt area surrounded by chain link fence, is filled with benches and London plane trees. There is also a basketball and handball court for active use. Southeast of Sgt. William Dougherty Playground, is Fidelity Memorial Park, a small traffic triangle bounded by Engert and Meeker Avenues and Monitor Street (indicated as #3 in Figure 5-2). The most notable feature of the park is a memorial stone dedicated by the Knights of Columbus.

The three remaining open space facilities in Greenpoint are located along the northwestern edge of the sub-area, and mainly serve the residents of Greenpoint. Greenpoint Park (a.k.a., Right Triangle Park) is located at the northern tip of Greenpoint at the junction of Franklin, Commercial and DuPont Streets (indicated as #1 in Figure 5-2). The perimeter of the park is surrounded by beautiful shade trees, beneath which are benches. The park also features a playset with safety surfacing, toddler and child swings, and a spray shower at its center. Directly west of Greenpoint Park is Newtown Barge Park, a 1.2 acre property along the north side of Commercial Avenue (indicated as #2 in Figure 5-2). Newtown Barge Park currently features active recreational facilities, including a paved baseball field and handball courts. The American Playground is located inland along the west side of Franklin Street between Noble and Milton Streets (indicated as #4 in Figure 5-2). It is primarily an active recreation resource that contains basketball and handball courts, a comfort station, play equipment, swings, benches and spray showers. Ample shade trees are scattered throughout the playground and a stately iron fence surrounds the facility.

In addition, two Greenstreets areas supplement the Greenpoint streetscape. The Greenstreets Program was established in 1986 and reintroduced in 1994 by the NYC Department of Parks and Recreation and the NYC Department of Transportation (NYCDOT). The program is administered by these two agencies and converts paved street properties, such as concrete triangles, traffic islands, and malls, into green spaces with shrubbery, trees, and flowers. NYCDPR reports that, as of the year 2001, over 2,001 Greenstreets will have been planted throughout the City⁴. The Greenstreets areas located within the Greenpoint sub-area are located several blocks to the east of McCarren Park, one at the intersection of Meeker Avenue and Humboldt Street and another at Meeker Avenue, between Bayard Street and McGuinness Boulevard (indicated as G1 and G2 in Figure 5-2, respectively).

⁴ NYC Department of Parks and Recreation website:

²⁰⁰¹ statistic at http://www.nycgovparks.org/sub_faqs/park_faqs.html; Greenstreets description at http://www.nycgovparks.org/sub_your_park/trees_greenstreets.html

Williamsburg Sub-Area

The majority of the open space resources identified within the study area are located in the Williamsburg neighborhood, with approximately 59% of the total open space acreage in the study area located in the Williamsburg sub-area. Although they number more than 40, most of the open space resources in Williamsburg are small playgrounds, gardens and/or sitting areas. In total, 38 recreational resources, containing approximately 42.65 acres of open space, were identified in the Williamsburg sub-area. Approximately 73% (31.11 acres) of the open space is dedicated to active recreation and 27% (11.54 acres) is dedicated to passive use.

Apart from McCarren Park, which is discussed above, Cooper Park, occupying approximately 6.40 acres, is the largest open space resource in the Williamsburg sub-area. It is located in the eastern portion of the study area on an irregular-shaped block which is generally bounded by Sharon and Olive Streets and Maspeth and Morgan Avenues (#12 in Figure 5-2). Originally the site of Peter Cooper's working glue factory in the mid-1800s, the City of Brooklyn purchased the site in 1895 to construct a landscaped playground facility. In the late 1930s, the Works Progress Administration transformed the park into a modern recreational facility with a roller-skating track, sitting area, horseshoe and shuffleboard courts, wading pool, play areas for children and tots, and two softball diamonds with bleachers. A major reconstruction project in 1965 removed the roller-skating tract and wading pool and added basketball and handball courts, game tables, bocce courts and painted games. Today, this park is a popular destination for users seeking active open space.

Directly north of Cooper Park is the Cooper Houses Playground (a.k.a. Frost Playground), a 0.74 acre recreational facility located on Frost Street at Debevoise Avenue (#18 in Figure 5-2). The site was originally developed as a playground in 1957 with wading pool, comfort station, handball and volleyball courts, and play equipment. In 1999, the park underwent a major reconstruction which added planting beds, a drinking fountain, new curbs and pavement as well as play equipment for children and tots. The design of the playground features ornate art which pays tribute to poet Robert Frost (1874-1963). Immediately to the south of Cooper Park, are two public gardens and one open space, including Cooper Gore, St. Nicholas-Olive Street Garden and St. Nicholas-Powers Street Garden (#13, #14, and #15 in Figure 5-2, respectively). Cooper Gore (a.k.a., Orient Gore) is a small diamond-shaped, 0.15 acre parcel located at the corner of Orient and Metropolitan Avenues which offers orient plane trees, concrete paths, benches and a wrought iron picket fence. The St. Nicholas Gardens, each occupying slightly less than 0.2 acres, are located along the north and south side of Powers Street between Judge and Olive Streets and feature planting beds and sitting areas.

Thelma Martinez Playground is located further to the south along the south side of Scholes Street between Manhattan and Bushwick Avenues. Thelma Martinez Playground is a 2.0 acre open space adjacent to the Williamsburg Houses (#16 in Figure 5-2). It contains handball and basketball courts and a comfort station, as well as planted trees around its perimeter.

Frances Hamburger Sternberg Park, the second largest open space resource in the Williamsburg sub-area, is located approximately two blocks southwest of Thelma Martinez Playground. It occupies two City blocks (approximately 4.04 acres) and extends from Boreum Street to Montrose Avenue between Lorimer and Leonard Streets (#17 in Figure 5-2). Originally known as the Williamsburg Park, in 1925 the Board of Aldermen (predecessor to the City Council) renamed the facility Lindsey Park, in honor of George H. Lindsey, a congressman representing Williamsburg from 1901 to 1913. In 1964, the park was expanded by local law, adding over two acres as part of the creation of the Lindsay Park Houses, a complex of federally subsidized apartments (discussed further in Chapter 2, "Land Use, Zoning and Public Policy").

In 1990, a local law renamed the park and playground for Sternberger. Sternberg Park is primarily an active open space that offers baseball fields, basketball courts and handball courts. The playground contains swings, play equipment with safety surfacing, benches, picnic tables, and a comfort station.

In the central portion of the Williamsburg neighborhood, in the vicinity of Metropolitan Avenue, are William Sheridan Playground, Metropolitan Pool and Fitness Center, Grand Ferry Park, Jaime Campiz Playground, and Macri Square (indicated in Figure 5-2 as #36, #37, #38, #39, and #40, respectively). William E. Sheridan Playground, a 0.79 acre primarily active recreational facility, is located on Wythe Avenue between South 1st and Grand Streets. Named for William E. Sheridan (1893-1918), a New York police officer who was killed in action during World War I, this playground is one of nine memorial playgrounds. It recently underwent extensive renovations and features nautical-themed play equipment, including climbing facilities, a weathervane with a ship atop a refurbished comfort station, chess and checker tables, swings, benches and ocean-colored ground painting. A flagpole with a yardarm stands in the center of the playground in front of a north arrow rosette.

Metropolitan Pool and Fitness Center is located at the corner of Metropolitan and Bedford Avenues, and was built in 1922 by the NYC Department of Public Works after its design by noted architect Henry Bacon. NYCDPR acquired the pool in 1935 for operation as a recreational facility. The facility has undergone many renovations since that turnover, most notably, a \$4.88 million-dollar renovation in 1997. The facility features a pool, a fitness center with exercise equipment, locker rooms, and a playschool area. Metropolitan pool is home to swim teams, offers swimming lessons, and fitness programs.

Grand Ferry Park, a 1.55 acre passive open space, is located along the waterfront at the western terminus of Grand Avenue. It contains benches, a flagpole with yardarm, and a north compass rosette, as well as a red brick smokestack rising above a circular pattern of cobblestones which was part of a molasses plant that Pfizer Pharmaceuticals used in the early 20th century. Shore pines, Thornless Honey Locusts, and White Ash trees provide shade and greenery. At the water's edge, a border of boulders, known as rip-rap, protects the shoreline from erosion and provides seating to enjoy a view of the water and the downtown Manhattan skyline.

Jaime Campiz Playground is located adjacent to and west of the Brooklyn-Queens Expressway, on Marcy Avenue between Hope Street and Metropolitan Avenue, and is a 0.75-acre facility that caters predominantly to active recreation. This playground was acquired by the City in 1946 through condemnation. It underwent refurbishment in 2001 and currently contains playground equipment. Macri Square is located on the block bounded by Metropolitan, Union and Meeker Avenues just east of the BQE. It is an entirely passive recreational facility which contains approximately 0.57 acres of space and offers shaded sitting areas.

Marcy Green (North, South, and Central) and Rodney Park (North, South and Central), Marcy Park South, and Rodney Playgrounds (North, South, and Central) are a series of small parks/recreational facilities which are located on either side of the Brooklyn-Queens Expressway (BQE), and serve as a buffer between the busy expressway and the surrounding neighborhood. Marcy Park South and Marcy Green Center, North, and South (#25,# 26, #27, and #28 in Figure 5-2, respectively) are located on the north side of the BQE and line the north side of Marcy Street between Division Avenue and South Third Street. In total, these facilities occupy approximately 0.75 acres and feature passive recreational facilities, including open green spaces and sitting areas with benches and tables. Rodney Park South, Center, and North; and Rodney Playground South, Center, and North (#19, #20, #21, #22, #23, and #24 in Figure 5-2, respectively) are located on the south side of the BQE and line the south side of the BQE and line the south side of the BQE and line the south side of Rodney Street between Division Avenue and Grand Street. Occupying approximately 1.81 acres, these facilities consist of

primarily active open space and feature basketball and handball courts, a volleyball court, walkways, playgrounds, benches, and game tables.

Directly west of the Marcy Green and the Rodney Parks Playgrounds are LaGuardia Playground, the Continental Army Plaza, and Berry Playground (#41, #29, and #35 in Figure 5-2, respectively). LaGuardia and Berry Playgrounds and the Continental Army Plaza were created by the Department of Public Works, in conjunction with the construction of the Williamsburg Bridge, which opened in 1903. LaGuardia Playground is a 1.88 acre open space located on the block bounded by South 4th, South 6th, Roebling, and Havemeyer Streets. It consists of two triangular parcels which are separated by the BQE. The playground features basketball courts, a playground, shade trees and sitting areas. Continental Army Plaza, a 0.76 acre passive space, is located immediately adjacent to and west of LaGuardia Playground. It is bounded by Roebling, South Fourth, and South Fifth Streets. The plaza offers a performance area, sculptures, plantings, and sitting areas. Berry Playground, a 0.33 acre primarily active open space, is located on the south side of South 3rd Street between Bedford Avenue and Berry Street. The City acquired the land for the playground facility from the Brooklyn Eye and Ear Hospital in 1936, which quickly came under the jurisdiction of NYCDPR. In 2000, the playground underwent a major reconstruction project. The facility currently features a spray shower, play equipment, swings for tots, animal art and sitting areas beneath shade trees.

To the south of Berry Playground are Bedford Playground, Epiphany Park, P.S. 16 Playground, and an unnamed park (#31, #33, #34, and #32 in Figure 5-2, respectively). Bedford Playground, a 0.88 acre facility, is located on the southeast corner of South 9th Street and Bedford Avenue and recently underwent an extensive reconstruction. The playground features play equipment with safety surfacing, spray showers, benches and game tables, and basketball and handball courts. Along the east side of Berry Street between South 9th and South 10th Streets is Epiphany Park, a 0.50 acre facility which features basketball courts, a playground, spray shower, benches and a garden area. P.S. 16 Playground is situated on the block bounded by Taylor Street and Wilson, Lee, and Bedford Avenues. The park located on the block bounded by Division Street, Rush Street, Wythe Avenue, and Kent Avenue contains a baseball field for recreation and very little passive recreation space, comprised of grassy areas along the borders of the baseball fields.

In addition, the Williamsburg sub-area also features several, small passive recreational facilities scattered throughout the neighborhood, including Harold W. Cohn Memorial Square, Father Giorgio Square, Private Frank Sonsire Square, Badame Sessa Triangle, Lithuania Square, Mount Caramel Square, Louis Sobel Park and Memorial Gore (map keys are referenced in Table 5-3). All of these facilities are predominantly passive and offer quiet sitting areas with benches and/or tables, trees, and planted areas. A few also contain sculptures or memorials dedicated to famous Williamsburg inhabitants. In total, they occupy approximately 1.06 acres.

Quantitative Analysis of Open Space Adequacy

The Department of City Planning has established quantitative measures for determining the adequacy of open and recreational space within a neighborhood. The citywide median ratio of 1.5 acres per 1,000 persons provides a measure of open space adequacy, while the planning goal for large-scale developments is 2.5 acres per 1,000 persons, consisting of 2.0 acres of active space and 0.5 acres of passive space. Provided below are assessments of existing open space conditions according to these two guidelines.

Greenpoint Sub-Area

The Greenpoint sub-area contains approximately 29.91 acres of public open space, as shown in Table 5-3, of which an estimated 17.08 acres are for active use and 12.83 acres are for passive use. With a residential population of approximately 39,481 persons, the existing open space ratio in the Greenpoint sub-area is 0.758 acres of open space per 1,000 residents. There are 0.433 acres of active open space per 1,000 residents, and 0.325 acres of passive open space per 1,000 residents. The Greenpoint sub-area therefore currently falls short of DCP's measure of adequacy of 1.5 acres of open space per 1,000 residents.

Williamsburg Sub-Area

The Williamsburg sub-area includes 42.65 acres of public open space, as shown in Table 5-3, of which an estimated 31.11 acres are for active use and 11.54 acres are for passive use. With a residential population of approximately 89,590 persons, as shown in Table 5-2, the existing total open space ratio in the Williamsburg sub-area is 0.476 acres of total open space per 1,000 residents. There are 0.347 acres of active open space per 1,000 residents, and 0.129 acres of passive open space per 1,000 residents. The Williamsburg sub-area also currently falls below the citywide median with lower open space ratios than those found in the Greenpoint sub-area.

¹/₂-Mile Open Space Study Area

The open space study area contains a total of approximately 72.56 acres of open space, of which an estimated 48.19 acres are for active recreation and 24.37 acres are for passive use. With a study area residential population of approximately 129,071, the existing total open space ratio in the study area is approximately 0.562 acres of open space per 1,000 residents. Based on the existing breakdown of active and passive open space, the active open space ratio in the study area is approximately 0.373 acres per 1,000 residents, and the passive open space ratio is approximately 0.189 acres of passive open space per 1,000 residents. The ¹/₂-mile study area therefore contains an inadequate amount of open space and does not meet DCP's measure of adequacy for open space per 1,000 residents.

Qualitative Assessment of Open Space Adequacy

The open space resources that exist within the ½-mile study area are deficient in meeting the community's open space needs according to DCP's guidelines for the provision of open space. Although the study area contains a good mixture of recreational facilities, with approximately 66 percent dedicated to active uses and 34 percent dedicated to passive use, open space ratios per 1,000 residents still fall below DCP's planning goal of 2.5 acres per 1,000 residents and the Citywide median of 1.5 acres per 1,000 residents. The demand for active open space in the study area is reflected in the field surveys, as shown in Table 5-3, where those facilities documented as having moderate-to-high utilization tend to be those with substantial amounts of active recreation, in contrast to passive recreation facilities, which tended to have low levels of utilization. Field surveys also show that the existing facilities range from Fair to Good condition.

The existing facilities also provide a wide variety of options to open space users. In addition to passive areas containing grassy areas and trees, physical amenities provided by existing facilities include sitting areas, walking paths, handball courts, basketball courts, and playgrounds. These facilities often host a wide array of active programming, including swimming lessons, day camps, and little league teams. Active open spaces comprise approximately 66% of the existing open space within the ½-mile study area,

which is appropriate for the demographics of the local population. The high proportion of active open space and accompanying active programming is appropriate given that a substantial portion of the study area population (approximately 30%) is comprised of youth 19 years of age and younger. Younger adults, from 20-40 years of age, are also key users of active open spaces.

Several open space facilities located within the open space study area were not taken into account as part of the quantitative analysis but their presence should be noted. Private open spaces, as well as community gardens, such as the Greenpoint Renaissance Enterprise Corporation (GREC) Garden in East Williamsburg, and fitness gyms, such as Odom Limited in Greenpoint, are recreational and functional open spaces for the community and are not included as part of the analysis, as they do not meet the definition of public open space. In addition, several sites are currently under construction or temporarily closed, including the WNYC Transmitter Site in Greenpoint, which is currently vacant but slated for reconstruction as a park (refer to No-Action discussion for further details), and McCarren Pool, a pool within McCarren Park which, in a state of disrepair, is closed to the public as the City awaits funding for redevelopment.

E. THE FUTURE WITHOUT THE PROPOSED ACTION (NO-ACTION)

Open Space Study Area Population

As discussed in Chapters 1 and 2, in the future without the proposed action, it is estimated that a total of approximately 1,122 new dwelling units would be added within the proposed action area, including approximately 866 units on 30 of the identified projected development sites, and approximately 256 units in a building at 184 Kent Avenue which is the subject of a current BSA application for residential conversion. In addition, 83 other developments within a ½-mile radius of the proposed action area are expected to be developed in the future without the proposed action. As discussed in Chapter 2, these developments are expected to include approximately 2,188 dwelling units.⁵ Therefore, in the future without the proposed action, it is estimated that a total of approximately 3,310 dwelling units would be added to the ½-mile open space study area by 2013.

As discussed in Chapter 1, "Project Description," for analysis purposes it is assumed that none of the projected dwelling units in the proposed action area would be low- to moderate-income, because of the scarcity of sites on which residential development is possible as-of-right and because many of the units in this scenario would be developed pursuant to variances. Based on 2000 Census data, the average household size for unsubsidized units in this area is 2.27. Based on this ratio, the approximately 3,310 new dwelling units expected in the study area in the future without the proposed action (assumed to consist of 3,310 unsubsidized units) are estimated to add approximately 7,514 new residents to the study area over the next ten years. This would bring the study area's residential population to 136,585 in the future without the proposed action, with approximately 39,817 persons in the Greenpoint sub-area and 96,768 persons in the Williamsburg sub-area.

⁵ As noted in Chapter 2, "Land Use, Zoning, and Public Policy," although some No-Action development sites are currently developed, at the time existing conditions were compiled in late 2003, final certificates of occupancy had not been issued, and they were not fully occupied. Therefore, they are included in the No-Action condition for analysis purposes.

Open Space Resources

Greenpoint Sub-Area

Within the Greenpoint sub-area, there are two open space resources that are expected to be developed by 2013 (see Figure 5-3). The WNYC Transmitter Site, located at the <u>western</u> terminus of Greenpoint Avenue at the East River, is slated for development by the NYC Department of Parks and Recreation (DPR) by 2013 as a waterfront park. The site currently contains a one-story building used by DPR for maintenance, and <u>formerly contained</u> two transmitter towers <u>(now removed)</u>. The approximately 1.6-acre site would cater to passive recreation use and is scheduled to have a pier constructed in approximately 2 years. The site is situated directly across from the East Village neighborhood of Manhattan and would provide visitors passive recreation space set against the backdrop of the Manhattan skyline.

The second open space to be developed within the Greenpoint sub-area is the Manhattan Avenue Street End, located at the northern terminus of Manhattan Avenue at its intersection with Newtown Creek. The 0.2 acre space is being developed by the New York City Department of Transportation (NYCDOT) as a passive recreation area containing sitting areas, pathways for pedestrians, and a canoe launch at the water's edge. This space would serve as a distinctive marker for NYCDOT's reconstruction of Manhattan Avenue, which is scheduled for completion in the summer of 2005.

As such, in the future without the proposed action, the total amount of open space within the Greenpoint sub-area would increase to 31.71 acres, with 17.08 acres of active recreation space and 14.63 acres of passive recreation space.

Williamsburg Sub-Area

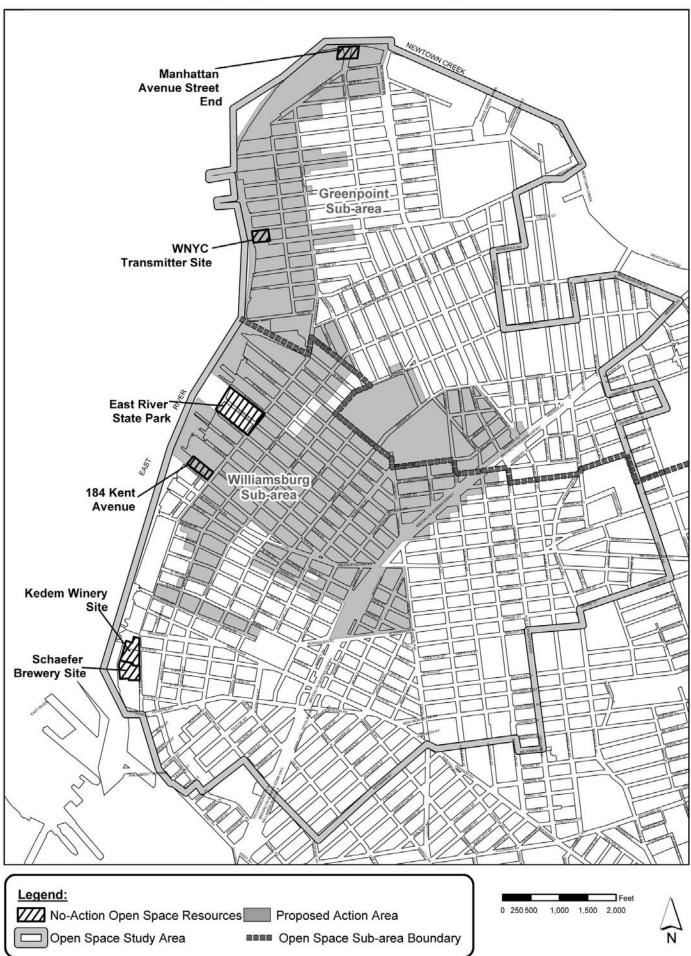
Within the Williamsburg sub-area, there are four open space resources that are expected to be developed by 2013 (see Figure 5-3).

East River State Park, an approximately 6-acre park proposed along the East River waterfront from North 7th to North 9th Streets, was acquired by New York State to become its 160th state park. The park would be constructed on the former site of the Brooklyn Eastern District Terminal. Currently, the development of the park is still in the planning stages and the park's programming has yet to be defined. However, the park's original proposed program consisted of substantial active recreation space, including waterfront athletic facilities for volleyball and aquatics, to be shared between New York University and the local community. For assessment purposes, the park is assumed to devote 66% (4 acres) of space to active recreation and 34% (2 acres) to passive recreation.

Three large-scale residential developments expected within the Williamsburg sub-area are slated to provide open spaces. The Kedem Winery site, located at 420-430 Kent Avenue, is expected to create 450 residential units and approximately 0.65 acres of passive open space, comprised of a 0.35-acre promenade and 0.3 acres of upland connections. The Schaefer Brewery Site, located at 460 Kent Avenue, is expected to create 350 residential units and an approximately 0.3-acre promenade. The residential development at 184 Kent Avenue is expected to create approximately 256 residential units and an approximately 0.1-acre promenade. The promenades provided by these developments would cater to passive recreational use and, though privately-owned, are to be open to the public from dawn until dusk.

Greenpoint-Williamsburg Rezoning EIS

Open Space Resources Anticipated By 2013 Under No-Action Conditions



As such, the total amount of open space within the Williamsburg sub-area in the future without the proposed action would increase to 49.70 acres, with 35.11 acres of active recreation space and 14.59 acres of passive recreation space.

¹/₂-Mile Study Area

The total amount of open space within the $\frac{1}{2}$ -mile study area in the future without the proposed action would increase by approximately 8.85 acres, to a total of 81.41 acres, with 52.19 acres of active space and 29.22 acres of passive space.

Quantitative Analysis of Open Space Adequacy

In order to assess the adequacy of open space that would be available in the future without the proposed action, 81.41 acres of total open space are taken into account. The projected population by the analysis year 2013 in the $\frac{1}{2}$ -mile study area would be 136,585 persons in the future without the proposed action.

Greenpoint Sub-Area

Within the Greenpoint sub-area, which has a projected population of 39,817 persons in the analysis year 2013, the amount of total open space would increase by 1.8 acres, which results in a ratio of 0.796 acres per 1,000 residents. The amount of available active open space would remain unchanged at 17.08 acres and would result in a ratio of 0.429 acres of active open space per 1,000 residents. The amount of available passive open space would increase by 1.8 acres and would result in a ratio of 0.367 acres of passive open space per 1,000 residents. Both the total open space ratio and the passive open space ratio would increase by 5.0% and 12.9%, respectively, from existing conditions, while the active open space ratio would decrease by 0.9%. In the future without the proposed action, the Greenpoint sub-area is anticipated to fall short of the guidelines for adequacy (1.5 acres per 1,000 residents) and the citywide planning goals established by DCP (2.5 acres per 1,000 residents).

Williamsburg Sub-Area

Within the Williamsburg sub-area, which has a projected population of 96,768 persons in the analysis year 2013, the amount of total open space would increase by 7.05 acres, which would result in a ratio of 0.514 acres per 1,000 residents. The amount of available active open space would increase by 4.0 acres, which results in a ratio of 0.363 acres of active open space per 1,000 residents. The amount of available passive open space would increase by 3.05 acres and would result in a ratio of 0.151 acres of passive open space per 1,000 residents. Compared to existing conditions, the total open space ratio for the Williamsburg sub-area would increase by 8.0%, with increases of 4.6% and 17.1% for active and passive open space ratios, respectively. In this sub-area, the No-Action scenario exhibits an improvement over existing conditions but open space ratios remain below guidelines for adequacy and the citywide planning goals established by DCP.

¹/₂-Mile Study Area

For the projected population of 136,585 persons in the analysis year 2013, the total amount of open space for the $\frac{1}{2}$ -mile study area would increase by 8.85 acres, which would result in a ratio of 0.596 acres per 1,000 residents. The amount of active open space would increase by 4.0 acres, which would result in a ratio of 0.382 acres per 1,000 residents, while the amount of available passive open space would increase

by 4.85 acres and would result in a ratio of 0.214 acres per 1,000 residents. When compared to existing conditions, the ratios of total, active, and passive open space would increase by 6.0%, 2.4%, and 13.2%, respectively, in the No-Action scenario for the $\frac{1}{2}$ -mile study area. Though the ratios increase from existing conditions, they remain below the guidelines for open space adequacy and the citywide planning goals maintained by DCP.

When assessing the open space provided in the future without the proposed action within each sub-area, the amount of open space available within the Williamsburg sub-area, which amounts to an additional 16.5% of open space when compared to Existing conditions, would be disproportionately larger than that made available within the Greenpoint sub-area, which would undergo an open space increase of 6.0% when compared to Existing conditions. This imbalance, however, can be correlated with the amount of No-Action residential development anticipated within each sub-area, as the amount of development slated for Greenpoint (148 DUs), is considerably less than that slated for Williamsburg (3,162 DUs).

Qualitative Assessment of Open Space Adequacy

The open space facilities anticipated in the future without the proposed action would add a substantial amount of passive space to both sub-areas. Within the Greenpoint sub-area, the creation of passive recreation space at the WNYC Transmitter Site and at the Manhattan Avenue street end are long-awaited additions to the local inventory of open space. Within the Williamsburg Sub-area, passive open spaces are provided by the aforementioned residential developments, and East River State Park would provide both active and passive programming. The open space resources to be provided by the Kedem Winery and Schaefer Brewery developments would be situated along the waterfront, which would provide a passive recreation use that would complement the planned adjacent residential use while also maintaining the accessibility to the waterfront for residents and visitors. East River State Park would provide a significant amount of active and passive open space to the Williamsburg sub-area. This addition would be especially vital to the surrounding Northside neighborhood, where no other open spaces exist within a radius of several blocks around the site and are mainly concentrated along Metropolitan Avenue and further westward at McCarren Park.

The locations of these new facilities along the bulkhead line of Brooklyn are advantageous to passive waterfront use, allowing visitors the enjoyment of passive recreational spaces that have the additional amenity of having views of the East River, Newtown Creek, and the surrounding boroughs.

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

Open Space Study Area Population

Chapter 1, "Project Description" shows that in the future with the proposed action, it is estimated that a total of approximately 8,257 dwelling units (DUs) on the 76 identified projected development sites would be added within the proposed action area by 2013, an increment of 7,391 DUs from No-Action conditions. Therefore, in the future with the proposed action, it is estimated that a total of approximately 7,391 residential units would be added to the $\frac{1}{2}$ -mile open space study area by 2013.

Based on 2000 Census data, the average household size for unsubsidized units in the area surrounding the proposed action area is 2.27. Based on these assumptions, the approximately 7,391 new dwelling units expected in the study area in the future with the proposed action (assumed to be unsubsidized) are estimated to add approximately 16,778 new residents to the study area (10,758 to the Greenpoint sub-area and 6,020 to the Williamsburg sub-area).

Open Space Resources

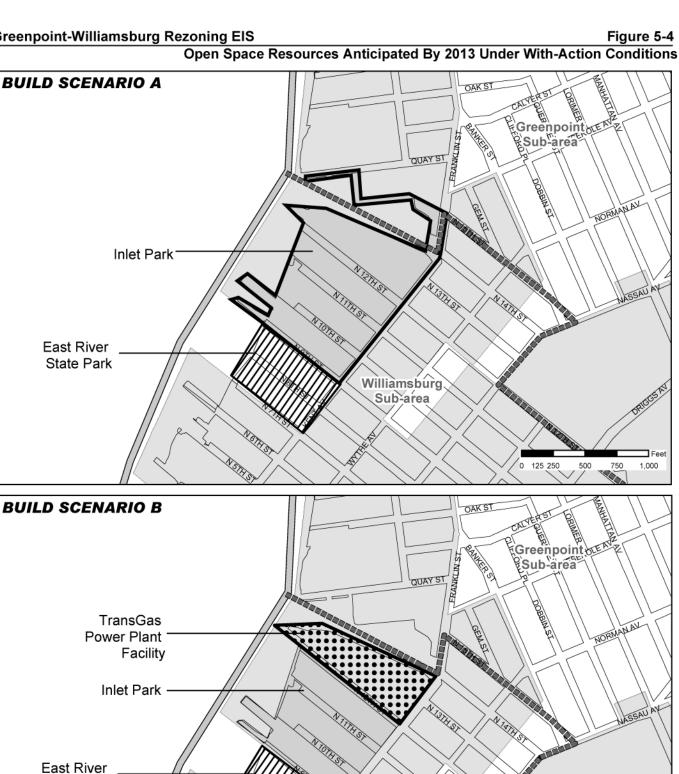
Greenpoint Sub-Area

Under RWCD Scenario A, the proposed action, as described in Chapter 1, would include the creation of a 27.8-acre park along the waterfront from North 9th Street to the northern edge of the Bushwick Inlet. The area, tentatively referred to as "Inlet Park", would include the northern portion of the former Brooklyn Eastern District Terminal (BEDT) Site and would be directly adjacent to East River State Park to the south, which contains the southern portion of the BEDT site. Included in the RWCDS as Projected Development Site #211, Inlet Park would provide both active and passive recreation spaces to the community, and is intended to accommodate venues for Olympic events such as beach volleyball and aquatics, as part of New York City's bid for the 2012 Summer Olympics. However, as the program of the park has yet to be developed, for analysis purposes the park is assumed to contain 50% active and 50% passive recreation space. As the park straddles the boundary of the two sub-areas in Scenario A (see Figure 5-4), approximately 5.6 acres, or 20%, of the new park is considered to exist within Greenpoint under Scenario A for assessment purposes.

As discussed in Chapter 1, "Project Description", a waterfront promenade is proposed as a part of the Waterfront Access Plan (WAP) that is associated with the proposed action and illustrated in Figure 5-5. The WAP tailors the public access requirements of waterfront zoning to the specific conditions of a particular waterfront location. The waterfront promenade, or shore public walkway, would be created between Manhattan Avenue and North 3rd Street, through public access requirements stipulated by waterfront zoning regulations. The WAP, which becomes part of the zoning text, would modify the general public access requirements of waterfront zoning within this area, identifying locations and parameters for the configuration of required shore public walkways, upland connections, supplemental public access areas, and visual corridors in order to create a coordinated framework for future development. However, the WAP does not increase the total public access requirement on a given parcel.

As per these regulations, 17.6% of the lot area of those lots projected to be developed in the future with the proposed action would be developed with a promenade and other waterfront access by the analysis year of 2013. Under Scenario A, the promenade and additional required waterfront access would create approximately 5.59 acres of passive recreation space (4.40 acres within the Greenpoint sub-area), extending along the waterfront from the approximate midpoint between Dupont and Eagle Streets south to the approximate midpoint between Green and Huron Streets, and along the waterfront between Greenpoint Avenue to just south of Oak Street. This recreation space would be primarily passive, though the promenade also provides opportunities for active recreation, and active features such as tot lots or playgrounds may be provided within required waterfront access areas. The stretches of waterfront promenade within the Greenpoint sub-area correspond with RWCDS Projected Development Sites 3 and 56, as enumerated and illustrated in Chapter 1, "Project Description."

Under Scenario B, a power plant proposed by the TransGas Energy Company would be constructed on the former Bayside Fuel site, a lot located along the southern edge of the Bushwick Inlet, under No-



Williamsburg Sub-area

Inlet Park (Scenario A & B) □ Open Space Study Area TransGas Facility (Scenario B) ■■■■ Open Space Sub-area Boundary No-Action Open Space Resources Proposed Action Area

State Park

Legend:

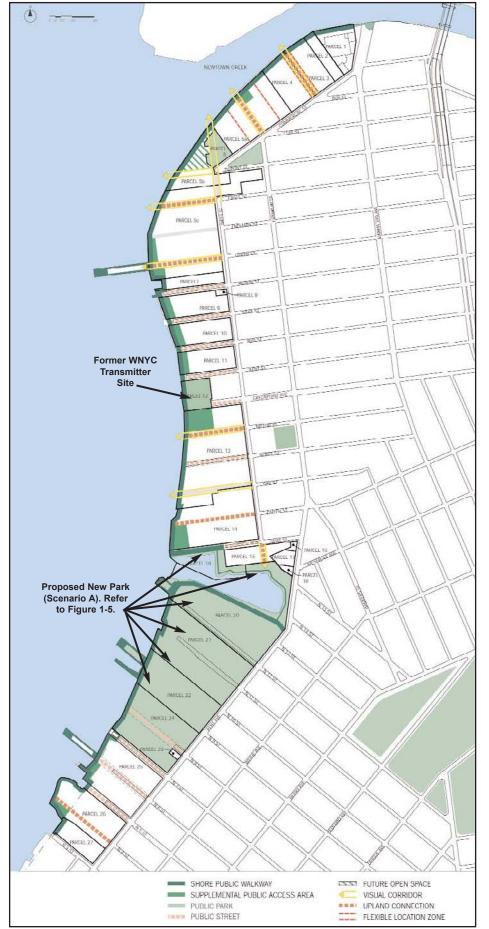
Feet

1.000

0 125 250

500

750



Source: NYC Department of City Planning (July 2004)

Action conditions and would remain in place in the future with the proposed action. The power plant is discussed in greater detail in Chapter 1, "Project Description". As a result, under Scenario B, the proposed Inlet Park would be smaller in size at 15.9 acres, again assumed to be composed of 50% active and 50% passive space, but would be entirely located to the south of the proposed power plant. Under this scenario, it is assumed the waterfront portion along the north side of the Bushwick Inlet would remain vacant. As such, none of the park's acreage under this scenario is included within the Greenpoint sub-area for analysis purposes.

The portion of the waterfront promenade that falls within Greenpoint would remain unchanged at 4.40 acres under Scenario B.

No additional open spaces are anticipated within this sub-area in the future with the proposed action. As such, under Scenario A, the total open space in the Greenpoint sub-area would increase by $\underline{9.96}$ acres to 41.67 acres of total open space, with 19.86 acres of active recreation space and 21.81 acres of passive recreation space. Under Scenario B, the total open space in the Greenpoint sub-area would increase by 4.4 acres to 36.11 acres of total open space, with 17.08 acres of active recreation space and 19.03 acres of passive open space.

Williamsburg Sub-Area

Under Scenario A, the proposed 27.8-acre Inlet Park would add 22.2 acres of open space to the Williamsburg sub-area, with half of that acreage assumed to be devoted to each active and passive recreational use. In addition, approximately 1.19 acres of primarily passive open space would be added to the Williamsburg sub-area due to the creation of the waterfront promenade between North 5th and North 7th Streets along RWCDS Projected Development Site 199.

Under Scenario B, Inlet Park would be smaller in size at 15.9-acres as a result of the No-Action development of the TransGas power plant facility as described above. Inlet Park would then exist entirely within the Williamsburg sub-area, as the power plant would be located on the parcel to the south of the Bushwick Inlet, and the waterfront parcel that exists along the north side of the Bushwick Inlet would remain vacant.

As such, under Scenario A, the total amount of open space within the Williamsburg sub-area would increase by 23.43 acres to 73.13 acres, with 46.23 acres of active recreation space and 26.90 acres of passive recreation space. Under Scenario B, the total amount of open space would increase by 17.09 acres to 66.79 acres, with 43.06 acres of active recreation space and 23.73 acres of passive recreation space.

¹/₂-Mile Study Area

Under Scenario A, the total amount of open space within the $\frac{1}{2}$ -mile study area would increase to 114.80 acres, with 66.09 acres dedicated to active recreation and 48.71 acres dedicated to passive recreation. Under Scenario B, the total amount of open space would increase to 102.90 acres, with 60.14 acres devoted to active recreation and 42.76 acres devoted to passive recreation.

Quantitative Analysis of Open Space Adequacy

In order to assess the adequacy of open space that would be available in the future with the proposed action, 114.80 acres of total open space under Scenario A and 102.90 acres of total open space under

Scenario B, as described above, are taken into account. The proposed action would result in an increase of approximately 16,778 residents. The projected population by analysis year 2013 in the ½-mile study area would therefore be 153,362 persons in the future with the proposed action, under both Scenario A and Scenario B. The resulting effects upon open space are described below and are also summarized in Table 5-4, where they are also compared to Existing and No-Action Conditions.

Scenario A

Within the Greenpoint sub-area, which would have a projected population of 50,574 persons in the analysis year 2013, under Scenario A, the total amount of open space would increase by 9.96 acres and the total open space ratio would be 0.824 acres per 1,000 residents, versus 0.796 under No-Action conditions. The total open space ratio for the Greenpoint sub-area under Scenario A therefore increases by 3.5% from No-Action conditions. The amount of available active open space would increase by 2.78 acres and would result in a ratio of 0.393 acres per 1,000 residents, a decrease of 8.4% from No-Action conditions. The amount of available passive open space would increase by 7.18 acres and would result in a ratio of 0.431 acres per 1,000 residents, an increase of 17.4% from No-Action conditions.

Within the Williamsburg sub-area, which has a projected population of 102,788 persons in the analysis year 2013, under Scenario A, the total amount of open space would increase by 23.43 acres and the total open space ratio would be 0.712 acres per 1,000 residents, versus 0.514 under No-Action conditions. The total open space ratio for the Williamsburg sub-area under Scenario A therefore increases by 38.5% from No-Action conditions. The amount of available active open space would increase by 11.12 acres and would result in a ratio of 0.450 acres of active open space per 1,000 residents, an increase of 24.0% from No-Action conditions. The amount of available passive open space would increase by 12.31 acres and would result in a ratio of 0.262 per 1,000 residents, an increase of 73.5% from No-Action conditions.

For the $\frac{1}{2}$ -mile study area, the amount of total open space would increase by 33.39 acres under Scenario A and the total open space ratio would be 0.749 acres per 1,000 residents, versus 0.596 under No-Action conditions. The total open space ratio for the $\frac{1}{2}$ -mile study area under Scenario A therefore increases by 25.7% from No-Action conditions. The amount of available active open space would increase by 13.9 acres, which results in an active open space ratio of 0.431 acres per 1,000 residents, an increase of 12.8% from No-Action conditions. The amount of available passive open space would increase by 19.49 acres and would yield a ratio of 0.318 acres per 1,000 residents, an increase of 48.6% from No-Action conditions.

Scenario B

The Greenpoint sub-area would have a projected population of 50,574 persons in the analysis year 2013, and under Scenario B, the total amount of open space would increase by 4.4 acres to 36.11 acres and the total open space ratio would be 0.714 acres per 1,000 residents, versus 0.796 under No-Action conditions. The total open space ratio for the Greenpoint sub-area under Scenario B therefore decreases by 10.3% from No-Action conditions. The amount of available active open space would remain unchanged from No-Action conditions at 17.08 acres and would result in a ratio of 0.338 acres per 1,000 residents, a decrease of 21.2% from No-Action conditions. The amount of 0.376 acres per 1,000 residents, an increase of 2.5% from No-Action conditions.

Within the Williamsburg sub-area, which has a projected population of 102,788 persons in the analysis year 2013, under Scenario B, the total amount of open space would increase by 17.09 acres to 66.79 acres

TABLE 5-4Quantitative Analysis of Adequacy of Public Open Space Resources

		EVIOTINO		WITH-A	CTION		
		EXISTING	NO-ACTION	Scenario A	Scenario B		
	Denulation (norsens)						
	Population (persons) Residential	39,481	39,817	50,574	50,574		
	Open Space Acreage	55,401	55,017	00,074	00,074		
	(acres)						
	Active	17.08	17.08	19.86	17.08		
g	Passive	12.83	14.63	21.81	19.03		
are	Total	29.91	31.71	41.67	36.11		
Greenpoint Subarea	Open Space Ratio (acres per 1,000 persons)						
oi	Active	0.433	0.429	0.393	0.338		
dué	Passive	0.325	0.367	0.431	0.376		
ree	Total	0.758	0.796	0.824	0.714		
G	Percent Change in Open Space Ratio						
			From Existing to No-Action	From No-Action			
	Active	-	-0.9%	-8.4%	-21.2%		
	Passive	-	12.9%		2.5%		
	Total	-	5.0%	3.5%	-10.3%		
	Population (persons)						
	Residential	89,590	96,768	102,788	102,788		
	Open Space Acreage	00,000	50,700	102,100	102,100		
	(acres)						
	Active	31.11	35.11	46.23	43.06		
B	Passive	11.54	14.59	26.90	23.73		
rea	Total	42.65	49.70	73.13	66.79		
Williamsburg Subarea	Open Space Ratio (acres per 1,000 persons)						
sm	Active	0.347	0.363		0.419		
lia	Passive	0.129	0.151	0.262	0.231		
Nil	Total	0.476	0.514	0.712	0.650		
	Percent Change in Open Space Ratio						
			From Existing to No-Action	From No-Action	n to With-Action		
	Active	-	4.6%	24.0%	15.4%		
	Passive	-	17.1%	73.5%	53.0%		
	Total	-	8.0%	38.5%	26.5%		
	Population (persons)	400.074	100	450.000	450.000		
	Residential	129,071	136,585	153,362	153,362		
	Open Space Acreage (acres)						
	Active	48.19	52.19	66.09	60.14		
	Passive	24.37	29.22	48.71	42.76		
a	Total	72.56	81.41	114.80	102.90		
1/2-Mile Study Area	Open Space Ratio (acres per 1,000 persons)						
Sti	Active	0.373	0.382	0.431	0.392		
ile	Passive	0.189	0.302	0.318	0.332		
N-	Total	0.562	0.596	0.749	0.671		
1/2	Percent Change in Open Space Ratio						
			From Existing to No-Action	From No-Action			
	Active	-	2.4%	12.8%	2.6%		
	Passive	-	13.2%	48.6%	30.4%		
	Total	-	6.0%	25.7%	12.6%		
Sour	ce: 2000 US Census Data; Sum	mary File 1, Table	P-1 and Table P-104.	-			

and the total open space ratio would be 0.650 acres per 1,000 residents, versus 0.514 under No-Action conditions. The total open space ratio for the Williamsburg sub-area under Scenario B therefore increases by 26.5% from No-Action conditions. The amount of available active open space would increase by 7.95 acres and would result in a ratio of 0.419 acres of active open space per 1,000 residents, an increase of 15.4% from No-Action conditions. The amount of available passive open space would increase by 9.14 acres and would result in a ratio of 0.231 acres per 1,000 residents, an increase of 53.0% from No-Action conditions.

For the $\frac{1}{2}$ -mile study area, the amount of total open space would increase by 21.49 acres under Scenario B and the total open space ratio would be 0.671 acres per 1,000 residents, versus 0.596 under No-Action conditions. The total open space ratio for the $\frac{1}{2}$ -mile study area under Scenario B therefore increases by 12.6% from No-Action conditions. The amount of available active open space would increase by 7.95 acres, which results in an active open space ratio of 0.392 acres per 1,000 residents, an increase of 2.6% from No-Action conditions. The amount of available passive open space would increase by 13.54 acres and would yield a ratio of 0.279 acres per 1,000 residents, an increase of 30.4% from No-Action conditions.

Qualitative Assessment of Open Space Adequacy

In the future with the proposed action, ratios of open space to residents would continue to be lower than the measure of open space adequacy and the optimal planning goals furnished by DCP. However, ratios of open space acreage to residents would increase substantially in the study area as a whole compared to the slight increases in open space provided under No-Action conditions. As such, the shortage of open space within the ½-mile study area would be granted substantial relief as a result of the open space resources proposed under each development scenario. The 27.8-acre Inlet Park, under Scenario A in the future with the proposed action, would be located centrally, extending south from the Bushwick Inlet and accessible to residents of Greenpoint and Williamsburg. The park would be situated in a similar fashion as McCarren Park, which borders both communities, and at 27.8 acres, would be the second largest open space facility in the study area. The central location of this park would also help to offset the absence of significant new open space development of a waterfront promenade in the future with the proposed action. In addition, the projected development of primarily passive open space that would create vibrant areas alongside new waterfront residential development that would allow both existing and new residents enjoyment of the water's edge, which is currently inaccessible to them.

Inlet Park would also offer a significant amount of open space under Scenario B. However, under this scenario, the siting of the power plant facility at the southern edge of the Bushwick Inlet would leave room for a smaller, 15.9-acre park further to the south, which would be less accessible to the residents of Greenpoint.

The population to be generated by the proposed action is not expected to have any special characteristics, such as a disproportionately younger or older population, that would place heavy demand on facilities that cater to specific user groups. Given that the future increase in population is to be accompanied by a 41.0% increase in the amount of total open space from No-Action conditions in Scenario A, and a 26.4% increase in Scenario B, it is anticipated that these new open spaces would contribute significantly to meeting the open space needs of future and existing residents.

It should also be noted that the Quality Housing Program, which provides specific requirements for outdoor and indoor recreational space, is required in several of the contextual zoning districts proposed for portions of the proposed action area. New developments in those districts would be required to dedicate small percentages of their allowable residential floor area ratio (FAR) for recreational spaces. Although these resources would not be available to the general public and cannot be included in the quantitative analysis, they would still contribute to satisfying the open space needs of the future residents of these developments.

Assessment

As per *CEQR Technical Manual* guidelines, a proposed action may result in a significant adverse impact on open space resources if (a) there would be a direct displacement/alteration of existing open space within the study area that has a significant adverse effect on existing users; or (b) it would reduce the open space ratio and consequently result in overburdening existing facilities or further exacerbate a deficiency in open space.

In the future with the proposed action, it is anticipated that the shortage of open space exhibited in the study area under both Existing and No-Action conditions would continue. The proposed action is anticipated to increase the population by an increment of 12.3% from No-Action conditions but in conjunction would provide an increase of 41% in the amount of open space under Scenario A. Scenario B would provide a 26.4% increase in open space. Open space ratios present under Existing and No-Action conditions are below the citywide median of 1.5 acres of open space per 1,000 residents and also below the DCP Planning Guidelines of 2.0 acres of active open space per 1,000 residents and 0.5 acres of passive open space per 1,000 residents.

Under Scenario A, the overall open space ratio in the Greenpoint sub-area would improve as a result of the proposed action, but this sub-area would undergo a level of population growth that surpasses the additional amount of active open space that would be added as a result of the proposed action. Under Scenario A, the total open space ratio increases by 3.5%, the active open space ratio decreases by 8.4% while the passive open space ratio increases by 17.4%. Given the increase in the total open space ratio, no significant adverse impact is anticipated within Greenpoint under Scenario A. While there would be a decrease in the active open space ratio in this sub-area under Scenario A. While there would be a decrease in the active open space ratio in this sub-area under Scenario A, there are several factors, discussed in the qualitative analysis section above, which would offset this decrease. Such factors include the provision of access to the waterfront and public access areas in connection with waterfront development, and the central location of the proposed new Inlet Park. It should be noted that, although only 20 percent (5.6 acres) of the proposed new 27.8-acre Inlet Park have been included in the quantitative assessment for the Greenpoint sub-area, it is likely that residents in the Greenpoint sub-area would avail themselves of the entire adjoining portions of the park. This would provide a significant amount of additional open space, including active resources, for the existing and future residents of Greenpoint

Under Scenario B, the Greenpoint sub-area would undergo a decrease in its total open space ratio of 10.3%, a 21.2% decrease in its active open space ratio, and a 2.5% increase in its passive open space ratio. The decrease in the total open space ratio would constitute a significant adverse impact on the sub-area's open space resources. Chapter 22, "Mitigation," discusses mitigation options to address this impact.

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