

A. INTRODUCTION

This chapter examines the potential direct and indirect effects of the Proposed Action on open space and the extent to which the effects of the Proposed Action would result in significant adverse open space impacts.

In 2011 and 2013, with the completion of the Proposed Project, passive open space ratios would exceed the City's recommended guidance, reflecting the abundance of passive open space in the area. In contrast, the active open space ratio would be below City guidelines, reflecting a lack of playgrounds, athletic fields, and other open space resources targeted at active uses. However, the Proposed Project would result in the creation of approximately 18 acres of new active open space, which would serve existing and new residents of the area. In addition, the active open space ratio would increase slightly in the 2013 future with the Proposed Action as compared to the 2013 No Build condition. Therefore, overall, the Proposed Action would not result in significant adverse impacts on open space.

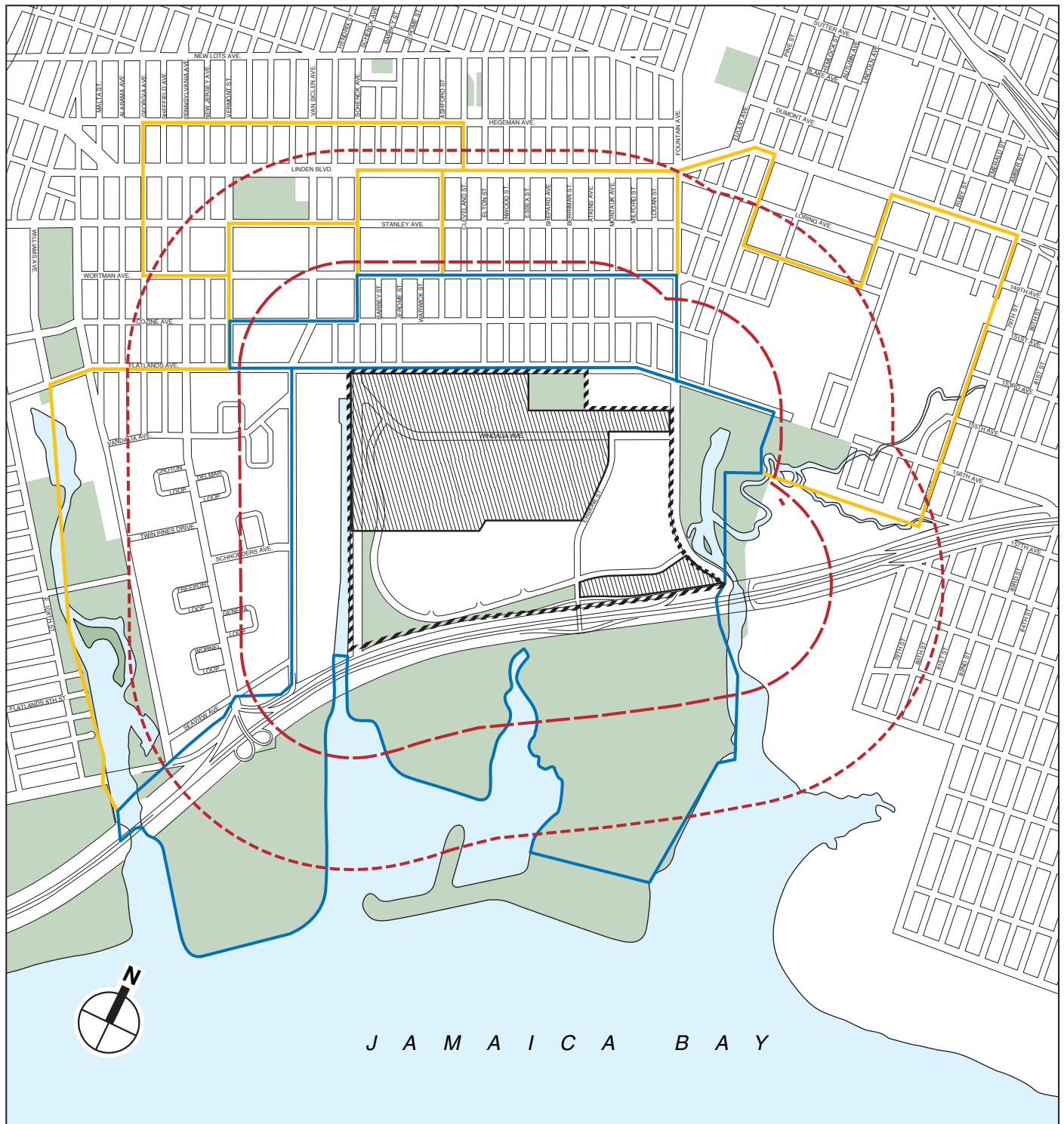
B. METHODOLOGY








STUDY AREAS

This analysis follows *CEQR Technical Manual* methodology to identify the potential for significant adverse impacts. The first step in assessing potential open space impacts is to establish study areas appropriate for the new population(s) to be added by a proposed project.

Worker and residential populations use different open space study areas. Workers typically use passive open spaces within walking distance of their workplaces; this area is roughly ¼ mile. The ¼-mile area surrounding the FCURA is roughly bounded by Wortman Avenue to the north, Brooklyn's border with Queens to the east, Jamaica Bay to the south, and Van Siclen Avenue to the west. All open spaces within that ¼-mile boundary, and all residents and employees within census tracts that fall at least 50 percent within the ¼-mile radius, were included in the ¼-mile study area analysis (see Figure 5-1).

Residents are more likely to travel further to reach parks and recreational facilities, and they use both passive and active open spaces. Residents will typically walk up to ½ mile for recreational spaces. Therefore, in addition to the ¼-mile study area, the open space analysis considers a ½-mile study area. As with the ¼-mile study area, all open spaces within that radius, and the residents and employees of all census tracts falling at least 50 percent within that radius, were included in the study area. The ½-mile study area is roughly bounded by Linden Boulevard to the north, Brooklyn's border with Queens to the east, Jamaica Bay to the south, and the Fresh Creek to the west (see Figure 5-1).



-  Project Site
-  Fresh Creek Urban Renewal Area Boundary
-  Primary Study Area Boundary (1/4-Mile Perimeter)
-  Secondary Study Area Boundary (1/2-Mile Perimeter)
-  Employees Study Area Boundary
-  Residential Study Area Boundary
-  Open Space

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OPEN SPACE USER POPULATIONS

Census data were used to identify potential open space users within the study areas. Open space user groups include residents, employees, and students. To determine the number of residents currently located within the study areas, data were compiled from the 2000 Census for the tracts in each study area. The number of employees in each of the study areas was also determined based on the 2000 Census data for worker populations. Estimates for current conditions were calculated by increasing the 2000 Census data using an assumed 1 percent per year growth rate. Population and employment estimates were projected for 2011 and 2013 using the same growth rate, so that development-induced changes to open space ratios could be compared to the future without the Proposed Action.

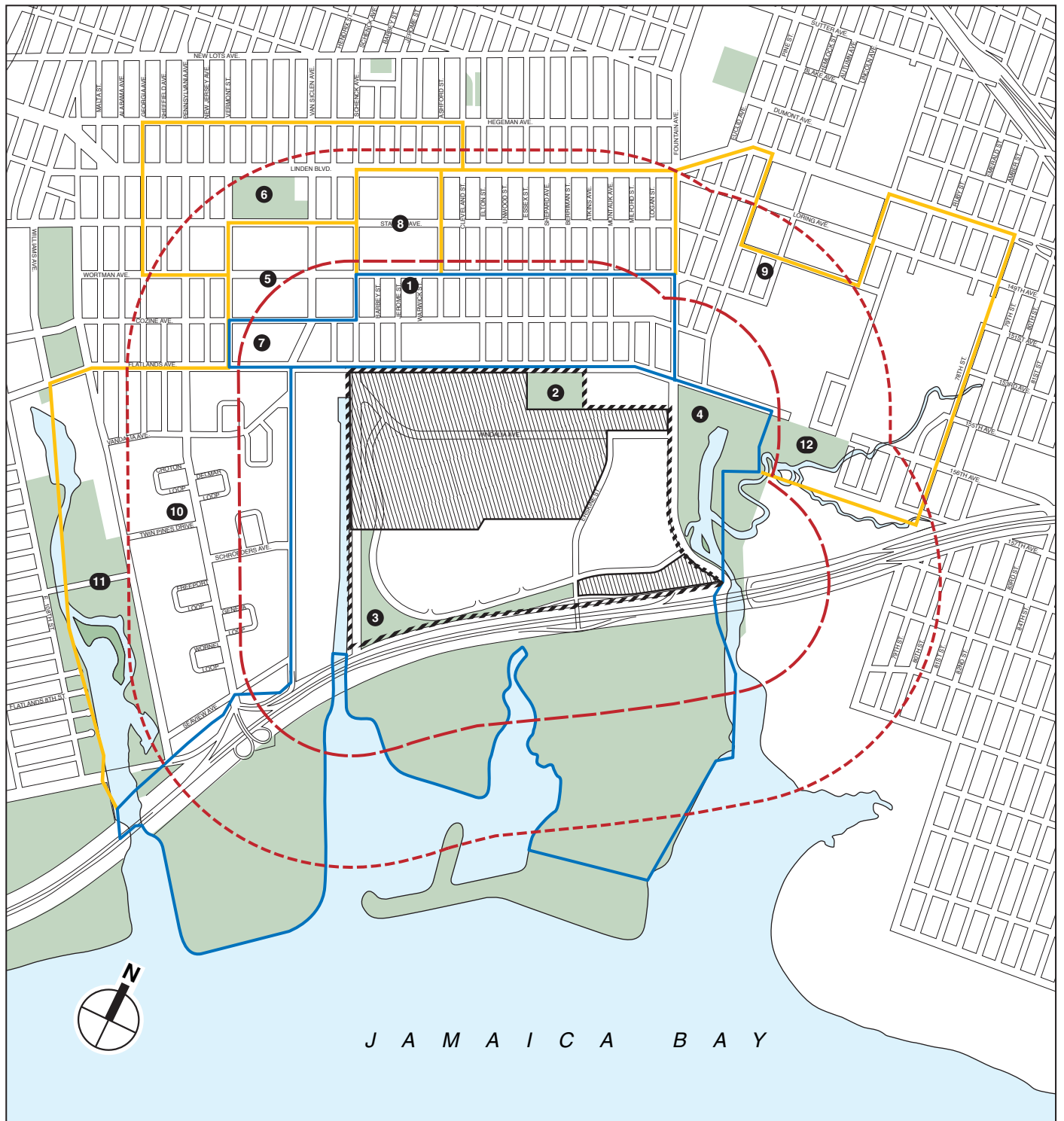
INVENTORY OF OPEN SPACE RESOURCES








All publicly accessible open spaces and recreational facilities located within the study areas were inventoried to determine their size, character, and condition. Public spaces that do not offer useable recreational areas were excluded from the survey, as were open spaces that are not open to the general public. The information used for this analysis was gathered through field studies conducted in March 2007, from the New York City Department of Parks and Recreation (DPR); and from *Privately Owned Public Space: The New York City Experience* (2000), a collaboration of New York City Department of City Planning (DCP), Jerold S. Kayden, and the Municipal Art Society. The 1996 Gateway Estates Final Environmental Impact Statement was also used as a source of information.

At each open space, active and passive spaces were noted. Active facilities are intended for vigorous activities, such as jogging, field sports, and children's active play. Such facilities might include basketball courts, softball fields, and play equipment. Passive facilities encourage such activities as strolling, reading, sunbathing, and people watching. Some spaces, such as lawns, public esplanades, and dog runs, can be both active and passive recreation areas. Designated open spaces with no useable amenities were excluded from the calculations. The open space inventory also notes any changes planned for existing facilities and whether any new spaces will be added to the area. Figure 5-2 and Tables 5-3 and 5-4 show the inventory of useable public open space resources within the two study areas.

ADEQUACY OF OPEN SPACE RESOURCES

Once the inventory was taken, the adequacy of open space in the study area was quantitatively assessed. In the quantitative approach, the ratio of useable open space acreage to the study area population—referred to as the open space ratio—is compared with guidelines established by DCP. To determine the adequacy of open space resources for the working (daytime) population of a given area, DCP has established 0.15 acres of passive open space per 1,000 workers as a reasonable amount of open space. For the residential population, two sets of guidelines are used. The first guideline is a citywide median open space ratio of 1.5 acres per 1,000 residents. The second guideline is an optimal planning goal established by DCP of 2.5 acres per 1,000 residents—2.0 acres of active and 0.5 acres of passive open space per 1,000 residents—for large-scale plans and proposals. Impacts are determined by how a project would change the open space ratios in the study area. According to the *CEQR Technical Manual*, if the initial quantitative assessment shows a decrease in the open space ratio which would approach or exceed 5 percent, it is generally considered to be a substantial change that warrants further analysis. In addition, if a study area exhibits a low open space ratio (e.g., below 1.5 acres per 1,000 residents or 0.15 acres of passive space per 1,000 non-residential users), indicating a



-  *Project Site*
-  *Fresh Creek Urban Renewal Area Boundary*
-  *Primary Study Area Boundary (1/4-Mile Perimeter)*
-  *Secondary Study Area Boundary (1/2-Mile Perimeter)*
-  *Employees Study Area Boundary*
-  *Residential Study Area Boundary*
-  *Open Space Resource (See Table 5-4 for reference)*

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shortfall of open space, even a small decrease in that ratio as a result of the proposed action may have an adverse impact. The existing open space ratio may be so low that even an open space ratio change of less than 1 percent may result in significant adverse open space impacts.

In addition to the quantitative factors cited above, the *CEQR Technical Manual* also recommends consideration of more qualitative factors in assessing the potential for open space impacts. The analysis therefore evaluates whether the on-site open space resources introduced by the proposed action, in conjunction with existing open space resources, would be of sufficient quality to serve the needs of its users, and whether the proposed action is likely to have potential significant shadow, air quality/odor, or noise effects on existing and planned open space resources.

C. EXISTING CONDITIONS

STUDY AREA POPULATIONS

¼-MILE STUDY AREA

Two census tracts (1070, 1078) were included within the ¼-mile study area (see Figure 5-1). The current residential population within these census tracts is 5,012 (see Table 5-1). The non-residential (worker) population in the ¼-mile area was 2,324 in 2006. Although the analysis conservatively assumes that residents and employees are separate populations, it is likely that some of the residents live near their workplaces. As a result, the analysis may double-count the daily user population in cases where residential and worker populations overlap.

Table 5-1
2006 Population in the ¼-Mile Study Area

Census Tract	2006* Residential Population	2006* Worker Population	Total Population**
Residents in Census Tract 1070	312	1,072	1,384
Residents in Census Tract 1078	4,700	1,252	5,952
Total Population	5,012	2,324	7,336
Notes: * Assumes a 1 percent growth rate per year above 2000 Census data ** This analysis conservatively assumes that the residential and worker populations are entirely distinct. Source: U.S. Department of Commerce, Bureau of the Census, 2000 Census of Population and Housing.			

½-MILE STUDY AREA

Population estimates for the ½-mile study area were based on data from 11 census tracts—1058, 1070, 1078, 1102, 1106, 1110, 1112, and 1220. The current residential population of this study area is 36,272 (Table 5-2).

There are almost one third as many workers as residents in the ½-mile radius—10,697 workers. Again, although the analysis conservatively assumes that residents and employees are separate populations, some residents may also work within the study area.

Table 5-2
2006 Population in the ½-Mile Study Area

Census Tract	2006 Residential Population	2006 Worker Population	Total Population
CT 1058	15,520	2,150	17,670
CT 1070	312	1,072	1,384
CT 1078	4,700	1,253	5,953
CT 1102	3,588	1,407	4,995
CT 1106	4,540	96	4,636
CT 1110	3,723	340	4,063
CT 1112	1,177	1,269	2,446
CT 1220	2,712	3,110	5,822
Total Population	36,272	10,697	46,969
Source: U.S. Department of Commerce, Bureau of the Census, 2000 Census of Population and Housing.			

INVENTORY OF OPEN SPACE RESOURCES

¼-MILE STUDY AREA

Three publicly accessible open spaces and recreation resources lie within the ¼-mile open space study area. The ¼-mile study area is used to assess the amount of open space available for passive recreation that would be used by workers within the area; therefore, when open space resources in this study area contain both active and passive open space, only the passive portion of the open space resource was included in quantitative analyses of the ¼-mile study area. Altogether, the passive open space resources in the study area total approximately 18 acres (see Figure 5-2 and Table 5-3).

Table 5-3
¼-Mile Open Space Resources

Map	Name	Location	Owner	Acres	Active	Passive	Amenities	Condition	Use Level
1	Jerome Playground (PS 273)	Jerome Street at Warwick Street	DOE/DPR	1.1	0.9	0.2	Paved play area; play equipment; basketball court; benches	Fair	Light
2	Thomas Jefferson High School Athletic Fields (Moe Finklestein Athletic Complex)	Flatlands Avenue and Elton Street	DOE	7.7	6.8	0.9	Grass playing field with stands; 2 baseball fields; tennis courts; handball court	Good	Moderate
3	Parkland within the FCURA	Gateway Drive	Private	9.7	3.3	6.4	Grass fields; benches; walking paths; playground equipment; cricket pitch; greenway	Good	Light
4	Spring Creek Park (Portion w/in ¼ mile)	Spring Creek to Fresh Creek Basins	DPR	10.3*	0	10.3	Natural area	Fair	Light
Note: * A portion of Spring Creek Park is occupied by the Spring Creek Auxiliary Water Pollution Control Plant. This was not included in the open space acreage.									

Open spaces within ¼ mile of the Project Site are a mix of mapped city parks and Department of Education (DOE) facilities. The largest developed park in the ¼-mile study area is perimeter

parkland within the FCURA, which was created as part of the 1996 Plan. The perimeter parkland within the FCURA occupies the entire length of Gateway Drive up to Erskine Street, as well as the area between the Spring Creek and Gateway Drive north to the current service entrance for the existing Gateway Center. This park includes both walking trails and open grass fields. The ¼-mile study area also encompasses a portion of Spring Creek Park. This park is largely undeveloped and provides limited opportunities for passive recreation such as walking and birding.

One DOE athletic facility, the Thomas Jefferson High School Athletic Fields, is within the ¼-mile study area. It is comprised mainly of athletic fields suitable for active recreation and has minimal passive space. Although DOE facilities are sometimes not available to the public during non-school hours, they are typically included in CEQR open space analyses. Furthermore, this field is part of the Take the Field program, a public-private partnership that rebuilds public school athletic fields and makes them available for use by community groups after school, on weekends, and during the summer. Participation in this program makes it more likely that this field is used outside of school hours. There is typically a fee to use these fields to help cover the maintenance cost, but that fee can be waived.

½-MILE STUDY AREA

CEQR methodology calls for an assessment of both passive and active open space because parks, plazas, and arcades would be used by residents as well as workers. Again, designated open spaces with no useable public amenities were excluded from the acreage calculations. The ½-mile study area contains a total of approximately 202 acres of public open spaces, including the public parks and open spaces listed in the ¼-mile study area (see Figure 5-2 and Table 5-4). The ½-mile study area includes more passive open space than it does active open space; with 162 acres of passive recreational areas and approximately 40 acres of active open space. This large amount of passive open space is not typical in most New York City neighborhoods, and is a reflection of the location of the Project Site along Jamaica Bay, near multiple nature preserves.

OTHER NEARBY OPEN SPACES AND RECREATIONAL FACILITIES

Within a short distance of the Project Site, but further than ½ mile away, is the Gateway National Recreation Area, Jamaica Bay Unit. Part of the National Park system, this facility provides abundant recreational and educational opportunities including swimming, hiking, boating, and nature preserves. This includes the Marine Park Golf Course and Floyd Bennett Field, which are both less than 5 miles from the FCURA.

ANALYSIS OF THE ADEQUACY OF OPEN SPACE RESOURCES

¼-MILE STUDY AREA

Quantitative Analysis

As described above, the analysis of the ¼-mile study area focuses on passive open spaces that may be used by workers in the area. To assess the adequacy of the open spaces in the area, a combined ratio is used that accounts for the 0.15 acres of passive open space considered adequate for every 1,000 workers, and the 0.5 acres of passive open space considered adequate for every 1,000 residents. Based on the combined worker and residential population for this area, the combined ratio of adequate passive open space is 0.38 acres/1,000 residents and workers. The ¼-mile study area includes a total of 28.8 acres of open space, of which 17.8 acres are passive. A total of 5,012 residents and 2,324 workers are located within the ¼-mile site boundary for a combined population of 7,336.

Gateway Estates II

Table 5-4
½-Mile Open Space Resources

Map	Name	Location	Owner	Acres	Active	Passive	Amenities	Condition	Use Level
1	Jerome Playground (PS 273)	Jerome Street at Wortman Street	DOE/DPR	1.1	0.9	0.2	Paved play area; play equipment; basketball court; benches	Fair	Light
2	Thomas Jefferson High School Athletic Fields (Moe Finklestein Athletic Complex)	Flatlands Avenue and Elton Street	DOE	7.7	6.8	0.9	Grass playing field with stands; 2 baseball fields; tennis courts; handball court	Good	Moderate
3	Parkland within the FCURA	Gateway Drive	Private	9.7	3.3	6.4	Grass fields; benches; walking paths; playground equipment	Good	Light
4	Spring Creek Park (Portion w/in ¼ mile)	Spring Creek to Fresh Creek Basins	DPR	10.3*	0	10.3	Natural area	Fair	Light
5	Penn-Wortman Housing Complex	895 Pennsylvania Ave	NYCHA	3.5	0.7	2.8	Paved play area; paved paths; basketball court	Fair	Light
6	Linden Park	800 Van Siclen Avenue	DPR	9.3	8.4	0.9	Grass football field; bleachers; running track; tennis, handball and basketball courts; play equipment; spray shower; field sports; paths; benches	Good	Heavy
7	Linden Houses Apartment Complex	914 Van Siclen Avenue	NYCHA	20	5.1	14.9	Walkways; benches; play areas; basketball courts	Fair	Light
8	Boulevard Houses Apartment Complex	812 Ashford Street	NYCHA	18	3.6	14.4	Paved playground; paved walkways; tot lots; grassy areas	Fair	Light
9	Woodruff Playground	Stanley Ave. and Autumn Ave.	DPR	1.2	1.0	0.2	Paved playground; swings; slides; basketball; benches	Fair	Moderate
10	Starrett at Spring Creek		Private	20.7	8.3	12.4	Grass area; benches; paved play areas; basketball and handball courts; soccer, football fields	Good	Moderate
11	Fresh Creek Park Preserve	Louisiana Ave.	DPR	74	2	72	Grass area; paths; benches	Good	Light
12	Spring Creek Park (Portion w/in ½ mile)	Spring Creek to Fresh Creek Basins	DPR	26.7	0	26.7	Natural area	Fair	Light

Notes:

* A portion of Spring Creek Park is occupied by the Spring Creek Auxiliary Water Pollution Control Plant. This was not included in the open space acreage.

The area has a passive open space ratio of 7.66 acres of passive open space per 1,000 workers which is well above the City's guideline of 0.15 (see Table 5-5).

This same area is well above the assessed combined open space ratio of 0.38 acres per 1,000 residents and workers. In this case, the combined passive open space ratio is 2.43 per 1,000 residents and workers, which is almost 1 acre above the assessed combined ratio for the study area. The ¼-mile study area is unique among areas in New York City in that it has more open space per 1,000 people than standard guidelines recommend.

Qualitative Analysis

Inside the ¼-mile study area, but not accessible to the public, is the Fairfield Towers Apartment complex and the Brooklyn Developmental Center both of which contain grassy areas, benches, and other amenities which are only available to residents. These two residential developments contain a large portion of the population of the study area, which can access this open space at any time.

½-MILE STUDY AREA

Quantitative Analysis

As described earlier, two guidelines are used to evaluate residential open space ratios. The first guideline, used for comparative purposes, is the existing citywide median of 1.5 acres of parkland per 1,000 residents. The second is DCP's optimal planning goal of 2.5 acres per 1,000 residents. Of the 2.5 acres, 80 percent, or 2.0 acres, is recommended for active open space, and 20 percent, or 0.5 acres, is recommended for passive recreational space.

With a total of 202.2 acres of open space, of which 40.1 are for active use and 162.1 are for passive use, and a total 2006 residential population of 36,272, the ½-mile study area has a total open space ratio of 5.56 acres per 1,000 residents (see Table 5-5). This is well above the citywide median of 1.5 acres per 1,000 residents, and more than double the City's optimal planning goal of 2.5 acres of combined active and passive open space per 1,000 residents. This area benefits from numerous large parks like Spring Creek Park and Fresh Creek Park Preserve.

Table 5-5
Existing Conditions: Open Space Ratios in the Study Areas

Study Area	Total Population	Open Space Acreage			Open Space Ratios Per 1,000 People		
		Total	Active	Passive	Total	Active	Passive
¼-Mile Study Area							
Workers	2,325	28.8	11.0	17.8	N/A	N/A	7.66
Combined Workers and Residents	7,337				N/A	N/A	2.43
½-Mile Study Area							
Residents	36,272	202.2	40.1	162.1	5.56	1.11	4.47
Combined Workers and Residents	46,969				N/A	N/A	3.45
Notes: N/A = not applicable. Per <i>CEQR Technical Manual</i> methodology, workers typically use only passive spaces, so within the ¼-mile area only passive open space ratios are calculated. Within the ½-mile area, both active and total park space ratios are calculated. Source: AKRF, Inc.							

The study area's active open space ratio is much lower than the total open space ratio due to the predominance of passive open space in this area. The ½-mile study area's active open space ratio is only 1.11, or almost 1 acre less than the planning goal of 2.0 acres per 1,000 residents. The area's passive open space ratio is significantly better—4.47 acres per 1,000 residents—which is much higher than the planning goal of 0.5 acres per 1,000 residents.

When the employees who work within the ½-mile study area are added to the population, the passive open space ratio is much lower. As described earlier, workers typically use passive open spaces during the workday, so the passive open space ratio is the relevant ratio for consideration. With the combined worker and residential population of 46,969, the passive open space ratio in

the ½-mile study area is 3.45, nine times greater than the assessed combined passive open space ratio of 0.38 calculated for the study area.

Qualitative Analysis

The ½-mile study area, which includes the area within ¼ mile of the FCURA, contains only a few parks which are not included in the quantitative analysis. (The Louis H. Pink Housing Complex, located within ½ mile of the Project Site but not in the ½-mile study area, contains grassy fields, walkways, and benches). There are also a few, small neighborhood parks located immediately outside of the ½-mile study area, which are within walking distance for residents and workers at the outer edges of the study area.

D. 2011 THE FUTURE WITHOUT THE PROPOSED ACTION

STUDY AREA POPULATION

By 2011, absent the Proposed Action, up to 378 residential units will be built on the Project Site as part of the original Fresh Creek Urban Renewal Plan (FCURP). These units are expected to add approximately 1,111 residents to the project area. There are no other development plans for the Project Site.

There are three potential projects expected to be completed within the ½-mile study area by 2011. They include two housing projects and one retail development. These projects are expected to increase employment in the ¼-mile study area by 423 and the residential population in the ½-mile study area by 709 people. In addition, the analysis conservatively assumes a background population growth rate of 1 percent annually from 2006 to 2011 for both the residential and worker population.

OPEN SPACE RESOURCES

There are no open spaces planned for either study area by 2011. There is a new comfort station planned for the perimeter park within the FCURA; however, this will not result in an increase in open space acreage.

ANALYSIS OF THE ADEQUACY OF OPEN SPACE RESOURCES

¼-MILE STUDY AREA

Quantitative Analysis

In 2011, without the Proposed Action, the number of workers in the ¼-mile study area will increase to 2,867 as a result of the retail development and background population growth described above, but the amount of park space will not change from existing conditions. This increase in the working population will reduce the worker passive open space ratio from the existing conditions of 7.66 to 6.21 acres per 1,000 workers (see Table 5-6). For the worker population alone, the amount of passive open space will continue to exceed DCP recommendations. For the combination of workers and residents, the passive open space ratio will decline to approximately 1.93, which is still greater than the assessed combined open space ratio of 0.38.

Qualitative Analysis

With no new public open spaces planned for the ¼-mile study area in the No Build condition, open space in the study area will continue to be largely passive rather than active open space. Two large parks, Spring Creek Park and Fresh Creek Park Preserve, which are predominately passive open spaces, will continue to account for a large portion of the open space acreage in the study area.

½-MILE STUDY AREA

Quantitative Analysis

With an increase in the residential population of 3,670 persons and no increase in parks in the ½-mile study area, the open space ratios in all areas would decline by 2011 absent the Proposed Action. The total open space ratio will decline by approximately 0.5 acres per 1,000 people to 5.06 acres, and the active open space ratio will decline by approximately 0.1 acres per 1,000 residents to 1.00 acres (see Table 5-6). The active open space ratio will continue to be well below City planning guidelines of 2 acres, similar to existing conditions; however, the passive open space ratios of 4.06 acres per 1,000 residents and 3.14 acres per 1,000 residents and workers will be above the City's planning guidance.

Qualitative Analysis

Much like in the ¼-mile study area, with no additional parkland in the study area by 2011, open space will continue to be dominated by Spring Creek Park and the Fresh Creek Park Preserve.

Table 5-6
2011 No Build Conditions: Open Space Ratios in the Study Areas

Population	No Build Population*	No Build Open Space Acreage			No Build Open Space Ratios			Change in Ratios (Percent)		
		Total	Active	Passive	Total	Active	Passive	Total	Active	Passive e
¼-Mile Study Area										
Workers	2,867	N/A	N/A	17.8	N/A	N/A	6.21	N/A	N/A	-19
Combined Workers and Residents	9,246	N/A	N/A	17.8	N/A	N/A	1.93	N/A	N/A	-21
½-Mile Study Area										
Residents	39,944	202	40	162	5.06	1.00	4.06	-9	-10	-9
Combined Workers and Residents	51,608	N/A	N/A	162	N/A	N/A	3.14	N/A	N/A	-9
Notes: N/A = not applicable. Per <i>CEQR Technical Manual</i> methodology, workers typically use only passive spaces, so only passive open space ratios are relevant to the worker population. * Assumes a 1 percent background population growth rate annually from 2006 to 2011 for both workers and residents.										
Source: AKRF, Inc.										

E. 2011 PROBABLE IMPACTS OF THE PROPOSED ACTION

POPULATION

By 2011, the Proposed Action is expected to add 1,027 units of housing, a 630,000-square-foot shopping center, as well as 68,000 square feet (sf) of local retail. This would lead to an increased population of 1,591 residents and 1,430 employees.

OPEN SPACE RESOURCES

There are no additional open space resources planned for 2011 as part of the Proposed Project.

ANALYSIS OF THE ADEQUACY OF OPEN SPACE RESOURCES

¼-MILE STUDY AREA

Quantitative Analysis

The addition of almost 1,600 residents and almost 1,500 employees in the ¼-mile study area by 2011 with no additional parkland would decrease the passive open space ratios for the study area by approximately 33 percent (See Table 5-7). However, ratios would continue to exceed the City's planning guideline of 0.15 acres per 1,000 employees. The combined ratio of 1.45 acres of passive open space per 1,000 residents and employees would continue to exceed the calculated combined ratio of 0.38 acres per 1,000 people.

Qualitative Analysis

By 2011, there would be no additional open space in the ¼-mile study area with the Proposed Action. Open space in the study area would remain more passive than active. The additional development in the ¼-mile study area would increase pedestrians in the vicinity of the FCURA, increasing the perceived safety of users of the open space and parkland surrounding the FCURA. Although there would be new buildings constructed by 2011, it is not expected that these buildings would cast any shadows, which would cause significant adverse impacts to the open space in the study area (see Chapter 6, "Shadows").

Table 5-7
2011 No Build and Build Conditions: Open Space Ratios in the ¼-Mile Study Area

Population Type	No Build			Build			Change in Passive Ratios (Percent)
	Population	Passive Open Space Acreage	Passive Open Space Ratios	Population	Passive Open Space Acreage	Passive Open Space Ratios	
Workers	2,867	17.8	6.21	4,296	17.8	4.14	-33
Combined Workers and Residents	9,246	17.8	1.93	12,265	17.8	1.45	-25
Note: Workers typically use only passive spaces, so only passive open space ratios are relevant to the worker population.							
Source: AKRF, Inc.							

*½-MILE STUDY AREA**Quantitative Analysis*

The ½-mile study area would experience an increase in population of approximately 1,600 residents and nearly 1,500 employees by 2011 as a result of the Proposed Project. This increase in population would decrease the combined open space ratio for the ½-mile study area by five percent below the 2011 No Build condition. However, the passive open space ratios would be well above the City's planning guidelines. The ratio of active open space acres per every 1,000 residents would decline by 3 percent to 0.97 acres per 1,000 residents. This ratio, which is well below the City's planning guidelines of 2.0 acres per 1,000 residents, is a reflection of the existing open space make-up in the study area (See Table 5-8).

Table 5-8
2011 No Build and Build Conditions: Open Space Ratios in the ½-Mile Study Area

Population Type	Ratio	No Build			Build			Percent Change
		Population	Acreage	Ratio	Population	Acreage	Ratio	
Residents	Active	39,944	40	1.00	41,535	40	0.97	-3
	Passive	39,944	162	4.06	41,535	162	3.90	-6
	Total	39,944	202	5.06	41,535	202	4.86	-5
Combined Residents and Workers	Passive	51,608	162	3.14	54,628	162	2.97	-5
Note: Per <i>CEQR Technical Manual</i> methodology, workers typically use only passive spaces, so only passive open space ratios are relevant to the worker population. Source: AKRF, Inc.								

Qualitative Analysis

Much like the ¼-mile study area, the ½-mile study area would see no increase in open space, and would continue to remain similar to the 2011 No Build condition.

F. 2013 THE FUTURE WITHOUT THE PROPOSED ACTION

POPULATION

By 2013, without the Proposed Action, 2,385 dwelling units will be developed in the FCURA consistent with the 1996 Plan. These 2,385 units are expected to add approximately 6,648 residents to the open space study area. Additionally, the construction of 15,000 sf of local retail is expected to add approximately 340 additional employees to the study area's population.

As in the 2011 future without the Proposed Action, background population growth was estimated at 1 percent annually from 2011 to 2013 for both the residential and worker populations. Aside from the three projects mentioned previously which are expected to be completed by 2011, there are no other projects that will be completed in the study area by 2013.

OPEN SPACE RESOURCES

DEVELOPMENT PARCELS

By 2013, the 35.5 remaining acres of open space included in the original FCURP will be completed on the Project Site (9.7 acres have already been completed). These 35.5 acres include

the completion of the perimeter park (32.4 acres) north along Hendrix Creek to Flatlands Avenue, and east to Fountain Avenue along Gateway Avenue, along with the construction of three interior parks (3.1 acres). It is expected that these parks will contain a mix of active and passive uses. According to the 1996 FEIS, approximately 17.5 acres would be for active uses and 18.0 acres would be for passive uses.

STUDY AREA

The New York City Department of Environmental Protection (DEP), DPR, and the National Park Service (NPS) have been actively involved in long-term remediation projects at the Pennsylvania and Fountain Avenue Landfills. Capping of both landfills has been completed, and DEP is currently involved in the planning and construction of two parks on these properties. The Fountain Avenue Landfill will be a 300-acre park. The Pennsylvania Avenue Landfill will be a 72-acre park. The planning for these parks is ongoing, and the timeline for their implementation is unknown. Therefore, they are not included in the quantitative analysis that follows.

ANALYSIS OF THE ADEQUACY OF OPEN SPACE RESOURCES

¼-MILE STUDY AREA

Quantitative Analysis

With a slight increase in population, coupled with an increase of 18 acres of passive open space and 17.5 acres of active open space from the original FCURP, the ¼-mile study area will see an increase in the amount of passive open space per 1,000 employees to approximately 9.73 acres per 1,000 employees, and an increase in the combined passive open space ratio to 2.28 acres per 1,000 employees and residents.

Qualitative Analysis

The completion of the originally planned parkland will provide additional recreation opportunities within the Project Site. The addition of parkland in the middle of the Project Site, on what is now vacant land, will be beneficial to the community by making open space more evenly distributed throughout the study area. Furthermore, this open space will include active uses, which are currently deficient in the study area; but, overall, the total acreage of open space will remain more passive than active.

½-MILE STUDY AREA

Quantitative Analysis

Population and employment in the ½-mile study area is expected to increase by approximately 1,000 residents and employees by 2013. The total open space ratio would remain the same as in the 2011 future without the Proposed Action, while the active open space ratio would increase by 23 percent (See Table 5-9). The passive open space ratio per 1,000 residents and combined ratio of passive open space per 1,000 residents and employees would decline by 5 percent and 4 percent, respectively.

Qualitative Analysis

As in the ¼-mile study area, open space will cater more to passive use than active use in 2013.

Table 5-9
2013 No Build Conditions; Open Space Ratios in the Study Areas

Population	No Build Population*	No Build Open Space Acreage			No Build Open Space Ratios			Change in Ratios (Percent)		
		Total	Active	Passive	Total	Active	Passive	Total	Active	Passive e
¼-Mile Study Area										
Workers	3,678	N/A	N/A	35.8	N/A	N/A	9.73	N/A	N/A	57
Combined Workers and Residents	15,699	N/A	N/A	35.8	N/A	N/A	2.28	N/A	N/A	18
½-Mile Study Area										
Residents	46,957	237.7	57.6	180.1	5.06	1.23	3.84	0	23	-5
Combined Workers and Residents	59,608	N/A	N/A	180.1	N/A	N/A	3.02	N/A	N/A	-4
Note: * Assumes a 1 percent background population growth rate annually from 2006 to 2011 for both workers and residents. N/A = not applicable. Per <i>CEQR Technical Manual</i> methodology, workers typically use only passive spaces, so only passive open space ratios are relevant to the worker population. Source: AKRF, Inc.										

G. 2013 PROBABLE IMPACTS OF THE PROPOSED ACTION

POPULATION

Like the 1996 Plan (“2013 The Future without the Proposed Action”), the Proposed Action would result in 2,385 residential units on the Project Site. Therefore, the 1996 Plan and the Proposed Action would add the same residential population to the study area by 2013. All of the proposed retail development from the Proposed Project would be constructed by 2011; thus, the 2013 retail worker population would not change from that described above in “2011 Probable Impacts of the Proposed Action.” However, by 2013, there would be additional workers associated with the community facility components of the plan.

OPEN SPACE RESOURCES

With the Proposed Action, 36.5 acres of open space would be developed on the Project Site in addition to the 9.7 acres that have already been completed. When complete, the Proposed Project would result in a total of 46.2 acres of open space on the Project Site (9.7 acres already completed plus 36.5 additional acres), one acre more than would be developed under the 1996 Plan. As with the 1996 Plan, this acreage would include the completion of the perimeter park (33.2 acres under the Proposed Project versus 32.4 acres under the 1996 Plan) and three interior parks (3.3 acres under the Proposed Project versus 3.1 acres under the 1996 Plan). Figure 1-5 shows the proposed perimeter and interior parks.

As described in Chapter 1 “Project Description,” two interior parks would be demapped and would be remapped at new locations within the Project Site, and the third park would be developed at the same location identified in the 1996 Plan. This analysis assumes that the open spaces provided under the Proposed Action would have active and passive spaces in the same proportions as under the 1996 Plan, resulting in approximately 18 acres of active space and 18.5 acres of passive space.

ANALYSIS OF THE ADEQUACY OF OPEN SPACE RESOURCES

¼-MILE STUDY AREA

Quantitative Analysis

The ¼-mile study area would have a reduction in the passive open space ratios for both workers and the combined group of both workers and residents. Although there would be declines above *CEQR Technical Manual* guidance for further analysis, these would not create a significant adverse impact on open space as there would still be over 6 acres of passive open space for every 1,000 employees, and over 2 acres for combined employees and residents—an amount that is above any recommended guideline for open space adequacy in New York City (See Table 5-10).

Table 5-10
2013 No Build and Build Conditions: Open Space Ratios in the ¼-Mile Study Area

Population Type	No Build			Build			Change in Passive Ratios (Percent)
	Population	Passive Open Space Acreage	Passive Open Space Ratios	Population	Passive Open Space Acreage	Passive Open Space Ratios	
Workers	3,678	35.8	9.73	5,415	36.3	6.70	-31
Combined Workers and Residents	15,699	35.8	2.28	17,436	36.3	2.08	-9
Note: Workers typically use only passive spaces, so only passive open space ratios are relevant to the worker population.							
Source: AKRF, Inc.							

Qualitative Analysis

In the 2013 Build condition, two parks would be remapped on the eastern and western edges of the Project Site, one bounded by Vandalia Avenue, Ashford Street, Walker Street, and Schroeders Avenue; and one bounded by Vandalia Avenue, Schroeders Avenue, Berriman Street, and Parcel 26b. Under the 1996 Plan, the former park was to be located one block to the south, and the latter was to be located one block to the west of its location in the Proposed Action. An additional park, bounded by Locke Street, Cleveland Street, Egan Street, and Ashford Street, was mapped in the 1996 Plan and would not be moved under the Proposed Action. Since the location and sizes of these parks would not substantially differ from the previously approved 1996 Plan, the Proposed Action's demapping and mapping of parks within the FCURA would not result in a significant adverse impact on open space.

There would be new buildings constructed on the Project Site by 2013. As described in Chapter 6, "Shadows," shadows cast by these structures would not result in significant adverse impacts to the open space in the study area.

½-MILE STUDY AREA

Quantitative Analysis

With no change in residential population between the 2013 No Build and Build conditions and only a small increase in the passive and total open space acreage, there would be no change in the passive or total open space ratios. The active open space ratio would increase slightly to 1.24 acres per 1,000 residents. The slight increase in employees leads to a decline in the combined

ratio for passive open space to 2.94 acres per 1,000 residents and employees but is still significantly higher than the recommended combined ratio of 0.43 (See Table 5-11).

Table 5-11

2013 No Build and Build Conditions: Open Space Ratios in the ½-Mile Study Area

Population Type	Ratio	No Build			Build			Percent Change
		Population	Acreage	Ratio	Population	Acreage	Ratio	
Residents	Active	46,957	57.6	1.23	46,957	58.1	1.24	+1
	Passive	46,957	180.1	3.84	46,957	180.6	3.85	0
	Total	46,957	237.5	5.07	46,957	238.7	5.08	0
Combined Residents and Workers	Passive	59,608	180.1	3.02	61, <u>345</u>	180.6	2.94	-3
Note: Per <i>CEQR Technical Manual</i> methodology, workers typically use only passive spaces, so only passive open space ratios are relevant to the worker population. Source: AKRF, Inc.								

Qualitative Analysis

The ½-mile open space study area has the same qualitative implications that the ¼-mile study area would have in 2013. *