

A. INTRODUCTION

This chapter assesses the potential of the proposed project to affect open space resources. The analysis updates changes to the proposed project and background conditions since the 2008 Final Generic Environmental Impact Statement (FGEIS) and assesses whether any changed background conditions or the differences between the reasonable worst-case development scenario (RWCDS) and the program assessed in the 2008 FGEIS and subsequent technical memoranda would result in any significant adverse impacts on open space that were not addressed in the 2008 FGEIS and subsequent technical memoranda.

PRINCIPAL CONCLUSIONS

This analysis finds that the RWCDS would not result in significant adverse open space impacts that were not addressed in the 2008 FGEIS and subsequent technical memoranda.

DIRECT EFFECTS

By 2018, the Willets West portion of the proposed project would be constructed upon 30.7 acres of the surface parking lot west of CitiField, and one the CitiField parking lots along Roosevelt Avenue (South Lot) would also be developed. While this land is mapped as parkland, it does not function as recreational open space. The land was occupied by Shea Stadium and associated parking and circulation space until it was replaced by CitiField in 2009, and it is now occupied exclusively by surface parking. There is one event—the Major League Wheelchair Softball Tournament—that is held in this area; however, this is not an event that provides open space on a constant and regular basis for designated daily periods. This use is therefore not considered a public open space use as defined under CEQR. Furthermore, the Major League Wheelchair Softball Tournament would be relocated to the Special Willets Point District in Phase 1A of the proposed project. Therefore, developing this mapped parkland has no direct effect on the adequacy of open space for the study area residential and non-residential populations.

The proposed project would activate the Willets West area, making the area more appealing to residential and non-residential populations and improving connections between the study area populations and the Flushing Bay Promenade. It is anticipated that some of the trees within the Willets West portion of the project site would require removal during construction, as would trees within the Lot B area. Tree removal and replacement would be conducted in conformance with DPR requirements, including approval from DPR's Queens forestry division. The portions of the project to be constructed by 2028 and 2032 also would have no direct effect on the adequacy of open space for the study area residential and non-residential populations.

The proposed project would not have any adverse impacts on existing open space in terms of air quality, noise, or shadows (see Chapter 6, "Shadows," Chapter 15, "Air Quality," and Chapter 17, "Noise" for additional information). The World's Fair Marina Park, which was predicted in

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the 2008 FGEIS to experience a significant adverse noise impact during the Saturday midday time period, is no longer expected to experience a significant adverse impact.

The proposed project would add to the inventory of open space in the study area. During Phase 1A of the proposed project, the parking area within the Special Willets Point District would be converted to active recreational use a minimum of six months per year. Permanent publicly accessible open space would be built as part of Phase 1B and Phase 2, in accordance with the District's zoning requirements as residential populations are introduced. Phase 1B would include approximately six acres of new publicly accessible open space, approximately 3.5 of which would subsequently be developed with new structures in Phase 2. Phase 2 would create another 5.5 acres of open space, for a total of 8 acres of publicly accessible open space at the conclusion of the development of the proposed project.

INDIRECT EFFECTS

Although the development of the proposed project would include the creation of publicly accessible open space, because it would also introduce demand from a new population the RWCDs would result in a decrease in total, active, and passive open space ratios in the residential study area and a decrease in total and passive open space ratios in the non-residential study area. These decreases would not result in a significant adverse open space impact. Open space ratios would remain near or above the recommended City guidelines, with the exception of the active open space ratio, which would decrease from 1.80 acres per 1,000 residents in the 2018 No Action condition to 1.54 in the 2028 With Action condition and 1.31 in the 2032 With Action condition. The total open space ratio would remain above the recommended City guideline until 2032, when it would decrease to 2.46, falling slightly below the guideline of 2.5 acres per 1,000 residents. The amount of active open space available in the study area during Phase 1A would be higher than indicated by the ratios, due to the presence of the interim active recreational use to be provided within the District, which was not considered in the open space ratios. Upon completion, the RWCDs would include a minimum of 8 acres of publicly accessible open space, including an approximately two-acre park developed with primarily active recreational uses.

The RWCDs would not result in a significant adverse open space impact during any of the three analysis years. The proposed project would introduce substantial new open space, and study area residents would continue to have access to the portions of Flushing Meadows-Corona Park and the Flushing Bay Promenade that fall just outside of the residential study area's boundaries. Further, QDG would work to incorporate ground-level, active open space and other recreational resources such as rooftop and interior programming of recreational amenities into the project design for Phase 1B, and EDC would encourage through its formal RFP process the future developer of Phase 2 to incorporate similar features into the Phase 2 development. While these recreational amenities may be available only to tenants and residents of the site—and thus have not been included in the quantitative analysis—these amenities would help offset the burden on public active and passive resources resulting from the introduction of new users on the project site.

B. SUMMARY OF FINDINGS—2008 FGEIS AND SUBSEQUENT TECHNICAL MEMORANDA

The 2008 FGEIS and subsequent technical memoranda analyzed the potential for impacts on open space resulting from the development of the Willets Point Development Plan and the No Convention Center Scenario, as well as the potential development of Lots B and D. The 2008

FGEIS assessed potential impacts on open space within a ¼-mile radius of the Special Willets Point District for passive open space and a ½-mile radius for active open space.

The 2008 FGEIS and subsequent technical memoranda concluded that in the future with the proposed Plan, the area surrounding the District would continue to have adequate active and passive open space resources. Open space ratios would continue to be well above City guidelines, except for the active open space ratio per 1,000 residents and the passive open space ratio per 1,000 workers, which would be below the recommended ratios. The open space ratios indicated that workers and residents would continue to have adequate open space to meet their needs in the future with the proposed Plan or the No Convention Center Scenario. Furthermore, the 2008 FGEIS noted that these quantitative analyses did not consider the extensive open space resources just beyond the study area boundaries, particularly the numerous active recreational amenities in the remaining portions of Flushing Meadows-Corona Park. The 2008 FGEIS concluded that neither the proposed Plan nor the No Convention Center Scenario, nor the potential development of Lots B and D, would be expected to result in significant adverse impacts on study area open spaces.

C. METHODOLOGY

This chapter examines the potential impacts on open space resources from the RWCDS in accordance with the guidelines of the 2012 *CEQR Technical Manual*. The chapter examines potential direct effects of the RWCDS on nearby publicly accessible open spaces (e.g., addition or reduction in open space, shadows, noise increases) as well as indirect effects created by changes in demand for and use of the area's open spaces. The analysis inventories the conditions and use of open spaces within a ¼-mile radius of the project site for passive open space and a ½-mile radius of the project site for active open space and addresses impacts on these facilities both qualitatively and quantitatively.

ANALYSIS APPROACH

As discussed in Chapter 1, “Project Description,” the analyses in this Supplemental EIS (SEIS) compare conditions in the future without the proposed project (No Action condition) to conditions in the future with the proposed project (With Action condition). The No Action condition in all technical areas assumes that none of the discretionary actions now being sought by the Queens Development Group, LLC (QDG) are approved. Absent those approvals, it is assumed for the purposes of a conservative analysis that in each No Action scenario, no change would be made to any portion of the project site, and the existing uses on the project site would be maintained.

DIRECT EFFECTS ANALYSIS

According to the *CEQR Technical Manual*, a proposed project would directly affect open space conditions if it causes the loss of public open space, changes the use of an open space so that it no longer serves the same user population, limits public access to an open space, or results in increased noise or air pollutant emissions, odors, or shadows that would temporarily or permanently affect the usefulness of a public open space. This chapter uses information from Chapter 6, “Shadows,” Chapter 15, “Air Quality,” and Chapter 17, “Noise,” to determine whether the RWCDS would directly affect any open spaces near the project site. A proposed project can also directly affect an open space by enhancing its design or increasing its

accessibility to the public. The direct effects analysis is included below in “Probable Impacts of the Proposed Project.”

INDIRECT EFFECTS ANALYSIS

As described in the *CEQR Technical Manual*, open space can be indirectly affected by a proposed action if the project would add enough population, either residents or non-residents, to noticeably diminish the capacity of open space in an area to serve the future population. Typically, an assessment of indirect effects is conducted when a project would introduce 200 or more residents or 500 or more workers to an area; however, the thresholds for assessment are slightly different for areas of the City that have been identified as either underserved or well served by open space. Because the project site is not located within an area that has been identified as either underserved or well served, the 200 resident and 500 worker thresholds were applied in this analysis.

At full build out (Phase 2), the proposed project would introduce approximately 5,850 new residential units, with an estimated residential population of 16,029, and 9,666 workers. An additional 1,581 workers would be added by the potential development of Lot B by 2032. Because the RWCDS would generate more than 200 residents and 500 workers, an open space assessment is warranted.

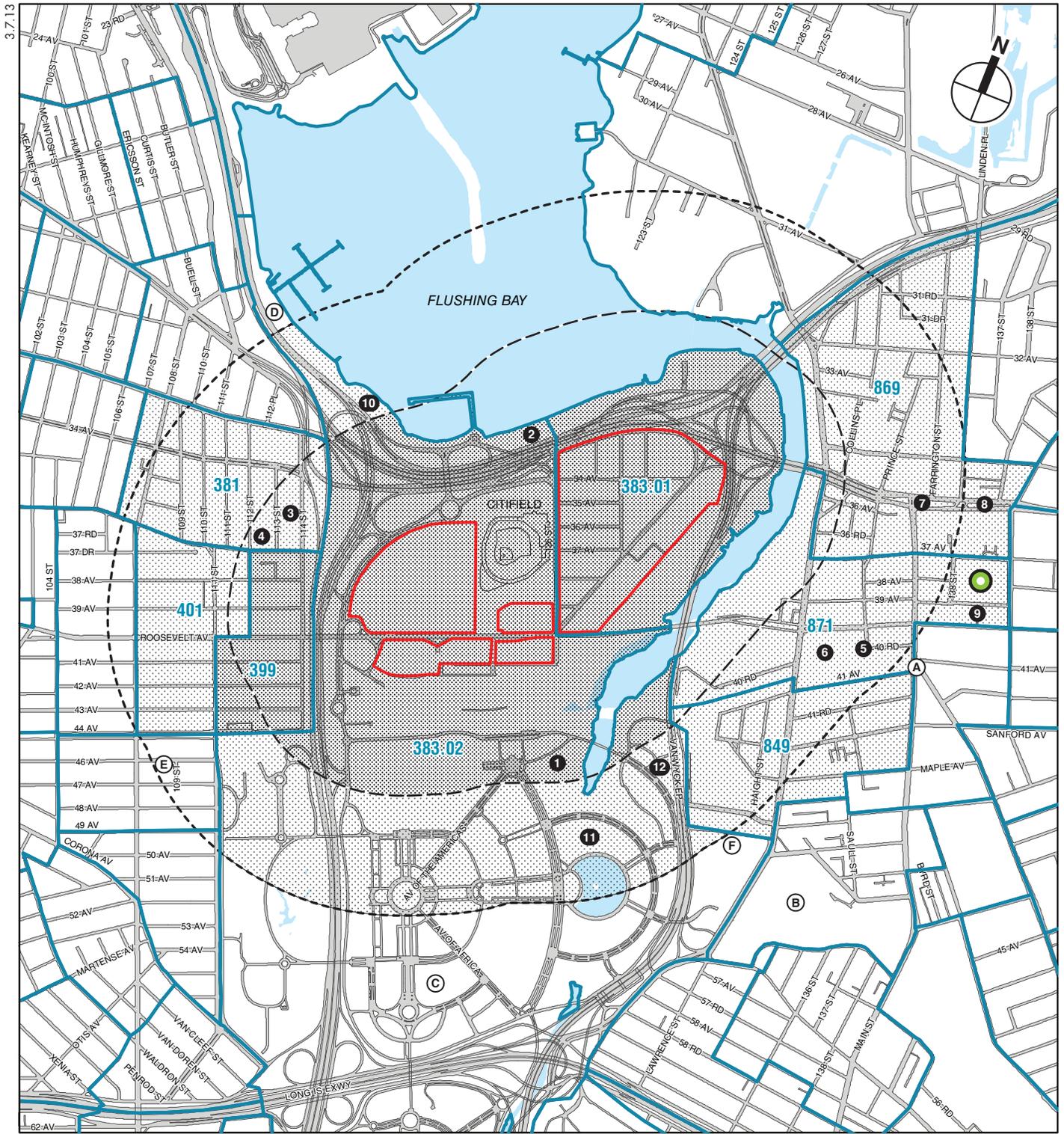
The *CEQR Technical Manual* suggests that a detailed open space analysis is necessary if a project displaces a highly utilized open space or introduces a large population in an area with low existing open space ratios. While the proposed project is located in an area with open space ratios that are currently above the City’s planning goals, a preliminary analysis indicated that the project would result in a decrease in open space ratios of substantially over 5 percent due to the sizable residential and non-residential populations that would be introduced by the project. Therefore, a detailed open space analysis was conducted, as described below.

STUDY AREAS

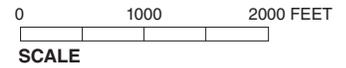
The *CEQR Technical Manual* recommends establishing a study area or areas as the first step in an open space assessment. The study areas are based on the distance that the respective users—residents and workers—are likely to walk to an open space. According to the *CEQR Technical Manual*, workers are assumed to walk approximately 10 minutes, or ¼ mile from their place of work to an open space, while residents are assumed to walk approximately 20 minutes, or ½ mile to an open space.

Because the RWCDS would introduce new residential and worker populations to the area, the adequacy of open space resources was assessed for both the ¼-mile (non-residential) and ½-mile (residential) study areas. These two study areas were adjusted to include all census tracts with at least 50 percent of their area within the ¼- or ½-mile boundary. In this way, the study area allows analysis of both the open spaces in the area as well as population data.

As shown in **Figure 5-1**, the ¼-mile non-residential study area is generally bounded by Flushing Bay to the north; the Van Wyck Expressway to the east; the USTA National Tennis Center (NTC) in Flushing Meadows-Corona Park to the south; and between 11th Street and the Grand Central Parkway to the west. The non-residential study area includes census tracts 383.01, 383.02, and 399. While the portion of census tract 383.02 that falls within the non-residential study area covers less than 50 percent of the census tract, the tract was included in the study area because it includes Willets West and those portions of the project site that are south of Roosevelt Avenue. Census tract 383.02 covers all of Flushing Meadows-Corona Park as well as a strip of



- Project Site Boundary
- Census Tract Boundary
- - - 1/4-Mile Study Area Boundary
- · · 1/2-Mile Study Area Boundary
- 1/4-Mile Open Space Study Area (Commercial Study Area)
- 1/2-Mile Open Space Study Area (Residential Study Area)
- 383.02 Census Tract Number
- Open Space within Study Area (see Table 5-4)
- Ⓐ Open Space outside Study Area (see Table 5-4)
- Planned Flushing Commons Project (1.52 Acres of Open Space)



land that runs along the Grand Central Parkway and Ditmars Boulevard toward LaGuardia Airport. To ensure a conservative quantitative analysis, only the portions of the open spaces within a ¼-mile radius of the District were included, but the tract's entire worker and resident populations were included.

The residential study area is generally bounded by Flushing Bay and the Van Wyck Expressway to the north; Linden Place, Union Street, and Main Street to the east; Flushing Meadows-Corona Park to the south; and 108th and 11th Streets to the west. The residential study area includes all the census tracts identified within the non-residential study area as well as census tracts 381, 401, 849, 869, and 871. While the boundaries of census tract 383.02 cover the entire Flushing Meadows-Corona Park and extend from Northern Boulevard to the Van Wyck Expressway, to ensure a conservative analysis the residential study area includes only the open space acreage within the park that falls within a ½-mile radius of the project site. As such, the residential study area's southern boundary is located north of Perimeter Road within Flushing Meadows-Corona Park and does not extend to the southern edge of tract 383.02. Although the analysis includes only the open spaces within a ½-mile radius of the project site, the quantitative analysis conservatively includes the tract's entire worker and resident populations.

STUDY AREA POPULATIONS

EXISTING CONDITIONS

The residential population in the study areas was estimated using 2010 Census data. The non-residential worker population was estimated using 2012 employment data from ESRI, Inc., a commercial data provider.

THE FUTURE WITHOUT THE PROPOSED PROJECT

As described in detail in Chapter 2, "Land Use, Zoning, and Public Policy," there are several developments expected to be completed in the ¼- and ½-mile study areas by 2032 in the No Action condition. The residential population in the No Action condition was estimated by applying the average household size for Queens (2.82 as of the 2010 Census) to the number of dwelling units added by the expected developments in the study areas. The number of workers added in the No Action condition was estimated using standard employment density ratios.

THE FUTURE WITH THE PROPOSED PROJECT

The population introduced by the RWCDS was estimated by applying the average household size for Queens (2.82) to the number of dwelling units that would be introduced by the RWCDS. The number of workers introduced by the RWCDS was estimated using standard employment density ratios.

INVENTORY OF OPEN SPACE RESOURCES

The *CEQR Technical Manual* defines public open space as open space that is publicly or privately owned and is accessible to the public on a regular basis, either constantly or for designated daily periods of time. Open spaces that are only available for limited users or are not available to the public on a regular or constant basis are not considered public open space, but are considered in a qualitative assessment of open space impacts.

Willets Point Development

All publicly accessible open space resources in the non-residential and residential study areas were inventoried through field visits conducted in August 2012. Additional data were obtained from the New York City Department of Parks and Recreation (DPR), and other available sources.

Information was gathered about the types of facilities, levels of utilization, accessibility, and condition of each of the open space resources. According to CEQR guidelines, open spaces were also described in terms of the amount of active and passive facilities present. Active open space is used for exercise, sports, or active play, and is usually part of a recreational facility. Examples of active open space include playground equipment, athletic fields or courts, pools, and greenways. Passive open spaces encourage activities such as strolling, reading, sunbathing, people watching, and other forms of relaxation. Examples of passive open space include plazas, paths, gardens, and certain lawns with restricted uses. Open space may be characterized as passive, active, or a mixture of active and passive. Esplanades are an example of open space that may be used for active uses like running or passive dog walking.

In addition to the open spaces located in the study areas, open spaces located just outside of the study areas were considered in the qualitative analysis as they may be used by the worker or resident populations.

New open space that would be created in the No Action and With Action conditions was accounted for in the analysis.

ADEQUACY OF OPEN SPACE RESOURCES

COMPARISON TO CITY GUIDELINES

The adequacy of open space in the study area was quantitatively and qualitatively assessed for existing conditions, the future No Action condition, and the With Action condition. According to CEQR guidelines, the quantitative assessment is based on ratios of usable open space acreage to the study area populations (the “open space ratios”). These ratios were then compared with the City’s open space guidelines for residential and non-residential populations. The following guidelines are used in this type of analysis:

- For non-residential populations, 0.15 acres of passive open space per 1,000 non-residents is typically considered adequate.
- For residential populations, there is a Citywide median open space ratio of 1.5 acres per 1,000 residents, which is used as a guideline. In addition to this median ratio, the City has set an open space ratio planning goal of 2.5 acres per 1,000 residents. This second ratio includes 0.50 acres of passive space and 2.0 acres of active space, and serves as an ideal benchmark.

Because these ratios may not be attainable for all areas of the City, they are considered benchmarks for comparison rather than policy or thresholds for determining impacts.

IMPACT ASSESSMENT

Impacts are based on how a project would change the open space ratios in the study area. According to the *CEQR Technical Manual*, a project may result in significant adverse impacts to open space if there would be direct displacement or alteration of an open space that would significantly impact the existing users; or, if the project would reduce open space ratios by more than 5 percent in an area that is currently below the City’s median open space ratio. In areas that

are extremely lacking in open space, a reduction as small as 1 percent may be considered significant, depending on the area of the City. In areas that are well served by open space, a greater change in the open space ratio may be tolerated.

The *CEQR Technical Manual* recommends that the quantitative open space analysis described above be supplemented by an examination of qualitative factors, as the significance of any changes to open space depends on the context of the proposed action, including the location, quality and quantity of open space in the With Action condition. These qualitative considerations include the availability of nearby destination resources, the connectivity of open space, the effects of new open space provided by the project, and the comparison of projected open space ratios with established City guidelines. It is recognized that the open space ratios of the City guidelines described above are not feasible for many areas of the City, and they are not considered impact thresholds on their own. Rather, they are benchmarks that indicate how well an area is served by open space.

D. EXISTING CONDITIONS

STUDY AREA POPULATION

Based on 2011 employment data obtained from ESRI, Inc. and District employment information provided by EDC, the non-residential study area has a worker population of 4,406 people (See **Table 5-1**).

Table 5-1
2012 Population in the 1/4-Mile Non-Residential Study Area

Census Tract	Worker Population
383.01	1,353
383.02	2,739
399	314
Total	4,406
Sources: Worker population for Tract 383.01, which encompasses the District, obtained from EDC. Worker population for remaining tracts obtained from ESRI Business Analyst Inc, Business Summary Report.	

Based on 2010 Census data, the residential study area has a population of 30,048 residents (see **Table 5-2**).

Table 5-2
2010 Population in the 1/2-Mile Residential Study Area

Census Tract	Residential Population
381	6,808
383.01	0
383.02	56
399	4,132
401	7,527
849	7,642
869	2,131
871	1,752
Total	30,048
Sources: U.S. Census 2010	

AGE DISTRIBUTION

The age distribution of a residential population has open space implications in terms of the types of facilities that are in highest demand and how open spaces are used. As described in the *CEQR Technical Manual*, children 4 years or younger typically use traditional playgrounds with play equipment for toddlers and preschool children. Children ages 5 through 9 tend to use traditional playgrounds with play equipment suitable for school-age children, as well as open spaces with grass or hard surfaces for active play. Children ages 10 through 14 also tend to use playground equipment, as well as courts and ball fields. Teenagers and young adults between the ages of 15 and 19 typically use courts and active fields. Adults use facilities for sports and active fields as well as individualized recreation that utilizes paths. Senior citizens tend to utilize facilities for active recreation like handball, tennis, and swimming, as well as passive recreational facilities.

Table 5-3 summarizes the residential age distributions in the study areas and compares them with the distributions in Queens and New York City.

**Table 5-3
Residential Population Age Distribution**

Age Category	Residential (½-Mile) Study Area		Queens		New York City	
	Persons	Percent	Persons	Percent	Persons	Percent
4 and younger	2,318	7.7	132,464	5.9	517,724	6.3
5 to 9	1,892	6.3	123,766	5.5	473,159	5.8
10 to 14	1,525	5.1	123,406	5.5	468,154	5.7
15 to 19	1,855	6.2	139,096	6.2	535,833	6.6
20 to 64	20,446	68.0	1,425,844	63.9	5,187,105	63.45
65 and over	2,012	6.7	286,146	12.8	993,158	12.1
Total	30,048	100.0	2,230,722	100.0	8,175,133	100.0
Source: U.S. Census 2010.						

As compared with Queens and New York City as a whole, the residential study area has a higher proportion of young children (ages 4 and younger, and 5 to 9) and working age population (ages 20 to 64). The residential study area has a lower proportion of senior residents (6.7 percent) compared to Queens (12.8 percent) and New York City (12.1 percent).

STUDY AREA OPEN SPACES

NON-RESIDENTIAL (¼-MILE) STUDY AREA

Portions of two open spaces, Flushing Meadows-Corona Park and the Flushing Bay Promenade, fall within the non-residential study area (see **Figure 5-1** and **Table 5-4**). For the purposes of a conservative analysis, only the publicly accessible portions of each park within the non-residential study area were included in the analysis. The analysis of the non-residential study area’s open spaces did not include CitiField and its associated parking areas as open space resources because this land does not meet the *CEQR Technical Manual* definition for publicly accessible open space. While Hinton Park and Louis Armstrong Playground also fall within a ¼-mile of the proposed project site, they are not located in a census tract with at least 50 percent of its area in the ¼-mile radius, and therefore were included in the residential study area rather than the non-residential study area.

Table 5-4
Open Space Inventory

Map Number	Name	Owner	Features	Size (acres)	Acres of Active Open Space	Acres of Passive Open Space	Condition/Utilization
Non-Residential Study Area							
1	Flushing Meadows-Corona Park	DPR	Benches, paved walkway, tennis courts, golf course	15.46	7.73	7.73	Fair/ Heavy
2	Flushing Bay Promenade	DPR	Benches, paved walkway	6.65	3.33	3.33	Good/ Moderate
Non-Residential Study Area Total				22.11	11.06	11.06	
Residential Study Area							
3	Hinton Park	DPR	Game tables, benches, baseball diamonds, play areas	3.73	3.36	0.37	Very Good/ Moderate
4	Louis Armstrong Playground	DPR	Play areas, basketball courts	1.9	1.9	0.0	Very Good/ Moderate
5	Bland Playground	DPR	Basketball courts, handball courts, benches, swings, jungle gyms, fountain (for children's play)	0.55	0.5	0.05	Good/ Heavy
6	Daniel Carter Beard Mall	DPR	Benches	0.66	0.0	0.66	Fair/ Light
7	Lippman Arcade	NYC	Trees, seating	0.1	0.0	0.1	Good/ Heavy
8	Flushing Bay Promenade	DPR	Benches, paved walkway	9.24	4.62	4.62	Good/ Moderate
9	Flushing Meadows-Corona Park	DPR	Benches, paved walkway, tennis courts, golf course, soccer fields	117.17	58.59	58.59	Fair/ Heavy
10	Flushing Meadows- Corona Park Aquatic Center	DPR	Pool, ice rink	4.56	4.56	0.0	Excellent/ Heavy
Residential Study Area Total				137.91	73.53	64.39	
Outside Residential Study Area (Not Included in Quantitative Analysis)							
A	Flushing Branch Library	Queens Library	Stairway (suitable for sitting)	0.02	0.0	0.02	Good/ Heavy
B	Kissena Corridor West	DPR	Wide variety of active and passive amenities	100.0	50.0	50.0	Good/ Moderate
C	Flushing Meadows-Corona Park	DPR	Benches, paved walkway, playfield, golf course, tennis court	781.0	390.0	390.0	Fair/Heavy
D	Flushing Bay Promenade	DPR	Benches, paved walkway	3.92	1.96	1.96	Good/Moderate
E	Corona Golf Playground	DPR	Basketball courts, fitness equipment, handball courts, swings, jungle gyms, fountain (for children's play)	1.70	1.70	0.0	Excellent/ Heavy
F	Al Oerter Recreation Center	DPR	Indoor track, handball court, gym, fitness room, basketball court	0.46	0.46	0.0	Excellent/ Heavy
<p>Notes: See Figure 5-1 for location of open spaces. The open space inventory presented in the 2008 FGEIS included 1.74 acres of open space associated with the New York City Housing Authority's James A. Bland Houses and 0.42 acres of open space at Flushing Greens. These two open spaces were excluded from the SEIS analysis per direction from the NYC Department of Parks and Recreation.</p> <p>Sources: New York City Department of Parks and Recreation open space database; AKRF, Inc. field surveys, August 2012.</p>							

Willets Point Development

At 898 acres, Flushing Meadows-Corona Park is Queens' largest park and one of the largest in New York City. The non-residential study area covers a small portion of the park that falls within ¼ mile of the District and is publicly accessible. As a result, 15.46 acres of open space within Flushing Meadows-Corona Park were included in the analysis. Given the significant size of Flushing Meadows-Corona Park, the precise breakdown of active versus passive open space is unknown. This analysis assumes that approximately half of Flushing Meadows-Corona Park is for active recreation and half is dedicated to passive recreation. Therefore, in the non-residential study area, approximately 7.73 acres is assumed to be active open space, and the remaining 7.73 acres is for passive open space uses. As described above, CitiField and its associated parking areas are not included in the Flushing Meadows-Corona Park acreage for this analysis.

The Flushing Bay Promenade is a 1.4-mile greenway that runs along Flushing Bay from LaGuardia Airport to Flushing Meadows-Corona Park. The promenade was built in 2001 and includes an asphalt biking and walking path, benches, and lighting. Shea Road and Northern Boulevard provide access to the promenade, but the Grand Central Parkway and Northern Boulevard largely isolate the promenade from adjacent residential uses. The portion of the promenade within the non-residential study area includes a biking/walking path and seating, as well as the World's Fair Marina. The World's Fair Marina is a commercial marina facility and, therefore, was not included in the quantitative analysis. As a result, 6.65 acres of the promenade, half of which is considered active space and half of which is considered passive open space, are included in the non-residential study area.

Overall, the non-residential study area includes 22.11 acres of open space, with 11.06 acres of active open space and 11.06 acres of passive use.

RESIDENTIAL (½-MILE) STUDY AREA

The residential study area has eight public open spaces, which total 137.91 acres. Of this total, approximately 73.53 acres are active space and 64.39 acres are passive. Portions of Flushing Meadows-Corona Park and the Flushing Bay Promenade fall within the residential study area. These areas include the USTA National Tennis Center, which is open to the public free of charge for 11 months out of the year and offers below-market court rentals to the public, as well soccer fields, a portion of the pitch and putt golf course, and a large field for passive and active uses. In addition to these resources, the Flushing Meadows-Corona Park Aquatic Center is located within ½-mile study area. This recreational resource includes a public Olympic-sized indoor pool, which operates as a standard DPR recreation facility, and an NHL-standard indoor ice hockey rink. The pool is open to any member of the general public with a standard annual membership at all times except during swimming meets and other special events. The facility is free for youths under 18. The ice rink is open daily to any member of the general public for a \$5 admission fee on weekdays and an \$8 admission fee on weekends.

Other open space resources in the residential study area that are under DPR jurisdiction include Hinton Park, Louis Armstrong Playground, Bland Playground, the Daniel Carter Beard Mall, and additional portions of the Flushing Bay Promenade. Hinton Park is a 3.73-acre park that includes game tables and sitting areas, baseball diamonds, and other play areas. The Louis Armstrong Playground is a 1.9-acre park that includes a basketball court and play areas. The Bland Playground is located on the same block as the New York City Housing Authority (NYCHA)'s James A. Bland Houses. The playground covers 0.55 acres and includes 0.50 acres of active uses, such as basketball and handball courts, swings, and jungle gyms, as well as 0.05

acres of passive uses, such as benches. The Daniel Carter Beard Mall is a 0.66-acre passive open space with benches available for sitting.

The residential study area also includes one open space that is not under DPR jurisdiction—the Lippman Arcade, which spans the block between Roosevelt Avenue and 39th Avenue and features bench seating. The Arcade is 0.10 acres.

QUALITATIVE DISCUSSION

Six additional open spaces are located just beyond the residential study area boundary (see **Figure 5-1** and **Table 5-4**). First, the Corona Golf Playground is located within a ½-mile radius of the proposed project site, but outside of the census tract-defined study area used for the quantitative open space analysis. The Corona Golf Playground was reconstructed in 2009 and features a water play area, basketball courts, a volleyball court, and fitness equipment. Second, the Flushing Branch Library is across the street from the residential study area boundary. Residents can sit on benches outside of the library or on the library’s steps. Third, Kissena Corridor West is located just east of Flushing Meadows-Corona Park and the residential study area boundary. Kissena Corridor West is the western portion of the 100-acre Kissena Corridor Park that links Flushing Meadows-Corona Park to Kissena Park. Kissena Corridor West also includes the Queens Botanical Gardens, as well as active and passive open space resources. Fourth, approximately 781 acres of Flushing Meadows-Corona Park are located beyond the study area boundary. Recreational resources within the portion of Flushing Meadows-Corona Park outside of the study area boundary include tennis courts, soccer fields, sitting areas, and other active and passive resources, including the Al Oerter Recreation Center, a 20,000 square foot recreation center that opened in 2007 and includes an indoor track, racquetball and basketball courts, as well as cardiovascular and strength equipment, in addition to afterschool, teen, and senior programmatic activities. While these remaining acres may be outside of the study area boundary, they are entirely contiguous with the portions of the park within the study area and provide a number of active and passive recreational resources for study area residents. Finally, approximately 3.92 acres of the Flushing Bay Promenade is located outside of the study area boundary; however, the remainder of the Promenade is contiguous with the portion within the study area and would be easily accessible to study area residents.

Given that these resources are located outside of the study area, they are not included in the quantitative analysis. However, it is likely that study area residents take advantage of these parks, particularly the portions of Flushing Meadows-Corona Park and the Flushing Bay Promenade that are located just beyond the study area boundary.

ADEQUACY OF OPEN SPACES

QUANTIFIED ASSESSMENT

Non-residential (¼-Mile) Study Area

As described above, the analysis of the non-residential (¼-mile) study area focuses on passive open spaces that may be used by workers and students in the area. **Table 5-5** compares the existing ratio of acres of open space per 1,000 non-residents with the City’s guideline ratio of 0.15 acres per 1,000 non-residents. The passive open space ratio for the non-residential study area is 2.51 acres of passive open space per 1,000 workers, which far exceeds the City’s guideline of 0.15.

Table 5-5

Existing Conditions: Adequacy of Open Space Resources

Total Population	Open Space Acreage			Open Space Ratios (Acres per 1,000 People)			City Open Space Guidelines			
	Total	Active	Passive	Total	Active	Passive	Total	Active	Passive	
Non-residential (¼-Mile) Study Area										
Workers	4,406	22.11	11.06	11.06	N/A	N/A	2.51	N/A	N/A	0.15
Residential (½-Mile) Study Area										
Residents	30,048	140.07	73.97	66.11	4.66	2.46	2.14	2.5	2.0	0.5

Residential (½-Mile) Study Area

The quantitative assessment of the adequacy of open space resources within the residential (½-mile) study area considers the ratios of active, passive, and total open space acreage per 1,000 residents. The residential study area has a total of approximately 137.91 acres of open space, including 73.53 acres of active space and 64.39 acres of passive space. With an estimated residential population of 30,048, the residential study area has a total open space ratio of 4.59 acres per 1,000 residents. This is substantially higher than the City’s planning goal of 2.5 total active and passive acres per 1,000 residents and also much higher than the City’s median of 1.5 total acres per 1,000 residents.

The residential study area has a passive open space ratio of 2.14 acres of passive open space per 1,000 residents, which is above the City’s benchmark of 0.5 acres of passive space per 1,000 residents. The area’s active open space ratio is 2.45 acres per 1,000 residents, which exceeds the City’s planning goal of 2.0 acres per 1,000 residents.

QUALITATIVE DISCUSSION

The resources described above that are located just beyond the residential study area boundary are likely utilized by residents and workers within the residential study area. This is particularly true for Flushing Meadows-Corona Park, a flagship park that draws people from throughout the City. The park’s resources that were not included in the quantitative analysis include soccer fields and tennis courts, open fields that could be used for both passive and active use, and the Al Oerter Recreation Center. Even though these resources are located just beyond the study area boundary, residents would be able to easily utilize them due to their proximity to the study area and direct connection to the portion of the park located within the study area boundaries.

As shown in **Table 5-3** above, children ages 4 and younger in the residential study area comprise approximately 7.7 percent of the residential population. This proportion is higher than that of Queens (5.9 percent) and New York City (6.3 percent). Children in this cohort typically use traditional playgrounds that have play equipment for toddlers and preschool-aged children. Facilities in the study area offering such amenities include Bland Playground and Louis Armstrong Playground.

Children between the ages of 5 and 9 account for approximately 6.3 percent of the residential population in the residential study area (see **Table 5-3** above). This percentage is higher than the percentage for this age cohort in Queens (5.5 percent) and New York City (5.8 percent). Children ages 5 to 9 use traditional playgrounds with play equipment suitable for school-aged children, as well as grassy and hard-surfaced open spaces which are important for ball playing, running, skipping rope, and other active play. Within the study area, playgrounds such as Bland Playground and Louis Armstrong Playground, and other park and recreation spaces including

Flushing Meadows-Corona Park, Flushing Bay Promenade, and Flushing Meadows-Corona Park Aquatic Center include amenities appropriate for this age cohort.

Approximately 5.1 percent of residents in the residential study area are children between the ages 10 and 14 (see **Table 5-3** above). This proportion is less than the percentage represented by this age cohort in Queens (5.5 percent) and New York City (5.7 percent). Children between the ages of 10 and 14 tend to use playground equipment, court spaces, little league fields, and ball fields. Facilities in the study area offering such amenities include Bland Playground, Louis Armstrong Playground, Flushing Meadows-Corona Park, Flushing Bay Promenade, and Flushing Meadows-Corona Park Aquatic Center.

Teenagers and young adults between the ages of 15 and 19 account for approximately 6.2 percent of the residential study area population, a proportion that matches the proportion in Queens (6.2 percent) and is slightly lower than New York City (6.6 percent). Teenagers and young adults tend to utilize court facilities and active fields. Within the study area, Flushing Meadows-Corona Park, Flushing Bay Promenade, and Flushing Meadows-Corona Park Aquatic Center serve this age cohort.

The working-age population (ages 20 to 64) accounts for the largest percentage of the population in the residential study area (approximately 68.0 percent). This is a higher proportion than that for this age cohort in Queens (63.9 percent) and New York City (63.5 percent). This age cohort tends to use facilities for sports and active fields, as well as paths and other facilities that encourage individualized recreation. The facilities mentioned above as serving teenagers and young adults would also serve the working-age population.

The senior population (ages 65 and above) comprises approximately 6.7 percent of the residential study area's population. This represents almost half of the percentages for Queens (12.8 percent) and New York City (12.1 percent). Senior citizens tend to utilize facilities for active recreation like handball, tennis, gardening, and swimming, as well as passive recreational facilities. Within the study area, the senior population is served by various facilities for active recreation as well as facilities for passive use, including the Daniel Carter Beard Mall and Lippman Arcade.

E. THE FUTURE WITHOUT THE PROPOSED PROJECT

The assessment of the No Action condition examines conditions that are expected to occur in the study area by 2018, 2028, and 2032, absent the proposed project. The capacity of open space resources to serve future populations in the study area is examined using quantitative and qualitative factors.

2018

STUDY AREA POPULATION

Non-residential (1/4-Mile) Study Area

Absent the proposed project, the non-residential study area will continue to experience residential, commercial, and institutional development. As described in detail in Chapter 2, "Land Use, Zoning, and Public Policy," by 2018, several No Action projects will be built in the non-residential study area. These projects are listed in Table 2-2 and their locations are shown in Figure 2-4.

Willets Point Development

The known development projects will result in an estimated total of 246 new workers in the non-residential study area by 2018.¹ Based on these projects and the existing populations, the non-residential study area would have an estimated 4,652 workers in 2018.

Residential (1/2-Mile) Study Area

New development in the residential study area will introduce a total of 3,684 residential units, adding an estimated 10,389 residents.² The residential population in the residential study area in the No Action condition is estimated to be 40,437.

No substantial changes to the age distribution of the residential population are expected by 2018. Therefore, the estimated number of residents in each age cohort as shown in **Table 5-6** is based on the percent share for that age cohort at the time of the 2010 U.S. Census.

Table 5-6
2018 No Action Condition: Residential Population Age Distribution

Age Category	Persons	Percent
4 and younger	3,119	7.7%
5 to 9	2,546	6.3%
10 to 14	2,052	5.1%
15 to 19	2,496	6.2%
20 to 64	27,515	68.0%
65 and over	2,708	6.7%
Total	40,437	100.0%

Source: U.S. Census 2010, AKRF, Inc.

STUDY AREA OPEN SPACES

Non-residential (1/4-Mile) Study Area

In the No Action condition, no notable changes are expected to the portions of Flushing Meadows-Corona Park that would be directly affected by the proposed project (i.e., the surface parking lots surrounding CitiField, which are mapped parkland).

There are no known planned or proposed open space projects in the non-residential study area. The New York City Department of Transportation is considering potential bicycle path and pedestrian access improvements to the Flushing Bay Promenade from Flushing, and some City capital funding has been allocated for streetscape improvements on Roosevelt Avenue west into Corona; however, there are no specific designs or timeline for implementation for either proposal.

¹ For all planned projects with the exception of the Major League Soccer (MLS) stadium, employment density ratios were applied to the expected square footage for each use to estimate future employment. The ratios used assume one worker each per: 25 residential units; 400 sf of retail space; 3.11 hotel rooms; 250 sf of general office space; 450 sf of medical office space; 1,000 sf of community facility space; 1,000 sf of industrial space or other commercial space (not retail or office); 11 school seats; and 50 parking spaces. Estimated full-time employment at the MLS stadium (165) was provided by EDC. An additional estimated 700 part-time stadium workers were not included in this analysis, as part-time workers would be present only on event days.

² Estimate of new residents based on an average household size of 2.82 for Queens (2010 Census).

Residential (1/2-Mile) Study Area

Within Flushing Meadows-Corona Park, there is a proposal to construct a new stadium for professional soccer purposes on the present site of the Fountain of the Planets and land surrounding the fountain. As currently contemplated, a 25,000-seat capacity stadium with the ability to be expanded to 35,000 seats would be constructed on an area of between 10 and 13 acres. In addition to the fountain, the stadium would displace four existing soccer fields, a basketball court, landscaped areas, and pathways, which would be relocated to other locations within the park. Both New York State alienation legislation and Land and Water Conservation Fund Act considerations will require the provision of replacement park land for this project. Approximately 7.37 acres of the MLS stadium site is located within the proposed project’s 1/2-mile study area. Of that, 0.59 acres are currently occupied by active open space (soccer fields) and 6.78 acres are occupied by passive open space (Industry Pond and paved walkways).

Also within Flushing Meadows-Corona Park, a series of recreational improvements will be implemented as part of DPR’s ongoing capital projects program. Overall, four soccer fields are anticipated to be improved, new volleyball courts are expected to be created, and DPR has identified repair and resurfacing of Porpoise Bridge, including repair of its tide gates, as a priority project.

ADEQUACY OF OPEN SPACES

Quantitative Assessment

Non-residential (1/4-Mile) Study Area

Absent the proposed project, by 2018, the number of workers in the non-residential study area is expected to increase to 4,652 and the total amount of open space is expected to remain at 22.11 acres, including 11.06 acres of passive open space. With the addition of new worker population in the No Action condition, the passive open space ratio for the non-residential study area would decrease from 2.51 to 2.38 acres per 1,000 non-residents (see **Table 5-7**). This would remain well above the City’s guideline for this ratio of 0.15 acres per 1,000 non-residents.

**Table 5-7
2018 No Action Condition: Adequacy of Open Space Resources**

Total Population	Open Space Acreage			Open Space Ratios (Acres per 1,000 People)			City Open Space Guidelines			
	Total	Active	Passive	Total	Active	Passive	Total	Active	Passive	
Non-residential (1/4-Mile) Study Area										
Workers	4,652	22.11	11.06	11.06	N/A	N/A	2.38	N/A	N/A	0.15
Residential (1/2-Mile) Study Area										
Residents	40,437	130.54	72.94	57.61	3.23	1.80	1.42	2.5	2.0	0.5

Residential (1/2-Mile) Study Area

In the No Action condition, the increase in residents would decrease the total open space ratio from 4.59 to 3.23 acres per 1,000 residents. The active open space ratio would decrease from 2.45 to 1.80 acres per 1,000 residents, and the passive open space ratio would decrease from 2.14 to 1.42 acres per 1,000 residents. All three ratios would remain above the City’s goals.

Qualitative Assessment

In the future without the proposed project, residents and workers will continue to be well served by open space. Park improvements implemented as part of DPR’s ongoing capital projects

Willets Point Development

program will enhance the appearance and functionality of several spaces within Flushing Meadows-Corona Park, and study area residents will continue to have access to open spaces just outside the study area.

2028

STUDY AREA POPULATION

There are no known projects or open space improvements planned or proposed for completion by 2028 in the non-residential or residential study areas.

STUDY AREA OPEN SPACES

Non-residential (1/4-Mile) Study Area

In the No Action condition, no notable changes are expected to the portions of Flushing Meadows-Corona Park that would be directly affected by the proposed project (i.e., the surface parking lots surrounding CitiField, which are mapped parkland).

There are no known planned or proposed open space projects in the non-residential study area.

Residential (1/2-Mile) Study Area

There are two open space improvements in the residential study area planned for completion by 2028. The first is 1.52 acres of passive open space planned as part of the Flushing Commons development in downtown Flushing (location shown in **Figure 5-1**). The second is the USTA National Tennis Center Strategic Vision. By 2019, this project would improve the NTC site plan, circulation, visitor amenities, and landscaping, and also would construct two new stadiums to replace the existing Louis Armstrong Stadium and Grandstand Stadium. The proposed project would also include modifications to tournament courts and ancillary buildings, possible improvements to Arthur Ashe Stadium, the construction of two new parking garages, the relocation of a connector road, and pedestrian enhancements. To accommodate the NTC Strategic Vision project, up to 1.02 acres of land would be added to the NTC site, including 0.68-acres of park land that would be alienated, and 0.26-acres of previously alienated park land that is outside the current lease. Improvements to active recreation features in Flushing Meadows-Corona Park would also be provided. The project would add approximately 100 workers during the U.S. Open; however, employment would remain unchanged during the other eleven months of the year. The project is expected to be completed by 2019. Although the NTC Strategic Vision project would involve alienation of 0.68 acres of park land and reconfiguration of existing stadium and court space, the land utilized by the NTC would remain mapped parkland and would remain publicly accessible in the same way the rest of the NTC is publicly accessible. Therefore, the NTC Strategic Vision project is not included below in the quantitative assessment of the adequacy of open spaces.

Aside from Flushing Commons and the NTC Strategic Vision project, there are no known open space improvements or development projects planned or proposed for completion by 2028 in the non-residential or residential study areas.

ADEQUACY OF OPEN SPACES

Quantitative Assessment

Non-residential (1/4-Mile) Study Area

Population and open space ratios would remain the same in the 2028 No Action condition as described for the 2018 No Action condition (see **Table 5-8**).

Table 5-8
2028 No Action Condition: Adequacy of Open Space Resources

Total Population	Open Space Acreage			Open Space Ratios (Acres per 1,000 People)			City Open Space Guidelines			
	Total	Active	Passive	Total	Active	Passive	Total	Active	Passive	
Non-residential (1/4-Mile) Study Area										
Workers	4,652	22.11	11.06	11.06	N/A	N/A	2.38	N/A	N/A	0.15
Residential (1/2-Mile) Study Area										
Residents	40,437	132.06	72.94	59.13	3.27	1.80	1.16	2.5	2.0	0.5

Residential (1/2-Mile) Study Area

In the No Action condition, the increase in passive open space at Flushing Commons would increase the total open space ratio from 3.23 to 3.27 acres per 1,000 residents. The active open space ratio would remain the same at 1.80 acres per 1,000 residents, and the passive open space ratio would increase from 1.42 to 1.46 acres per 1,000 residents. All three ratios would remain above the City’s goals.

Qualitative Assessment

In the future without the proposed project, residents and workers will continue to be well served by open space.

2032

There are no known projects or open space improvements planned or proposed for completion by 2032 in the non-residential or residential study areas. Therefore, population and open space estimates and open space ratios would remain the same in the 2032 No Action condition as described for the 2028 No Action condition.

F. PROBABLE IMPACTS OF THE PROPOSED PROJECT

The assessment of the With Action condition examines conditions that are expected to occur as a result of the RWCDs by each of the three analysis years (2018, 2028, and 2032). The capacity of open space resources to serve future populations in the study area is examined using quantitative and qualitative factors. The potential for direct effects on open space is also considered.

DIRECT EFFECTS

As described above, direct adverse effects on an open space occur when a proposed action would cause the physical loss of public open space; change the use of an open space so that it no longer serves the same user population; limit public access to an open space; or cause increased noise or air pollutant emissions, odors, or shadows that would affect its usefulness, whether on a permanent or temporary basis.

Willets Point Development

The proposed project would not have any adverse impacts on existing open space in terms of air quality, noise, or shadows in any of the three build years analyzed (see Chapter 6, “Shadows,” Chapter 15, “Air Quality,” and Chapter 17, “Noise” for additional information). Noise associated with traffic generated by the proposed project and its associated parking facilities would not be expected to result in any significant increases in noise levels, including at World’s Fair Marina Park, which was predicted to experience a significant adverse noise impact in the 2008 FGEIS during the Saturday midday time period. Noise levels in the newly created open spaces would be greater than prescribed by CEQR criteria, but would be comparable to other parks around New York City and would not constitute a significant adverse impact. The Willets West development would cast new shadows of very limited extent and duration on nearby landscaped traffic islands and a portion of an area containing trees in the winter only, and these would not cause significant adverse shadow impacts. The proposed project would not cause increased noise or air pollutant emissions or odors that would affect the usefulness of existing or newly created open spaces.

PHASE 1A (2018)

Phase 1A of the proposed project (Willets West) would build upon 30.7 acres west of surface parking located west of CitiField. While this land is mapped as parkland, it does not function as recreational open space. The land was occupied by Shea Stadium and associated parking and circulation space until it was replaced by CitiField in 2009, and it is now occupied exclusively by surface parking. There is one event—the Major League Wheelchair Softball Tournament—that is held in this area; however, this is not an event that provides open space on a constant and regular basis for designated daily periods. This use is therefore not considered a public open space use as defined under CEQR. Furthermore, the Major League Wheelchair Softball Tournament would be relocated to the Special Willets Point District in Phase 1A of the proposed project. Therefore, developing this mapped parkland has no effect on the adequacy of open space for the study area residential and non-residential populations.

The Willets West portion of the project site contains traffic islands within and around the perimeter of the surface parking area, which are currently planted with trees. It is anticipated that some of these trees would require removal for construction of the proposed project. Likewise, it is anticipated that trees located on the westernmost CitiField surface parking lot south of Roosevelt Avenue would be removed for construction of a structured parking facility for CitiField. Tree removal and replacement would be conducted in conformance with DPR requirements, including approval from DPR’s Queens forestry division.

PHASE 1B (2028)

Phase 1B of the proposed project would not directly displace any public open spaces. It is anticipated that trees located within traffic islands on portions of the CitiField leasehold along Roosevelt Avenue (South Lot and Lot D) would need to be removed for construction of structured parking. Tree removal and replacement would be conducted in conformance with DPR requirements, including approval from DPR’s Queens forestry division.

PHASE 2 (2032)

Phase 2 of the proposed project would not directly displace any public open spaces. By 2032, it is assumed that Lot B would also be developed for office, retail, and parking uses. While this land is mapped as parkland, it does not function as recreational open space. The land has been

occupied by Shea Stadium- and CitiField-associated parking and circulation space since approximately 1964. Therefore, developing this mapped parkland has no effect on the adequacy of open space for the study area residential and non-residential populations.

All phases of project would provide pedestrian access from 126th Street to the MTA-owned sites along Flushing Creek, should they be developed with public open space in the future. For Phase 1A of the project, an 8-foot corridor would be provided between the parking lot and Roosevelt Avenue to provide potential future pedestrian access between 126th Street and the MTA parcels. For Phases 1B and 2 of the project, in compliance with the regulations of the Special Willets Point District, a 40-foot pedestrian amenity corridor between 126th Street and the MTA parcels would replace the 8-foot corridor, providing for continuous access to the MTA parcels.

INDIRECT EFFECTS

STUDY AREA POPULATION

Phase 1A (2018)

Non-Residential (1/4-Mile) Study Area

The proposed project would introduce approximately 3,671 workers to the non-residential study area by 2018. At the same time, as described in Chapter 3, “Socioeconomic Conditions,” the project would displace approximately 122 existing businesses by 2018. These businesses employ an estimated 530 workers. Accounting for new and displaced employees, the non-residential study area worker population would increase to 7,793 by 2018.

Residential (1/2-Mile) Study Area

The proposed project would not introduce any residential population by 2018. The estimated residential study area residential population would remain at 40,437.

Phase 1B (2028)

Non-Residential (1/4-Mile) Study Area

The proposed project would introduce a total of 8,237 new workers by 2028 (4,566 new workers during Phase 1B). At the same time, the remaining 98 businesses currently located on the project site would be displaced. These businesses employ an estimated 823 workers. Accounting for new and displaced employees, the non-residential study area worker population would increase to 11,583 by 2028.

Residential (1/2-Mile) Study Area

Phase 1B of the proposed project would introduce 2,490 dwelling units, with an estimated 7,022 residents, by 2028. With the addition of these new residents, the residential study area residential population would increase to 47,459 in 2028.

Phase 2 (2032)

Non-Residential (1/4-Mile) Study Area

The proposed project would introduce a total of 9,666 new workers by 2032 (1,448 new workers during Phase 2), and an additional 1,581 workers would be added in the RWCDs by the development of Lot B. With these additional workers, the non-residential study area worker population would increase to 14,602 in 2032.

Willets Point Development

Residential (1/2-Mile) Study Area

By 2032, the proposed project would introduce a total of 5,850 dwelling units, with an estimated 16,497 residents. With the addition of these new residents, the residential study area residential population would increase to 56,934 in 2032.

The age distribution of the residential population is not expected to substantially change as a result of the proposed project. **Table 5-9** shows the estimated number of residents in each age cohort, based on the percent share for that age cohort at the time of the 2010 Census.

Table 5-9
With Action Condition (2032): Residential Population Age Distribution

Age Category	Persons	Percent
4 and younger	4,392	7.7%
5 to 9	3,585	6.3%
10 to 14	2,890	5.1%
15 to 19	3,515	6.2%
20 to 64	38,740	68.0%
65 and over	3,812	6.7%
Total	56,934	100.0%

Sources: U.S. Census 2010.

STUDY AREA OPEN SPACES

Phase 1A (2018)

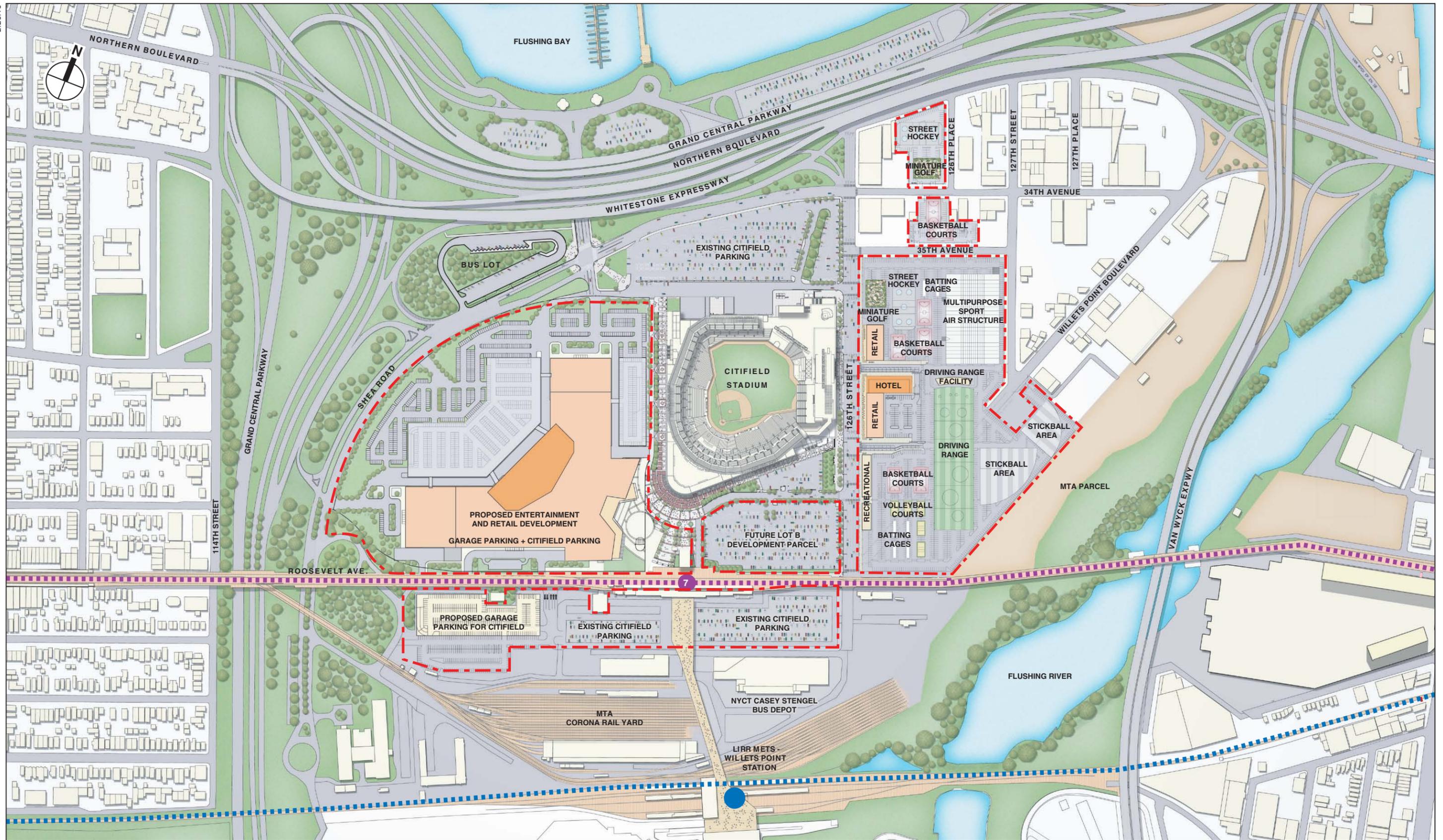
During Phase 1A of the proposed project, the parking area within the Special Willets Point District would be converted to active recreational use a minimum of six months per year. **Figure 5-2** shows an illustrative site plan for the recreational uses that could be provided during Phase 1A. As this interim parking/recreational space would only be available half the year, it is not included in the quantitative assessment of the adequacy of open space presented below. The total amount of passive open space in the non-residential study area would remain at 11.06 acres. The residential study area would continue to have a total of 130.54 acres of open space, comprised of 72.94 acres of active space and 57.61 acres of passive space.

Phase 1B (2028)

Phase 1B of the proposed project would include the development of 6 acres of privately owned, publicly accessible open space. The programming of the Phase 1B open space is currently conceptual; however, for the purposes of this analysis, it is considered to be comprised of entirely passive uses. A more detailed description of the proposed project's open space is presented below under Phase 2. With this open space, the total amount of passive open space in the non-residential study area would increase to 16.06 acres by 2028. The residential study area would have a total of 137.06 acres of open space, comprised of 72.94 acres of active space and 64.13 acres of passive space.

Phase 2 (2032)

By 2032, the proposed project would add a minimum of eight acres of privately owned, publicly accessible open space to the study area. As described in the 2008 FGEIS and per the regulations of the District, this would include an approximately two-acre park, which is assumed to be developed with primarily active recreational uses. The park would be centrally located within the residential community in the eastern part of the District. While portions of this park may



contain play equipment, fields, or courts used exclusively by the students of the proposed school during school hours, these recreational facilities would be publicly accessible during the remainder of the day and are therefore included in the quantitative assessment. The remaining open space within the District would be programmed primarily for passive use. The regulations of the District prescribe design standards for these publicly accessible areas and also require pedestrian amenity areas or open landscaped areas, and specify minimum dimensions of these public access areas, at various locations along the perimeter of the District. The regulations ensure that public access areas are developed in conjunction with the surrounding development by stipulating the dimensions of public access areas that must be provided along with certain developments (i.e., with developments or enlargements at least 100,000 sf in size and on zoning lots at least 200,000 sf).

Consistent with the assumptions of the 2008 FGEIS, this analysis assumes that approximately 20 percent of the approximately 8 acres of new open space (1.6 acres) to be developed within the District would be for active uses, and the remaining 80 percent (6.4 acres) would be programmed for passive use. With the proposed project, the amount of open space in the non-residential and residential study areas would increase to approximately 30.11 and 140.06 acres, respectively. The non-residential study area would have 17.46 acres of passive open space and 12.66 acres of active open space. The residential study area would have 65.53 acres of passive open space and 74.54 acres of active open space.

ADEQUACY OF OPEN SPACES

Quantitative Assessment

Phase 1A (2018): Non-Residential (1/4-Mile) Study Area

In the 2018 With Action condition, the ratio of passive open space acreage per 1,000 workers would decrease compared with the 2018 No Action condition, from 2.38 to 1.42 in 2018 (see **Table 5-10**). This ratio would continue to well exceed the recommended City guideline of 0.15 acres per 1,000 non-residents.

Table 5-10
With Action Condition: Adequacy of Open Space Resources

Build Year	Total Population	Open Space Acreage			Open Space Ratios Acres per 1,000 Population			City Open Space Guidelines			
		Total	Active	Passive	Total	Active	Passive	Total	Active	Passive	
Non-residential (1/4-Mile) Study Area											
2018	Workers	7,793	22.11	11.06	11.06	N/A	N/A	1.42	N/A	N/A	0.15
2028	Workers	11,538	27.11	11.06	16.06	N/A	N/A	1.39	N/A	N/A	0.15
2032	Workers	14,602	30.11	12.66	17.46	N/A	N/A	1.20	N/A	N/A	0.15
Residential (1/2-Mile Study Area											
2018	Residents	40,437	130.54	72.94	57.61	3.23	1.80	1.42	2.5	2.0	0.5
2028	Residents	47,459	137.06	72.94	64.13	2.89	1.54	1.35	2.5	2.0	0.5
2032	Residents	56,934	140.06	74.54	65.53	2.46	1.31	1.15	2.5	2.0	0.5

Phase 1A (2018): Residential (1/2-Mile) Study Area

The open space ratios for the residential study area would not change in 2018 with the project as compared to the No Action condition. The total and passive open space ratios would remain well above City guidelines, at 3.23 and 1.42 acres per 1,000 residents, respectively (see **Table 5-10**).

Willets Point Development

The active open space ratio, at 1.80 acres per 1,000 residents, would be below the City's planning goal of 2.0.

Phase 1B (2028): Non-Residential (1/4-Mile) Study Area

In 2028, the ratio of passive open space acreage per 1,000 workers would decrease compared with the No Action condition, from 2.38 to 1.39 in 2028. This ratio would continue to well exceed the recommended City guideline of 0.15 acres per 1,000 non-residents.

Phase 1B (2028): Residential (1/2-Mile) Study Area

In 2028, the total open space ratio for the residential study area would decrease from 3.27 acres per 1,000 residents in the No Action condition to 2.89 acres per 1,000 residents in the With Action condition. The ratio would remain above City's planning goal of 2.5 acres per 1,000 residents. The active open space ratio would decrease from 1.80 to 1.55 acres per 1,000 residents, which would fall below the City's goal of 2.0. The passive open space ratio would decrease from 1.46 to 1.35, but would remain well above the goal of 0.5 acres per 1,000 residents.

Phase 2 (2032): Non-Residential (1/4-Mile) Study Area

In 2032, with the addition of proposed project and Lot B new worker populations and new proposed project passive open space, the ratio of passive open space acreage per 1,000 workers would decrease to 1.20 acres per 1,000 residents (see **Table 5-10**). This ratio would continue to well exceed the recommended City guideline of 0.15 acres per 1,000 non-residents.

Phase 2 (2032): Residential (1/2-Mile) Study Area

The total open space ratio for the residential study area would decrease in 2032 from 3.27 acres per 1,000 residents in the No Action condition to 2.46 acres per 1,000 residents in the With Action condition (see **Table 5-10**). The ratio would be just below the City's planning goal of 2.5 acres per 1,000 residents. The active open space ratio would decrease from 1.80 acres per 1,000 residents in the No Action condition to 1.31 acres per 1,000 residents in the With Action condition, which is below the City's goal of 2.0. The passive open space ratio would decrease from 1.46 to 1.15, but would remain above the goal of 0.5 acres per 1,000 residents.

Qualitative Assessment

As indicated above, the passive open space ratio would remain above City guidelines in all three of the analysis years. The total open space ratio would remain above City guidelines in 2018 and 2028. In 2032, the total open space ratio would be 2.46 acres per 1,000 residents, which would be slightly below the City guideline of 2.5. Although the active open space ratio would fall below the City's planning goal in the 2028 and 2032 With Action analysis years, the total open space ratio would remain above the Citywide median of 1.5 acres per 1,000 residents, and residents in the study area would have access to parks just outside of the study area, including Corona Golf Playground, and areas of Flushing Meadows-Corona Park and the Flushing Bay Promenade that fall outside of the study area. Both Flushing Meadows-Corona Park and the Flushing Bay Promenade would draw residents from beyond a 1/2-mile. The Flushing Meadows-Corona Park in particular serves as a destination and would draw residents from beyond a 1/2-mile to utilize the variety of passive and active open spaces that it offers.

As shown in **Table 5-3**, the study area population has a somewhat higher proportion of young children and children (ages 4 and younger and ages 5 to 9) as compared with Queens and New York City. Children in these age brackets tend to use traditional playgrounds with play equipment suitable for preschool and school age children, as well as grassy and hard-surfaced open spaces which are important for ball playing, running, skipping rope, and other active play.

Demand for these types of facilities is served within the residential study area by several playgrounds and active spaces including Bland Playground, Louis Armstrong Playground, Hinton Park, Flushing Meadows-Corona Park, Flushing Bay Promenade, and Flushing Meadows-Corona Park Aquatic Center. By 2032, the proposed project would introduce a 2-acre park in the District, which would be programmed primarily for active use and would help serve both new and existing study area children.

IMPACT SIGNIFICANCE

According to the *CEQR Technical Manual*, the significance of a project's effects on open space is assessed using both qualitative and quantitative factors. These effects are compared with those that would occur in the No Action condition to determine the effects attributable to the proposed action.

According to the *CEQR Technical Manual*, if the decrease in the open space ratio approaches or exceeds 5 percent, it is generally considered a substantial change warranting a more detailed analysis. However, the change in the open space ratio should be balanced against how well served an area is by open space. If the study area exhibits a low open space ratio, even a small decrease may warrant a detailed analysis. Likewise, if the study area exhibits an open space ratio that approaches or exceeds the planning goal of 2.5 acres, a greater percentage of change in the ratio may be acceptable.

DIRECT EFFECTS

The proposed development of the Willets West and Roosevelt Avenue portions of the project, as well as the potential development of Lot B, on land that is mapped as parkland would not constitute a significant adverse open space impact. As noted earlier, this land is occupied by paved surface parking for CitiField and does not function as either active or passive recreational open space. There is one event—the Major League Wheelchair Softball Tournament—that is held in this area; however, this is not an event that provides open space on a constant and regular basis for designated daily periods. This use is therefore not considered a public open space use as defined under CEQR. Furthermore, the Major League Wheelchair Softball Tournament would be relocated to the Special Willets Point District in Phase 1A of the proposed project. The proposed project would not result in significant adverse shadow, noise, or air quality impacts on any of the open spaces in the study area. The proposed project would activate the Willets West area, making it more appealing to residential and non-residential populations and improving connections between the study area populations and the Flushing Bay Promenade.

NON-RESIDENTIAL (1/4-MILE) STUDY AREA

As shown in **Table 5-11**, while the passive open space ratio for workers would decrease by approximately 41 and 50 percent as compared to the No Action condition in 2028 and 2032, respectively, the ratio in 2032 would be 1.20 acres of passive open space per 1,000 workers, which well exceeds the City's guideline of 0.15. Therefore, the RWCDS would not result in any significant adverse impacts to open space resources in the non-residential study area.

Table 5-11

With Action Condition: Open Space Ratios Summary

Ratio	City Guideline	Open Space Ratios (acres per 1,000 people)			Percent Change, No Action to With Action Condition
		Existing Conditions	No Action Condition	With Action Condition	
Phase 1A (2018)					
<i>Non-Residential (¼-Mile) Study Area</i>					
Passive/Workers	0.15	2.51	2.38	1.42	-40%
<i>Residential (½-Mile) Study Area</i>					
Total/Residents	2.5	4.59	3.23	3.23	0%
Active/Residents	2.0	2.45	1.80	1.80	0%
Passive/Residents	0.5	2.14	1.42	1.42	0%
Phase 1B (2028)					
<i>Non-Residential (¼-Mile) Study Area</i>					
Passive/Workers	0.15	2.51	2.38	1.39	-41%
<i>Residential (½-Mile) Study Area</i>					
Total/Residents	2.5	4.59	3.23	2.89	-11%
Active/Residents	2.0	2.45	1.80	1.54	-15%
Passive/Residents	0.5	2.14	1.42	1.35	-5%
Phase 2 (2032)					
<i>Non-Residential (¼-Mile) Study Area</i>					
Passive/Workers	0.15	2.51	2.38	1.20	-50%
<i>Residential (½-Mile) Study Area</i>					
Total/Residents	2.5	4.59	3.23	2.46	-24%
Active/Residents	2.0	2.45	1.80	1.31	-27%
Passive/Residents	0.5	2.14	1.42	1.15	-19%

RESIDENTIAL (½-MILE) STUDY AREA

No change to the open space ratios for the residential study area would take place by 2018. In the 2028 analysis year, the ratios for active, passive, and total open space in the residential study area would decrease in the With Action condition by 15 percent, 5 percent, and 11 percent, respectively. By 2032, these ratios would decrease in the With Action condition by between 19 and 27 percent (see **Table 5-11**).

Although the ratio of total open space to residents would decrease by 24 percent by 2032, at 2.46, it would still approach the City’s planning goal of 2.5 acres per 1,000 residents. The population in the residential study area would continue to be well served by a mix of passive and active open space in the future with the proposed project, and therefore the RWCDs would not result in any significant adverse impacts to the total open space ratio in the residential study area.

Similarly, although the ratio of passive open space to residents would decrease by 19 percent by 2032, it would remain well above the City’s planning goal of 0.5 acres per 1,000 residents, at 1.15. Therefore the RWCDs would not result in any significant adverse impacts to the passive open space ratio in the residential study area.

In contrast, the ratio for active open space in the residential study area would decrease by 15 and 27 percent compared to the 2028 and 2032 No Action conditions, respectively, and, at 1.54 and 1.31 acres per 1,000 residents, respectively, would fall below the City’s planning goal of 2.0.

Although the declines in the active open space ratio between the No Action and With Action conditions in 2028 and 2032 suggest that a significant adverse impact could result, there are a number of important factors not addressed in the quantitative analysis.

First, QDG would work to incorporate ground-level, active open space and other recreational resources such as rooftop and interior programming of recreational amenities into the project design

for Phase 1B, and EDC would encourage through its formal RFP process the future developer of Phase 2 to incorporate similar features into the Phase 2 development. While these recreational amenities may be available only to tenants and residents of the site—and thus have not been included in the quantitative analysis—these amenities would help offset the burden on public active and passive resources resulting from the introduction of new users on the project site.

Second, the remainder of the most significant open space in Queens—the 898-acre Flushing Meadows-Corona Park—is not included in the quantitative analysis. This park is one of the flagship parks in the DPR inventory and draws residents from throughout the City. Residents could utilize the park’s active open space amenities and recreational facilities that are just beyond the residential study area boundary and thus were not included in the quantitative analysis. As described above, these include soccer fields and tennis courts, open fields that could be used for both passive and active use, and the Al Oerter Recreation Center.

Bicycle lanes would be required on connector streets within the redeveloped District. The bicycle lanes in the District would connect to the area-wide bicycle and greenway network, and indoor accessory bicycle parking would be required for all new residential, office, and retail uses developed in the District. Together, these measures would improve connectivity between Willets Point and surrounding areas, and provide new active recreational opportunities for area residents and visitors.

Finally, the Kissena Corridor West portion of the 100-acre Kissena Corridor Park is located just outside the residential study area to the east. This large destination park would provide additional active and passive open space resources to residents in the District.

Therefore, the RWCDs would not result in any significant adverse impacts to open space resources in the residential study area that were not previously identified in the 2008 FGEIS and subsequent technical memoranda. *