Chapter 5: Open Space

A. INTRODUCTION

This chapter assesses the potential impacts of the Proposed Actions on open space resources. Open space is defined in the 2021 *City Environmental Quality Review (CEQR) Technical Manual* as publicly accessible, publicly or privately owned land that is available for leisure, play, sport or serves to protect and enhance the natural environment.

Public open space is accessible to the public on a consistent and regular basis, including for designated daily periods. Public open space may be under government or private jurisdiction and typically includes city, state, and federal parkland; esplanades; greenways; and plazas designated through regulatory approvals (such as zoning). Private open space is not considered publicly accessible if it is only available to limited users or is not available to the public on a regular or consistent basis. Examples of private open space are natural areas with no public access, front and rear yards, rooftop recreational facilities, stoops, and landscaped grounds used by community facilities, such as public and private educational institutions where the open space is accessible only to the institution-related population.

Open spaces can be characterized as either active or passive depending on the activities the space allows. In many cases, open space may be used for both active and passive recreation. Open space that is used for sports, exercise, or active play is classified as active open space. Passive open space is used for relaxation, such as sitting or strolling.

A project's effects on open space resources may be direct or indirect. A project may result in direct effects when it would encroach on, or cause a loss of, open space. Direct effects may also result from changes in an open space such that it no longer serves the same user population. Other direct effects include the introduction of new noise, air pollutant emissions, odors, or shadows on public open space that may alter its usability. Indirect effects may occur when the population generated by a proposed project overtaxes the capacity of existing open spaces so that their utility or level of service to the future population of the affected area would be substantially or noticeably diminished. Per the *CEQR Technical Manual*, an open space assessment should be conducted if a project would have a direct effect on open space (such as eliminating or altering a public open space) or an indirect effect (such as the introduction of a substantial new population that could place added demand on an area's open spaces). As discussed in Chapter 1, "Project Description," the Proposed Actions would change the zoning in the Project Area to support the development of significant new housing and increase job growth in the Project Area; the added demand placed on area open spaces attributable to the Proposed Actions is considered in this chapter.

PRINCIPAL CONCLUSIONS

The Proposed Actions would result in a significant adverse impact to open space due to the added residential demand placed on active and passive open spaces in an area that has limited available open space resources. The Project Area has been identified as having low total active and passive open space ratios, a condition that is expected to continue in the future with and without the Proposed Actions (i.e., the "No Action" and "With Action" conditions).

DIRECT EFFECTS

The Proposed Actions would result in benefits associated with the potential creation of up to 6 acres of new waterfront open space developed in accordance with the amended Northern Hunters Point Waterfront Access Plan (WAP). The Proposed Actions would not result in any direct effects related to encroachments on or loss of open space, changes in open space such that it no longer serves the same user population, or results in impacts due to noise, or odor emission that may affect its usability. However, as described in Chapter 15, "Air Quality", the Proposed Actions would result in significant adverse air quality impacts affecting the usability of one existing open space resource, Gordon Triangle. In addition, three new publicly accessible waterfront open spaces (on Projected Development Sites 65, 67, and 71) would be affected by significant adverse air quality impacts.

As described in Chapter 6, "Shadows," new shadows resulting from the Proposed Actions would be extensive enough to cause significant adverse impacts to two open space resources in Long Island City: Gordon Triangle, a small public open space located on 44th Drive between Vernon Boulevard and 10th Street; and the 44th Drive Pier, a public open space located at the western end of 44th Drive. Incremental shadows cast on Gordon Triangle and the 44th Drive Pier would affect utilization and vegetation on the resources. Mitigation for the significant adverse shadow and air quality impacts is discussed in Chapter 22, "Mitigation."

INDIRECT EFFECTS

Non-Residential Study Area

According to the *CEQR Technical Manual*, projects that would reduce the open space ratio for a nonresidential population should consider the project's effect on passive open space in the study area in determining impact significance. The more an open space ratio falls below the optimal ratio of 0.15 acres of passive space per 1,000 residents, the more likely the decrease would lead to a significant adverse impact. In the With Action condition, the non-residential study area's passive open space ratio would decrease by 3.58 percent between the No Action condition and the With Action condition (from 0.289 acres per 1,000 residents to 0.279 acres per 1,000 residents, respectively), and the passive open space utilization rate in the With Action condition would remain above the City's guideline ratio of 0.15 acres per 1,000 workers.

Residential Study Area

The detailed analysis of open space concluded that with the Proposed Actions, the total open space ratio in the residential study area would decrease by approximately

18.61percent (to 0.546 acres per 1,000 residents); the active open space ratio would decrease by approximately 20.58 percent (to 0.190 acres per 1,000 residents); and the passive open space ratio would decrease by approximately 17.52 percent (to 0.355 acres per 1,000 residents). Typically, a reduction in the open space ratio exceeding 5 percent is considered to be significant. However, in an area that has a very low open space ratio, such as the Project Area, a reduction as small as 1 percent may be considered significant. According to Table 7-5 of the *CEQR Technical Manual*, a decrease in the total open space ratio of 2 percent or more is generally considered a significant adverse impact for a project in a residential open space study area where the total open space ratio is between 0.51 to 1.0, a decrease in active open space ratio of 1 percent or more is generally considered a significant adverse impact where the active open space ratio is less than 0.41, and a decrease in passive open space ratio of 4 percent or more is generally considered a significant adverse impact where the passive open space ratio is between 0.31 and 0.40. Therefore, based on the decrease in the open space ratios noted above and described in this chapter, the Proposed Actions would result in a significant adverse impact to open space in the residential study area.

B. METHODOLOGY

DIRECT EFFECTS

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, air pollutant emissions, odor, or shadows that would temporarily or permanently affect the usefulness of a public open space. Since no open space resources would be directly affected or displaced by the Proposed Actions, this chapter uses information from Chapter 6, “Shadows,” Chapter 14, “Transportation,” Chapter 15, “Air Quality,” and Chapter 17, “Noise,” to determine whether the Proposed Actions would directly affect any open spaces within, or in close proximity to, the Project Area.

As described in Chapter 1, “Project Description,” the Proposed Actions would modify the Northern Hunters Point WAP for the waterfront blocks within the Project Area. The proposed WAP would specify the location of required shore public walkways, supplemental public access areas, upland connections, and visual corridors to ensure access to Anable Basin and the East River waterfront from surrounding neighborhoods and to address the configuration of and varied conditions along the waterfront. The proposed WAP would result in an increase in approximately 6 acres of publicly accessible waterfront open space.

INDIRECT EFFECTS

As described in the *CEQR Technical Manual*, open space can be indirectly affected by a proposed action if there are increases in either residential or non-residential populations that noticeably diminish open space capacity. Typically, an assessment of indirect effects is conducted when a project would introduce more than 200 residents or 500 workers to an area.

In accordance with *CEQR Technical Manual*, the open space analysis is based on the projected development expected under the Proposed Actions. As discussed in Chapter 1, "Project Description," by the 2035 analysis year the Proposed Actions are expected to introduce a net increase of approximately 14,699 dwelling units (DUs), which would generate a projected residential population of approximately 33,808 residents introduced to the Project Area. An analysis of indirect effects on open space resources is warranted, as the residential population anticipated to be introduced by the Proposed Actions is greater than the CEQR analysis threshold of 200 or more incremental residents. The Proposed Actions are anticipated to introduce 14,369 new workers to the Project Area; therefore, the CEQR analysis threshold of 500 or more incremental workers would also be exceeded. Consistent with *CEQR Technical Manual* methodology, this chapter assesses the indirect effects of the Proposed Actions on open space for both residential and non-residential user populations.

WALK TO A PARK SERVICE AREA

As part of *OneNYC 2050—Building a Strong and Fair City*, the City has put forth a goal that calls for 85 percent of New York City residents to live within walking distance of a park by 2030. To help the City reach this goal, the New York City Department of Parks and Recreation (NYC Parks) has a Walk to a Park initiative that focuses on increasing access to parks and open space in areas of the City where residents live beyond walking distance to a park. The Walk-to-a-Park service area is shown on **Figure 5-1**. Portions of the City that are not covered by a Walk to a Park service area are considered "walk gaps," i.e., areas of the City that are not within a walking distance to a park.

According to the *CEQR Technical Manual*, as part of the preliminary assessment of open space, a project should be reviewed to determine if it is located within a Walk to a Park service area. Project sites that are located outside of a Walk to a Park service area (i.e., located in a known walk gap area) suggest that there is a need for a detailed analysis to be performed to determine if the project may further exacerbate a condition of residents living in areas of the City with inadequate park access, potentially leading to a significant impact. The Project Area is not located within a known walk gap area; therefore, further analysis with regard to this initiative is not warranted.

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 distances that users—both workers and residents—are likely to walk to an open space. Workers are assumed to walk approximately 10 minutes, or a ¼ mile, from their place of work to an open space, while residents are assumed to walk approximately 20 minutes, or a ½ mile, to an open space.

As the Proposed Actions would introduce a new residential population above the 200-resident threshold and a worker population above the 500-worker threshold, the adequacy of open space resources was assessed for the residential study area (generally defined as the area within a ½ mile of the Project Area), and the non-residential study area (generally defined as the area within a ¼ mile of the Project Area). As demographic data are provided at the census tract level, the study areas are further adjusted to include



Walk to a Park Service Area

LONG ISLAND CITY NEIGHBORHOOD PLAN

Figure 5-1

all census tracts with at least 50 percent of their area within the ½- and ¼-mile radii of the Project Area boundary.

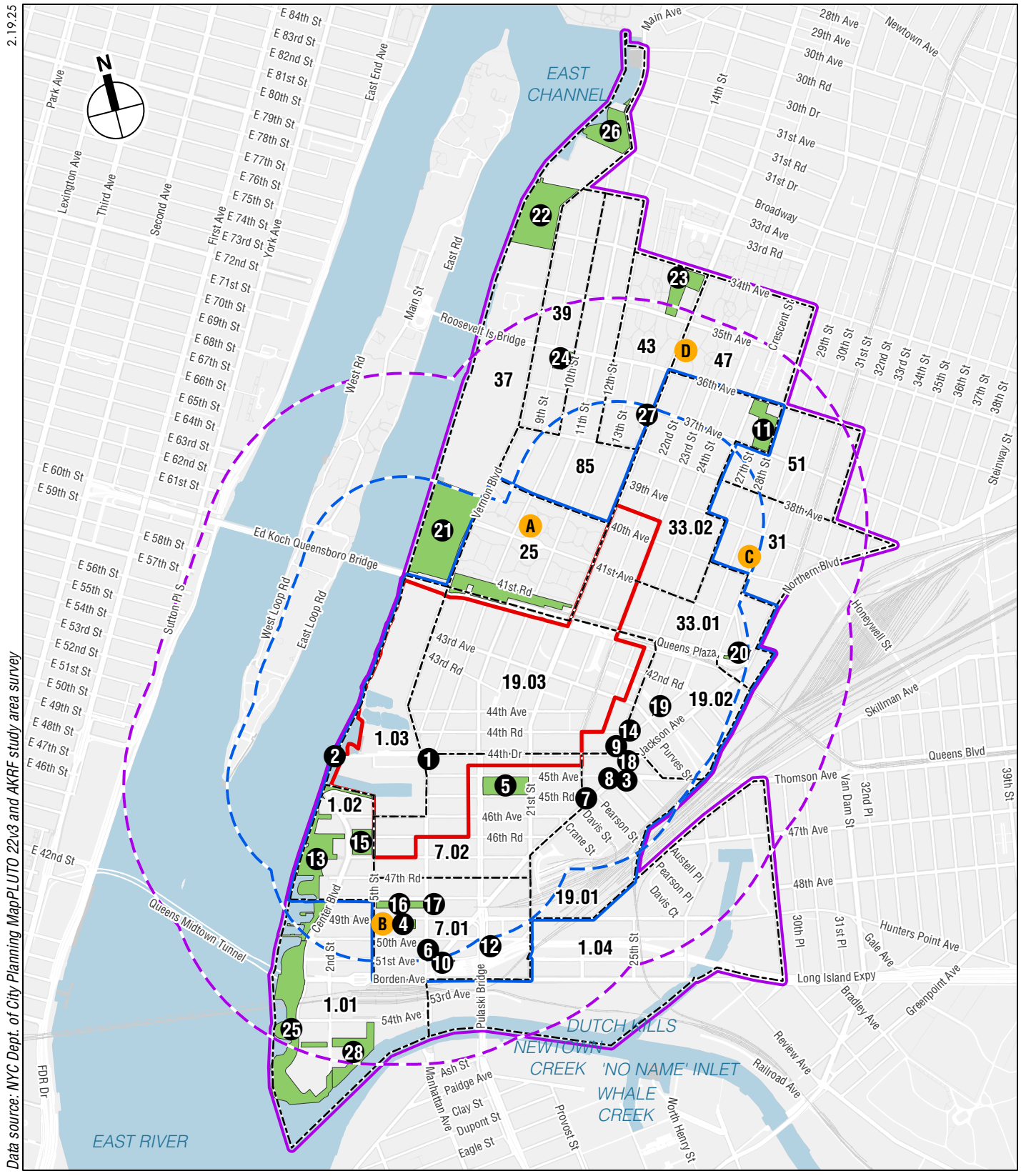
As shown in **Figure 5-2**, the residential study area includes Census Tracts 1.01, 1.02, 1.03, 1.04, 7.01, 7.02, 19.01, 19.02, 19.03, 25, 31, 33.01, 33.02, 37, 39, 43, 47, 51, and 85. It is generally bounded by 34th Avenue and 30th Road to the north; 28th Street, 32nd Street, Northern Boulevard, Sunnyside Yards, and 30th Street to the east, Newtown Creek to the south, and the East River to the west. The non-residential study area consists of Census Tracts 1.02, 1.03, 7.01, 7.02, 19.01, 19.02, 19.03, 25, 33.01, and 33.02, and is generally bounded by 40th Avenue and 36th Avenue to the north, Sunnyside Yards and Skillman Avenue to the east, 48th Avenue, 49th Avenue and Borden Avenue to the south, and 5th Street, the East River, Vernon Boulevard and 21st Street to the west.

ANALYSIS FRAMEWORK

The *CEQR Technical Manual* methodology recommends conducting an initial quantitative assessment to determine whether a more detailed analysis is appropriate but also recognizes that for projects that introduce a large population in an area that is neither well-served nor underserved by open space, it may be clear that a full, detailed analysis should be conducted. Because the Proposed Actions would introduce sizeable new residential and worker populations to the study area, a detailed analysis was conducted.

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

- Characteristics of the two open space user groups (residents and workers/daytime users) will be determined. To determine the number of residents in the study area, 2020 U.S. Census data will be compiled for census tracts comprising the nonresidential and residential open space study areas. As the study areas may include a workforce and daytime population that may also use open spaces, the number of employees and daytime workers in the study areas will also be calculated, based on U.S. Census Bureau LEHD Origin-Destination Employment Statistics (LODES).
- An inventory of all publicly accessible passive and active recreational facilities in the open space study areas. The condition and usage of existing facilities will be described based on the inventory and field visits. Acreages of these facilities will be determined, and the total study area acreages will be calculated. The percentage of passive and active open space will also be calculated.
- An assessment of the quantitative ratio of open space in the study area, conducted by computing the ratio of open space acreage to the residential and worker populations in the study areas and comparing the open space ratio with open space adequacy guidelines. The assessment should identify whether a site is located in an identified walk gap of the City as defined by NYC Park's Walk to a Park program.



Open Space Resources

LONG ISLAND CITY NEIGHBORHOOD PLAN

Figure 5-2

Open space ratios are expressed as the amount of open space acreage (total, passive, and active) per 1,000 user population. According to the *CEQR Technical Manual*, in New York City local open space ratios vary widely, and the median ratio citywide at the Community District (CD) level is 1.5 acres of open space per 1,000 residents. Typically, for the assessment of both direct and indirect effects, citywide local norms have been calculated for comparison and analysis. As a planning goal, a ratio of 2.5 acres per 1,000 residents represents an area well-served by open spaces and is consequently used as an optimal benchmark for residential populations in large-scale proposals. Ideally, this would comprise 0.50 acres of passive space and 2.0 acres of active open space per 1,000 residents. According to the *CEQR Technical Manual*, for large-scale projects (and for planning purposes), the City also seeks to attain a planning goal of a balance of 80 percent active open space and 20 percent passive open space.

- An assessment of expected changes in future levels of open space supply and demand in the 2035 build year in the No Action and With Action conditions. Open space adequacy in the No Action condition is based on planned development projects within the open space study areas. To estimate the residential population expected in the study areas in the No Action condition, an average household size of 2.3 persons was applied to the number of new DUs expected in the residential study area. Additional workers introduced in the No Action condition were calculated based on the employment multipliers presented in Table 1-3 in Chapter 1, "Project Description." Any new open space or recreational facilities that are anticipated to be operational by the analysis year are also taken into account.
- Open space ratios are determined for the No Action and With Action conditions and compared to determine potential changes to open space adequacy in the 2035 analysis year.
- An evaluation of qualitative factors affecting open space use, including weekend and weekday utilization and the condition of facility equipment.
- A determination of the adequacy of open spaces within the open space study areas in the existing, No Action, and With Action conditions.

IMPACT ASSESSMENT

The assessment of the potential for significant adverse impacts on open space is both quantitative and qualitative. According to the *CEQR Technical Manual*, a total open space ratio decrease approaching or exceeding 5 percent suggests that a potential for a significant adverse open space impact may exist and warrants further consideration. If a study area exhibits a low open space ratio, indicating a shortfall of open space, smaller decreases in that ratio as a result of the action may constitute significant adverse impacts. In addition to the quantitative factors cited above, the *CEQR Technical Manual* also recommends consideration of qualitative factors in assessing the potential for open space impacts, including the availability of nearby destination open space, the beneficial effects of new open space resources provided by a project, or other factors. It is recognized that the open space ratios of the City guidelines presented are not feasible for many areas of the City, and they are not considered impact thresholds on their own. Rather, these are benchmarks that indicate how well an area is served by open space.

When assessing the effects of a change in the open space ratio, the assessment should consider the balance of passive and active open space resources appropriate to support the affected population and the condition of existing open spaces within the study area. Determinations as to what constitutes a significant adverse open space impact are not based solely on the results of the quantitative assessment. Qualitative considerations—such as the distribution of open space, whether an area is in a Walk to a Park Service Area or not, the distance to regional parks, and the connectivity of open space,—should be considered in a determination of significance.

C. EXISTING CONDITIONS

STUDY AREA POPULATION

NON-RESIDENTIAL STUDY AREA

As shown in **Table 5-1**, based on the 2022 LODES, the existing worker population within the non-residential study area is 34,262. In addition to study area workers, as shown in **Table 5-1**, the ¼-mile non-residential study area has a residential population of 50,289.

Total User Population

Within the non-residential study area, the total population (i.e., residents and workers) is estimated at 84,551 (see **Table 5-1**). As noted above, although this analysis conservatively assumes that the residents and employees are separate populations, it is likely that some of the residents live near their workplace or work from home. As a result, there is likely to be some double-counting of the daily user population in which residential and non-residential populations overlap, resulting in a more conservative analysis.

Table 5-1
Total Population Non-Residential Study Area

Geography	Population
Total Residential Population	50,289
Total Worker Population	34,262
¼-Mile Study Area Total Population[1]	84,551

Notes:
1. It is likely that some study area residents live near their workplace or work from home. As a result, there is likely to be some double-counting of the daily user population in which residential and non-residential populations overlap, resulting in a more conservative analysis.

Sources:
2020 Census, U.S. Census Bureau; 2020-2024 housing construction from DCP's Housing Database (DCP Housing Database (2020-2024)); U.S. Census Bureau's Housing Center for Economic Studies, LEHD Origin-Destination Employment Statistics (2022).

RESIDENTIAL STUDY AREA

As presented in **Table 5-2**, based on the 2020 Census population plus population from the housing units constructed since 2020, the residential study area has a total population of 75,701 persons.

Age Distribution

Table 5-3 summarizes the age distribution of the residential population within the residential study area and compares this distribution to the age distributions of Queens and New York City overall. As shown in **Table 5-3**, the study area has a similar age distribution as compared to Queens and New York City for non-adult population categories; however, its working adult population (residents 20 to 64 years old) comprises a greater proportion of its population at 77 percent when compared with that of Queens and New York City (63 percent each), and its senior adult population comprises a lower proportion of its population (8 percent) when compared with that of Queens (16 percent) and New York City (15 percent).

Table 5-2
Residential Population within the Residential Study Area

Geography	Population
Census Tract 1.01	4,659
Census Tract 1.02	7,484
Census Tract 1.03	33
Census Tract 1.04	27
Census Tract 7.01	3,460
Census Tract 7.02	4,260
Census Tract 19.01	1,434
Census Tract 19.02	8,645
Census Tract 19.03	2,214
Census Tract 25	7,242
Census Tract 31	2,157
Census Tract 33.01	4,399
Census Tract 33.02	2,166
Census Tract 37	2
Census Tract 39	1,462
Census Tract 43	2,326
Census Tract 47	4,090
Census Tract 51	2,512
Census Tract 85	1,979
2020 Census Subtotal	*60,551*
Residential Population Growth Since 2020	*15,150*
Total Residential Population	**75,701**
Sources: 2020 Census, U.S. Census Bureau; DCP Housing Database (2020-2024).	

Table 5-3
Residential Study Area Population Age Distribution

	Study Area		Queens		New York City	
Age Category	**Persons**	**Percent**	**Persons**	**Percent**	**Persons**	**Percent**
Under 5 Years	3,436	6%	122,122	5%	475,637	5%
5 to 9 Years	2,381	4%	124,646	5%	479,017	5%
10 to 14 Years	1,889	3%	129,622	5%	491,325	6%
15 to 19 Years	1,793	3%	134,191	6%	505,700	6%
20 to 64 Years	46,400	77%	1,518,986	63%	5,542,287	63%
65 Years and Over	4,652	8%	375,897	16%	1,310,224	15%
Total	**60,551**	**100%**	**2,405,464**	**100%**	**8,804,190**	**100%**
Sources: 2020 Census, U.S. Census Bureau						

Within a given area, the age distribution of a population affects the way open spaces are used and the need for various types of recreational facilities. Typically, children five years old or younger use playgrounds that have play equipment for toddlers and preschool children. Children ages five through nine typically use playgrounds as well as grassy and hard-surfaced open spaces, which are important for activities such as ball playing, running, and skipping rope. Children ages 10 through 14 typically use playground equipment, court spaces, and ball fields. Teenagers and young adults tend toward court game facilities such as basketball and field sports. Adults (ages 20 to 64) use court game facilities and sports fields, along with more individualized recreation such as rollerblading, biking, and jogging, which require bike paths and vehicle-free roadways. Adults also gather with families for picnicking, active informal sports such as frisbee, and recreational activities in which all ages can participate. Senior citizens (65 years and older) engage in active recreation such as handball, tennis, and swimming, as well as recreational activities (such as gardening, fishing, walking,) that require passive facilities. The range of age groups present in the study area indicates a need for active and passive recreation facilities, flexible facilities, and open space areas that can be used for both active and passive recreation, like paths or promenades for running, open areas for informal sports, and benches for seating.

INVENTORY OF PUBLICLY ACCESSIBLE OPEN SPACES

According to the *CEQR Technical Manual*, open space resources may be public or private and may be used for active and/or passive recreational purposes. The *CEQR Technical Manual* defines publicly accessible open space as facilities open to the public at designated hours on a regular basis, and they are assessed for impacts using both a quantitative and a qualitative analysis, whereas private open space is not accessible to the general public on a regular basis and is only considered qualitatively.

Field surveys and secondary sources (including NYC Parks' online database) were used to determine the number, availability, and condition of publicly accessible open space resources within the non-residential and residential study areas.

An open space is determined to be active or passive based on the uses that the design of the open space allows. Active open space is the part of a facility used for active play, such as sports or exercise, and may include playground equipment, playing fields and courts, swimming pools, skating rinks, golf courses, lawns, and other paved areas for active recreation. Passive open space is used for sitting, strolling, and relaxation; these spaces typically contain benches, walkways, and picnicking areas. However, some passive spaces can be used for both passive and active recreation; a green lawn or riverfront walkway, for example, can also be used for ball playing, jogging, or rollerblading.

All publicly accessible open space and recreational resources within the two open space study areas are shown in **Table 5-4**. As presented in **Table 5-4**, there are 20 publicly accessible open spaces within the non-residential study area, providing just under 23 acres of public open space. The residential study area contains a total of 27 publicly accessible open spaces (inclusive of the 20 open spaces within the non-residential study area), providing approximately 72 acres of publicly accessible open space.

Open spaces on New York City Housing Authority (NYCHA) developments are considered only in the qualitative assessment. These open space resources are intended

for use by NYCHA residents and not the general public. Similarly, community gardens located on NYC Parks-controlled property, gardens operating under the City's GreenThumb program, or gardens on private property operated by a non-governmental organization—such as a foundation or local community development organization—are considered in the qualitative assessment. These resources are shown in **Table 5-5**.

Table 5-4
Study Area Quantified Open Space Resources

Map No.[1]	Name	Location	Owner/ Agency	Acreage	Active		Passive		Condition	Utilization	Amenities
					Acres	%	Acres	%			
Non-Residential Study Area											
1	Gordon Triangle	10th St., Vernon Blvd. between 44th Rd. and 45th Ave.	NYC Parks	0.08	0.00	0%	0.08	100%	Excellent	Moderate	Benches, planted areas, art installation
2	44th Drive Pier	Western end of 44th Dr., in the East River	DCAS	0.11	0.00	0%	0.11	100%	Excellent	Moderate	Public pier with seating
3	Court Square Park	Jackson Ave. between Thomson Ave. and Court Sq. W	NYC Parks	0.49	0.00	0%	0.49	100%	Fair	Moderate	Landscaped area with seating and fountain
4	Andrews Grove	49th Ave. between Vernon Blvd. and 5th St.	NYC Parks	0.4	0.20	50%	0.20	50%	Good	High	Benches, seating areas, playground, planted areas
5	Murray Playground	10th St., Vernon Blvd. between 44th Rd. and 45th Ave.	NYC Parks	2.52	1.39	55%	1.13	45%	Excellent	High	Benches, seating, lawn area, amphitheater style seating, sun awnings, basketball courts, tennis courts, playground
6	Vernon Mall	Vernon Blvd. between 50th Ave. and 51st Ave.	NYC Parks	0.14	0.00	0%	0.14	100%	Good	Moderate	Benches, planters, Citi-bike station, trees
7	Short Triangle	Jackson Ave., 45th Rd., 23rd St.	NYC Parks/ NYCDOT	0.01	0.00	0%	0.01	100%	Fair	Low	Landscaped triangle with seating
8	McKenna Triangle	Jackson Ave., Court Sq., 45th Ave.	NYC Parks/ NYCDOT	0.01	0.00	0%	0.01	100%	Good	Low	Landscaped triangle, benches
9	Rafferty Triangle	44th Dr., Hunter St. Crescent St.	NYC Parks/ NYCDOT	0.10	0.00	100%	0.10	100%	Excellent	Moderate	Benches, tables and chairs, planters, memorial, trees
10	Old Hickory Playground	Jackson Ave, 51st Ave., Long Island Expy.	NYC Parks	0.23	0.10	43%	0.13	57%	Fair	Moderate	Benches, chess tables, playground, trees
11	Dutch Kills Playground	28th St., Crescent St. between 37 Ave. and 36 Ave.	NYC Parks/ DOE	2.40	2.16	90%	0.24	10%	Good	Medium	Handball courts, playgrounds, roller hockey rink, spray showers, swings, benches, picnic tables, exercise equipment,
Non-Residential Study Area (cont'd)											
12	Notorious LIC Park	50th Ave., Pulaski Bridge., Long Island City Expy.	NYC Parks	0.32	0..21	65%	0.11	35%	Fair	Low	Handball and basketball courts
13	Gantry Plaza State Park	East River between Anable Basin and 50th Ave.	OPRHP	11.58	4.92	42%	6.67	58%	Excellent	High	Esplanade, public piers, sitting areas, benches, laws, playground, fishing station, tot lot, ferry landing

Table 5-4
Study Area Quantified Open Space Resources

Map No.[1]	Name	Location	Owner/ Agency	Acreage	Active		Passive		Condition	Utilization	Amenities
					Acres	%	Acres	%			
14	Sundial Greenstreet	Hunter St., Crescent St., 44th Rd.	NYCDOT	0.11	0.00	0%	0.11	100%	Good	Moderate	Landscaped triangle with seating, sundial
15	Queens West Sports Field	Center Blvd., 5th St., between 47th Ave., and New Way Rd.	OPRHP	1.86	1.86	100%	0.00	0%	Excellent	High	Running track and multipurpose athletic field, dog run, garden
16	Hunter's Point Community Park	48th Ave., between Vernon Blvd., and 5th St.	OPRHP	0.52	0.26	50%	0.26	50%	Excellent	High	Benches, seating, lawn area, amphitheater style seating, sun awnings, basketball courts, tennis courts, playground
17	Hunter's Point Dog Park	Vernon Blvd. and 48th Ave.	OPRHP	0.11	0.00	0%	0.11	100%	Good	Low	Dog run, benches
18	Citibank/One Court Square Plaza	Jackson Ave. and 44th Dr.	Citigroup	0.32	0.00	0%	0.32	100%	Excellent	High	Landscaped area with seating, clock
19	Hunter Street Greenstreet	Hunter St. and 27th St.	NYCDOT	0.21	0.00	0%	0.21	100%	Good	Low	Landscaped triangle with seating, Citibike
20	Queens Plaza Public Open Space/ Dutch Kills Green	Northern Blvd., 41st Ave., Queens Plaza N.	NYCDOT	1.43	0.14	10%	1.29	90%	Good	Moderate	Landscaped park and traffic medians with benches, pedestrian walkway, off-street bike lane; Greenstreet
Non-Residential Study Area Totals				**22.95**	**11.23**	**49%**	**11.73**	**51%**			
Residential Study Area											
21	Queensbridge Park	Queensboro Bridge, 41st Rd., 40th Ave. between. The East River, Vernon Blvd., and 21st St.	NYC Parks	20.34	7.12	35%	13.22	65%	Good	Moderate	Barbecuing Areas, bathrooms, playgrounds, baseball fields, Dog-Friendly areas Handball Courts, Spray Showers
22	Rainey Park	Vernon Blvd. between 33rd Rd. and 34th Ave.	NYC Parks	8.09	2.83	35%	5.26	65%	Excellent	N/A*	Baseball fields, bathrooms, dog friendly areas, playgrounds, benches
23	Ravenswood Playground	21st St. between 34th Ave. and 35th Ave.	NYC Parks	2.76	1.79	65%	0.97	35%	Good	Low	Handball courts, playgrounds, roller hockey rink, spray showers, swings, benches, picnic tables, exercise equipment
24	Spirit Playground	36th Ave between 9th St. and 10th St.	NYC Parks	0.79	067	85%	012	15%	Good	Low	Bathrooms, handball courts, basketball courts, playgrounds, spray showers, rock scramble, benches
25	Hunter's Point South Park	Center Blvd. between 50th Ave. and 2nd St.	NYC Parks	10.65	2.66	25%	7.99	75%	Excellent	High	Basketball courts, bicycling and greenways, fitness equipment, volleyball courts, bathrooms, dog runs, playgrounds, artificial lawn, ferry landing
26	Socrates Sculpture Park	Vernon Blvd. between Broadway and 30th Dr.	NYC Parks	6.28	0.00	0%	6.28	100%	Good	Moderate	Open fields, benches, sculptures
27	16 Oaks Grove	37th Ave., 14th St., 21st St.	NYC Parks	0.22	0.00	0%	0.22	100%	Fair	Moderate	Benches, plaza, landscaping

Table 5-4
Study Area Quantified Open Space Resources

Map No.[1]	Name	Location	Owner/ Agency	Acreage	Active		Passive		Condition	Utilization	Amenities
					Acres	%	Acres	%			
28	Malt Drive Park	Newtown Creek waterfront between 2nd St. and Malt Dr./54th Ave.	TF Cornerstone	3.50	0.70	20%	2.80	80%	Excellent	Moderate	Seating areas, playground, lawns, dog run, walking paths, outdoor classroom
Residential Study Area Totals				**75.58**	**27.01**	**36%**	**48.58**	**64%**			

Notes:
[1]. As depicted in **Figure 5-2**
*Resource was closed at the time of field survey.
Sources: AKRF field survey November 2024; NYC Parks Open Space Database.

Table 5-5
Qualitative Open Space Resources

Map ID No.[1]	Name	Location	Owner/Program	Type
A	Queensbridge Houses Campus	Vernon Blvd., 21st St., 40th Ave., Queens Plaza N.	NYCHA	Landscaped pathways, seating areas, basketball courts, play equipment
B	Long Island City Community Garden	49th Ave. between Vernon Blvd. and 5th St.	NYC Parks	Community Garden
C	Windmill Community Garden	29th St. between 39th Ave. and 40th Ave.	NYC Parks	Community Garden
D	Ravenswood Houses Campus	12th St., 24th St., 34th Ave., 36th Ave.	NYCHA	Landscaped pathways, seating areas, lawns, basketball courts, play equipment

Note:
[1]. As depicted in **Figure 5-2**
Sources: AKRF fieldwork conducted in November 2024; NYC Parks Open Space Database; and GreenThumb Database.

NON-RESIDENTIAL STUDY AREA

As shown in **Table 5-4**, the non-residential study area contains a total of 22.95 acres of public open space, of which approximately 11.23 acres (49 percent) are used for passive recreation and approximately 11.73 acres (51 percent) are used for active recreation.

There are 20 publicly accessible open spaces and recreational resources located within the non-residential study area, as shown in **Figure 5-2**. One open space in the non-residential study area provides more than 10 acres of open space: Gantry Plaza State Park, located along the Hunters Point waterfront. Three additional resources (Queens West Sports Field, John F. Murray Playground, and Queens Plaza Public Open Space/Dutch Kills Green) provide more than one acre of open space. In addition to these resources, there are 16 smaller open spaces that are less than one acre in size.

The largest open space, Gantry Plaza State Park, is an 11.58-acre public waterfront park controlled by the New York State Office of Parks, Recreation, and Historic Preservation

(OPRHP). It was constructed as part of the Queens West project that redeveloped much of the waterfront area south of Anable Basin. The park includes a waterfront esplanade and passive amenities such as four piers (including a fishing pier), gardens, a fountain, and restored gantries. The park also includes active recreational amenities such as basketball and handball courts and play equipment. This resource is in excellent condition and was highly utilized during field observations. Gantry Plaza State Park and Hunter's Point South Park (located in the residential study area just south of Gantry Plaza and discussed more below) are both large, regional open space resources that receive visitors from throughout the City; notably, there are two landings for the NYC Ferry service connecting to the parkland which have made the Long Island City waterfront a recreational destination.

The John F. Murray Playground is a 2.52-acre neighborhood park and playground in Long Island City that encompasses the block bounded by 11th Street, 45th Road, 21st Street and 45th Avenue. It contains a mix of passive and active amenities (including playgrounds and sports fields and courts). This resource is in excellent condition and was observed to have high utilization. NYC Parks is planning a reconstruction of the park's synthetic turf field, dog run and northern portions of the playground. Construction is expected take 12-18 months as is anticipated to be completed before the 2035 analysis year.

Dutch Kills Playground is a 2.40-acre neighborhood playground located on the block bounded by 37th Avenue, 28th Street, 36th Avenue, and Crescent Street and is adjacent to P.S. 112Q Dutch Kills and is across the street from I.S. 204 Oliver W. Holmes. It contains primarily active amenities including a multipurpose hardcourt/baseball diamond, basketball and handball courts, a roller hockey rink, and play equipment. The park is in good condition and was observed to have moderate utilization. NYC Parks is planning a reconstruction of the multipurpose play area in Dutch Kills Playground. Procurement is expected to be complete in 2025 which will be followed by a 12-18 month construction period. Construction will be completed well before the 2035 analysis year.

The Queens West Sports Field, a 1.86-acre athletic field and running track also developed as part of the Queens West project and controlled by OPRHP, is primarily used by the nearby public school (P.S./I.S. 78) during school hours but is open to the public at other times. It is in excellent condition and was observed to have high utilization. Since this resource is primarily used for active recreation and is not available to the public during the school hours, it is not included in the non-residential open space analysis.

Dutch Kills Green is an approximately 1.43-acre plaza bounded by Queens Plaza North, Queens Boulevard, and Northern Boulevard. This plaza, formerly a parking lot, was developed in 2011 with benches, landscaping, and pedestrian and bicycle paths. This park is in good condition and was in moderate use at the time of field observation. The park is connected to the Queensboro Bridge Greenway, an approximately 0.33-acre pedestrian path and bikeway that runs between 21st and 29th Streets, provides a connection to Queensboro Bridge Park.

The remaining open space resources within the non-residential study area are less than one acre in size. These resources are primarily programmed with passive recreational uses such as benches, tables and chairs, and other seating areas; walking paths; and landscaped areas. There are also a some smaller, primarily active recreational resources

containing uses such as basketball and handball courts, playgrounds, and spray showers.

Two open spaces—Gordon Triangle and the 44th Drive Pier—are within the Project Area, while the rest of the non-residential study area open spaces are located beyond the Project Area, the majority of which are concentrated south of Queens Plaza; however, there are also several open space resources located north of Queens Plaza.

RESIDENTIAL STUDY AREA

The residential study area includes all open spaces identified in the non-residential study area, as well as an additional eight open space resources (see **Table 5-4** and **Figure 5-2**). As shown in **Table 5-4**, the residential study area includes a total of approximately 75.58 acres of public open space (including the 22.95 acres within the non-residential study area). Of this total, approximately 48.58 acres (64 percent) is utilized for passive recreation and 27.01 acres (36 percent) is utilized for active recreation.

Queensbridge Park is the largest open space in the study area (20.34 acres) and has extensive active and passive amenities including baseball fields, running and biking pathways, waterfront esplanades, handball courts, public piers, BBQ areas, bathrooms, dog-friendly areas, spray showers, benches, playgrounds, lawn areas, and landscaping. This park in large part provides for the open space needs of the residents in this area of Queens and is within a reasonable range of the Project Area. Queensbridge Park was observed to be in good condition with moderate usage. A small portion of Queensbridge Park north of Queensboro Bridge between Venon Boulevard and 21st Street (known as Queensbridge Baby Park) is currently under construction and is anticipated to be completed in 2026, well before the future 2035 analysis year.

Hunter's Point South Park, which was a part of the Hunter's Point South project is a 10.65-acre waterfront park that extends to the south of Gantry Plaza State Park. This resource contains a waterfront esplanade, as well as dog runs, basketball and volleyball courts, playgrounds, lawn areas, and a ferry landing. This resource is in excellent condition and has high utilization.

Rainey Park is an 8.09-acre park, located a far walking distance (approximately 0.85 miles) north of the Project Area along the waterfront section of Dutch Kills. The park was temporarily closed in September 2023 for renovation and will reopen in May 2025. Amenities at the recently renovated park include playground areas, spray showers, accessible picnic areas with grilling facilities, a basketball court and adult fitness areas, a new contoured lawn and landscaping, and a re-routed greenway path.

Socrates Sculpture Park is a 6.28-acre waterfront park located a very far walking distance (approximately 1.18 miles) north of the Project Area in Astoria, and is bounded by the East River to the north and west and Vernon Boulevard to the east. The park is used as an outdoor sculpture laboratory for up-and-coming artists. It is considered a major art destination within Astoria and offers tours to school groups and tourists, internships to high school and college students, and employment to area residents. The park is in good condition and was observed to have low utilization.

Malt Drive Park is a 3.5-acre waterfront park located along Newtown Creek in the Hunters Point South section of Long Island City. It is bounded by 2nd Street to the west, Newtown Creek to the south and east, and Malt Drive and 54th Avenue to the north. Malt Drive

Park is programmed with broad sidewalks, winding paths with seating areas, and flexible spaces for community gatherings and recreational activities. Additional amenities include play equipment, a dog run, and an open lawn with views of the water. The park, which opened in October 2024, is in excellent condition.

Ravenswood Playground is a 2.76-acre playground that contains mostly active amenities, such as handball courts, basketball courts, a baseball diamond, playgrounds, spray showers, and fitness equipment, as well as bathrooms and benches. The park is in good condition and was observed to have moderate utilization.

ASSESSMENT OF OPEN SPACE ADEQUACY

NON-RESIDENTIAL STUDY AREA

As described above, the analysis of the non-residential study area focuses on passive open spaces that may be used by workers within the study area. To assess the adequacy of open spaces in the area, the ratio of workers to acres of passive open space is compared with the City's planning guideline of 0.15 acres of passive space per 1,000 workers.

Quantitative Assessment

The non-residential study area includes a total of 22.95 acres of open space, of which approximately 11.23 acres (49 percent) are utilized for passive recreation. A total of 34,262 people work and 50,289 residents live within the non-residential study area. The combined residential and non-residential population is estimated to be 84,551 persons.

The non-residential study area has a passive open space ratio of 0.34 acres per 1,000 workers, which is above the City's guideline of 0.15 acres per 1,000 workers (see **Table 5-6**). For informational purposes, the combined worker and residential passive open space ratio is 0.14 acres per 1,000 residents, which is below the combined non-residential and residential open space goal of 0.36 acres per 1,000 persons.[1] As noted in the *CEQR Technical Manual,* residents use active and passive open spaces and are more likely to travel farther than non-residents to reach parks and recreational facilities.

Qualitative Assessment

As shown in **Table 5-4**, all 20 open spaces located within the non-residential study area are in excellent to fair condition and 15 of them had moderate to high utilization during recent observations.

[1] This quantitative analysis is conservative as it assumes that residents and daytime users are separate populations, whereas it is possible (especially considering the size of the study area) that some of the residents live near their workplace, resulting in some double-counting of the daily user population in the non-residential study area.

Table 5-6
Adequacy of Open Space Resources in the Non-Residential Study Area: Existing Conditions

	Population	Passive Open Space Acreage	Passive Open Space Ratios per 1,000 Persons	Passive Open Space Goal
Non-Residential (¼-Mile) Study Area				
Workers	34,262	11.73	0.34	0.15
Combined Workers and Residents	84,551		0.14	0.36

Notes:
Ratios in acres per 1,000 people.
There may be a small discrepancy within the number values above due to rounding.

In addition to the quantified open spaces described in **Table 5-5,** the non-residential open space study area includes two community gardens—Long Island City Community Garden at 49th Avenue between Vernon Boulevard and 5th Street and Windmill Community Garden at 29th Street between 39th Avenue and 40th Avenue. These spaces may be suitable for use by the non-residential population in the area, but because public access may be restricted, they are not included in the quantitative assessment. Furthermore, additional public open spaces—such as Queensbridge Park and Hunter's Point South Park, located just outside of the non-residential study area (discussed below)—could be utilized by the non-residential population. While these facilities are conservatively excluded from the quantitative analysis, it is likely that they are used by a portion of the population who live and work in the non-residential study area.

RESIDENTIAL STUDY AREA

The assessment of the adequacy of open space resources within the residential study area takes into consideration the ratios of active, passive, and total open space resources per 1,000 residents. As noted in **Table 5-2** above, the residential study area is estimated to have a total population of 75,701 residents.

Quantitative Assessment

As shown in **Table 5-4**, in the existing condition, the residential study area includes a total of 75.58 acres of open space, of which approximately 48.58 acres (64 percent) is utilized for passive recreation, and 27.01 acres (36 percent) are utilized for active recreation.

Based on *CEQR Technical Manual* methodology, the residential study area has a total open space ratio of 0.998 acres per 1,000 residents, a passive open space ratio of 0.642 acres per 1,000 residents, and an active open space ratio of 0.357 acres per 1,000 residents (see **Table 5-7**). This is lower than the City's recommended guidelines of 2.5 acres of total open space per 1,000 residents, as well as the City recommended 2.0 acres of active open space per 1,000 residents and 0.5 acres of passive open space per 1,000 residents. As such, there is an existing shortfall of both passive and active open space in the residential study area.

Table 5-7
Adequacy of Open Space Resources in the Residential Study Area: Existing Conditions

	Population	Open Space Acreage			Open Space Ratios per 1,000 Persons			Open Space Goals		
		Total	Active	Passive	Total	Active	Passive	Total	Active	Passive
Residential (1/2-mile) Study Area										
Residents	75,701	75.58	27.01	48.58	0.998	0.357	0.642	2.5	2.0	0.5

Note: There may be a small discrepancy within the number values above due to rounding.
Sources: 2020 U.S. Census; DCP; NYC Parks; AKRF Field Survey, November 2024.

Qualitative Assessment

As discussed above under the quantitative assessment, approximately 36 percent of the open space in the residential study area is dedicated to active recreation and approximately 64 percent is dedicated to passive recreation. Although the residential study area contains a mix of recreational facilities, the open space ratios still fall below the CEQR goal of 2.5 acres per 1,000 residents and the citywide median of 1.5 acres per 1,000 residents. Furthermore, both the active and passive open space ratios fall below the CEQR recommended 2.0 acres of active open space and 0.5 acres of passive open space per 1,000 residents, respectively.

As shown in **Table 5-5**, the residential study area open spaces include a wide variety of actively programmed spaces appropriate for all age groups, including children, teenagers, adults, and seniors. As noted in **Table 5-3**, the study area includes a higher percentage of working-age adults (ages 20 to 64), as compared with Queens and New York City overall (77 percent in the study area compared with 63 percent in Queens and 63 percent in New York City). As indicated in the *CEQR Technical Manual*, adults tend to utilize active recreational amenities (such as handball and basketball courts) as well as open lawns and other passive recreational amenities, and open spaces within the residential study area include such facilities (see **Table 5-4**). Overall, 22 of the 27 open spaces shown in the table are in excellent or good condition, and several open spaces are newly restored or planning to undergo renovation. Seven open spaces were observed to have low utilization; half of these are primarily active open spaces while the rest are small triangle parks or dog runs.

As shown in **Table 5-3**, approximately 16 percent of the residential study area population consists of children below the age of 20. As noted in the *CEQR Technical Manual,* children require a variety of active recreational amenities including playgrounds and sports facilities, such as basketball and handball courts, similar to the adult population. The residential study area's open spaces serving this population include 12 parks with playground/jungle gym equipment, and 10 parks with basketball courts or other age-appropriate recreational amenities, such as handball courts, baseball fields, running tracks, and tennis courts.

In addition to the quantified open space resources within the residential study area, there are additional open spaces including community gardens which are accessible to the public during specified hours and two large NYCHA housing campuses (Queensbridge

Houses and Ravenswood Houses) with active and passive open spaces serving their residents (see **Table 5-5**).

D. THE FUTURE WITHOUT THE PROPOSED ACTIONS (NO ACTION CONDITION)

STUDY AREAS

In the No Action condition, it is expected that current land use trends and general development patterns in the Project Area will continue. These trends and patterns are characterized by the development of a mix of uses and primarily include commercial, industrial, and residential development. As detailed in Chapter 1, "Project Description," it is anticipated that in the No Action condition, projected development sites would be developed with 2,311 DUs, 1,808,364 square feet of office space, 1,724,635 square feet of industrial space, 341,300 square feet of retail space, and 53,740 square feet of other commercial space. In total, the combined as-of-right development on the projected development sites will introduce approximately 5,315 residents and 9,415 workers. Additional residential growth anticipated to be added from known residential development is expected to come online prior to the 2035 analysis year. Therefore, a conservative background growth rate of 1,609 DUs per year has been assumed for this analysis, resulting in an estimated 16,090 DUs and total residential population increase of 37,007 residents by the analysis year.

NON-RESIDENTIAL STUDY AREA

As-of-right development on the projected development sites and additional developments anticipated to be constructed within the non-residential study area in the No Action condition, and the non-residential study area population is expected to increase by 8,609 workers, and by 37,007 residents[2]. As a result of both No Action development on the projected development sites and background growth on other sites within the non-residential study area, by 2035 the total non-residential study area population is anticipated to be 127,886, comprised of 40,590 workers and 87,296 residents.

RESIDENTIAL STUDY AREA

In the No Action condition, the residential population within the residential study area is anticipated to increase by 37,007 residents. In total, in the No Action condition, the residential population of the study area is anticipated to total 112,708 persons by the 2035 analysis year.

OPEN SPACE RESOURCES

In the No Action condition, there are no changes anticipated to the open space resources within the study area by the analysis year other than the aforementioned NYC Parks rehabilitation projects.

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[2] For analysis purposes, it was conservatively assumed that all residential background growth would occur within the quarter-mile non-residential study area.

ASSESSMENT OF OPEN SPACE ADEQUACY

NON-RESIDENTIAL STUDY AREA

Quantitative Assessment

While the total passive open space available for the non-residential study area is not expected to increase in the No Action condition, the total worker population is anticipated to increase by approximately 6,328 workers. As a result, the passive open space ratio in the No Action condition would decrease from 0.34 acres per 1,000 workers in the existing condition to 0.289 acres per 1,000 workers in the No Action condition. In the No Action condition, study area passive open space resources remain above the *CEQR Technical Manual* goal of 0.15 acres of passive open space per 1,000 workers. With a combined non-residential and residential population of 127,886, the combined passive open space ratio of 0.092 acres per 1,000 non-residents and residents would further decrease below the combined goal of 0.39 acres of passive space per 1,000 non-residents and residents (see **Table 5-8**).

Table 5-8
Adequacy of Open Space Resources in the Non-Residential Study Area: No Action Condition

	Population	Passive Open Space Acreage	Passive Open Space Ratio per 1,000 Persons	Open Space Goals
Non-Residential (¼-Mile) Study Area				
Workers	40,590	11.73	0.289	0.15
Combined Workers and Residents	127,886		0.092	0.39

Notes:
Ratios in acres per 1,000 people.
There may be a small discrepancy within the number values above due to rounding.

Qualitative Assessment

As shown in **Table 5-4**, most of the non-residential study area open spaces are in good condition and use levels are moderate on weekdays, particularly outside of afternoon hours when workers are most likely to utilize passive open spaces. As noted in **Table 5-5**, the non-residential study area includes several additional passive open spaces, such as community gardens, which may be used by the non-residential population in the area. All open space resources are expected to remain under the No Action condition.

RESIDENTIAL STUDY AREA

Quantitative Assessment

While the total open space available for study area residents would not increase in the No Action condition, the total residential population of the residential study area is anticipated to increase as a result of additional residential development. In total, the study area population is anticipated to increase from 75,701 residents in the existing condition to 112,708 residents in the No Action condition by the 2035 analysis year.

As a result, the total open space ratio is anticipated to decrease to 0.67 acres per 1,000 residents in the No Action condition, as compared to 0.99 acres per 1,000 residents under existing conditions (see **Table 5-9**). The active open space ratio is anticipated to decrease from 0.36 acres per 1,000 residents under existing conditions to 0.24 acres per 1,000 residents in the No Action condition. The passive open space ratio is anticipated to decrease from 0.64 acres per 1,000 residents to 0.43 acres per 1,000 residents in the No Action condition. Similar to existing conditions, residents will be underserved by open space in the No Action condition (including both active and passive open space) according to *CEQR Technical Manual* open space guidelines of 2.5 acres of total open space per 1,000 residents, 0.5 acres of passive open space per 1,000 residents, and 2.0 acres of active open space per 1,000 residents.

Table 5-9
Adequacy of Open Space Resources in the Residential Study Area: No Action Condition

		Open Space Acreage			Open Space Ratios per 1,000 Persons			*CEQR Technical Manual* Open Space Guidelines		
	Population	Total	Active	Passive	Total	Active	Passive	Total	Active	Passive
Residential ($^1/_2$-Mile) Study Area										
Residents	112,708	75.58	27.01	48.58	0.67	0.24	0.43	2.5	2.0	0.5

Note: There may be a small discrepancy within the number values above due to rounding.
Sources: 2020 U.S. Census; DCP; NYC Parks; AKRF Field Survey, November 2024.

Qualitative Assessment

As discussed above, in the No Action condition approximately 36 percent of the open space in the residential study area is dedicated to active recreation and approximately 64 percent is dedicated to passive recreation. Although the residential study area contains a mix of recreational facilities, No Action condition quantitative open space ratios will still fall well below the guideline goal of 2.5 acres per 1,000 residents and the citywide median of 1.5 acres per 1,000 residents. Further, both the active and passive open space ratios will fall below recommended ratios per 1,000 residents.

As in the existing condition, residential study area open spaces include a wide variety of actively programmed spaces appropriate for all age groups within the study area, including children, teenagers, adults, and seniors. While utilization of public open space in the study area is anticipated to increase in the No Action condition due to the projected population growth, some open spaces will reopen with improved facilities, thereby improving the overall condition and quality of study area open spaces.

As shown in **Table 5-5,** additional open spaces not considered in the quantitative assessment that are available to study area residents include community gardens and other open spaces that are accessible to some residents during specified hours. NYCHA recreational services, while serving the NYCHA population, will not serve the entire study area population and as such are not included in the quantitative assessment.

E. THE FUTURE WITH THE PROPOSED ACTIONS (WITH ACTION CONDITION)

DIRECT EFFECTS

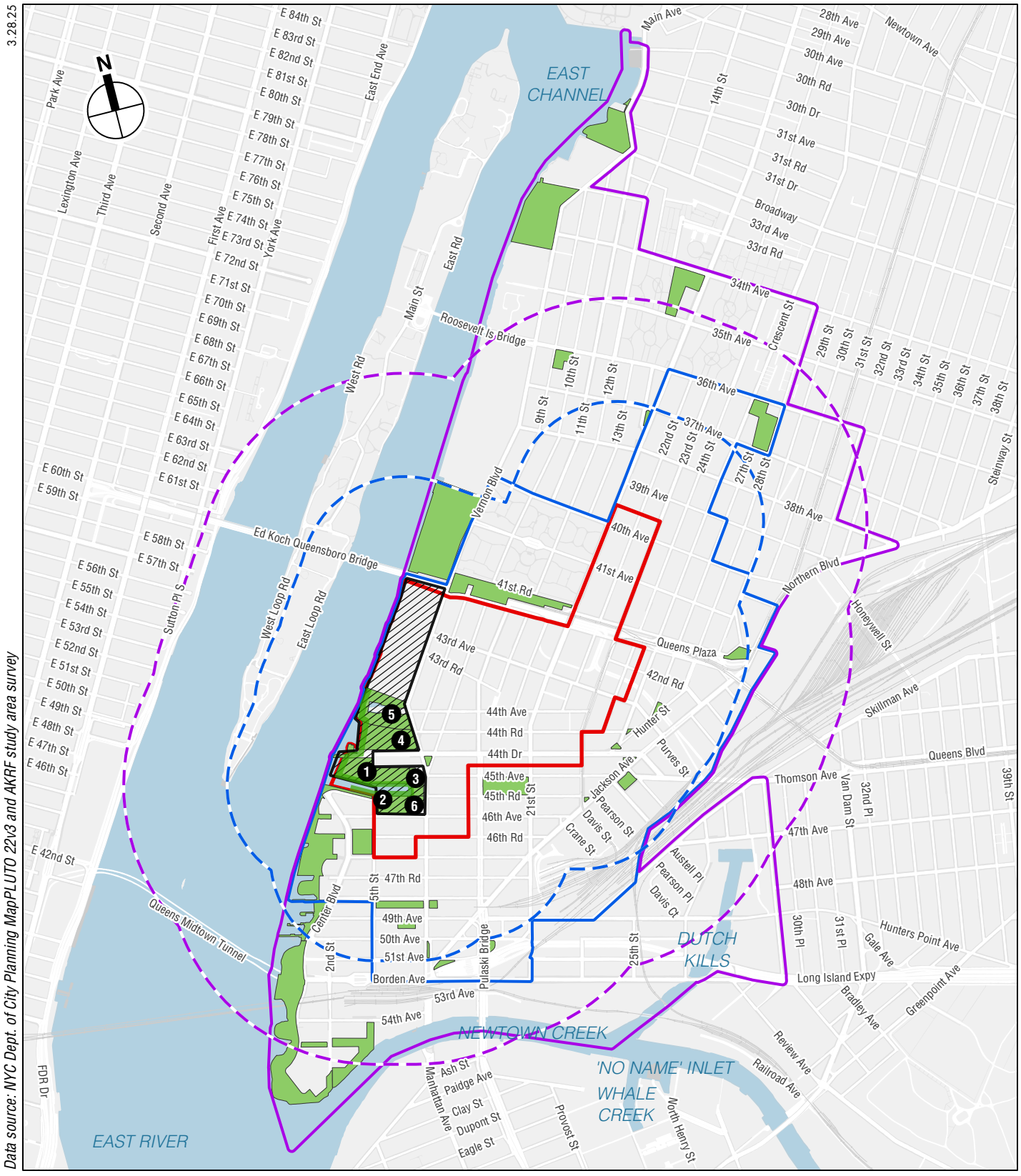
As shown in **Table 5-10** and in **Figure 5-3**, the Proposed Actions would result in at least 4.38 acres (required) and up to 6 acres of open space (including potential voluntary open space) of new publicly accessible waterfront open spaces at six RWCDS projected development sites in the Project Area (Projected Development Sites 63, 64, 65, 67, 69, and 71). All six of these sites are within the non-residential open space study area.

As described in Chapter 15, "Air Quality," the Proposed Actions would result in significant adverse air quality impacts affecting the usability of Gordon Triangle, an existing open space resource. In addition, the Proposed Actions would result in significant adverse air quality impacts affecting the usability of three of the new publicly accessible waterfront open spaces – the open spaces on Projected Development Sites 65, 67, and 71. Mitigation for the significant adverse air quality impacts is discussed in Chapter 22, "Mitigation."

The proposed WAP would specify the location of required shore public walkways, supplemental public access areas, upland connections, and visual corridors to ensure access to Anable Basin and the East River waterfront from surrounding neighborhoods and to address the configuration of and varied conditions along Long Island City's waterfront areas. Shore public walkways are linear public access areas running along the waterfront. Upland connections are pedestrian walkways that provide access to the shore public walkway. Supplemental public access areas are additional public space provided to fulfill waterfront requirements on large sites. Visual corridors are open areas that provide an unobstructed view from upland streets to the East River waterfront and Anable Basin. As a result, within the non-residential study area in the With Action condition, total public open space would increase from 11.78 acres in the No Action condition to 16.53 acres in the With Action condition. In the residential study area, total publicly accessible open space would increase from 75.58 acres in the No Action condition to 81.58 acres in the With Action condition.

In accordance with the *CEQR Technical Manual*, waterfront lots subject to zoning that requires new development to include the creation of privately owned and maintained waterfront public access areas, can be assumed to contain 80 percent passive and 20 percent active open space, and were assumed for the WAP open space that would be introduced in the With Action condition.

As described in Chapter 6, "Shadows," new shadows resulting from the Proposed Actions would fall on dozens of sunlight-sensitive resources (primarily parks, pedestrian plazas, and Greenstreets medians) located in Long Island City, on Roosevelt Island, and on the East Midtown waterfront of Manhattan, but in the vast majority of cases the extent and/or duration of new shadow would be limited and would not cause significant adverse impacts. However, new shadows would be extensive enough to cause significant adverse impacts to two open space resources in Long Island City: Gordon Triangle, a small public open space located on 44th Drive between Vernon Boulevard and 10th Street; and the 44th Drive Pier, a public open space located at the western end of 44th Drive. Incremental shadows cast on Gordon Triangle and the 44th Drive Pier would affect utilization and



Future Open Space Resources

LONG ISLAND CITY NEIGHBORHOOD PLAN

Figure 5-3

vegetation on the resources. Mitigation for the significant adverse shadow impacts is discussed in Chapter 22, "Mitigation."

As described in Chapter 14, "Transportation," the Citywide Ferry System's Long Island City ferry landing located in Gantry State Park would operate over capacity in the With Action condition during the weekday AM and PM peak hours, and the ferry landing's queueing area would extend onto the adjacent Gantry Plaza State Park esplanade during those times. As discussed in Chapter 22, "Mitigation," potential mitigation for this ferry impact could include using approximately 1,000 square feet of esplanade space for ferry queueing space. However, Gantry Plaza State Park is a large, 11.58-acre park and the area that would be affected by ferry queuing represents a negligible area when compared to the overall size of the esplanade and the park at-large. Therefore, the queueing that would occur at the Long Island City Citywide ferry landing would not result in a potential significant adverse impact to open space.

Table 5-10
Open Space Introduced as Part of the Proposed Actions

Map ID	RWCDS Site	Block/Lot(s)	Total Acreage[1]	Active Acreage[2]	Passive Acreage[2]
1	63	25/15	1.48	0.29	1.19
2	64	26/17, 21	0.57	0.11	0.46
3	65	25/1, 10	0.27	0.05	0.22
4	67	488/11, 15 489/1, 23	0.84	0.17	0.67
5	69	488/1, 3	1.14	0.23	0.91
6	71	26/4	0.08	0.02	0.06
Total			**4.38**	**1.07**	**3.51**

Notes:
There may be a small discrepancy within the number values above due to rounding.
[1] Includes required open space pursuant to proposed WAP *or* existing restrictive declaration. Open space that could be voluntarily provided in exchange for bonus floor area is addressed in the qualitative assessment.
[2] Assumes 80 percent passive space and 20 percent active space per *CEQR Technical Manual* guidance.

INDIRECT EFFECTS

By the 2035 analysis year, the Proposed Actions are expected to introduce an estimated total of 39,123 new residents and 23,516 workers to the Project Area, as discussed in Chapter 1, "Project Description." The Proposed Actions would introduce an increment of 33,808 new residents and 14,101 new workers to the Project Area compared with the No Action condition. As indicated in **Table 5-11**, the additional population is expected to increase the non-residential study area's worker population to 54,691 and the combined worker and residential population to 175,795. The residential study area's residential population is expected to increase to 146,516 in the With Action condition by the 2035 analysis year.

Table 5-11
With Action Open Space Study Area Population

	No Action Population	With Action Population
Non-Residential (¼-Mile) Study Area		
Workers	40,590	54,691
Combined Workers and Residents	127,886	175,795
Residential (½-Mile) Study Area		
Residents	112,708	146,516
Note: There may be a small discrepancy within the number values above due to rounding.		

ASSESSMENT OF OPEN SPACE ADEQUACY

NON-RESIDENTIAL STUDY AREA

Quantitative Assessment

As shown in **Table 5-12**, in the With Action condition, the passive open space in the non-residential study area would increase from 11.73 acres in the No Action condition to 15.29 acres in the With Action condition. While the total passive open space available for study area workers would increase in the With Action condition, the total worker population is also anticipated to increase and add approximately 14,369 workers over the No Action condition. As a result of the Proposed Actions, the passive open space ratio would decrease to 0.279 acres per 1,000 workers. In the With Action condition, study area open spaces would exceed the *CEQR Technical Manual* goal of 0.15 acres of passive open space per 1,000 workers, indicating that in the With Action condition, study area workers within the non-residential study area would continue to be well-served by open space resources. With a combined non-residential and residential population of 175,795, the combined passive open space ratio of 0.087 acres per 1,000 workers and residents would continue to be below the combined goal of 0.39 acres of passive space per 1,000 non-residents and residents.

Table 5-12
Adequacy of Open Space Resources in the Non-Residential Study Area: With Action condition

	Population	Passive Open Space Acreage	Passive Open Space Ratio per 1,000 Persons	Open Space Goals
Non-Residential (¼-Mile) Study Area				
Workers	54,691	15.23	0.279	0.15
Combined Workers and Residents	175,795		0.087	0.39
Notes: Ratios in acres per 1,000 people. There may be a small discrepancy within the number values above due to rounding.				

Qualitative Assessment

As shown in **Table 5-4**, most of the non-residential study area open spaces are in good condition and utilization levels are moderate on weekdays, particularly outside of afternoon hours when workers are most likely to utilize passive open spaces. As noted,

the Proposed Actions would result in the development of additional publicly accessible passive open space including a Shore Public Walkway along Project Area waterfront, suitable for use by the non-residential population in the area. Several new upland connections to the Shore Public Walkway would be provided within the non-residential study area including "Main Corridor Connections" to several key east-west streets (Queens Plaza South 423rd Avenue, 44th Drive, and 45th Road) and to 5th Street, a key north-south connection. There would also be new street end improvements along 44th Drive to enhance access to the 44th Drive.

RESIDENTIAL STUDY AREA

Quantitative Assessment

In the With Action condition, the total open space available to study area residents would increase from 75.58 acres in the No Action condition to 79.96 acres in the With Action condition. Total active open space would increase from 27.01 acres in the No Action condition to 27.89 acres in the With Action condition. The amount of passive open space would increase from 48.58 acres in the No Action condition to 52.08 acres in the With Action condition. The open space ratios are presented in **Table 5-13**. Although the total passive and active open space available for study area residents would increase in the With Action condition, the total residential population of the residential study area is also anticipated to increase as a result of the Proposed Actions. In total, the study area population is anticipated to increase from 112,708 residents in the No Action condition to 146,516 residents in the With Action condition.

Table 5-13
Adequacy of Open Space Resources in the Residential Study Area: With Action Condition

		Open Space Acreage			Open Space Ratios per 1,000 Persons			*CEQR Technical Manual* Open Space Guidelines		
	Population	Total	Active	Passive	Total	Active	Passive	Total	Active	Passive
Residential ($^1/_2$-Mile) Study Area										
Residents	146,516	79.96	27.89	52.08	0.55	0.19	0.36	2.5	2.0	0.5
Note: There may be a small discrepancy within the number values above due to rounding. **Sources:** 2020 U.S. Census; DCP; NYC Parks; AKRF Field Survey, November 2024.										

As a result, the total open space ratio is anticipated to decrease in the With Action condition, from 0.67 acres per 1,000 residents in the No Action condition to 0.55 acres per 1,000 residents in the With Action condition. The active open space ratio is anticipated to decrease from 0.24 acres per 1,000 residents in the No Action condition to 0.19 acres per 1,000 residents in the With Action condition. The passive open space ratio is anticipated to decrease from 0.43 acres per 1,000 residents in the No Action condition to 0.36 acres per 1,000 residents in the With Action condition. As in the existing and No Action conditions, in the With Action condition residents would be underserved by open space (including both active and passive open space) based on the *CEQR Technical Manual* open space guidelines of 2.5 acres of total open space per 1,000 residents, 0.5 acres of passive open space per 1,000 residents, and 2.0 acres of active open space per 1,000 residents.

Qualitative Assessment

As noted above, under existing conditions, the open space study area does not meet the *CEQR Technical Manual* planning goal of 2.5 acres per 1,000 residents, and this is expected to remain irrespective of the Proposed Actions. The profile of the population generated by the Proposed Actions would be similar to the existing population and is not expected to have any unique characteristics, such as a disproportionately younger or older population, that would place heavy demand on facilities that cater to a specific user group.

The Proposed Actions would result in at least 4.38 acres (and potentially up to 6 acres) of new publicly accessible waterfront open space at six projected development sites in the Project Area (Projected Development Sites 63, 64, 65, 67, 69, and 71) which is estimated to be approximately 20 percent (0.87 acres) active open space and 80 percent (3.51 acres) passive open space. It would introduce a new shore public walkway, supplemental public access areas, upland connections, and visual corridors providing access to Anable Basin from surrounding neighborhoods. The shore public walkway would connect to Gantry Plaza State Park to the south and extend up to 44th Avenue to the north, but could potentially connect to Queensbridge Park further to the north, which would create a continuous publicly accessible waterfront through the Project Area if fully implemented.

In addition to the new open space that would be required by the WAP, approximately 1.5 acres of open space could potentially be developed on these projected development sites in exchange for floor area bonuses as a result of the Proposed Actions. This additional potential public open space was conservatively not included in the quantitative analysis but would increase the With Action open space ratio significantly if provided in the future projected developments.

Furthermore, as mentioned above, private open spaces within the two large NYCHA campuses and area community gardens would continue to provide additional open space for some study area residents. While these areas were not included in the open space inventory and quantitative analysis because they are primarily meant for use by residents of Queensbridge Houses, the open spaces would address the recreational needs of some residents in the study area with the provision of its playgrounds, ball courts, and passive seating areas.

DETERMINING IMPACT SIGNIFICANCE

According to the *CEQR Technical Manual*, the significance of a project's effects on open space is assessed taking into consideration qualitative and quantitative factors. **Table 5-14** expresses the percentage change from the No Action condition to the With Action condition for both the non-residential and residential study areas.

Table 5-14
Open Space Ratio Summary

Ratio	*CEQR Technical Manual* Open Space Guideline	Open Space Ratios per 1,000			Percent Change (No Action to With Action)
		Existing	No Action	With Action	
Non-Residential Study Area					
Passive	0.15	0.342	0.289	0.279	-3.58%
Residential Study Area					
Total	2.5	0.998	0.671	0.546	--18.61%
Active	2.0	0.357	0.240	0.190	--20.58%
Passive	0.5	0.642	0.431	0.355	--17.52%

NON-RESIDENTIAL STUDY AREA

According to the *CEQR Technical Manual*, projects that would reduce the open space ratio for a nonresidential population would consider the project's effect on passive open space in the study area in determining impact significance. The more the open space ratio falls below the optimal ratio of 0.15 acres of passive space per 1,000 population, the more likely the decrease would lead to a significant adverse impact. As shown in **Table 5-14**, in the With Action condition the non-residential study area's passive open space ratio would decrease by 3.58 percent between the No Action condition and the With Action condition (from 0.289 acres per 1,000 residents to 0.279 acres per 1,000 residents, respectively), and the passive open space utilization rate in the With Action condition would remain above the City's guideline ratio of 0.15 acres per 1,000 workers.

RESIDENTIAL STUDY AREA

In the With Action condition the total, active, and passive open space ratios would remain below the City's guideline ratios of 2.5 acres, 2.0 acres, and 0.5 acres per 1,000 residents, respectively. As shown in **Table 5-14**, the total open space ratio in the residential study area would decrease by approximately 18.6 percent (to 0.546 acres per 1,000 residents); the active open space ratio would decrease by approximately 20.6 percent (to 0.190 acres per 1,000 residents); and the passive open space ratio would decrease by approximately 17.5 percent (to 0.355 acres per 1,000 residents).

Typically, a reduction in the open space ratio exceeding 5 percent is considered to be significant. However, if an area that has a very low open space ratio, such as is the case in the Project Area, a reduction as small as 1 percent may be considered significant. According to Table 7-5 of the *CEQR Technical Manual*, a decrease in total open space ratio of 2 percent or more is generally considered a significant adverse impact for a project in a residential open space study area where the total open space ratio is between 0.51 to 1.0, a decrease in active open space ratio of 1 percent or more is generally considered a significant adverse impact where the active open space ratio is less than 0.41, and a decrease in in passive open space ratio of 4 percent or more is generally considered a significant adverse impact where the passive open space ratio is between 0.31 and 0.4. Therefore, the decreases in the open space ratios as a result of the Proposed Actions would be a significant adverse impact to open space in the residential study area. Potential mitigation measures to address the significant adverse impact are discussed in Chapter 22, "Mitigation." ✷