Chapter 28: Environmental Justice

A. INTRODUCTION AND BACKGROUND

Executive Order 12898 (EO 12898) requires federal agencies to consider whether actions they might fund or approve may have any disproportionately high and adverse environmental or human health effects on low-income or minority populations. Implementation of the proposed project would require the disposition of New York City Housing Authority (NYCHA) property on the Astoria Houses Campus to the Applicant/developer, which will require federal approval from the U.S. Department of Housing and Urban Development (HUD) subject to review under the National Environmental Policy Act (NEPA). Thus, this environmental justice analysis has been prepared to assess the proposed project's potential for disproportionately high and adverse effects on minority and low-income populations following the guidance and methodologies outlined in the Council on Environmental Quality's (CEQ) *Environmental Justice Guidance under the National Environmental Policy Act* (December 1997). This environmental justice analysis was also prepared to comply with HUD regulations found at 24 CFR Parts 50 and 58, which mandate compliance with EO 12898 for HUD and/or HUD applicants.

EO 12898 also requires federal agencies to work to ensure greater public participation by low-income and minority populations in the decision-making process. For the proposed project, this requirement has been satisfied by the public review process for this Environmental Impact Statement (EIS) mandated by the State Environmental Quality Review Act (SEQRA), the city's Rules of Procedure for City Environmental Quality Review (CEQR) [June 26, 1991], and NEPA.

This chapter analyzes the proposed project's potential effects on minority and low-income populations, to determine if disproportionately high and adverse effects on those populations would result. This environmental justice analysis assesses the potential effects of the proposed project over the full range of environmental and health effects on minority and low-income populations.

PRINCIPAL CONCLUSIONS

In summary, the principal conclusion of the analysis is that the proposed project is not expected to result in any disproportionately high and adverse effects on minority and low-income populations, other than a potential disproportionately high and adverse effect on low-income populations should the proposed project's potential significant adverse impact on publicly funded child care facilities be unmitigated, in the event that the proposed mitigation is not implemented. NYCHA and the Applicant have an ongoing commitment to community engagement and intend to hold meetings with the Astoria Houses residents before and during development to ensure their concerns are heard and appropriate responses provided. The proposed project would be in compliance with all applicable NEPA and HUD regulations related to environmental justice protections.

B. METHODOLOGY

The environmental justice analysis for the proposed project follows the guidance and methodologies recommended in the federal CEQ's *Environmental Justice Guidance under the National Environmental Policy Act* (December 1997), as summarized below. In addition, for the assessment of the potential for disproportionate effects due to a potential unmitigated significant adverse impact to public elementary schools, this analysis uses methodologies developed by the New York City Department of City Planning (DCP) in consultation with HUD and the New York City Department of Housing Preservation and Development (HPD).

CEQ GUIDANCE

The CEQ, which has oversight of the federal government's compliance with EO 12898 and NEPA, developed its guidance to assist federal agencies with their NEPA procedures so that environmental justice concerns are effectively identified and addressed.

The CEQ methodology involves collecting demographic information on the area where the project may cause significant adverse effects; identifying low-income and minority populations in that area using census data; and identifying whether the project's adverse effects are disproportionately high on the low-income and minority populations in comparison with those on other populations. Mitigation measures should be developed and implemented for any disproportionately high and adverse effects. Under NEPA, the potential for disproportionately high and adverse effects on minority and/or low-income populations should then be one of the factors the federal agency considers in making its finding on a project and issuing a Record of Decision.

METHODOLOGY USED FOR THIS ASSESSMENT

The assessment of environmental justice for the proposed project was based on CEQ guidance, as described above. It involved four basic steps:

1. Identify the area where the project may cause significant and adverse effects (i.e., the study area);
2. Compile race and ethnicity and poverty status data for the study area and identify minority or low-income communities;
3. Identify the proposed project's potential significant adverse effects on minority and low-income communities; and
4. Evaluate the proposed project's potential significant adverse effects on minority and low-income communities relative to its overall effects to determine whether any potential significant adverse effects on those communities would be disproportionate and, therefore, disproportionately high and adverse.

DELINEATION OF STUDY AREA

The study area for environmental justice encompasses the area most likely to be affected by the proposed project and considers the area where potential impacts resulting from construction and operation of the proposed project could occur. The study area for environmental justice includes the census block groups that are at least 50 percent within the potential impact area, which is generally the area within 1 ½ miles of the project site, excluding portions outside of Queens, consistent with the other impact analyses included in this Draft EIS (DEIS). It is recognized that the 1 ½-mile study area includes the largest area where potential impacts may occur (e.g., child

care centers and transportation impacts) and that not all of the project's potential impacts would extend to the 1 ½-mile boundary. As shown on **Figure 28-1**, the study area includes 130 census block groups.

IDENTIFICATION OF MINORITY AND LOW-INCOME POPULATIONS

Data on race, ethnicity, and poverty status were gathered from the U.S. Census Bureau's *Census 2010* for the census block groups within the study area. For comparison purposes, data for the study area as a whole, Queens, and New York City were also compiled. Based on census data and CEQ guidance (described above), potential environmental justice areas were identified as follows:

- *Minority communities:* CEQ guidance defines minorities to include American Indians or Alaskan Natives, Asian and Pacific Islanders, African Americans or Black persons, and Hispanic persons. This environmental justice analysis also considers minority populations to include persons who identified themselves as being either "some other race" or "two or more races" in the *Census 2010*. CEQ guidance requires minority communities to be identified where the minority population exceeds 50 percent, or where the minority population percentage is meaningfully greater than the minority population in the comparison areas. In Queens, the project's primary comparison area, the minority population comprises 72.4 percent of the total population. Therefore, this analysis considers any study area block group with a minority population of greater than 50.0 percent to be a minority community.
- *Low-income communities:* The percent of individuals living below the poverty level in each census block group, available in the *2007–2011 American Community Survey*, was used to identify low-income populations. Low-income communities were identified where the population living below poverty level exceeds 13.7 percent. CEQ guidance does not specify a threshold to be used for identifying clusters of low-income populations. Therefore, for this analysis, any census block group with a low-income population percentage that is greater than in Queens was considered a low-income community. In Queens, approximately 13.7 percent of the total population is living below the federal poverty threshold.

ANALYSIS OF POTENTIAL FOR DISPROPORTIONATE EFFECTS DUE TO ELEMENTARY SCHOOL IMPACT

As noted above, additional analysis was conducted to determine the potential for disproportionate effects due to a potential unmitigated significant adverse impact to public elementary schools. This methodology was developed by DCP in consultation with HUD and HPD. The purpose of this additional analysis was to determine whether elementary schools with substantial minority and/or low-income populations were more or less likely to be overcrowded than schools without substantial minority or low-income populations. Elementary schools were identified and the target capacity utilization rate for each school was compiled using the New York City School Construction Authority (SCA) *Enrollment, Capacity and Utilization Report 2011-2012* (the "blue book data").[1] Data on the ethnicity of students and the percent of students receiving free school lunch at each elementary school was compiled and combined with the list of elementary schools derived from the blue book data. The ethnicity data was compiled from

[1] SCA, *Enrollment, Capacity and Utilization Report 2011–2012*, available online at http://www.nycsca.org/Community/CapitalPlanManagementReportsData/Pages/EnrollmentCapacityUtilization.aspx. Elementary schools were identified as those with "P.S." in their organization name, not including P.S./I.S. schools.

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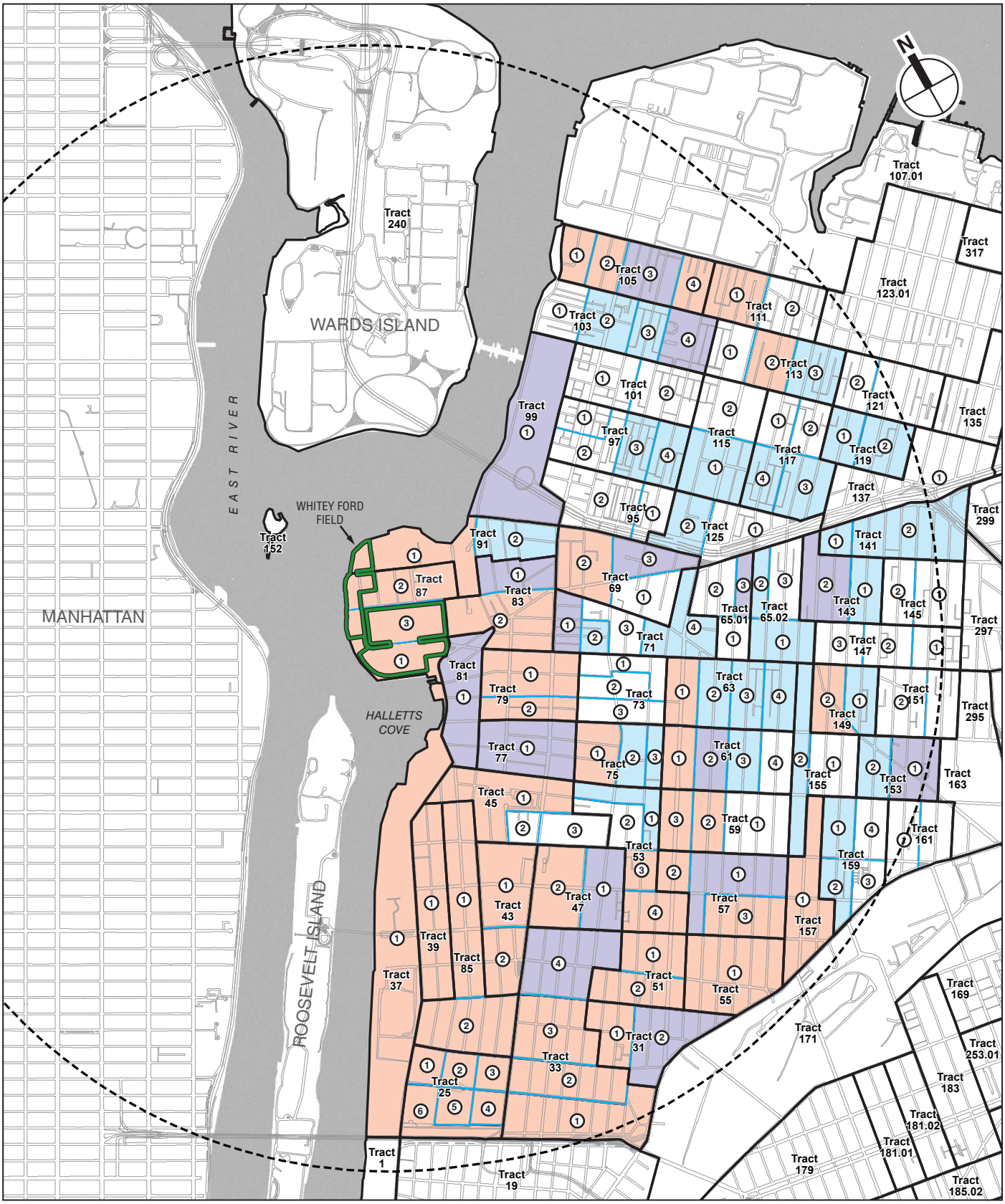

HALLETTS POINT

Environmental Justice

Figure 28-1

New York City Department of Education (DOE) J-Form data[1] and the free school lunch data were compiled from a DOE memorandum titled "Title 1 School Allocations" dated October 18, 2012.[2] The race and ethnicity data were used to determine the minority population of each school and the percent of students receiving free school lunch was used as a proxy indicator for the percent of students below poverty level at each elementary school.

Based on this data, elementary schools were then categorized into those schools with substantial minority and/or low-income populations and those without substantial minority or low-income populations. In accordance with New York State Department of Environmental Conservation (NYSDEC) guidance set forth in Commissioner Policy 29, Environmental Justice and Permitting, this analysis considered any school with a minority population of greater than 51.1 percent to have a substantial minority population, and any school with more than 23.59 percent of students below poverty level (as determined by the percent receiving free school lunch) to have a substantial low-income population.

The analysis then calculated the proportion of schools in each category (with substantial minority/low-income population and without substantial minority/low-income population) that have existing utilization levels greater than or equal to 136.00 percent, and the proportion that have existing utilization levels less than or equal to 135.99 percent. This utilization level was evaluated because it is the projected aggregate future utilization level for the three elementary schools that would serve the proposed project in the future, assuming no new capacity, redrawing the enrollment zone lines, or other administrative actions to adjust school capacity levels and accommodate projected future student populations.

The results of this analysis were used as part of an evaluation to determine whether the potential unmitigated significant adverse impact on elementary schools would disproportionately affect low-income and/or minority populations.

C. MINORITY AND LOW-INCOME POPULATIONS IN THE STUDY AREA

Table 28-1 shows race, ethnicity, and poverty characteristics for the study area's block groups, the study area as a whole, and for Queens and New York City as a whole. Of the study area's 130 census block groups, 61 have minority populations that exceed the 50 percent threshold, ranging from 50.1 percent to 98.7 percent. The largest minority group in the study area is Hispanic or Latino (approximately 27.3 percent of the total population).

In addition, 74 of the block groups in the study area have low-income population percentages that are greater than in Queens (13.7 percent), ranging from 13.8 percent to 60.7 percent.

More than half of the study area's block groups (91) are considered minority or low-income communities for the purposes of this analysis. The remaining 39 block groups in the study area are considered non-minority and non-low-income. The Halletts Point peninsula, including the project site, is considered minority and low-income. The project site includes vacant and underutilized industrial uses and does not contain any residential population on the portion of the site owned by the Applicant. The project site also includes the NYCHA Astoria Houses Campus.

[1] DOE J-Form data available online at http://schools.nyc.gov/AboutUs/data/stats/arreports.htm.

[2] DOE memorandum available online at: http://schools.nyc.gov/offices/d_chanc_oper/budget/dbor/allocationmemo/fy12_13/FY13_PDF/sam08.pdf.

The Astoria Houses Campus, a 27-acre housing development run by NYCHA, stretches for several blocks and includes approximately 1,103 residential units in 22 buildings.

In general, non-minority and non-low-income areas are located farther inland from the project site.

D. PUBLIC PARTICIPATION

EO 12898 requires federal agencies to work to ensure greater public participation in the decision-making process. In addition, CEQ guidance suggests that federal agencies should acknowledge and seek to overcome linguistic, cultural, institutional, geographic, and other barriers to meaningful participation.

The proposed project's public outreach and participation component required by EO 12898 has been satisfied by a well-established outreach program with various community stakeholders for over three years. To this end, NYCHA and the Applicant have held a number of meetings with the local community board, local residents and community organizations, and other local stakeholder groups, including minority and low-income populations in the study area, to exchange information about the project and to address any of the community's concerns. For example, the public participation process has included outreach to the NYCHA Astoria Houses residents. The NYCHA Astoria Houses is located in Census Tract 87, Block Groups 1 and 3—both of which are minority and low-income communities (see **Table 28-1**). The NYCHA Astoria Houses includes approximately 3,135 residents, which make up approximately 4 percent of the study area's minority population and approximately 11 percent of the study area's low-income population. As the NYCHA Astoria Houses Campus is located on the project site, its residents constitute an important stakeholder group. Outreach to the NYCHA Astoria Houses Campus residents has included meetings with Astoria Houses Tenants Association on March 12, 2010, April 8, 2010, and November 28, 2012.

Also of note, the project has included outreach to the East River Development Alliance (ERDA), a non-profit organization dedicated to expanding prosperity in public housing neighborhoods, and to Queens Community Board 1—the local representative body. Outreach to ERDA has included at least six meetings and phone calls from January 2010 through December 2012. Outreach to Queens Community Board 1 included a formal presentation in 2009 and follow-up meetings on August 28, 2012 and October 10, 2012.

In addition, outreach was conducted to Green Shores NYC, an all-volunteer not-for-profit organization working to ensure a greener, cleaner, more connected and more accessible East River Waterfront in Queens, New York, including the study area. The Metropolitan Waterfront Alliance (MWA) is another community organization working to transform the region's waterways, with which the Applicant has conducted outreach. Together, these organizations promote clean and accessible places to learn, work, and play, with inviting parks, dependable jobs, and reliable, eco-friendly transportation for all, including minority and low-income populations in the study area. Outreach to these organizations has consisted of a meeting with MWA on April 20, 2010; participation in a Green Shores Listening Session for the Astoria Waterfront on August 4, 2010; and project update meetings with the Green Shores NYC Board and MWA on February 6, 2013 and December 4, 2012, respectively.

The proposed project's outreach program has also included outreach to Goodwill Industries of Greater NY and N. NJ, which is a community-based organization located in the study area that offers educational, employment, and rehabilitation services to people who have disabilities, lack

education or job experience, or face employment challenges. Outreach to Goodwill Industries has consisted of multiple meetings in November and December 2007 and follow-up meetings on November 20, 2008 and March 10, 2009.

NYCHA has also conducted outreach under Section 18 of the U.S. Housing Act of 1937, as amended, which requires submission of an application to HUD for disposition of NYCHA public housing authority (PHA) property with a NYCHA Board resolution authorizing such application, following consultation with residents and the community. Under 24 CFR 970.9 (a) *Resident consultation*, "PHAs must consult with residents who will be affected by the proposed action with respect to all demolition or disposition applications. The PHA must provide with its application evidence that the application was developed in consultation with residents who will be affected by the proposed action, any resident organizations for the development, PHA-wide resident organizations that will be affected by the demolition or disposition, and the Resident Advisory Board (RAB). The PHA must also submit copies of any written comments submitted to the PHA and any evaluation that the PHA has made of the comments." Submission of the application to HUD is pending, but the consultation with residents has been an ongoing process. In particular, NYCHA staff presented the project to the Astoria Houses Resident Association on November 19, 2012. A meeting was then held with the Astoria Houses Residents Association on November 28, 2012 at 7 PM at the First Reformed Church in Astoria, Queens with representatives from NYCHA, New York City Department of City Planning (DCP), and the Applicant. A meeting notice was posted in all 22 buildings at Astoria Houses. The meeting was well attended with 80-90 people and approximately half of them had questions or comments for the project team. Many of the attendees have been following the planning process of this project, as the Applicant has been in consultation with the Astoria community and its elected officials for several years. Attendees expressed concerns with respect to the proposed increase in elevation of waterfront building sites and its potential impact on flooding within Astoria Houses; the need for improvements to Hallet's Cove Playground and the railing along the esplanade; traffic calming measures for the Astoria Boulevard connector to ensure safety of pedestrians; parking replacement; provision for a medical care facility; and local residents being given priority for business and employment opportunities.

NYCHA has an ongoing commitment for resident engagement and intends to hold meetings with the Astoria Houses residents before and during development to ensure their concerns are heard and appropriate responses provided. The Applicant has also agreed to continue dialogue with the community on their concerns and suggestions; including vocational training for permanent employment, financial counseling, and further research on the impact of development on flooding and traffic safety, as well as a medical care facility within the commercial space of a new building. For instance, NYCHA staff and the Applicant intend to provide a project update to the Astoria Houses Resident Association at its regular meeting in April or May 2013, which will include a discussion of relocation options for compactors and playgrounds. Resident input will be sought to inform the decision-making process. In addition to providing NYCHA residents with financial counseling in advance of marketing of the affordable housing units, both NYCHA and the Applicant, with the help of ERDA, would work diligently on job training and match NYCHA residents with job skills to available employment opportunities.

The proposed project's public outreach program has also been supplemented by the review process for this EIS under NEPA, SEQRA, and CEQR, and the city's Uniform Land Use Review Procedure (ULURP). Along with its issuance of a Positive Declaration, DCP, acting as lead agency on behalf of the New York City Planning Commission, issued a draft Scope of Work for the EIS on November 9, 2012. This draft scope was widely distributed to interested

members of the public. A public scoping notice describing the Halletts Point Rezoning project, including the required initial notice on the proposed redevelopment of sites within the 100-year floodplain (as required by 24 CFR Part 55 and EO 11988), was published in *The Daily News*, the local and regional paper, and in *El Diario*, a Spanish language publication, on November 20, 2012. The notices requested comments from the public, including local residents, particularly related to potential alternatives, adverse impacts, and mitigation measures. The notice also included the contact information for the lead agency (DCP), and the locations where the Draft Scope of Work and the Environmental Assessment Statement containing a full description of the proposed actions may be reviewed. The draft scope was also distributed at the project's public scoping meeting.

A public scoping meeting was held for the proposed project by DCP's Environmental Assessment Review Division on December 13, 2012, and additional comments were accepted until December 26, 2012. Approximately 60 members of the public were in attendance including residents and members of local community organizations and those representing the interests of minority and low-income populations in the study area (e.g., First Reformed Church of Astoria, Reality House, Inc., Two Coves Community Garden, and NYCHA Astoria Houses). A number of Astoria Houses residents participated in the scoping sessions, and reiterated the list of concerns communicated to the Applicant and NYCHA at previous outreach meetings. Overall, public comments received during the comment period noted concerns but were generally positive, including comments from the affected NYCHA Astoria Houses residents. Modifications to the draft Scope of Work for the project's DEIS were made as a result of public and interested agency input during the scoping process (i.e., to address local flooding concerns). A Final Public Scoping Document for the project (which reflected comments made on the draft scope, as well as updates to the project as the program was further refined), was issued.

Upon review of the DEIS and determination that the document has fully disclosed the project program, its potential environmental impacts, and recommended mitigation, DCP has issued a Notice of Completion (pursuant to CEQR) and a Notice of Availability, including the required 2nd notice of development within the 100-year floodplain (pursuant to NEPA). The DEIS has been circulated for public review, and the required notices have been published in both English and Spanish language publications, the New York State Department of Environmental Conservation's (NYSDEC) Environmental Notice Bulletin, and the Federal Register.

Publication of the DEIS and issuance of the Notice of Completion and, in this case, Notice of Availability, signal the start of the public review period. The DEIS will undergo public review concurrently with the draft ULURP application for the proposed discretionary land use actions. Under the ULURP process, the draft ULURP application as well as the DEIS will be reviewed by the local community board (Queens Community Board 1), the Office of the Queens Borough President, the City Planning Commission, and the New York City Council. The community will have opportunities for input at each level of review. The project's comment review period will extend beyond the minimum 30 days and the public has the opportunity to review and comment on the DEIS either in writing or at a public hearing convened for the purpose of receiving such comments.

After the close of the public comment period for the DEIS, DCP will prepare a Final EIS (FEIS). This document will include a summary restatement of each substantive comment made about the DEIS and a response to each comment. Where applicable, the FEIS will be revised in response to public comment on the DEIS. The lead agency's findings may not be adopted until 10 days

after the Notice of Completion (pursuant to CEQR) has been issued for the FEIS. A Record of Decision will also be issued (pursuant to NEPA).

NYCHA staff has kept the Astoria Houses Resident Association informed of the project status. Both NYCHA and the Applicant will continue to provide outreach to the study area's residents, including the Astoria Houses' residents and other minority and low-income populations, throughout the proposed project's environmental review and development process.

E. ENVIRONMENTAL EFFECTS

SUMMARY OF BENEFITS

As discussed throughout this EIS, the proposed project would produce beneficial effects for the local community, including the creation of view corridors and new public access to the waterfront, the creation and preservation of publicly accessible open space and a waterfront esplanade, new affordable housing, transportation and infrastructure improvements, and local retail amenities in an area that is currently underserved. The proposed project is intended to transform a largely underutilized waterfront area into a new, enlivened mixed-use development. The proposed new housing would support the city's goals of providing additional capacity for residential development, especially affordable housing, within close proximity to public transportation. The proposed neighborhood retail is intended to provide amenities that are currently lacking in the area and which would serve the existing residential population in addition to the project-generated population. The proposed action includes a request to include the project area in the Food Retail Expansion to Support Health (FRESH) Program, which, if pursued, will facilitate the siting of grocery stores selling a full range of food products with an emphasis on fresh fruits and vegetables, meats, and other perishable goods in this underserved area. The proposed project would also establish a publicly accessible waterfront esplanade with inland connectivity and access to Hallet's Cove Playground and Whitey Ford Field. The proposed open space is intended to provide benefits for the Astoria community, the Borough of Queens, and the city as a whole. The new connecting street segment between existing mapped portions of Astoria Boulevard on the NYCHA Parcel is intended to improve circulation in the area and provide a better connection with the surrounding community. The proposed disposition of the land for Buildings 6 and 7 to the Applicant and the anticipated future disposition of the land for Building 8 will provide revenue to support NYCHA's mission of maintaining and providing affordable housing and to finance improvements within the Astoria Houses Campus. The development of Building 8, including the proposed ground-floor retail, is intended to enliven the new Astoria Boulevard. The proposed bus layover would facilitate the provision of better bus service to the area. Overall, the proposed project is supported by the local community and would result in a positive transformation. At the same time, the proposed project would result in some significant adverse impacts, which are summarized below (mitigation measures are discussed in more detail in Chapter 22, "Mitigation").

SUMMARY OF PROJECT COMPONENTS RELATED TO THE ENVIRONMENT

As presented in the relevant chapters of this DEIS, the proposed project would include certain "Project Components Related to the Environment" (PCREs) to avoid potential significant adverse impacts in the areas of hazardous materials, air quality, and noise.

As discussed in Chapter 11, "Hazardous Materials," to reduce the potential for human or environmental exposure to known or unexpectedly encountered contamination during and following construction of the proposed project, supplemental testing and a Remedial Action Plan (RAP) and associated Construction Health and Safety Plan (CHASP) would be prepared for

implementation at all development sites during proposed construction. Demolition of existing structures would be conducted in accordance with applicable regulatory requirements relating to asbestos, lead-based paint (LBP), and polychlorinated biphenyl (PCB)-containing components. Any dewatering required for the proposed construction would be conducted in accordance with DEP sewer use requirements (and NYSDEC requirements in the case of discharge to the East River). If petroleum storage tanks are encountered during project site redevelopment, these tanks would be properly closed and removed, along with any contaminated soil, in accordance with the applicable regulations, including NYSDEC spill reporting and registration requirements. With these measures, the proposed project would not result in any significant adverse impacts related to hazardous materials.

As discussed in Chapter 16, "Air Quality," restrictions related to fuel type, exhaust stack location and/or minimum stack heights would be required to ensure the avoidance of significant adverse air quality impacts due to the operation of the proposed project's heat and hot water systems. In addition, the proposed project may modify the existing NYCHA Astoria Houses central boiler plant to avoid the potential for significant adverse air quality impacts on the proposed project. As part of the project, emissions from the NYCHA central boiler plant would be rerouted to a new boiler stack located at proposed Building 7A. The Applicant is also considering, in consultation with NYCHA, other options that would address emissions from the NYCHA Astoria Houses central boiler plant in a manner no less protective of the environment.

As discussed in Chapter 18, "Noise," the building attenuation analysis concluded that in order to meet *CEQR Technical Manual* interior noise level requirements, up to 28 dBA of building attenuation would be required for the building sites. Up to 22 dBA of building attenuation would be required to meet HUD criteria, where appropriate. This level of attenuation could be achieved with the use of standard windows, and therefore there would be no significant adverse noise impact with respect to building attenuation.

SUMMARY OF POTENTIAL SIGNIFICANT ADVERSE IMPACTS

Consistent with the analyses presented in this DEIS, the proposed project would result in potential significant adverse impacts in the areas of public schools, publicly funded child care, open space, traffic, transit and pedestrians, and construction, which are described in more detail as follows:

- ***Public Schools***. As discussed in more detail in Chapter 5, "Community Facilities," the proposed project, if fully realized, would result in a potential significant adverse impact on elementary schools in the study area. Elementary schools would have a utilization rate greater than 105 percent, and the proposed development would result in an increase of more than 5 percentage points in the collective utilization rate over the No Build condition. As discussed in Chapter 22, "Mitigation," a school could be located on a portion of the NYCHA Astoria Houses Campus to address this impact. Preliminary discussions have been held among the Applicant, NYCHA, DCP, and the School Construction Authority (SCA), and are expected to continue between the DEIS and FEIS, with regard to the provision of a new school serving kindergarten through grade 8 within the NYCHA Astoria Houses Campus. The provision of a new school is anticipated to be memorialized in a restrictive declaration among the Applicant, NYCHA, and the SCA. In addition, a Memorandum of Understanding (MOU) will be entered into between Applicant, NYCHA, and the SCA that sets forth the cost, timing and duration of the disposition of the school site from NYCHA to SCA, among other activities. Based on preliminary discussions, it is expected that this school building would be approximately 130,000 square feet (sf) and would accommodate 1,057 elementary

and intermediate school students, which would meet all of the proposed project's projected demand for school seats (including 317 seats to cover the future demand for intermediate school seats, even though the proposed project would not result in a significant adverse impact to public intermediate schools). It should be noted that the SCA could develop a smaller school potentially containing only elementary school seats that would also fully mitigate the significant adverse impact on public elementary schools. In addition, if the demand for elementary school seats projected in the DEIS materializes and SCA declines to develop the proposed public school, it is expected that other options would be explored by the New York City Department of Education (DOE)/SCA to address school seat demand in the future, such as redrawing the enrollment zone lines, the provision of off-site capacity, or other administrative measures. Such measures could wholly or partially mitigate the significant adverse impact on public elementary schools. Absent the construction of a new school building or the implementation of other measures by SCA, the proposed project would result in an unavoidable adverse impact on public elementary schools.

- ***Publicly Funded Child Care***. As discussed in more detail in Chapter 5, "Community Facilities," the proposed project would increase the collective utilization rate of group child care facilities in the study area by more than 5 percent and the facilities would be operating over 100 percent, indicating a potential for a significant adverse impact. Therefore, the proposed project would result in a potential significant adverse impact to publicly funded child care facilities. Because the proposed project would be developed sequentially, the potential to result in an increase in a deficiency of available publicly funded child care slots by 5 percent or more could occur when the proposed project completes construction of 161 affordable residential units that introduce children eligible for publicly funded child care. It is expected that senior housing units would be developed as part of the affordable housing component of the proposed project, and that Buildings 6A/6B and 7A/7B may be entirely senior housing units. If affordable senior housing units are developed, more affordable housing units could be constructed before a significant adverse impact to publicly funded child care facilities would occur, or such an impact may not occur. For instance, if all 340 proposed affordable units in Buildings 6A/6B and 7A/7B were senior housing units, the proposed project would introduce 48 fewer children that would be eligible for publicly funded child care, and the proposed project would not result in a significant adverse impact to publicly funded child care facilities. It should be noted that the analysis conservatively accounts for the potential child care-eligible children (approximately 48 children in 2022) that would be generated by the proposed Astoria Cove project, a proposal that requires discretionary actions and is subject to its own environmental review and approval, without accounting for any potential measures that may be needed to mitigate impacts to publicly funded child care centers that may be identified as part of that project's environmental review. If these mitigation measures were proposed and accounted for in the child care analysis in this EIS, the potential shortfall of slots would be smaller. As more information becomes available about the proposed Astoria Cove project's potential impacts and mitigation measures, it will be incorporated into this environmental review as appropriate.

  Possible mitigation measures for this significant adverse impact include adding capacity to existing facilities if determined feasible through consultation with the New York City Administration for Children's Services (ACS), or providing a new child care facility within or near the project site. ACS is also working to create public/private partnerships to facilitate the development of new child care facilities where there is an area of need. At this point, however, it is not possible to know exactly which type of mitigation would be most appropriate or when its implementation would be necessary, because the demand for

publicly funded child care depends not only on the amount of residential development in the area but on the proportion of new residents who are children of low-income families (not all children meet the social and income eligibility criteria). Furthermore, several factors may limit the number of children in need of publicly funded child care slots in ACS-contracted day care facilities, including the potential for future residents to make use of family-based child care facilities and private child care facilities.

The Restrictive Declaration for the proposed project will require the Applicant to work with ACS to consider the need for and the implementation of measures to provide additional capacity, if required, to mitigate the significant adverse impact to publicly funded child care facilities within the 1½-mile study area or within Community Board 1. Absent the implementation of such mitigation measures, the proposed project could result in an unavoidable adverse impact on publicly funded child care facilities.

- ***Open Space***. Following *CEQR Technical Manual* methodology, the more than a 5 percent decrease in the total and active open space ratios indicates a potential for a significant adverse impact on total and active open space; the proposed project would not result in a significant adverse impact on passive open space (see Chapter 6, "Open Space"). Preliminary discussions have been held between the Applicant and the New York City Department of Parks and Recreation (DPR) regarding potential improvements to open spaces nearby the project site including, potentially, Hallet's Cove Playground or Hallet's Cove Esplanade, to mitigate the proposed project's potential significant adverse impacts on the total and active open space ratios. These mitigation measures and others will be explored by the Applicant in consultation with the lead agency, DCP, and DPR between the DEIS and FEIS. If feasible mitigation is found, the impacts will be considered partially mitigated. Absent the implementation of such measures, the proposed project could have an unmitigated significant adverse impact on open space. The proposed project also includes substantial open space benefits in the form of approximately 2.35 acres of new publicly accessible open space, including a waterfront esplanade, a plaza and lawn area at 27th Avenue, and five new upland connections to 1st Street. In addition, while not considered publicly accessible open space, the NYCHA Astoria Houses Campus on the project site includes approximately 2.5 acres of open space, including several well-maintained playgrounds and two basketball courts, along with areas with benches for seating, that is available to its residents, which make up a substantial portion of the open space study area's population (approximately 3,135 residents or 19 percent).
- ***Traffic.*** As discussed in Chapter 15, "Transportation," and Chapter 22, "Mitigation," the proposed project would result in potential significant adverse traffic impacts at several locations spread throughout the 1½-mile traffic study area.[1] Many of these significantly impacted locations could be mitigated using standard traffic improvements, such as

[1] As discussed in Chapter 15, "Transportation," the transportation analyses were prepared based on a slightly smaller version of the development program than the proposed project (71 fewer dwelling units and 25 fewer parking spaces), because the programming changes occurred shortly prior to certification of the DEIS, after substantial transportation-related analysis work had been completed and reviewed. Correspondingly, the transportation mitigation analyses presented in Chapter 22, "Mitigation," are based on the impact findings from the analysis of the smaller development program. Between the DEIS and FEIS, the transportation and transportation-related analyses will be updated to reflect the proposed project's programming changes, as well as background changes associated with other projects and the addition of new study area traffic intersections.

installation of new traffic signals, signal timing and phasing changes, parking regulation changes to gain a travel lane at key intersections, and lane restriping. However, as described below, in some cases, impacts from the proposed project would not be fully mitigated. Of the intersections that could not be fully mitigated, most impacted traffic movements currently operate and would continue to operate at congested levels in the future without the proposed project.

- ***Transit.*** As discussed in Chapter 15, "Transportation," the proposed project would result in potential for significant adverse bus line haul impacts on the Q18, Q102, and Q103 bus routes during both the AM and PM peak periods. The potential significant adverse impacts are based on the existing frequency of bus service in an area with relatively little existing population and demand, such that the projected passenger volumes in the future with the proposed project condition would exceed the New York City Transit (NYCT) guideline capacity during certain peak periods. Potential measures to mitigate these impacts are described in Chapter 22, "Mitigation." NYCT and Metropolitan Transportation Authority (MTA) Bus routinely monitors changes in bus ridership and would make the necessary service adjustments where warranted. It is noted that these service adjustments are subject to the agencies' fiscal and operational constraints and, if implemented, are expected to take place over time.
- ***Construction.*** As discussed in Chapter 20, "Construction," construction activities would result in impacts in the areas of:
  - Noise—In an effort to minimize construction noise to the extent practicable, construction on the proposed building sites would include noise control measures as required by the New York City Noise Control Code, including both some path and source controls, some of which go beyond typical construction techniques. Elevated noise levels are projected throughout the surrounding area during the construction period. It should be noted that any construction in the area, including as-of-right construction activities, would result in similar elevated noise levels. In general, these noise levels do not result in impacts most of the time if residential buildings have double-glazed windows and alternate means of ventilation (e.g., air conditioners). Most residential buildings in the area already have these measures. At the residential locations with the potential to experience construction noise impacts, receptor mitigation measures will be explored between the DEIS and FEIS and additional refined analysis will be conducted. Some potential receptor controls that could be used to mitigate the impacts at residential locations where interior L_{10} values would be expected to exceed the value considered acceptable by CEQR criteria could include the provision of air-conditioning so that the impacted structures can maintain a closed-window condition, the installation of operable storm windows, and/or improvements in the sealing of existing windows. As noted above, many receptor locations already have double-glazed windows and an alternate means of ventilation, and additional receptor controls would be unlikely to fully mitigate the construction noise impacts. Such mitigation measures may affect the ability to achieve project goals with regard to the development of affordable housing; however, further exploration of the measures will be conducted between DEIS and FEIS to determine the practicability and feasibility of implementing these measures to minimize or avoid the potential significant adverse impacts, taking into account the practicability relative to project goals. Should it be determined that there are no practicable mitigation measures, taking into account project goals, and should the proposed project be developed and constructed as conservatively presented in

this conceptual construction schedule, up to 51 existing locations could experience an unmitigated significant adverse impact at various times. Additionally, because of very high levels of construction noise from construction on buildings attached to them, Buildings 6A/6B and 7A/7B would have the potential to experience significant adverse noise impacts during construction if either segment of either building is occupied during the construction of the other segment of the building.

- Traffic—During peak construction in 2021, the project-generated trips would be less than what would be realized upon the full build-out of the proposed project in 2022. Therefore, the overall extent of potential traffic impacts during peak construction would be within the envelope of significant adverse traffic impacts identified for the Build condition in Chapter 15, "Transportation." However, because Astoria Boulevard may not be open to traffic until the proposed project is near completion and traffic patterns near the project site would be different from those analyzed for potential operational traffic impacts, a detailed analysis during construction was prepared for several key study area intersections (seven in total) near the project site to identify potential construction-related significant adverse traffic impacts. This analysis indicated that significant adverse traffic impacts would occur at five locations during construction, but generally at lesser magnitudes than impacts identified under the Build condition. Where impacts during construction may occur, measures similar to the ones recommended to mitigate impacts of the proposed project could be implemented early to aid in alleviating congested traffic conditions. Maintenance and Protection of Traffic (MPT) plans would be developed, reviewed, and approved by the New York City Department of Transportation's (NYCDOT) Office of Construction Mitigation and Coordination (OCMC) for curb lane and sidewalk closures as well as equipment staging activities. It is expected that traffic and pedestrian flow along all surrounding streets would be maintained throughout the entire construction period, with the exception of sidewalks adjacent to two of the project's northern buildings near the intersection of 26th Avenue and 1st Street.
- Transit—This is the same transit impact identified for operation of the proposed project (see "Transit," above).

OTHER EFFECTS

As discussed in more detail in Chapter 4, "Socioeconomic Conditions," the proposed project would not result in significant adverse impacts due to indirect residential displacement and would not be expected to result in significant indirect residential displacement of the study area's potentially vulnerable population. The detailed analysis finds that while there is a population of low income renters in the study area that may be vulnerable to rent increases, the project site is relatively isolated from surrounding neighborhoods, and there is an existing trend towards new residential development and the introduction of a more affluent population in many of these areas. Furthermore, surrounding areas contain primarily older, smaller residential buildings with few amenities that do not cater to the incoming, more affluent residential population who are primarily seeking newly constructed condominiums, many with waterfront views. In addition, the proposed project would add affordable housing to the study area, which would help ensure housing opportunities for lower-income residents and would maintain a more diverse demographic composition within the study area, and the proposed disposition of the land to the Applicant for Buildings 6 and 7 and the anticipated future disposition of the land for Building 8 would provide revenue to support NYCHA's affordable housing mission.

F. ANALYSIS OF POTENTIAL FOR DISPROPORTIONATELY HIGH AND ADVERSE EFFECTS

In accordance with CEQ guidance, the determination of the proposed project's potential to result in disproportionately high and adverse effects involved consideration of whether the adverse effect is considered significant (as employed by NEPA); whether the effects on minority or low-income populations would appreciably exceed or would be likely to appreciably exceed the risk or rate to the general population; and whether the minority or low-income population would be affected by cumulative or multiple adverse exposures from environmental hazards. In making this determination, following CEQ guidance, it was recognized that impacts to minority or low-income populations may be different from impacts on the general population due to a community's distinct cultural practices, for example. The determination of disproportionately high and adverse effects also involved consideration of proposed mitigation measures and offsetting benefits.

Consistent with the analyses presented in this DEIS, the proposed project would result in potential significant adverse impacts in the areas of public schools, publicly funded child care, open space, traffic, transit and pedestrians, and construction. These impacts are analyzed below for their potential to result in disproportionately high and adverse effects on minority and low-income populations.

PUBLIC SCHOOLS

The proposed project's potential schools impact would be fully mitigated with the provision of a new school, which is anticipated to be memorialized in a restrictive declaration among the Applicant, NYCHA, and the SCA. In addition, a MOU will be entered into between Applicant, NYCHA, and the SCA that sets forth the cost, timing and duration of the disposition of the school site from NYCHA to SCA, among other activities. The proposed school would accommodate 1,057 elementary and intermediate school students, which would meet all of the proposed project's projected demand for school seats (including 317 seats to cover the future demand for intermediate school seats, even though the proposed project would not result in a significant adverse impact to public intermediate schools). It should be noted that the SCA could develop a smaller school potentially containing only elementary school seats that would also fully mitigate the significant adverse impact on public elementary schools. In addition, if the demand for elementary school seats projected in the DEIS materializes and SCA declines to develop the proposed public school, it is expected that other options would be explored by DOE/SCA to address school seat demand in the future, such as redrawing the enrollment zone lines, the provision of off-site capacity, or other administrative measures. Such measures could wholly or partially mitigate the significant adverse impact on public elementary schools. Therefore, should SCA elect to build the school or implement other measures to address elementary school capacity, there would not be any disproportionately high and adverse effects on minority or low-income populations. Absent the construction of a new school building or the implementation of other measures by SCA, the proposed project would result in an unmitigated potential significant adverse impact on public elementary schools. In this case, the predicted shortfall of elementary school seats in the sub-district where the proposed project is located (Community School District [CSD] 30's Sub-district 3) would affect minority and low-income populations as well as non-minority and non-low-income populations in the study area. Specifically, sub-district 3 of CSD 30 serves a population that is 61.7 percent minority and 19.3 percent low-income. As shown in **Table 28-1**, these percentages are comparable to those of New York City as a whole (66.7 and 19.4 percent, respectively).

In addition, an assessment using DOE data was undertaken to determine whether elementary schools that have substantial minority and/or low-income populations citywide were more or less likely to be overcrowded than schools that do not have substantial minority or low-income populations citywide, as described above in Section B, "Methodology." This analysis concluded that the proportion of schools with substantial minority and/or low-income population that experience existing utilization rates greater than or equal to 136.00 percent (the rate that could be experienced by the three schools that would serve the project site in the future with the proposed project, absent any capacity improvements, redrawing the enrollment zone lines, or other administrative actions to address capacity issues) is similar to the proportion of schools without a substantial minority and/or low-income population that have utilization rates at that level. In other words, the analysis demonstrates that, proportionally, schools with substantial minority/low-income population are no more likely to be very overcrowded than schools without substantial minority/low-income population. It is noted that, based on the data utilized in this assessment, the vast majority of schools in the city have substantial minority and/or low-income populations.

Therefore, the potential unavoidable adverse impact on public elementary schools would not result in disproportionately high and adverse effects on minority and low-income populations.

PUBLICLY FUNDED CHILD CARE

As discussed in Chapter 5, "Community Facilities," the proposed project would result in a potential significant adverse impact to publicly funded child care facilities based on *CEQR Technical Manual* methodology.

As discussed above, possible mitigation measures for this significant adverse impact include adding capacity to existing facilities if determined feasible through consultation with ACS, or providing a new child care facility within or near the project site. As a city agency, ACS does not directly provide new child care facilities, instead it contracts with providers in areas of need. ACS is also working to create public/private partnerships to facilitate the development of new child care facilities where there is an area of need. As part of that initiative, ACS may be able to contribute capital funding, if it is available, towards such projects to facilitate the provision of new facilities. Based on current inventory, future background projections, and conservatively not accounting for the project's contemplated senior affordable housing component, the proposed project would need to provide 37 child care slots to reduce the increase in the utilization rate to less than 5 percent.

If the proposed project is approved, the Restrictive Declaration for the proposed project will require the Applicant to work with ACS to consider the need for and the implementation of measures to provide additional capacity, if required, in child care facilities within the 1½-mile study area or within Queens Community Board 1 based on a final project program. Therefore, the proposed project would not result in any disproportionately high and adverse effects on minority or low-income populations. Absent the implementation of such mitigation measures, the proposed project would result in an unmitigated potential significant adverse impact on publicly funded child care facilities.

Several factors may limit the number of children in need of publicly funded child care slots in New York City ACS-contracted day care facilities. Families in the study area could make use of alternatives to publicly funded day care facilities. There are slots at homes licensed to provide family child care that families of eligible children could elect to use instead of public center-based child care. Parents of eligible children may also use ACS vouchers to finance care at private child

care centers in the study area. The voucher system could spur the development of new private child care facilities to meet the need of eligible children that would result from the increase in low-income and low- to moderate-income housing units in the area in the future with the proposed project. Lastly, parents of eligible children are not restricted to enrolling their children in day care facilities in a specific geographical area. They could use the ACS voucher system to make use of public and private day care providers beyond the 1½-mile study area, such as facilities closer to their place of employment. Thus, if the proposed project's potential significant adverse impact on publicly funded child care facilities is unmitigated, low-income populations in the study area would have access to family-based child care facilities that are not reflected in the analysis as well as ACS vouchers and the potential to use child care facilities near their place of employment.

Nonetheless, an unmitigated significant adverse impact on publicly funded child care facilities could result in a potential disproportionately high and adverse effect on low-income populations. To avoid the potential disproportionately high and adverse effect on low-income populations, the proposed project's affordable housing component would have to be substantially reduced, primarily limited to senior housing units, or eliminated.

OPEN SPACE

As discussed above, consultation among the Applicant, DCP, and DPR is expected to continue between the DEIS and FEIS to explore measures to mitigate the proposed project's potential total and active open space impacts. If feasible mitigation is found, the impacts will be considered partially mitigated, and it is anticipated that these measures would be memorialized in a restrictive declaration. Absent the implementation of such measures, the proposed project could have an unmitigated significant adverse impact on open space. However, the proposed project would also result in substantial open space benefits, in the form of approximately 2.35 acres of new publicly accessible open space, including a waterfront esplanade and upland connections. The waterfront esplanade would run the length of the site's waterfront, connecting on the south to Hallet's Cove Playground and on the north to Whitey Ford Field and to the existing open space in the NYCHA Astoria Houses Campus across 1st Street. The proposed open space would include landscaping and seating along the waterfront and a playground. The upland connections are intended to provide view corridors and physical public access from 1st Street to the East River that do not currently exist. As each site along the waterfront is built out, the associated public open space required under the Zoning Resolution would be completed at the same time as the buildings. These upland areas would include plantings, paths, seating, and lighting. The proposed waterfront esplanade would be designed to provide a cohesive transition between the project site and Whitey Ford Field to the north and the Hallet's Cove Playground to the south. In addition, as mentioned above, while not considered publicly accessible open space, the NYCHA Astoria Houses Campus on the project site includes approximately 2.5 acres of open space, including several well-maintained playgrounds and two basketball courts, along with areas with benches for seating, that is available to its residents, which make up a substantial portion of the open space study area's population (approximately 3,135 residents or 19 percent). Moreover, the open space resources serving the project site are available to all of the study area's residents. Furthermore, the project site and surrounding area is not unique in being underserved by open space, as many areas of the city are underserved by open space based on the city's open space planning goals. In fact, according to the *CEQR Technical Manual* there are underserved neighborhoods in every borough. These underserved neighborhoods contain minority and low-income populations as well as non-minority and non-low-income populations. For all of these reasons, the proposed project would not be expected to result in disproportionately high and adverse open space effects on minority or low-income populations.

TRAFFIC

In terms of traffic, specifically, 10 of the 25 study locations would have significant adverse traffic impacts that could not be fully mitigated in at least one peak hour, including:

- 27th Avenue and 8th Street (partially mitigated during all three peak hours);
- Vernon Boulevard/Main Avenue and 8th Street/Welling Court (partially mitigated during the weekday AM peak hour and unmitigated during the weekday PM peak hour);
- Astoria Boulevard and 21st Street (partially mitigated during the weekday AM peak hour);
- Astoria Boulevard and 23rd Street (unmitigated during the weekday AM peak hour);
- Astoria Boulevard and Crescent Street (unmitigated during all three peak hours);
- Hoyt Avenue South/Astoria Boulevard and 33rd Street (unmitigated during the weekday AM peak hour);
- Hoyt Avenue North and 21st Street (unmitigated during the weekday AM peak hour and partially mitigated during the weekday PM peak hour);
- Hoyt Avenue North and 32nd Street (unmitigated during all three peak hours);
- Broadway and Vernon Boulevard/11th Street (partially mitigated during the weekday AM peak hour); and
- Broadway and 21st Street (unmitigated during the weekday AM and PM peak hours).

At the partially mitigated locations, significant impacts could be mitigated for at least one traffic movement that is significantly impacted, but not for all traffic movements that are significantly impacted. Because these impacts would be partially, not fully, mitigated, they are considered unavoidable adverse impacts. Most of intersections under the Build condition would either not be significantly impacted or could be fully mitigated with readily implementable traffic improvement measures. Of the intersections that could not be fully mitigated, most impacted traffic movements would operate at congested levels in the future without the proposed project. The intersections that would have traffic impacts that could not be fully mitigated are located in minority and low-income communities, as well as non-minority and non-low-income communities in the study area. Similarly congested levels of service exist along roadway corridors throughout the city in both minority/low-income communities and non-minority/non-low-income communities. Moreover, the proposed project's significant adverse traffic impacts would not result in any significant adverse mobile source air quality or noise impacts at the impacted intersections. The proposed project also includes bus service improvements, described below, which would be expected to benefit those study area residents who rely on public transportation. Therefore, the proposed project would not be expected to result in any disproportionately high and adverse traffic effects on minority or low-income populations.

TRANSIT AND PEDESTRIANS

As discussed in Chapter 15, "Transportation," and Chapter 22, "Mitigation," the proposed project would result in significant adverse bus line haul impacts on the Q18, Q102, and Q103 bus routes as the projected passenger volumes in the future with the proposed project condition would exceed the NYCT guideline capacity during the following peak periods:

- Eastbound and westbound Q18 bus routes during the AM and PM peak periods;
- Eastbound and westbound Q102 bus routes during the AM and PM peak periods;

- Northbound Q103 during the PM peak period; and
- Southbound Q103 during the AM and PM peak periods.

A number of buses would be required to fully mitigate the identified significant adverse line haul impacts along the Q18, Q102, and Q103 bus routes. As noted above, while NYCT and MTA Bus routinely monitors changes in bus ridership and would make the necessary service adjustments where warranted, these service adjustments are subject to the agencies' fiscal and operational constraints and, if implemented, are expected to take place over time. The proposed project would also include an important transit amenity—a bus layover facility along 2nd Street adjacent to Building 1 for the Q18, Q102, and Q103 bus routes, and potentially other routes in the future. Preliminary discussions have taken place between the Applicant and the MTA-NYCT on potentially increasing bus service and/or extending routes as the project sites become occupied. Therefore, the proposed project would not be expected to result in any disproportionately high and adverse transit effects on minority or low-income populations.

Intersection operations would alter pedestrian conditions with the implementation of the recommended traffic mitigation measures. These measures would include installation of traffic signals and changes to existing signal timings and lane utilizations. A review of the effects of these changes on pedestrian circulation and service levels at intersection corners and crosswalks showed that the addition of a traffic signal at 27th Avenue and 2nd Street would result in a significant adverse pedestrian impact at the north crosswalk during the PM peak period (LOS D, 18.6 SFP). Restriping the width of this crosswalk from its existing width of 13 feet to 16.5 feet would be required to fully mitigate the projected significant adverse crosswalk impact. Implementation of this additional pedestrian mitigation measure would be subject to review and approval by NYCDOT. With this mitigation measure, the proposed project would not be expected to result in any disproportionately high and adverse pedestrian effects on minority or low-income populations.

CONSTRUCTION

As discussed above and in Chapters 20, "Construction," and 22, "Mitigation," construction activities would result in impacts in the areas of noise, traffic, and transit. These impacts would be temporary and would end once construction is complete. As noted above, any construction in the area, including as-of-right construction activities, would result in similar elevated noise levels. In an effort to minimize construction noise to the extent practicable, the proposed project would include noise control measures as required by the New York City Noise Control Code, including both path and source controls, some of which go beyond typical construction techniques.

At the residential locations with the potential to experience construction noise impacts, receptor mitigation measures will be explored between the DEIS and FEIS and additional refined analysis will be conducted. Some potential receptor controls that could be used to mitigate the impacts at residential locations could include the provision of air-conditioning so that the impacted structures can maintain a closed-window condition, the installation of operable storm windows, and/or improvements in the sealing of existing windows. As noted above, many receptor locations already have double-glazed windows and an alternate means of ventilation, and additional receptor controls would be unlikely to fully mitigate the construction noise impacts. Further exploration of the measures will be conducted between DEIS and FEIS to determine the practicability and feasibility of implementing these measures to minimize or avoid the potential significant adverse impacts. Should it be determined that there are no practicable mitigation measures, taking into account project goals, and should the proposed project be developed and constructed as

conservatively presented in this conceptual construction schedule, up to 51 existing locations could experience an unmitigated significant adverse impact at various times. While these impacts would occur in predominantly minority and low-income neighborhoods both on and immediately adjacent to the project site, any type of construction would be disruptive to a project site and the area immediately surrounding it, and the proposed project is typical of any large-scale, mixed-use construction project routinely occurring in the city. There is no alternative to siting the project on the Halletts Point peninsula since the purpose of the proposed project is to transform this largely underused waterfront area into a new, enlivened mixed-use development with affordable units, ground-floor retail space, and a publicly accessible waterfront esplanade and open space. Any construction noise-related impacts would be temporary. Moreover, one of the purposes of the proposed project is the introduction of an economically-diversified population on the NYCHA Astoria Houses Campus. This purpose requires the disposition of property on the Astoria Houses Campus and its development with new residential buildings. For all of these reasons, the proposed project would not be expected to result in disproportionately high and adverse construction noise-related effects on minority and low-income populations.

Where traffic impacts during construction may occur, measures similar to the ones recommended to mitigate impacts of the proposed actions could be implemented early to aid in alleviating congested traffic conditions. The construction transit impact, which is the same as the operational transit impact described above, would be monitored by NYCT and MTA Bus and the necessary service adjustments would be made where warranted, subject to the agencies' fiscal and operational constraints and over time.

G. CONCLUSION

Given all the facts and circumstances, the proposed project is not expected to result in any disproportionately high and adverse effects on minority and low-income populations, other than a potential disproportionately high and adverse effect on low-income populations related to publicly funded child care facilities. This potential disproportionately high and adverse effect would only occur if the proposed project's potential significant adverse impact on publicly funded child care facilities be unmitigated, in the event that the proposed mitigation is not implemented. The proposed project would have a positive effect by transforming a largely underused waterfront area into a new, enlivened mixed-use development. As discussed throughout this EIS, the proposed project would produce beneficial effects for the local community, including view corridors and public access to the waterfront and the creation of new affordable housing and local retail amenities in an area that is currently underserved. In addition, NYCHA and the Applicant have an ongoing commitment to community engagement and intend to hold meetings with the Astoria Houses residents before and during development to ensure their concerns are heard and appropriate responses provided. The proposed project would be in compliance with all applicable NEPA and HUD regulations related to environmental justice protections.

Table 28-1
Study Area Race and Ethnicity and Poverty

Census Tract	Block Group	2010 Total Population	Race and Ethnicity*										Total Minority (%)	Poverty Status (%)
			White	%	Black	%	Asian	%	Other	%	Hispanic	%		
25	1	1,246	32	2.6	657	52.7	59	4.7	31	2.5	467	37.5	97.4	37.1
25	2	1,170	21	1.8	533	45.6	72	6.2	33	2.8	511	43.7	98.2	16.2
25	3	1,245	31	2.5	566	45.5	95	7.6	15	1.2	538	43.2	97.5	38.8
25	4	1,262	43	3.4	637	50.5	73	5.8	28	2.2	481	38.1	96.6	25.4
25	5	1,196	15	1.3	620	51.8	56	4.7	38	3.2	467	39.0	98.7	60.7
25	6	1,452	38	2.6	772	53.2	78	5.4	34	2.3	530	36.5	97.4	49.3
31	1	856	248	29.0	21	2.5	132	15.4	29	3.4	426	49.8	71.0	30.5
31	2	532	125	23.5	12	2.3	107	20.1	22	4.1	266	50.0	76.5	9.4
33	1	666	247	37.1	34	5.1	256	38.4	15	2.3	114	17.1	62.9	37.3
33	2	429	57	13.3	14	3.3	70	16.3	24	5.6	264	61.5	86.7	40.0
33	3	827	114	13.8	9	1.1	318	38.5	19	2.3	367	44.4	86.2	33.9
33	4	552	147	26.6	1	0.2	289	52.4	28	5.1	87	15.8	73.4	9.4
37	1	0	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	N/A	N/A
39	1	1,592	349	21.9	208	13.1	138	8.7	67	4.2	830	52.1	78.1	50.0
43	1	2,306	160	6.9	962	41.7	84	3.6	75	3.3	1025	44.4	93.1	53.4
43	2	131	41	31.3	8	6.1	2	1.5	11	8.4	69	52.7	68.7	25.5
45	1	1,062	342	32.2	70	6.6	347	32.7	38	3.6	265	25.0	67.8	25.5
45	2	695	482	69.4	36	5.2	53	7.6	27	3.9	97	14.0	30.6	1.3
45	3	1,218	801	65.8	41	3.4	143	11.7	29	2.4	204	16.7	34.2	7.7
47	1	1,439	677	47.0	42	2.9	343	23.8	46	3.2	331	23.0	53.0	3.0
47	2	2,545	221	8.7	1075	42.2	105	4.1	62	2.4	1082	42.5	91.3	47.7
51	1	1,515	408	26.9	9	0.6	710	46.9	90	5.9	298	19.7	73.1	26.7
51	2	716	235	32.8	10	1.4	176	24.6	51	7.1	244	34.1	67.2	35.9
53	1	1,303	729	55.9	26	2.0	263	20.2	65	5.0	220	16.9	44.1	15.0
53	2	1,381	728	52.7	26	1.9	290	21.0	44	3.2	293	21.2	47.3	4.4
53	3	1,040	473	45.5	14	1.3	332	31.9	45	4.3	176	16.9	54.5	18.1
53	4	1,616	698	43.2	30	1.9	387	23.9	97	6.0	404	25.0	56.8	14.5
55	1	1,067	290	27.2	8	0.7	210	19.7	47	4.4	512	48.0	72.8	20.5
57	1	1,933	879	45.5	31	1.6	415	21.5	98	5.1	510	26.4	54.5	7.7
57	2	792	283	35.7	5	0.6	163	20.6	54	6.8	287	36.2	64.3	14.5
57	3	1,596	524	32.8	38	2.4	321	20.1	59	3.7	654	41.0	67.2	17.5

Table 28-1 (cont'd)
Study Area Race and Ethnicity and Poverty

Census Tract	Block Group	2010 Total Population	Race and Ethnicity*										Total Minority (%)	Poverty Status (%)
			White	%	Black	%	Asian	%	Other	%	Hispanic	%		
59	1	1,724	1149	66.6	35	2.0	220	12.8	37	2.1	283	16.4	33.4	10.6
59	2	1,519	728	47.9	22	1.4	195	12.8	65	4.3	509	33.5	52.1	30.4
59	3	926	446	48.2	11	1.2	191	20.6	35	3.8	243	26.2	51.8	14.3
61	1	903	416	46.1	13	1.4	272	30.1	46	5.1	156	17.3	53.9	14.8
61	2	2,024	984	48.6	30	1.5	382	18.9	63	3.1	565	27.9	51.4	6.7
61	3	1,807	1115	61.7	11	0.6	295	16.3	47	2.6	339	18.8	38.3	18.2
61	4	910	508	55.8	4	0.4	162	17.8	37	4.1	199	21.9	44.2	10.6
63	1	1,188	533	44.9	23	1.9	260	21.9	25	2.1	347	29.2	55.1	14.2
63	2	2,131	1240	58.2	27	1.3	249	11.7	73	3.4	542	25.4	41.8	20.1
63	3	1,671	961	57.5	21	1.3	283	16.9	55	3.3	351	21.0	42.5	15.6
63	4	959	625	65.2	13	1.4	149	15.5	35	3.6	137	14.3	34.8	23.6
65.01	1	1,387	818	59.0	35	2.5	186	13.4	45	3.2	303	21.8	41.0	12.9
65.01	2	1,382	829	60.0	16	1.2	240	17.4	54	3.9	243	17.6	40.0	7.3
65.01	3	907	386	42.6	11	1.2	191	21.1	32	3.5	287	31.6	57.4	8.9
65.02	1	1,492	837	56.1	20	1.3	205	13.7	61	4.1	369	24.7	43.9	28.0
65.02	2	777	425	54.7	7	0.9	95	12.2	36	4.6	214	27.5	45.3	13.8
65.02	3	1,584	1015	64.1	20	1.3	141	8.9	54	3.4	354	22.3	35.9	11.2
69	1	1,391	696	50.0	18	1.3	255	18.3	31	2.2	391	28.1	50.0	12.9
69	2	2,077	856	41.2	66	3.2	384	18.5	51	2.5	720	34.7	58.8	22.7
69	3	1,143	522	45.7	23	2.0	218	19.1	33	2.9	347	30.4	54.3	13.3
71	1	541	237	43.8	15	2.8	162	29.9	29	5.4	98	18.1	56.2	9.8
71	2	1,038	480	46.2	26	2.5	210	20.2	31	3.0	291	28.0	53.8	15.6
71	3	1,293	705	54.5	33	2.6	239	18.5	49	3.8	267	20.6	45.5	9.0
71	4	1,091	707	64.8	13	1.2	155	14.2	33	3.0	183	16.8	35.2	15.5
73	1	1,220	624	51.1	18	1.5	287	23.5	37	3.0	254	20.8	48.9	3.7
73	2	1,763	1006	57.1	34	1.9	287	16.3	59	3.3	377	21.4	42.9	12.6
73	3	1,248	741	59.4	21	1.7	220	17.6	37	3.0	229	18.3	40.6	3.4
75	1	1,687	833	49.4	30	1.8	316	18.7	38	2.3	470	27.9	50.6	37.2
75	2	1,560	784	50.3	44	2.8	315	20.2	49	3.1	368	23.6	49.7	22.3
75	3	869	511	58.8	10	1.2	156	18.0	30	3.5	162	18.6	41.2	15.2

Table 28-1 (cont'd)
Study Area Race and Ethnicity and Poverty

Census Tract	Block Group	2010 Total Population	Race and Ethnicity*										Total Minority (%)	Poverty Status (%)
			White	%	Black	%	Asian	%	Other	%	Hispanic	%		
77	1	1,478	557	37.7	80	5.4	264	17.9	59	4.0	518	35.0	62.3	8.8
79	1	2,313	740	32.0	62	2.7	629	27.2	104	4.5	778	33.6	68.0	23.9
79	2	1,180	346	29.3	35	3.0	194	16.4	81	6.9	524	44.4	70.7	15.6
81	1	1,188	356	30.0	46	3.9	141	11.9	51	4.3	594	50.0	70.0	2.8
83	1	1,010	391	38.7	38	3.8	184	18.2	35	3.5	362	35.8	61.3	12.0
83	2	1,940	476	24.5	193	9.9	298	15.4	68	3.5	905	46.6	75.5	16.9
85	1	938	281	30.0	70	7.5	159	17.0	42	4.5	386	41.2	70.0	19.3
85	2	332	64	19.3	32	9.6	12	3.6	2	0.6	222	66.9	80.7	35.9
87	1	1,439	44	3.1	785	54.6	40	2.8	41	2.8	529	36.8	96.9	39.3
87	2	901	195	21.6	172	19.1	38	4.2	25	2.8	471	52.3	78.4	24.3
87	3	2,242	40	1.8	1111	49.6	64	2.9	71	3.2	956	42.6	98.2	37.1
91	1	1,168	583	49.9	63	5.4	156	13.4	20	1.7	346	29.6	50.1	15.1
91	2	1,628	876	53.8	29	1.8	208	12.8	64	3.9	451	27.7	46.2	16.2
95	1	1,007	644	64.0	16	1.6	124	12.3	16	1.6	207	20.6	36.0	10.6
95	2	1,282	990	77.2	11	0.9	111	8.7	24	1.9	146	11.4	22.8	10.1
97	1	567	423	74.6	2	0.4	52	9.2	17	3.0	73	12.9	25.4	8.2
97	2	1,221	860	70.4	27	2.2	149	12.2	31	2.5	154	12.6	29.6	4.6
97	3	829	663	80.0	8	1.0	76	9.2	12	1.4	70	8.4	20.0	19.9
97	4	963	722	75.0	10	1.0	85	8.8	30	3.1	116	12.0	25.0	15.4
99	1	3	1	33.3	1	33.3	1	33.3	0	0.0	0	0.0	66.7	0.0
101	1	1,281	863	67.4	12	0.9	103	8.0	56	4.4	247	19.3	32.6	10.9
101	2	1,271	889	69.9	12	0.9	146	11.5	26	2.0	198	15.6	30.1	11.8
103	1	963	634	65.8	34	3.5	68	7.1	32	3.3	195	20.2	34.2	6.3
103	2	844	589	69.8	9	1.1	86	10.2	26	3.1	134	15.9	30.2	22.7
103	3	1,178	749	63.6	29	2.5	195	16.6	46	3.9	159	13.5	36.4	16.5
103	4	949	456	48.1	12	1.3	267	28.1	49	5.2	165	17.4	51.9	10.4
105	1	955	381	39.9	75	7.9	56	5.9	36	3.8	407	42.6	60.1	29.8
105	2	1,018	344	33.8	142	13.9	92	9.0	30	2.9	410	40.3	66.2	19.6
105	3	1,442	638	44.2	23	1.6	198	13.7	53	3.7	530	36.8	55.8	12.7
105	4	829	365	44.0	25	3.0	104	12.5	18	2.2	317	38.2	56.0	14.3

Table 28-1 (cont'd)
Study Area Race and Ethnicity and Poverty

Census Tract	Block Group	2010 Total Population	Race and Ethnicity*										Total Minority (%)	Poverty Status (%)
			White	%	Black	%	Asian	%	Other	%	Hispanic	%		
111	1	1,670	822	49.2	23	1.4	329	19.7	67	4.0	429	25.7	50.8	21.4
111	2	1,380	933	67.6	20	1.4	198	14.3	35	2.5	194	14.1	32.4	2.6
113	1	1,384	926	66.9	14	1.0	148	10.7	38	2.7	258	18.6	33.1	10.3
113	2	1,796	753	41.9	44	2.4	422	23.5	42	2.3	535	29.8	58.1	21.8
113	3	1,054	807	76.6	10	0.9	110	10.4	24	2.3	103	9.8	23.4	15.4
115	1	1,785	1101	61.7	14	0.8	222	12.4	54	3.0	394	22.1	38.3	23.3
115	2	540	419	77.6	6	1.1	45	8.3	12	2.2	58	10.7	22.4	5.6
117	1	857	614	71.6	2	0.2	92	10.7	32	3.7	117	13.7	28.4	4.5
117	2	894	588	65.8	11	1.2	99	11.1	39	4.4	157	17.6	34.2	3.0
117	3	1,176	789	67.1	12	1.0	99	8.4	16	1.4	260	22.1	32.9	21.8
117	4	921	673	73.1	11	1.2	77	8.4	40	4.3	120	13.0	26.9	27.6
119	1	727	489	67.3	14	1.9	80	11.0	19	2.6	125	17.2	32.7	18.8
119	2	974	687	70.5	6	0.6	40	4.1	33	3.4	208	21.4	29.5	24.4
121	2	866	626	72.3	6	0.7	80	9.2	26	3.0	128	14.8	27.7	7.6
125	1	802	475	59.2	12	1.5	129	16.1	18	2.2	168	20.9	40.8	11.4
125	2	860	486	56.5	20	2.3	105	12.2	33	3.8	216	25.1	43.5	8.6
137	1	1,579	1126	71.3	23	1.5	113	7.2	57	3.6	260	16.5	28.7	2.9
141	1	675	419	62.1	10	1.5	75	11.1	12	1.8	159	23.6	37.9	14.2
141	2	946	562	59.4	18	1.9	106	11.2	32	3.4	228	24.1	40.6	16.6
143	1	1,356	867	63.9	21	1.5	153	11.3	36	2.7	279	20.6	36.1	23.7
143	2	2,709	1299	48.0	56	2.1	396	14.6	126	4.7	832	30.7	52.0	11.7
145	1	912	670	73.5	11	1.2	55	6.0	38	4.2	138	15.1	26.5	2.1
145	2	1,334	825	61.8	19	1.4	144	10.8	52	3.9	294	22.0	38.2	8.7
147	1	1,014	715	70.5	4	0.4	90	8.9	24	2.4	181	17.9	29.5	4.5
147	2	940	674	71.7	19	2.0	63	6.7	20	2.1	164	17.4	28.3	3.1
147	3	1,100	687	62.5	15	1.4	116	10.5	28	2.5	254	23.1	37.5	6.4
149	1	1,487	843	56.7	7	0.5	182	12.2	43	2.9	412	27.7	43.3	16.5
149	2	1,187	550	46.3	20	1.7	130	11.0	45	3.8	442	37.2	53.7	14.3
151	2	1,502	768	51.1	16	1.1	247	16.4	60	4.0	411	27.4	48.9	7.1

Table 28-1 (cont'd)
Study Area Race and Ethnicity and Poverty

Census Tract	Block Group	2010 Total Population	Race and Ethnicity*										Total Minority (%)	Poverty Status (%)
			White	%	Black	%	Asian	%	Other	%	Hispanic	%		
153	1	1,104	542	49.1	38	3.4	222	20.1	52	4.7	250	22.6	50.9	5.5
153	2	1,041	602	57.8	23	2.2	187	18.0	27	2.6	202	19.4	42.2	18.9
155	1	1,544	791	51.2	29	1.9	309	20.0	50	3.2	365	23.6	48.8	13.7
155	2	707	401	56.7	4	0.6	124	17.5	28	4.0	150	21.2	43.3	19.2
157	1	1,543	460	29.8	42	2.7	427	27.7	53	3.4	561	36.4	70.2	23.8
159	1	1,048	594	56.7	14	1.3	156	14.9	47	4.5	237	22.6	43.3	32.1
159	2	1,297	677	52.2	14	1.1	154	11.9	40	3.1	412	31.8	47.8	14.2
159	3	515	263	51.1	20	3.9	110	21.4	18	3.5	104	20.2	48.9	0.0
159	4	1,276	840	65.8	9	0.7	114	8.9	81	6.3	232	18.2	34.2	7.8
161	1	971	503	51.8	20	2.1	204	21.0	24	2.5	220	22.7	48.2	12.8
Study Area		155,424	73,181	47.1	11,026	7.1	23,459	15.1	5,314	3.4	42,444	27.3	52.9	17.8
Sub-district 3		75,071	28,738	38.3	8,789	11.7	13,081	17.4	2,564	3.4	21,899	29.2	61.7	19.3
CSD 30		368,630	125,952	34.2	21,608	5.9	70,852	19.2	10,614	2.9	139,604	37.9	65.8	16.2
Queens		2,230,722	616,727	27.6	395,881	17.7	508,334	22.8	96,030	4.3	613,750	27.5	72.4	13.7
New York City		8,175,133	2,722,904	33.3	1,861,295	22.8	1,028,119	12.6	226,739	2.8	2,336,076	28.6	66.7	19.4

Notes:
Shading indicates minority and/or low-income community.
* The racial and ethnic categories provided are further defined as: White (White alone, not Hispanic or Latino); Black (Black or African American alone, not Hispanic or Latino); Asian (Asian alone, not Hispanic or Latino); Other (American Indian and Alaska Native alone, not Hispanic or Latino; Native Hawaiian and Other Pacific Islander alone, not Hispanic or Latino; Some other race alone, not Hispanic or Latino; Two or more races, not Hispanic or Latino); Hispanic (Hispanic or Latino; Persons of Hispanic origin may be of any race).
Source: U.S. Census Bureau, Census 2010 (race/ethnicity), 2007-2011 American Community Survey 5-year Estimates (poverty).

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