Chapter 21: Public Health

A. INTRODUCTION

The 2012 *City Environmental Quality Review (CEQR) Technical Manual* defines as its goal with respect to public health "to determine whether adverse impacts on public health may occur as a result of a proposed project, and if so, to identify measures to mitigate such effects."

According to the *CEQR Technical Manual*, for most proposed projects, a public health analysis is not necessary. Where no significant unmitigated adverse impact is found in other CEQR analysis areas, such as air quality, water quality, hazardous materials, or noise, no public health analysis is warranted. If an unmitigated significant adverse impact is identified in one of these analysis areas, the lead agency may determine that a public health assessment is warranted for that specific technical area.

As described in the relevant analyses of this Environmental Impact Statement (EIS), upon completion of construction, the proposed project would not result in significant adverse impacts in any of the technical areas related to public health. However, as discussed in Chapter 20, "Construction," the proposed project would, at times, result in temporary unmitigated significant adverse noise impacts during construction. Therefore, this chapter examines the potential effects of construction-period noise impacts on public health.

PRINCIPAL CONCLUSIONS

As described in the preceding chapters of this EIS, the proposed project would not result in significant adverse impacts in the following technical areas: air quality, water quality, hazardous materials, or operational noise.

While during some periods of construction, the proposed project would result in significant adverse impacts related to noise as defined by CEQR thresholds, the predicted overall changes to noise levels would not be large enough to significantly affect public health. Therefore, the proposed project would not result in significant adverse public health impacts.

B. PUBLIC HEALTH ASSESSMENT—CONSTRUCTION NOISE

As described in Chapter 20, "Construction," according to the *CEQR Technical Manual*, a significant noise impact occurs when there is an increase in the one-hour equivalent noise level ($L_{eq(1)}$) of between 3 and 5 decibels A-weighted (dBA), depending upon the noise level without the proposed project. The CEQR noise thresholds are based on quality of life considerations and not on public health considerations. In terms of public health, significance is not determined based upon the incremental change in noise level, but is based principally upon the magnitude of the noise level and duration of exposure.

Construction of the proposed project would be required to include measures to reduce noise levels during construction as required by the New York City Noise Control Code. Even with these

measures, the analysis presented in Chapter 20, "Construction," demonstrates that during the construction period, elevated noise levels are predicted to occur for two or more consecutive years at ~~fifty-one (51)~~ thirty-five (35) of the seventy-nine (79) receptor sites analyzed. Additionally, because of very high levels of construction noise from construction on buildings attached to them, buildings 6 and 7 would have the potential to experience significant adverse noise impacts during construction if either half of either building is occupied during the construction of the other half of the building.

Affected locations include residential, institutional and open space areas adjacent to the proposed development sites and along routes expected to be traveled by construction-related vehicles to and from the project site. However, most affected buildings have double-glazed windows and air-conditioning, and would consequently be expected to experience interior $L_{10(1)}$ values less than 45 dBA throughout most times during the construction period, which would be considered acceptable according to CEQR criteria. Although these structures have double-glazed windows and alternate ventilation, during some limited time periods construction activities may result in interior noise levels that would be above the 45 dBA $L_{10(1)}$ noise level recommended by CEQR for these uses.

At affected locations that do not already have an alternate means of ventilation ~~double-glazed windows and air-conditioning interior~~, $L_{10(1)}$ values resulting from construction may consistently exceed 45 dBA, and even at some locations that do already have double-glazed windows and an alternate means of ventilation, interior $L_{10(1)}$ values may exceed 45 dBA during construction. Thus, should the proposed project be developed and constructed as conservatively presented in this conceptual schedule, up to ~~fifty-one (51)~~ thirty-five (35) could experience significant impacts for certain limited periods during construction. Of these locations, thirty (30) already have double-glazed windows and air-conditioning and would consequently be expected to experience interior $L_{10(1)}$ values less than 45 dBA during most of the time, which would be considered acceptable according to CEQR criteria. As such, no additional mitigation would be warranted at these locations. Three (3) existing receptor sites may not have an alternate means of ventilation (as shown in **Table 20-22**), and therefore could experience temporary significant impacts requiring mitigation. At the two open space locations with the potential to experience construction noise impacts (Whitey Ford Field and ~~Hallet's Cove~~ Halletts Point Playground), there would be no feasible or practicable mitigation to mitigate the construction noise impacts. Throughout the city, noise levels in many parks and open space areas that are located near heavily trafficked roadways and/or near construction sites, experience comparable, and sometimes higher, noise levels. ~~At the six residential locations with the potential to experience construction noise impacts,~~ Some potential receptor mitigation measures that could be used to mitigate the impacts at the three residential locations predicted to experience temporary significant adverse construction noise impacts requiring mitigation, would include the offer of an alternate means of ventilation to those particular residences that do not already have it at the time of construction, so that they can maintain a closed window condition and acceptable interior noise levels throughout much of the construction period. 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 are discussed in Chapter 22, "Mitigation." Although the CEQR thresholds for significant adverse environmental impact are predicted to be exceeded at certain locations during construction, the magnitude and duration of these exceedances would not constitute significant adverse public health impacts. As discussed above, the CEQR noise thresholds are based on quality of life considerations and not on public health considerations.

The predicted absolute noise levels would be below the health-based noise threshold.[1] Therefore, the proposed project would not result in significant adverse public health impacts.

In addition, during the build condition, noise levels at the proposed project's open spaces would exceed the levels recommended for passive open spaces. Although noise levels in these areas would be above the guideline noise levels, they would be comparable to noise levels in a number of existing open space areas that are located adjacent to roadways, including Hudson River Park, Riverside Park, Bryant Park, Fort Greene Park, and other urban open space areas. The guidelines are a worthwhile goal for outdoor areas requiring serenity and quiet. However, due to the level of activity present at most New York City open space areas and parks, a relatively low noise level is often not achieved. ✷

[1] According to the *CEQR Technical Manual* (pg 20-6), prolonged exposure to levels above 85 dBA will eventually harm hearing.