Chapter 18: Public Health

A. INTRODUCTION

The *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 projects would not result in significant adverse impacts in any of the technical areas related to public health. However, as discussed in Chapter 20, "Construction Impacts," the proposed projects would, at times, result in unmitigated significant adverse noise impacts during construction. Therefore, this chapter examines the potential effects of construction-period noise on public health.

PRINCIPAL CONCLUSIONS

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

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

B. PUBLIC HEALTH ASSESSMENT—CONSTRUCTION NOISE

As described in Chapter 17, "Noise," 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 action. 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.

The analysis presented in Chapter 20, "Construction Impacts," shows that during the construction period, significant adverse noise impacts would occur at locations on West 11th and West 12th Streets immediately adjacent to the project area. The exceedance of the 3-5 dBA

CEQR Technical Manual impact criteria would be due principally to noise generated by the large amount of construction equipment operating on-site. In addition, while noise levels at the identified terraces exceed the CEQR acceptable range (55 dBA L_{10}) for an outdoor area requiring serenity and quiet, there are no feasible mitigation measures that could be implemented to eliminate the significant noise impacts at these locations. Therefore, a significant adverse noise impact is identified in this EIS as an unmitigated adverse impact. Although the CEQR thresholds for significant adverse environmental impact are predicted to be exceeded at certain locations during construction, the absolute value of these exceedances are not significant adverse public health impacts. 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 any of the health-based noise thresholds. In addition, many of these receptor locations have double-glazed windows and have some form of alternative ventilation (i.e., central air conditioning or packaged terminal air conditioner units), which would provide a significant amount of sound attenuation, and would result in interior noise levels during much of the time that are below 45 dBA L_{10}, a quality of life criterion. Construction activities at other receptor sites in the study area would at times produce noise levels that would be noisy and intrusive, but due to their limited duration, they would not produce significant noise impacts.

A traffic noise analysis examined impacts due to peak construction-related vehicular (autos and trucks) trips, which would occur between the hours of 6 AM and 7 AM, prior to the start of operational construction activities. Based on the proportional modeling analysis results, two locations were identified as having the potential for significant impacts. At these two sites a detailed analysis was performed using the Federal Highway Administration's (FWHA) *Traffic Noise Model* (TNM). The TNM results indicated that, at these two locations, construction-related traffic would increase future without the proposed projects (No Build) noise levels by more than the 3-5 dBA *CEQR Technical Manual* impact criteria. However, the exceedance of the CEQR impact criteria at these locations would occur for less than two years and for limited hours during the construction period. The amount of noise would be typical of an active construction site and would not be considered a significant adverse noise impact. ✷