# Chapter 18: Public Health

## A. INTRODUCTION

This chapter assesses the Proposed Actions' effect on public health. As defined by the *City Environmental Quality Review (CEQR) Technical Manual*, public health is the organized effort of society to protect and improve the health and well-being of the population through monitoring; assessment and surveillance; health promotion; prevention of disease, injury, disorder, disability, and premature death; and reducing inequalities in health status. The goal of CEQR with respect to public health is to determine whether adverse impacts on human health may occur as a result of a proposed project and, if so, to identify measures to mitigate such effects.

The *CEQR Technical Manual* states that a public health assessment is not necessary for most projects. Where no significant adverse unmitigated impacts are found in other CEQR analysis areas—such as air quality, water quality, hazardous materials, or noise—no public health analysis is warranted. If, however, an unmitigated adverse impact is identified in any of these other CEQR analysis areas, the lead agency may determine that a public health assessment is warranted for that specific technical area. This assessment represents a distinct layer of inquiry; its criteria are informed by public health considerations and are therefore different from the criteria that triggered the need to conduct a public health assessment.

## B. PRINCIPAL CONCLUSIONS

The Proposed Actions would not result in significant adverse public health impacts. As described in the relevant analyses of this Environmental Impact Statement (EIS), the Proposed Actions would not result in unmitigated significant adverse impacts in the areas of air quality, operational noise, water quality, or hazardous materials. However, as discussed in Chapter 20, "Construction," the Proposed Actions could result in unmitigated construction noise impacts as defined by *CEQR Technical Manual* thresholds. As such, it was determined that a public health assessment as to construction noise was appropriate. The assessment was conducted, and for the reasons discussed below, it was determined that the construction noise impact would not generate a significant adverse public health impact.

## C. PUBLIC HEALTH ASSESSMENT—CONSTRUCTION NOISE

As described in Chapter 20, "Construction," the *CEQR Technical Manual* divides construction duration into "short-term (less than two years) and long-term (two or more years)" and states that impacts resulting from short-term construction generally do not require detailed assessment. This has typically been interpreted to mean that construction noise would generally have a significant impact on sensitive receptors only when the activity with the potential to create high noise levels (the "intensity") would occur continuously for two or more years (the "duration"). The *CEQR Technical Manual* states that the impact criteria for vehicular sources, using the No

Action Condition noise level as the baseline, should be used for assessing construction noise impacts. As recommended in the *CEQR Technical Manual*, the assessment uses the following criteria to define a significant adverse noise impact from mobile and on-site construction activities:

- If the No Action noise level is less than 60 dBA $L_{eq(1)}$, a five dBA $L_{eq(1)}$ or greater increase would be considered significant.
- If the No Action noise level is between 60 dBA $L_{eq(1)}$ and 62 dB(A) $L_{eq(1)}$, a resultant $L_{eq(1)}$ of 65 dBA or greater would be considered a significant increase.
- If the No Action noise level is equal to or greater than 62 dBA $L_{eq(1)}$, or if the analysis period is a nighttime period (defined in the CEQR criteria as being between 10:00 PM and 7:00 AM), the incremental significant impact threshold would be three dB(A) $L_{eq(1)}$.

Construction noise associated with the Proposed Actions would be required to follow the requirements of the New York City Noise Control Code (NYC Noise Code) for construction noise control measures. Specific noise control measures will be described in noise mitigation plans required under the NYC Noise Control Code. These measures could include a variety of source and path controls. Even with these measures, the analysis presented in Chapter 20, "Construction," found that predicted noise levels due to construction-related activities would result in noise levels that may exceed the *CEQR Technical Manual* impact criteria during two or more consecutive years at receptors within and in the vicinity of the Project Area.

## ASSESSMENT

The *CEQR Technical Manual* construction noise impact thresholds are based on quality of life considerations. These differ from public health considerations, which employ distinct criteria that are appropriate in the public health context. Thus, pursuant to the public health assessment, significance is assessed in terms of the magnitude of noise level and duration of exposure rather than incremental change in noise level. As stated in Chapter 20 of the *CEQR Technical Manual*, these criteria are appropriate because they more closely relate to public health concerns. For example, chronic noise exposure may raise blood pressure and has been suggested to contribute to myocardial infarctions and to interfere with language development in children. Additionally, prolonged exposure to levels above 85 dBA will eventually harm hearing. Moreover, episodic and unpredictable exposure to short-term impacts of noise at high decibel levels may also affect health. Accordingly, it is appropriate to evaluate magnitude of noise level and duration of exposure when examining public health.

Although the *CEQR Technical Manual* thresholds for significant adverse impacts are predicted to be exceeded at certain locations during construction, the criteria used for public health, (i.e., the magnitude and duration of these exceedances) would not constitute a significant adverse public health impact. As discussed above, the *CEQR Technical Manual* thresholds for construction noise are based on quality of life considerations and not on public health considerations. An impact found pursuant to a quality of life framework does not imply that an impact will exist when the analysis area is evaluated in terms of public health. The predicted absolute noise levels would be below the health-based noise threshold of 85 dBA at all at-grade receptors. Some receptors may experience exterior absolute noise levels above 85 dBA at elevations above the first floor at the building façade—especially those receptors that are immediately adjacent to construction sites and above the height of site-perimeter noise barriers. However, outdoor terraces are not common within the rezoning area. As such, residents at these receptors would not experience exterior levels of construction noise. Because the buildings at

these receptors would provide approximately 25 dBA window/wall attenuation, interior noise levels would be below the health-based noise threshold of 85 dBA. Accordingly, neither the magnitude nor the duration of the construction noise reaches the public health impact threshold. Since these are the appropriate criteria for the Public Health assessment, it follows that the Proposed Actions would not result in significant adverse public health impacts due to construction noise. ✷