17.0 Public Health

Introduction

This chapter assesses the Proposed Action's effect on public health. As defined by the 2021 *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 action(s) and, if so, to identify measures to mitigate such effect.

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.

Principal Conclusions

The Proposed Actions would not result in significant adverse public health impacts. As described in the preceding chapters of this EIS, the Proposed Actions would not result in unmitigated significant adverse impacts related to water quality, hazardous materials, operational noise, and operational air quality. However, as discussed in **Chapter 19, Construction**, the potential for the Proposed Actions to result in significant adverse impacts related to construction noise and air quality could not be ruled out. Therefore, a preliminary assessment of public health was conducted, and is provided below. As detailed therein, the Proposed Actions could result in significant adverse unmitigated impacts on the surrounding air quality and ambient noise, as a result of construction activities within the Project Area facilitated by the Proposed Actions. However, the potential for these impacts to occur is expected to be limited and would not significantly affect public health.

Methodology

As noted above, the *CEQR Technical Manual* states that where no significant unmitigated adverse impact is found in other CEQR analysis areas related to public health—such as air quality, water quality, hazardous materials, or noise—no public health analysis is warranted. If, however, an unmitigated significant 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. Where significant adverse construction-period noise impacts are identified, it is DCP's practice to examine the potential for these construction-period noise impacts to affect public health. As stated in **Chapter 19, Construction**, the potential for the Proposed Actions to result in significant adverse impacts on ambient noise and air quality as a result of construction on the projected/potential development sites could not be ruled out. Therefore, a preliminary assessment is provided below for the technical areas related to public health.

Preliminary Screening

As recommended in the *CEQR Technical Manual*, if a public health assessment is determined to be necessary, the assessment process involves evaluating whether and how exposure to environmental contaminants may occur and the extent of that exposure; characterizing the relationship between exposures and health risks; and applying that relationship to the population exposed.

Construction Air Quality

As detailed in **Chapter 19, Construction**, construction on many of the projected/potential development sites could result in a significant adverse impact on the surrounding air quality. However, measures required to reduce pollutant emissions during construction would include all applicable laws, regulations, and the City's building codes. These include dust suppression measures, idling restriction, and the use of ultra-low sulfur diesel (ULSD) fuel. With the implementation of these emission reduction measures, the dispersion modeling analysis of construction-related air emissions for both on-site and on-road sources determined that particulate matter PM_{10}, annual-average nitrogen dioxide (NO2), and carbon monoxide (CO) concentrations would be below their corresponding de minimis thresholds or National Air Quality Ambient Standards (NAAQS), respectively. $PM_{2.5}$ would be below its NAAQS for all analyzed Sites and would exceed annual de minimis threshold at Sites 10 and 14. The exceedance of the de minimis threshold would be considered a significant adverse air quality impact. Since construction activities are temporary and the total annual $PM_{2.5}$ concentrations resulted by the construction activities would be lower than NAAQS, the temporary exceedance of the de minimis criterion does not indicate public health impact.

Between the Draft and Final EIS, additional review and evaluation will be performed to determine whether the identified impacts related to Annual $PM_{2.5}$ increments will be avoided. This may include use more refined assumptions in terms of construction equipment usage, and the use of newer construction equipment with lower particulate emissions, as applicable.

Therefore, it is not anticipated that the Proposed Actions would have the potential for public health impacts from air quality emissions during construction.

Construction Noise

As detailed in **Chapter 19, Construction,** the *CEQR Technical Manual* specifies that the construction noise analysis consider the potential for construction of a project to create high noise levels (the "intensity"), whether construction noise would occur for an extended period of time (the "duration"), and the locations where construction has the potential to produce noise ("receptors") in evaluating potential construction noise effects. If construction noise would occur continuously for 24 months or more, a detailed construction noise analysis is warranted and there is a potential for significant adverse noise impacts. Construction noise occurring for shorter durations would not typically result in significant adverse noise impact unless there is a higher intensity of noise.

As described in **Chapter 19, Construction,** noise level increases exceeding the construction noise impact criteria would occur at several locations throughout the Project Area and the Proposed Actions would result in significant adverse construction noise impacts. Two representative projected development sites (Projected Development Site 14 and Projected Development Site 22) were analyzed for construction noise for each phase of construction: Demolition/Excavation/Foundation; Building Superstructure/Exterior; and Interior Fit-Out. No significant adverse construction noise impacts are expected from construction of development sites whose construction duration would be considered short-term (less than 24 months). Based on the construction stage predicted to occur at each development site according to the conceptual construction schedule during each of the selected analysis periods, each receptor expected to experience an exceedance of the construction noise impact threshold was determined. However, 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. 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, prolonged exposure to levels above 85 dBA will eventually harm hearing, or episodic and unpredictable exposure to short-term impacts of noise at high decibel levels may also affect health.

Although the thresholds for significant adverse construction noise impacts are predicted to be exceeded at certain locations during construction, these exceedances would not constitute a significant adverse public health impact. As discussed above, the 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. Additionally, the buildings at those receptors with significant adverse construction noise impacts would provide at least 25 dBA window/wall attenuation for locations with insulated glass windows and alternate means of ventilation. As such, interior noise levels would be much lower than exterior noise levels. It is expected that all construction activities would follow the requirements of the NYC Noise Control Code for construction noise control measures would

be in place at each site. Specific noise control measures would be utilized in noise mitigation plans required under the NYC Noise Control Code. Further, the analysis in this EIS is based on RWCDS conceptual site plans and construction schedules, with the possibility that the actual construction may be of less magnitude in which case construction noise would be less than the analysis predicts. Therefore, given the potential for noise effects related to construction sources would be temporary, localized, and would not likely be short-term high decibel levels, it is not anticipated that the Proposed Action would have the potential for public health impacts from noise emissions during construction.