# East New York Rezoning Proposal
# Chapter 17: 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.

As described in the relevant analyses of this EIS, the Proposed Actions would not result in an unmitigated significant adverse impact in the areas of air quality, water quality, or hazardous materials. However, as discussed in Chapter 16, "Nosie," and Chapter 19, "Construction," the Proposed Actions could result in unmitigated mobiles source noise and construction noise impacts.

## B. PRINCIPAL CONCLUSIONS

As described in the preceding chapters of this EIS, the Proposed Actions would not result in unmitigated significant adverse impacts in the following technical areas that contribute to public health: air quality, water quality, or hazardous materials.

The Proposed Actions could potentially result in significant adverse noise impacts at 12 existing sensitive receptors (receptor site 10 at the Richmond Street between Fulton Street and Dinsmore Place). However, the predicted noise levels are significantly lower than the public health-based *CEQR Technical Manual* noise threshold of 85 dBA. The Proposed Actions are not anticipated to cause excessively high chronic noise exposure and, therefore, are not expected to result in a significant adverse public health impact related to noise. In addition, while during some periods of construction the Proposed Actions could potentially result in significant adverse impacts related to noise, as defined by *CEQR Technical Manual* thresholds, the predicted overall changes in noise levels would not be large enough to significantly affect public health. Therefore, the Proposed Actions would not result in significant adverse public health impacts during construction.

## C. PUBLIC HEALTH ASSESSMENT – OPERATIONAL NOISE

As discussed in Chapter 16, "Noise," the Proposed Actions would result in incremental noise increases at Richmond Street between Fulton Street and Dinsmore Place in exceedance of the CEQR impact criteria during the weekday AM and PM peak hours, and therefore would constitute a significant adverse noise impact, pursuant to CEQR. With implementation of the attenuation measures to be mandated through a noise (E) designation assigned to the projected development site 66, no significant adverse impacts on operational noise would result on any projected or potential development sites.

Significant adverse noise impacts could potentially occur at 12 existing sensitive receptors (receptor site 10 at the Richmond Street between Fulton Street and Dinsmore Place). Potential measures to mitigate noise impacts at these locations were examined, as discussed in Chapter 20, "Mitigation." As discussed in Chapter 20, window air conditioners potentially could be installed at certain residential units to provide an alternate means of ventilation, which would partially mitigate noise impacts. Other potential measures to fully mitigate the noise impact at these locations may be examined between the DEIS and FEIS. Potential mitigation measures may include rerouting traffic where feasible.

While the significant adverse noise impact identified at receptor site 10 may be able to be mitigated by the above measures, if this impact is determined to be unmitigatable between the DEIS and FEIS, it will be identified as such and a discussion will be included in Chapter 22, "Unavoidable Adverse Impacts."

## Assessment

According to the *CEQR Technical Manual*, noise in and around homes may decrease quality of life by disrupting sleep or interfering with conversations. Chronic noise exposure may raise blood pressure and has been suggested to contribute to myocardial infractions, as well as to interfere with language development in children. Prolonged exposure to levels above 85 A-weighted decibels (dBA) will eventually harm hearing. Episodic and unpredictable exposure to short-term impacts of noise at high decibel levels may also affect health.

As indicated in Chapter 16, "Noise," the significant adverse noise impact, identified at receptor site 10, would occur over a geographically limited area, and the Proposed Actions would not result in prolonged exposure to levels above 85 dBA (See Table 16-8 in Chapter 16). The With-Action $L_{10}$ for the AM, midday, and PM peak hour was predicted to be 74.7, 72.6, and 71.8 dBA, respectively. These noise measurements are significantly lower than the CEQR threshold of 85 dBA. The Proposed Actions are not anticipated to cause excessively high chronic noise exposure and, therefore, are not expected to result in a significant adverse public health impact related to noise.

# D. PUBLIC HEALTH ASSESSMENT – CONSTRUCTION NOISE

As described in Chapter 19, "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 only 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 noise level as the baseline, should be used for assessing construction noise impacts. As recommended in the *CEQR Technical Manual*, this study 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 dBA $L_{eq(1)}$, 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 p.m. and 7:00 a.m.), the incremental significant impact threshold would be three dBA $L_{eq(1)}$.

Construction 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 a noise mitigation plan required under the NYC Noise Code. These measures could include a

variety of source and path controls. Even with these measures, the analysis presented in Chapter 19, "Construction," found that predicted noise levels due to construction-related activities during the February 2018 and August 2023 peak periods would result in increases in noise levels that would exceed the *CEQR Technical Manual* impact criteria throughout the surrounding area, due to construction activities associated with projected development sites 46, 66 and 67. The noise analysis results show that the predicted noise levels would exceed the *CEQR Technical Manual* impact criteria within several blocks of these projected development sites, with noise level increases of up to 16.5 dBA $L_{eq}$ and total construction noise levels of 79.0 dBA $L_{eq}$ expected at the locations near projected development sites 66 and 67 and noise level increases of up to 25.3 dBA $L_{eq}$ and total construction noise levels of up to 83.6 dBA $L_{eq}$ expected at the locations near projected development site 46. The analysis assumed the worst-case month during the construction period of these three projected development sites. Noise level increases of this magnitude are not expected to occur for the entire duration of construction activities.

For projected development site 61, and consequently for all of the smaller individual projected development sites throughout the rezoning area, cumulative noise analyses determined that maximum $L_{eq(1)}$ noise levels would exceed *CEQR Technical Manual* noise impact criteria within three blocks, with noise level increases up to 26.0 dBA and total construction noise levels of 82.2 dBA $L_{eq}$ during the excavation and foundation stage of construction. The analysis also found that maximum $L_{eq(1)}$ noise levels would exceed *CEQR Technical Manual* noise impact criteria within two blocks with noise level increases up to 11.8 dBA and total construction noise levels of 73.0 dBA $L_{eq}$ during the superstructure stage of construction, and maximum $L_{eq(1)}$ noise levels would exceed *CEQR Technical Manual* noise impact criteria within one block with noise level increases up to 10.4 dBA and total construction noise levels of 73.0 dBA $L_{eq}$ during the interior fit-out stage of construction.

## Assessment

The *CEQR Technical Manual* construction noise impacts thresholds are based on quality of life considerations and not on public health considerations. In terms of public health, significance is not determined based on the incremental change in noise level, but is based principally upon the magnitude of noise level and duration of exposure. As stated in Chapter 20 of the *CEQR Technical Manual*, chronic noise exposure may raise blood pressure and has been suggested to contribute to myocardial infarctions, as well as to interfere with language development in children; prolonged exposure to levels about 85 dBA will eventually harm hearing. In addition, episodic and unpredictable exposure to short-term impacts of noise at high decibel levels may also affect health.

Although the *CEQR Technical Manual* thresholds for significant adverse impacts are predicted to be exceeded at certain locations during construction, the magnitude and duration of these exceedances would not constitute a significant adverse public health impact. As discussed above, the *CEQR Technical Manual* 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 of 85 dBA. Therefore, the Proposed Actions would not result in significant adverse public health impacts.