
CHAPTER 20: PUBLIC HEALTH

A. INTRODUCTION

The proposed project is not anticipated to result in significant adverse impacts to public health.

The *City Environmental Quality Review (CEQR) Technical Manual* states that a public health assessment is not necessary for many proposed actions, but a thorough consideration of health issues should be documented in the EIS. In determining whether a public health assessment is appropriate for the proposed project, the areas of hazardous materials, air quality and noise have been considered and further evaluated.

B. OVERVIEW

Construction that would occur as a result of the proposed actions is expected to be completed over a 10-year period. As a result, the total build out expected to occur by 2017 on the 40 projected development sites includes approximately 1,577 dwelling units (of which 187 would be affordable units provided through proposed the Inclusionary Housing program); 173,582 square feet of commercial floor area; 2,475 square feet of industrial floor area and 39,773 square feet of community facility floor area. These figures represent a net increase of 1,555 dwelling units, a net decrease of 197,470 square feet of commercial floor area; a net decrease of 180,536 square feet of industrial floor area; and a net decrease of 41,697 square feet of community facility floor area. Table 1-3 in Chapter 1 details the type and size of development anticipated on each of the 40 projected development sites, while Figure 1-5 depicts the location of these sites.

C. METHODOLOGY

For determining whether a public health assessment is appropriate, the *CEQR Technical Manual* lists several urban public health concerns for which a public health assessment may be warranted. These include increased traffic or emissions from stationary sources that would result in significant adverse air quality impacts; increased exposure to contaminants in soil and dust that could result in significant adverse impacts; potentially significant adverse impacts to sensitive receptors from noise or odors; actions for which potential impacts result in an exceedance of accepted federal, state, or local standards; or other actions, which might not exceed the preceding thresholds, but might, nonetheless result in significant public health concerns.

These concerns have been evaluated in other sections of the EIS, with the results being summarized below.

D. FUTURE CONDITION WITHOUT THE PROPOSED ACTIONS

Under this scenario, the 40 projected development sites are assumed to either remain unchanged from their existing condition, or would be developed with uses that are permitted under the existing zoning regulations. Given the current zoning and existing land use trends in the area, in the future without the proposed project it is anticipated that the rezoning area would experience a slight decrease in residential

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units from 24 to 22, a 334,854 square foot increase in commercial floor area, an 81,470 square foot increase in community facility floor area and a 78,440 square foot decrease in industrial floor area. These changes, when added to uses currently located within the rezoning area, would result in the rezoning area containing approximately 371,052 square feet of commercial floor area, 183,011 square feet of industrial floor area, 81,470 square feet of community facility floor area and 22 dwelling units.

E. FUTURE CONDITION WITH THE PROPOSED ACTIONS

The total build out expected to occur on the 40 projected development sites under the future condition with the proposed project is described in Subsection B above. Implementation of the proposed project could potentially raise the following public health issues.

HAZARDOUS MATERIALS

As described in Chapter 11, “Hazardous Materials,” all projected and potential development sites, as identified in the RWCDS, are potentially affected by contamination because they (1) currently comprise uses consistent with *Appendix A, List of Facilities, Activities or Conditions Requiring Assessment (CEQR Technical Manual)*, (2) are adjacent to such land uses, or (3) are within 400 feet of two or more such land uses. As such, it is recommended that each of these sites be assigned an (E) designation as part of the proposed rezoning.

There are several development sites that are owned by New York City that have been identified as having the potential for hazardous materials contamination. Because these sites are under city ownership, they are not subject to the regulations governing (E) designation. The agencies that own and control these sites would enter into a Memorandum of Understanding (or some other agreement) with DEP to ensure that, prior to any development on these sites, testing and, if necessary, remediation is performed in compliance with DEP regulations.

Building demolition in the city is regulated by the city’s Department of Buildings, whose regulations require the abatement of asbestos prior to any intrusive construction activities, including demolition. In addition, the federal Occupational Safety and Health Administration regulates construction activities to prevent excessive exposure of workers to contaminants in building materials. New York State solid waste regulations control how contaminated demolition debris and contaminated materials associated with construction are handled and disposed. Adherence to these and other applicable regulations, as well as the assignment of an (E) designation to each of the projected development sites will minimize impacts from the potential presence of contaminated materials.

AIR QUALITY

Construction activity has the potential to impact air quality due to particulates (dust) being generated from land clearing and excavation as well as emissions emanating from on-site construction equipment and from on-road construction-related vehicles and their potential effects on traffic congestion.

Much of the fugitive dust generated at construction sites consists of relatively large-size particles, which typically settle within a short distance from the site without impacting nearby buildings or people. Because fugitive dust is a common impact of construction, it is regulated by the city. Specific dust control measures may include limiting on-site equipment to low operating speeds to minimize dust emanating from tires and brakes, removing uncovered surface materials promptly; covering open-body trucks used to

transport material likely to generate dust; and using water or other appropriate liquids for dust control during demolition, land clearing, grading; and on material stockpiles.

The number of construction-related vehicle trips generated by the proposed project would be relatively small. In addition, emissions from such vehicles would occur over the 10 year period following the adoption of the proposed rezoning and be dispersed throughout the rezoning area and vicinity. Therefore, the mobile source emissions generated by the proposed project would not be significant.

CUMULATIVE HEALTH RISK ASSESSMENT

Cumulative impacts were also determined for the combined effects of air contaminants affecting a proposed development site. The maximum hazard index and total cancer risk were determined using the AERMOD model results with the applicable reference concentrations and unit risk factors discussed in Chapter 17, “Air Quality”. As presented in Chapter 17, for non-carcinogenic compounds, EPA’s Hazard Index Approach resulted in a calculated value of 0.548, which is less than 1.0, which is considered to be insignificant. For carcinogenic compounds, the maximum total estimated cancer risk is 9.03 E-06 or 9.03 per million. While the maximum cancer risk is above the level considered by USEPA to be potentially significant (i.e., 1 per million), it should be noted that the concentrations are compared against EPA unit risk factors and NYSDEC AGC’s (each of which was developed by these agencies based on a factor of safety above which health effects may potentially occur), whereas the health risk analysis is based upon a lifetime exposure at the predicted concentrations for a single location, which is a very conservative approach. Therefore, based upon the cumulative air toxics analysis, the proposed project would not result in a significant cancer risk.

STATIONARY SOURCE ANALYSES

The stationary source analysis determined that there would be no potential significant adverse air quality impacts from HVAC systems of the projected and potential development sites. At certain sites, an (E) designation would be mapped as part of the zoning proposal to ensure the developments would not result in any significant air quality impacts from HVAC emissions due to individual or groups of development sites.

An analysis of the cumulative impacts of industrial sources on projected and potential development sites was performed. ~~At most of~~ For the development sites, the maximum concentrations of each pollutant were below the NYSDEC guideline concentrations and health risk criteria established by regulatory agencies, and below the NAAQS. ~~However, at certain projected and potential development sites in the vicinity of existing sources of sodium hydroxide and tetrachloroethylene, ambient levels of these pollutants were found to result in elevated concentrations. Therefore, at these projected and potential development sites an (E) designation for air quality will be mapped as part of the zoning proposal to ensure that~~ there would not be any significant adverse air quality impacts associated with the rezoning.

NOISE

The operation of construction equipment on the projected development sites, as well as construction vehicles and delivery vehicles traveling to and from the sites, can impact noise and vibration levels in the community during the construction period. Noise from construction activity and some construction equipment is regulated by the New York City Noise Control Code, which requires the adoption and implementation of a noise mitigation plan for each construction site, limits construction to weekdays between the hours of 7 AM and 6 PM, and sets noise limits for certain specific types of construction

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equipment. Construction noise associated with the projected development sites is expected to be typical of other similar construction projects in the city. No significant adverse impacts are expected to result from the proposed project.

The *CEQR Technical Manual* has set noise attenuation requirements for buildings, based on exterior ambient noise levels. Recommended noise attenuation values for buildings are designed to maintain interior noise levels of 45 dBA or lower, and are determined based on exterior $L_{10(1)}$ noise levels. All of the projected and potential development sites are located within the Long Island City Special Mixed Use District. The zoning text for this district specifies that all residential uses will include at least 35 dBA of window/wall attenuation.

To achieve the required level of building attenuation, special design features that go beyond the normal double-glazed window and central air conditioning would be necessary and may include using specially designed windows (i.e., windows with small sizes, windows with air gaps, windows with thicker glazing, etc.), and additional building insulation.

F. CONCLUSION

Based on the above, a full assessment of potential impacts on public health is not necessary. No significant adverse impacts are expected as a result of the proposed project.