3.10 HAZARDOUS MATERIALS

INTRODUCTION

The proposed action would not result in significant adverse impacts related increased exposure to hazardous materials. The application of (E) designations on projected and potential sites would preclude the possibility of significant adverse impacts as development on Lower Concourse projected and potential sites progresses.

This chapter assesses the potential for the presence of hazardous materials in soil and/or groundwater at both the projected and potential development sites identified in the Reasonable Worst Case Development Scenario (RWCDS) under the proposed Lower Concourse Rezoning.

The proposed action would allow residential use to locate as-of-right within portions of the Lower Concourse rezoning area where industrial uses have historically been located. The proposed zoning amendments would enable both conversion of existing non-residential floor area, and the redevelopment of former industrial sites for residential use. In addition, the proposed action would provide for the reuse of a 2.26-acre parcel adjacent to the north of projected development site # 2 as a public park.

An assessment of potential hazardous materials impacts was performed for the projected and potential development sites for a number of reasons. For example, rezoning of manufacturing lots to a residential use can lead to exposure of future residents to hazardous materials. Therefore, as part of the process of rezoning a manufacturing zone to allow commercial or residential uses, or allowing such uses to take place adjacent to a manufacturing zone, a hazardous materials assessment is appropriate. An additional consideration for the development sites included determining whether an (E) designation is necessary at privately-held sites that are projected or potential development sites under the proposed actions. An (E) is designated on the appropriate Zoning Map (by block and lot) and to indicate that on that site no change of use or development requiring a New York City Department of Buildings permit may be issued without approval of the New York City Department of Environmental Protection (NYCDEP). These sites require the NYCDEP's review to ensure protection of human health and the environment from any known or suspected hazardous materials associated with the site.

Methodology

As described in the *New York City Environmental Quality Review (CEQR) Technical Manual*, the goal of a hazardous materials assessment is to determine whether a proposed action could lead to potential increased human exposure to hazardous materials and whether the increased exposure could lead to significant public health impacts or environmental impacts. The objective of this analysis is to determine which, if any, of the projected and potential development sites identified as part of the RWCDS may have been adversely affected by current or historical uses involving hazardous materials on-site or adjacent to the sites, and thus require an (E) designation.

Hazardous materials, as defined in the *CEQR Technical Manual*, are substances that pose a threat to human health and the environment including, but not limited to, heavy metals, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), methane, polychlorinated biphenyls (PCBs), pesticides, polychlorinated dibenzodioxins, dibenzofurans, and other hazardous wastes. Hazardous wastes are defined under the regulations promulgated by the Resource Conservation and Recovery Act (RCRA) as solid waste that meets at least one of the four characteristics including ignitability, corrosivity, reactivity, and/or toxicity, or as identified in NYCRR Part 371.4. For the study area, 79 developed sites on 121 tax lots were identified as either potential or projected development sites. All 121 tax lots on the 79 projected and potential development sites are identified as likely to be developed as a result of the proposed zoning action. The lots were evaluated pursuant to the preliminary screening criteria contained in Title 15, rules of the City of New York, Chapter 24, Section 4, and the Hazardous Materials Appendix of the *CEQR Technical Manual* Appendices. In accordance with these procedures, a land use survey and site history investigation were undertaken to determine whether past or current uses on any of the projected and potential development sites are listed in the land use inventory contained in Appendix A of the rules.

Each of these sites was evaluated for potential impacts due to hazardous materials by reviewing: (1) the 1947 Sanborn Fire Insurance Map and 1921 Bromley Atlas; (2) an environmental regulatory database summary for the project area; (3) observations to identify land use and environmental conditions that may be associated with a particular property; (4) historic Bronx County phone directories; and (5) Department of Buildings Certificates of Occupancy.

1947 Sanborn Fire Insurance Map and 1921 Bromley Atlas

The 1947 Sanborn map and 1921 Bromley Atlas were reviewed to assess prior site activities and operations. For projected and potential development sites and adjacent or nearby lots, the historic land use was investigated to determine if activities at these sites may have potentially released chemicals to the environment. The review consisted of identifying the name(s) of the occupant(s) and the type of business conducted. Facilities listed in the *CEQR Technical Manual* with respect to hazardous materials were identified, including lots with a prior land use such as automobile service stations, gasoline service stations, filling stations, electric power substations, machine shops, etc. that make use of, potentially generate, or dispose of chemicals that may have a deleterious effect on the environment.

Database Review

In preparing this analysis, a number of databases of potential sources of hazardous materials, as compiled by Environmental Data Resources, Inc.,[1] were reviewed including:

[1] *Data Map Area Study, Lower Concourse, Bronx, NY 10451*, Environmental Data Resources Inc., June 13, 2008.

- The Department of Environmental Conservation's Petroleum Bulk Storage (PBS) database, last updated March 28, 2008. The PBS database contains registered liquid petroleum bulk aboveground storage tanks (ASTs) and underground storage tanks (USTs);

- The New York State Chemical Bulk Storage Tank (CBS) database, last updated March 28, 2008. The CBS tanks database is an inventory of registered facilities that store regulated hazardous substances in aboveground and underground storage tanks (ASTs/ USTs);

- New York State Leaking Storage Tank Incident Reports (LTANKS), last updated February 5, 2008. The reports provide information on petroleum related releases associated with ASTs and USTs;

- New York State Spills (NY Spills) Information, last updated February 5, 2008. The New York Spills database provides information on petroleum related releases by ASTs and USTs;

- Resource Conservation and Recovery Act (RCRA) information, last updated March 6, 2008. RCRAInfo is the Environmental Protection Agency's database, which includes information on sites that generate, transport, store, treat and/or dispose of hazardous waste as defined by the RCRA; and,

- The Solid Waste Facilities/ Landfill Sites (SWF/LF) database, last updated May 2, 2008. The SWF/LF records typically contain an inventory of solid waste disposal facilities or landfills in a state.

Land Use Survey

A field survey of the Lower Concourse area was conducted from January 2006 through July 2007. The field survey consisted of a visual inspection to inventory current land uses on each of the sites subject to the rezoning. The survey was sufficiently detailed to identify and verify those facilities (e.g., dry cleaners, gasoline stations, auto repair facilities, electrical sub-stations, etc.) within and adjacent to the rezoning area's boundary that represent potential environmental concerns at the 79 projected and potential development sites.

Reverse Phone Directories

Bronx reverse phone directories from 1929, 1946, 1960 and 1980 were reviewed to identify the names of property occupants in order to help determine land use for a given lot, where mapped data was ambiguous.

Other Sources Consulted

Where past use of the site was not evident from the above sources, additional information was sought from data of the Department of Buildings. Building Certificates of Occupancy were reviewed to determine whether there was specific information

regarding a prior occupant of the building. The Department of Buildings' records were useful in the determination of (E) designation eligibility for projected development site #53. The Certificate of Occupancy for the site indicates that prior use of the site included the manufacturer of steel products and automobile storage, both qualifying uses under *CEQR* screening protocols.

3.10.1 EXISTING CONDITIONS

Based on the results of the land use survey and site history investigations that were conducted, it is evident that the study area was developed as an industrial area early in its history and has remained primarily in industrial use. Each of the tax lots comprising the 79 projected and potential development sites have existing or past land uses that would qualify for (E) designations. Of the 121 tax lots, 60 would qualify based on historic land use and 61 would qualify on existing land use. The federal database of RCRA generators and New York State databases of spill events and underground and aboveground storage tanks indicate that 62 sites in the study area qualify for (E) designation based on existing records.

Appendix J Table 1, "Projected and Potential Sites Requiring (E) Designations for Hazardous Materials," presents the detailed list of 33 projected and 46 potential sites that would be developed, along with the reason(s) for (E) designation recommendation.

3.10.2 FUTURE WITHOUT THE PROPOSED ACTION

In the future without the proposed actions, 14 of the projected and potential sites in the study area will be developed. All of the sites would warrant an (E) designation since the potential to encounter subsurface contamination has been identified. The sites anticipated for development can be identified in Appendix J Table 2, "Future Projected and Potential Development Sites without the Proposed Action." Since the development of the sites would occur without the restrictions of the (E) designation, the risks for potential exposure to contaminated material at these sites may increase without the proposed action.

3.10.3 FUTURE WITH THE PROPOSED ACTION

Privately-owned Sites

In the future with the proposed action, there would be 32 projected and 46 potential privately-owned sites that would be developed. The environmental impacts due to potential presence of hazardous material at the projected and potential sites have been examined. These impacts could include the potential for impacts to the health and safety of workers during construction, the potential for the transport of contaminated soil, or the potential for impact on future residents or employees of individual buildings on these sites. These adverse impacts are principally associated with the following uses and concerns:

- Former or current gasoline filling stations or automotive service centers on a development site or an adjacent site;

- Auto-related or "transportation" uses on the development site or an adjacent site (e.g., garage, filling station, auto repair, service or painting);

- Records of underground storage tanks or leaking underground storage tanks on the development site or an adjacent site;

- Records of spills of petroleum or chemicals on the development site or an adjacent site; and,

- Records of above ground storage tanks on the development site or an adjacent site.

As listed in Appendix J Table 1, (E) designations are recommended as part of the proposed action for all 78 privately owned sites. Recommendations for (E) designations are based on whether the projected and potential development sites may have been adversely affected by current or historical uses at, or adjacent to, these sites. By placing (E) designations on sites where there is a known or suspect environmental concern, the potential for an adverse impact to human health and the environment resulting from the proposed action is avoided. The (E) designation provides NYCDEP with a mechanism for addressing environmental conditions so that significant adverse impacts do not occur as a result of site development.

The (E) designation requires that pre-development activities at each site include a Phase 1 environmental site investigation, and, if necessary, a sampling protocol and remediation to the satisfaction of the NYC Department of Environmental Protection (NYCDEP) before the issuance of a building permit.

City-owned Sites

In addition to the 78 privately owned sites, the proposed action would provide for the reuse of a 2.26-acre parcel adjacent to the north of projected development site #2 as a public park. A Phase I analysis was prepared to address potential contamination on the site. The results of this evaluation indicated that contamination may be present and that a sampling program should be undertaken to determine the nature and degree of the contaminations as part of a subsequent Phase II investigation. The City is committed to completion of Phase II Environmental Site Assessments (EASs) for the park site. The Phase II EAS and testing protocols will be submitted for review and approval to the NYCDEP. Once the approved testing is completed, the City will complete the recommended remediation at the park site prior to the initiation of work. With these provisions in place, no significant adverse impacts are expected.