Chapter 8: Hazardous Materials

A. INTRODUCTION

This chapter assesses the potential for the presence of hazardous materials on the Project Sites and the other directly affected areas. It examines the potential for exposure to any such hazardous materials associated with the Proposed Actions and outlines specific measures that would be employed to protect public health, worker safety, and the environment. "Hazardous materials" are generally defined as any substances that pose a threat to human health or the environment.

PRINCIPAL CONCLUSIONS

The assessment, based on Phase I Environmental Site Assessments and a Phase II subsurface investigation, found no evidence of significant contamination of soil, groundwater, or soil vapor. Nevertheless, a variety of measures would be incorporated into the Proposed Project to reduce the potential for exposure to any hazardous materials that may be present. With the incorporation of these measures, the potential for significant adverse effects related to hazardous materials would be avoided.

B. METHODOLOGY

Assessment methodologies for the presence of hazardous materials are based upon available guidance, including:

- American Society for Testing and Materials (ASTM), Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (E 1527-13);
- DER-10 Technical Guidance for Site Investigation and Remediation, New York State Department of Environmental Conservation (DEC), May 3, 2010;
- 6 NYCRR Part 375 Environmental Remediation Program, DEC, December 14, 2006; and
- New York State Department of Health (NYSDOH) Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York (October 2006 and subsequent updates).

C. EXISTING CONDITIONS

SUBSURFACE CONDITIONS

Based upon a Geotechnical Engineering Report conducted by Mueser Rutledge Consulting Engineers in July 2018, Site A is approximately 75 feet above mean sea level and Site B is approximately 65 feet above mean sea level. The upper approximately 3 to 13 feet consists of granular fill, beneath which is native sand. The water table was encountered at approximately 40 feet below grade at Site A and 33 feet at Site B.

PHASE I ENVIRONMENTAL SITE ASSESSMENTS (ESAs)

Phase I Environmental Site Assessments (ESAs) were prepared by O'Brien and Gere, Inc. in October 2017 (for the entire Belmont Park property) and by Roux Environmental Engineering and Geology, D.P.C. (Roux) in April 2018 (specific to the Project Sites, see **Appendix C**). Both were performed in accordance with ASTM International Standard Practice E1527-13 (Standard Practice for Environmental Site Assessments). ESAs attempt to identify Recognized Environmental Conditions (RECs): i.e., the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property. They entail inspecting the property, interviewing knowledgeable personnel, and reviewing published sources of information, such as historical land use and topographic maps, aerials photographs, and state and federal environmental regulatory databases.

Both ESAs concluded that there was little or no development on the Project Sites before Belmont Park opened in 1905 (see Chapter 5, "Historic and Cultural Resources," for a historic overview of the area that is now occupied by Belmont Park). Sometime between 1903 and 1924, Site A was developed with an asphalt-paved parking area. In the same timeframe, a Long Island Rail Road (LIRR) station was constructed within Site B. Site A was reportedly historically also used as a paddock area. The Cross Island Parkway was constructed directly west of the Project Sites by 1947. The LIRR station on Site B moved west of the Project Sites by 1961, and Site B remained mostly vegetated until a parking lot was created sometime between 1961 and 1976. Both Project Sites are currently used for parking and a portion of Site A is also used for outdoor concessions, picnicking, and events. The area surrounding the Project Sites is currently developed with mostly commercial buildings and single-family residences.

The following RECs were identified by one or both ESAs:

- Based upon the development history and no confirmation of the date of municipal sewer connection, cesspools may be present at Site A.
- Drywells were noted throughout the parking areas of both Project Sites.
- No aboveground or underground storage tanks (ASTs or USTs) were present within the Project Sites, but active and historical tanks are associated with other portions of Belmont Park.
- Nearby (and likely hydrologically upgradient) properties had identified spills of hazardous materials or oil (e.g., a Mobil Station, Gate 5 transformers, and an LIRR maintenance yard).

No specific concerns were identified at the North Lot (or the location of the proposed substation immediately to the west) or the East Lot parking locations, but the East Lot (within the interior oval of the Training Track) is near both the existing Belmont Park waste management facilities within the interior of the Training Track and Maintenance Area 3, which is southeast of the Training Track. The historic uses in both of those areas could have led to releases of hazardous materials to the subsurface within those areas.

A Phase I ESA was conducted for the South Lot in September 2018 by Roux Environmental Engineering and Geology, D.P.C. The report noted that the site was used for parking since approximately 1961. Limited investigation of catch basins has been conducted by Bohler Engineering, but there is potential for some of the catch basins to actually be drywells. Therefore, the presence of catch basins throughout the South Lot was considered a REC. The Phase I ESA also identified the presence of petroleum-stained soils nearby, but not within the South Lot or areas where excavation is anticipated to be required, where a portable No. 2 fuel oil-fired generator

had previously been located. That area is also the location of a known historical petroleum release from oil-filled transformers located in that area.

SUBSURFACE INVESTIGATION

In order to assess the RECs associated with Sites A and B, a subsurface investigation was performed by Roux in July 2018 (Phase II Environmental Site Assessment Results, Belmont Park, 2150 Hempstead Turnpike, Elmont, New York 11003) including preliminary waste characterization sampling of soil that would require excavation and disposal for the proposed development. Nineteen borings were installed for collection and analysis of 25 soil samples. Nine of those borings were retrofitted with permanent groundwater monitoring wells and eight with temporary soil vapor points. The locations of the borings are shown on Figure 2 of the Phase II report (see **Appendix C**).

Shallow soils were found to be predominantly sand with some fine gravel. A fill layer was observed in only three borings: up to two feet in thickness, mostly road base beneath asphalt cover. No visual or olfactory evidence of contamination was noted, other than four borings with slightly elevated photoionization detector readings potentially indicating volatile organic compounds (VOC). However, subsequent laboratory analysis of these soils indicated all VOCs were below the most stringent New York State guidelines (6 NYCRR Part 375 Unrestricted Use Soil Cleanup Objectives or UUSCOs). Other soil analytical testing data noted one sample with pesticides above UUSCOs (but significantly less than the Commercial SCOs). This was likely related to historical agricultural use. It was notable that samples from the former railroad area did not exceed UUSCOs.

Groundwater analytical results were compared to the NYSDEC Ambient Water Quality Standards and Guidance Values (AWQSGVs). There were no exceedances for VOCs or polychlorinated biphenyls (PCBs), but, in six of the nine samples, one semivolatile organic compound (SVOC), benzo(a)anthracene, several metals (iron, manganese, sodium), and/or pesticides did exceed AWQSGVs, but these findings were not considered to be a significant environmental concern as the metals are most likely naturally occurring, the benzo(a)anthracene was likely reflective of suspended sediment in the sample (rather than representing a dissolved contaminant) and the pesticides reflected historical agricultural use, and did not appear to be related to soil contamination originating at the Project Sites.

The eight soil vapor samples were collected at 5 to 25 feet below grade (dependent upon the anticipated excavation depth for future buildings). Samples contained multiple VOCs, but only eight of these compounds had guidance values assigned by New York State Department of Health for evaluating the potential for vapor intrusion and all these were detected at levels that would not be of concern, even if they had been detected in indoor air.

D. FUTURE WITHOUT THE PROPOSED ACTIONS

Without the Proposed Actions there would be no subsurface disturbance of the Project Sites or other directly affected areas and thus no potential for exposure to any subsurface contamination that might be present.

E. POTENTIAL IMPACTS OF THE PROPOSED ACTIONS

The Proposed Actions would require excavation for construction of new buildings on the Project Sites (some of which include below grade space), and more limited excavation for the construction of parking fields, the new substation, and installation of utilities at both the Project Sites and other directly affected areas. Although the subsurface investigation found no evidence of significant

contamination of soil, groundwater, or soil vapor, the following measures would be incorporated into the Proposed Actions to reduce the potential for exposure to any hazardous materials that may be encountered (it should be noted that PSEG Long Island would be responsible for properly handling any hazardous materials associated with subsurface disturbance associated with the new substation and installation of associated distribution feeders and transmission lines/poles):

- Soil to be disposed of off-site would be sampled prior to excavation at a frequency sufficient to meet disposal facility requirements. This would include the areas of excavation (trenching), which are yet to be finalized, at the parking areas and the area where the new substation is proposed.
- Excavated material would be handled and disposed of in accordance with applicable federal, state, and local regulatory requirements;
- A Soil Management Plan (SMP), incorporating a Construction Health and Safety Plan (CHASP), would be implemented to ensure proper procedures are followed should petroleum tanks or contaminated soil be identified during the pre-construction sampling or during construction. The CHASP would address worker and community protection, including the need for personal protective equipment, dust control, work zone and community air monitoring, and emergency response procedures;
- In the event that petroleum tanks are encountered, they would be removed (along with any associated contaminated soil) in accordance with applicable regulatory requirements, including those relating to spill reporting and tank registration;
- Any imported soil used for landscaping would comply with applicable regulatory requirements; and
- To comply with NYSDEC stormwater management regulations, a Stormwater Pollution Prevention Plan providing erosion and sedimentation control measures to minimize the potential impacts to stormwater would be developed and implemented.

With the incorporation of these measures, the potential for significant adverse effects related to hazardous materials would be avoided. ✷