# 2.17 PUBLIC HEALTH

## 2.17.1 INTRODUCTION

According to the *CEQR Technical Manual*, public health is the organized effort of society to protect and improve the health and well-being of the population through: (1) monitoring; (2) assessment and surveillance; (3) health promotion; (4) prevention of disease, injury, disorder, disability and premature death; and (5) reducing inequalities in health status. The goal of CEQR with respect to public health is to determine whether adverse impacts on public 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 analysis is not necessary for most proposed projects. Where no significant unmitigated adverse impact is found in such CEQR analysis areas 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 one or more of those analysis areas, a public health assessment may be warranted. In addition, in unusual circumstances, a project may also have potential public health consequences that may not be related to the issues already addressed in other technical analysis areas in CEQR reviews, and the lead agency may determine that a public health assessment is warranted.

As described in the preceding chapters of this DEIS and summarized below, the Proposed Project would not result in unmitigated significant adverse impacts in such areas as air quality, water quality, hazardous materials, or noise. Further, the Proposed Project would not introduce any unusual circumstances that have potential public health consequences related to other issues. Therefore, a detailed public health assessment is not warranted and significant adverse impacts to public health are not expected to occur.

## 2.17.2 HAZARDOUS MATERIALS

As presented in **Chapter 2.9**, "Hazardous Materials", the Proposed Project would not result in significant adverse impacts due to hazardous materials.

### 2.17.2.1 Year 2015 Analysis

By the year 2015:

- The ~~NYC~~New York City Department of Parks and Recreation (NYCDPR) would develop an approximately 23-acre park site with active and passive recreational space, which would be mapped along with the adjacent approximately 20-acre Conservation Area for ~~a~~an approximately 43-acres of new mapped parkland;
- To the east of the proposed park, a proposed 11-acre Retail Site "A" would be constructed with up to 195,000 square feet of commercial space and a new approximately 15,000 square foot library branch that will share parking with the retail stores; and
- Both Retail Site "A" and the park would be accessed from Bricktown Way and Tyrellan Avenue, presently privately-owned roadways within the Project Area that will be mapped as part of the Proposed Project.

Based on the findings of the Phase I ESA, a Phase II Subsurface Investigative Work Plan (Phase II Work Plan) and Site Specific Health and Safety Plan (HASP) ~~have been~~were prepared and submitted to the New York City Department of Environmental Protection (NYCDEP) for review and approval for the proposed parkland and Retail Site "A".
~~The Phase II Work Plan includes soil, groundwater, and soil vapor testing at locations distributed across the two sites. If indicated by the results of the testing, a Remedial Action Plan (RAP) and Site Specific Construction Health and Safety Plan (CHASP) will be prepared and submitted to NYCDEP for review and~~

~~approval. Required remediation will be performed in compliance with all federal, state, and local regulations. With the implementation of these measures prior to construction, no significant adverse hazardous material impacts are expected during construction or operation of these sites.~~

The Proposed Project would require excavation of soil within these sections of the Development Area, and possibly dewatering of groundwater from excavations depending on the depth and location of the excavations for the park structures and buildings for Retail Site "A." If necessary, the RAP would govern all soil disturbances and would include procedures for handling, stockpiling, testing, transportation, and disposal of excavated materials, including any unexpectedly encountered contaminated soils. If unexpected areas of contamination are discovered during construction, these materials would be removed in accordance with all applicable local, state, and federal regulations. The general debris and junk vehicles observed on-site would be removed and properly disposed of in accordance with applicable requirements.

In the event that unexpected areas of contamination are encountered during construction, the following mitigation measures would be undertaken as necessary to protect project workers and the surrounding community from exposure to hazardous materials:

- A Construction Health and Safety Plan ("CHASP") would be prepared prior to construction to include contingency procedures for protecting project workers and the surrounding community from exposure to hazardous materials if encountered;
- Contaminated soils would be separated from non-contaminated soils and stored to prevent runoff and public exposure pending testing for disposal; ~~and~~
- ~~Contaminated~~and<u>Contaminated</u> soils would be transported from the site in covered vehicles and disposed at a licensed facility with chain-of-custody documentation.

<u>Subsurface environmental investigation was completed in July 2013. The purpose of the investigation was to determine if historical manufacturing activities have impacted soil and groundwater quality on-site. The July 2013 subsurface investigations included the collection of 11 soil samples, one groundwater sample and six soil gas samples in the areas of the proposed Fairview Park and Retail Site "A." The sample locations are shown in **Appendix D1**. The soil and groundwater samples were analyzed for Target Compound List (TCL) volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs); Polychlorinated Biphenyls (PCBs); Pesticides; and, Target Analyte List (TAL) Metals. The groundwater sample was analyzed for total and dissolved TAL Metals while the soil gas samples were analyzed for VOCs.</u>

<u>Soil results were compared to NYSDEC Part 375 Soil Cleanup Objectives (SCOs) for Unrestricted Use, Restricted Residential Use, and Commercial Use. Soil within the proposed Fairview Park would be required to meet Restricted Residential SCOs and soil on Retail Site "A" would need to meet Commercial SCOs. Groundwater results were compared to the NYSDEC Division of Water Technical and Operational Guidance Series (TOGS 1.1.1) Ambient Water Quality Standards and Guidance Values (Class GA).</u>

<u>Soil vapor results were compared to the NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York (October 2006); which lists Air Guidance Values (AGVs) for four VOC compounds (carbon tetrachloride, tetrachloroethene, 1,1,1-trichloroethane, and trichloroethene). The NYSDOH guidance also contains a USEPA-compiled database of typical ambient air concentration averages for various VOCs. The USEPA ambient air values and NYSDOH AGVs were used in this study to evaluate the likelihood for future soil vapor intrusion at structures on-site. Laboratory analysis did not identify any VOCs, SVOCs, PCBs, or Pesticides in the soil samples collected at concentrations above their respective Unrestricted, Restricted Residential, or Commercial SCOs. The majority of these results were at non-detectable levels. The metals arsenic, copper, and lead were detected in one soil sample at concentrations exceeding the Unrestricted SCOs for these metals, but below the respective Restricted</u>

Residential and Commercial SCOs. No other metals were detected in any of the soil samples at concentrations above Unrestricted SCOs.

No VOCs, SVOCs, PCBs or Pesticides were detected in the collected groundwater sample at concentrations above the NYSDEC Class GA values, with the majority of results at non-detectable levels. Total (non-filtered) aluminum, cobalt, iron, and sodium were detected above their respective NYSDEC Class GA values in the collected groundwater sample. Dissolved (filtered) cobalt, iron, manganese, and sodium were detected above respective NYSDEC Class GA values. No other metals were detected in the groundwater sample at concentrations above Class GA thresholds. VOCs were detected in several of the soil gas samples at concentrations slightly above their respective USEPA ambient air concentrations but not above NYSDOH AGVs. No VOCs were detected in collected soil or groundwater samples. The presence of acetone detected in all six soil gas samples may be attributed to laboratory-induced contamination.

One soil sample contained arsenic, copper, and lead at concentrations exceeding the respective Unrestricted SCOs, but below Restricted Residential and Commercial SCOs. No other compounds or metals were detected in any of the soil samples above their respective Unrestricted SCOs. Therefore, soils within the proposed Fairview Park and Retail Site "A" are considered environmentally suitable for onsite reuse. Any soil that requires offsite disposal due to engineering requirements will likely require waste classification sampling by the chosen disposal facility, and the final disposal classification of the material would depend on such results. Metals in the collected groundwater sample were detected at concentrations above the respective Class GA values. Since groundwater beneath the Development Area is not intended as a potable water source, and construction dewatering is not anticipated, the presence of these metals is not expected to impact the construction site. None of the soil gas samples exceeded AGVs for the four compounds for which NYSDOH has established mitigation action levels. Based on these soil vapor results, there does not appear to be a potential for future soil vapor intrusion into structures at the proposed Fairview Park or Retail Site "A."
Laboratory results of the paint chip samples indicated that the eastern gate's coating contained 0.37 percent lead and the western gate's coating contained 1.69 percent lead. Any disturbance to these gates must be conducted in accordance with OSHA Lead in Construction Standard (29 CFR 1926.62) requirements and waste generation, handling and transport and disposal must be conducted in accordance with NYS Part 360-364 Regulations and Federal Resource Conservation and Recovery Act (RCRA) requirements.

*Recommendations*

Based on the findings of the Phase I ESA and Phase II ESI, the following remediation and environmental control measure would be implemented:

- As per NYCDEP recommendations, a vapor barrier would be incorporated into the design plans of any proposed structures on the Retail Site "A," public library and Fairview Park sites.

- NYCDPR and the developer for Retail Site "A" will submit a Remedial Action Plan (RAP) to DEP for review and approval. The RAPs will indicate that contaminated soils would be properly disposed of in accordance with the applicable NYSDEC regulations. If re-use of soil is proposed on-site, the RAP will detail the amount of cut/fill, the proposed testing frequency and applicable standards, and for the park – the proposed locations for the re-used soil. The Retail Site "A" RAP will include information regarding the library parcel which will be prepared and graded by the Retail Site "A" developer.

- NYCDPR and the developer for Retail Site "A" will each submit a Construction Health and Safety Plan (CHASP) to NYCDEP to protect workers' potential exposure to contaminants for the proposed construction project. Soil disturbance would not occur without NYCDEP's written approval of the CHASP. If excavated soils are expected to be temporarily stockpiled on-site, they

would be covered with polyethylene sheeting while disposal options are determined. Additional testing would be conducted, as required, by the disposal/recycling facility.

- If any petroleum-impacted soils (which display petroleum odors and/or staining) are encountered during the excavation/grading activities, the impacted soils would be removed and properly disposed of in accordance with all NYSDEC regulations.

- Dust suppression would be maintained by the contractor during the excavating and grading activities at the site. Any underground storage tanks (including dispensers, piping, and fill-ports) that are encountered would be properly removed/closed in accordance with all applicable NYSDEC regulations.

- If de-watering into City storm/sewer drains occurs during the proposed construction, a NYCDEP Sewer Discharge Permit would be obtained prior to the start of any de-watering activities at the site.

### 2.17.2.2 Year 2020 Analysis

By the year 2020, the remainder of the Development Area is expected to be developed. By that year:

- An additional 7.3-acre site along Arthur Kill Road would be developed as Retail Site "B," with an anticipated 90,000 square feet of neighborhood retail space.
- An approximately 9.1-acre site will be developed as senior housing, with up to 162 units.
- To the east of the senior housing, the New York City School Construction Authority (NYCSCA) would construct a combined elementary/middle school on the approximately 5.9-acre site with an approximately 750-seat capacity for kindergarten through 8th grade.

The latter two of these uses will be constructed along Englewood Avenue, which is assumed to be mapped and constructed by the year 2020 across the northern border of the Project Area, from Veterans Road West on the east to Arthur Kill Road on the west.

Prior to construction, as part of the ~~Due Diligence~~due diligence process for all schools, the NYCSCA will perform further environmental studies (if necessary) and investigations to determine the environmental conditions at the proposed school site. Environmental ~~Due Diligence~~due diligence includes, but is not limited to, Phase I Environmental Site Assessments, Phase II Environmental Site Assessments and ~~Mitigation~~mitigation as appropriate.

At this time there are no specific development proposals for Retail Site "B" and the housing site and future developers will be selected pursuant to a Request for Proposal. Further subsurface investigations will be required to be undertaken by the developer(s) after selection. For Retail Site "B" and the senior housing site, Phase II Environmental Site Assessments and mitigations as necessary, through continued consultation with NYCDEP, will be required to be undertaken by the developer(s) through provisions in the Contract of Sale between NYC and the developer(s). For City properties that may be managed by the New York City Economic Development Corporation (NYCEDC~~,~~), Phase II investigations and remedial measures as necessary, and continued consultation with NYCDEP, will be required to be undertaken by the developer(s) through the provisions of a contract for sale or lease, or other legally binding agreement between NYCEDC and the developer(s). With the implementation of these measures prior to construction no significant adverse hazardous material impacts are expected during construction or operations within the entire Development Area.

As noted above, if unexpected areas of contamination are discovered during construction, these materials would be removed in accordance with all applicable local, state, and federal regulations. The general

debris and junk vehicles observed on-site would be removed and properly disposed of in accordance with applicable requirements.

The Proposed Project would require excavation of soil within the remaining sections of the Development Area, and possibly dewatering of groundwater from excavations depending on the depth and location of the excavations for the remaining proposed buildings. In the event that unexpected areas of contamination are encountered during construction, the same preventative and mitigation measures noted in the Year 2015 Analysis above would be undertaken as necessary to protect project workers and the surrounding community from exposure to hazardous materials.

With the implementation of these measures prior to construction no significant adverse hazardous material impacts are expected during construction or operations within the Development Area.

## 2.17.3 AIR QUALITY

As presented in **Chapter 2.14**, "Air Quality", the result of the air quality screenings and detailed analyses conducted show that the Proposed Project would not have any significant air quality impacts. ~~Regarding mobile sources, emissions~~Emissions from project-related vehicle trips would not cause a significant mobile source air quality impact, nor would vehicular emissions from the proposed parking areas. Regarding stationary sources~~,~~; emissions from the heating, ventilation and air conditioning systems ("HVAC") of the projected buildings within the Development Area would not significantly impact other development sites or nearby existing or future sensitive land uses. Projected buildings within the Development Area would also not be significantly impacted by emissions from any "large" existing emission sources. No significant adverse impacts from all development sites are predicted, with natural gas projected for all HVAC systems of the proposed developments, and no stack setbacks required. The result of these analyses show that the potential impacts from gas-fired heating systems in the buildings to be constructed as part of the Proposed Project would not cause any annual or 24-hour air quality violations and would therefore have no significant adverse air quality impacts. No stack setback or (E) designation related to air quality for any of development sites under the Proposed Project is required. Additionally, air toxic emissions generated by nearby existing industrial sources would not significantly impact the sensitive uses of the Proposed Project (i.e., the senior housing, school and park components).

## 2.17.4 NOISE

~~As demonstrated in **Chapter 2.16** "Noise," traffic generated by the Proposed Project would not have the potential to produce significant adverse noise impacts at any sensitive receptors near the study area.~~

~~The analysis of future conditions in 2020, when all project components are projected to be completed, including the introduction of residences and schools, indicates that increases in traffic-related noise would have no significant impacts to the neighborhood. Initial screening indicated that at two locations the Proposed Project would increase noise levels by more than the CEQR threshold of 3 dBA in one or more analysis period. However:~~

- ~~At one of those locations, the absolute level with the Proposed Project would be well below the 65 dBA absolute threshold for impacts; and~~

~~At the second location, even though future noise levels would be above 65 dBA, more detailed analyses of future noise levels indicated that the increase in noise levels due to the Proposed Project would be less than the 3dBA impact threshold in all three analysis periods.~~ As demonstrated in **Chapter 2.16** "Noise," based on the proposed school playground boundary reference level of 71.4 dBA $L_{eq}(1)$, during the daytime school opening hours, the closest residential land use, the proposed on-site senior housing, would experience a maximum of 55 dBA $L_{eq}(1)$ which is equivalent to approximately 58 dBA $L_{10}$. This level is below the 65 dBA noise exposure guideline (see previous Table 2.16-2 **in Chapter 2.16**) as classified "Acceptable" for general residential external use. Therefore, the proposed daytime school

operation would not result in a significant noise impact in the neighborhood including the senior housing that would be immediately adjacent to the new school.

During the 2015 year analysis, no 3 dBA increase in traffic noise was predicted using the PCE screening method and therefore no further analysis is warranted. During the 2020 year analysis, an incremental increase greater than 3 dBA was predicted in areas along Englewood Avenue., at Monitoring Site 4 and 7 shown in **Chapter 2.16**. With the projected 6.3 dBA increment at Site 4, the predicted peak traffic noise level of 58 dBA (51.7+6.3) would be below the 65 dBA absolute impact threshold level. By combining with the school playground-generated noise of 55 dBA with the traffic generated noise, the total project noise level would rise to 59.8 dBA. That total is still below the 65 dBA threshold, Therefore, there is no potential for a significant noise impact at this location.

The measured ambient threshold of 65 dBA was exceeded at Monitoring Site 7. A further evaluation was therefore performed for Site 7 using the TNM model to better predict the Proposed Project's incremental noise contribution along that segment of Englewood Avenue east of the West Shore Expressway. These results confirm that no significant traffic noise impacts would occur at Monitoring Site 7, since the future combined noise levels (measured ambient levels plus estimated noise increment from project-generated traffic) minus the measured ambient levels would not exceed the 3-dBA significance threshold when the absolute level would be above 65 dBA.

The anticipated new stationary sources under the Proposed Project would be limited to those typical heating and cooling and ventilation (HVAC) equipment installed at commercial, residential or community facility buildings and the proposed new school playground noise. For larger buildings, such equipment is either inside the proposed buildings, or on their respective rooftops. Smaller residential buildings may include window or built-in wall air conditioning units or have some equipment located outdoors in side or rear yards. Indoor equipment is not considered substantial stationary noise sources as defined in the *CEQR Technical Manual.* The larger building's rooftop equipment is typically screened and would be sufficiently removed from existing or proposed sensitive receptors to avoid creating significant noise impacts. Noise from window or wall units would similarly not warrant detailed impact analysis and would be unlikely to result in any significant noise impacts to the surrounding community. Therefore the HVAC noise impacts to the neighborhood from the Proposed Project are considered to be negligible and require no further analysis in this chapter.

~~Noise levels from the proposed new school playground activities were predicted using standard acoustic formulas based on the measurement data and analysis approach adopted by the NYCSCA to assess potential school noise impacts on the community. Based on used school playground boundary reference levels during the daytime school opening hours, the closest residential land use, the proposed on-site senior housing, would experience noise levels well below noise exposure guidelines as classified "Acceptable" for general residential external use. Therefore the proposed daytime school operation itself would not result in a significant noise impact on the surrounding residential area.~~

Additionally, a qualitative assessment of the potential gun firing noise effects from the Colonial Rifle and Pistol Club on the proposed sensitive land uses was performed. The highest levels of gunshot impulsive noise observed along the trail in the park but they do not exceed those generated from other background noise sources such as on-road traffic in the neighborhood. Therefore it is anticipated that there would not be any significant adverse impulsive noise effects on the proposed sensitive land uses, including noise from the gun range.