

A. INTRODUCTION AND SUMMARY OF FINDINGS

This chapter assesses the potential for exposure to environmental contamination or hazardous materials during construction and operation of the Proposed Project, and the specific measures that would be employed to protect public health, worker safety, and the environment. A “hazardous material” is generally defined as any substance that poses a threat to human health or the environment.

A.1. METHODOLOGY

The potential for exposure to environmental contamination or hazardous materials during construction and operation of the Proposed Project for the Project Sites were evaluated based on available records from the New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP), for the Teutonia and Chicken Island Sites; and Phase I Environmental Assessments (ESAs), for the properties comprising the North Broadway Site.

The overall goal of the Brownfield Cleanup Program (BCP) is to encourage private-sector cleanups of brownfields and to promote their redevelopment as a means to revitalize economically blighted communities. Remedies in the BCP are selected from four cleanup tracks:

- *Track 1* – no restrictions on the use of the property;
- *Track 2* – restricted use with generic soil cleanup objectives (SCOs) based on the intended use of the property-residential, restricted residential (single family houses not allowed), commercial, or industrial;
- *Track 3* – restricted use with modified SCOs based on the same uses described in track 2 above; and
- *Track 4* – restricted use with site-specific soil cleanup objectives, where the shallow exposed soils must meet the generic SCOs used for track 2 above.

The selection of a remedy is based on the nature and extent of contamination on the site and a qualitative exposure assessment. The proposed remedy is evaluated by NYSDEC and is subject to a 45-day public comment period. The selected remedy is described in the final Decision Document (DD). Once the DD is issued by NYSDEC, the remedial actions are performed, with oversight by NYSDEC and the New York State Department of Health (NYSDOH). Once remedial actions are complete, and upon a determination that the remedial action objectives for the BCP site as defined in the DD have been achieved, the NYSDEC issues a Certificate of Completion.

If after completion of the remedial actions, some contamination is left at the site, which is hereafter referred to as “remaining contamination,” institutional and engineering controls

are then incorporated into the site remedy to control exposure to remaining contamination to ensure protection of public health and the environment. An environmental easement in the form of an institutional control requires compliance with a Site Management Plan (SMP). The SMP identifies measures and/or actions (i.e., air monitoring, dust control, erosion control, etc.) to ensure that the public living and working near the site as well as employees or visitors to any facility located on the site are protected from exposure to site contaminants.

The primary purpose of a Phase I ESA is to identify Recognized Environmental Conditions (RECs), Historical Recognized Environmental Conditions (HRECs), and Controlled Recognized Environmental Conditions (CRECs) as defined by the American Society for Testing and Materials (ASTM) Standard Practices E 1527-13, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process. These terms are defined by ASTM as follows:

- *Recognized Environmental Condition (REC)* – The presence or likely presence of any hazardous substances or petroleum products in, on, or at a property due to release to the environment; under conditions indicative of a release to the environment; or conditions that pose a material threat of a future release to the environment. *De minimis* conditions are not recognized environmental conditions.
- *Historical Recognized Environmental Condition (HREC)* – A past release of any hazardous substances or petroleum products that has occurred in connection with a property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by the applicable regulatory authority.
- *Controlled Recognized Environmental Condition (CREC)* – A recognized environmental condition resulting from a past release of any hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority and subject to the implementation of required controls for any remaining hazardous substances or petroleum products.

The scope of the Phase I ESAs included the four components established by the ASTM Standard E 1527-13 and included the following:

- Records review (using Environmental Data Resources, Inc. to conduct a search of federal, state, and local databases containing known and suspected sites of environmental contamination within the approximate minimum search distance). Historical information identifying the past site use was obtained from City Directories, Aerial Photographs, Sanborn Fire Insurance Maps, and historical Topographic Maps;
- Site Reconnaissance; and
- Interviews.

A.2. ACRONYMS

Some of the most recurrent acronyms used in this chapter are listed below:

- AST: Above Storage Tanks
- BCA: Brownfield Cleanup Agreement

- BCP: Brownfield Cleanup Program
- CAMP: Community Air Monitoring Program (also referred to as Community Health and Safety Plan)
- CCS: Composite Capping System
- COC: Certificate of Completion
- CRECs: Controlled Recognized Environmental Conditions
- DD: Decision Document
- EC / IC: Engineering and Institutional Controls
- EE: Environmental Easement
- ESA: Environmental Site Assessment
- EWP: Excavation Work Plan
- HRECs: Historical Recognized Environmental Conditions
- NYSDEC: New York State Department of Environmental Conservation
- NYSDOH: New York State Department of Health
- PAHs: Polycyclic Aromatic Hydrocarbons
- PCE: Tetrachloroethylene
- PPR: Periodic Review Report
- RA: Remedial Actions
- RAWP: Remedial Action Work Plan
- RECs: Recognized Environmental Conditions
- RI: Remedial Investigations
- RIR: Remedial Investigation Report
- RIWP: Remedial Investigation Work Plan
- SCOs: Soil Cleanup Objectives
- SMP: Site Management Plan
- SSDS: Sub-slab Depressurization System
- SVI: Soil Vapor Intrusion
- SVOC: Semi-Volatile Organic Compounds
- TCE: Trichloroethylene
- UST: Underground Storage Tanks
- UUSCOs: Unrestricted Use Soil Cleanup Objectives
- VOC: Volatile Organic Compounds

A.3. SUMMARY OF FINDINGS

Parts of the Teutonia and Chicken Island Sites were remediated under the New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) on September 25, 2017, and December 29, 2017, respectively.

Remediation of the Teutonia BCP Site (BCP Site No. C360085) included soil excavation to meet “Conditional” Track 1 (unrestricted) Soil Cleanup Objectives (SCOs), with Track 2 (restricted residential) SCOs applied where Track 1 SCOs could not be met. “Conditional” Track 1 SCOs were achieved for a large portion of the site (0.5920 acres); the “Conditional” designation is due to the presence of tetrachloroethylene (PCE) in soil vapor post-excitation samples. Track 2 (restricted residential) SCOs were achieved for a 0.1958-acre portion of the Site fronting Buena Vista Avenue. As part of the remedial actions for the Teutonia BCP Site, Institutional Controls (ICs) and Engineering Controls (ECs) were and are to be implemented. EC includes the installation of a site cap consisting of a vapor barrier and passive sub-slab depressurization system (SSDS) in the future building(s) to address concerns of exposure to remaining contamination. A Soil Vapor Intrusion (SVI) evaluation is to be conducted after the building and ECs are constructed. As part of the IC, an environmental easement requires adherence to the Site Management Plan (SMP) and restricts the use and development of the Teutonia Site to residential, restricted-residential, commercial, or industrial uses only. The environmental easement also prohibits the use of groundwater as a source of potable water without necessary water quality treatment as determined by the New York State Department of Health (NYSDOH). The SMP provides that depending on the results of the SVI sampling, conversion to an active SSDS may be required. If an active SSDS is required, the SMP will be revised to include an operation and maintenance plan. The SMP requires site-wide inspections of ICs and ECs be performed no less frequently than quarterly; these inspections are then summarized in an annual Periodic Review Report (PRR). The first PRR is to be submitted to NYSDEC beginning 16 months after the Certificate of Completion (COC) is issued. The COC for the Teutonia BCP Site is dated September 25, 2017.

The remainder of the Teutonia Site, located south of the area subject to the BCP, formerly had underground storage tanks (USTs). Publicly available documents report that the USTs were removed. Phase II Environmental Site Assessment (ESA) soil sampling conducted in 2021 determined that concentrations of petroleum hydrocarbon constituents or volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs) and metals do not exceed New York State Department of Environmental Conservation (NYSDEC) Unrestricted Use Soil Cleanup Objectives (UUSCOs).

Two areas of the Chicken Island Site are in the BCP, identified as BCP Site No. C360083 (Chicken Island BCP) and C360191 (The Firehouse BCP). Remediation of the 6.934-acre portion of the Site comprising BCP Site No. C360083 (which includes additional property outside the Chicken Island Site known as Fleet New Main Street LLC) included soil remediation to meet Track 4 SCOs for restricted-residential, commercial, or industrial uses with “hot spot” or source area removal. Remediation included the installation of ECs and ICs to manage remaining contamination. ECs include a site-wide engineered Composite Capping System (CCS), consisting of asphalt pavements, concrete covered sidewalks, two feet of clean soil in vegetated areas, and concrete building slabs. In addition, a passive SSDS was installed in two of the buildings located along New Main Street (outside the Chicken Island Site). Environmental easements were imposed on the Chicken Island BCP Site (C360083) to restrict uses and prohibit groundwater consumption. Two of those environmental easements covered areas located within the Chicken Island Site; the other environmental easement is for the area located outside the Chicken Island Site, known as Fleet New Main Street LLC. As with the Teutonia BCP

Site, the SMP for the Chicken Island BCP Site requires monitoring, reporting, and management of remaining contamination for post-remediation activities, including site redevelopment and ground disturbance. Monitoring includes annual inspection of the composite capping system (CCS), annual groundwater sampling and annual sampling of the SSDS. These inspections and monitoring events are summarized in the annual Periodic Review Report. The first annual Periodic Review Report is to be submitted to NYSDEC beginning 16 months after the Certificate of Completion (COC) is issued. The COC for the Chicken Island BCP Site is dated December 29, 2017. The SMP also requires an SVI evaluation to determine if a vapor intrusion mitigation system is required. SMP activities will continue until it is determined by NYSDEC that all institutional and/or engineering controls identified for the site are no longer necessary.

Remedial actions for the 0.79-acre portion of the Chicken Island Site comprising BCP Site No. C360191 (The Firehouse BCP) will be proposed based on the findings of remedial investigations (RI) and could include removal of source contamination and installation of ECs (i.e., side-wide capping system, groundwater monitoring, SSDS systems) and ICs (i.e., environmental easements to restrict site usage, an SMP, groundwater consumption).

Phase I Environmental Site Assessments (ESAs) conducted for the North Broadway Site did not identify any Recognized Environmental Conditions (RECs), Historical Recognized Environmental Conditions (HRECs), or Controlled Recognized Environmental Conditions (CRECs). Above-ground Storage Tanks (AST) with no evidence of leaks or spills were observed at Lot 8 (7-11 Overlook Terrace) and Lot 16.18 (23-25 Overlook Terrace). The Phase I ESAs do not recommend additional investigation. Older buildings, whether single or multi-family residential or commercial, are known to have heating oil USTs and hazardous building materials (i.e., asbestos-containing materials, PCBs, etc.). Redevelopment typically encounters unknown USTs and related petroleum release areas. Therefore, a contingency plan should be prepared and implemented by the construction contractor to address the potential for encountering USTs during excavation activities and to manage contamination related to the former operation of the USTs, if any.

This chapter concludes that although the potential for subsurface contamination has been identified in some areas of the Teutonia and Chicken Island Sites, the Proposed Project is not anticipated to result in significant adverse hazardous materials impacts. Intrusive work on the portions of the Teutonia and Chicken Island Sites regulated under the BCP must be completed in compliance with the SMP, Excavation Work Plan (EWP), and Environmental Easements (EEs) set for each Site in accordance with NYSDEC Part 375 Environmental Remediation Programs and NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation. For areas not in the BCP, intrusive work must be completed in accordance with applicable federal, state, and local regulations, and a contingency plan, which would include a Health and Safety Plan, should be prepared and implemented by the construction contractor to provide measures to address unknown contamination encountered during redevelopment and for the protection of site workers. Although some contaminated materials could remain in the subsurface following construction, new buildings could incorporate elements (such as vapor barriers and passive SSDSs) as necessary to avoid adverse impacts from remaining conditions.

B. EXISTING CONDITIONS

Portions of the Teutonia and Chicken Island Sites are in the Brownfield Cleanup Program, as described below. The North Broadway Site is not in the BCP.

B.1. TEUTONIA SITE

The Teutonia Site historically consisted of multiple tax lots (Lots 11, 13, 15, 17, 21, and 23) that were consolidated into a single tax lot (Lot 11) in 2015. A portion of the Teutonia Site, approximately 0.788 acres, corresponding to historical tax Lots 11, 13, 15, and 17, was remediated under the NYSDEC Brownfield Cleanup Program (BCP) and is identified as the “Former Teutonia Hall Site,” BCP Site No. C360085 (the “Teutonia BCP Site”) (**Figure 14-1**).

The remainder of the Teutonia Site, approximately 0.352 acres, corresponding to historical tax Lots 21 and 23 and located at the southern end of the Site (**Figure 14-1**), is not in the BCP and was not remediated under the BCP. Phase I ESAs were completed for this area in 2007, 2010, and 2021, and a Phase II ESA was completed June 3, 2021 (see **Appendix P-1**). USTs, up to two 275-gallon USTs and/or up to two 550-gallon USTs, were once present in Lot 23; a 550-gallon UST existed in Lot 21. USTs have reportedly been removed; however, UST removal documentation is not available. Phase II ESA soil sampling determined that concentrations of petroleum hydrocarbon constituents or VOCs, SVOCs and metals are not present in excess of respective NYSDEC UUSCOs (**Appendix P-1**).

B.1.a. The Teutonia BCP Site Summary

The Teutonia BCP Site was remediated in accordance with Brownfield Cleanup Agreement (BCA) Index No. A3-0529-1005, which was executed on November 21, 2005, and amended on April 16, 2007, and October 7, 2015. NYSDEC issued a Certificate of Completion, documenting the completion of remedial actions at the Teutonia BCP Site, on September 25, 2017 (**Appendix P-2**).

Remedial investigations conducted between 2005 and 2010 identified contaminants of concern in soils and soil vapor. VOCs, polycyclic aromatic hydrocarbons (PAHs), and metals were identified in soils and chlorinated solvents were identified in soil vapor (**Appendices P-3 and P-4**). A Remedial Action Work Plan (RAWP) was prepared (see **Appendix P-5**) and a Final Decision Document documenting the selected remedial actions for the Teutonia BCP Site was issued by NYSDEC in February 2012 (see **Appendix P-6**). The RAWP includes the excavation of on-site soils to achieve the UUSCOs (Track 1).

After completing the work required by the RAWP, impacted media in excess of applicable standards remained in place in certain areas of the Teutonia BCP Site. As such, Engineering Controls (ECs) and Institutional Controls (ICs) were put in place to prevent human exposure to the remaining contamination. The ICs are in the form of environmental easements imposed on the property and recorded with the Westchester County Clerk on December 2, 2015, and December 30, 2016, as Control Nos. 553233255 and 563193526, respectively (**Appendix P-7**). The environmental easements require adherence to and implementation of an SMP.

The December 2, 2015, environmental easement (Control No. 553233255) is for the 0.1958 acre “Track 2 Restricted Residential” area. The area encompasses a narrow section in the eastern portion of the Teutonia BCP Site along Buena Vista

Avenue and approximately 33 feet from the property line, as shown on **Figure 14-2**. The environmental easement requires adherence to and implementation of the SMP (**Appendix P-8**) and operation of ECs, which include the installation of a vapor barrier cap and passive SSDS for future building(s). An SVI evaluation is to be conducted after building(s) and ECs are constructed. Depending on the results of the SVI sampling, activation of the SSDS may be required (i.e., providing mechanical means to extract contaminated vapors). If an active SSDS is required, the SMP will be revised to include an operation and maintenance plan. Site-wide inspections are required no less frequently than quarterly; these inspections are to be completed by an environmental qualified professional and then summarized in the annual Periodic Review Report. The SMP does not state specific capping requirements (i.e., cap thickness) in the Track 2 area. The SMP states that all future activities that will disturb remaining contaminated material in the Track 2 Restricted Residential area must be conducted in accordance with the SMP. The environmental easement also contains ICs that restrict the use and development of the Teutonia BCP Site to restricted residential, commercial, or industrial uses only and prohibits the use of groundwater as a source of potable water without water quality treatment as determined by NYSDOH.

The December 30, 2016, environmental easement (Control No. 563193526) is for the remaining 0.5920 acre “Conditional Track 1 Unrestricted” area of the Teutonia BCP Site. While soils in this portion of the Teutonia BCP Site achieved Track 1 (unrestricted) SCOs, the “Conditional” designation is due to the presence of PCE in soil vapor post-excavation samples. The environmental easement provides that for unrestricted use to occur within the “Conditional Track 1 Unrestricted” area, soil vapor must meet remedial goals within five years after the September 25, 2017, Certificate of Completion.¹ The environmental easement requires adherence to and implementation of a SMP. The engineering controls for the Conditional Track 1 Unrestricted area will be a vapor barrier and SSDS in the future building(s). An SVI evaluation is to be conducted after the buildings and engineering controls are constructed. If soil vapor fails to meet the remedial goals set forth in the environmental easement, then this area will revert to a Track 2 (restricted residential) cleanup like the rest of the Teutonia BCP Site and the SSDS will have to be activated (i.e., providing mechanical means to extract contaminated vapors). The environmental easement also contains ICs that restrict

¹ The condition imposed on the Track 1 remedy was that within five years of the date of the COC (i.e., September 25, 2022) a soil vapor evaluation was required to be performed inside the deepest ground level floor of the newly constructed building(s) in order to maintain the Track 1 status. Obviously, the building(s) have not yet been constructed and may not be constructed so that the contemplated ground level floor soil vapor evaluation can be performed by the required September 25, 2022 date. In order to avoid the further outcome that the Condition Track 1 remedy will revert to a Track 2 remedy, the Applicant will coordinate with the New York State Department of Environmental Conservation (NYSDEC) and New York State Department of Health (NYSDOH) to explain the circumstances associated with the project delay and request permission to perform a subsurface soil vapor investigation at the Teutonia Site before the September 22, 2022 deadline. To the extent the NYSDEC and NYSDOH require a soil vapor evaluation once the building(s) are constructed even if the outcome of the subsurface soil vapor investigation does not document remaining soil vapor issues of concern, the Applicant will request another five years to comply with the condition.

the use and development of the BCP Site to residential, restricted residential (single family houses not allowed), commercial, or industrial uses only and prohibits the use of groundwater as a source of potable water without water quality treatment as determined by NYSDOH.

The following narrative provides a remedial history timeline and a summary of the available project records to document key investigative and remedial milestones for the Teutonia BCP Site.

B.1.a.i Teutonia BCP Site Background

Historical buildings on the Teutonia BCP Site were used for a variety of industrial and petroleum-related commercial purposes, including but not limited to auto repair and parts distribution; a garage with USTs; a knitting mill; a dry cleaner; a toy manufacturer; a jewelry manufacturer; a printing facility; dental offices; and warehouse storage.

B.1.a.ii Remedial Investigation Summary

A remedial investigation (RI) was performed by Malcolm Pirnie, Inc. to characterize the nature and extent of contamination. The results of this investigation are described in a Remedial Investigation Report dated April 2008 and revised May 2010 (**Appendix P-4**).

Soils

Generally, the RI included soil vapor sampling and analysis, surface soil sampling and analysis, subsurface soil sampling and analysis, and one groundwater sample. The RI consisted of 14 soil vapor samples, 35 subsurface soil samples, and 1 groundwater sample from a temporary groundwater monitoring well.

Analytical results of surface soil samples previously collected at depths between 0 and 2 feet below ground surface indicated the presence of VOCs, SVOCs (PAHs) and metals at concentrations that exceeded the UUSCOs.

Soil Vapor

Soil vapor samples collected from beneath on-site buildings detected PCE and trichloroethylene (TCE). The highest concentrations of PCE and TCE were detected from soil vapor samples collected beneath the foundation slab for the structure formerly at 53 Buena Vista Avenue. The concentrations of PCE and TCE were 190,000 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) and 9,100 $\mu\text{g}/\text{m}^3$, respectively.

Existing buildings were deemed likely to trap soil vapor from escaping vertically through the soil column to the atmosphere. The report indicated PCE vapor in a north-south trending plume.

USTs

The RI identified fuel storage tanks as follows:

- one 3,000-gallon UST
- three 1,000-gallon USTs

- three 550-gallon USTs

As part of the overall remedy, removal of each tank along with liquid contents and related impacted soil, if present, was proposed in the RAWP (**Appendix P-5**).

B.1.a.iii Remedial Actions

Excavation

A RAWP was prepared (**Appendix P-5**) and a Final Decision Document with the selected remedial actions for the Teutonia BCP Site was issued by NYSDEC in February 2012 (**Appendix P-6**). The Remedial Actions (RA) generally consisted of the excavation of on-site soils to a minimum depth of 25 feet below ground surface (bgs). RAs were implemented in July 2014 and October 2015. Following excavation, 19 excavation end-point samples were collected at locations designated Excavation Bottom-1 (EB-1) through EB-19. Samples were analyzed for Target Compound List VOCs, SVOCs, pesticides, Poly-Chlorinated Biphenyls (PCBs), and Target Analyte List metals. Analyzed compounds were either not detected or were detected below UUSCOs.

USTs

Three (3) previously identified USTs were removed from the Conditional Track 1 Unrestricted area during the July 2014 remedial action implementation. As noted in the SMP, two of the USTs formerly stored No. 2 fuel oil, and the third UST may have stored gasoline and/or No. 2 fuel oil (**Appendix P-8**). During the July 2014 RA implementation, the three tanks were removed and were properly closed with both NYSDEC and Westchester County Department of Health (WCDOH) oversight (under NYSDEC Spill No. 1404458). As part of the RA, a total of 61.71 tons of petroleum contaminated soil were removed from the Teutonia Site and disposed off-site at Clean Earth of Carteret, a licensed disposal facility located in Carteret, New Jersey. A UST Spill Closure Report was compiled by HydroEnvironmental Solutions, Inc and sent to NYSDEC and WCDOH in February 2015. NYSDEC Spill No. 1404458 was formally closed by NYSDEC on July 24, 2014.

Additional USTs in the northwest corner of the Conditional Track 1 Unrestricted area, including three 550-gallon steel and one 1,000-gallon steel tanks originally discovered during the RAs in October 2015, were cut, cleaned, and removed on December 8 and 9, 2015 by Dutchess Environmental Construction (Dutchess) of Mahopac, New York. The liquid and sludge encountered in each of the tanks was removed by Envirowaste Oil Recovery Services (Envirowaste) of Mahopac, New York. No bottom or sidewall soil samples were collected from around the tanks as the four tanks were located where soil was removed from the Conditional Track 1 Unrestricted area and all soil around and under the tanks was removed for off-site disposal. Following UST removal, soil excavation resumed in the area with five end point samples collected on February 9, 2016, and analyzed for Target Compound List VOCs,

SVOCs, pesticides, PCBs, and Target Analyte List metals (EB-20 through EB-24). Analyzed compounds were either not detected or were detected below UUSCOs, except the pesticides 4,4'-DDD and 4,4'-DDT at one of the samples (EB-22).

Additional excavation was performed in the vicinity of EB-22 on July 14, 2016, with an EB sample collected and analyzed for pesticides only. Analyzed compounds were not detected except for 4,4'-DDT which was detected above the UUSCO.

B.1.a.iv Remaining Contamination

Soil

The Conditional Track 1 Unrestricted area soil sample results indicate that all endpoint samples achieved the Track 1 SCOs except one pesticide sample, specifically, EB-22 (4,4'-DDT). This single exceedance, in light of the 23 other endpoint samples from the Track 1 area that achieved Track 1 cleanup levels, is not considered statistically significant and compliance with the Track 1 SCOs has been achieved.

The Track 2 Restricted Residential area soil sample results indicate that SVOCs, pesticides and metals exceeded Track 1 SCOs. Specifically, Track 1 SCOs were exceeded at soil sampling locations SS-2 and SB-7 0–5 feet bgs, for lead and zinc; SB-1 22–24 feet bgs, and SB-5 0–2 feet bgs, for selenium; SB-8 5–10 feet bgs, for nickel; SB-4 5–7 feet bgs, for 4,4'-DDT; and SB-6 18–20 feet bgs, for benzo(k)fluoranthene, chrysene and lead. Additionally, at SB-6 18–20 feet bgs, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene and indeno(1,2,3-cd)pyrene concentrations exceeded Track 1 SCOs. All future activities that will disturb remaining contaminated material in the Track 2 Restricted Residential area must be conducted in accordance with the SMP. In addition, to mitigate the potential soil vapor and soil vapor exposure, a vapor barrier and passive SSDS are to be installed as ECs in the future building(s).

Soil Vapor

In March 2016, HydroEnvironmental Solutions, Inc completed an SVI evaluation within the Conditional Track 1 Unrestricted area following remedial soil excavation activities. Nine soil vapor samples were collected from soil vapor sampling points spread across the Conditional Track 1 Unrestricted area and designated sample ID numbers SV-1 through SV-9.

The soil vapor samples were analyzed for VOCs by USEPA Method TO-15 and results were compared to Generic Target Indoor Air Concentrations and Generic Screening Levels per the USEPA Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soil. Select VOCs (TCE and PCE) were also compared to NYSDOH Air Guideline Values. The contaminants detected in the soil vapor samples are presented in **Table 14-1**.

Table 14-1
Teutonia BCP Site Soil Vapor Contaminants Detected

Contaminant	Sample Location
2-Butanone	SV-1 through SV-9
Acetone	SV-4
Chloroform	SV-5
Propylene	SV-1 through SV-9
Tetrachloroethene (PCE)	SV-2, SV-3, SV-5, and SV-6
Source: Appendix P-8	

The results indicate that while soil within the Conditional Track 1 Unrestricted area meets Track 1 UUSCOs, soil vapor and soil vapor exposure within this area remains a potential concern under future redevelopment scenarios; therefore, the area is designated as “Conditional,” as described above. To mitigate the potential soil vapor and soil vapor exposure, a vapor barrier and passive SSDS are to be installed, as ECs, in the future building(s) at the Teutonia BCP Site (**Appendix P-8**).

B.1.b. The Remainder of the Teutonia Site

The portion of the Teutonia Site outside the limits of the Teutonia BCP Site correspond to former tax Lot 21 (61 Buena Vista Avenue) and tax Lot 23 (65 Buena Vista Avenue) (**Figure 14-1**). These two parcels were formerly occupied by multi-family residential buildings. These residential buildings are indicated on historical Sanborn Maps and Topographic Maps dating as far back as 1886.

In September 2007, IVI Due Diligence Services Inc. (IVI) completed a Phase I ESA (IVI 2007 Phase I) on the residential structures located at 65 Buena Vista Avenue (Lot 23), as well as parcels located south and east of the Teutonia Site, at 68 Buena Vista Avenue (Block 511 Lot 25) and 72 Buena Vista Avenue (Block 511 Lot 24) (**Appendix P-1**).

With respect to 65 Buena Vista Avenue (Lot 23), the IVI 2007 Phase I ESA identified, as reported by the property superintendent, two 275-gallon USTs (**Appendix P-1**). A Phase I ESA conducted by IVI in 2012 (IVI 2012 Phase I) for the two structures located at the 61 and 65 Buena Vista Avenue parcels, Lots 21 and 23 respectively, the superintendent described the fuel storage capacity at 65 Buena Vista Avenue to be either two 275-gallon USTs or one 550-gallon UST (**Appendix P-1**). A more recent document, City of Yonkers, Department of Housing and Building, Certificate of Completion, dated August 16, 2013, indicates that one 550-gallon heating oil UST located at this property was removed. Furthermore, a Phase II ESA conducted at this parcel in June 2021, and discussed below, showed no evidence of USTs and no compounds were detected above the UUSCOs in any of the samples (**Appendix P-1**).

In October 2010, Tim Miller Associates, Inc., completed a Phase I ESA for 61 Buena Vista Avenue (Lot 21) (**Appendix P-1**). This parcel was observed to have one 550-gallon fuel UST. This information was also presented in the IVI 2012 Phase I. A more recent document, City of Yonkers, Department of Housing and

Building, Certificate of Completion, dated March 6, 2014, indicates that the 550-gallon heating oil UST was removed.

In February 2021, HydroEnvironmental Solutions, Inc. completed a Phase I ESA for 61 and 65 Buena Vista Avenue. No evidence of ASTs or USTs was observed on either lot. No RECs were identified for these parcels. However, the HydroEnvironmental Phase I identified one REC in proximity to the parcels, and recommended a Phase II ESA to further evaluate this REC.

In June 2021, HydroEnvironmental Solutions, Inc. completed a Phase II ESA on both 61 and 65 Buena Vista Avenue. Phase II investigative work consisted of ten soil borings (GB-1 through GB-10) within the parcels, eight of which (GB-1 through GB-8) were sampled for VOCs and SVOCs, metals, pesticides, and PCBs. Borings were advanced until refusal was encountered or to a maximum depth of 12 feet bgs, with excavations reaching between 5 feet bgs and 12 feet bgs. No compounds were detected above the UUSCOs in the samples. Based on these findings, no further action is warranted.

B.1.b.i Remedial Actions

The City of Yonkers Certificates of Completion dated March 6, 2014, and August 16, 2013, documents that the 550-gallon heating oil USTs located in Lot 21 and Lot 23) were removed. The HydroEnvironmental Solutions February 2021 Phase I and June 2021 Phase II ESAs found no evidence of USTs or contamination associated with former USTs (**Appendix P-1**).

B.1.b.ii Remaining Contamination

As of the date of this DEIS, UST removal and closure documentation has not been available for review. Therefore, information associated with materials removed during UST removal (i.e., contaminated soil) and end point sample results is unknown. Subsurface conditions in the areas of the former tanks are unknown.

B.2. CHICKEN ISLAND SITE

The Chicken Island Site contains two areas in the BCP: Section 1, Block 485, Lot 1, consisting of approximately 4.462 acres, designated BCP Site No. C360083 (the “Chicken Island BCP Site”) (**Figure 14-3**), and Section 1, Block 475, Lot 51, consisting of approximately 0.79 acres, designated BCP Site No. C360191 (the “Firehouse BCP Site”) (**Figure 14-3**). Remediation of the Firehouse BCP Site is pending.

Existing conditions for these two BCP sites are summarized in the following sections.

B.2.a. The Chicken Island BCP Site Summary

The Chicken Island BCP Site (which includes additional property outside the Chicken Island Site) was remediated in accordance with Brownfield Cleanup Agreement (BCA) Index No. A3-0572-1006, which was executed on December 12, 2006, and amended on May 24, 2017, and August 21, 2017(see **Appendices Q-1 and Q-2**). NYSDEC issued a Certificate of Completion for the Chicken Island BCP Site on December 29, 2017 (**Appendix Q-3**).

Remedial investigations conducted between 2005 and 2017 identified the following contaminants of concern at the Chicken Island BCP Site: VOCs, SVOCs, metals, and PCBs in soils and groundwater; and chlorinated solvents in soil vapor. A RAWP documenting the selected remedial actions for the Chicken Island BCP Site was prepared in May 2017 (**Appendix Q-4**) and a Final Engineering Report, which documented the remedial actions taken on-Site, was prepared in October 2017 (see **Appendix Q-1**).

After completion of the RAs, some contamination was left at the Chicken Island BCP Site. ECs/ICs were imposed to prevent human exposure to the impacted media (e.g., soil, groundwater and soil vapor) remaining in place (**Appendices Q-1 and Q-2**). As part of the ECs, a site-wide engineered CCS, consisting of asphalt pavements, concrete covered sidewalks, two feet of clean soil in vegetated areas, and concrete building slabs, was installed to prevent exposure to remaining contaminated soils. In addition, a passive SSDS was installed in two buildings along New Main Street that are subject to BCA Index No. A3-0572-1006, but are not within the Chicken Island Site, to mitigate vapor intrusion (see **Figure 14-3**).

Three environmental easements, which were recorded with the Westchester County Clerk on November 13th, 2017, as Control Nos. 571593770, 571643707, and 571643029, were placed on the Chicken Island BCP Site (**Figure 14-4**), by the three owners at the time: City of Yonkers, the Yonkers Community Development Agency, and the Fleet New Main Street, LLC, respectively (**Appendix Q-2**).

The environmental easements provide that the Chicken Island BCP Site can only be used for restricted residential, commercial, or industrial use. The environmental easements require adherence to, and implementation of, the SMP (including certain requirements for SSDS/vapor sampling/vapor mitigation as described in the paragraphs below), and prohibit the usage of the Chicken Island BCP Site's groundwater, without water quality treatment, as specified by WCDOH and NYSDOH.

As per the SMP for the Chicken Island Site, ECs must be operated and maintained with inspections of the CCS and the SSDS at least once a year, or after severe weather conditions or other emergencies that may affect the ECs. Groundwater monitoring and sampling of the existing network of 10 groundwater monitoring wells is to be performed annually. Furthermore, 10 additional monitoring wells, three upgradient, three on-site, and four downgradient, must be sampled once every five years.

Sampling of the passive SSDS installed in two of the off-site buildings along New Main Street, is to be performed annually. Samples are to be collected from the inside of each building as noted in the SMP. A soil gas investigation is to be conducted for future development on other areas of the Chicken Island BCP Site which include enclosed spaces to determine if vapor intrusion mitigation in the form of a SSDS is required (**Appendix Q-2**). This evaluation is typically conducted prior to building occupancy.

The following narrative provides a remedial history timeline and a summary of the available project records to document key investigative and remedial milestones for the Chicken Island BCP Site.

B.2.a.i Chicken Island BCP Site Background

Historical buildings on the Chicken Island BCP Site were used for a variety of industrial and petroleum-related commercial purposes over the past 150 years. Historical industrial use within the Chicken Island BCP Site included manufacturing operations associated with a hat factory (1886–1898), a leather factory (1886–Unknown), a tinsmith shop (1886–Unknown), a brewery (1898–1917), a bottling factory (1898–1917), an automotive repair shop (1951–1956), a tire shop (1956–1978), a print shop (dates unknown), dye houses (1886–unknown), and a laundry facility (1886–unknown). The Chicken Island BCP Site has been developed since at least 1886. From 1886 until now, the perimeter properties have been occupied by one and two-story wood-framed and brick retail/commercial buildings heated by oil.

Most of the industrial structures on the Chicken Island BCP Site were demolished sometime between 1942 and the late 1950's when the City condemned and took title to the properties comprising the Chicken Island Site. The industrial building structures were replaced with the current parking lot and newer commercial structures along New Main Street. The Saw Mill River flows alongside and underneath the Chicken Island BCP site, via a culvert under New School Street and the southern end of the parking lot.

B.2.a.ii Chicken Island BCP Site and Remedial Investigation Summary

Several investigations were conducted, by various consultants, for the Chicken Island BCP Site between 2005 and 2007. Surface soils, subsurface soils, groundwater, and soil vapor were evaluated as part of the remedial investigations.

In November 2005, PS&S completed a subsurface investigation that detected metals above NYSDEC UUSCOs. VOC data was also collected but was determined not to be useful for investigative purposes.

Between February and May 2006, Phase I ESAs were completed by Advanced Cleanup Technologies, Inc., and by S&W Redevelopment of North America, LLC, in August 2006 (**Appendix Q-5**). These ESAs identified evidence of USTs within the Chicken Island BCP Site, as well as several past petroleum spills on and adjacent to the Chicken Island BCP Site.

Additional remedial investigations were conducted by SESI between August and December 2007 (**Appendix Q-6**). Of the 45 soil samples collected, 14 contained concentrations of SVOCs and metals exceeding the criteria for restricted residential use in both the fill layer and the glacial till layer. The remedial investigation also indicated that VOCs—PCE, Trichloroethene, Trichloroethane, Dichloroethane, and

Chloroform—were detected in concentrations that exceeded the NYSDEC Technical and Operational Guidance Series standards (TOGS). No other compounds were detected above TOGS or NYSDEC Technical and Administrative Guidance Memorandum criteria.

The 2007 remedial investigations included the collection of five soil vapor samples. While several compounds were detected, only one compound, PCE, was detected above NYSDOH guidelines.

In 2017, SESI conducted additional remedial investigation to evaluate the potential for soil vapor intrusion. The 2021 remedial investigation included the collection of two sub-slab vapor samples from the existing building at 127-129 New Main Street and two sub-slab vapor samples from the existing building at 131 New Main Street, which were analyzed for VOCs. None of the samples had concentrations above NYSDOH guidelines.

B.2.a.iii Remedial Actions

A Remedial Action Work Plan (RAWP) was prepared (**Appendix Q-4**) in May 2017. The 2017 RAWP is an update of the RAWP submitted to NYSDEC in December 2007 and approved with a letter and a decision document both dated June 26, 2008. The Final Engineering Report documenting the remedial actions completed at the Site is dated October 2017 (**Appendix Q-1**). The remedial actions included hot spot excavation, source removal, UST test pit investigation and installation of a site-wide composite capping system, consisting of asphalt pavements, concrete covered sidewalks, two feet of clean soil in vegetated areas, and concrete building slabs, to prevent exposure to remaining contaminated soils. The remedial actions proposed soil remediation to obtain Track 4 (restricted residential) cleanup standards. A summary of the remedial actions is presented below:

Hot Spot Remediation

Four areas (Hotspots EX-1 through EX-4) were identified in the RI as areas for excavation and source removal (see **Figure 14-4, Appendices Q-1 and Q-4**).

Soil deemed to be grossly contaminated, or soil with contamination at concentrations high enough to serve as a source of groundwater contamination, was removed from the areas. Post excavation samples were collected from each hot spot at a frequency of one sample from the excavation sidewall for every 150 linear feet and one sample from the bottom of the excavation for every 5,000 square feet, per excavation. Post excavation samples were analyzed for VOCs, SVOCs (PAHs), metals, PCBs, and pesticides.

Laboratory results of post excavation samples collected in Hotspot EX-1 and Hotspot EX-2 indicated no exceedance of restricted residential SCOs (RRSCOs).

Laboratory results of post excavation samples collected in Hotspot EX-3, which included two sidewall samples and one bottom post-excavation sample, showed an exceedance of mercury RRSCOs in the western sidewall sample. An additional 5 feet was over excavated from the western side of the excavation and another sidewall post-excavation sample was collected that did not exceed RRSCOs.

Of the laboratory results of post excavation sampling collected in Hotspot EX-4, two sidewall samples and one bottom post-excavation sample, showed RRSCO exceedances for mercury, copper, and Indeno[1,2,3-cd]pyrene. An additional 7 feet was over excavated from the south side of the excavation and another sidewall post-excavation sample was collected that only slightly exceeded RRSCOs for Benzo(b)anthracene and Indeno[1,2,3-cd]pyrene. NYSDEC approved no further action in this area.

EX-2, EX-3, and EX-4 were located in areas capped with impermeable surfaces. These excavations were backfilled with clean fill to 1.5 feet bgs, and then filled in with 1 foot of ¾-inch stone subgrade and 6 inches of asphalt. Soil fill was sourced from Central Avenue, in Yonkers, and Huguenot Street in New Rochelle, New York. EX-1, located in a landscaped area, was backfilled to grade with the clean fill.

UST Remediation

Limited Phase I ESAs that were completed in 2006 identified evidence of USTs within the Chicken Island BCP Site. Evidence included fill and vent pipes at three locations, denoted as UST-1, UST-2, and UST-3 (see **Figure 14-5**). A fourth potential UST, denoted as UST-4, was identified during a Ground Penetrating Radar survey conducted by Enviroprobe Service Inc, on March 28 and March 29, 2017. UST remediation at the four identified areas consisted of field screening and test pit excavations down to a maximum of 8 feet bgs. None of the test pits revealed petroleum discharges or USTs (**Appendix Q-1**). All test pits were backfilled with the excavated material, excepting construction debris which was removed from the Chicken Island BCP Site.

Engineering Controls

As part of the site remediation, ECs were installed to manage remaining contamination. The ECs installed at the Chicken Island BCP Site included a composite capping system, consisting of asphalt pavements, concrete covered sidewalks, two feet of clean soil in vegetated areas, and concrete building slabs (**Appendix Q-2**). The composite capping system was installed, or to the extent already in place, repaired, to prevent exposure to residual/remaining soil contamination.

The CCS also includes landscaped areas located north of John Street. These areas were cleared of trees and large shrubs in June 2017. CCS installation in these landscaped areas consists of a 2-foot layer of clean fill placed upon a layer of Mirafi 140 geotextile. The Mirafi geotextile layer was surveyed and placed by Line and Grade Contracting and was

covered by approved clean fill. The area was then hydroseeded on August 15, 2017 and was maintained to develop a vegetated cover. All excavated soil was disposed off-site.

The environmental easements provide that all future activities on the Chicken Island BCP Site that will disturb remaining contaminated material must be conducted in accordance with the SMP. As per the environmental easements and SMP, the composite capping system must be inspected annually by a qualified environmental professional, or after severe weather conditions or other emergencies that may affect the CCS.

In addition to the composite capping system, a passive SSDS was installed in two buildings along New Main Street which are not within the Chicken Island Site to mitigate vapor intrusion. Annual monitoring and routine inspections are required per the SMP.

B.2.a.iv Remaining Contamination

Soil

The soils were remediated to meet Track 4 SCOs for restricted-residential by hot spot, or source area, removal and implementation of a site-wide engineered composite capping system. The remaining soils under the composite capping system, or “cap,” may contain contaminants at concentrations above the UUSCO or RRSCOs. As discussed above, out of the four hot spot excavation areas, only two of the areas, EX-3, and EX-4, had post-excavation samples that indicated concentrations in exceedance of RRSCOs. These exceedances (i.e., remaining contamination) were reported in soil samples collected from the walls of the excavation (approximately 3–4 feet bgs). Engineering controls were and are to be installed to prevent exposure to residual/remaining soil contamination.

Groundwater

Groundwater was observed during remedial investigation at a depth varying from approximately 7 feet bgs to 16 feet bgs.

VOC contamination characterized by concentrations in exceedances of the effluent Class GA (Protection for Source of Drinking Water) groundwater standards, particularly chlorinated solvents, remains in the groundwater underneath the Chicken Island Site. The SMP requires that annual groundwater monitoring occur from on-site monitoring wells to determine the extent of contamination and the level of natural attenuation that has occurred since remediation activities were completed. SMP activities (such as monitoring, sampling and inspection) are to be performed by a qualified environmental professional and reported to NYSDEC. Ten well locations are to be sampled every five years (**Appendix Q-2**).

Soil Vapor

Soil vapor samples were collected from the two existing buildings on New Main Street in 2017. None of the samples detected concentrations

of contaminants that exceeded NYSDOH guidelines (**Appendix Q-1**). Nevertheless, as a precautionary measure, passive SSDSs were installed in the two buildings in 2017 as per the NYSDEC and NYSDOH recommendation. SSDS monitoring is completed annually to evaluate if the system is operating as intended. SMP activities (such as monitoring, sampling and inspection) are to be performed by a qualified environmental professional and reported to NYSDEC. The SMP will be revised if the passive SSDSs become active.

The SMP specifies that a soil gas investigation would be conducted for any future development on other areas of the Chicken Island BCP Site to determine if vapor intrusion mitigation in the form of an active SSDS is required. As-built drawings, signed and sealed by a professional engineer, will be included as an additional appendix in the updated SMP if the requirement for the installation of an active SSDS is warranted.

B.2.b. The Firehouse BCP Site Summary

The Firehouse BCP Site totals 0.79 acres and excludes approximately 318 lineal feet of a portion of the Saw Mill River that runs along and through the southern and eastern portion of the Firehouse BCP Site (see **Figure 14-3**). In 2018, the property was subject to demolition activities and is currently vacant.

The Firehouse BCP Site was formerly a part of the original Chicken Island BCP Site but was made a separate site in May, 2017.

The December 2007 Remedial Investigation Report (RIR) for the Chicken Island BCP Site (**Appendix Q-6**) and the December 2007 Remedial Investigation Work Plan (RIWP) for the Chicken Island BCP Site, both approved by NYSDEC on June 26, 2008, include a remedial investigation and remedial plan for the Firehouse BCP Site. However, a supplemental remedial investigation is necessary to investigate subsurface soil in the footprint of the former Yonkers Fire Department Headquarters formerly located at the Firehouse BCP Site and to assess the presence of emerging contaminants at the Firehouse BCP Site.

On September 2020, SESI submitted a RIWP specifically for the Firehouse BCP Site to NYSDEC (**Appendix Q-7**). The RIWP proposed 21 soil borings (to a maximum depth of 20 feet bgs), 10 groundwater monitoring wells, and 6 soil vapor borings (from exterior soil vapor points due to the absence of a building), to characterize and delineate soil, groundwater, and soil vapor.

The remedial investigation activities were expected to commence in October 2020. As of the date of this DEIS, the Remedial Investigation Report and related documentation regarding the proposed and approved remedial actions, are not publicly available for review and are therefore not evaluated in this chapter. According to publicly available records and the NYSDEC remediation database, the Firehouse BCP Site will be remediated in accordance with BCA Index No. C360191-01-20.

B.2.b.i Firehouse BCP Site Background

According to Sanborn Fire Insurance Maps, in 1886 industrial and commercial uses were present at the Firehouse BCP Site, including the

Yonkers Hat Manufacturing Company warehousing, and Fur Dye warehousing. In 1898, Waring Leather Works leather and tanning operations appear in the vicinity of the Firehouse BCP Site. In 1917, the northern portion of the Firehouse BCP Site contained the George T. Kelly contractor storage yard and related buildings, while the southern and eastern portion of the Firehouse BCP Site was occupied by a raw stock storage building for the Waring Hat Company. Tanning and finishing operations of the Waring Hat Company fur cutting plant was located in the northeast corner of the site.

Around 1927, the City of Yonkers Fire Department Headquarters/Engine #1 station (the “Firehouse”) was constructed in the northern portion of the Firehouse BCP Site and remained until about 2018, when it was demolished, and a new firehouse was built on the Chicken Island BCP Site. In 1942, the Dalton Hat Company was present in the northeast corner of the Firehouse BCP Site. In 1951 and 1957, the southern and eastern portions of the Firehouse BCP Site are shown as vacant, and the Cameo Curtains Inc. cotton curtain manufacturing plant was located in the northeast corner of the Site. In 1951 and 1957, the southern and eastern portions of the Firehouse BCP Site are noted as vacant and a “Chemical Dye Manufacturing” storage facility that was not formally named on the Sanborn map was located in the northeast corner of the Site. From at least 1951 to the current day, the southern and eastern portions of the Firehouse BCP Site have been vacant.

B.2.b.ii Firehouse BCP Site and Remedial Investigation Summary

Based on the investigations conducted to date in the vicinity of the Firehouse BCP Site, the primary contaminants of concern in the soils are anticipated to be VOCs, SVOCs, and metals. Contaminants of concern will be refined based on the results of the remedial investigation and may include those listed above and emerging contaminants (PFAS, 1,4 Dioxane).

At the current remedial investigation phase, remedial actions proposed for the Yonkers Firehouse BCP Site are not publicly known. Remedial actions will be proposed based on the findings of the remedial investigation and could include removal of source contamination and installation of ECs (i.e., site-wide capping system, groundwater monitoring, SSDS systems) and ICs (i.e., EEs to restrict site usage, an SMP, groundwater consumption and gardening, among others) to manage any remaining contamination.

B.2.b.iii Remaining Contamination

Remediation of the Firehouse BCP Site is pending; the primary contaminants of concern in the soils are anticipated to be VOCs, SVOCs, and metals.

B.3. NORTH BROADWAY SITE

Phase I Environmental Site Assessments (ESAs) were conducted for the 13 properties comprising the North Broadway Site (**Appendix R-1**). The results of the Phase I ESA were presented in 12 Phase I ESA reports, note that ESA results for properties 23-25 Overlook Terrace (lot 16.18) and 10 Baldwin Place (lot 75) were combined into one Phase I ESA Report. The primary purpose of the Phase I ESAs was to identify Recognized Environmental Conditions (RECs), Historical Recognized Environmental Conditions (HRECs), and Controlled Recognized Environmental Conditions (CRECs) as defined by the American Society for Testing and Materials (ASTM) Standard Practices E 1527-13, Standard Practice for Environmental Site Assessments.

ASTs with no indication of leaks or spills were observed during the site reconnaissance. No RECs, HRECs, or CRECs were identified in the Phase I ESA reports, and no additional investigation was recommended.

A summary of the findings of the Phase I ESAs for the 13 properties comprising the North Broadway Site is presented below.

B.3.a. 7-11 Overlook Terrace (Lot 8)

This approximately 0.23-acre lot is developed with an approximately 3,600 square-foot residential building and detached parking garage. The site buildings occupy approximately 15 to 20 percent of the site, with the remaining open areas being landscaped areas.

As reported in the July 6, 2020 Phase I ESA, in 1886 the property was vacant land. The property was developed into a residential dwelling in 1898. The current residential dwelling and a detached parking garage have remained since 1942.

A pair of 275-gallon ASTs was observed in the basement of the site building during the site reconnaissance. The ASTs supply No. 2 fuel to a nearby boiler. There was no evidence of petroleum release or spill (i.e., odors or staining) in the immediate vicinity of either the ASTs or the boiler. The condition of the ASTs was observed to be structurally sound. No RECs, HRECs, or CRECs were identified in the Phase I ESA for this parcel.

B.3.b. 12 Overlook Terrace (Lot 25)

This approximately 0.10-acre lot is developed with an approximately 4,716-square-foot residential building. The site building occupies approximately 75 percent of the site, with the remaining open area being an asphalt driveway and yard.

As reported in the October 30, 2020 Phase I ESA, the property was vacant land until approximately 1917. The 1917 Sanborn map shows the parcel developed with its current residential dwelling. There are no significant changes in the use of the site since 1917.

No evidence of USTs or ASTs was observed. No RECs, HRECs, or CRECs were identified in the Phase I ESA.

B.3.c. 14 Overlook Terrace (Lot 20)

This approximately 0.23-acre lot is currently vacant and undeveloped with ground cover consisting primarily of vegetated land. A two-story residential structure was formerly present on the site.

As reported in the May 30, 2019 Phase I ESA, this parcel was vacant land in 1886. The site is shown as developed with a 2-story residential dwelling in the 1889 Sanborn map. Between 1951 and approximately 1989, the parcel is shown as developed with a 2-story residential dwelling, as well as with two 1-story sheds also on the property. The property is then shown as undeveloped land in 2004.

No evidence of USTs or ASTs was observed. No RECs, HRECs, or CRECs were identified in the Phase I ESA for this parcel.

B.3.d. 15 Overlook Terrace (Lot 12)

This approximately 0.22-acre lot is developed with an approximately 10,560-square-foot, residential building (mental health care facility). The site building occupies approximately 40 percent of the site, with the remaining open area being asphalt parking spaces and a yard.

No evidence of USTs or ASTs was observed. No RECs, HRECs, or CRECs were identified in the Phase I ESA for this parcel.

B.3.e. 23-25 Overlook Terrace (Lot 16.18) and 10 Baldwin Place (Lot 75)

The two lots collectively encompass 0.48 acres. Lot 75 is approximately 11,900 square feet and is developed with a vacant residential dwelling having the address of 10 Baldwin Place. Lot 16.18 is approximately 9,275 square feet and is developed with a 4-story apartment building that includes 16 residential units having the address of 23-25 Overlook Terrace.

The building at 10 Baldwin Place (Lot 75) occupies approximately 50 percent of the lot, with the remaining open area being an asphalt driveway, area of exposed soil utilized as a parking lot, and a stone patio.

As reported in the January 10, 2019 Phase I ESA, Lot 75 was first developed around 1886 as a residential dwelling. The 1898 Sanborn map show the current residential dwelling and detached garage. The vacant building was not accessible during the site reconnaissance.

The multi-residential building at 23-25 Overlook Terrace (Lot 16.18) occupies approximately 90 percent of the lot, with the remaining open area being concrete sidewalks to the east and west of the building. The 1917 Sanborn map shows the current two apartment buildings.

A 2,500-gallon AST containing No. 2 fuel oil was observed in the basement of the building at 23-25 Overlook Terrace (Lot 16.18). The AST was situated inside a secondary containment constructed of cinder block and exhibited no evidence of leaks or spills in its immediate vicinity. No spill incidents were identified in association with this registered AST. No RECs, HRECs, or CRECs were identified in the Phase I ESA for these two parcels.

B.3.f. 14 North Broadway (undeveloped portion of Lot 48)

This approximately 0.28-acre lot currently consists of a vacant and undeveloped portion of a lot with ground cover consisting primarily of vegetated land, and a developed portion of a lot containing a 22,675-square-foot 5-story commercial building.

No evidence of USTs or ASTs was observed. No RECs, HRECs, or CRECs were identified in the Phase I ESA for this parcel.

B.3.g. 16 North Broadway (Lot 50)

This is an approximately 3,050-square-foot vacant lot. As reported in the February 5, 2020 Phase I ESA, there are no structures or other improvements present at the 16 North Broadway lot. Although historical records indicate a three-story building was formerly present dating back to at least 1886, the building was demolished by 1985 and has since been vacant. No evidence of USTs or ASTs was observed. No RECs, HRECs, or CRECs were identified in the Phase I ESA for this parcel.

B.3.h. 18 North Broadway (Lot 51)

This approximately 1,745-square-foot lot is developed with an approximately 2,575-square-foot, 2-story, slab-at-grade commercial building. The building occupies the entire lot.

As reported in the January 25, 2019 Phase I ESA, the 1886 Sanborn map shows the subject site as developed with a 1-story commercial structure. The current configuration, a 2-story building, is shown in Sanborn maps circa 1898 through 2004. Review of Yonkers Building Department records indicate that the current commercial building was altered multiple times, with the earliest records dating from March 6, 1925. Local building department records indicate no evidence of petroleum storage tanks at the subject property.

No evidence of USTs or ASTs was observed. No RECs, HRECs, or CRECs were identified in the Phase I ESA for this parcel.

B.3.i. 28 North Broadway (Lot 56)

This is an approximately 2,296-square-foot lot that is developed with an approximately 2,438-square-foot, 2-story, slab-on-grade, commercial building. The building occupies approximately 50 percent of the lot, with the remaining open area being steeply sloped, undeveloped land immediately behind (to the east) of the building.

As reported in the March 25, 2019 Phase I ESA, the 1886 Sanborn map shows the subject site as developed with a 1-story commercial structure occupied by a bakery. The current configuration, a 2-story commercial building, is shown in Sanborn maps circa 1898 through 2004.

The building has a restaurant on the first floor, and a meeting space and office for a nonprofit organization on the second floor. No evidence of USTs or ASTs was observed. No RECs, HRECs, or CRECs were identified in the Phase I ESA for this parcel.

B.3.j. 30-32 North Broadway (Lot 57)

This is an approximately 4,750-square-foot lot that is developed with an approximately 2,875-square-foot, 1-story commercial building. The building is shown in a Sanborn map dated 1886; building configuration is consistent, with no significant changes between the 1886 and 2010 Sanborn maps. The site building occupies approximately 60 percent of the lot, with the open areas being steeply sloped, undeveloped land located immediately to the east (i.e., behind) of the building. Ground cover consists primarily of the building slab and vegetation.

The subject site building was vacant at the time of site reconnaissance. As reported in the December 26, 2018 Phase I ESA, and according to the Fire Department, a historical property record suggests that the building had been heated by fuel oil. No evidence of a former oil tank was noted during the site visit. No RECs, HRECs, or CRECs were identified in the Phase I ESA for this parcel.

B.3.k. 50 North Broadway (Lot 67)

The subject site consists of an approximately 1,740-square-foot lot that is developed with an approximately 2,500-square-foot, two-story commercial building. The two-story commercial building is shown in a Sanborn map dated 1898, with an addition to the rear (east side) of the building recorded in the 1917 Sanborn Map. Building configuration is consistent, with no significant changes between the 1917 and 2004 Sanborn maps. The site building occupies approximately 90 percent of the site, with the open areas being steeply sloped to the south and with undeveloped land located immediately to the east (i.e., behind) of the building. Ground cover consists primarily of the building slab and vegetation.

The subject site building had been vacant since it was damaged by a fire on July 26, 2000 and was vacant at the time of site reconnaissance. As reported in the Phase I ESA, and according to the City of Yonkers Building Department, an AST was present in the northeast portion of the building's basement. However, the existence of the former oil tank could not be verified due to unsafe conditions inside the building. It is recommended that the presence of the AST be verified, and the AST be decommissioned, and removed. It is also recommended that the property be evaluated for the potential presence of ACM and LBP. No RECs, HRECs, or CRECs were identified in the Phase I ESA for this parcel.

B.3.l. 2 Baldwin Place (Lot 71)

This is an approximately 8,712-square-foot lot that is currently undeveloped and vacant. Ground cover consists primarily of vegetated land. The lot is accessed from the east, via an opening in a perimeter fence at the end of Baldwin Place. Yonkers Building Department records indicate that the lot has not been developed since approximately 1951. Prior to 1951, Sanborn maps (1886-1917) show a 1-story residential dwelling and a commercial lumber shed in 1942 Sanborn map. No evidence of USTs or ASTs was observed. No RECs, HRECs, or CRECs were identified in the May 30, 2019 Phase I ESA for this parcel.

B.3.m. 18 Baldwin Place (Lot 79)

This is an approximately 0.24-acre lot that is developed with an approximately 1,958-square-foot, 2.5-story residential building. The building occupies

approximately 20 percent of the lot, with the open areas consisting of an asphalt driveway, garage, and yard along the west side of the lot.

As reported in the July 20, 2021 Phase I ESA, Sanborn maps from 1886 through 2014 show the lot occupied by a 1-story commercial building (in 1886) and then improved to a 2-story commercial building (since 1898) used for various retail tenants, including a print shop, a pharmacy, and a restaurant.

The building was actively used at the time of site reconnaissance. No evidence of a former oil tank was noted during the site visit, but no access was given to the building's interior. No RECs, HRECs, or CRECs were identified in the Phase I ESA for this parcel.

C. FUTURE WITHOUT THE PROPOSED PROJECT

Without the Proposed Project, the Project Sites may be developed under the current zoning. The potential for the Project Sites to be developed under the existing zoning is described in Chapter 17, "Alternatives." Prior to any potential development, they are expected to remain in their current condition, as discussed below.

The Teutonia Site is currently undeveloped; the Chicken Island Site is mostly developed as an impervious parking area; and the North Broadway Site is currently developed with mixed and residential uses. Absent the Proposed Project, the potential existing hazardous material conditions on the Teutonia BCP Site, Chicken Island BCP Site and Firehouse BCP Site and the existing conditions on the North Broadway Site would remain unchanged from the existing conditions.

On the Teutonia Site, if soil vapor within the Conditional Track 1 Unrestricted area of the Teutonia BCP Site is not remediated within five years of the issuance of the Certificate of Completion (i.e., September 25, 2022), the area would revert to a Track 2 (restricted residential) remedy in the absence of further soil vapor investigation, but will otherwise remain unchanged. As discussed above, the condition imposed on the Track 1 remedy was that within five years of the date of the COC (i.e., September 25, 2022) a soil vapor evaluation was required to be performed inside the deepest ground level floor of the newly constructed building(s) in order to maintain the Track 1 status. Obviously, the building(s) have not yet been constructed and may not be constructed so that the contemplated ground level floor soil vapor evaluation can be performed by the required September 25, 2022 date. In order to avoid the further outcome that the Condition Track 1 remedy will revert to a Track 2 remedy, the Applicant would coordinate with the New York State Department of Environmental Conservation (NYSDEC) and New York State Department of Health (NYSDOH) to explain the circumstances associated with the project delay and request permission to perform a subsurface soil vapor investigation at the Teutonia Site before the September 22, 2022 deadline. To the extent the NYSDEC and NYSDOH require a soil vapor evaluation once the building(s) are constructed even if the outcome of the subsurface soil vapor investigation does not document remaining soil vapor issues of concern, the Applicant would request another five years to comply with the condition.

Absent the Proposed Project, the SMP for the Chicken Island BCP Site would still require maintenance and performance monitoring of the ECs (i.e., CCS) and regular groundwater monitoring performed by a qualified environmental professional and reported to NYSDEC.

Absent the Proposed Project, the Firehouse BCP Site would still need to be investigated and remediated in accordance with the Brownfield Cleanup Agreement for this BCP Site and the Technical Guidance for Site Investigation and Remediation (DER-10).

D. FUTURE WITH THE PROPOSED PROJECT

This section describes the potential for impacts from hazardous materials during the construction and operation of the Proposed Project.

D.1. CONSTRUCTION

D.1.a. Teutonia Site

D.1.a.i Potential Impacts

Construction activities on the Teutonia Site would include the excavation of remaining contamination associated with the Teutonia BCP Site. Documented contamination is present in soil at concentrations in excess of New York State UUSCOs in portions of the Track 2 Restricted Residential area (**Figure 14-2**), a narrow section in the eastern portion of the Teutonia BCP Site along Buena Vista Avenue and approximately 33 feet from the property line, and in the soil vapor in the Conditional Track 1 Unrestricted area. For former Lots 21 and 23, residual petroleum contamination may be present in shallow soil; appropriate closure documentation is not available for USTs that were previously removed.

The potential impacts of the Teutonia Project include direct exposure to the documented contamination in the Teutonia BCP Site, or direct exposure to potential UST-related residual petroleum contamination on former Lots 21 and 23. Exposure could occur during soil excavation and handling, which includes the potential for ingestion and/or dermal contact with the contaminated soil, or inhalation of contaminated particulate dust or soil vapor. To control exposure to remaining contamination and to ensure protection of public health and the environment, engineering controls and institutional controls were incorporated into the site remedy. Part of these controls include implementation of the Site Management Plan (SMP) post site remediation and during site development. The SMP includes a Health and Safety Plan (HASP) for the protection of site workers, a Community Health and Safety Plan (CAMP) for protection of community health and safety, among others. The SMP identifies measures and/or actions (i.e., air monitoring, dust control, erosion control, etc.) to ensure that the public living and working near the site, as well as employees or visitors to any facility located on the site, are protected from exposure to site contaminants.

Groundwater remediation is not required. If groundwater is encountered during construction, and dewatering is required, the analytical testing required for a dewatering permit would confirm if residual contamination is present in groundwater.

D.1.a.ii Mitigation Measures

The NYSDEC-approved remedy for the Teutonia BCP Site, in both the Conditional Track 1 area and the Track 2 Restricted Residential area, include environmental easements (i.e., an institutional control) that provide for measures to mitigate the documented contamination and allow for the proposed multi-family residential use under a restricted residential (i.e., single family houses not allowed) use classification. The environmental easement requires compliance with the NYSDEC-approved SMP and all engineering controls and institutional controls placed on the site. Intrusive work on the Teutonia BCP Site must be completed in accordance with the SMP.

The current development plan includes the excavation of soil ranging from 5 to 30 feet below grade. For intrusive work, the SMP (**Appendix P-8**) includes, but is not limited to, the following requirements:

- NYSDEC notification prior to the start of excavation, with a report containing project details (i.e., location, extent, depth, and volume of soil to be handled), a review of the exposure potential and anticipated contamination to be encountered, and a plan to handle soil in accordance with the SMP.
- Adherence to the Health and Safety Plan (HASP), included as part of the SMP.
- Documentation requirements for appropriate disposal of contaminated soil in accordance with local, State, and federal regulations, and the import of any backfill, which must meet NYSDEC UUSCOs.
- A certification that the work would be performed in compliance with the SMP.
- A qualified environmental professional would oversee all invasive work; perform the required soil screening; direct the handling, stockpiling, testing, off-site disposal, and import of clean soil; and maintain the appropriate and required documentation of these activities.
- A generic Community Air Monitoring Plan (CAMP), as outlined in the EWP, and an Odor Control Plan and Dust Control Plan would be implemented during intrusive activities on the Teutonia Site.
- A report would be submitted to NYSDEC within 90 days of completion of the intrusive activities performed under the SMP and EWP. This report shall contain a summary of the activities performed; a summary of data gathered; information about media that was removed from the site (volume, contamination levels, area from which material was removed); and any other information that may indicate a change to the “remaining contamination” at the site.

If groundwater is encountered during Teutonia Site development and/or dewatering is necessary during construction activities, these activities must be managed in accordance with state and local regulations for

treatment and/or discharge into the municipal wastewater system, as needed.

Furthermore, the EEs set for the Teutonia BCP Site prohibit the use of groundwater underlying the Teutonia BCP Site, “without necessary water quality treatment as determined by the NYSDOH or Westchester County Department of Health to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so” from NYSDEC (**Appendix P-8**). Any impacts to the ICs or ECs must be consistent with the SMP and approved by NYSDEC before altering them in any way from the previous certification.

Former Lots 21 and 23 are not subject to the restrictions set by the SMP or EWP. Previous investigations of these lots have indicated that former USTs were present. A contingency plan, with site screening and soil management measures consistent with the approved EWP should be prepared and implemented by the construction contractor to address the potential for encountering unknown USTs or residual contamination areas related to the former USTs.

Since residual soil and soil vapor contamination exists in the subsurface underlying a portion of the Teutonia Site, the EEs and SMP dictate that ECs be installed for any structures to be constructed on the Teutonia BCP Site. As the proposed buildings extend to the non-BCP areas, the ECs should be inclusive of any structures to be constructed at the Teutonia Site to mitigate potential migration of soil vapors into the buildings.

The required ECs consist of a vapor barrier with sampling ports and passive SSDS to be designed and installed beneath building footprints. After building construction, a post-construction SVI evaluation shall be implemented to determine if the SSDS should be made active and if the system would need to be maintained long-term as an EC. To ensure these specifications meet NYSDEC approval, the Applicant must provide NYSDEC with a work plan for the SVI evaluation, installation of a vapor barrier, sampling points, communication points, and SSDS extraction points/piping once the building’s foundation plan is finalized. If an active SSDS is required based on the SVI evaluation, a design document would be submitted for approval and the SMP would be revised to include an O&M plan and as-built drawings. Clean soil, asphalt, or concrete is required to be placed over exposed areas at the completion of site development to limit exposure to potentially impacted soil (if any remains on the Teutonia BCP Site).

D.1.b. Chicken Island Site

D.1.b.i Potential Impacts

After Site remediation, remaining contamination was recorded in the soil, groundwater, and soil vapors at concentrations in excess of New York State UUSCOs in the Chicken Island BCP Site. This poses a potential human exposure pathway through ingestion or dermal contact with impacted soils or inhalation of impacted soil vapor. Groundwater

underlying the Chicken Island Site sits between 7 feet bgs to 16 feet bgs and would likely be encountered during construction. The potential impacts, i.e., human exposure, from handling remaining contamination at the Chicken Island BCP Site during site maintenance or site redevelopment work are to be managed as per the SMP. The SMP identifies measures and/or actions (i.e., air monitoring, dust control, erosion control, etc.) to ensure that the public living and working near the site as well as employees or visitors to any facility located on the site are protected from exposure to site contaminants during intrusive activities.

Regarding the Firehouse BCP Site, as of the date of this report, results of the remedial investigation are not publicly available. Potential human exposure to impacted media (i.e., soil, groundwater, soil vapors), if any, is to be evaluated during the remedial investigation phase. Any future disturbances to the Firehouse BCP Site during site remediation and/or site development must be conducted in compliance with NYSDEC Part 375 and DER-10 and under NYSDEC guidance.

Handling of the Chicken Island Site groundwater should be in accordance with local, state, and federal regulations.

D.1.b.ii Mitigation Measures

The potential exposure to remaining contamination is mitigated at the Chicken Island BCP Site by ECs and ICs. The potential exposure to remaining contamination during site maintenance or site redevelopment work is discussed in the SMP and requires adherence to the SMP; specifically the Excavation Work Plan, Site-Specific HASP, and the Community Health and Safety Plan. The SMP identifies measures and/or actions (i.e., air monitoring, dust control, erosion control, etc.) to ensure that the public living and working near the site, as well as employees or visitors to any facility located on the site, are protected from exposure to site contaminants.

Within the Chicken Island BCP Site, any dewatering or well development and purged groundwater is to be handled, transported, and disposed in accordance with the SMP. Water is not to be recharged to the surface or subsurface, but is to be managed off-site, as per the SMP.

The Firehouse BCP Site is in the investigation phase. As remedial actions are yet to be proposed and implemented, any interim remedial action would require a NYSDEC-approved Interim Remedial Measures Work Plan and actions must be conducted in compliance with DER-10 and Part 375 and under NYSDEC guidance. Mitigation measures would include preparation and implementation of an EWP to manage excavated soils and groundwater and to restore the site cover. Mitigation measures would also include preparation and implementation of a site-specific HASP and CAMP.

D.1.c. North Broadway Site

D.1.c.i Potential Impacts

Based on a review of the Phase I ESAs summarized in Section B.3, no RECs, HRECs, or CRECs were identified. Although ASTs were observed, there was no indication of leaks or spills.

Given the age of some of the on-site structures present on the North Broadway Site, there is the potential for asbestos-containing materials (ACM) and lead-based paint (LBP) to be present in building components such as insulation, tiling, caulking, roofing materials, or electrical components. No sampling for ACM or LBP has been conducted to confirm the presence of these materials in building components. Demolition of buildings and structures containing ACM and LBP is a potential exposure pathway for hazardous materials. No demolition or additional sampling for ACM or LBP has occurred on this site since the completion of the Phase I ESAs.

A pair of 275-gallon ASTs containing No. 2 heating oil were identified in the basement of the on-site structure at 7-11 Overlook Terrace (Lot 8). One 2,500-gallon AST containing No. 2 heating oil was observed in the basement of the on-site structure at 23-25 Overlook Terrace. Removal of ASTs poses a potential human exposure pathway through ingestion or dermal contact with impacted soils, if any, or inhalation of petroleum-based vapors during work activities. Work would be completed by a qualified contractor and in observance of a Site-Specific Health and Safety Plan and with proper personal protective equipment for the protection of site workers.

Additionally, old buildings, whether single or multi-family residential or commercial, are known for formerly having heating oil USTs. Redevelopment typically encounters unknown USTs and related petroleum release areas. Removal and handling of former USTs and related contamination, if any, poses a potential human exposure pathway through ingestion or dermal contact with impacted soils or inhalation of petroleum-based vapors.

D.1.c.ii Mitigation Measures

Generally, building components containing hazardous materials can be either contained or removed. Prior to demolition, buildings and structures should be analyzed for the presence of LBP utilizing the EPA Method 7420 (Flame Atomic Absorption) or 7421 (Graphite Furnace Atomic Absorption), as appropriate. This can be supplemented by portable X-ray fluorescence to reduce analytical burden. Prior to demolition, buildings and structures should also be analyzed for ACM. Samples must be sent to a laboratory accredited by the New York State Environmental Laboratory Approval Program and the National Voluntary Laboratory Accreditation Program and analyzed by Polarized Light Microscopy and Transmission Electron Microscopy, if appropriate, for asbestos type and percentage.

If sampling confirms the presence of LBP or ACM in building structures to be demolished, those materials must be managed in accordance with applicable regulations. For ACM, this includes the New York State Industrial Code 56, administered by the New York State Department of Labor, and the USEPA-administered National Emissions Standards for Hazardous Air Pollutants. LBP is regulated under NYS Public Health Law Title 10 of Article 13, and the Federal "Residential Lead-Based Paint Hazard Reduction Act of 1992." USEPA regulates training and certification of individuals and certification of firms under 40 CFR Part 745. In other facilities, worker exposure to lead is regulated by the Federal OSHA regulations 29 CFR 1926.62 and 29 CFR 1910.1025. Disposal of waste with lead paint is regulated by NYSDEC under Chapter IV Subchapter B – Solid Wastes.

A pair of 275-gallon ASTs containing No. 2 heating oil were identified in the basement of the on-site structure at 7-11 Overlook Terrace (Lot 8). One 2,500-gallon AST containing No. 2 heating oil was observed in the basement of the on-site structure at 23-25 Overlook Terrace. These ASTs should be decommissioned in accordance with applicable regulations prior to building demolition and site redevelopment. AST removal activities should be completed under a Site-Specific Health and Safety Plan (HASP) and with proper personal protective equipment for the protection of site workers.

Additionally, due to the age of the on-site structures, there is the potential for encountering former heating oil USTs and related petroleum releases areas during redevelopment. Therefore, a contingency plan should be prepared and implemented by the construction contractor to address the potential for encountering USTs during excavation activities and to manage contamination related to the former operation of the USTs, if any. The contingency plan should include the implementation in the field of a Health and Safety Plan (HASP) for the protection of site workers.

D.2. OPERATION

The construction, operation, and maintenance of the required ECs at the Teutonia BCP Site and Chicken Island BCP Site, as well as any ECs determined to be necessary for the Firehouse BCP Site, would serve as mitigation measures preventing operational phase hazardous materials impacts associated with the Proposed Project. Given that no RECs, HRECs, or CRECs were identified on former Lots 21 and 23 of the Teutonia Site or on the North Broadway Site, a contingency plan has been recommended for these areas to address unknown tanks or contamination areas encountered during redevelopment. No operational phase hazardous materials impacts are anticipated at these areas. *