

## **Cloewood Draft Environmental Impact Statement**

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### **3.15 HAZARDOUS MATERIALS**

This Section identifies existing conditions and analyzes the Project's potential to generate significant adverse impacts based on the hazardous materials found at the Project Site, including from the Project Site's illegal dumping area created by the Site's previous owners.

#### **3.15.1 Existing Conditions**

The Project Site consists of a combination of a single-family home, unused farm buildings, approximately 50 structures, an abandoned garage structure, several small utility buildings and undeveloped forested area. The Project would involve demolition of former Lake Anne Country Club buildings that currently exist on the property from its former uses as a residential area, seasonal resort and a golf course.

No Recognized Environmental Conditions ("RECs") were found in the regulatory databases when investigated by Tenen Environmental LLC. The databases reviewed are detailed in Appendix L under the Section entitled "Government Records Search / Data Currency Tracking."

However, it came to light that approximately 1.7 acres, or 0.25% (a small portion of the 708.2-acre property) was formerly utilized as an illegal dump by the Project Site's previous owners. The Project Applicant has identified all areas in which dumping has occurred, has examined the material and soil in the areas of prior dumping, and has consulted with NYSDEC regarding proper removal and disposal. No hazardous wastes were found, and dumped material was removed in accordance with NYSDEC standards. An abandoned fuel tank was also decommissioned, removed and disposed of in accordance with NYSDEC requirements.

#### **3.15.2 Potential Impacts**

The Scoping Document approved by the Co-Lead Agencies states that the following materials may be expected to comprise the majority of hazardous materials present in the Project area:

- Untested and potentially contaminated soils left behind after incomplete remedial activities;
- Untested and potentially contaminated soils left behind after the underground storage tank release;
- Debris left behind after incomplete remedial activities; and
- Untested and potentially contaminated groundwater.

It was accordingly determined there was the potential for environmental impacts that needed to be more thoroughly investigated in this regard.

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### Phase I Environmental Site Assessment

Tenen Environmental LLC (“Tenen”) performed a “Phase I Environment Site Assessment” included in Appendix L on December 8, 2014, in accordance with ASTM E1527-13 (“Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process”). Tenen identified closed on-site spills, several waste piles, petroleum storage tanks (including an excavated UST with evidence of leaking), and unmarked drums.

The assessment revealed no physical evidence of RECs within the property, with the exception of the following:

- Piles of waste and debris;
- Petroleum storage tanks, including an excavated UST with evidence of a release;
- Unmarked drums and pails;
- Historic uses of the site, including a mine, golf course, debris disposal, farmland and orchard; and
- Multiple spill cases on the site that have been closed by DEC and are considered historical RECs (“HRECs”).

### Phase II Subsurface Investigation

Subsequently, Tenen conducted a Phase II subsurface investigation on June 15, 2015 included in Appendix M to address the recommendations contained in the Phase I Environmental Site Assessment, assess the soil conditions where necessary, and determine the extent of the solid waste previously identified.

The process included excavation of seventeen test pits (TP-1 through TP-17), followed by soil sampling. The test pits were located in the area of the former golf course area, former repair shop and in the vicinity of the discarded tanks, drums and pails where stained soil was observed. Test pits were also excavated in the area of the solid waste piles from the former illegal dump to vertically and horizontally determine the extent of the solid waste.

Four of the seventeen test pits were excavated in the vicinity of the discarded tanks, one at the former repair shop, one in the former golf course area and eleven near the solid waste piles from the former illegal landfill.

In addition, a tank inventory was performed to determine the total number of tanks located on the Project Site. One 550-gallon water tank and one 4,900-gallon<sup>1</sup> out-of-service oil aboveground

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<sup>1</sup> The 4,900-gallon AST was mistakenly identified in the Phase II Report and Remedial Action Work Plan as a 10,000-gallon AST.

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storage tank (“AST”) were present, and a few 275-gallon ASTs associated with the existing approximately 50 structures and other buildings were also located.

After observing the area under and around the 4,900-gallon oil tank removed from the Project, Tenen encountered no soil contamination. The newly-installed onsite groundwater wells in bedrock to be used as production wells are located at approximately 800 to 1,500 feet from the former oil tank location. Tenen concluded sampling any of these wells to determine if petroleum impacts exist would not be feasible and, therefore, would not be required.

Additionally, Leggette, Brashears & Graham, Inc. (“LBG”), professional groundwater and environmental engineers, were hired to conduct a study including the installation of groundwater wells. LBG’s hydrogeologist concluded: *“Based on the OWCA and Environmental Database (EDR) information showing no significant water-quality concerns near the Project Site, no additional parameters beyond those included in the New York State Department of Health (NYSDOH) Sanitary Code Part 5, Subpart 5-1 are proposed to be collected from the onsite pumping wells during the 72-hour pumping test program.”*

Therefore, combining the recommendations of both Tenen and LBG, groundwater testing was deemed unnecessary and was not performed.

A total of four soil samples were analyzed for full scan volatile organic compounds (“VOCs”) and semi-volatile organic compounds (“SVOCs”). The soil samples collected from the solid waste pile areas from the former illegal landfill were also analyzed for Target Analyte List (“TAL”) metals. The soil sample collected from the former golf course area was only analyzed for pesticides, as additional testing was unnecessary.

The results of the subsurface investigation can be found in Appendix M and concluded the following:

- No VOCs were detected in any soil sample at concentrations above 6 N.Y.C.R.R. Part 375 (Unrestricted Use) soil cleanup objectives (“SCOs”).
- SVOCs, specifically polyaromatic hydrocarbons (PAHs), were detected in one soil sample at levels exceeding 6 N.Y.C.R.R. Part 375 (Restricted Residential Use) SCOs.
- Several metals typical of fill material, including copper, iron, and zinc, were detected above 6 N.Y.C.R.R. Part 375 Unrestricted or Residential Use SCOs. This area was capped pursuant to applicable regulations.
- Two pesticides, 4,4’-DDE and 4,4’-DDT, were detected above 6 N.Y.C.R.R. Part 375 Unrestricted Use SCOs, but below the Residential Use SCOs in the former golf course area.
- Solid waste, including household refuse consisting of bottles, tires, plastic bags, old cloth, and roof shingles, were observed in ten test pits; these materials extended to depths ranging

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between three and eleven feet below grade.

### Remedial Action Work Plan

At the conclusion of the Phase II subsurface investigation, Tenen was retained to investigate, compile and evaluate data to develop a Remedial Action Work Plan (“RAWP”), which is dated August 23, 2015 and included in Appendix M, as well as to oversee remedial actions with regard to solid and hazardous waste testing and removal detailed in the Remedial Closure Report (“RCR”), dated September 21, 2016 and included in Appendix M.

The RAWP involved removing the ASTs (all of which would be registered with DEC prior to their removal), resampling the soil after the removal of the ASTs, solid waste removal, and proper disposal of any waste materials. All remedial work was observed by a qualified environmental professional (“QEP”) in order to ensure it was efficiently completed according to all applicable regulations.

### Remedial Closure Report

The Remedial Closure Report, dated September 21, 2016 and included in Appendix M, details the implementation of the recommendations in the RAWP. The appropriate actions were undertaken and are summarized below. Furthermore, Tenen collected one composite sample from the fill material to analyze it for VOCs, SVOCs, pesticides, PCBs, and metals: none were found.

Below are the conclusions of the RCR:

- One 4,900-gallon out-of-service AST was removed and disposed of offsite in accordance with DEC PBS requirements, and the tank was administratively closed from DEC records;
- One 550-gallon water tank was removed and disposed of offsite;
- Solid waste was collected, removed, and disposed of offsite;
- Scrap metal, including discarded tanks, was removed and disposed of offsite;
- Soil with elevated levels of SVOCs was capped with two feet of fill material, meeting DEC Unrestricted Use SCOs to prevent direct contact; and
- a No Further Action letter was not required by DEC.

The materials from the solid waste piles from the former illegal landfill have been removed and properly disposed of or capped with soil as per NYSDEC regulations to prevent contact. Subsequent sampling of the soils in the area where illegal dumping had previously occurred has revealed no contamination.

The remedial actions detailed above complied with applicable environmental standards, criteria, and guidance; conformed to applicable laws and regulations; and met the Project’s site-specific recommendations from the NYSDEC (dated 11/17/15 and found in Appendix M), which stated:

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*“None of the spills have any significant impacts remaining.”* Furthermore, the RAWP and RCR were submitted to DEC on November 4, 2016, and the NYSDEC responded, *“concurring with the conclusions shown on page 6”* of the RCR (see Appendix M), which are the conclusions listed above.

The NYSDEC affirms that no adverse contaminants exist on the Project Site and that the Project would present no significant adverse hazardous materials impacts. A No Further Action letter was not required from NYSDEC, and no other further approval or documentation from NYSDEC or other agencies would be required. Therefore, no additional mitigation would be required other than to continue to comply with the provisions of the RAWP as the Project proceeds with its development and construction.

### **3.15.3 Mitigation**

The Project has been remediated to the point where no further NYSDEC or other agency approval or documentation would be required for the Project Site, and the Project’s construction would continue to comply with any applicable recommendations found in the RAWP. Accordingly, there would be no potential for the Project to generate any significant adverse impacts with regards hazardous materials and no further mitigation is necessary.