M. Hazardous Materials

Freudenthal & Elkowitz Consulting Group, Inc. (F&E) was retained by the Applicant to perform a Phase I Environmental Site Assessment (ESA) on the Project ~~s~~Site, located in the Appendix. From the review of historic aerial photographs, historic topographic maps, Town of Dover Assessor's records, and information obtained from the harlemvalley.org website, as well as personnel interviews, F&E was able to establish a history of the subject property back to 1901, although some of the original residential homes on the property, reportedly date back to at least 1890. From 1901 until 1911, the subject property was comprised of several residential estates/farm properties, including the Wheeler, Titus, Wilcox and Brown farms, as well as the former Dykeman property. In 1911, the farms were purchased by NYS for the purpose of creating a prison. The original prison plans called for the construction of 14 buildings, a reservoir and a wall surrounding the buildings, with an additional six buildings to be constructed in a second phase.

In 1912, the State abandoned plans for the prison, citing shallow groundwater, questionable water supply and high constructions costs as the reason, although, four buildings under construction at that date were completed, with none ever utilized as a part of the prison. These included Buildings 2, 3, 17 and the original power plant (Building 10). The reservoir and dam were completed in 1918. In 1923, the State decided to utilize the property as a hospital for insane persons. The hospital opened in August 1924, with the dairy farm, root cellar, piggery and chicken houses added soon after. By 1929, Buildings 4 through 6, 11, 13 and 14, several staff houses and the golf course were constructed. The majority of the remaining hospital buildings were completed by 1934, with Building 35 added by 1937.

Several staff residences were added in the 1950s, with the church, Building 85 and several additional staff residences added in the 1960s. Several other improvements/renovations were also completed in the 1960s. The hospital reached a maximum population in 1956 with approximately 5,800 patients. Farming activities on the site ceased in 1960. By 1974, the patient population had dropped to under 2,000 with deinstitutionalization practices accounting for much of the decline. In the 1980s, much of the hospital was updated, and the DFY began operation of the juvenile detention facility in several of the former hospital buildings in 1981. By 1991, the State proposed the closing of the hospital, which occurred officially in January 1994. In March 1994, the DFY facility closed. Several dairy farm structures and the dam gate house were demolished or destroyed by fire between 1996 and 2004. By 2004, the renovation of the Manor House (Building 39) was completed, with the continued re-development of the site in the planning and approval stage.

The former HPVC property was acquired by the Dover Knolls Development Company II, LLC in October 2003. The former Dykeman property was acquired by Benroal Realty Associates in August 2007 and incorporated into the proposed Dover Knolls Development.

The subject property is currently developed with approximately 83 buildings and other structures, associated roadways/pathways, nine-hole golf course, two cemeteries and a reservoir. The property, which was formerly utilized as the NYS HVPC and NYS DFY

Juvenile Detention Facility, is currently in the process of being redeveloped into a mixed-use community with residential, retail and recreational uses, known as the Knolls of Dover.

The following is a summary of the Phase I assessment.

1. Existing Conditions

Land Fill/Waste Disposal Activities

The Project ~~s~~Site is listed on the United States Environment Protection Agency (USEPA) Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) with a designation of No Further Remedial Action Planned (NFRAP). The Project ~~s~~Site is also listed on the State Hazardous Waste Sites (SHWS) with a delisted status and the Solid Waste Facility/Landfill (SWF/LF) database. The listing of the Project ~~s~~Site on Federal and State databases is related to the on-site disposal of ash from the former coal-fired power plant and dumping of various non-hazardous waste at several on-site landfills (see Sections 5.1, 5.2, 5.5 and 6.4.7 in the Appendix). The investigation of the ash fill area and HVPC Dump Number 2 identified the presence of impacted groundwater. Fill materials were reportedly excavated under an Order of Consent between the New York State Department of Environmental Conservation (NYSDEC) and New York State Office of Mental Health (OMH). However, no information regarding remedial activities was available to the Applicant or provided to F&E for review during the preparation of the Phase I assessment.

Four on-site landfills/dump areas were identified for the property: 1) ash fill area, located west of buildings 22 and 34; 2) HVPC Dump No. 2, located northwest of the sewage treatment plant; 3) the old golf course dump, located west of the sewage treatment plant; and 4) the sewage screenings dump area, located south of building 34 (see Exhibit III.M-1, Land Fill Locations).

Ash Fill Area

The areas on the north and south sides of Wheeler Road between buildings 22 and 34, and the Swamp River were utilized for the on-site disposal of ash generated by the incineration of coal at the former power plant. This disposal site is identified in the EDR database report as a CERCLIS-NFRAP site. The Phase I ESA prepared by Professional Service Industries, Inc. in October of 1996 (the "PSI Report") included the review of closure investigation reports for the north and south sides of Wheeler Road (see the Appendix for the full PSI Phase I ESA). The reports indicated that soil and groundwater in the vicinity of the ash disposal areas had been impacted with sulfates and heavy metals. Data regarding the levels of impacted soil was not available to the Applicant or provided to F&E for review. At the time the PSI Phase I ESA report was issued, approximately 20,000 yards of ash had been removed from the site, with additional remediation to be conducted by OMH under Order of Consent Number R3-1520-88-05, between the NYSDEC and OMH. Since the ash fill area was reportedly remediated under the Order of Consent, it is likely that concentrations of the identified contaminants have been reduced. No remedial information or post-remedial sampling data was available to the Applicant or

provided to F&E for review. As such, residual ash, as well as impacted groundwater may be present in this area.

HVPC Dump No. 2

HVPC Dump No. 2, identified as a portion of the de-listed New York State SHWS site is located near the northern property boundary, west of the sewage treatment plant and proximate to building 80. The PSI Report indicates that this dump was utilized between 1968 and 1975. Approximately 17,000 yards of waste including hospital trash, landscape debris, fuel tanks, drums, batteries, furniture, white goods and machinery were disposed of in this approximate two acre area. This dump is reportedly comprised of three areas, east, west and south. The eastern and western dump areas are separated by the gravel road, which runs between the sewage treatment plant and building 80. The southern dump area is located south of the western dump area and southwest of the gravel access road. The PSI Report indicates that five groundwater monitoring wells were installed, with groundwater samples collected in the vicinity of the landfill. Analytical results indicate that groundwater was impacted with PCE, iron, lead and manganese. The data regarding the level of groundwater impact was not available to the Applicant or provided to F&E for review.

Old Golf Course Landfill

The Old Golf Course Landfill is another small dump area that is reportedly located south of the eastern portion of Dump No. 2, and north of the gravel access road. It is possible, however, that the Old Golf Course Landfill and the southern area of Dump Number 2 represent the same location. No additional information regarding the nature of the materials disposed of in this area was available, although it is reported to have included landscaping debris.

Sewage Screenings Dump Area

Reports from a former employee indicated that a small dump area was present south of building 34, which was reportedly utilized for the disposal of trash generated from the screening of large debris from sanitary waste water prior to it reaching the treatment plant. A narrow gauge rail line extends south from building 34 to the dump site, which was reportedly utilized to transport the wastes to the disposal area. No other information regarding this dump was available to the Applicant or provided to F&E for review.

Dump No. 1 (Off-Site)

A fifth dump, identified as Dump No. 1 and part of the de-listed SHWS site, is currently located on an eastern adjacent property which was retained by New York State for additional buffer for the Appalachian Trail. The PSI Report indicates that this dump was utilized from the 1930s until circa 1968. Approximately 25,000 yards of waste, including some ash from the power plant, was disposed of in this approximate two acre area. The PSI Report references a Phase II investigation report for the landfill, prepared by ESI, and dated in April 1991. The ESI report indicated that several groundwater monitoring wells were installed, with soil and groundwater

samples collected in the vicinity of the landfill. According to PSI's review of the ESI report, analytical results indicated that groundwater was impacted by several heavy metals, including barium, chromium, lead, iron, magnesium and manganese. Dump No. 1 is not part of the Project ~~s~~Site.

The subject property is also listed on the Resource and Recovery and Conservation Act (RCRA)- Conditionally Exempt Small Quantity Generators (CESQG) database under the name Harlem Valley Psychiatric Center. This listing is summarized as follows:

- ID No. NYD060550779, Route 22, Box 330.

One violation is listed for this site in the EDR report. The violation is related to a manifest issue, identified during an October 28, 1985 compliance inspection. Information in the database report indicates that corrective action was taken by the responsible party and the violation resolved on February 3, 1987. No open violations exist for the site.

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Additional information in the database report indicates that the site operated as a RCRA- Large Quantity Generator (LQG) between 1984 and 1999 and as a RCRA-SQG between 1999 and 2006. Nineteen manifest records were provided for the site in the Environmental Data Resources (EDR) report. The manifests, dated between February 1985 and May 2003, document the shipment and disposal of benzene, hydrofluoric acid, Polychlorinated Biphenyls (PCB) contaminated oils/transformers, corrosive, flammable and ignitable wastes from the site.

Storage Tanks

The subject property is listed on the Petroleum Bulk Storage Underground Storage Tank (PBS-UST) and PBS- Aboveground Storage Tank (AST) databases under the names "Harlem Valley Psychiatric Center" (ID No. 3-049654), "Harlem Valley Secure Center" (ID No. 3-600703) and "Department of Corrections Housing" (ID No. 3-600820). These listings identified the presence of 41 registered tanks, including 21 USTs (three active, 12 removed and 6 "administratively closed") and 20 ASTs (nine active, eight removed and three "administratively closed") for the property.

In addition to these tanks, the site inspection identified the presence of eight additional active and six inactive/removed petroleum storage tanks (totaling seven USTs and seven ASTs). No evidence of spills or staining was noted in the vicinity of the on-site ASTs or exterior UST piping, except for staining observed beneath the 275-gallon gasoline AST associated with the golf course maintenance building.

No documentation regarding the removal of the former on-site USTs and ASTs or soil quality in the vicinity of the tanks was available to the Applicant or provided to F&E for review. In addition, no information regarding the integrity of the existing USTs or soil quality was available. As such, the current and former USTs represent recognized environmental conditions ("RECs"). However, the former USTs and ASTs are noted on

NYSDEC registration documents as removed. Accordingly, they appear to have been properly removed.

The site inspection also identified the presence of six propane ASTs (two associated with the golf course clubhouse and four associated with the DFY Power Plant). Piping and a flow valve indicative of an underground propane tank were also noted at the edge of the wooded area southeast of building 85.

Infrastructure
Sanitary disposal for most of the site buildings is directed to a screening room located in the southwestern portion of building 34, where wastewater is screened to remove large debris. Wastewater is then treated at the on-site sewage treatment plant located north of the golf course. The plant is currently maintained by Severn Trent Environmental Services under contract to the Applicant. Treated effluent generated at the plant is subsequently discharged to the Swamp River, east of the treatment plant. The discharge of treated effluent is permitted by the NYSDEC under the State Pollutant Discharge Elimination System (SPDES) program (ID No. NY0032158) and is monitored on a periodic basis to ensure surface water and groundwater protection. The current SPDES permit expires in October 2012. Monthly effluent analytical data obtained from the USEPA website for the period November 2002 through June 2006 indicate that no permit exceedances were identified for the ten specified testing parameters.

Storm drains were identified along site roadways and in paved parking lot areas. According to site representatives, the drains discharge to outfalls along the ravine below the reservoir dam and to the Swamp River, although some structures likely drain in-situ.

Floor drains were identified throughout the basements or ground floor levels of the various site buildings. According to a site representative, the drains reportedly discharge to the on-site sanitary sewer system. The drains identified in certain remote buildings, including the dairy farm structures and several staff residences/garages, are not serviced by the sewer system and likely discharge in-situ to subsurface soils.

Fluids and Chemicals
The site inspection identified the presence of various quantities of automotive fluids, lubricating oils, water treatment chemicals, laboratory chemicals, compressed gas cylinders, pesticides/insecticides, paints, batteries and cleaning supplies located throughout the site buildings. The identified automotive fluids, oil, chemicals, paints and cleaning materials were stored in retail-sized containers (under five gallons) up to 55-gallon drums and 50 to 100 pound sacks.

The bulk of the automotive fluids/oils were stored in buildings 5, 32 (associated storage shed), 34, 61, 63, 70, 103 and the Division for Youth power plant. Pesticides were stored in a trailer adjacent to building 61 (golf course maintenance building), with an inaccessible pesticide cabinet located in building 67 (greenhouse). Water treatment chemicals, including chlorine, sodium hypochlorite, potassium permanganate, caustic soda, sodium polyphosphate, copper sulfate, magnesium green sand and granular

activated carbon were stored in building 70 (Filter House) and several buildings at the sewage treatment plant. In addition, some bagged chemical storage was observed in the basement of building 2. Laboratory chemicals were observed in buildings 63 and 70 and are associated with water testing performed at the water and sewage plants. In addition, a number of bottles containing various laboratory chemicals were identified in building 34 (power plant – west wing, second floor).

In general, no significant staining was observed in the vicinity of the identified chemicals. Minor staining was identified in garage/shop areas. Many of the drums showed signs of rust. Other housekeeping issues include open bags of dry material/chemicals, missing labels, water damage and lack of secondary containment or spill control in most chemical storage areas, specifically outdoor storage areas at the waste and sewage plant areas.

Monitoring Wells
Groundwater monitoring wells were identified on the exterior of the building 34 garage area (northern portion of the building) and the remnants of a soil/groundwater remediation system. Additional monitoring wells were also observed within the garage area. The wells and remediation system are reportedly associated with the remediation of several NYSDEC spill incidents associated with the former gasoline tanks and hydraulic vehicle lifts located in this area. No remediation or groundwater monitoring is reportedly on-going, however, one of the NYSDEC spill files associated with building 34 remains open.

The PSI Report indicates that four groundwater monitoring wells were identified in at the southeastern side of building 85 and were reportedly associated with a NYSDEC spill incident. However, no wells were observed in this area during F&E's 2008 site inspection, and neither of the two open NYSDEC spill incidents associated with the property are attributable to building 85.

The PSI Report also indicates that five groundwater monitoring wells were installed in the vicinity of on-site Dump No. 2, located west of the sewage treatment plant, to evaluate groundwater impacts associated with historic land filling activities. One of these wells was observed by F&E during the 2008 site inspection. Additional wells may also be present in this area, but due to the presence of dense overgrown vegetation, they were unable to be located. Groundwater analytical results summarized in the PSI Report indicated that groundwater in the vicinity of the dump was impacted with PCE, iron, lead and manganese.

Polychlorinated Biphenyl (PCB)
The PSI Report indicated that on-site transformers were tested for the presence of PCBs. Those found to contain PCBs were replaced with "non-PCB containing" transformers. The USEPA definition for a "non-PCB" transformer indicates that the dielectric fluid in the transformer may contain up to 50 ppm of PCBs. The reported removal of PCB-containing transformers is consistent with waste manifest data included in the EDR database report.

F&E's site inspection determined that the main hospital buildings and several of the multi-family housing units (buildings 13, 18 and 33) were equipped with electrical transformer rooms located within the building basements. The majority of the transformer rooms were locked/inaccessible during the site inspection, however, where accessible, the rooms contained between one and three transformers. Most of the transformers were labeled as "non-PCB." No evidence of spills or staining was observed in the vicinity of the observed transformers. It should be noted that PSI identified a minor spill in the Transformer Room B, located in the sub-basement of building 85. This room was inaccessible during F&E's site inspection.

The site inspection also identified the presence of various pad and pole-mounted transformers on the exteriors of several buildings. A summary of the identified transformer locations is as follows:

Pole-Mounted Transformers

- Two, located adjacent to the east of building 61, golf course maintenance buildings;
- Two, located adjacent to the northeast of building 34, the power plant, near the railroad station;
- One, located adjacent to the northeast of building 60 golf course clubhouse;
- One, located adjacent to the east of building 53, Crisis Residence;
- One, located between buildings 81 and 103, the dairy farm storage barns; and
- One, located adjacent to the west of the cemetery along Old Pawling Road.

Pad-Mounted Transformers

- One, located adjacent to the east of building 34, the Power Plant;
- One, located adjacent to the west of building 27, the WDC-Patient Housing;
- One, located adjacent to the east of building 25, the Bittle Patient Housing;
- One, located adjacent to the east of building 2, the WDC-Kitchen; and
- One, located within building 59, the Water Pump House.

In addition, five out-of-service transformers (four located on the ground at the west side of building 34, and one located in the basement of building 39) were identified during F&E's site inspection. The observed transformers were in good condition, with no evidence of spills or staining. The PSI Report also identified the presence of four pole-mounted transformers associated with building 118, Haven House, which is not part of the subject property. Additional pad-mounted transformers may be present at the site, but were obscured by the presence of dense, overgrown vegetation surrounding the building perimeters.

In addition, NYSEG maintains an electrical substation, located south of building 34, which contains a number of transformers. They are reportedly all non-PCB containing, according to a NYSEG employee contacted by the Applicant. In addition, no evidence of spills or staining was observed in the vicinity of the observed transformers.

Fluorescent light ballasts were observed throughout most of the site buildings, with the exception of the single-family residences, garages and several of the smaller storage buildings. Based on the ages of the various structures, the ballasts may contain PCBs. The disposal of leaking PCB ballasts is governed by federal regulations. No evidence of leakage associated with observed light ballasts was apparent as viewed from ground level. The potential for the fluorescent light ballasts to contain PCBs is considered an environmental concern for the site.

One electric vehicle lift and the remnants of several hydraulic vehicle lifts were identified in the garage area of building 34. According to the PSI Phase I ESA, the garage area was formerly equipped with ten hydraulic vehicle lifts and six hydraulic fluid USTs. Soil and groundwater contamination was identified in this area during a Phase II investigation of the site and was being remediated. This is consistent with evidence of the inactive remediation system located south of the garage area and the open NYSDEC spill number for this building. No information regarding the current status of the six hydraulic fluid tanks was provided, although they were likely removed along with the hydraulic lifts.

Buildings 1 through 6, 11, 12, 14, 21 through 28, 34, 35, 39 and 85 were equipped with one or more freight and/or passenger elevators. The elevator located in building 39 is hydraulically driven with a small fluid reservoir located in the basement. Since the elevator was installed as part of the recent building renovations performed by Dover Knolls, the hydraulic fluids are unlikely to contain PCBs. The majority of the remaining elevators appeared to be electrically driven cable lifts and are not likely to contain PCB-contaminated hydraulic fluids. However, it should be noted that not all elevator equipment rooms were accessible. Therefore, hydraulically equipped elevators may be present in some buildings.

Radon

The USEPA's "Map of Radon Zones for New York State," September 1993, indicates that the Wingdale area is a Zone 1 radon risk area, which indicates that predicted average indoor radon screening levels are greater than the USEPA's action level of 4 picocuries per liter (pCi/L). According to the EDR database report, federal records indicate that 186 radon tests have been conducted in Dutchess County. Test results indicate average radon concentrations of 1.69 pCi/L (living area) and 3.63 pCi/L (basement). Data indicate that approximately 20 percent of living areas and 44 percent of basements tested showed results in excess of the 4.0 pCi/L USEPA action level. NYSDOH information included in the EDR report indicates that nine radon tests have been conducted for the 12594 zip code area with an average radon concentration of 5.31 pCi/L.

Additional data (October 2008) obtained from the NYSDOH indicates that 32 basement radon tests have been conducted in the Town of Dover, Dutchess County, with a radon basement concentration of 9.22 pCi/L.

Lead

Interior paints associated with the majority of the unoccupied/inactive buildings on the property show moderate to severe evidence of chipping/peeling paint, related to the

effects of vandalism and/or general neglect, with significantly magnified effects in areas damaged by water. The exteriors of the on-site residences and several smaller structures were painted, with the painted surfaces in fair to poor condition, similar to the interior surfaces. The exteriors of the main hospital buildings consisted of unpainted brick, with some of the smaller farm, water plant, sewage plant buildings and residential garages comprised of unpainted wood, concrete or stucco. The lead contents of the paints are unknown, but due to the ages of the buildings, the presence of lead based paint is possible. The disposal of lead paint waste resulting from renovation or demolition activities may be subject to federal and State regulations.

Asbestos

As part of the site inspection, a visual survey was conducted of accessible building materials for the presence of suspect ACM. Various suspect ACM were identified throughout most of the site buildings, including, but not limited to floor tile, ceiling tile, pipe insulation, boiler insulation, fireproofing and roofing materials. Generally, the suspect materials were in good to fair condition except for areas which were damaged by vandalism and/or water damage. In addition, due to the ages of the buildings, except for the Manor House (building 39) which was recently renovated, other (inaccessible) building materials may also contain asbestos. No sampling of suspect asbestos containing materials (ACM) was conducted in coordination with this Phase I ESA.

The PSI Phase I ESA report also identified the presence of suspect ACM in site buildings and provided a summary of the identified materials and estimated quantities, which is included in Table III.M-1:

Table III.M-1
Potential ACM

Material Type	Approximate Quantity of Suspected Asbestos Containing Materials
Floor Tile/Mastic	619,665 sf
Pipe Insulation (<4")	97,115 lf
Pipe Insulation (>4")	57,300 lf
Vessel (Tank) Insulation	14,110 sf
Duct Insulation	10,450 sf
Ceiling Tile (Pre-1980)	18,220 sf
Fireproofing (Pre-1973)	3,130 sf
Acoustic Plaster	120,000 sf
Textured Finishes	14,360 sf
Built-Up Roofing	382,233 sf

Mold and Water Damage

A visual inspection was conducted for the presence of water damage and odors, indicative of the potential for mold growth, on accessible surfaces within the site buildings. Most of the unoccupied/inactive buildings at the site have moderate to severe evidence of water damage and mold growth. These effects are accelerated in building basement areas due to the presence of sub-grade utility tunnels and passageways which are prone to flooding from rainwater and poorly drained soils. In addition to mold

growth, water damage has resulted in chipping/peeling paint, plaster and sheetrock damage, carpet and flooring damage and flooded basements and sub-grade tunnels.

2. The Future without the Proposed Project

The Applicant has no obligation under any Consent Order or Remedial Action Workplan to remediate Recognized Environmental Conditions ("RECs") at the Site. If the Project is approved, the Applicant would appropriately address all RECs and potential areas of environmental concern ("PECs") in a phased approach during construction activities. If the Project is not approved, the Applicant would not have an obligation to address all RECs and PECs. The Applicant, as the site owner, would however, be required to properly close out-of-service storage tanks in accordance with all applicable regulations. ~~may, however, have a potential obligation to properly close out of service storage tanks at the property and to close the open spill number associated with Building 34.~~

3. Potential Impacts

Based upon the existing conditions and given that the Applicant intends to develop the subject property in a phased approach, the following recommendations are made to facilitate the re-development of the property in a manner that is protective of human health and the environment, while allowing the Applicant the flexibility to address the identified environmental concerns on a site-wide or building-by-building basis. In addition, due to the complex nature of the site, some environmental concerns may require long term investigation, monitoring, remediation and/or mitigation with the oversight of one of more regulatory agencies.

Land Fills/Ash

There is a potential presence of methane associated with one or more of the former land fill areas. The NYSDEC may require that these dumps be closed in accordance with 6 NYCRR Part 360 regulations, including but not limited to capping, gas collection and groundwater monitoring. In addition, remediation may be required for each landfill area in accordance with applicable regulations.

Ash Fill Area

Although the ash fill area was reportedly remediated under an Order of Consent between the NYSDEC and OMH, no remediation or post-remedial monitoring information was provided for review. It is possible that residual quantities of fill (ash) and impacted groundwater remain present at the site. As such, any fill materials excavated from this area during the proposed development activities would be adequately characterized.

If contamination is present, the soil would be dealt with as part of a Soil Management Work Plan (SMP) and Health and Safety Plan (HASP). These procedures would generally consist of the following: (a) retaining a Part 364 permitted environmental contractor to excavate, characterize, transport and dispose of impacted soils at the appropriately-licensed disposal facility; and (b) backfilling the excavations with clean

fill material. Any imported fill material would contain documentation or be tested to confirm that it is appropriate for the intended use-.

In addition, as any fill material identified in this location is from an unknown origin, the SMP would also include procedures to ensure proper testing, handling and disposal requirements for any fill material, ash and/or contamination that is encountered during site development. Further, the SMP would include a contingency plan to address any petroleum contamination (spill reporting, delineation, remediation, etc.) documented during the development activities.

All impacted material would be properly manifested prior to transportation off-site to an appropriately-licensed disposal facility. Since the previous investigation and remediation was conducted with oversight provided by the NYSDEC, further investigation or remediation may not be warranted at this location.

Dump No. 2

Groundwater analytical data collected as part of a prior site investigation identified the presence of tetrachloroethylene (PCE) and heavy metals. Although, no investigation reports were provided for review, the detected groundwater concentrations were considered insignificant enough to warrant removal of the dump from the NYS SHWS list. As no development is currently proposed for this area, no mitigation is warranted at this time. It should be noted that the site is currently under the regulatory jurisdiction of the NYSDEC Division of Solid Waste. ~~Although t~~This site is likely considered a "low" priority by~~,~~ the NYSDEC. ~~may require that the dump be closed in accordance with 6 NYCRR Part 360 regulations, including but not limited to capping, gas collection and groundwater monitoring.~~

Old Golf Course Dump -

Although no information regarding the nature of the materials discarded in the Old Golf Course Landfill was available, it is likely that the majority of the debris consisted of landscaping debris. Given the proximity of this dump site with HVPC Dump Number 2 it was likely part of the HPVC Dump Number 2. The evaluation of groundwater completed for HVPC Dump Number 2 was likely adequate to evaluate the effects (if any) associated with this landfill. As no development is currently proposed for this area, no mitigation is warranted at this time. It should also be noted that this dump appears to be located within or proximate to a New York State wetland area and it is unlikely to be developed.

Sewage Screenings Dump Area

Based on the presumed nature of the materials discarded at the sewage screenings dump area, it is unlikely that these materials have leached contaminants to the ground and significantly impacted the site. However, these materials would be removed and properly disposed in accordance with applicable regulations. In the event that soil impacts (e.g., visible staining) are noted, then soil sampling would be conducted to determine the nature and extent of the impacts and determine if additional investigation and/or remediation is warranted.

Infrastructure

The nature and discharge points of the identified on-site sanitary systems, storm drains, areas, floor drains, etc. would be determined and if warranted, soil samples should be collected from the base of the structures to determine if current/historic site operations and/or improper discharges to the structure have impacted the subsurface and if remediation is required. Based on the initial sample results, additional sampling may be required to assess liquid and/or sludge present in the septic tanks, for disposal purposes (if required) and/or to satisfy regulatory agency requirements. In addition, if future redevelopment of the property does not include the use of these structures, they would be properly closed in accordance with USEPA protocols.

Most of the buildings on the facility were previously heated via steam generated at the Power Plant, and transmitted via a system of tunnels that extends throughout the facility's main campus. The tunnels also contained electric and water lines and served as connecting corridor tunnels between buildings. The tunnels would be removed or abandoned within the Project Area as follows:

- Remove/remediate all asbestos in accordance with regulatory requirements before abandoning or removing the tunnels;
- Remove existing utility pipes;
- Where tunnels do not conflict with proposed buildings, roads or utilities, the tunnels can remain after removing the top slab, breaking up the bottom slab and backfilling. The tunnels would be filled solid with grout; and
- Where tunnels conflict with proposed construction, they would need to be removed.

The removal of all debris related to the demolition of buildings and tunnels (if necessary) would be overseen through a Demolition Waste Management Plan. The Plan would be developed to detail:

- Types of waste and estimated quantities, by volume, of Construction, Demolition and Landclearing (CDL) waste expected to be generated during demolition;
- Proposed methods for CDL waste salvage, reuse, recycling and disposal during demolition, including, but not limited to, one or more of the following: contracting with a deconstruction specialist to salvage materials generated, selective salvage as part of demolition contractor's work, and reuse of materials on-site or off-site sake or donation to a third party;
- Proposed methods for salvage, reuse, recycling and disposal during construction, including, but not limited to, one or more of the following: requiring subcontractors to take their CDL waste to a recycling facility, contracting with a recycling hauler to remove recyclable CDL waste to an approved recycling or material recovery facility, and processing and reusing materials on-site, including crushing on-site and reuse of materials as roadbed, and self-hauling to a recycling or material recovery facility;

- Name of recycling or material recovery facility receiving each of the CDL wastes; and
- Handling and transportation procedures, including method that would be used for separating recyclable waste.

Demolition and construction debris not suitable for reuse on-site would be stockpiled on-site until a significant quantity of material has been collected for the efficient transporting of the material off-site.

Storage Tanks and Spills

NYSDEC PBS registrations ~~shall~~ would be updated to include all current and former tanks associated with the property. The discrepancies associated with the three existing PBS registrations for the property should be resolved and ownership of the appropriate tanks transferred to the Applicant. In addition, if future plans for the site do not include the use of the any or all of the on-site storage tanks~~ASTs~~, then the tanks would be removed from the site in accordance with applicable NYSDEC regulations.

The NYSDEC would be contacted regarding the two active petroleum spills associated with building 34. Based on a review of the database information, the remediation of the spill at building 34 garage appears to be completed, but additional work including the decommissioning of the former remediation system and monitoring wells is required. However, due to the time elapsed since the last monitoring report was submitted, the NYSDEC may require additional sampling or other work be completed prior to closure of the spill file. The other spill appeared minor (two gallons) and likely requires minimal efforts to obtain closure of the spill file. Any impacted soils excavated from this area would be properly characterized and disposed of at an appropriate off-site facility.

Spills in the vicinity of the 275-gallon gasoline AST associated with building 60 (golf course maintenance building) have impacted surface soils. The soil staining is unlikely to have resulted in significant soil/groundwater impacts, however, effected soils should be removed and properly disposed. In addition, better housekeeping practices, secondary containment and/or upgraded ASTs would be implemented to minimize/prevent future spills/releases.

As the future use of the property does not likely include use of the out-of-service USTs, sa~~e~~me would be removed in accordance with applicable NYSDEC regulations. The out-of-service USTs would be removed in a phased approach, in association with the proposed demolition activities. As the majority of the out-of-service USTs are reportedly empty and disconnected from associated heating/fueling equipment, tightness testing is not recommended. However, any USTs scheduled to remain in-service or placed back in-service would be properly evaluated through tightness testing or soil borings.

The former site USTs appear to have been properly removed including the notification of the applicable regulatory agencies. However, the information regarding the tank removals (i.e. tank closure report) was not made available to F&E prior to the issuance of the Phase I ESA report. Additional information requests made to the NYSDEC and the

DCDOH, to confirm that releases from the former USTs did not impact the subsurface, are still pending. In the event that information becomes available to F&E indicating that a release was associated with a removed UST, which was not adequately resolved, then a targeted Phase II ESA may be recommended as an addendum to its report.

As 20 of the 22 documented NYSDEC spills associated with the subject property have been closed by the NYSDEC, F&E does not recommend a Phase II ESA in association with the removed USTs. However, F&E does acknowledge that residual subsurface petroleum-related impacts may be present at multiple locations throughout the site. Therefore, in the event that petroleum-related impacts are encountered during site development activities, same would be reported to the NYSDEC within two hours of discovery (as prescribed by law) and handled in accordance with applicable NYSDEC regulations.

The storage of chlorine and other chemicals associated with the water and sewer treatment plants may require registration with the NYSDEC in accordance with CBS regulations as the stored volume appears to exceed 185 gallons. Storage areas would also be upgraded to provide secondary containment and spill protection.

Various laboratory chemicals, drums, compressed gases, paints and cleaning supplies located throughout the site buildings, would be removed from the site and properly disposed in accordance with applicable regulations. Any materials which may be utilized by the Applicant would be properly stored with the appropriate spill containment and applicable permits/registrations.

Pesticides/Organic Compounds

Based on the intended future use of the property as residential or related purposes, a soil investigation program ~~would~~ may be conducted to ascertain the presence, if any, of accumulated pesticides (e.g., pesticides, herbicides, semi-volatile organic compounds [SVOCs], and heavy metals) in surficial soils. Such sampling may be required by the Dutchess County Department of Health (DCDOH) prior to a subdivision plan approval. If present, pesticides, SVOCs and metals would be dealt with as part of an SMP and HASP similar to the ash fill area, as described above.

Based upon information provided by Mr. Jim Napoli, who is with the Duchess County Department of Health ("DCDOH"), ~~T~~the presence (or absence) of pesticides in soil at the golf course does not currently ~~warrant~~ require investigation or~~/~~remediation. Mr. Napoli further reported that as part of the subdivision approval process for the Knolls at Dover, an extensive groundwater sampling plan has already been commenced by the Applicant to comply with the DCDOH's guidelines concerning water supply. Based upon these results, the DCDOH would then determine if any soil sampling would be required. In the event that any soil investigation is required, the Applicant would submit a sampling plan for approval by the agency prior to commencement of field activities. ~~However, should the future use of the property change, specifically to residential usage, the sampling and/or remediation of pesticide impacted soils would likely be necessary as part of construction/re-development activities.~~

Polychlorinated Biphenyl (PCB)
Suspect PCB-containing equipment, including, but not limited to fluorescent light ballasts, elevator equipment, transformers and hydraulic vehicle lifts were identified on the property. As such, PCB surveys would be performed prior to demolition and/or renovation activities. Any PCB-containing equipment affected by the development of the site must be properly managed during demolition and/or renovation activities. In addition, while the disposal of non-leaking PCB ballasts is not currently regulated by the USEPA, the PCB ballasts would be packaged in a lined, steel drum containing an absorbent material and disposed of as PCB-waste to reduce the potential for environmental contamination and potential liability for cleanup of any environmental release of PCBs from the ballasts.

Radon
As the Wingdale area is classified by the USEPA as a Zone 1 radon risk area, radon testing would be performed, and if necessary sub-slab depressurization systems or passive radon ventilation systems would be installed in any proposed buildings (as necessary) to protect future occupants from potential radon exposure.

Lead
Interior paints associated with the majority of the unoccupied/inactive buildings on the property show moderate to severe evidence of chipping/peeling paint. The exteriors of the on-site residences and several smaller structures were painted, with the painted surfaces in fair to poor condition, similar to the interior surfaces. The lead contents of the paints are unknown, but due to the ages of the buildings, the presence of LBP is possible. Therefore, lead paint surveys would be conducted prior to any renovation/demolition activities. The disposal of lead paint waste resulting from renovation or demolition activities may be subject to federal and State regulations.

Asbestos
Various suspect ACM was identified throughout most of the site buildings, including, but not limited to floor tile, ceiling tile, pipe insulation, boiler insulation, fireproofing and roofing materials. Generally, the suspect materials were in good to fair shape except for areas which were damaged by vandalism and/or water damage. In addition, due to the ages of the buildings, except for the Manor House (building 39) which was recently renovated, other (inaccessible) building materials may also contain asbestos. If activities in the buildings (i.e., renovation or demolition) would disturb any suspect asbestos material, then an asbestos survey would be performed to determine if ACM are present prior to the proposed work. If ACM are present, then a New York State-licensed contractor must be retained to remove the asbestos in accordance with federal and State regulations.

Mold and Water Damage
Any areas affected by water damage should be repaired and subsequently inspected for the presence of mold growth in structures proposed to be redeveloped. Any evidence of

mold would be cleaned and removed in accordance with the NYSDOH Guidelines on Assessment & Remediation of Fungi in Indoor Environments prior to occupancy.

4. Mitigation Measures

The Applicant is not obligated to prepare or implement a Remedial Action Plan for the site. The Applicant would, however, address all RECs and PECS in a phased approach and in compliance with all applicable regulations during construction.

Characterization and removal of soil during construction would be pursuant to a Site Management Plan and Health and Safety Plan. If necessary, vapor barriers and/or a sub-slab depressurization system would be included as part of construction activities.

PCB, lead-paint and asbestos surveys would be conducted prior to construction and demolition activities. Removal and disposal of PCB-waste, lead-paint and asbestos would be conducted in compliance with all applicable regulations.

Radon testing would be performed at the site prior to construction. If necessary, sub-slab depressurization systems or ventilation systems would be installed to protect future occupants from radon exposure.

Mold would be addressed in accordance with NYSDOH guidelines.