



**PHASE I ENVIRONMENTAL SITE ASSESSMENT
701 SOUTH BETHLEHEM PIKE
PARCEL 1
UPPER DUBLIN TOWNSHIP, MONTGOMERY COUNTY
PENNSYLVANIA 19002
REPSG PROJECT NUMBER 11462.210.01**

Prepared for:

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1.0 INTRODUCTION

1.1 Statement of Work

React Environmental Professional Services Group, Inc. (REPSG) was retained by The Goldenberg Group to perform a Phase I Environmental Site Assessment (ESA) at the property known as 701 South Bethlehem Pike – Parcel 1 in Upper Dublin Township, Montgomery County, Pennsylvania (the “subject property”). Ethan Hults, Environmental Scientist, Laura Eosso, Senior Project Manager, and Theodore Mosher, Senior Account Manager, performed this assessment.

This Phase I ESA was conducted in accordance with the requirements set forth in 40 CFR Part 312, the United States Environmental Protection Agency’s (EPA’s) All Appropriate Inquiries (AAI) Rule, and the ‘Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process’ established by the American Society for Testing and Materials (ASTM E 1527-13). Mr. Mosher, and Ms. Eosso, and Mr. Hults are Environmental Professionals, as defined in the EPA’s AAI Rule. As required by ASTM E 1527-13, REPSG declares for the purpose of this reporting that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in §312.10 of 40 CFR 312 and Section 12.13.2 of ASTM E 1527-13. We possess sufficient specific education, training, and experience necessary to exercise professional judgment to develop opinions and conclusions regarding conditions indicative of releases or threatened releases on, at, in, or to a property, sufficient to meet the objectives and performance factors in 40 CFR Part 312. We have performed all appropriate inquiry, that inquiry constituting “*all appropriate inquiry* into the previous ownership and uses of the property consistent with good commercial or customary practice” as defined in CERCLA, 42 U.S.C. §9601(35)(B).

In accordance with ASTM E 1527-13, the goal of this assessment was to identify any “recognized environmental conditions” (RECs) at the subject property. Such conditions include “the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. De minimis conditions are not recognized environmental conditions.”

This Phase I ESA also addresses the presence of “controlled recognized environmental conditions” (cRECs) at the subject property. ASTM E 1527-13 defines cRECs as “a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls).”

This Phase I ESA also addresses the presence of “historical recognized environmental conditions” (hRECs) at the subject property. ASTM E 1527-13 defines hRECs as the “past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls).”

This Phase I ESA also addresses the presence or potential presence of items of environmental significance or “Non-Scope Items” such as asbestos-containing materials, lead-based paint, floodplains, and wetlands. These items are not considered as RECs under ASTM E 1527-13, but represent the potential of “business environmental risks,” which include “risks which can have a material environmental or environmentally-driven impact on the business associated with the current or planned use” of the subject property.

REPSG also reviewed vicinity database sites to identify potential off-site sources of sub-surface vapor encroachment, based upon the “Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions” established by the American Society for Testing and Materials (ASTM E 2600-15). A full Tier 1 Vapor Encroachment Screening, as defined in ASTM E 2600-15, was outside the scope of this Phase I ESA and therefore not performed. The review of vicinity database sites to identify potential off-site sources of sub-surface vapor encroachment concerns at the subject property completed for this Phase I ESA is not intended to fulfill the requirements of ASTM E 2600-15 and does not constitute a full Tier 1 Vapor Encroachment Screening. Additional site-specific services have been provided in accordance with REPSG proposal number P11462.210.01, which is included in Appendix F, **Contract and Qualifications**.

This assessment included personal interviews and review of pertinent facility records to determine present and past uses; operations or regulatory enforcement concerning the subject property; visual site reconnaissance of the land of the subject property and adjacent areas; research of reasonably ascertainable/standard sources of Federal, State and local records and maps; and interviews with applicable regulatory agencies regarding the subject property and adjacent properties.

Site reconnaissance was performed on October 25, 2018 under clear conditions and 45°F temperatures, by Mr. Hults, and on October 29, 2018 under overcast conditions and 55°F temperatures, by Mr. Hults and Mr. Mosher. Site reconnaissance consisted of the visual survey of the subject property, the peripheries of the subject property, and adjacent properties. The reconnaissance included observation of the exterior areas of the subject property, and the possible existence of recognized environmental conditions (RECs) including the use, storage, or generation of regulated hazardous materials and petroleum products, hazardous and solid waste, aboveground and underground storage tanks, PCB-containing equipment, current or abandoned on-site wells and sewage systems, stained surfaces, surface waters, and surface impoundments. The reconnaissance also included observation of the presence or potential presence of items of environmental significance, not considered as Recognized Environmental Conditions under ASTM E 1527-13 (“Non-Scope Items”), such as asbestos-containing materials, lead-based paint, mold, and wetlands.

Environmental regulatory records information was obtained via Freedom of Information Act (FOIA) requests to the Pennsylvania Department of Environmental Protection (PADEP) and the United States Environmental Protection Agency (USEPA); and from environmental database reports compiled by Environmental Data Resources, Inc. (EDR).

1.2 Discussion of Data Gaps

A “Data Gap,” as defined in ASTM E 1527-13, is the “lack of or inability to obtain information required by this practice despite good faith efforts by the environmental professional to gather such information.” ASTM E 1527-13 requires that the Data Gaps in the Phase I ESA be identified and discussed. The following “Data Gaps” were identified for this assessment:

- A representative of the subject property owner, Sisters of the Holy Family of Nazareth, was unavailable to be interviewed.
- Chain of ownership records dating back to the original development of the subject property were not available for review at the time of this reporting;
- Complete historical documentation of development at the subject property, at five-year increments since the time of initial development at the subject property, was not readily available for review; and
- A full lien search to identify environmental liens upon the subject property was not conducted.

The “Data Gaps” identified for this assessment, as detailed above, are not considered to be significant enough to affect the identification of the RECs at the subject property.

1.3 Materials Reviewed

Materials reviewed for use in this Phase I ESA included the following:

Physical Setting Sources

- United States Geological Survey (USGS). *Ambler, Pennsylvania* Quadrangle [topographic map]. 1:24,000 scale, 7.5 Minute Series, 1999;
- United States Fish and Wildlife Service (USFWS). *Classification of Wetland and Deepwater Habitats of the United States*, Washington, DC: Department of the Interior, 2017;
- National Flood Insurance Program. *Flood Insurance Rate Map (FIRM) of Philadelphia County, Pennsylvania*, panel number 42091C0287G, 42091C0289G, 42091C0286G, and 42091C0288G. Washington, DC: Federal Emergency Management Agency (FEMA), 2016;
- United States Department of Agriculture (USDA) Soil Conservation Service. *Soil Survey of Montgomery County*. Washington D. C.: U.S. Soil Conservation Service, 2005;
- Soller, David, et al., *Map Database for Surficial Materials in the Conterminous United States*, 2009;
- Pennsylvania Bureau of Topographic and Geologic Survey, Department of Conservation and Natural Resources. *Bedrock Geology of Pennsylvania*. 2001;

- Pennsylvania Bureau of Topographic and Geologic Survey, Department of Conservation and Natural Resources (DCNR), *Digital Bedrock Aquifer Characteristics by Physiographic Section of Pennsylvania*, 2004;
- Pennsylvania Geological Survey (PAGS) Pennsylvania Groundwater Information System, 2016 (accessed on February 12, 2018); and
- ESRI, Inc. World Imagery, imagery provided by ESRI, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, July 30, 2017.

Tax and Deed Information Sources

- Montgomery County Records Department. Tax assessment information and tax mapping; and
- Montgomery County Records Department. Deed and deed transfer records.

Historical Setting Sources

- Sanborn Map Company. *Fire Insurance Map* 1921, 1930, 1945, and 1954;
- USGS. Germantown, Pennsylvania Quadrangle [topographic map]. 1:24,000 scale, 7.5 Minute Series 1893, 1894, 1896, and 1899;
- USGS. Ambler, Pennsylvania Quadrangle [topographic map]. 1:24,000 scale, 7.5 Minute Series 1952, 1966, 1973, 1983, and 1999;
- Pennsylvania Spatial Data Access (PASDA) Imagery Navigator. Aerial Photographs (1937, 1958, and 1971);
- Delaware Valley Regional Planning Commission (DVRPC). Aerial Photographs (1965, 1970, 1975, 1980, 1985, 1990, 1995, 2000, 2005, 2010, and 2015);
- ESRI, Inc. World Imagery, imagery provided by ESRI, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, July 30, 2017.
- Upper Dublin Township Code Enforcement Department. Permit records; and
- Upper Dublin Township Zoning Department. Zoning records.

Environmental Record Sources

- Federal and State database information compiled by Environmental Data Resources, Inc. (EDR);
- City of Philadelphia License and Inspections Department (L&I). Code violation records;
- Pennsylvania Department of Environmental Protection (PADEP). File records; and
- United States Environmental Protection Agency (USEPA). File records.

1.4 Interview Sources

- Mr. Hank Goldenberg, the user of this report, as defined in ASTM E 1527-13.

2.0 SITE BACKGROUND/DESCRIPTION OF SITE

2.1 Location and Legal Description

The subject property consists of an irregularly-shaped parcel of land known as Parcel 1 which is part of the larger former Lindenwold Estate. The subject property is part of a larger tax parcel which has been subdivided into three parts. The full tax parcel is identified by the street address of 701 South Bethlehem Pike in Upper Dublin Township, Montgomery County, Pennsylvania and identified on Montgomery County tax mapping as Parcel ID: 54-00-02290-00-5. The subject property measures approximately 34.89 acres in area and is bounded Parcels 2 and 3 of the larger tax parcel and residential development to the south, Loch Alsh Avenue to the east, Lindenwold Terrace and residential development to the north, and South Bethlehem Pike to the west.

The features of the subject property and its immediate vicinity are shown on the **Topographic Map** and **Site Diagram** included in Appendix B, **Physical Setting Report**.

2.2 Site and Vicinity Characteristics

The subject property is located in Upper Dublin Township, Montgomery County, Pennsylvania. The Township was originally settled by Europeans in the early-seventeenth century. Population growth associated with burgeoning agricultural and mining development grew in the 18th century. Development in the vicinity of the subject property is currently predominantly commercial and residential development centered along the South Bethlehem Pike corridor.

2.2.1 Zoning

The subject property is zoned ‘MRH’ (Mixed Use Residential – Historic District) by the Upper Dublin Township Zoning Office.

2.3 Description of Current Development at the Subject Property

The subject property was originally developed in 1890 as part of the larger Lindenwold Estate which was a private residence for Dr. Richard Mattison. In 1936, the estate was deeded to the Roman Catholic Church and became known as the St. Mary’s Home for Children and St. Mary’s School. The main home structure and associated school and dormitories are present to south of the subject property for this assessment on Parcels 3 and 1, respectively.

At the time of this phase I ESA, the majority of the subject property was developed with wooded land, overgrown landscaped areas and gardens, and driveways. A large pond (St. Mary’s Pond) was present at the northeastern portion of the subject property, and a creek (Honey Run) was present at the eastern portion of the subject property.

The subject property was developed with two dilapidated structures:

- **Boat House**
A small one-story rectangular stone structure, located on the northern edge of St. Mary's Pond, was originally constructed prior in 1913 for use as the Boat House for the Lindenwold Estate.
- **Pump House**
A small one-story rectangular stone structure, located on the eastern portion of the subject property along Honey Run, was originally constructed prior in 1913 for use as the Pump House for the Lindenwold Estate.

2.4 Description of Current and Proposed Usage at the Subject Property

At the time of this phase I ESA, the subject property was vacant, and the structures were unused.

REPSG understands that the subject property is planned for comprehensive redevelopment for residential use.

2.4.1 Heating, Ventilation, and Air Conditioning (HVAC)

No heating or cooling systems were observed in either of the structures at the subject property at the time of the assessment.

2.5 Utilities

2.5.1 Electric

Electrical power is available to the subject property from Exelon, the local utility.

2.5.2 Water Supply

Domestic water supply is available to the subject property by Ambler Borough Water Company, the local utility.

2.5.3 Sewage Disposal

Domestic sewage disposal is available to the subject property by Bucks County Water and Sewer Authority, the local utility.

2.5.4 Natural Gas

Natural gas is available to the subject property from PECO, the local utility.

3.0 SITE BACKGROUND/ENVIRONMENTAL SETTING

3.1 Topography

According to USGS topographic mapping (7.5-minute series, *Ambler, Pennsylvania* Quadrangle) the subject property is located at an elevation of approximately 245-270 feet above Mean Sea Level (MSL). Topography at the subject property is variable. Local and area topography slopes gently (1-2%) west-southwest, towards Wissahickon Creek. Topography at the subject property is shown on the **Topographic Map** included in Appendix B, **Physical Setting Report**.

3.2 Wetlands

According to the National Wetlands Inventory mapping, there are two areas of palustrine wetlands present on the northeastern portion of the subject property. Areas of palustrine wetlands are present within a half-mile radius of the subject property to the south and northeast. Areas of riverine wetlands are present within a half-mile radius of the subject property to the south. The subject property is labeled as uplands. The wetland profile of the area is shown on the **Wetlands Map** included in Appendix B, **Physical Setting Report**.

3.3 Flood Plain

According to FEMA flood insurance rate maps, areas of 100-year floodplains and floodways are located on the northeastern and eastern portion of the subject property. Areas of 100-year and 500-year floodplains, as well as floodways, are located within a one-half mile radius of the subject property to the south and northeast. The floodplain profile of the subject property area is shown on the **Floodplain Map** included in Appendix B, **Physical Setting Report**.

3.4 Soil Type

According to the *Soil Survey of Montgomery County, Pennsylvania*, soils at the western portion of the subject property primarily consist of **Urban land-Penn complex**, 0 to 8 percent slopes. Soils at the remainder of the western portion of the subject property consist of a combination of **Croton silt loam**, occasionally ponded, 0 to 3 percent slopes; **Urban land-Udorthents**, shale and sandstone complex, 0 to 8 percent slopes; **Udorthents**, shale and sandstone, 0 to 8 percent slopes; and **Readington silt loam**, 0 to 3 percent slopes and 3 to 8 percent slopes.

Soils at the eastern portion of the subject property primarily consist of **Bowmansville-Knauers silt loams**. Soils at the remainder of the eastern portion of the subject property consist of a combination of **Urban land-Penn complex**, 0 to 8 percent slopes and 8 to 25 percent slopes.

According to the Soil Survey, the soils and foundation materials that comprise the urban land-complex soil types are highly variable. Structures and other development cover so much of this land type that identification of the soils is not practical. Most areas have been smoothed, and the original soil material has been disturbed, filled over, or otherwise destroyed prior to construction, rendering practical identification of native soils unfeasible.

3.5 Geology

According to the Pennsylvania Bureau of Topographic and Geologic Survey, the subject property is located in the **Stockton Formation**. This formation is comprised of light-gray to buff, coarse-grained, arkosic sandstone; includes reddish-brown to grayish-purple sandstone, siltstone, and mudstone and dates to the Triassic Period. Surficial geology at the subject property is characterized by thin alluvial sediments (less than 100 feet thick), aged between the Holocene and Pliocene Epochs.

3.6 Surface Water

Two bodies of water are present at the subject property, St. Mary's Lake and Honey Run. Another major body of water is the Loch Alsh Reservoir, located 0.05 miles to the northeast of the subject property, which feeds Honey Run. Honey Run drains into the Wissahickon Creek approximately 0.74 miles to the southeast of the property. The Wissahickon Creek drains into the Schuylkill River approximately 9.6 miles to the south of the subject property.

3.7 Groundwater

The subject property is underlain by the Early Mesozoic basin aquifers (Sandstone aquifers).

3.8 Radon

On-site radon testing was outside the scope of this Phase I ESA. Radon gas is primarily a concern in residential buildings with basements. The USEPA action level for radon is 4 picoCuries/Liter (pCi/L). The USEPA considers Montgomery County to have a 'High Potential' for elevated radon levels, where the average indoor radon screening level is above 4 pCi/L (Zone 1).

4.0 SITE BACKGROUND/SITE HISTORY SETTING

4.1 Interview with Subject Property Owner

For this Phase I ESA, a representative of the subject property owner, Sisters of the Holy Family of Nazareth, was unavailable to be interviewed.

4.2 Phase I ESA User Interview

For this Phase I ESA, REPSG interviewed Ms. Hank Goldenberg, the user of this report, as defined in ASTM E 1527-13. Mr. Goldenberg stated that he has no actual knowledge of any environmental liens or Activity and Use Limitations (AULs) encumbering the property or in connection with the subject property, and that she was not aware of any current government notifications, violations of environmental laws, or litigation at the subject property. He stated that he had no actual knowledge that the purchase price of the subject property was below the fair market value due to environmental conditions.

4.3 Chain of Ownership

Chain of ownership records dating back to 1934 were reviewed at the Montgomery County Records Department deed registry office for the subject property. The most recent deed available for review indicated that the subject property was transferred to the Sisters of the Holy Family of Nazareth from Mattison Estates Inc. on January 1, 1935. No specific information relevant to recognized environmental conditions at the subject property was obtained from review of available ownership information. A copy of the most recent available deed is included in **Appendix C** of this report.

4.4 Historical Mapping

For this Phase I ESA, REPSG reviewed available historical mapping showing the subject property including the Sanborn Map Company *Fire Insurance Maps* for the years 1921, 1930, 1945, and 1954. Sanborn *Fire Insurance Maps* reviewed for this assessment were obtained from Environmental Data Resources (EDR). The following information was obtained from this review:

1921 – 1930 – The 1921 and 1930 Sanborn *Fire Insurance Maps* show the subject property to be developed as part of the ‘Linden Wold – Dr. R.V. Mattison.’ Specific development is indicated as follows:

- A small rectangular structure on the eastern portion of the parcel indicated to be a pump house.
- A large ‘Lake Reservoir’ is shown to be present on the northeastern portion of the parcel.
- The remainder of the parcel is shown to be developed with multiple fountains and private driveways.

1945 – 1954 – The 1945 and 1954 Sanborn *Fire Insurance Maps* show no major changes in the use or development at the subject property from that shown on the 1930 Sanborn *Map*, except that the subject property is now shown to be developed as part of the ‘St. Mary’s Home for Children.’ This development is consistent with that observed during the site reconnaissance.

No specific information pertinent to recognized environmental conditions at the subject property was obtained from review of this mapping. Copies of the Sanborn *Fire Insurance Maps* reviewed for this assessment are included in Appendix D, **Historical Setting Report**.

4.5 Historical Topographic Mapping

REPSG reviewed historical USGS topographic mapping showing the subject property. Topographic maps of the subject property area were obtained from the United States Geological Survey (USGS) for the years 1893, 1894, 1896, 1899, 1952, 1966, 1973, 1983, and 1999.

1891 – 1899 – The 1893, 1894, 1896, and 1899 topographic maps show the subject property to be undeveloped land.

1952 – 1999 – The 1952, 1966, 1973, 1983, and 1999 topographic maps show the subject property to be developed with two large bodies of water on the northeastern portion of the parcel. The majority of the remainder of the subject property is shown to be wooded land. This development is consistent with that observed during the site reconnaissance.

No specific information pertinent to recognized environmental conditions at the subject property was obtained from the review these topographic maps. A copy of the 1984 topographic map is included in Appendix B, **Physical Setting Report**.

4.6 Aerial Photographs

For this Phase I ESA, REPSG reviewed available historical aerial photographs showing the subject property. Aerial photographs of the subject property area were obtained from the Delaware Valley Regional Planning Commission (DVRPC) for the years 1965, 1970, 1975, 1980, 1985, 1990, 1995, 2000, and 2005. Additionally, an aerial photograph from 2017 was obtained for review from ESRI, Inc.

1965 – 2017 – The 1965, 1970, 1975, 1980, 1985, 1990, 1995, 2000, 2005, 2010, 2015, and 2017 aerial photograph shows the subject property to be developed as follows:

- The northeastern portion of the parcel is developed with two large bodies of water;
- The eastern portion of the parcel is developed with a small creek; and
- The remainder of the subject property is developed with landscaping and gardens, fountains and decorative fixtures, and driveways.

This development is consistent with that observed during the site reconnaissance.

A copy of the 2017 aerial photograph is included in Appendix B, **Physical Setting Report**.

4.7 Historical Permits

REPSG reviewed historical building and zoning permits at the Upper Dublin Department of Code Enforcement for 701 South Bethlehem Pike. No specific information pertinent to recognized environmental conditions at the subject property was obtained from review of historical permit records.

5.0 SITE BACKGROUND/ADJACENT AND AREA LAND USES

5.1 Visual Reconnaissance of Adjoining Properties

The subject property is adjoined by the following development:

North: Lindenwold Terrace and residential development, and then residential development and Lake Drive;

East: Loch Alsh Drive and residential development, and then Loch Alsh Reservoir;

South: Parcel 2 and 3 and residential development, and then Villa Drive; and

West: South Bethlehem Pike, and then residential development.

5.2 Historical Mapping/Area Lands

Historical mapping was reviewed for this assessment (see **Sections 4.4 and 4.5**, above, for a list of historical maps reviewed). All of the mapping reviewed for this assessment shows the subject property to be located in an area of dense, urban development characterized primarily by residential, commercial, and industrial development.

No specific information pertinent to recognized environmental conditions at the subject property was obtained from the review of this mapping. Copies of the Sanborn *Fire Insurance Maps* reviewed for this assessment are included in Appendix D, **Historical Setting Report**.

5.3 Aerial Photographs/Area Lands

All aerial photographs reviewed for this assessment (see Section 4.6, **Aerial Photographs**, for a listing of aerial photographs reviewed) show the subject property to be located in an area of suburban development characterized by residential and commercial development.

No specific information pertinent to recognized environmental conditions at the subject property was obtained from the review these aerial photographs. A copy of the 2013 aerial photograph is included in Appendix B, **Physical Setting Report**.

5.4 Vicinity Well Search

A review of wells registered with the Pennsylvania Geological Survey (PGS) within a one-quarter mile radius of the subject property was completed and identified 23 wells in the vicinity of the subject property. Two wells are indicated to be used for domestic withdrawal purposes.

6.0 SITE RECONNAISSANCE/RECOGNIZED ENVIRONMENTAL CONDITIONS

A photographic log of general site environmental conditions is provided in **Appendix A**.

6.1 Hazardous Substances/Drums

No evidence of the current use, storage, or generation of hazardous materials was observed at the subject property during the site reconnaissance.

6.2 Underground Storage Tanks (USTs)

No fill ports, vent pipes, access ways, or other features indicative of the current or former presence of USTs were observed at the subject property at the time of the site reconnaissance.

6.3 Aboveground Storage Tanks (ASTs)

An open-ended steel compression tank was observed at the interior of the delinquent pump house at the eastern portion of the subject property. The capacity of this AST was not known but was associated with the prior water pumping operations at the structure. No staining, odors, pooled product, or other indications of environmental impairment were observed at the location of this tank. Based on the conditions observed, this tank does not represent a REC for this assessment.

No other ASTs were observed at the subject property at the time of the site reconnaissance for this assessment.

6.4 Asbestos-Containing Materials (ACMs)

Due to the age of construction of the structures at the subject property, the building materials used could contain asbestos. Asbestos-containing materials (ACMs) are defined as those materials that are shown by Polarized Light Microscopy (PLM) to contain greater than 1.0% asbestos. Friable ACMs are those that when dry can be pulverized by hand pressure and are therefore more susceptible to creating airborne asbestos hazards.

No suspect friable or nonfriable ACMs were observed during the site reconnaissance.

Additional suspect ACMs may exist at concealed areas, within sub-surfaces, or roofing. No asbestos sampling was conducted for this assessment.

6.5 Polychlorinated Biphenyls (PCBs)

No major electrical equipment suspected to contain PCBs was observed at the time of the site reconnaissance, or reported to be present at the subject property.

6.6 Soils, Vegetation, & Surfaces

No stained surfaces, stressed soils, or stressed vegetation, or current evidence of wastewater discharge into ditches or streams was observed at the subject property during the site reconnaissance. No evidence of pits, ponds, or lagoons related to discharge of industrial process water or hazardous waste was observed during the site reconnaissance.

6.7 Solid Waste/Fill Materials

No indications of mounding, un-compacted fill materials or other signs of improper solid waste disposal were observed at the subject property during the site reconnaissance.

6.8 Lead-Based and Lead-Containing Paint

Due to the age of construction of the structures at the subject property, there is the potential that the original building components at this structure are covered with lead-based paint or lead-containing paint. Lead-based paint is defined by the USEPA as paint documented to contain greater than 0.5% lead. Lead-containing paint is considered by the US Occupational Safety and Health and Administration (OSHA) to be paint that contains any measurable amount of lead.

No areas of chipped or peeling paint were observed on the subject property structures at the time of the assessment. No sampling of paint for the presence of lead was conducted for this assessment.

6.9 Sumps, Floor Drains, and Pits

No other sumps, pits, or floor drains were observed during the site reconnaissance.

6.10 Wells

No other wells were observed during the site reconnaissance or reported to exist at the subject property.

6.11 Sewage Systems

No other on-site sewage disposal systems were observed during the site reconnaissance or reported to exist at the subject property.

6.12 Mold

Areas of active water infiltration, associated with failures in the roofing systems of the subject property structures, were observed in the subject property structures during the site reconnaissance. No mold growth was observed associated with this water intrusion. Based on the proposed demolition of the subject property structures, this water intrusion does not represent a REC for this assessment.

7.0 REGULATORY AGENCY RECORDS

7.1 State and Federal Database Records

Federal and State database records were obtained from Environmental Data Resources, Inc. (EDR), for the appropriate minimal search distances established by the ASTM Standard Practice E 1527-13. These database records contain information on sites that have been subject to regulatory enforcement by major enforcement divisions of the Pennsylvania Department of Environmental Protection (PADEP) and the United States Environmental Protection Agency (USEPA). The databases reviewed for this report, and the search radii utilized, are as follows:

Database	Search Distance (miles)
National Priority List (NPL)	1
Deleted from National Priority List (NPL DELISTED)	0.5
Superfund Enterprise Management System (SEMS)	0.5
Superfund Enterprise Management System (SEMS) Archived Sites	0.5
Resource Conservation and Recovery Information System Sites (RCRA COR ACT)	1
Resource Conservation and Recovery Information System Treatment, Storage and Disposal Facilities (RCRA TSD)	0.5
Resource Conservation and Recovery Information System Generators (RCRA GEN)	Property and Adjoining Properties
Emergency Response Notification System (ERNS)	Property Only
Indian lands of the United States (Tribal Sites)	1
Active Solid Waste Landfill Database (SWL)	0.5
Leaking Underground Storage Tank Database (LUST)	0.5
Storage tank Information Database (UST/AST)	Property and Adjoining Properties
Institutional Controls/Engineering Controls List (IC/EC)	Property Only
Brownfields Database	0.5
Voluntary Clean-Up Program Sites (VCP)	0.5

EDR's full report is included in **Appendix E**.

7.1.1 Subject Property

The subject property is not listed on State, Federal, or proprietary databases reviewed for this assessment.

REPSG also conducted a search for this address associated with the subject property on the PADEP's *eFacts* internet database repository of environmental listings; no listings or other information pertinent to this assessment was obtained from that search.

7.1.2 Adjoining Database Sites

The property that adjoins the subject property to the south, indicated to be the St. Mary's School (Parcel 2), is listed on the PADEP Archived Underground Storage Tank (**ARCHIVE UST**) database. This listing indicates that a 2,000 gallon gasoline UST was formerly present at the subject property.

The property that adjoins the property to the west, indicated to be the Mattison House Apartments at 174 South Bethlehem Pike, is listed on the PADEP **ARCHIVE UST** database. This listing indicates that a 6,000 gallon heating UST was installed at the site in March 1973. This UST is indicated to have a status of 'Closed in Place.'

No other sites that adjoin the subject property are listed on State, Federal, or proprietary databases reviewed for this assessment.

7.1.3 Vicinity Database Sites

Several vicinity sites were identified within applicable ASTM search distances including: one listing on the USEPA Superfund Enterprise Management System Archived Sites (SEMS Archive) database; 14 listings on the PADEP Leaking Underground Storage Tank (LUST) database; four listings on the PADEP Voluntary Cleanup-Up Program (VCP) database, and two listings on the EDR Historical Auto Stations database. None of these database sites adjoin the subject property.

The vicinity database listings are outlined below. The listings are categorized by their topographic gradient, the elevation difference between the subject property and the database site. Although often correlated, the topographic and hydrogeologic gradients are not always the same.

USEPA SEMS-Archive database

Site & Address	Archive Date	Distance & Direction	Topographic Gradient
Upper Dublin Twp. Landfill 801 Loch Alsh Ave.	12/21/1987	0.303 ESE	Upgradient

PADEP LUST database

Site & Address	Substance Released	Status & Date	Distance & Direction	Topographic Gradient
Calvary United Meth Church 16 Park Ave.	Fuel Oil #2	Closed 9/4/2001	0.191 WNW	Downgradient
Jack Lynch 260 E. Butler Ave.	Unleaded Gasoline	Cleanup Completed 8/31/1995	0.215 WNW	Downgradient
ACME Market 272 E. Butler Pike	BTEX	Closed 4/28/1994	0.217 WNW	Downgradient
Getty 30 S. Bethlehem Dr.	Unleaded Gasoline	Cleanup Completed 5/23/2005	0.261 NW	Downgradient
Wissahickon Fire Co. 245 Race St.	Fuel Oil #2	Administrative Close Out	0.282 WNW	Downgradient
7 Eleven 1315 S Bethlehem Pike	Unleaded Gasoline	Cleanup Completed 9/27/2006	0.288 NNW	Downgradient
Upper Dublin School District Bus Garage 800 Loch Alsh Ave.	Unleaded Gasoline	Cleanup Completed 7/15/2008	0.299 E	Upgradient
Mattison Avenue Elem School 131 Rosemary Ave.	Fuel Oil #2	Cleanup Completed 3/23/1993	0.369 W	Downgradient
Herald Contr. 254 S. Main St.	Fuel Oil #2	Cleanup Completed 11/7/1995	0.431 WSW	Downgradient
Herald Contr 254 S. Main St.	Fuel Oil #2	Not Reported	0.431 WSW	Downgradient
Hopewell Const. 107 Rosemary Ave.	Leaded Gasoline	Cleanup Completed 6/14/1993	0.433 W	Downgradient
C.S. Prod. Inc. DBA Conshohocken Steel Prod. 301 Randolph Ave.	Diesel Fuel	Cleanup Completed 2/7/2000	0.457 SW	Downgradient
Paladino Res. 407 S. Main St.	Fuel Oil #2	Not Reported	0.491 SW	Downgradient
PARS Mfg. 109 S. Main St.	BTEX	Closed 6/3/1994	0.496 W	Downgradient

PADEP VCP database

Site & Address	Substance Released (Media)	Status (Standard) Date	Distance & Direction	Topographic Gradient
Upper Dublin Twp. 801 Loch Alsh Ave.	PAH (GW)	Complete (SSS) 1/7/2004	0.303 ESE	Downgradient
Gibat Res. 4018 Bannockburn Ave.	Fuel Oil #2 (Soil)	Complete (SHS) 12/20/2012	0.34 SW	Upgradient
Crossings at Ambler S. Maple Way	Inorganics (Soil)	Site In Progress (SHS) 3/8/2013	0.344 W	Upgradient
Boiler Erection & Repair Co. Inc 200 S. Main St.	Chlorinated Solvents, Inorganics, PAH, Lead (Soil, GW)	Complete (SHS) 10/8/2008	0.474 WSW	Upgradient

EDR Historical Auto Stations database

Site & Address	Type/ Years	Distance & Direction	Topographic Gradient
Blue Bell Arco Inc. 704 Loch Alsh Ave.	Gasoline Service Station 2002-2014	0.111 NE	Upgradient
Penn Square Exxon 181 North St.	Gasoline Service Station 2003-2012	0.119 WSW	Downgradient

7.1.3 Potential Vapor Encroachment from Vicinity Database Sites

For this assessment, REPSG reviewed historic mapping and adjoining and vicinity database sites to identify potential off-site sources of sub-surface vapor encroachment. This review was based upon the current ASTM “Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions” (ASTM E 2600-15). In accordance with the requirements of this standard, vicinity database sites pertaining to non-petroleum product releases within 1/3 mile of the subject property and vicinity database sites pertaining to petroleum product releases within 1/10 mile were reviewed to identify active contamination sites with the potential to affect subsurface vapor conditions at the subject property.

No open regulatory sites pertaining to non-petroleum product releases within 1/3 of a mile of the subject property or sites pertaining to petroleum product releases within 1/10 mile of the subject property were identified.

A full vapor encroachment screen, as defined in ASTM E 2600-15, was outside the scope of this Phase I ESA and therefore not performed.

7.1.3.2 National Priority List – BoRit Asbestos

The BoRit Asbestos site is located 0.98 miles to the southwest of the subject property. The site was used to dispose of asbestos-containing material which came from a nearby asbestos manufacturing plant from the 1930s to the 1970s. The USEPA has been conducting a short-term removal cleanup at the BoRit site since July 2008 to address potential short-term threats to human health and the environment. The BoRit site was then added to the USEPA's National Priorities List on April 9, 2009, making it eligible for further long-term cleanup, using federal Superfund program funding. The first step of the long-term cleanup was a Remedial Investigation/Feasibility Study (RI/FS) which studied the full nature and extent of contamination, health risks, and the efficacy of potential cleanup options.

The site is divided into three distinct sections of land including: 1) an asbestos waste pile, 25-feet high at some points, on a six-acre plot of land owned by Kane-Core, Inc.; 2) a 15-acre reservoir, owned by Wissahickon Waterfowl Preserve of which the berm is believed to be constructed of asbestos-containing material (ACM); and 3) an 11-acre portion of Whitpain Park owned by Whitpain Township and closed since the 1980s due to asbestos contamination.

The RI/FS began in November 2009. The first phase of field work, which included surface water, sediment, soil, and waste sampling, was completed in January 2010. Sampling was conducted on all three parcels, including the three creeks (Rose Valley, Tannery Run, and Wissahickon Creek) that run on the site. Various contaminants, in addition to asbestos, were found throughout the site, and the data will be undergoing further review. No immediate concerns were identified.

Phase II activities began the week of October 4, 2010 and concluded in mid-November 2010. Activities included community air monitoring, installation of groundwater monitoring wells, and additional onsite and offsite (including residential) soil sampling. Activity-based sampling (ABS), the process of collecting air samples from the breathing zone of samplers engaged in realistic representative activities (e.g., raking, mowing, digging, etc.) that may disturb asbestos-contaminated sources, was conducted in the summer of 2011. Sampling data concluded that there is no unacceptable risk from airborne asbestos to the community.

A Record of Decision was issued by the USEPA in July 2017 which outlined the cleanup activities at the site including, capping the site with a liner and covering with two feet of clean fill, using geocells filled with stone along the slopes to prevent erosion, and reinforcing the reservoir with geotextiles to improve stability. Post construction sampling is reported to have been scheduled for early 2018. No information of this postconstruction sampling was available on the EPAs website.

7.2 Local Regulatory Agency Review

For this assessment, REPSG personnel reviewed code violation records on file at the Upper Dublin Township Clerk's Office for the subject property via an OPRA request on November 7, 2018. This review did not identify any open violations pertinent to recognized environmental conditions at the subject property.

7.3 State Regulatory Agency Review

The PADEP responded to REPSG's FOIA request, indicating that no files are maintained for the subject property.

7.4 Federal Regulatory Agency Review

For this assessment, REPSG personnel reviewed records on file for the subject property via EPA's *MyPropertyInfo* website. This search did not identify any listings associated with the subject property.

8.0 CONCLUSIONS/RECOMMENDATIONS

The goal of this assessment was to identify any “recognized environmental conditions” (RECs) at the subject property. The “Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process” established by the American Society for Testing and Materials (ASTM) E 1527-13 defines “Recognized Environmental Conditions” (RECs) as meaning “the presence or likely presence of any hazardous substances or petroleum products on a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. De minimis conditions are not recognized environmental conditions.” This Phase I ESA also addresses the presence of “controlled recognized environmental conditions” (cRECs) at the subject property. ASTM E 1527-13 defines cRECs as “a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls).”

This Phase I ESA also addresses the presence of “historical recognized environmental conditions” (hRECs) at the subject property. ASTM E 1527-13 defines hRECs as the “past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls).”

This Phase I ESA also addressed the presence or potential presence of items of environmental significance or “Non-Scope Items” such as asbestos-containing materials, lead-based paint, floodplains, and wetlands. These items are not considered as RECs under ASTM E 1527-13, but represent the potential of “environmental business risk conditions,” which include “risks which can have a material environmental or environmentally-driven impact on the business associated with the current or planned use” of the subject property.

REPSG also reviewed vicinity database sites to identify potential off-site sources of sub-surface vapor encroachment, based upon the “Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions” established by the American Society for Testing and Materials ASTM E 2600-15. A full Tier 1 Vapor Encroachment Screening, as defined in ASTM E 2600-15, was outside the scope of this Phase I ESA and therefore not performed. The review of vicinity database sites to identify potential off-site sources of sub-surface vapor encroachment concerns at the subject property completed for this Phase I ESA is not intended to fulfill the requirements of ASTM E 2600-15, and does not constitute a full Tier 1 Vapor Encroachment Screening.

This Phase I Environmental Site Assessment of the subject property disclosed no evidence of the following specific RECs and “Non-Scope Items”: hazardous materials, drums, USTs, ACMs, PCBs, sumps, pits; drains, solid waste; stressed surfaces, soils, or vegetation; or improper wastewater and sewage discharge.

8.1 Recognized Environmental Conditions

Based on the information collected for this Phase I Environmental Site Assessment, no recognized environmental conditions (RECs) have been identified at the subject property.

8.2 Controlled Recognized Environmental Conditions

Based on the information collected for this Phase I Environmental Site Assessment, no controlled recognized environmental conditions (cRECs) have been identified at the subject property.

8.3 Historical Recognized Environmental Conditions

Based on the information collected for this Phase I Environmental Site Assessment, no historical recognized environmental conditions (hRECs) were identified at the subject property.

8.4 Other Items of Environmental Significance

This assessment also identified items which do not represent RECs for this assessment, but may still represent environmental business risks for the subject property and/or are not included within the scope of ASTM E 1527-13 (“non-scope items”). Based on the information collected for this Phase I Environmental Site Assessment, the following items of environmental significance have been identified at the subject property:

8.4.1 Lead-Based and Lead-Containing Paint

Due to the age of construction of the structures at the subject property, there is the potential that building components at those structures are covered with lead-based paint or lead-containing paint. Lead-based paint is defined by the USEPA as paint documented to contain greater than 0.5% lead. Lead-containing paint is considered by the US Occupational Safety and Health and Administration (OSHA) to be paint that contains any measurable amount of lead. Areas of chipped and peeling paint were observed at the interior of the Community Center building. No areas of chipped or peeling paint were observed on the subject property structures at the time of the assessment. No sampling of paint for the presence of lead was conducted for this assessment.

Worker safety regulations administered by the Occupational Safety and Health Administration (OSHA) are referenced in The General Industry Lead Standard (29 CFR 1910.1025) and the Final Rule for Lead in Construction Standard (29 CFR 1926.62). In addition, current EPA regulations require that all firms performing renovations in target housing be EPA-certified (40 CFR 745.89). The regulations are designed to protect workers involved in the construction industry (including renovation, painting, and decorating activities) who may be exposed to lead-based paint hazards, as well as consumers. Solid waste generated during demolition of materials containing

lead based paint can be subject to pre-disposal analysis to satisfy federal and state solid waste regulations.

Current EPA regulations require that all firms performing renovation, repair and painting (RRP) projects in homes, child care facilities, and schools built before 1978 must be certified and must follow specific work practices to prevent lead contamination. Certified contractors must use lead-safe work practices which are based on the following principles: containment of the work area, minimization of dust, and thorough cleanup. The regulations require that either testing for the presence of LBP is performed prior to the start of renovations, or that all paint at the site be presumed to be LBP. If building components covered by lead-based paint are to be left in place and exposed following renovation, the paint should be removed, stabilized, or enclosed prior to re-occupancy. Based on these current regulations, if subject property development plans includes the potential for housing for families with children under the age of 6, then REPSG recommends that a certified RRP firm is utilized for the renovations at the areas documented to contain LBP at the subject property.

8.4.2 Radon

On-site radon testing was outside the scope of this Phase I ESA. Radon gas is primarily a concern in residential buildings with basements. The USEPA action level for radon is 4 picoCuries/Liter (pCi/L). The USEPA considers Montgomery County to have a ‘High Potential’ for elevated radon levels, where the average indoor radon screening level is above 4 pCi/L (Zone 1).

Based on the proposed redevelopment of the subject property as residences, REPSG recommends that proposed structures at the subject property be outfitted with radon mitigation systems as part of project designs.

8.5 Certification

We certify that we are familiar with the requirements of the “Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process” described in ASTM Standard Practice E 1527-13. We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM E 1527-13 as expanded by React Environmental Professional Services Group at the property at 701 South Bethlehem Pike – Parcel 1 in Upper Dublin Township, Montgomery County, Pennsylvania. Exceptions to the standard practice are listed in Section 1.2. Other than the exceptions detailed in **Section 8.1**, this Phase I Environmental Site Assessment has revealed no evidence of recognized environmental conditions in connection with the subject property.