

CHAPTER 3 · COMMUNITY BACKGROUND

POTENTIALLY VULNERABLE RESOURCES

What are the Potentially Vulnerable Resources?

Potentially Vulnerable Resources are resources such as historic sites, undeveloped land (including land in an Agricultural Security Area), open space linkages along creeks and streams, flood plain areas, steep slopes and highly sensitive natural resources like wetlands, rock outcroppings, woodlands and prime agricultural land. Additional vulnerable resources are the vistas or views formed by the gently rolling land and dramatic elevation changes found in

Whitemarsh Township. The goal of this plan is not only to identify these assets, but to develop a strategy by which they can be protected.

Natural Features

Natural Features refers to the geology, topography, waters, slopes, vegetation, wildlife and scenic resources of an area. In Whitemarsh Township, there are significant natural features, such as the extensive limestone formation traversing the Township, that

ZONING DISTRICT NATURAL FEATURE ACREAGE

| Zone | Ponds | Wetlands | Floodplains | Creeks | Pond Shore | Wetlands Margin | Woods | Slope 15-25% | Slope >25% |
|---------------|-------------|--------------|---------------|--------------|-------------|-----------------|---------------|--------------|--------------|
| A | 0.6 | 35.2 | 273.9 | 12.1 | 5.0 | 15.3 | 281.5 | 43.0 | 3.7 |
| AA | 13.4 | 40.5 | 639.0 | 21.3 | 14.0 | 22.5 | 785.3 | 115.9 | 10.8 |
| AAA | 5.1 | 61.1 | 404.1 | 30.5 | 22.4 | 38.7 | 791.1 | 29.4 | 30.7 |
| AAAA | 3.2 | 10.1 | 214.6 | 3.3 | 14.2 | 10.7 | 580.5 | 239.6 | 68.8 |
| AD | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 13.5 | 0.0 | 0.0 |
| APT-HR | 0.0 | 4.4 | 4.1 | 0.2 | 5.8 | 2.4 | 35.6 | 11.7 | 1.0 |
| APT-LR | 5.3 | 5.3 | 1.4 | 0.0 | 0.0 | 2.4 | 1.8 | 0.6 | 0.0 |
| AR | 0.2 | 4.4 | 37.6 | 0.6 | 2.0 | 3.0 | 28.8 | 12.9 | 0.6 |
| B | 0.0 | 6.6 | 84.3 | 1.6 | 0.5 | 2.4 | 78.5 | 12.3 | 0.1 |
| C | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| CLI | 0.1 | 1.2 | 6.8 | 0.4 | 1.6 | 1.6 | 46.6 | 9.6 | 4.7 |
| CLI-X | 0.3 | 0.0 | 0.0 | 0.1 | 1.8 | 0.0 | 5.3 | 0.5 | 0.1 |
| CR-H | 0.4 | 0.6 | 24.3 | 0.1 | 1.0 | 0.8 | 6.3 | 0.0 | 0.0 |
| CR-L | 0.0 | 0.1 | 53.5 | 0.5 | 0.0 | 1.2 | 15.9 | 0.3 | 0.0 |
| HVY | 0.2 | 27.1 | 8.5 | 28.2 | 1.3 | 8.9 | 11.2 | 6.5 | 2.3 |
| EX | 0.0 | 20.8 | 13.4 | 0.2 | 0.0 | 6.9 | 8.2 | 33.2 | 58.3 |
| LIM | 0.0 | 33.9 | 68.3 | 27.6 | 0.0 | 7.7 | 19.8 | 10.4 | 3.2 |
| MHP | 0.0 | 1.6 | 0.9 | 0.2 | 0.0 | 0.9 | 1.9 | 0.0 | 0.0 |
| SC | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| CCRC | | | 60.2 | 4.1 | | | | | |
| Totals | 28.7 | 252.7 | 1894.7 | 130.8 | 69.5 | 125.3 | 2711.8 | 525.9 | 184.3 |

CHAPTER 3 · COMMUNITY BACKGROUND

are important to the character, history, and quality of life of the Township.

Geology

Though seldom seen or considered, a region's geology plays an important role in all parts of the natural and built world above it. Underlying geology will influence the topography of an area, as well as its soil types, hydrology (both surface and subsurface), vegetative communities, and building suitability. There are several key geologic factors that have greatly influenced the overall character of Whitemarsh Township and to some extent why some lands have never been developed and remain as open space. A detailed description of all of the geologic formations shown on the Geology can be found in Appendix B.

Conceivably the most important geologic feature of Whitemarsh Township is the limestone formation which traverses the Township. The extraction and processing of lime for agriculture and construction have played major roles in the economic and land use development patterns of the Township. This can be seen in the great expanses of quarry land located in the center of the Stenton/Wissahickon District.

Montgomery County is located within the Triassic Lowland and Piedmont Upland section of the Piedmont Province. The northern two thirds of the county is located in the Piedmont Uplands and the remaining part is located within the Triassic Lowland. Whitemarsh Township straddles the divide between the two sections. This explains why the physical landscape in the Township varies greatly, with the transition occurring approximately parallel to and just south of the Pennsylvania Turnpike.

The southern portion of the Township is located above the Wissahickon Formation, which is com-

prised of schist, granite gneiss and hornblend gneiss. These rock formations are extremely hard, and therefore much more resistant to erosion. This explains the unique character of the Miquon District, with its steep slopes. The resiliency of this rock made it an excellent choice for a building stone for early settlers.

Soils

Soils form primarily by weathering of bedrock and therefore have characteristics similar to those of the underlying rock formations. Soil characteristics are not static however. They are continually changing over time due to the actions of bedrock weathering and the activity of micro-organisms. As a result, soils above similar geologies will vary with respect to depth to bedrock, depth to groundwater, color, mineral characteristics, fertility, erodibility and texture. Soils subsequently have a large influence on land cover and vegetation types, quality and quantity of groundwater, rates of erosion, and the aesthetic qualities of the landscape.

Whitemarsh Township's highly productive soils made it an attractive location to farmers beginning in the 1600s. Portions of the Township are still prized for their fertility and agricultural suitability and productivity.

Soil in Whitemarsh Township is comprised of 72 different soil types. While each type has distinct characteristics, the soils can be grouped into a soil series. The series describes the overall characteristics of the soils with each series. A list and approximate location of all of the soil series found in the Township can be seen on the Soils Map (Map #6). A detailed description is located in Appendix B.

POTENTIALLY VULNERABLE RESOURCES

Agricultural Soils

The Municipalities Planning Code states as one of the purposes of land use controls in Pennsylvania, the preservation of “prime agricultural and farmland considering topography, soil type and classification, and present use.” A recent trend in land use has been the sacrifice of some prime farmland to industrial and urban uses. The loss of prime farmland to other uses puts pressure on marginal lands, which generally are more erodible, droughty, and less productive and cannot be easily cultivated. Agricultural soils and farming activities are important considerations in the open space planning process, as these resources are important areas to consider for permanent protection.

Prime farmland is defined as having an adequate and dependable supply of moisture from precipitation or irrigation. The temperature and growing season are favorable. The level of acidity or alkalinity is acceptable. Prime farmland has few or no rocks and is permeable to water and air. It is not excessively erodible or saturated with water for long periods and is not frequently flooded during the growing season. The slope ranges mainly from 0 to 6 percent. These soils comprise approximately 3,900 acres, which is 42% of the total land in the Township. See Appendix B for a list of primary agricultural soils.

In Whitemarsh, there are 15 soil types considered to be agricultural soils of statewide importance. These soils comprise approximately 2,200 acres of land, which is 24% of total land in the Township. In general, many of the soils located in the Broad Axe, Stenton/Wissahickon and Central Districts are highly productive.

Seasonal high water table

Using soil characteristics, the seasonal high water table characteristics can be found. High water table soils and soils with a shallow depth to bedrock are two major soil-dependent constraints to development. Soils with a high water table are where groundwater is less than three feet from the surface. These soils are scattered throughout the Township.

Geologic Hazards

There are a number of significant known geologic hazards in Whitemarsh due to the underlying limestone geology of the Township. Sink holes and closed or linear depressions can be found in one of two main groupings. The first, and largest, is located in an area bounded by Butler Pike, the Conrail Line, Joshua Road and Germantown Pike. The second major grouping is located along Flourtown Road, near the intersection of Thomas Road. The locations of known sink holes have been identified on maps prepared in 1993 by the Bureau of Topographic and Geologic Survey.

In addition to sinkholes, hydric soils in Whitemarsh Township are a serious concern for any development or land use decisions. Hydric soils are those that form under conditions of saturation, flooding or ponding long enough during the growing season that anaerobic conditions develop in the upper horizons. Hydric soils in Whitemarsh cover the majority of the land area. They are more concentrated in the northern part of the Township and equally distributed throughout the rest. While this appears extensive, the presence of soils deemed hydric only identifies the potential for hydric conditions. These soil types have an important impact on the activities that take place in these areas. The ability to build permanent structures and conduct agricultural activities are often affected by these

CHAPTER 3 · COMMUNITY BACKGROUND

conditions. In Whitemarsh Township, there are 13 distinct hydric soil types.

Topography

Topography is a measure of the surface relief of a region or place. Typically graphically represented as a contour map, it illustrates the relative elevation differences throughout a region. The most important characteristic of topography is its slope. The grade of a slope is calculated by dividing the rise (vertical elevation difference) by the run (horizontal distance the elevation covers as it rises). For example, an elevation increase of 15 feet (rise) over a 100 foot distance (run) would be expressed as a 15% slope.

Steep slopes are vulnerable resources that can degrade and erode through weathering, resulting in the subsequent loss of the stabilizing groundcover. Eroded slopes damage and impair creeks and streams due to the increased sediment buildup in the stream bed. They also cause slumping of the land, damaging roadways, buildings and open space areas.

As stated earlier, the topography of Whitemarsh Township varies considerably throughout the Township and directly influences land planning and development decisions (See Map #8 Topographic Features). The Township's 2003 Comprehensive Plan defines four categories of slope and identifies the suitabilities for each. Slopes of 0 to 8% have little constraint and are suitable for most types of development. Residential development on slopes of 8 to 15% is possible, although less desirable. Slopes of 15 to 25% are vulnerable to disturbance and should be restricted to large lot residential or cluster development, if not otherwise preserved. These types of development allow a great deal of flexibility in the siting of dwellings and can be planned to avoid the

areas with the steepest slopes. Development of any type should be avoided on slopes above 25%. Use in these areas should be restricted to passive uses such as parks and open space.

Steep slopes in Whitemarsh are prevalent in the southern section of the Township as the land drops towards the Schuylkill River. Much of the land south of Barren Hill Road has slopes between 15 and 25% with large areas of slopes greater than 25%. This factor further accounts for the large portions of undeveloped and preserved land in the area. Two other minor concentrations of steep slopes exist within the Township. One is an area that parallels the Pennsylvania Turnpike on its southern side and extends from Stenton Avenue to Skippack Pike. The second area is in the Stenton/Wissahickon District, found just north of Flourtown Road. The oval area north of Flourtown Road represents a Quarry with steeply sloped sides. A few relatively insignificant sloped areas are distributed throughout the rest of the Township.

Groundwater

Aquifer characteristics

An aquifer is a rock and sediment area located under surface soils that contains significant quantities of groundwater. The permeability and porosity of these rock and sediment areas are what determines the ability to utilize the aquifer; providing adequate amounts of water at speeds sufficient to provide fresh water for use within the Township. In general, the best aquifers in Pennsylvania have high porosity and permeability and are typically sandy or gravelly areas located along stream valleys. In Whitemarsh, much of the underlying rock provides fair groundwater yields. One third of the Township is underlain by a geological formation known as the Stockton Formation. This forma-

POTENTIALLY VULNERABLE RESOURCES

tion is typically considered the Township's most reliable source of groundwater (See Soils section within this chapter for additional information on these geologic features)

The northwestern portion of the Township is underlain by the Stockton formation. This is a reliable source of ground water, considered the best in the Township. It is common for modern drilled wells to exceed a pumping rate of 50 gallons per minute (gpm) and some have been know locally to exceed 500 gpm.

The central portion of the Township is underlain by the Ledger Formation and most groundwater in this region can be found over the Conestoga limestone. Groundwater here is normally located at depths ranging from 50 to 300 feet. Yields vary greatly from 5 gpm to nearly 1,500 gpm, but most produce less than 500 gpm. The water in this area is moderately to very hard and contains large amounts of dissolved matter. Softening, to remove excess mineral content, is required prior to use.

The southern portion of the Township is underlain by schist and granite gneiss, both from the Wissahickon Formation. Most of this formation consists of large sections of granitic gneisses known as the Reading Prong. This part of the formation does not yield large volumes of water because its rock is dense and without pore space.

The rest of this formation is comprised of two different types of schist, albite chlorite schist and oligoclase mica schist, both known as Wissahickon Schist. Groundwater in this formation exists in open fractures and intergranular pore spaces in the weathered zone. Porosity and permeability both decrease with depth so that in most cases little water is available below 300 feet. Municipal wells drilled in this forma-

tion typically yield 20-100 gpm and domestic wells yield 2-20 gpm of soft water.

Watershed Boundaries and Drainage Areas

Whitemarsh Township is drained by two major watershed basins. A watershed basin consists of land areas in which all surface and ground water is drained by the same water course. The Township is equally split by a divide running from north to south, roughly paralleling Stenton Ave, Joshua Road and Ridge Pike. The northeastern section of the Township is drained by the Wissahickon Creek Basin and the southwestern portion is drained by the Schuylkill River Basin. These two basins are a major influence on landform.

Wissahickon Drainage Basin

The Wissahickon Drainage Basin is located in the northeastern section of Whitemarsh Township. This basin is traversed, and drained by, the Wissahickon Creek and several of its tributaries. The minor basins include the Prophecy Creek, Spring Run, Pheasant Run, Needle Run, Sandy Run, Sunnybrook Creek, and three unnamed streams. A relatively significant portion of the Township is drained by the Wissahickon itself, the rest being drained by its sub-basins. With a few exceptions, this portion of the Township, encompassed by the Wissahickon Drainage Basin, remains relatively open.

Prophecy Creek, Spring Run, Pheasant Run and unnamed sub-basins: Rather limited in size, these minor basins drain the northern corner of the Township.

CHAPTER 3 · COMMUNITY BACKGROUND

Needle Run and unnamed sub-basin: These two intermediate sized basins drain the central-northeast part of the Township.

Lorraine Run Sub-Basin: The only large minor basin west of the Wissahickon Creek, this basin traverses the Township from the Philadelphia Cricket Club, through a gap between Militia and Cold Point Hills, towards Whitpain Township.

Sandy Run Sub-Basin:

One of the two minor sub-basins which drain Whitemarsh from the east of the Wissahickon Creek.

Sunnybrook Creek Sub-Basin: This minor basin, comprising two smaller areas, drains the land east of the Wissahickon Creek, along with the Sandy Run sub-basin.

Schuylkill Drainage Basin: The Schuylkill Drainage Basin occupies the southwestern part of the Township. All of the creeks within this basin drain directly into the Schuylkill River. The minor basins of the Schuylkill Drainage Basin include the Plymouth, Spring Mill, Manor and Andorra Creeks.

- **Plymouth Creek Sub-Basin:** This sub-basin drains a significant portion of the Township from Butler Pike to Ridge Pike to Stenton Avenue and includes the communities of Plymouth Meeting and Cold Point.
- **Spring Mill Creek Sub-Basin:** Spring Mill Creek drains the majority of the southern portion of the

Township including the Marble Hill, Lafayette Hill and Plymouth Meeting areas.

- **Andorra Creek Sub-Basin:** The Andorra Creek drains most of the area surrounding Barren Hill Road below Germantown Pike.
- **Manor Creek Sub-Basin:** The Manor Creek drains the sparsely populated extreme southeastern section of the Township.

"When the well's dry, we know the worth of water."

- Benjamin Franklin, Poor Richard's Almanac

Hydrology

The creeks and streams draining surface water within the Schuylkill and

Wissahickon Drainage Basins represent significant natural resources within Whitemarsh Township. With the high number of creeks, streams and unnamed tributaries located in the Township, hydrology is a major component of the environment.

Water bodies

There are many water bodies within the Township, most of which are creeks and streams. Streams with a significant presence within Whitemarsh are the Wissahickon Creek, Plymouth Creek, Lorraine Run, Spring Mill Creek and Andorra Creek. Whitemarsh also contains one of the largest standing bodies of water in Montgomery County, Sherry Lake.

The Schuylkill River, which defines the south edge of the Township, serves as a major drainage and flows from west to east, eventually emptying into the Delaware River. The Wissahickon Creek flows south, entering the Township from Upper Dublin and exiting into Springfield Township, before continu-

POTENTIALLY VULNERABLE RESOURCES

ing on through Philadelphia and emptying into the Schuylkill River.

The remainder of the streams and creeks in Whitemarsh are much smaller and are contained within either the Wissahickon or Schuylkill Watersheds. The Plymouth Creek flows westward from the central portion of the Township, near the Pennsylvania Turnpike, before turning south, in Plymouth Township, and heading towards the Schuylkill River. Lorraine Run travels in an easterly direction, after following Stenton Avenue for a short distance, and empties into the Wissahickon Creek at West Valley Green Road. The Spring Mill Creek drains the majority of the southern portion of the Township, including the Marble Hill, Lafayette Hill and Plymouth Meeting communities. It flows west from Germantown Pike before turning to the south and joining the Schuylkill River near the community of Spring Mill. Andorra Creek drains the area around Barren Hill Road, to the west of Germantown Pike. It follows Barren Hill Road in a southwesterly direction to the point where it converges with the Schuylkill River not far to the south of Spring Mill.

As previously stated, Sherry Lake is one of the largest bodies of standing water in Montgomery County. Located along Cedar Grove Road, near Butler Pike, this lake was created when an old quarry flooded. Although Sherry Lake has the potential to be a valuable public resource, it is currently not open to the public, and only serves the apartment complex which surrounds most of the Lake. A large number of small farm ponds can be found throughout the Township, most in an area just to the north of Flourtown Road, and all are located on private property.

Water Quality

The Pennsylvania Department Environmental Protection (DEP) classifies the State's streams and creeks according to their water quality and the types of aquatic life they support. Since this classification is a measure of overall stream health, it may be seen as a good indicator for prioritizing protection efforts of stream and stream valley resources within Whitemarsh Township. These classifications are the basis for DEP's stream discharge regulations, which are designed to maintain stream quality. Below is the list of DEP's water quality criteria for stream designation, listed from lowest designation (WWF) to highest designation (EV).

Symbol Protected Use

| | |
|-----|--|
| WWF | Warm Water Fishes · Maintenance and propagation of fish species and additional flora and fauna which are indigenous to a warm water habitat. |
| CWF | Cold Water Fishes · Maintenance and/or propagation of fish species including the family Salmonidae and additional flora and fauna which are indigenous to a cold water habitat. |
| TSF | Trout Stocking · Maintenance of stocked trout from February 15 to July 31 and maintenance propagation of fish species and additional flora and fauna which are indigenous to a warm water habitat. |
| EV | Exceptional Value · A stream or watershed which constitutes an outstanding national, State, regional or local resource, such |

CHAPTER 3 · COMMUNITY BACKGROUND

waters of national, State, or county parks or waters which are used as a source of unfiltered potable water supply, or waters of wildlife refuges or State game lands, or waters which have been characterized by the Fish Commission as “Wilderness Trout Streams,” and other waters of substantial recreational or ecological significance.

Based on these criteria the DEP designates the Wissahickon Creek as a Trout Stocking Fishery (TSF). The Schuylkill River, as well as several unnamed tributaries, has been classified in the Warm Water Fisheries (WWF) category. The Schuylkill River also has a special designation, identifying it as protected for the passage, maintenance, and propagation of anadromous and catadromous fishes and other fishes which ascend the flowing waters to complete their lifecycles.

Flood Plains

There are significant flood plain areas within Whitemarsh Township. A flood plain is the area adjoining a water course which has in the past or may in the future be covered by flood waters created by what is called the 100-year flood. The 100-year flood plain is the area expected to be covered by water during and/or after a storm which is calculated to have a 1% chance of occurring in any given year.

Flood plains are an extremely valuable resource for a community (see Map #9 Hydrologic Features).

Aside from the obvious aesthetic value, they play a large role in the absorption and dissipation of storm water. Flood plains also create opportunities for conservation corridors, preserving valuable habitat for wildlife and vegetation. Excessive development in a flood plain zone has negative effects, such as increased flooding, leading to costly property damage and erosion problems.

The Zoning Code of Whitemarsh Township establishes the creation of a Flood Plain Conservation District. The Code specifically defines a flood plain based on the one-hundred year flood boundary. The ordinance restricts construction of new, or renovation

“For many of us, water simply flows from a faucet, and we think little about it beyond this point of contact. We have lost a sense of respect for the wild river, for the complex workings of a wetland, for the intricate web of life that water supports.”

—Sandra Postel, Last Oasis: Facing Water Scarcity, 2003.

of existing, structures within the Flood Plain District. It also places restrictions on other activities deemed to pose a threat to the capacity of the channel and flood

way in an attempt to mitigate flood hazards.

The largest flood plain within Whitemarsh Township can be found along the banks of the Wissahickon Creek. Fortunately, most of this land is protected by its location within Fort Washington State Park. A large area of flood plain runs along the western border of the Township in the lands adjacent to the Schuylkill River. The overall impact of this flood plain is limited because the steep slopes in this area prohibit most development. Other significant flood plains can be found along the banks of the Spring Mill and Andorra Creeks and Needle Run.

Wetlands

The Pennsylvania Department of Environmental Protection defines wetlands as areas where ground

POTENTIALLY VULNERABLE RESOURCES

and/or surface water lingers for at least brief periods during the year. Wetlands serve many functions including being habitat for wildlife, purifying water by absorbing minerals in the water, and providing areas for flood waters to collect. There are several wetland areas within the Township, most of which are within the flood plain areas of the Township's creeks and stream corridors. Wetland areas are also associated with hydric soils and often cause similar constraints on farming and development.

Riparian Buffers

Riparian buffers are strips of land or more significant vegetated areas along creek, stream, river edges that consist of grasses, shrubs and trees. Riparian buffers filter polluted runoff and provide a transition zone between the water and man-made land-use activities. Well established riparian buffers are part of the ecosystem that provides habitat and protection for plants and animals along the waterways.

In Whitemarsh, many of the stream corridors, in the northern portion of the Township, currently obtain protection due to their location in State and county parks. These protected areas have significant riparian buffers in place. Most other locations throughout the Township are lacking sufficient buffers. Those that are sufficient lack the permanent protection to ensure their functionality in perpetuity.

Vegetation and Wildlife

Vegetation and wildlife are important elements of the natural and physical environments within Whitemarsh Township. Vegetation provides ecological services, including preventing soil erosion, removing pollutants from runoff water and providing

habitat for wildlife, as well as their obvious aesthetic values.

Wooded Areas

Whitemarsh Township was once entirely covered by dense forest. Several hundred years of clearing, farming, grazing and development, have reduced this cover to a fraction of its original expanse. The remaining woodlands in Whitemarsh play an important role in the character and health of the community. The wooded parcels range from one or two acres tucked into residential areas to over 400 acres in Fort Washington State Park.

The preservation of wooded areas, especially large tracts, is an important task. Aside from the obvious aesthetic and recreational values, woodlands provide important natural functions and sustain local ecology. They provide a natural buffer around water courses and help to reabsorb water that would otherwise enter a stream after heavy rains and cause flooding. Wooded areas also create windbreaks and provide cooling relief from the 'heat island' effect plaguing many urban areas.

Most of the wooded areas are concentrated in the northern or southern sections of the Township (see Map #11 Woodlands and Creeks). The largest wooded areas in the north include the Wissahickon Creek, Fort Washington State Park, the Sunnybrook Country Club and the tracts bounded by the Pennsylvania Railroad's Trenton cut-off. Extensive wooded tracts in the south of the Township can be found at both the Silt Basin site and in the Miquon area. Currently Whitemarsh has a Shade Tree Ordinance that provides certain protections from the development pressures and impacts on wooded areas.

CHAPTER 3 · COMMUNITY BACKGROUND

Pennsylvania Natural Diversity Inventory Locations (PNDI)

The Pennsylvania Natural Diversity Inventory (PNDI), now called the Pennsylvania Natural Heritage Program (PNHP), conducts inventories and collects data regarding the native biological diversity of the Commonwealth of Pennsylvania. Since its inception in 1982, PNDI has become the State's primary source of information regarding outstanding natural habitats, sensitive plant and animal species and other noteworthy natural features. The information collected is continually updated and added into an integrated data management system. The 2003 Comprehensive Plan indicated that there were two PNDI sites within the Township, one located within the bounds of Fort Washington State Park and the other along the banks of the Schuylkill River near Miquon. Both sites are listed for the occurrence of plant species in danger of extinction. The general characteristics of each site are below:

Fort Washington Site – Located within the Park, and therefore protected, this site contains 10 – 12 endangered tree species and is listed with the inventories classification as having statewide significance.

Miquon Site – Listed as having statewide significance, this site contains over 1,000 plants of an endangered sedge, which are not currently protected.

Montgomery County Natural Areas Inventory

In 1985 the Nature Conservancy started its Natural Areas Inventory for the State of Pennsylvania. The goal of the Inventory was to identify areas for the protection of biological diversity. This study identified 28 sites of statewide significance and 30 of local signifi-

cance. The sites were chosen and prioritized based upon the size and diversity of wildlife and plant life, water quality protection, and recreation potential.

According to the Open Space, Natural Features and Cultural Resources Plan section of the 2004 Montgomery County Comprehensive Plan, Whitemarsh lists two Natural Area Sites of Local Importance. Both sites are those that have already been identified in the description for the Pennsylvania Natural Diversity Inventory sites; the Fort Washington and Miquon Sites.

Scenic Resources

The natural land form, forested stream corridors, gently rolling farmland and dramatic elevation changes add a great deal to the overall appeal of Whitemarsh Township. These features, in concert with the historic structures and locations, create an empowering sense of place found within the Township.

Scenic Roads and Vistas · The 1996 Open Space Plan identified 14 scenic vistas within the Township (Map #12 Cultural & Historic Resources). These vistas still remain today, though many of these are located on property recently developed or proposed to be developed for residential use. The plan also identified a number of roads, many coinciding with scenic vistas, that helped to cultivate the feel of the Township.

Historic and Cultural Resources

Whitemarsh Township's history is as rich and diverse as any within the region and possibly the country. Beginning with the original sale of land from William Penn to Major Jaspar Farmar, Whitemarsh

POTENTIALLY VULNERABLE RESOURCES

has played a central role in our nation's history, hosting such important events as Washington's encampment during the fall of 1777.

There are numerous historic and cultural resources located in Whitemarsh Township. As much as any other feature, the historic structures of the Township define its sense of place. Many of these resources are documented in the Township's Comprehensive Plan. A thorough history of the Township is available in the book, *Montgomery County, the Second Hundred Years*.

National Register and National Landmark Resources

There are 10 properties listed on the National Register of Historic Places and two National Register Districts located in Whitemarsh Township:

Alan Corson House · Located at 5130 Butler Pike and listed in 1973.

County Bridge No. 64 · Located on Morris Road (L.R. 565) and listed in 1988.

Farmar Mill · Located at the intersection of Skippack and Bethlehem Pikes and listed in 1972.

Hagy's Mill · Located at the intersection of Manor and Hagy's Mill Roads.

The Highlands · Located at the intersection of Skippack Pike and Sheaf Lane and listed in 1976.

Hope Lodge · Located at 553 Bethlehem Pike and listed in 1972.

Hovenden House, Barn & Abolition Hall · Located at 1 East Germantown Pike and listed in 1971.

Lee Tire and Rubber Co. · Located at 1100 East Hector Lane and listed in 1984.

Miller's House at Spring Mill · Located at the intersection of North Lane and Hector Street and listed in 1990.

Mount Joy · Also located at the intersection of North Lane and Hector Street and listed in 1971.

Union School · Located at 516-18 Bethlehem Pike and listed in 1980.

Plymouth Meeting National Register District · Located in both Plymouth and Whitemarsh Townships, this district, listed in 1971, is overseen by a local review board that reviews modifications and demolitions to existing structure and provides guidelines for new construction.

Cold Point National Register District · Also located in both Whitemarsh and Plymouth Townships, this district does not have a review board and is considering the adoption of one.

Historic District Source: Pennsylvania ARCH database

Additional Historic Resources

The following sites were deemed of local significance in the 2003 Comprehensive Plan and 1996 Open Space Plan.

1. ***Fort Washington Hotel*** · Morris Road at Lafayette Avenue.

2. ***Masonic Hall*** · Bethlehem Pike at Skippack Pike.

CHAPTER 3 · COMMUNITY BACKGROUND

3. *Clifton House* · Bethlehem Pike between the Lafayette Connector and Skippack Pike.
4. *Fort Side Inn* · Bethlehem Pike near Camp Hill Road.
5. *Saint Thomas' Episcopal Church* · Camp Hill Road at Bethlehem Pike .
6. *Zion Lutheran Church* · Bethlehem Pike near Church Road.
7. *Cold Point Baptist Church* · Militia Hill Road near Butler Pike.
8. *Plymouth Friends Meeting House and School* · Germantown Pike near Butler Pike.
9. *Ye Olde Hatfield Inn* · Germantown Pike and Gilinger Road.
10. *General Lafayette Inn* · Germantown Pike and Harts Lane.
11. *St. Peter's Lutheran Church* · Ridge Pike and Harts Lane.
12. *St. Peter's Lutheran School* · Ridge Pike and Harts Lane.
13. *St. Peter's Original Parsonage* · Andorra Road near Harts Road.
14. *Fountain Inn* · Ridge Pike near Barren Hill Road.
15. *Van Renssalaer Mansion* · Believed to be on the grounds of Wadsworth Academy, located off of Camp Hill Road.
16. *Buena Vista* · Righter Lane at North Road.
17. *Simpson Miquon House* · Manor Lane near River Road.

Archeological Sites and Ruins

The long and varied history of Whitemarsh Township has created the opportunity for numerous archaeological sites and historic resources. Unfortunately, much of this historic information has become

lost, forgotten or just overlooked. The significance and location of these sites is incredibly varied and diverse.

Some sites are unique structures. A circa 1780 dwelling, originally known as Linden Grove, at the corner of Spring Mill Road and Ridge Pike, was built using Barren Hill Blue Marble. This type of marble is available nowhere else in the world. Other important structures are known for their architects and the style in which they were designed. The E.V. Toland House, 650 Church Road, was designed by Cope and Stewardson. This Philadelphia firm was responsible for popularizing the Collegiate Gothic Style, of which this house is a fine example. Another site, the Miquon Houses, 2088-90-92 Harts Lane, designed by Kenneth Day around 1953 in the international style, a style rarely seen in residential housing. Three of the most notable properties in Whitemarsh are the Korman House and Honickman House, both located on Sheaff Lane, and the Roche House, located on Harts Lane. These homes were all designed by internationally renowned Philadelphia architect Louis Kahn.

Other significant sites are related to Whitemarsh's role in the nation's history. The quarry that created Sherry Lake was a source of marble used in the building of Independence Hall. The previously mentioned Linden Grove property contains remnants of a tunnel in its backyard, which was probably used by the Underground Railroad. Two homes in the Cold Point area were built by freed or fugitive slaves. The history of the Township demands further study to determine its potential value, before more is lost.