

Chapter Four

ENVIRONMENTAL & HISTORIC RESOURCES INVENTORY

Understanding natural resources and recognizing how they interact to form the environmental systems that exist in the community is necessary to effectively plan for future land use. Land, water, and biotic resources are interdependent and altering one will impact all others. These impacts often have long term and sometimes, far-reaching, effects. In addition to natural resources, the Township has many historic resources. It has a unique history that dates back to before the Revolutionary War. Its historic resources reflect the cultural development of the region and preserving the remaining physical evidence of this history helps preserve its unique character and sense of place. Carefully weighing the implications when evaluating potential development scenarios is important to ensuring a balanced approach to land use that protects vital environmental and historic resources yet also accommodates an appropriate level of development.

This chapter discusses the environmental resources of West Pikeland and defines their role in supporting the present and future population. It also presents an overview of historic and cultural resources and discusses how they intertwine to form the Township's unique character. This chapter ends with a series of planning concerns that relate to the use and protection of environmental and historic resources. These concerns will serve as the basis for the recommendations contained in the related plan element.

LAND RESOURCES

Land resources include the geology, topography, and soils that are found in West Pikeland Township. The characteristics of the land resources, particularly the underlying rock formations, are indicative of the quantity and quality of water resources present and can also indicate the type of biotic resources that form. The land resources thus determine the types of land uses and level of development that can be sustained in a given vicinity, as well as the potential impact generated by their disturbance. Land resources are depicted on Map 4-1.

Land resources are first determined by geologic formation, which are categorized by physiographic provinces. Chester and Delaware Counties are geographically located within the Piedmont Province of the Appalachian Highlands, which consists of rolling uplands with low hills and moderate ridges. It has three main parts, the Piedmont Upland, the Triassic Lowland, and the Conestoga Valley each of which have a different bedrock composition. West Pikeland Township falls within the Piedmont Upland, which underlies a majority of the County. The bedrock of the Piedmont Upland is predominately schist, gneiss, quartzite and gabbro. The Triassic Lowland comprises the northern most area of the County and is underlain by shale and sandstone. The Chester Valley, a major geological feature underlain by limestone, traverses the County in a northeast-southwest manner and is found just south of the West Pikeland's southern border.

Geology

The geology largely determines soil type, groundwater availability, and bedrock stability. Age, origin, composition, and qualities such as hardness and resistance to erosion describe the characteristics of the rock types that comprise the underlying geology. The erodibility and weathering of the underlying rock is responsible for the formation of hills and valleys. The degree to which groundwater is stored is determined by the porosity of the rock and the size and number of cracks and fissures it contains.

The geology of West Pikeland consists mostly of hybrid granitic gneisses, with graphitic gneisses found in the northern regions and granodiorite found in the south and southeastern regions. Hybrid granitic gneisses are metamorphic rocks that originally were both sedimentary and igneous. They tend to be quite hard, weathering to a moderate depth. Depending on local conditions, the elevations formed by the weathering of these rocks tend to be higher, with low valleys and steep stream banks. Because of their hardness, these formations are considered excellent foundations. However, because they are hard and dense, they tend to have fewer fractures to hold groundwater and are consequently poor water sources. Pickering gneiss, a specific type of graphitic gneiss found near the Pickering Creek, differs slightly from the general description in that it has a higher presence of graphite and tends to hold a somewhat larger supply of groundwater.

Topography

West Pikeland's topography is fairly typical of the Piedmont Province. The relief varies depending on the underlying rock in a specific location and the elevation of the uplands relative to the base. The Pickering gneiss found in the northern quadrants of the Township forms hills with low to medium relief and gently rolling but stable slopes. The granodiorite underlying the southern regions is more highly resistant with only slight weathering and to shallower depths. Streams have cut deeper forming narrow stream valleys. The hills tend to be of a medium relief with steep, but stable slopes. Steep slopes are a particular environmental concern because inappropriate development and disturbance in these locations can result in uncontrolled storm water runoff and severe erosion. The slopes most susceptible to erosion are those 15 percent and over. The areas of steep slopes are delineated on Map 4-1.

Soils

The weathering of the underlying rock forms soil as other natural processes have affected it. The characteristics of a given soil are the result of the physical and mineralogical composition of the parent materials, the climate under which the parent material formed and exists, plant and animal life in and on the soil, relief of the land and the length of time these forces have acted on the parent material. The main source of information on local soils in this region is the Chester and Delaware County Soil Survey (1963). It reports that the main soil association present in West Pikeland is the Glenelg-Manor-Chester association. This is the largest association in the County and is found in all regions. Soil associations are generally described as a pattern of soils containing a limited number of both major and minor soil types. These types are not necessarily uniform; in fact their characteristics can vary greatly. It is the pattern that is similar and leads to a specific association designation.

The Glenelg-Manor-Chester association range from level to steep with the most acreage sloping gently to moderately. The principal soil types found in the association are the Glenelg, Manor, and Chester, while Congralee soils are found on flood plains. The Glenelg and Chester soils have a surface layer of dark brown silt loam and subsoil of brown silty clay loam or silt loam. The Chester soils are deep and well drained while the Glenelg are shallower. This soil association is most appropriate for dairy farming and raising of livestock. Crops may be grown as well but they tend to be used mostly for livestock feed. In West Pikeland, much of the agricultural activity occurs on low to moderate slopes and erosion of the topsoil is a concern. Reducing the loss of topsoil through measures that prevent erosion and uncontrolled runoff is needed to support the future of the agricultural industry.

The Congralee soils are part of this association, but are considered hydric soils. Hydric soils form under anaerobic conditions and are considered a major indicator of wetlands. They are generally found in wetlands and floodplains of West Pikeland, as well as adjacent to the stream corridors. The soils tend to be deep and well drained. Despite some limitations, they can also support agricultural activities such as dairy farming and livestock production.

Agricultural Soil Classifications

Soils are classified in different ways for different purposes. The U.S. Department of Agriculture classifies soils in terms of their suitability for various agricultural purposes. The soils are rated on specific characteristics and classified from I to VIII, with each soil class assigned a different set of values indicating its level of appropriateness for certain uses. Those that have the fewest limitations and the greatest range of uses are Class I soils, while those with the greatest number of natural limitations and the fewest uses are labeled as Class VIII. This information is made available to assist the agricultural community in making decisions on crop types and the probability of success. West Pikeland Township has a range of soil classes with scattered areas of mainly Class II and III soils found in all four quadrants of the Township. The presence of quality agricultural soils are substantiated by the number of farms that are still operating, as well as by the number of old fields that were recently farmed. Although the Township does not contain large areas of extremely poor soil, it does have areas of Class V soils which pose severe limitations for agricultural uses due to wetness, steepness, erodibility and stoniness.

Despite the number of farms still in operation, agriculture appears to be on the decline as indicated by aerial photography and field survey. Many areas that were once used for agricultural purposes have been developed as residential subdivisions and many more appear to be threatened. Farms are specifically targeted for subdivisions because the development cost is often lower than for non-farmed areas. The remaining farms should be protected from development pressure through measures that support the agricultural industry and facilitate the continued use of the Township's soil resources for agricultural purposes.

WATER RESOURCES

The water resources present in a given region are defined by watershed. A watershed is an integrated system of surface waters (rivers, streams, and ponds), and subsurface waters (groundwater, springs, and wetlands), along with the drainage network that connects and transports the water. In Chester County, the surface and subsurface water systems are well connected with streams serving as drains for groundwater in some areas yet losing water to recharge groundwater in other areas. The watersheds of Chester County are located within two large drainage basins, the Delaware River Basin, which flows to the east, and the Susquehanna River Basin, which flows to the west. Six sub-basins are identified within the boundaries of the County, four of these, the Schuylkill, Delaware, Brandywine, and Clay are part of the Delaware River Basin and the remaining two, the Octoraro and Elk, are part of the Susquehanna River Basin. Water resources are indicated on Map 4-2.

Creeks and Streams

West Pikeland Township lies completely within the Delaware River Basin, and more specifically, the Schuylkill sub-basin. This sub-basin is approximately 180 square miles in size and drains nearly 24 percent of Chester County. The major streams of this sub-basin draining West Pikeland are the Pine Creek and the Pickering Creek. The main branch of the Pickering Creek enters the Township just south of the Twin Hills development. Several smaller creeks drain mainly the west and a north quadrant of the Township and merge into the Pickering as it traverses the Township. The Pine Creek enters the Township near the southern tip and merges with a smaller tributary north of the Township boundary near Lower Pine Creek Road. Another tributary of the Pine Creek enters the Township from the west. The confluence of the Pickering and Pine Creeks is located in the vicinity of Chester Springs. The Pickering exits the Township and passes through East Pikeland and Charlestown Townships before emptying to the Pickering Creek Reservoir and the Schuylkill River just south of Phoenixville.

The Commonwealth of Pennsylvania has designed streams throughout Chester County as Special Protection Waters. Special Protection Waters are classified either as High Quality (HQ) or as Exceptional Value (EV). The Pickering and Pine Creeks, along with their tributaries, have been designated as High Quality Waters. To earn this designation, a stream or watershed must possess excellent quality water, or other environmental features that warrant protection. Title 25 of the Pennsylvania Code regulates wastewater treatment and discharge into streams and the HQ and EV designations invokes the application of a different set of standards when evaluating permit applications associated with new land development. The application process requires that development proposals that include a point source discharge to a High Quality stream show that the discharge is justified and that it will not effect the protected water uses. The applicant must also evaluate and show that alternative technologies are not feasible.

Floodplains

A floodplain is the land adjacent to a creek, stream, or river that accommodates the overflow during periods of heavy rains. One of the many responsibilities of the Federal Emergency Management Administration (FEMA) is to encourage municipalities to regulate development in floodplains in order to reduce or prevent potential damage to private property and to allow floodplains to function as nature intended. The National Flood Insurance Program, administered by FEMA, serves as the incentive for these types of regulatory measures since municipalities must adopt such regulations in order for residents to participate in the insurance program. The standard established by FEMA to measure floods and flood potential is the 100-year flood. This translates to a one percent chance of a flood reaching a particular elevation in any given year. Floodplain maps prepared by FEMA are used to administer the national flood insurance program and to delineate floodways and floodplain elevations.

Both the Pine and the Pickering have extensive floodplains associated with their corridors. The FEMA maps indicate that studies have been undertaken on several sections of both creeks. Floodplain elevations are designated for the Pickering Creek from the western boundary to Pikeland Road. Elevations have not been established for the section extending from Pikeland Road to the Charlestown Township boundary. Floodplain elevations have been determined for the southern branch of Pine Creek from the southern boundary to Conestoga Road but no detail is available beyond that point. Neither is there information available on the northern branch of this creek. Elevations would need to be established in these areas in order to determine the impact of potential development. The Pigeon Run, which parallels the boundary within Charlestown Township, crosses into West Pikeland for a short distance. The floodplain of the Pigeon Run extends well into West Pikeland Township.

The maps produced by FEMA are important tools for municipalities in planning for future land use. Residential development in the floodplain should be severely restricted. Land uses permitted should be low intensity and not susceptible to extensive damage that may be caused by flooding. Construction of impervious surfaces should be limited. Any structures permitted should be highly regulated to ensure that they could withstand rising floodwaters and yet not hinder the floodplain function. The availability of detailed information on floodplain characteristics, including elevations, helps to ensure that new development does not inadvertently encroach on the floodplain and that mitigation requirements are adequately designed. If development is proposed for a corridor section that has not been the subject of detailed study, elevations must be determined prior to plan consideration.

Ponds

Ponds are the small bodies of open water found throughout the Township. Many are quite shallow and no more than a few acres in size. They often form when naturally occurring depressions fill with water or are continually fed by springs. They can, however, be man-made and created to support livestock or to help manage stormwater runoff. In West Pikeland, some ponds are man-made and were constructed to support

agricultural operations while others help manage stormwater and provide a water source for wildlife. The mining activity once prevalent in the Township led to larger ponds. The mine pits and depressions filled with water once the mining operations ceased and the resulting ponds have become permanent landscape features.

Most of the ponds in the Township are owned either by an individual landowner or by a homeowner's association. The only pond owned by the Township is located in Pine Creek Park off Yellow Springs Road. The larger ponds in West Pikeland are privately owned and located in the southwest quadrant. One is located near Byers Road and a second is located off Messner Road. Most of the smaller ponds are located either within, or adjacent to, a stream corridor.

Groundwater

All the geological formations in Chester County are considered aquifers; however, the extent to which they yield water is dependent on specific regional characteristics. The porosity and density of the bedrock, and the number and extent of cracks and fissures present, determines how much groundwater can be stored and how easily the water is accessed through a well system. The porosity and density of the bedrock also determines its ability to filter out pollutants since it is through the seepage of surface water into the bedrock, that the water is cleansed of pollutants. Pathogens die off and sediment and chemicals are trapped in the rock. Most of the bedrock in Chester County is effective in removing pollutants with the exception of the limestone formation that underlies the Chester Valley. Although limestone tends to yield high amounts of groundwater, it does not provide adequate filtration. Limestone is highly soluble and groundwater percolation forms large channels that can convey pollutants and result in groundwater contamination. The Chester Valley lies south of the Township and there are no areas in West Pikeland that are underlain by limestone.

The publication, Chester County Geology (1994), analyzes the hydrological aspects of geological formations underlying the County. As indicated in the previous discussion, graphitic gneiss in the north and granodiorite in the south and southeast underlie West Pikeland Township. These are hard, dense rocks that do not hold large amounts of groundwater. In general, the groundwater capabilities of West Pikeland's geology ranges from a low (1-10) gallons per minute to moderate (10-60) gallons per minute. It should be noted that wells drilled within relatively close proximity to one another have been found to produce dramatically different results. The groundwater seems to sufficiently support low density development, however, increasing the number of wells in any one location could reduce the potable water supply for a larger area. An evaluation of the groundwater supply should accompany all new development proposals located outside of the public water service area to ensure that the existing wells will not be adversely affected.

Springs

Springs are flows of water that emanate directly from the ground and are most commonly found near the headwaters of creeks and streams. They were an important source of potable water particularly when the area was first settled. Many of the early farmsteads were located near springs as evidenced by the numerous spring houses still visible in rural areas including West Pikeland. They are still valued as a water source and commonly used for livestock. Some communities use them to supplement the public water supply.

Springs were important in the historical development of the Township. The village of Yellow Springs became a popular travel destination in the mid-eighteenth century following the discovery of sulfur springs in what is now West Pikeland Township. It was believed that these springs had healing properties and individuals from all over traveled to the area to bathe in these springs.

Wetlands

Wetlands are areas that are flooded during a portion of the growing season. They are an important natural system that serves environmental purposes including storing storm water runoff, recharging groundwater, and filtering sediment and pollutants and providing wildlife habitat. Probably the least recognized but most important function of wetlands is flood control. Storm water runoff flows into wetlands and is naturally detained before being slowly released into adjacent rivers and streams. The capture and slow release of detained runoff reduces the soil erosion and allows sediment to filter out before reaching streams and rivers. Pollutants carried by runoff are also prevented from entering surface waters.

Wetlands are defined as areas inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. They are further identified through the presence of three conditions: 1) the periodic presence of water or wet conditions, 2) the presence of hydric (wet) soils, and, 3) the presence of wetland vegetation. The U.S. Army Corp of Engineers is the agency responsible at the federal level for protecting wetlands and regulating any proposed development in them.

The U.S. Army Corp of Engineers finds wetlands in all quadrants of West Pikeland Township according to the National Wetlands Inventory Maps prepared. There are two main types of wetlands present in West Pikeland. The creeks and streams (both perennial and intermittent) that are less than two meters deep are termed “riverine” wetlands. The other wetland areas, usually located adjacent to the streams and creeks and commonly referred to as swamps, bogs and marshes, are classified as “palustrine” wetlands. Palustrine wetlands are characterized by trees, shrubs, and emergent plants such as cattails. Large areas of wetlands adjacent to the Pickering and Pine Creeks are considered to be forested palustrine wetlands, containing both evergreen and deciduous trees. Red maple and green ash are two common species often found in forested palustrine wetlands. Other types of wetlands found in West Pikeland include open water (the small lakes and ponds found in several locations) and emergent (the low, moderately wet areas of grasses, cattails and other narrow leaf plant species).

To ensure that wetlands continue to function as nature intended, they should not be used for any purpose that requires them to be filled or drained. They should be clearly delineated on all development plans to ensure that they are safeguarded from the negative impacts of adjacent development. The National Wetlands Inventory Maps may be used to determine the general location of wetlands; however, they should not be used in place of a detailed survey. Wetlands are regulated at both the federal and the state level and all necessary permits should be secured before land development proceeds. Wetlands in West Pikeland Township are illustrated on Map 4-2.

BIOTIC RESOURCES

Biological resources include the vegetation and wildlife that naturally occurs in an area as the result of land, water, and climatic factors. The impact of settlement and influence of humans has a direct effect on biological resources since biotic resources can easily be altered and controlled. Early settlers were attracted to Chester County because of the quantity and quality of the biotic resources as exhibited by the settlement patterns.

Woodlands

The Chester County Natural Areas Inventory (1994) describes the entire County as located in the Piedmont Section of the original Oak-Chestnut Forest Region which was dominated by the American Chestnut. Most

of the forests have been cleared and the new growth is now comprised of red, white, and black oak, often mixed with other species including tulip popular, red maple, and beech. Most of the forested areas that still exist in the County, including those in West Pikeland, are located on steep slopes, and in barrens and wetlands. Those located on moderately rolling uplands in prime soils were usually cleared for agricultural purposes.

Upon settlement, the West Pikeland region was heavily forested. Woodlands play a critical environmental role in stabilizing soils, absorbing excess storm water, absorbing carbon dioxide and moderating excessive heat. They also provide wildlife habitat. Most of the remaining woodlands in the Township are found on steep slopes and in wetland areas or those places generally unsuitable for other types of development. As the region developed, forests were cleared for agricultural activities and also to provide wood as fuel. The forests now present are relatively new, having grown only since the mid to the late nineteenth century when wood was no longer a primary fuel source. Some of the largest contiguous forested areas are located adjacent to the Pickering and the Pine Creeks.

Woodlands and forests are renewable resources that should be carefully managed in order to support growth and regrowth of native species. Despite the fact that timbering as an industry in northern Chester County has declined, many landowners with large amounts of woodlands do participate in selective cutting for economic gain. For instance, landowners that have large stands of black walnut trees may engage in selective cutting in order to profit from this particularly valuable wood. This type of cutting is an agricultural activity that should be encouraged as an economic incentive to conserve woodlands as well as a way to maintain a healthy stock. In Pennsylvania, information on woodland and forest management can be obtained through the Department of Conservation and Natural Resources, Bureau of Forests.

Pastures

Although many cultivated areas in West Pikeland have been lost to new construction, some still remain. The horse farm in particular is an agricultural use prevalent in all quadrants. The land in the Township is well suited to raising livestock and the extensive amount of pastureland needed for this type of agricultural activity is still available. Pastures play an environmental role in providing habitat and moderating the negative impacts of adjacent development in terms of storm water runoff and groundwater recharge. Many large tracts of previously cultivated areas have been left fallow and natural communities are now beginning to evolve. Hedgerows, or linear stretches of small trees, shrubs and related plant materials, are also common features of these large tracts. Pastures provide habitat for many animal species, adding to the natural diversity of the region.

Sensitive Natural Areas

The Chester County Natural Areas Inventory (1994) identifies and documents sensitive natural areas in Chester County. Produced by the Pennsylvania Science Office of The Nature Conservancy, this document is intended to provide the technical basis for municipalities to establish protective measures for these important natural communities. The document was compiled using several different resources and data collection methods. Information from the Pennsylvania Natural Diversity Inventory served as a key resource. In addition, The Nature Conservancy used maps, aerial photography, field surveys and data analysis to document, evaluate and prioritize the results of the Inventory.

Although many sensitive natural communities are located in proximity to Township boundaries, only one area, the Pigeon Run Wetland, is physically located within the Township. This area is defined as a locally significant wetland complex located on the floodplain of Pigeon Run. It is forested with red maple, white ash, pin oak, and American elm. The shrub layer and understory is diverse and although no rare species have yet been identified at this location, the potential exists. Maintenance of the forest cover is necessary to

preserve the site and to encourage propagation of native species. Any development proposed in proximity to the wetland should include mitigation measures designed to reduce potentially damaging impacts.

HISTORIC AND CULTURAL RESOURCES

Preserving historic and cultural resources helps a community to retain its sense of place, sense of community and its overall quality of life. A community's identity can often be found in its historic resources and cultural landscape, and can help to explain the people and the place. Historic resources include the buildings, structures and objects that remain to tell the history of the area. The cultural landscape encompasses these resources, as well as the transportation corridors, settlement patterns and development traditions that comprise the contexts in which the Township grew and developed. Historic and cultural resources in the Township are indicated on Map 4-3. The prevalence of historic resources remaining is due, in part, to the fact that most residential development has taken place in the southern part of the Township and consequently, many of the farmsteads, hamlets and clusters have been spared. Recognizing and protecting the physical reminders of the Township's historical and cultural development is necessary if West Pikeland's rural character, and consequently its quality of life, is to continue.

The following describes the current state of historic and cultural resources in West Pikeland, and discusses the preservation activity that has been undertaken to date. Before the historic and cultural resources can be discussed, however, it is important to have an understanding of the Township's history. There are several key sources of information on the Township's historical development, these include key publications: 30,000 Acres: Vincent and Pikeland Townships 1686 to 1850 by Estelle Cremers (1989), The History of West Pikeland Township by Clifton Lisle (1981), and History of the Conestoga Turnpike by Stuart and Catherine Quillman (1987). In addition to the Chester County Historical Society, information on West Pikeland Township can be obtained through Historic Yellow Springs, Inc., the French and Pickering Creeks Conservation Trust, and the Chester Springs Library.

Historical Overview

The following is an overview of West Pikeland's historical development. It is excerpted from the summary compiled by the Natural Lands Trust (1989), West Pikeland's Open Space, Recreation and Environmental Resources Plan (1992), and Comprehensive Plan (1973).

Summary

William Penn granted the region including West Pikeland to Joseph Pike, a merchant from Ireland, in 1703. The land area comprised 10,116 acres and was known as "Pikes-land" and initially included what are now both East and West Pikeland. Upon Pike's death, the land was passed to relatives and was gradually leased in small parcels to English and Welsh settlers. Tenants were to be given the option to purchase these tracts in twenty years time. Before this time period was up, however, the land including all tenant holdings was sold to a single individual. However, the failure of the new owner to make full payment resulted in a lawsuit in which all land reverted back. It was then resold at a sheriff's sale and all deeds in the Township reportedly date to 1789. The region known as Pikeland separated into East and West Pikeland in 1838.

Following settlement, much of the land was cleared for crops and livestock. Agriculture became the dominant industry and gristmills were constructed along the streams to process the grain. One of the most important of these local mills still stands at Anselma. It was built in 1747 and was the first grist mill on Pickering Creek. As the area grew so did the need for roads to accommodate travelers and transport crops. The first roads were actually Indian trails that mainly followed

streams. One of the most developed of the Indian trails was Route 401, which was originally called the Allegheny Path and then the Conestoga Turnpike. It linked Philadelphia and Carlisle, a community just west of Harrisburg. Route 113, the other major route through the Township, was built by settlers to accommodate travel between the communities now known as Phoenixville and Lionville. Horseshoe Trail was another historic route previously called the Nantmeal Road. It linked Philadelphia and the Warwick furnace.

The Township became an important travel destination following the discovery of sulfur springs. Although these springs were used extensively by the Native Americans, it was not until 1722 that they were discovered by European settlers. Recognized for their medicinal properties, people came from all over to bathe in the mineral waters. A log house was built in 1750 by the owner of the property and served as the first inn on the site. It was purchased in 1806 by James Bones and under his ownership; “Yellow Springs” grew into a well-known summer resort that attracted patrons from Canada to the West Indies. A small village initially named “Bath” was constructed in the area beginning in 1814. The name Yellow Springs persisted, however, and was used interchangeably with the newer name “Chester Springs”, the village that contained the nearest railroad station. Yellow Springs continued to grow with the addition of more hotels, and the area remained a very popular spa for many years. A newspaper was even started in the area in 1829 but was relocated to West Chester combining with an existing newspaper.

Yellow Springs was the site of a hospital during the Revolutionary War. The hospital was built by Dr. Samuel Kennedy and was used to treat the wounded of the Battle of the Brandywine and those that fell ill while at Valley Forge. It was the first military hospital in the county and served as a medical supply headquarters as well. Dr. Boda Otto, a prominent German physician, practiced at the site until the end of the Revolutionary War in 1781. Upon closure, the hospital continued to be used for many different purposes but burned down in the early 1960’s. The foundation survived and is preserved as a medical herb garden in recognition of the hospital.

The Yellow Springs property continued to be a popular resort throughout most of the nineteenth century. The Civil War, the rise of Victorian society, and new medical discoveries all contributed to the decline in use of the Yellow Springs spa. The property was sold in 1869 to become the Chester Springs Soldier’s Orphans’ School and Literary Institute was established to care for the orphans of the Civil War. It operated in this capacity for nearly forty years. The property was sold again in 1916 to the Pennsylvania Academy of the Fine Arts and was used as a summer school. The school was closed permanently in 1951 and the site and buildings were sold to the Good News Productions an organization that produced motion pictures.

West Pikeland was part of the underground railroad system that operated before the Civil War. There were at least two sites in the Township, one at Pickering Pines farms near Chester Springs, and the other was located east of Pickering Mill, at a site now known as the Yellow Spring Nursery. The strong Quaker heritage of the area was responsible for the strong support for the Abolition Movement.

As the region continued to grow, and the iron and steel industry developed, rail lines were installed. In 1871, the Pickering Valley Branch of the Reading Railroad Company was constructed between Phoenixville and Byers. Dairy products and iron ore were the main products carried by this system. The train stopped to collect milk from a number of locations throughout the Township. The train also carried iron ore from the region, including West Pikeland, to the Phoenix Iron Company in Phoenixville.

Mining was another industry in the Township that developed in the nineteenth century. Shallow mines and ore pits are still evident in many areas. Before the rail line was completed, horses carried iron ore to the iron furnaces in Warwick and Coventry. With the development of the rail line iron was then carried into Phoenix. Graphite is quite prevalent and the largest concentration of the mineral in the entire region is found in West Pikeland. It was actively mined for use during World War II. The mine was located west of Horseshoe Trail and the pit is now a large pond. Kaolin, a white clay used for porcelain, was also mined.

Commercial and industrial activity declined in the twentieth century and mining ceased along with the operation of the rail line. The strong agricultural tradition continued, however, and West Pikeland still is recognized for its contribution to regional agriculture. It is known as the place where the nation's first commercial hay bailer was used. Farming takes place on a much smaller scale now. Fortunately, many of the early farmsteads with their stone houses, bank barns, springhouses, and outbuildings are still intact. Over the past three decades, many new residents have been enticed to the area by its scenic landscape and strong rural character.

Identification of Historic and Cultural Resources

Chester County traces much of its three hundred year history back to the founding of Philadelphia by William Penn. The physical reminders of this history are found in both urban and rural areas, and the historical development of the area is exhibited in its settlement patterns. Because West Pikeland has remained an agricultural community and has not been inundated with the level of new development that has occurred in other municipalities, many historic resources still exist, contributing to the scenic landscape for which the Township is widely noted. Aside from the buildings and districts that have regional and in some cases, national significance, there are many farms and farmsteads remaining that speak of daily life as it existed in the eighteenth and nineteenth centuries.

Chester County Historic Sites Survey

A survey is the process of identifying and gathering data on a community's historic resources. The survey data is the raw data produced by the survey or the information gathered on each property investigated. The historic resources in West Pikeland Township were first documented through the Chester County Survey of Historical Structures, which was undertaken on behalf of the County through the French and Pickering Creeks Conservation Trust in 1981. The purpose of this survey was to identify the physical location and general condition of the Township's historic resources and to gain preliminary information needed to evaluate their historical significance. This survey resulted in a list of one hundred fifty sites, all of which have a photograph and preliminary information on file at the Chester County Historical Society. The information obtained included the approximate age and location of the property, current and historic use, associated outbuildings, building configuration, and architectural type. Several sites were the focus of additional research as required by the Pennsylvania Historic Resource Survey form.

The survey data gathered was evaluated and an inventory of significant sites resulted. The list included sites recommended for listing individually or as part of a district in the National Register of Historic Places, listing in the Pennsylvania Inventory (no longer existing), and those recommended for inclusion in a certified local historic district.

Villages and Hamlets

The early commercial activity in the Township was concentrated in villages and hamlets. Villages can be defined as compact community oriented settlements within a rural landscape usually containing a mix of uses. They generally have a distinct sense of place. Hamlets are often considered to be the smaller form of a village, however, they are usually more residential in nature and only support one or two commercial uses, for example a general store.

Most villages and hamlets in West Pikeland are located at crossroads and historically served as commercial centers. Most of the villages and hamlets in the Township still contain buildings and structures reminiscent of earlier functions, however, the predominant use now is residential. Structures remaining include houses, barns, spring houses and other outbuildings, along with buildings that once served as mills, general stores, trade shops, or related purpose. Most of the villages have not experienced significant development in and around them and consequently, the historic context has largely been preserved. To preserve the rural character of the Township, these early settlements should be respected as part of the Township's evolution and new development should be carefully designed to ensure that it compliments the existing scale and character. A brief description of West Pikeland's villages and hamlets follows.

Yellow Springs

This village developed following the discovery of sulfur springs in 1722 that were believed to have healing qualities. For the next one hundred and fifty years, Yellow Springs was a popular resort and spa that attracted visitors from all over the country. It was the site of a hospital established by Dr. Samuel Kennedy during the Revolutionary War. After the Civil War, the property was sold and used as a school for orphans and then as a school for the arts. Many of the buildings and nearly one hundred and forty acres are now owned and managed by the Historic Yellow Springs Foundation.

The village presently consists of approximately consists of several primary buildings and several privately owned residential structures clustered at the intersection of Yellow Springs and Art School Roads. The Chester Springs Library, the offices of the Historic Yellow Springs Foundation, the Yellow Springs Inn, and the Chester Springs Studio are all located in the heart of the village with the individual residences surrounding this core. The Yellow Springs spa was listed in the National Register of Historic Places in 1971. It has also been designated a certified local historic district.

Pikeland Village

Located at the intersection of Pikeland Road and Route 113, Pikeland Village was once the location of several mills, including a grist mill, owned by Joseph Hartman. A spoke factory was located in the vicinity. The Pickering Valley Railroad paralleled Kimberton-Chester Springs Road (Route 113) near the village and a station was located to the south. There are a number of historic structures identified along Village Road adjacent to Route 113, several of which are clustered at the intersection with Pikeland Road. The Township's only general store is located at this intersection.

Rapps Corner

Located at the intersection of Street Road and Yellow Springs Road, Rapps Corner contains a cluster of historic houses and related outbuildings. It was once the site of a general store owned by Joseph Rapp, as well as a Lutheran parsonage. The historic homes are occupied and well maintained. It is one of the most scenic of the rural hamlets with views of the countryside evident from several points.

Chester Springs

This village grew around the railroad station located near the intersection of Route 113 and Yellow Springs Road. It was ultimate rail destination for those visiting the Yellow Springs spa. It developed as a Victorian village and a number of homes in the vicinity dating from the late 1800's still contain architectural details from this period. Chester Springs is still viewed as a community focal point due to the two commercial uses, the municipal building and the post office all found near this intersection. Redevelopment of the historic structures in this vicinity could enhance this village's identity as the community commercial center.

Opperman's Corner

The northwest corner of the intersection of Routes 113 and 401 was the site of a general store dating from 1871. It was owned by David Opperman and was known as the first store in the vicinity to carry ice cream. It operated until 1959 at which time it was demolished as part of a road improvement project. Opperman's Corner was also the site of a cooperative creamery that operated between 1882 and 1907.

Opperman's Corner will always be a focal point due to the intersection of the two largest roads through the Township. Minor commercial enterprises are located on three of the four corners and the historic buildings lining the north and east legs of the intersection provide an interesting context for additional uses.

Anselma Mill

The first grist mill in the Township was constructed here in 1747. It developed as a commercial center and at one point supported the County's second largest creamery, as well as grist mills, a general store and post office, the Franklin Hall School, and a train station. The grounds of the general store were well known as the location of tractor sales events held during the 1930s and 1940's. The decline of the railroad led to the decline of the community and there is little left to give evidence to this once important commercial area. A grist mill, along with several key historic homes, still stand in this area and together they serve as important reminders of the Township's historical development. This village has also been designated a certified local historic district.

The Township is partnering with other agencies in protection of this site. Preservation of the mill may be viewed as a key step in protecting the entire village area potentially as an historical park.

Historical and Cultural Preservation Measures

Historic preservation can take many forms and should not be limited to any one approach. Historic and cultural resources can be protected through the use of federal and state preservation programs, through private efforts, and through local planning and regulatory techniques. West Pikeland Township has pursued several approaches and as a result, many key resources are subject to some level of protection. Education and citizen involvement are key components to the success of most approaches since awareness of the cultural significance is a necessary first step. The following is a brief description of preservation approaches used to protect West Pikeland's resources.

National Register of Historic Places

The National Register of Historic Places is a comprehensive listing of districts, sites, buildings, structures and objects of historical or cultural significance. The National Park Service maintains the National Register at the federal level but the program is administered largely at the State level through the Pennsylvania Historical and Museum Commission, which serves as the State Historic Preservation Office. Listing in the National Register is honorary and does not affect the rights of the property owner. Use or alteration of the property is not limited or hindered in any way. A property listed in or determined eligible for the National Register is afforded some level of protection from federally funded projects through the Section 106 review process.

The properties listed on the National Register of Historic Places in West Pikeland Township are as follows:

Clinger-Moses Mill Complex listed July 17, 1980
(located north of Lower Pine Creek Road just north of Horseshoe Trail)

Fagley House listed May 3, 1976
(located off Art School Road just south of the Township boundary)

Good News Buildings (Yellow Springs Spa) listed May 27, 1971
(located at the intersection of Yellow Springs and Art School Roads)

Johannes Hench Farm (Rice-Pennypacker) listed on August 21, 1986
(located on Clover Mill Road just south of the Township boundary)

Lightfoot Mill listed on April 13, 1973
(located on Route 401 at Anselma)

These historic resources, along with those determined to be eligible for inclusion in the National Register by essentially meeting the evaluation criteria, should constitute much of the focus of preservation efforts. Although listing in the National Register does provide some measure of protection from federally funded projects, it does not hinder private actions and to protect these sites from major alterations or demolition, local action should be taken. Historical preservation can take many forms and the Township should consider a range of measures that foster the protection of important sites.

Certified Local Historic District (Act 167 District)

Certified historic districts are those established by local ordinance under the auspices of Act 167, the Historic District Act (1961) and “certified” by the Pennsylvania Historical and Museum Commission. Certification means that the district has been determined eligible for the National Register of Historic Places and authorization has been given to protect the character of the district through regulatory means. Act 167 enables municipalities to regulate the erection, reconstruction, alteration, restoration, demolition or razing of buildings within the district boundaries. Only properties in historic districts established in accordance with the provisions of Act 167 and certified by the Pennsylvania Historical and Museum Commission can be the subject of this type of review. An historical and architectural review board (HARB) must be established and contain at least five members comprised of a registered architect, licensed real estate broker, the municipal building inspector and at least two others with interest or knowledge of local history or historic preservation.

West Pikeland Township has two certified local historic districts. The Chester Springs Historic District was established July 11 of 1973 and the Anselma Mill Historic District was established

May 1, 1985. West Pikeland Township’s historical and architectural review board is responsible for reviewing requests for alterations and modifications of buildings within these districts and advising the Board of Supervisors on the appropriateness of proposed construction activity. Certified local historic districts are an important means of protecting historic resources and should be supported by the Township.

Private Preservation Efforts

Private, non-profit organizations can play an important role in protecting historic and cultural resources. They serve as repositories for information, sources of technical assistance, and administrators of grant funds, advocates for historic preservation and in many cases, own and manage natural lands and historic properties. The three organizations most prominent in West Pikeland Township are the French and Pickering Creeks Conservation Trust, Inc., Historic Yellow Springs, and the Natural Lands Trust. These organizations are responsible for preserving sites of environmental and historical importance and the Township should continue to support their efforts.

There are also many private landowners in the Township that have exhibited a high commitment to protecting historic resources through the preservation of their own properties. Many of the landowners have been diligent in preserving the facades and overall architectural character of the homes and outbuildings. In many cases, this high degree of commitment has resulted in the sale or donation of conservation easements that permanently protect historic and natural features. The use of conservation easements is an important preservation tool and the Township should encourage its use, with the help of conservation organizations.

PLANNING IMPLICATIONS

- The natural and environmental qualities of West Pikeland Township are recognized and valued throughout the region. The rolling hills and forests, along with scenic farmsteads and hamlets, create a rural character that is quite rare in suburban areas. Protecting these unique characteristics through regulatory measures that prioritize the protection of the Township’s natural and cultural resources, should be the focus of future zoning updates.
- The natural and environmental resources of West Pikeland Township, specifically the geology and topography, limit to a significant extent, the type of development that can be sustained. Although the underlying geology can certainly support development, the steep slopes found throughout the Township limit the density. Future land use must be carefully considered and new development should be directed to those areas where it will have the least amount of environmental impact.
- The underlying bedrock is hard and dense, and consequently does not yield large supplies of groundwater. As development continues, the Township needs to ensure that adequate potable water remains available to serve present residents and that new development does not create excessive demands that cannot be met. New development should be directed to those areas served by public facilities and specifically designated as growth areas.
- Despite the rapid decline of the agricultural industry in the Township over the past two decades, crop farms, dairy farms and horse farms are still operational. To support the continuation of this historically important industry, and to retain the open space created by cropland and pastureland, the Township should consider agricultural zoning.
- Both the Pickering and the Pine Creeks are currently designated as High Quality waters by the Commonwealth of Pennsylvania and may eventually be eligible for designation as Exceptional Quality

waters. Monitoring the water quality of these creeks should be an on-going activity of the Township in order to prevent the irreversible loss of these valuable natural and scenic resources.

- ❑ Many physical reminders of West Pikeland’s early settlement patterns still remain and many of these historic structures are still found within their original contexts. To prevent the gradual loss of these key resources, the Township should survey and document the remaining resources, and use the information as the foundation for a village preservation program.
- ❑ The type and extent of environmental and historic resources present in any given area should be key considerations in the formation of the future land use plan and map. The Township’s growth boundary should serve to protect fragile resources and direct growth to locations where natural systems can support such development.
- ❑ West Pikeland has adopted a certified local historic district ordinance to preserve the villages of Yellow Springs and Anselma. The designation of local districts can be a powerful tool in the protection of historic areas and this tool should be used to its maximum extent to obtain full benefit.
- ❑ The historic farmhouses, outbuildings and other remnants of the cultural landscape that contribute to the Township’s rural character are being lost to new residential development. The regulatory mechanisms available through the subdivision and land development ordinance and zoning ordinance should be used to protect these resources and encourage their incorporation into development plans.

