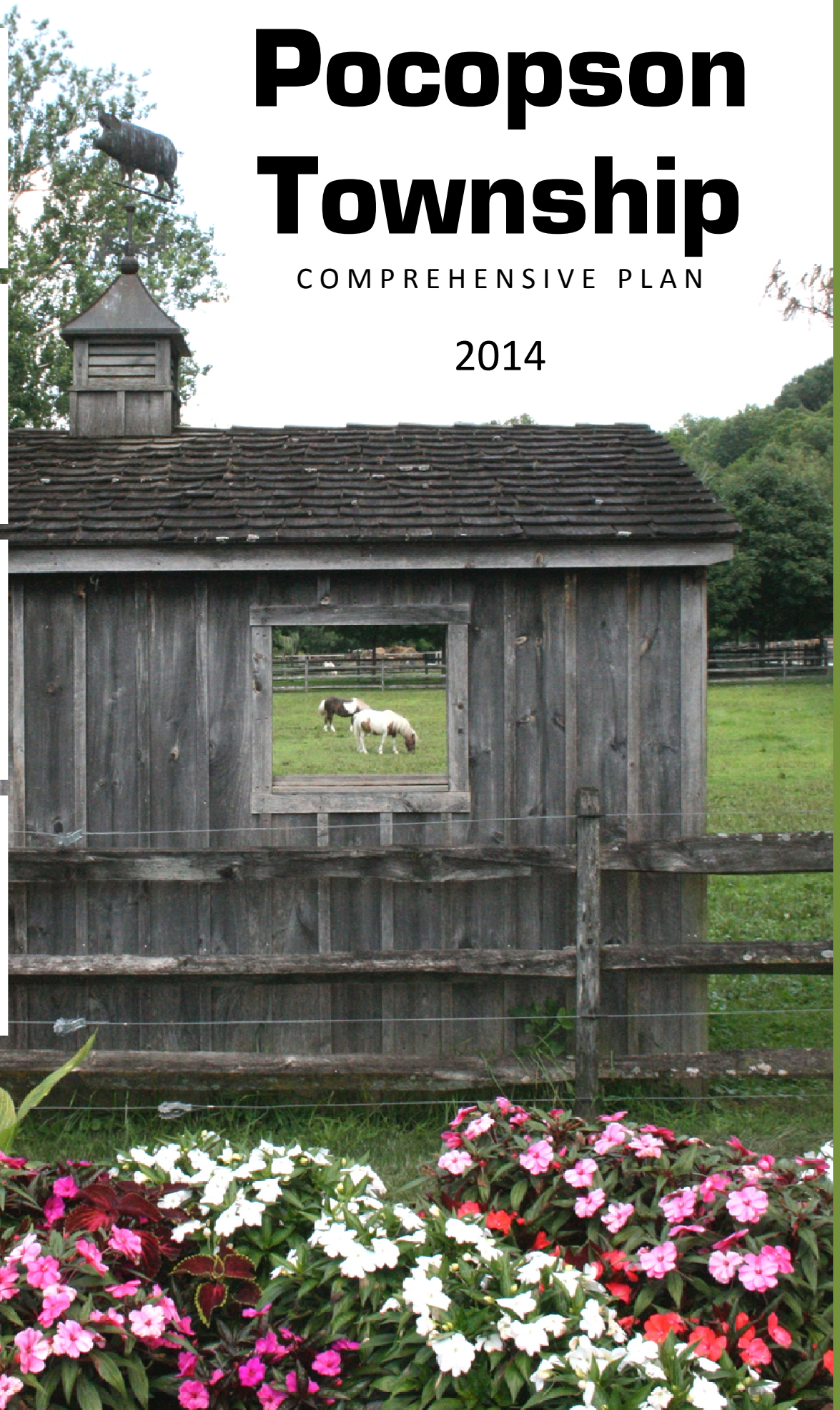
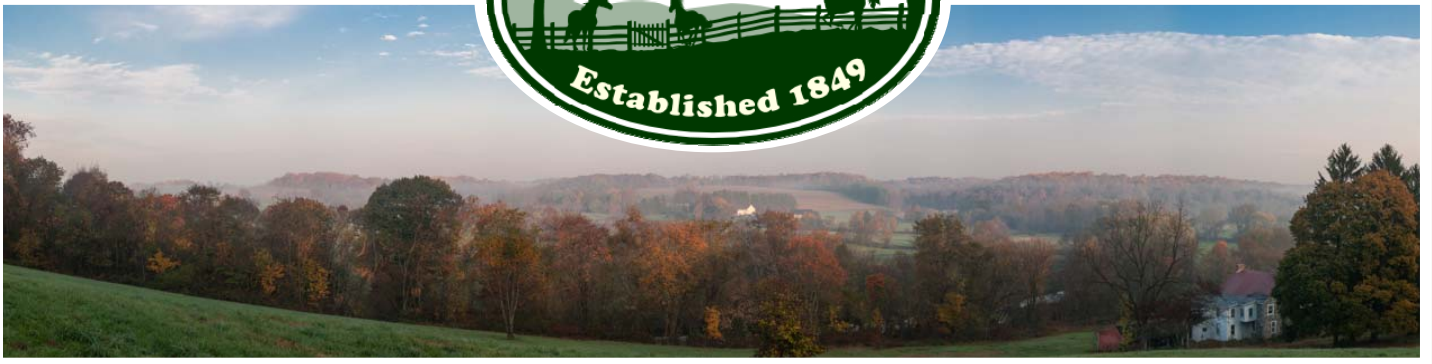


Pocopson Township

COMPREHENSIVE PLAN

2014





Pocopson Township Comprehensive Plan Task Force

Ricki Stumpo	Board of Supervisors
Suzanne Breiseth	Planning Commission
Steve Simonson	Planning Commission
Meg Johnson	Planning Commission
Barney Leonard	Planning Commission
Kathy Miller	Resident
Don Lane	Resident
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POCOPSON TOWNSHIP COMPREHENSIVE PLAN CHESTER COUNTY, PENNSYLVANIA

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This Plan was prepared by the Township and is a product of the Township. Technical planning assistance was provided by the Chester County Planning Commission:

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Funding was provided by Pocopson Township and through the Chester County Vision Partnership Program, sponsored by the Chester County Board of Commissioners.

This Plan has been prepared in conjunction with the principles of Chester County's comprehensive policy plan, *Landscapes2*, as a means of achieving greater consistency between local and county planning programs.

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POCOPSON TOWNSHIP COMPREHENSIVE PLAN

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Mapping Sources

Data for mapping primarily originated within the County of Chester. Data sources outside of the County of Chester are as follows:

Floodplain (4-1)	FEMA, 2006
Non-Attaining/Impaired (4-1)	PADEP, 2010
Alluvial Soils (4-1)	U.S. Department of Agriculture, Natural Resources Conservation Service, 1997
Geology (4-2)	U.S. Geological Survey, 1996
Class I, II and II Soils (4-3)	U.S. Department of Agriculture, Natural Resources Conservation Service, 2007
PNDI Sites (4-4)	Nature Conservancy, West Chester University Center for GIS and Spatial Analysis for PA Natural Heritage, 1994
Hydric Soils (4-4)	U.S. Department of Agriculture, Natural Resources Conservation Service, 1997
Wetlands (4-4)	U.S. Department of the Interior, Fish and Wildlife Service, National Wetlands Inventory, 1979; and Anderson Land Use, 2005
Historic Resources (5-1)	Pennsylvania Historic and Museum Commission, 2013; Pocopson Historic Resource Atlas, 2012
Scenic Resources (5-2)	Pocopson Comprehensive Plan Taskforce, 2013
PA Scenic River Corridor (5-2)	Penn State Environmental Resources Research Institute, Pennsylvania Department of Environmental Protection, National Park Service, 1996

Mapping for the Comprehensive Plan is a product of the Chester County Planning Commission. Base mapping was digitally compiled for internal maintenance and use by the County of Chester, Pennsylvania. Parcel lines do not represent actual field surveys of premises. County of Chester, Pennsylvania makes no claims as to the completeness, accuracy or content of any data contained hereon, and makes no representation of any kind, including, but not limited to, the warranties of merchantability or fitness for a particular use, nor are any such warranties to be implied or inferred, with respect to the information or data furnished herein.

Acronyms

ACS	American Community Survey
ADT	Average Daily Traffic Volume
AGREM	Avon Grove Regional Emergency Management

ALPB	Agricultural Lands Preservation Board
ALS	Advanced Life Support
ASA	Agricultural Security Area
BLS	Basic Life Support
BTU	British Thermal Units
C2P2	Community Conservation Partnership Program
CCHPN	Chester County Historic Preservation Network
CIP	Capital Improvement Program
CLG	Certified Local Government
CMP	Corridor Management Plan
CSA	Community Supported Agriculture
DELCORA	Delaware County Regional Water Quality Control Authority
DES	Department of Emergency Services
DOE	Determination of Eligibility
DVRPC	Delaware Valley Regional Planning Commission
EAC	Environmental Advisory Council
EMT	Emergency Medical Technician
EOP	Emergency Operations Plan
EPA	United States Environmental Protection Agency
EV	Exceptional Value (PADEP designation)
FEMA	Federal Emergency Management Agency
GHG	Greenhouse Gas
GIS	Geographic Information Systems
HARB	Historic Architectural Review Board
HOA	Homeowners Association
HOP	Highway Occupancy Permit
HQ	High Quality (PADEP designation)
HVAC	Heating, Ventilation, and Air Conditioning
JARC	Job Access and Reverse Commute
KURC	Kennett Underground Railroad Center
LEED	Leadership in Energy and Environmental Design
LEED-ND	Leadership in Energy and Environmental Design – Neighborhood Design
MAP-21	Moving Ahead for Progress in the 21 st Century – 2012 Federal transportation funding bill
MPC	Pennsylvania Municipalities Planning Code
MS4	Municipal separate storm sewer system
MTCO ₂	Metric Tons of CO ₂ equivalent
NHL	National Historic Landmark
NHPA	National Historic Preservation Act
NIMS	National Incident Management System
NJDOT	New Jersey Department of Transportation
NPDES	National Pollutant Discharge Elimination System
NRCS	United States Natural Resource Conservation Service
NRPA	National Recreation and Park Association
NWI	National Wetlands Inventory
OXREM	Oxford Regional Emergency Management
PADCED	Pennsylvania Department of Community and Economic Development
PADCNR	Pennsylvania Department of Conservation and Natural Resources
PADEP	Pennsylvania Department of Environmental Protection
PCTI	Pennsylvania Community Transportation Initiative

PennDOT	Pennsylvania Department of Transportation
PHMC	Pennsylvania Historical and Museum Commission
PNDI	Pennsylvania Natural Diversity Inventory
PV	Photovoltaic
RULWA	Recreation Use of Land and Water Act
SCCOOT	Southern Chester County Organization on Transportation
SECCRA	Southeastern Chester County Refuse Authority
SEPTA	Southeastern Pennsylvania Transportation Authority
SHPO	State Historic Preservation Office
SLDO	Subdivision and Land Development Ordinance
TAP	Transportation Alternatives Program
TDR	Transfer of Development Rights
TII	Transportation Improvements Inventory
TIP	Transportation Improvements Program
TMACC	Transportation Management Association of Chester County
TMDL	Total Maximum Daily Load
TSF	Trout Stocked Fishery (PADEP designation)
UCFSD	Unionville Chadds Ford School District
USGS	United States Geological Survey
VPP	Vision Partnership Program
WWF	Warm Water Fishery (PADEP designation)

Introduction

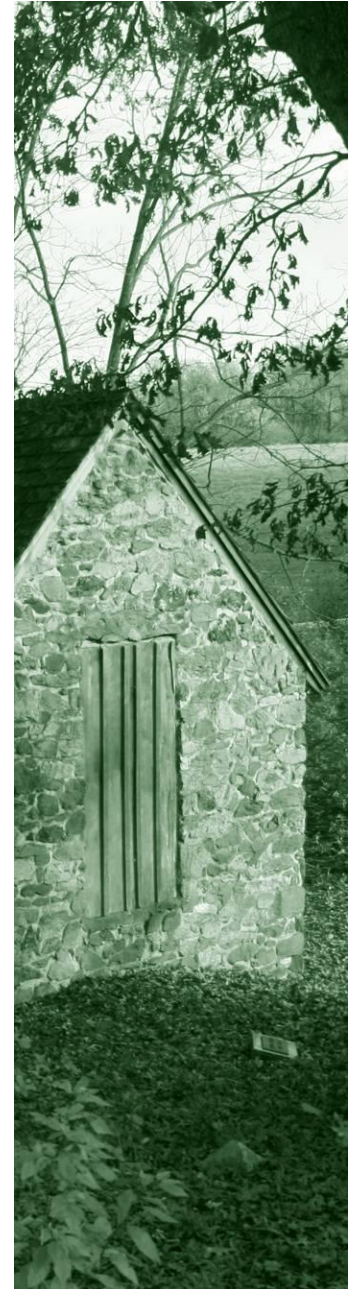
The population of Pocopson Township grew substantially (37 percent) between 2000 and 2010. As a community with many scenic and historic resources, a strong park, open space and trail network, and award winning school district – all within commuting distance to many employment options – the Township will continue to be a place that attracts growth, particularly families. With the 2001 Comprehensive Plan, regulatory ordinances, and a focus on open space, parks, and trails over the past two decades the Township has taken a proactive approach to its own growth management, and should remain prepared to respond to regional development pressure. Planning for an appropriate level of development where it can be accommodated, while simultaneously protecting sensitive resources and community character, will help meet the challenges of the coming decade.

The purpose of this Comprehensive Plan is to guide future decisions by delineating the policies – goals and objectives - on which those decisions will be based. These policies are developed through the comprehensive planning process, and informed by factors affecting the community. These factors include existing land uses, natural resources, the transportation system, historic resources, and community facilities. The assessment of existing conditions and creation of policies together leads to the development of specific recommendations to achieve the goals and objectives for Pocopson Township.

Pocopson's most recent Comprehensive Plan was adopted in 2001. The Zoning Ordinance and Subdivision and Land Development Ordinance were both recodified in 2005 and amended multiple times since 2005. The Community Trails Master Plan was adopted in 2010. This Comprehensive Plan update incorporates information and actions from these prior planning efforts while providing a focused vision for the Township for the coming decade.

This chapter addresses the following:

- Process
 - Contents
 - Public Participation and Plan Adoption
 - Implementation
- Regional Setting and Influences
- Relationship to Landscapes²



Process

The comprehensive planning program was lead by an eight member task force consisting of one representative of the Board of Supervisors, the majority of the Planning Commission, and Township residents. The task force met on a monthly basis beginning in the spring of 2012 through early 2014 to compile, analyze and evaluate pertinent data affecting land use, housing, transportation, recreation, community facilities, and resource protection in the Township. One public meeting was held in March 2013 by the Comprehensive Plan Task Force, with an additional public meeting being held by the Planning Commission in 2014, as mandated by the Municipalities Planning Code. Technical assistance was provided by the Chester County Planning Commission.

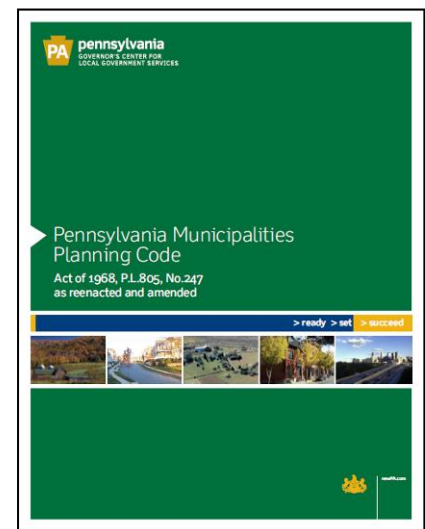
This comprehensive planning process began with a review and evaluation of the area's demographic characteristics. Goals and objectives were developed early and refined throughout the process. Inventory information was gathered for the individual topic areas, followed by discussion on needs and desired outcomes. Plans and specific recommendations were then developed and reviewed. From those plans and recommendations an implementation plan was developed.

Contents

The Comprehensive Plan was completed in compliance with the provisions of Article III of the Pennsylvania Municipalities Planning Code (MPC), Act 247 of 1968, as reenacted and amended. This legislation enables municipal land use controls in Pennsylvania and provides the framework for developing and implementing plans and land use regulations. It specifically enables municipalities to produce and adopt comprehensive plans to regulate development through the use of various regulatory tools including zoning and subdivision and land development ordinances. The required contents of a comprehensive plan are specified in Section 301 of the MPC.

Key components to this Plan include background and policies (chapters 1 – 3), topical areas inventory and recommendations (chapters 4 – 11), and implementation strategies (Chapter 12). Topic areas addressed in this Plan include:

- Natural Resources
- Historic and Scenic Resources
- Transportation and Circulation Systems
- Community Facilities and Services
- Parks, Recreation, and Open Space
- Land Use
- Housing



The Pennsylvania Municipalities Planning Code (MPC) is also referred to as Act 247 of 1968.

Chapter 12, Implementation Strategies, provides summary tables of all preceding recommendations, including detail on priority and responsibility. Additionally, Chapter 12 provides a narrative implementation framework, which notes three overarching points of focus for the Township's implementation of the Comprehensive Plan:

- Future Land Use Plan,
- Historic Resources, and
- Regional Greenway.

Public Participation and Plan Adoption

A critical component of a comprehensive planning process is resident input and participation. The task force consisted of representatives from the Township who collectively presented their issues and concerns for discussion and incorporation. They represented a range of views on planning issues, thus providing for broad input on the issues. The task force typically held monthly meetings (which were open to the public), and held one public meetings in March 2013.

MPC procedures regarding a Planning Commission public meeting (April 2014) and Board of Supervisors public hearing prior to adoption were followed. All public meetings and the hearing were held pursuant to public notice as required by the MPC. The Pocopson Township Comprehensive Plan was adopted in accordance with the provisions stipulated in the MPC.

Implementation

The Comprehensive Plan is a policy document developed to define the Township's future vision and make recommendations to achieve that vision. The recommendations are to be implemented through various means by different Township entities, individually and in a joint effort, in an organized and coordinated manner consistent with local goals. Many recommendations can be implemented through updates to land use regulations, while others can be implemented through special programs, administrative activities and planning activities. The final chapter of this Plan assigns priorities, responsibilities, and timelines to each recommendation in the Plan. Achieving the vision of the Comprehensive Plan requires a commitment to the implementation by the Board of Supervisors, Planning Commission and other Township entities. The planning horizon for the Pocopson Township Comprehensive Plan is ten years.

Regional Setting and Influences

Pocopson Township is located to the southwest of West Chester and northeast of Kennett Square, putting it within commuting distance to major employment centers along the Route 202 corridor, in Philadelphia, and in northern Delaware (see Map 1-1). The townships of East Bradford, Birmingham, Pennsbury, East Marlborough, Newlin, and West Bradford share boundaries with Pocopson Township. Brandywine Creek is an important feature to the Township, serving as its northern and eastern boundaries. This allows for convenient access to the Brandywine for recreational users, but also creates the need to be prepared for flooding during storm events.

As a whole, Pocopson and its surrounding municipalities have experienced strong growth in recent decades, although it has ranged greatly municipality to municipality. In the 1990s, Pocopson had only three percent growth while Birmingham had 60 percent growth. Between 2000 and 2010, Pocopson led the area with 37 percent growth while Birmingham's population was virtually unchanged. In the coming decades growth is forecasted to continue to be strong across these townships, but variable individually, with East Marlborough leading the area and expected to attract 44 percent more residents by 2040. In contrast, Pocopson's forecast calls for 23 percent growth between 2010 and 2040.

Pocopson is not crossed by the major highways of the area, such as Route 1 and Route 202. However Route 52 and Route 926 cross through the southern portion of the Township and provide quick access to Route 1, West Chester, and the Kennett area. Route 842 through northern Pocopson Township provides access to West Chester. Commercial services and employment opportunities are limited within the Township, so the transportation network is critical to accessing opportunities within the broader region. Bridges provide key links in the transportation network for the major roadways in Pocopson as they cross Brandywine Creek.

A significant portion of Pocopson Township – one-third of its acreage as of 2013 – is protected open space. These lands provide residents with a community park, many trails, and expansive open space to enjoy, while more intense commercial and industrial uses are found in neighboring municipalities. Pocopson Elementary School is found within the Township, but many other community facilities are beyond, such as fire and police stations, hospitals, and secondary education facilities.

Relationship to *Landscapes*²

Chester County's Comprehensive Policy Plan *Landscapes*², adopted in 2009, designates the northern portion of Pocopson Township as a Rural landscape (see Figure 1-1). The southern portion is largely Suburban, and the Natural Landscape overlay generally follows the stream valleys. The areas surrounding Pocopson are

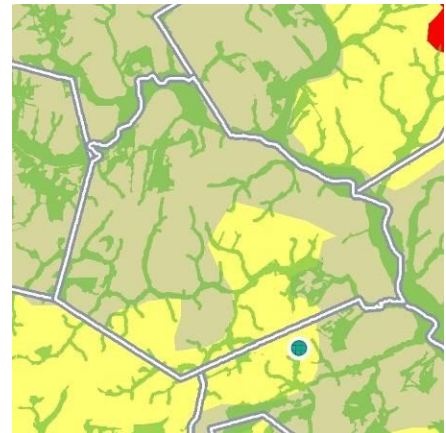
largely Rural and Suburban, with lands designated as Agricultural to the west. These countywide categories are defined as follows.

The Rural landscape, a Rural Resources Area, is appropriate for conservation and preservation activities. This landscape is currently characterized by open space dominated by woodland and other open areas. It contains agriculture and scattered residential lots and subdivisions on relatively large lots or with protected common open space. There is an auto-oriented land use pattern with limited non-residential uses. Development is primarily served by on-lot sewer and water systems. Moving forward, the area should continue to be much the same, with development limited in scale and intensity and buffered by open space. Current uses in the northern portion of Pocopson Township are highly reflective of these descriptions, with components of both the existing condition description and the future vision.

The Suburban landscape is one of three landscapes (also including Urban and Suburban Center) that make up the County's Growth Areas. Suburban landscapes are currently dominated by the built environment and have an auto-oriented transportation network. These areas are primarily served by public water and sewer systems and are characterized by residential subdivisions. Moving forward, the Suburban landscape is targeted for substantial future growth, with opportunities for redevelopment, improvements to the transportation network to make it more multi-modal, and a more diverse mix of uses. Open space should provide for recreation and natural resource conservation in an interconnected system. Current uses along the Route 52 corridor are highly reflective of these descriptions, with components of both the existing condition description and the future vision.

The Natural landscape is an overlay that contains the highest concentrations of important natural resources such as streams, floodplains, and forests. These resources are essential elements of the physical environment and the foundation for the livability of all landscapes. The Natural landscape overlay does not preclude all development or agricultural operations, but indicates major areas of natural resources that should be protected or subject to limited disturbance. The Natural landscape overlay generally follows the stream corridors of Pocopson Township and other limited areas of significant natural resources.

Figure 1-1: Landscapes2 Designations



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CHAPTER 2

GOALS AND OBJECTIVES

Introduction

The goals and objectives outlined in this chapter together form the planning policies for Pocopson Township. These policies serve as the framework for actions that are recommended to realize the future vision for the Township. The policies were developed by the Pocopson Comprehensive Plan Task Force.

For the purposes of this Comprehensive Plan, goals, objectives, and policies are defined as follows:

Goals – Establish the overall direction for preserving and enhancing the most desirable and positive aspects of the general community.

Objectives – More specific purpose statements that, if accomplished, will achieve the larger planning goal.

Policies – The goals and objectives together represent the planning policies for Pocopson Township.

The goals and objectives have been organized into the following categories:

- Land Use
- Housing
- Natural Resources
- Historic and Scenic Resources
- Transportation and Circulation
- Community Facilities and Services
- Parks, Recreation, and Open Space
- Energy
- Regional Cooperation and Planning



Goals and Objectives

In addition to goals and objectives specific to resource areas (such as land use and housing), an overall goal for Pocopson Township was developed to facilitate the comprehensive planning process:

Preserve and enhance the fundamental character of the Township – rural and suburban development with a focus on natural, historic, and scenic resources – while allowing for development of infrastructure, housing, and other uses at a scale and rate adequate to meet anticipated needs.

Land Use

Goal

Plan for and manage the use of land in a manner that provides for a balanced range of uses, meets the needs of current and future residents, and establishes a balance among resource protection, preservation of community character, and growth.

Objectives

- Provide for growth in appropriate areas, through new development and redevelopment, as supported by the necessary infrastructure.
- Encourage development in a rural village pattern.
- Provide for a variety of residential development patterns that are compatible with existing land use and can be supported with available infrastructure.
- Protect agriculture, natural resources, and open space through the use of regulatory provisions.
- Require minimization of impacts to significant historic and scenic resources as an integral part of all land use development design.
- Require provision of open space as an integral part of all land use development design.
- Promote economically viable and environmentally sustainable agriculture as an important land use and industry within the community.
- Maintain the existing pattern of commercial and industrial development, which complements the Township's character and is based on the availability of supporting infrastructure.



- Ensure regulatory controls support the land use policies of this Plan.
- Ensure that regulatory design standards for commercial, industrial, and institutional development are current with accepted best practices.
- Promote sustainable land use and building practices.

Housing

Goal

Provide for adequate, safe, and diverse housing to accommodate current and future residents in a manner consistent with the existing character of Pocopson and supported by necessary infrastructure.

Objectives

- Ensure that regulatory controls permit a range of housing types and densities to meet the diverse needs of current and future residents in a manner compatible with the overall character of the community.
- Ensure that regulatory controls permit and encourage a sustainable approach to neighborhood design.
- Direct new housing development to appropriate areas and promote a mix of uses where feasible.
- Support the viability of existing housing stock and neighborhoods.
- Ensure equal access to housing for all members of the protected classes under the federal Fair Housing Act and other applicable anti-discrimination legislation.

Natural Resources

Goal

Protect, restore, and maintain natural resource features, landscapes, and functions to sustain ecosystems, public health, and quality of life.

Objectives

- Ensure regulatory controls preserve and protect natural resources throughout the development process.
- Protect water quality and quantity through regulation of surface waters, groundwater, wetlands, floodplains, and riparian buffers.
- Promote innovative stormwater management and wastewater disposal that emphasize the recharge of groundwater and water balance.
- Limit the disturbance of land resources such as steep slopes and woodlands to minimize runoff, prevent degradation of water quality, encourage biological diversity, and maintain the character of the Township's landscapes.



- Preserve and protect areas that provide wildlife habitat and natural diversity, such as stream valleys, steep slopes, floodplains, woodlands, and wetlands.
- Protect and maintain natural resources by supporting related public education and other non-regulatory efforts.

Historic and Scenic Resources

Goal

Preserve, protect, and enhance the integrity of historic and scenic resources and their settings.

Objectives

- Maintain a database that defines, inventories, maps, and prioritizes historic resources within the Township.
- Maintain a database that defines, inventories, and maps scenic resources within the Township.
- Define and identify items that may visually impair the landscape, such as inappropriate signage, lighting, parking, and utility infrastructure, to minimize their negative impacts.
- Ensure regulations minimize the impact of development on historic and scenic resources.
- Encourage the maintenance, rehabilitation, restoration, and adaptive reuse of historic resources.
- Protect and maintain historic and scenic resources by supporting related public education and other non-regulatory efforts.



Transportation and Circulation

Goal

Promote a safe, effective, and diversified circulation system that addresses current and future needs in coordination with land use planning.

Objectives

- Maintain a roadway network that safely and effectively accommodates vehicular traffic while supporting other community objectives.
- Ensure roadway classification and design standards reflect current and anticipated use and setting.
- Manage roadway design, speed, volume, and safety in and around areas with increased pedestrian activities, such as schools and parks.
- Ensure road design standards are appropriate for new development.

- Participate in opportunities to advocate for local transportation improvements.
- Ensure that existing transportation facilities such as roadways and bridges are properly maintained.
- Promote public transportation, carpooling and ride sharing techniques to lessen the burden on Township roadways.
- Enhance opportunities for pedestrian and bicyclist mobility and safety within the Township.

Community Facilities and Services

Goal

Provide appropriate types and levels of community facilities and services that are commensurate with the residents' needs in a manner that is both cost effective and environmentally appropriate.

Objectives

- Provide government services in an efficient and cost effective manner.
- Maintain a capital budget that addresses long-term capital improvement needs throughout the Township.
- Explore intermunicipal provision of services.
- Maintain open communication with Township residents and businesses through the Township website, newsletter, and other media.
- Coordinate with Chester County Department of Facilities to ensure that County owned and maintained facilities are consistent with Township policies.
- Ensure adequate and safe sewage disposal throughout the Township.
- Prepare and maintain comprehensive sewage facilities plans.
- Ensure adequate and safe water supply throughout the Township.
- Support public water service in appropriate areas.
- Ensure that solid waste disposal and recycling services and facilities are available to Township residents.
- Ensure proper management of stormwater runoff through regulations that are current with evolving technology.
- Encourage use of stormwater Best Management Practices, green infrastructure, and other voluntary measures to reduce runoff and encourage infiltration and groundwater recharge.
- Support the provision of communication infrastructure that meets residential, business, and institutional needs in a manner that protects residents' interests.
- Support an emergency services system that protects the health and safety of residents.
- Support continued quality education opportunities and facilities.
- Support the programs of area public libraries.
- Support quality health care services and human service programs.



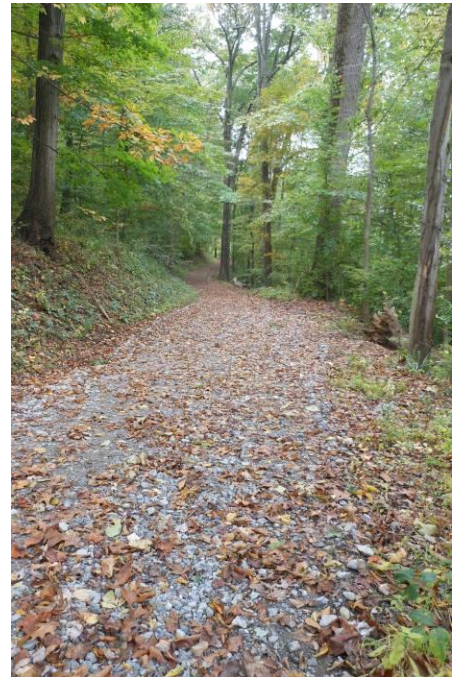
Parks, Recreation, Trails and Open Space

Goal

Promote the establishment and maintenance of, and programming for, a network of park and recreation facilities, and permanently protect open space, to provide public health, ecological, economic, and quality of life benefits in a manner that is both cost effective and environmentally appropriate.

Objectives

- Provide sufficient publicly-owned and managed parks, recreation facilities, trails, and open space to provide a variety of active or passive recreation opportunities.
- Provide for continued maintenance and improvements to existing parks, recreation facilities, trails, and open space to ensure adequate recreational areas for residents.
- Require developers to help meet the increased demand for public recreation created by new development.
- Encourage recreation programming that serves all segments of the population.
- Pursue public and private grants and funding sources for recreation while continuing to dedicate municipal funding for recreation capital improvements, maintenance, programming, and other necessary costs.
- Establish a township-wide greenway network and identify priority parcels with critical linkages or significant historic or natural resources that should be permanently protected.
- Encourage the preservation of critical natural, historic, and scenic resources in permanently preserved open space.
- Encourage the preservation of, and funding for, protected open space in appropriate areas by landowners, public agencies, and non-profit organizations.
- Balance the protection of resources on open space with the desire for public access and recreation.
- Ensure that open space protection efforts include planning and funding for the long-term maintenance of the property and, if needed, the restoration of the property.
- Provide fiscally responsible security, safety, and liability for public recreational facilities in perpetuity.
- Support recreation programming to meet the needs of the community.
- Pursue joint public-private recreation initiatives, and support private and institutional entities that provide community recreation opportunities such as organized team sports, community events, active recreation areas, and school related play and athletics.
- Coordinate park, recreation, and open space planning on a regional basis.



Energy

Goal

Encourage energy conservation and the effective utilization of renewable energy resources to reduce energy costs and environmental impacts.

Objectives

- Encourage the development, distribution, and use of alternative fuels and energy sources where appropriate, with a preference for those energy sources that are renewable, sustainable, and locally-generated.
- Promote the design and construction of subdivision and land development utilizing energy efficient, sustainable, and green technologies.
- Support the development and use of energy efficient technologies in residences and commercial, industrial, and institutional uses.
- Use energy efficient technologies and practices for Township facilities and equipment.

Regional Cooperation and Planning

Goal

Encourage communication and cooperative planning efforts with adjacent communities and other public or private entities.

Objectives

- Recognize that the boroughs of Kennett Square and West Chester and their immediate surroundings are the regional hubs serving Pocopson Township and encourage local commercial services to serve local rather than regional needs.
- Continue to work with the Kennett Area Region Planning Commission to achieve mutually beneficial goals.
- Coordinate with the Kennett Area Region Planning Commission and adjacent municipalities to cooperatively address issues that extend beyond municipal boundaries, such as land use patterns, transportation, recreation, and natural, historic, and scenic resources.
- Pursue cooperative arrangements with nearby municipalities for provision of services and the joint purchasing of supplies and equipment when mutually beneficial.
- Coordinate with private entities where interests overlap and potentially create mutually beneficial opportunities.

Conclusion

The goals and objectives identified above – the policies of Pocopson Township – are the foundation of Pocopson Township’s vision for its future. These policies provide a framework for future actions. This Comprehensive Plan is built on these policies, and recommends specific actions, as well as related strategies and tools, to implement the policies and achieve the vision for the future.

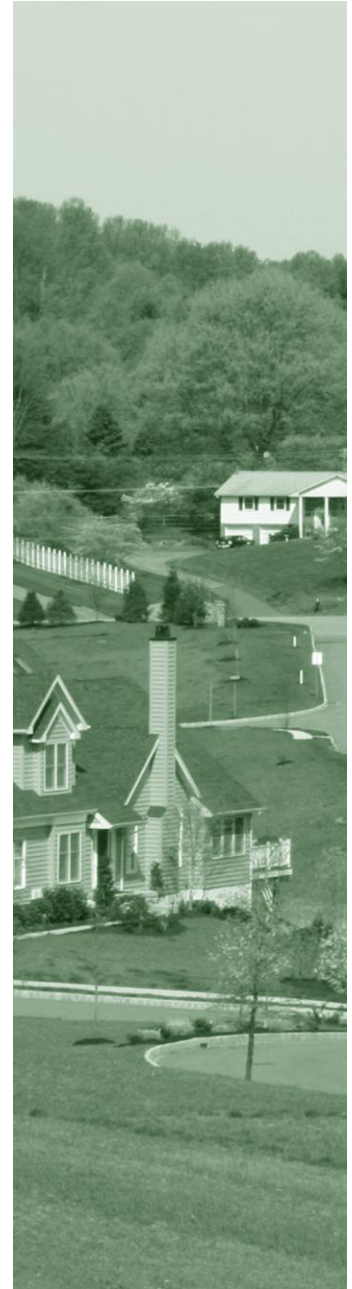
POPULATION AND ECONOMIC PROFILE

Introduction

The demographic profile of Pocopson Township provides a means of anticipating and planning for future growth and shifts in the population composition. Significant changes in population have implications for housing demand, land development, the need for facilities and services, and pressures on natural resources and open space. Age, household size, income, and similar data provide a snapshot of where Pocopson Township is now and helps to anticipate future trends.

This chapter analyzes the following information:

- Population Profile
 - Historic Population Trends
 - Population Forecast
 - Population by Race and Hispanic Origin
 - Age Distribution
 - Persons per Household
- Economic Profile
 - Income Levels
 - Education
 - Employment and Industry Characteristics



Population Profile

Population Trends

According to the 2010 United States Census, the population of Pocopson Township is 4,582 (Figure 3-1). The Township gained over 1,200 residents between 2000 and 2010, a much larger increase than in the 1990s (37 percent versus 3 percent). Population growth from 1990 to 2010 ranged widely among Pocopson Township and its surrounding municipalities. In the 1990s Birmingham Township experienced the highest percentage of growth (60 percent), while Pocopson was lowest at less than three percent. Between 2000 and 2010 these roles were reversed, with Pocopson experiencing the highest percentage of growth in the area (37 percent) and Birmingham losing a minimal number of residents (for a loss of less than one percent). The population density of Pocopson is lower than all of the adjacent townships except Newlin Township.

Figure 3-1: Population Levels, Growth, and Density 1990 - 2010

	1990	2000	Percent Change 1990 - 2000	2010	Percent Change 2000 - 2010	Population Density (persons per sq mile) 2010
Pocopson	3,266	3,350	2.6	4,582	36.8	255
Birmingham	2,636	4,221	60.1	4,208	-0.3	658
East Bradford	6,440	9,405	46.0	9,942	5.7	661
East Marlborough	4,781	6,317	32.1	7,026	11.2	450
Newlin	1,092	1,150	5.3	1,285	11.7	107
Pennsbury	3,326	3,500	5.2	3,604	3.0	364
West Bradford	10,406	10,775	3.5	12,223	13.4	659
Chester County	376,396	433,501	15.3	498,886	15.1	660

Source: U.S. Census Bureau

An important characteristic to address within Pocopson Township relative to population is the presence of the Pocopson Home and Chester County Prison. With respect to the U.S. Census, both facilities are considered group quarters and their populations are counted in that manner. Combined, these facilities housed nearly 1,200 people in 2010, approximately one-quarter of the Township's population. The population of the Township excluding the group quarters (identified as persons in households) was 3,392 in 2010. The majority of the group quarters population (72 percent) is male. The male population in the group quarters is predominantly between the ages of 18 and 64. The majority of the females are 65 years or older. Only limited information is available for the group quarters population. Further

details on the characteristics of those within the group quarters in comparison to those in households are noted in Figure 3-2.

Figure 3-2: Household and Group Quarters Population 2010

	Total	Persons in households	Persons in group quarters	Percent in group quarters*
Population	4,582	3,392	1,190	26.0
Male	2,556	1,694	862	33.7
Female	2,026	1,698	328	16.2
Age				
Under 18	1,002	970	32	3.2
18 to 64	2,907	1,999	908	31.2
65 and over	673	423	250	37.1

Source: U.S. Census Bureau

*Pocopson Home and Chester County Prison.

Population Forecast

Pocopson is expected to grow moderately between 2010 and 2040, gaining approximately 1,000 residents for 23 percent growth (see Figure 3-3). This growth is moderately less than is forecast for West Bradford, East Bradford, and East Marlborough townships, and slightly under the countywide forecast of 30 percent growth. The population size and forecasted growth for Pocopson is similar to that of Birmingham Township.

Figure 3-3: Population Forecast 2010 - 2040

	2010 Actual	2015 Forecast	2025 Forecast	2035 Forecast	2040 Forecast	Number Change 2010 - 2040	Percent Change 2010 - 2040
Pocopson	4,582	4,708	5,109	5,509	5,635	1,053	23.0
Birmingham	4,208	4,335	4,740	5,145	5,272	1,064	25.3
East Bradford	9,942	10,364	11,711	13,057	13,479	3,537	35.6
East Marlborough	7,026	7,393	8,565	9,737	10,104	3,078	43.8
Newlin	1,285	1,321	1,438	1,555	1,591	306	23.8
Pennsbury	3,604	3,664	3,857	4,049	4,109	505	14.0
West Bradford	12,223	12,692	14,189	15,686	16,155	3,932	32.2
Chester County	498,886	516,581	573,108	629,635	647,330	149,444	29.8

Source: Delaware Valley Regional Planning Commission Forecasts, 2012; US Census Bureau.

Population by Race and Hispanic Origin

Pocopson Township has a racial and ethnic composition similar to Chester County (see Figure 3-4). Pocopson is slightly different from the adjacent townships, likely due to the group quarters population.

Figure 3-4: Population by Race 2010

	Hispanic		White*		African American*		Asian*		Other/Two or More*	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Pocopson	201	4.4	3740	81.6	367	8.0	194	4.2	80	1.7
Birmingham	87	2.1	3,812	90.6	55	1.3	218	5.2	36	0.9
East Bradford	197	2.0	9,099	91.5	318	3.2	198	2.0	130	1.3
East Marlborough	326	4.6	6,266	89.2	94	1.3	252	3.6	88	1.3
Newlin	37	2.9	1,221	95.0	7	0.5	12	0.9	8	0.6
Pennsbury	51	1.4	3,372	93.6	23	0.6	113	3.1	45	1.2
West Bradford	249	2.0	11,130	91.1	356	2.9	313	2.6	175	1.4
Chester County	32,503	6.5	409,561	82.1	29,388	5.9	19,216	3.9	8,218	1.6

Source: US Census Bureau; *non-Hispanic or Latino.

Age Distribution

The age composition in Pocopson is similar to that of the County (see Figure 3-5). The distribution may be influenced by the large group quarters facilities owned by the County; however any impacts are minimal on the overall age distribution.

Figure 3-5: Age Distribution, Pocopson Township and Chester County 2010

Age Range	Pocopson Township		Chester County	
	Number	Percent of Population	Number	Percent of Population
Under 18	1,002	21.9	124,055	24.9
18 – 34	908	19.8	98,875	19.8
35 - 54	1,439	31.4	150,509	30.2
55 - 64	560	12.2	61,572	12.3
65 and over	673	14.7	63,875	12.8

Source: US Census Bureau.

Based on the median age, Pocopson has a younger population than most of the adjacent townships (see Figure 3-6). The median age of the County and surrounding townships went up from 2000 to 2010, but in Pocopson it stayed approximately the same. This may be partly due to turnover of residents in the group quarters.

Figure 3-6: Median Age 2000 and 2010

	2000	2010
Pocopson	41.1	40.7
Birmingham	41.1	44.8
East Bradford	36.9	40.2
East Marlborough	38.2	44.7
Newlin	41.9	47.2
Pennsbury	48.9	50.9
West Bradford	35.5	39.6
Chester County	36.9	39.3

Source: US Census Bureau.

Persons per Household

Pocopson has a slightly larger average household size than the County and most of the surrounding townships (see Figure 3-7). In the past decade average household size has been declining slightly or remaining about the same in Chester County. The trend in Pocopson Township was different from its neighbors by showing a slight increase. These data exclude the group quarters.

Figure 3-7: Average Household Size 2000 and 2010

	2000	2010
Pocopson	2.80	2.95
Birmingham	3.03	2.96
East Bradford	2.84	2.77
East Marlborough	2.92	2.69
Newlin	2.68	2.67
Pennsbury	2.41	2.42
West Bradford	2.98	2.96
Chester County	2.65	2.65

Source: US Census Bureau.

Economic Profile

Income Levels

Figure 3-8 identifies the median household income for Pocopson and its surrounding municipalities, as well as Chester County overall, as reported through the American Community Survey¹. Pocopson and its neighbors have a substantially higher median than the County, with Pocopson being second only to Birmingham. Pocopson's median household income is approximately 70 percent higher than the median household income for the County. These data exclude the group quarters.

Figure 3-8: Median Household Income

	2006 – 2010 Average
Pocopson	\$145,089
Birmingham	\$165,833
East Bradford	\$123,077
East Marlborough	\$118,295
Newlin	\$101,250
Pennsbury	\$122,381
West Bradford	\$102,535
Chester County	\$84,759

Source: US Census Bureau; American Community Survey, 2006-2010 Averages.

Pocopson and its neighbors have a lower poverty rate than the County overall (Figure 3-9). While it is a low percentage, it is important to recognize that 2.7 percent represents more than 120 Township residents living below the poverty level and facing severe economic and related hardships.

¹ The American Community Survey is an ongoing effort of the U.S. Census Bureau, a statistical survey that samples a small percentage of the population every year. Data from the American Community Survey are estimates based upon annual sampling of the population. The decennial census no longer provides detailed population and housing data as it did in the past. American Community Survey data is averaged over a five year period to account for the limited sample size in smaller areas such.

Figure 3-9: Percent of Persons below Poverty Level

	2006 – 2010 Average
	Percent
Pocopson	2.7
Birmingham	0.2
East Bradford	1.1
East Marlborough	1.5
Newlin	2.4
Pennsbury	1.1
West Bradford	2.3
Chester County	6.2

Source: US Census Bureau; American Community Survey, 2006-2010 Averages.

Education

Figure 3-10 summarizes the education levels of residents within Pocopson Township, surrounding townships, and Chester County overall. One distinct difference for Pocopson Township is a higher percentage of residents with less than a high school education (19.3 percent in Pocopson versus 7.5 percent in the County overall, even lower in the surrounding municipalities). Household characteristics in Pocopson are similar to the other townships in the area, so education levels of household residents would be expected to be similar. While the education levels of the group quarters population are not specifically known, the presence of the Chester County Prison and Pocopson Home are a likely reason for the lower education levels.

Figure 3-10: Highest Educational Attainment

Educational Attainment	Percent of Residents							
	Pocopson Township	Birmingham Township	East Bradford Township	East Marlborough Township	Newlin Township	Pennsbury Township	West Bradford Township	Chester County
Less Than High School	19.3	0.8	3.6	4.5	5.1	0.6	2.2	7.5
High School	24.9	9.7	11.3	15.2	23.9	14.4	23.2	24.2
Some College or Associate Degree	13.8	14.1	18.9	15.5	16	16	20.5	20.5
Bachelor's Degree	23.6	43.4	38.9	39.7	31.9	34.7	38.4	29.5
Graduate or Professional Degree	18.5	32.1	27.4	25	23.2	34.3	15.7	18.3

Source: US Census Bureau, American Community Survey, 2006-2010 Averages.

Employment and Industry Characteristics

Figures 3-11 and 3-12 summarize the employment of Pocopson Township residents. Figure 3-11 categorizes employment by the type of occupation, while Figure 3-12 categorizes employment by the type of industry. The majority of workers in Pocopson work in professional occupations, with many working in the education industry. Professional is also the largest occupational group in Chester County, but the percentage is substantially higher in Pocopson. Distribution of workers across the varying industries is generally similar between Pocopson Township and Chester County.

Figure 3-11: Employment by Occupation – Pocopson Township Residents

Occupation	Percent of Workers	
	Pocopson	Chester County
Professional	60.5	46.6
Services	8.4	12.2
Sales	22	25.4
Farming	0	1.1
Construction	6.7	7.1
Production	2.4	7.7

Source: US Census Bureau, American Community Survey, 2005-2009 Averages.

Figure 3-12: Employment by Industry – Pocopson Township Residents

Industry	Percent of Workers	
	Pocopson	Chester County
Construction	9.1	6.0
Manufacturing	14.5	12.4
Wholesale and Retail	11.5	14.9
Finance	10.8	10.1
Professional and Management	13.8	14.7
Education	28.0	21.2
Arts, Entertainment, and Food	6.3	6.4
All Others	6.0	14.3

Source: US Census Bureau, American Community Survey, 2005-2009 Averages.

NATURAL RESOURCES INVENTORY AND PLAN

Introduction

Pocopson Township adopted an Open Space, Recreation and Environmental Resources Plan in 1993, which included a detailed inventory of natural resources organized under the broad categories of water, land, and biotic resources. The 2001 Comprehensive Plan provided a limited inventory of natural resources information, and focused on recommendations to increase regulatory protections for natural resources. This chapter identifies the major natural resources found within the Township, their characteristics, and measures currently in place for their protection. This information provides a basis for a coordinated course of action for resource protection.

This chapter addresses the following topics:

- Inventory
 - Water Resources
 - Watersheds
 - Stream Designations
 - Floodplains
 - Land Resources
 - Geology
 - Slopes
 - Agricultural Soils
 - Biotic Resources
 - Woodlands
 - Wetlands
 - Natural Diversity
 - Resource Protection Measures
 - Regional Initiatives and Efforts
- Planning Implications
- Recommendations



Inventory

Water Resources

The creeks and streams throughout Pocopson Township have influenced development patterns and quality of life for centuries. Map 4-1 depicts the locations of streams within Pocopson Township and the surrounding area. Proper management of water resources to meet growing demands, minimize and mitigate runoff and flooding issues, avoid and minimize degradation, and improve water quality where needed is a complex and challenging task. An accurate understanding of the resources present is a critical first step in this task.

Watersheds

A watershed (or drainage basin) is an area of land, bounded by a ridge, which drains into a river or lake. Water flows from each ridgeline divide toward the stream within the basin. A portion of the precipitation that falls into a watershed becomes part of the area's streams and groundwater, while a percentage is transpired by plants or evaporated. The West Branch Brandywine Creek and further downstream, Brandywine Creek, form much of the northern and eastern boundary of Pocopson Township. As a result, Pocopson Township drains into either the West Branch Brandywine Creek or Brandywine Creek. The East Branch Brandywine Creek bisects East Bradford Township and joins the West Branch between the Route 842 and Route 52 crossings. Brandywine Creek, in turn, drains into the Christina River, which drains into the Delaware River. Figure 4-1 depicts the entire Brandywine Creek basin, from the upper reaches in Lancaster County to the outlet to the Christina River in Wilmington, Delaware, as well as the location of the basin relative to Chester County.

Within a watershed, stream ordering is used to classify streams. The smallest streams have no



Figure 4-1: Brandywine Creek Basin
Brandywine Creek extends from Lancaster County to Wilmington, Delaware.
Pocopson Township's location in the watershed is noted (*).

tributaries and are called first order streams. When two first order streams converge, they form a second order stream; when two second order streams converge, they form a third order stream, and so on. First and second order streams, or headwaters, are important from a planning perspective because their watersheds often contain critical recharge areas. Additionally, these streams exhibit very small flows and their water quality is highly vulnerable to impacts from pollutants and stormwater runoff. Brandywine Creek is a higher ordered stream, with multiple tributaries having contributed to its flow by the point it reaches Pocopson Township. While such streams have a better capacity to absorb pollutants or runoff, higher ordered streams also have the potential for more destructive flood events.



The East and West Branches of Brandywine Creek come together along Pocopson Township's eastern boundary.

With the West Branch and main stem of Brandywine Creek as a significant portion of the municipal boundary, some runoff drains directly into Brandywine Creek. However, significant portions of the Township still drain into first and second order streams. Pocopson Creek, a Brandywine Creek tributary, drains the southern portion of the Township and is fed by multiple first and second order streams.

Another important consideration within a watershed is the condition of the riparian area. Riparian areas are the lands adjacent to water bodies that serve as a transition between aquatic and terrestrial environments and directly affect or are affected by that body of water. A riparian area that consists of mature vegetation, preferably including forest cover, can create an effective buffer between upland land uses and the receiving water body. A forested riparian buffer can provide multiple functions, reducing the impact of upland sources of pollution by trapping, filtering, and converting sediments, nutrients, and other chemicals; and supplying food, cover, and thermal protection to fish and other wildlife. Buffers can also serve to slow stormwater runoff, improving flood control. To be most effective, vegetated riparian buffers should be at least 100 feet wide with stringent protection standards for the areas closest to the stream. Functions such as nutrient and sediment removal can be provided in areas as narrow as 35 feet, but flood control requires buffers of at least 75 feet.¹



Figure 4-2: Forest Cover in Pocopson Township
Forest cover (identifiable as the darkest areas on this 2010 aerial photo) is limited in Pocopson Township, and infrequently provides an adequate forested riparian buffer for streams.

¹ Palone, R.S. and A.H. Todd. 1997. *Chesapeake Bay Riparian Handbook: A Guide for Establishing and Maintaining Riparian Forest Buffers*. United States Department of Agriculture: Forest Service.

Within Pocopson Township, the limited extent of woodlands in relation to waterways (as shown on Figure 4-2), indicates that riparian areas are not functioning as well as they could be. Many sections of streams lack forest cover within their riparian areas, or have a limited width of forest cover extending from the streambanks. An unnamed tributary to the West Branch Brandywine Creek in the northern portion of the Township has a section with extensive forest cover, although its proximity to Route 842 impacts this. Other streams have limited forest cover, or forest cover on only one bank. The West Branch and main stem of Brandywine Creek have limited forested riparian buffers within Pocopson Township.

Pocopson Township adopted riparian buffer regulations in 2007. Regulations in the Zoning Ordinance allow zero percent disturbance in the first 25 feet of stream buffer and 15 percent disturbance out to 100 feet. The presence of regulated steep slopes extends the zero percent disturbance limit.

Stream Designations

There are several federal and state water resource planning initiatives and programs relevant to Pocopson Township and its waterways, including:

- **Chapter 93 Water Quality Use Designations:** Pennsylvania complied with the Federal Water Pollution Control Act by establishing water quality standards in Chapter 93, “Water Quality Standards,” of the Pennsylvania Department of Environmental Protection’s (PADEP’s) Rules and Regulations. Chapter 93 designates the protected water uses – such as trout stocking, irrigation or potable water supply – for each stream in the state, and provides specific water quality criteria, such as pH, alkalinity or bacteria levels, necessary to protect these uses.
- **Chapter 93 Specially Protected Waters:** Chapter 93 also lists waterways with outstanding ecological or recreation value as either Exceptional Value (EV) or High Quality (HQ). EV waters must be protected to maintain existing quality. They may include waters of parks and natural areas or waters used as an unfiltered potable water supply. HQ waters are excellent quality waters that must be protected, but the water quality can be lowered for necessary social and economic development if all existing uses of the stream are protected.
- **Impaired Waters:** The Federal Clean Water Act requires states to list all “impaired waters,” which refers to waters that do not meet the state’s use designations even after required pollution controls are put into place. PADEP compiles the Pennsylvania state impaired waters list, which includes the reason for impairment, which may be non-point sources like agricultural runoff, or point sources such as industrial or sewage discharges.
- **Total Maximum Daily Load (TMDL):** The state must determine the conditions that would return impaired streams to meeting water quality standards. As a part of this effort, PADEP determines the amount of pollutants the stream is capable of receiving while still maintaining the water quality standards. A TMDL is calculated for each stream to determine what quantity (or loading) of pollutants can be assimilated by the stream without impairing the designated use. Pollutants that need to be addressed and the “allocation” responsibility for reducing pollutants to an acceptable level are then assigned to the sources of the pollutants. Once a TMDL plan is in place, the stream is removed from the impaired stream list.

The Township’s status regarding the above programs and initiatives is:



Planting to create a forested riparian buffer can improve water quality.

- **Chapter 93 Use Designations:** PADEP identifies the West Branch and main stem Brandywine Creek as a Warm Water Fishery (WWF), and notes that aquatic life is a primary use for the stream. The only tributary within Pocopson Township with a designation separate from the WWF designation is Pocopson Creek, which is designated as a Trout Stocked Fishery (TSF). Aquatic life is also noted to be a primary use for Pocopson Creek and its tributaries.
- **Chapter 93 Specially Protected Waters:** There are no EV or HQ designations for any streams within Pocopson Township. Broad Run, located north of the Township, has been designated as an EV waterway by PADEP.
- **Impaired Waters:** Unnamed tributaries to the West Branch and main stem Brandywine Creek have been determined by PADEP to be meeting the aquatic life use, while the West Branch and main stem have been determined to be non-attaining. Pocopson Creek and its tributaries are largely non-attaining as well. Map 4-1 depicts stream sections that are non-attaining in Pocopson Township and the surrounding area. The sources of impairment for Brandywine Creek and Pocopson Creek are noted to be agriculture (specifically siltation) and urban runoff/storm sewers (specifically siltation). Sources of impairment for West Branch Brandywine Creek are noted to be agriculture (specifically nutrients and siltation). In Chester County, the Brandywine Valley Association has promoted the restoration of impaired waters in the Brandywine watershed through its “Red Streams Blue” program.
- **TMDL:** Currently, the Brandywine Valley Association, with assistance from the County and other stakeholders, is developing a Restoration and TMDL Implementation Plan for the Pennsylvania portion of the Christina Basin, including Brandywine Creek. A TMDL has been calculated for bacteria, sediment, nutrients, and load dissolved oxygen. The overall goal of the Plan is to remove streams from DEP’s impaired streams list.
- **PA Scenic River:** In addition to the above initiatives, the “Lower Brandywine” was designated as a Scenic River by Pennsylvania in 1989. The PA Scenic River program is administered by the Pennsylvania Department of Conservation and Natural Resources (PADCNR). The stretch included within the designation extends from the Pennsylvania/Delaware state border north to portions of both the West Branch and East Branch. The Pocopson Creek tributary is specifically included within the PA Scenic River designation. The Lower Brandywine is identified as “scenic” for the purposes of this program (wild and pastoral are other potential classifications). In this context, PADCNR defines scenic as:

Scenic rivers shall be free-flowing and capable of, or under restoration, to support water-based recreation, fish and aquatic life. The view from the river or its banks shall be predominately wild, but may reveal some pastoral countryside. The segment may be intermittently accessible by road.

The Brandywine Conservancy is the managing organization for the Lower Brandywine Scenic River.

The Brandywine Creek watershed has several important characteristics to be aware of when considering management of the resource, including: its use as a major source of public drinking water supply for Wilmington, Delaware; the impaired status of portions of the watershed; its designation as a PA Scenic River; and the projected population growth within the watershed. Priority management objections for the watershed, as identified in Chester County’s *Watersheds* (2002) include:

- Reduce stormwater runoff and flooding throughout the watershed.

- Restore water quality of “impaired” streams and protect unimpaired streams from further degradation.
- Protect and enhance vegetated riparian corridors, particularly for first order streams.
- Increase public access to streams.
- Undertake Integrated Water Resources Planning for growth areas to guide water supply and wastewater to meet future needs.
- Implement other source water protection measures for water supply intakes, reservoirs and wells.
- Protect and enhance the cultural and recreational resources of the watershed.

Floodplains

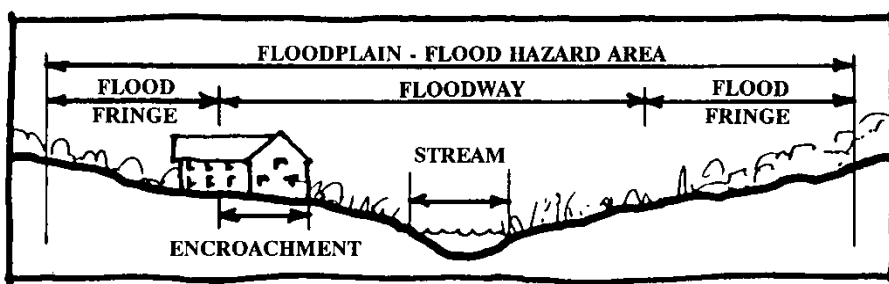
Naturally vegetated floodplain areas filter sediments from floodwaters, reduce the velocity of floodwaters, offer temporary storage for floodwaters, and provide valuable wildlife habitat and outdoor recreational opportunities. Because disturbance and development of floodplains creates a high potential for erosion, downstream sedimentation, flooding, and potential threats to life, property, wildlife habitat, and water quality, protection of these areas is critical. Their potential value as greenways and passive recreational areas is another reason for protecting floodplains.

The 100 year floodplain and the floodway shown on Map 4-1 are based on the Federal Emergency Management Agency (FEMA) maps (2006). The 100 year floodplain represents the highest level of flooding that, on the average, is likely to occur every 100 years or, from another perspective, a flood level that has a one percent potential of occurring each year. The floodway is located within the 100 year floodplain (see Figure 4-3). As defined by FEMA, the floodway must be reserved to carry the base floodwaters without increasing the base flood elevation more than one foot. This area should be regulated to prohibit any obstructions that might raise the base flood elevation. The remainder of the 100 year floodplain beyond the floodway, known as the flood fringe, may be developed if structures are elevated or floodproofed. However, many communities within Pennsylvania choose to prohibit all or most development within the entire 100 year floodplain. Pocopson Township allows limited uses within the floodway and expands the list of permitted uses in the flood fringe minimally.



Pocopson Creek overflows into its floodplain following a rain event.

Figure 4-3: Typical Floodplain



Source: Chester County Planning Commission

Map 4-1 depicts the floodway, 100 year floodplain (both FEMA identified and engineered), and 500 year floodplain. There is identified floodway along all of the West Branch and main stem Brandywine Creek. There are particularly extensive areas to the north of the Route 842 bridge, north of the Route 52 bridge, and between the Route 52 and Route 926 bridges (Lenape area). Existing development along the Brandywine Creek, particularly around Route 926 and Route 52, faces repeated threat from flooding. There is no designated floodway, but there is 100 year floodplain, along all of Pocopson Creek and most of its tributaries.

Alluvial soils are also depicted on Map 4-1, as they can be used to identify or confirm potential flood areas. Alluvial soils are those soils which have been eroded, transported and deposited by flooding water over time and thus, generally indicate a strong potential for flooding. Most areas of alluvial soils are narrow and found immediately adjacent to streams.

Alluvial soils in Pocopson Township closely correspond to the 100 year floodplain areas, but also extend beyond those areas in limited areas, most notably Pocopson Creek and its tributaries. As few first order streams have FEMA-mapped floodplains, it is important to be aware of the presence of alluvial soils for these areas. Within Pocopson Township, alluvial soils include Cadorus silt loam (Co), Comus silt loam (Cs) and Hatboro silt loam (Ha). Pocopson Township includes alluvial soils within its regulated Floodplain Conservation District. Wetlands and hydric soils are also related to flood-prone areas and poor drainage; these features are discussed under biotic resources.

Land Resources

Land resources should be protected not only for their production value (agriculture, forests, and meadows) but because inappropriate uses and poor maintenance practices can lead to the degradation of water, wildlife, and plant resources. Land resources are the basis for all other natural resources, and help form the character of an area.

Geology

Geologic Formations

The geology underlying Pocopson Township controls its topography and plays an important role in determining its suitability for land use. Settlement patterns, including the location of roads, utilities, and other infrastructure are influenced by geologic formations. Soil, drainage, difficulty of excavation, the soundness of foundations, and groundwater supplies are all determined to some degree by geologic properties.

Pocopson Township falls entirely within the Piedmont Province, a band of gently undulating to steeply rolling countryside that stretches from the Hudson River to Georgia, between the Atlantic Coastal Plain and the Blue Ridge. This Province is further divided into three sections based on geologic history and landscape – the Piedmont Uplands, Triassic Lowlands, and the Conestoga Valley. All of Pocopson Township (and over 80 percent of Chester County) is located in the Piedmont

Uplands section. The variable resistance to weathering and erosion of the underlying geology has led to a hilly to gently rolling landscape of low ridges and narrow valleys. Generally speaking, much of the land in the Piedmont Uplands has been cleared for farmland or development, with slopes and wet soils remaining forested with a mix of oak, tulip poplar, and beech.

The Wissahickon Formation underlies the majority of Pocopson Township (see Map 4-2). Felsic and intermediate gneiss, amphibolites facies and felsic gneiss, granulite facies make up the northernmost portion of the Township. Limited areas of mafic gneiss, amphibolites facies and ultramafite are also located in the Township, primarily in the central portion.

There is substantial variety in the Wissahickon Formation, which includes oligoclase-mica schist, as well as some hornblende gneiss, augen gneiss, and quartz-rich and feldspar-rich members due to various degrees of granitization.² The Wissahickon Formation forms hills of medium relief, with moderately steep but stable slopes. The rock is relatively soft to moderately resistant to weathering.

Pocopson Township overlays various types of gneiss in the northern portion of the Township. Gneiss is a metamorphosed rock that is moderately to highly resistant to weathering. Gneissic rock forms hills of medium to high relief with fairly steep and stable slopes.

Ultramafic rocks are igneous in origin and include serpentine, steatite, and others. Areas underlain by serpentinite generally form rolling hills with moderate slopes.³



Rock outcroppings are common in the northern part of the Township, particularly near Brandywine Creek.

Geology and Groundwater

An aquifer is the underground area where groundwater is stored in voids within soil and rock and the cracks, fractures, and solution channels in bedrock. The water-producing capability of an aquifer is largely determined by the geology and precipitation of an area. Because many residents in Pocopson Township continue to be dependent on on-lot wells that draw from groundwater, the protection of this resource is important. Water quantity and protection of groundwater for use by on-lot wells is also addressed within Chapter 8, Community Facilities and Services.

Hardrock geologic formations such as gneiss and schist are harder and denser than marble and their value for groundwater availability and recharge is less significant. Their more limited water yields present a limiting factor for development that utilizes groundwater wells, although yields are typically suitable for residential use (see Figure 4-4).

² USGS Mineral Resources On-Line Spatial Data; <http://tin.er.usgs.gov/geology/state/sgmc-unit.php?unit=PAPZw;0>

³ *Geohydrology of Southeastern Pennsylvania*, USGS, 2002.

Figure 4-4: Reported Domestic Well Yields

Geologic Formation	Range	Median
	(gallons per minute)	(gallons per minute)
Wissahickon Oligoclase-Mica Schist	0 to 400	12
Gneissic Rocks*	<1 to 270	12
Serpentine Rocks**	2 to 75	12

*There are several forms of gneissic rocks and multiple ones present in Pocopson Township; the well yield data reflect the entire grouping.

**Ultramafite falls under the broader category of serpentinite rocks; the well yield data reflect the entire grouping.

Source: Geohydrology of Southeastern Pennsylvania, USGS, 2002.

Slopes

For the purposes of this Plan, and consistent with Pocopson Township regulations, moderate slopes are considered to include any land with a slope of 10 - 20 percent. Steep slopes are those greater than 20 percent. Moderate and steep slopes in Pocopson Township are most prevalent in the northern portion of the Township, with slopes along the eastern portion of the Route 842 corridor and along the West Branch Brandywine Creek. There are steep slopes along Pocopson Creek and its tributaries as well. Scattered areas of moderate and steep slopes are also located along stream corridors throughout the Township. The central and western portions of the Township consist of moderate to rolling terrain (see Map 4-3).

Slopes are often covered by woodlands, are adjacent to streams, and have shallow soils that are easily eroded. Slopes are very vulnerable to erosion, particularly when natural vegetation has been disturbed. It is difficult to reestablish vegetation cover once ground disturbance has occurred. Limiting development, and maintaining wooded slopes, provides a natural system of erosion protection and valuable wildlife habitat, and minimizes water pollution and flooding.

Pocopson Township currently regulates slopes that are defined as moderately steep (10 to 20 percent) or very steep (greater than 20 percent), as well as a steep slope margin of 25 feet upslope of a steep slope. Slopes of 10 to 20 percent are limited to 25 percent disturbance; slopes of greater than 20 percent are limited to 10 percent disturbance. The steep slope margin is limited to 25 percent disturbance.

Agricultural Soils

For the purposes of this Plan, agricultural soils include Capability Classes I, II, and III as identified by the United States Natural Resources Conservation Service (NRCS). These soils also correspond to the soils identified as Prime Farmland and Farmland of Statewide Importance. Prime Farmland, as identified by the NRCS, is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops. The soil quality, growing season, and moisture supply are those needed for the soil to economically produce sustained high yields of crops when proper management, including water management, and acceptable farming methods are applied. Farmland of Statewide Importance is designated by Pennsylvania agencies, and generally



Agricultural soils are widespread outside the floodplains and steep slopes of Pocopson, supporting a history of farming.

includes areas of soils that nearly meet the requirements for Prime Farmland and that economically produce high yields of crops when treated and managed according to acceptable farming methods.

With the exception of stream valleys, moderate and steep slopes, and developed areas along Route 52, a significant portion of Pocopson Township is within Capability Classes I, II, or III and either Prime Farmland or Farmland of Statewide Importance. These designations reflect the high soil quality across a large portion of the Township. Map 4-3 depicts the extent of these soils, and Figure 4-5 identifies the Prime Farmland soils and soils considered Farmland of Statewide Importance.

Figure 4-5: Agricultural Soils in Pocopson Township

Designation	Soil Name	Soil Symbol
Prime Farmland		
	Califon loam	CaB
	Chester silt loam	CdA, CdB
	Codorus silt loam	Co
	Comus silt loam	Cs
	Gladstone gravelly loam	GdA, GdB
	Glenelg silt loam	GgA, GgB
	Glenville silt loam	GlA, GlB
	Manor silt loam	MaB
	Parker gravelly loam	PaB
Farmland of Statewide Importance		
	Gladstone gravelly loam	GdC
	Glenelg silt loam	GgC
	Glenville silt loam	GlC
	Manor loam	MaC
	Parker gravelly loam	PaC

* Soil Symbols indicate the soil type and the slope on which the soil is found (A = 0-3%, B = 3-8%, C = 8-15%).
Source: Soils Mapping: Chester County Soil Survey, NRCS, Web Soil Survey, National Cooperative Soil Survey, 2012; Prime and Statewide Important Soils Listing: NRCS, 2008.

The qualities that make these soils favorable for agricultural uses also make them suitable for building. Within Pocopson Township, a significant portion of the soil areas designated as Prime Farmland and Farmland of Statewide Importance have already been developed, particularly in the southern portion of the Township. Soils are important considerations in farmland easement programs, Agricultural Security Areas, and other planning related issues.

Biotic Resources

Biotic resources include plant and animal life and their habitats. This section identifies important habitat areas in Pocopson Township, as well as sites that have been identified for special protection. Protection of biotic resources is critical, as they ensure a diverse community of species and habitats can continue to exist, despite development pressure and resulting habitat fragmentation. Undeveloped lands can be roughly classified into three categories: open field, forest, and

wetlands. To continue the sustainability of a healthy and diverse landscape, it is especially critical to reserve sufficient areas of each of these habitats as interconnected habitat networks.

Woodlands

Chester County is located in the eastern deciduous forest biome, a large ecological community. Within this biome, the forests of Pocopson Township, and the wider southern Chester County region, were originally considered to be part of the Oak-Hickory Association Forest. Forests of this region today are more appropriately classified as Mixed Oak Forest.⁴ White, red, and black oaks dominate, with a mix of tulip poplar, red maple and beech.

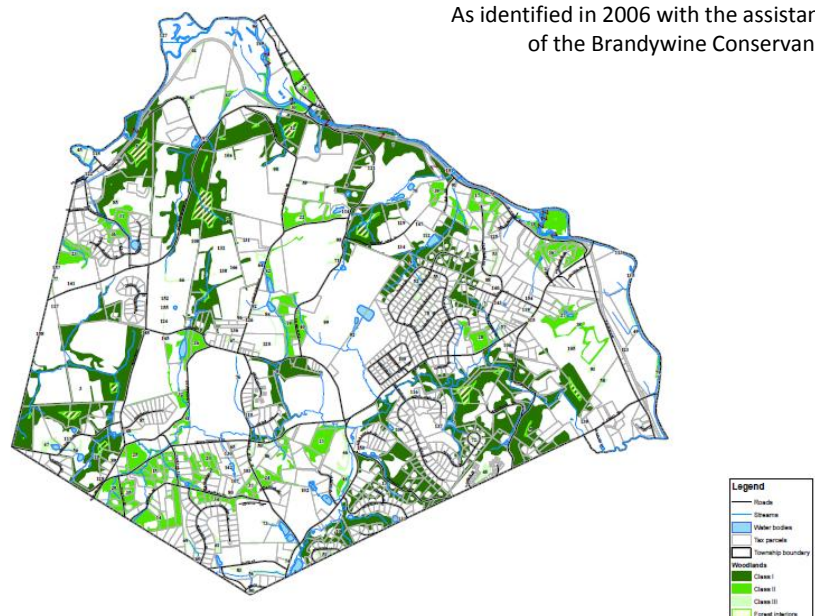
Woodlands provide protective ground cover and stability for soils on steep slopes and contribute to stream water quality. As part of a riparian buffer, woodlands can increase the functioning of the riparian area, and provide multiple benefits. Canopies of trees play an important role in reducing the amount and intensity of rainfall, providing shade, and reducing the impacts of temperature extremes. Woodlands serve as buffers from the cold northwesterly wind, visual infringements, and noise while also providing scenic quality and improving land value.

Woodlands are also a critical component in maintaining natural diversity and provide vital habitat for native vegetation and wildlife. In some cases, a healthy forest ecosystem is critical in the survival of certain species of forest plants and wildlife. Several species of songbirds, such as the colorful warblers, are specifically adapted to forest interior conditions and will not nest in any other location. In addition, various species of wildflowers will only bloom on the rich, moist soils that make up the forest floor.

Areas of forest cover as of 2010 are depicted on Figure 4-2 (presented with Water Resources/Watersheds). A significant undeveloped forested area is located along Route 842, and consists primarily of lands owned by the Brandywine Valley Association, a non-profit organization focused on water quality within the Brandywine watershed. Smaller areas of undeveloped woodlands are located adjacent to portions of the West Branch Brandywine Creek, and other areas of forest cover can be found along stream corridors and to the south of Route 52. Connections between woodlands are limited or lacking across much of the Township.

With the assistance of Brandywine Conservancy, Pocopson Township classified its woodlands resources in 2006 (Figure 4-6). Class I, Class II, Class III and areas of

Figure 4-6: Woodland Classification Map
As identified in 2006 with the assistance of the Brandywine Conservancy.



⁴ Monk, C.D., D.W. Imm, R.L. Potter. 1990. *Oak Forests of Eastern North America*. *Castanea* 55(2): 77 – 96.

Forest Interior were mapped and are regulated in the Zoning Ordinance. Disturbance limits range from five to 25 percent for these resources. A comparison of the 2006 mapping and 2010 aerial photography reveals few changes, with the notable exception of the loss of forest interior in a woodland located along Northbrook Road in the southwestern portion of the Township.

Wetlands

Wetlands are recognized for being one of the world's most productive ecosystems. They offer key wildlife habitat, are important storage areas for surface and groundwater, and filter nutrients and sediments from runoff. The Army Corps of Engineers regulates wetlands under Section 404 of the Clean Water Act, while the PADEP regulates wetlands under 25 PA Code § 105. From a regulatory standpoint, the presence of wetland areas is determined based on a site's soil, hydrology, and vegetation.

There is no comprehensive inventory of wetlands. However, the National Wetlands Inventory (NWI) identifies certain wetland areas based on aerial photography and Anderson Land Use mapping identifies various land uses, including wetlands, based on aerial photography and other secondary source information. Map 4-4 depicts wetlands as mapped by both of these sources. Identified wetlands in Pocopson Township primarily lie along the West Branch and main steam Brandywine Creek, with scattered locations along tributaries, particularly Pocopson Creek. Both the NWI and Anderson Land Use provide only a preliminary indication of wetlands; site specific wetland delineations conducted by qualified wetland biologist, soils scientist, or similar professional remain the only method to accurately determine the presence of wetlands. Therefore, Map 4-4 depicts only a portion of the wetlands present in the Township.

Hydric soils contain high amounts of moisture, are very poorly drained, and are typically found within floodplain and wetland areas, and thus can serve as an indicator of possible wetland areas. Map 4-4 depicts the extent of hydric soils within Pocopson Township, which is more extensive than the wetlands mapped and includes many of the stream corridors in the Township.

In addition to their potential to indicate the presence of wetlands, the characteristics of hydric soils create difficulties with site development and construction. Potential development problems associated with hydric soils include failed on-lot septic systems, flooded basements, poor foundation stability, disturbance of natural drainage and groundwater recharge areas, and the risk of surface and groundwater contamination. Hydric soils in Pocopson Township include Baile silt loam, Cokesbury silt loam, and Hatboro silt loam. Califon loam, Codurus silt loam, Comus silt loam, Glenville silt loams, and Gladstone gravelly loam often have hydric inclusions within their boundaries.

Protection for wetlands and hydric soils are included in the Pocopson Township Zoning Ordinance. Disturbance of wetlands is limited to 10 percent of a site and



This wetland within Pocopson Township provides valuable wildlife habitat as well as water storage and filtration benefits.

there are also disturbance limits for wetland margins. Hydric soils also have a disturbance limit of 20 percent. In addition to Pocopson Township regulations, federal and state regulations require permits for any wetland disturbance. To ensure that wetlands are properly protected, the first step is a site specific wetland delineation.

Natural Diversity

Pennsylvania Natural Heritage Program

The Pennsylvania Natural Heritage Program provides scientific information, expertise, and assistance to support the conservation of biological diversity. The program includes several programs, such as the Pennsylvania Natural Diversity Inventory (PNDI), which provides site-specific information describing significant natural resources of the Commonwealth, and County Natural Heritage Inventories, which detail resources by county. The Chester County Natural Areas Inventory was compiled and written by the Pennsylvania Science Office of the Nature Conservancy and published by the Chester County Planning Commission in 1994 and updated in 2000. The inventory contains information on the locations of rare, threatened and endangered species and the highest quality natural areas in the County. The inventory further provides general management recommendations for the protection of the identified species. Exact locations and the species are not publicly identified for their protection.

According to the Chester County Natural Areas Inventory, there is one PNDI site located entirely within the Township (Myrick Center) and two PNDI sites that are primarily in adjacent municipalities (Broad Run and Wawaset Marsh). Map 4-4 notes the general locations of these PNDI sites. The Myrick Center site is noted to contain a plant species of concern as well as a high diversity of more common species. It is recommended that the site maintain a forested canopy. The Broad Run site is primarily located in West Bradford Township and extends along Broad Run, including its outlet to West Branch Brandywine Creek. The EV status of the stream is noted, as well as the site serving as habitat for a species of concern. It is recommended that water quality be monitored and vegetated buffers be promoted. The Wawaset Marsh site is a wetland located in the floodplain of Brandywine Creek, and the presence of a small population of a plant species of concern is noted. It is recommended that the wetland be maintained and the population monitored.

With the assistance of Brandywine Conservancy, Pocopson Township identified important biotic resources in 2006. Fourteen Exceptional Natural Areas were identified and 11 Rare Species Sites (as defined by Pocopson Township) were identified. Mapping of these resources is referenced in the Zoning Ordinance, through an amendment in 2007.

Designation as a PNDI site or other local designation does not guarantee the protection of these important natural areas. The best protection is either through a conservation easement or public ownership of the site. The Myrick Center site is partially owned by the Brandywine Valley Association and the Township purchased an easement on the property in 2011. The remainder of the PNDI Myrick Center site is privately owned and open to development. Protection of forest habitat is critical to the PNDI species on this site. The sites primarily within adjacent municipalities are largely beyond the control of Pocopson Township; however protection of water

quality, floodplains, and riparian areas would be of benefit. Lacking public ownership or easements, sites can be protected through disturbance limits and public education. Pocopson Township regulations include disturbance limits of zero percent for Rare Species Sites (which includes the site and a 25 foot buffer) and a ten percent disturbance limit for Exceptional Natural Areas.

Biodiversity Corridors

The Township is also crossed by two potential biodiversity corridors as designated in *Linking Landscapes: A Plan for the Protected Open Space Network of Chester County, PA*, which was adopted as an element of the County's comprehensive plan in 2002. Map 4-4 shows the locations of these corridors, which generally follow the major stream corridors and cover the Myrick Center PNDI site.

Threats to Natural Diversity

Aside from the well understood threat of development and resulting loss of habitat, invasive species and white tail deer populations also threaten natural diversity. Across much of Chester County, including Pocopson Township, woodlands and wetlands are being overrun by invasive species. Characteristics of invasive species include a rapid growth rate, adaptability, high reproduction rate, and a lack of control mechanisms in the local environment. Invasive species displace native vegetation, typically offer reduced food and cover benefits to native wildlife, result in a reduction of plant and wildlife diversity, and impede the ability of woodlands to regenerate. Within woodlands, riparian areas, meadows, hedgerows, and along roadways, species including but not limited to the Norway Maple, Multiflora Rose, Autumn Olive, Oriental Bittersweet, Japanese Honeysuckle, Japanese Knotweed, Golden Bamboo, and Mile-a-Minute Weed are overrunning the existing native species and becoming the dominant species in the area. Within wetlands, invasive species such as Common Reed, Purple Loosestrife, and Reed Canary Grass can dominant the landscape, impairing the wildlife and filtration functions of the wetland.

The white tail deer population is also a threat to natural diversity. The population has exploded for several reasons related to human influence. Agriculture and suburbanization have provided the deer with excellent habitat in the form of "edge" conditions and browse areas. Natural deer predators have been eliminated by direct human action. The increased deer population threatens woodlands due primarily to the increase in browsing in forests for the young buds, seedlings, and shoots of native species. As a result, the forest is increasingly incapable of regenerating itself, and invasive species that thrive on disturbance and can grow quickly are provided an opportunity to expand their range. A separate concern with deer populations is the increasing likelihood of human encounters with deer due to development. These encounters are a public health and safety concern due to the risks of Lyme Disease and the potential of deer/vehicle collisions. The deer also impact local agricultural operations through crop browsing and the related time, money and effort spent by agricultural operations to minimize economic loss. Pocopson Township has a Deer Management Committee, which oversees hunting on Township lands as well as adjacent lands whose property owner has volunteered for inclusion in the management program.



Japanese knotweed (above) and mile-a-minute weed (below) are invasive species seen throughout southeastern Pennsylvania.



Resource Protection Measures

Figure 4-7 provides a summary of the existing local natural resource protection measures in Pocopson Township. Understanding the level of protection that is currently afforded by the Zoning Ordinance and Subdivision and Land Development Ordinance (SLDO) is a key step in understanding where improvements are needed to meet Pocopson Township's goals and objectives related to natural resources.

Figure 4-7: Assessment of Existing Natural Resource Protection Measures

	SLDO*	Zoning Ordinance**
Water Resources		
Floodplains/Flood Hazard District	Y, §190-23 & 190-24	Y, Article VI
Groundwater Protection District	L, §190-23 & 190-24	L, §250-87.G
Streams	Y, §190-23 & 190-24	Y, §250-87.F
Wetlands	Y, §190-23 & 190-24	Y, §250-87.E
Wetlands Margins	Y, §190-23 & 190-24	Y, §250-87.F
Riparian Buffers	Y, §190-23 & 190-24	Y, §250-87.F
Erosion Control	L, §190-34	N
Stormwater Management	L, §190-33	N
Land Resources		
Steep Slopes	Y, §190-23 & 190-24	Y, §250-87.D
Agricultural Soils	Y, §190-23 & 190-24	N
Biotic Resources		
Woodlands	Y, §190-23 & 190-24	L, §250-87.K
Timber Harvesting Plan/Tree Replacement Required	N	Y, §250-87.K
Tree Protection during Construction	N	Y, §250-87.K
Specimen Vegetation/PNDI Sites	L, §190-35	L, §250-87.H, I, & J
Administrative		
Plan Requirements for Natural Resources	Y, §190-23	L, §250-63.C, §250-66, §250-83
Protection Standards Centrally Located	Y, §190-23 & 190-24	Y, §250-87
Definitions complete and consistent between ordinances	Y	Y

Y: significant regulations in place (may still require minor changes); L: limited regulations in place; N: no significant regulations in place.

*Recodified 2006, amended through May 2011; **Recodified 2006, amended through May 2011.

Source: Chester

County Planning Commission

As evident in Figure 4-7, regulation of key natural resources is in place. There are minor differences between the SLDO and the Zoning Ordinance. There are specific disturbance limits in place for most resources. The Township has a separate Stormwater Management Ordinance in addition to those regulations in place in the SLDO. Regarding groundwater protection, there is not a groundwater protection district, but high water table soils (hydric soils) are regulated. Hydric soils can be a critical area of recharge for groundwater. Nuisance vegetation is defined and regulated in Chapter 129, Nuisances. Existing regulations not only protect the key functions of natural resources, but in doing so help minimize and mitigate potential impacts from natural hazards (such as flooding) and enhance the sustainability of the Township overall.

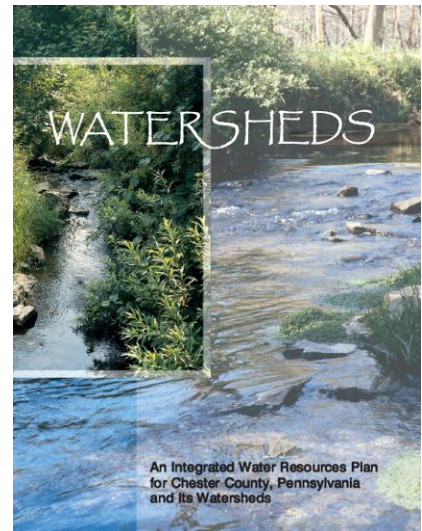
Regional Initiatives and Efforts

Kennett Area Regional Planning Commission

One of the resource protection implementation strategies recommended in the Kennett Area Region Comprehensive Plan (2000) was the adoption of regionally consistent resource protection standards. Model protection standards were provided to each of the Region's representatives so they had specific language illustrating how each of the resources could be protected. Pocopson Township enacted various natural resource protection regulations over the past several years, based in part of the information provided by the Kennett Area Regional Planning Commission. Extensive regulations were adopted in May 2007 to update both the Zoning Ordinance and SLDO, and the Township is consistent with the overall intent of the Regional Plan.

Watersheds

Watersheds: An Integrated Water Resources Management Plan for Chester County, Pennsylvania and Its Watersheds was adopted by the Chester County Commissioners on September 17, 2002. This plan serves as a functional element of the County's policy plan, *Landscapes*. The purpose of the plan is to assist local governments and other entities in more effectively integrating water resources and land use decisions. It provides scientifically-sound goals, objectives, and strategies for accommodating existing land uses and planned growth while maintaining the integrity of Chester County's watershed resources. The plan includes numerous implementation strategies for municipalities to more effectively protect and manage their water resources while accommodating planned growth. The priority management objectives for the Brandywine Creek are noted under the Water Resources discussion. Pocopson Township has addressed the water quality objectives with its natural resource regulations and continues to focus on items such as public access to streams and protection recreational resources through a variety of activities, including participation in the Brandywine Greenway effort.



Linking Landscapes

In February 2002, the Chester County Commissioners adopted *Linking Landscapes: The Plan for the Protected Open Space Network in Chester County, Pennsylvania*, which serves as the Open Space Element of the Chester County Policy Plan, *Landscapes*². *Linking Landscapes* provides a vision for open space planning throughout Chester County. It presents a set of actions to coordinate the activities of various County government departments as well as providing municipalities with guidelines for protecting open space. *Linking Landscapes* focuses not only on open space (which is discussed in detail in Chapter 8), but also retention of sensitive resources and ecological and recreational qualities. Pocopson Township has worked to protect its sensitive resources through comprehensive natural resource regulations.

Planning Implications

Watersheds

Planning and management of water resources is most effective at the watershed level. Coordination with neighboring municipalities and organizations with shared interests is critical. Particular consideration should be given to preserving and enhancing riparian areas.

Stream Designations

Given the significant stretches of impaired streams within the Township and evolving regulations regarding impaired streams, as well as recognized scenic qualities, protecting and improving Township waterways through partnerships should be a priority.

Floodplains

Flooding is an existing concern in Pocopson Township due to the extent of floodplain and existing uses in and adjacent to these areas. Floodplains and areas of alluvial soils should remain undeveloped to the greatest extent possible to minimize risk and preserve other functions these areas provide, including recreational value and wildlife habitat.

Geology and Groundwater

Groundwater, particularly in areas not served by public water, is a vital resource to protect.

Slopes

Limiting development of steep slopes is an important method for preventing erosion of soils and sedimentation of streams. Continued enforcement of existing standards is critical to protect both land and water resources.

Agricultural Soils

Measures to protect this valuable economic and natural resource should be implemented for those areas of Pocopson Township currently under cultivation and in keeping with the future land use vision of the Township.

Wetlands

Though regulated at the state and federal level, local requirements for identification and protection of wetlands are an effective method to preserve wetlands and their role in flood control and nutrient/sediment retention.

Woodlands

Woodlands provide critical functions in a community. Pocopson Township has woodlands that are high quality, but there is a lack of connections between forested areas. Maintaining this resource, and expanding and connecting it where possible, should be a priority, through both regulatory and voluntary means.

Natural Diversity

There is one PNDI site identified in the Township and two sites adjacent, and the Township has additionally identified multiple Rare Species Sites and Exceptional Natural Areas. An awareness of these sites and their management concerns is important for both regulatory control and voluntary property management. Threats to natural diversity include habitat loss and fragmentation, as well as high deer populations and invasive species.

Resource Protection Standards

Critical points of natural resource protection standards include resource identification, clear and specific standards, set disturbance limits, consistency between regulations, and consistent enforcement. The identification and protection of natural resources should be a primary determinant for the location of appropriate development in Pocopson Township.

Regional Initiatives and Efforts

Many natural resources efforts are best served by a regional approach. Partners in protecting and enhancing natural resources can include other municipalities, non-profits, businesses, and individual property owners.

Recommendations

The recommendations below detail how Pocopson Township can improve the quality and functions of natural resources, particularly noting opportunities for enhancement and coordination with other organizations. Given that the Township's existing natural resource regulations are largely meeting their current plan objectives, the recommendation primarily focus on voluntary and educational efforts. Priorities for the implementation of these recommendations are established in Chapter 12, Implementation Measures. Implementation of the recommendations identified below will help Pocopson Township achieve its natural resources goal to:

Protect, maintain, and restore natural resource features, landscapes, and functions to sustain ecosystems, public health, and quality of life.

Overall

4-1 Direct growth to the most appropriate areas, as identified in the Future Land Use Plan and supported by the Zoning Ordinance, Subdivision and Land Development Ordinance, and natural and historic resource mapping.

The Future Land Use Plan sets the vision of land use within the Township, and other plans and ordinances should support this vision. It is critical that the

zoning and subdivision and land development regulations of Pocopson Township require and encourage the avoidance and minimization of development's impacts on natural resources. Additional detail on the Future Land Use Plan is contained in Chapter 10. Details on potential regulatory changes are covered under the resource focused recommendations below.

4-2 Educate residents, businesses, and local institutions regarding methods to protect, preserve, and enhance water resources, land resources, and biotic resources in the Township through existing public outreach methods and new options as possible.

Residents, businesses, and local institutions can benefit from learning about the importance of protecting natural resources and what they can do on a voluntary basis to protect them. Information on topics such as the importance of protecting riparian buffers, woodland management, control of invasive species, or the potential damage to streams from the overuse of fertilizers and pesticides could be covered in the Township newsletter, published on the Township website, and made available at the Township building. Distribution of informational brochures or a display at the Township's annual Founders Day and use of social media are other potential outreach methods. Contacts where residents can get additional information on various subjects from state, county, and federal agencies should also be made available. Specific sources of information are noted in the various recommendations below.

4-3 Partner with other municipalities, agencies, and organizations to protect and enhance natural resources through voluntary methods.

Serving as a recreational resource for the public in general, Brandywine Creek also is the drinking water source for many in Chester County and also Wilmington, Delaware. As such, many groups have a vested interest in the health of Brandywine Creek and its tributaries.

The mission of the Brandywine Valley Association, which is headquartered in Pocopson Township, is to promote the restoration, preservation, conservation and enjoyment of the natural resources of the Brandywine Valley through education programs, environmental studies and projects, and technological advocacy. One active program is Red Streams Blue, the goal of which is to ensure that all streams in the Brandywine watershed meet Pennsylvania water quality standards. The program identifies impaired segments, develops a restoration plan, selects projects, builds partnerships, identifies funding, and completes restoration projects. Examples of Red Streams Blue projects can be found at www.brandywinewatershed.org.

The mission of the Christina Basin Clean Water Partnership is to restore the waters of the Brandywine, Red Clay, and White Clay Creeks, and Christina River in Delaware and Pennsylvania to fishable, swimmable, and potable status by 2015. The Chester County Water Resources Authority and Chester County Conservation District serve as the Pennsylvania co-coordinators in the Christina Basin.

Other organizations with which Pocopson Township may find common interests include the Brandywine Conservancy (which has been a partner on past easements and at other times functioned as a consultant), and The Land

Conservancy of Southern Chester County and Natural Lands Trust (both of which focus on land preservation as well as habitat management). Additionally, neighboring municipalities, as well as the Kennett Area Regional Planning Commission, at times have common interests with Pocopson Township and partnerships related to natural resource efforts could be beneficial.

Organizations with relevant resources, such as funding or technical expertise, are noted where appropriate throughout the recommendations. Pocopson Township should coordinate with these organizations to become more aware of potential opportunities and solutions on natural resource issues facing the Township.

4-4 Consider the creation of an Environmental Advisory Committee.

Environmental advisory committees, or EACs, are advisory committees that focus on providing environmental-based review comments to planning commissions for subdivision and land development proposals, but they can also take on broader issues as needed. Updating mapping of environmental resources is one example of a potential EAC project (see recommendation 4-11). Depending on the issues facing the Township, an EAC can assist the Planning Commission with projects that would otherwise proceed in a slower timeframe.

Water Resources

4-5 Investigate options to improve public access to Brandywine Creek for recreation purposes while ensuring such access does not impact natural features.

Public access to Brandywine Creek is growing in importance in Chester County as development has eliminated some traditional access points for recreational purposes. With an increasingly sedentary lifestyle for many and resulting health impacts, access to recreation opportunities is more important than ever. A dedicated, controlled, public access point for canoeing, kayaking, and fishing can open the Brandywine to new users, as well as reduce problems with existing access points that may or may not be public and controlled. Increased public interaction with natural features can also lead to an increased interest in, understanding of, and support for such features. Minimizing impacts to the natural features of the Brandywine should be a priority in developing such an access point.

4-6 Support and where possible pursue efforts to address the prioritized needs presented in the Brandywine Creek Watershed Action Plan (2002) and Watersheds (2002).

The Brandywine Creek Watershed Action Plan identified 26 prioritized needs, among them stormwater management, National Pollutant Discharge Elimination System (NPDES) Phase II compliance, reforestation of riparian areas, and agricultural conservation plans. The full listing of action items, along with other

supporting documentation and guidance, is available on the Chester County Water Resources Authority website, www.chesco.org/water.

Pocopson Township is current with stormwater management regulations and NPDES Phase II compliance. One potential future Township effort is implementation of a Township-wide water quality improvement plan, to include prioritization of areas for potential stream and wetland restoration projects, such as riparian buffer planting.

A key consideration for water quality projects is funding. While grants are available, matching funds are almost always a requirement. The Township should consider using its existing Steam Team to develop a general Township-wide surface water quality improvement plan, focusing on prioritization of potential stream and wetland restoration projects. Such a prioritization should be based on existing conditions, using established assessment procedures. By taking on this work and essentially conducting an early step in any restoration project, the Township will have already moved a project forward and increased the likelihood of receiving outside funds to assist with project completion. One example project to review for assessment protocols is the Hay Creek Watershed Association's Riparian Buffer Assessment, available at: <http://www.haycreekwatershed.org/webdraft%20riparian%20buffer%20report.pdf>. Coordination with the Brandywine Valley Association and its Red Streams Blue program on this effort is a consideration in creating the most benefit with the limited resources available. Tree planting within riparian buffers could be undertaken by the Township alone on a limited scale, and perhaps in partnership with area businesses, institutions, and organizations. Tree planting of this nature should be focused on those areas where trees can provide wildlife habitat, scenic qualities, a natural buffer, and water quality and quantity improvements.

4-7 Monitor TMDL requirements within the Brandywine Creek/Christina River watershed to ensure compliance, and coordinate with other organizations to identify opportunities to improve water quality and wildlife habitat within the watershed.

TMDL limits have been in place within the Christina River Basin, of which the Brandywine Creek is a tributary, for several years. Other recommendations (such as a water quality improvement plan) within this chapter are part of the response to TMDL requirements, however monitoring of the TMDL requirements themselves and coordination with other organizations are necessary. Proactive measures to protect and improve water quality through activities such as protection and restoration of riparian buffers are very effective; improvements mandated after TMDL limits are exceeded could prove far more difficult to implement and costly in the long term. Additional detail on TMDLs is available through the Chester County Water Resources Authority, www.chesco.org/water.

4-8 Review floodplain regulations to ensure that all feasible and prudent measures are being carried out to reduce flood risk.

While the existing regulatory language in Pocopson Township provides substantial regulation of the floodplain, the Pennsylvania Department of Community and Economic Development (PADCED) has a newer model ordinance

that includes a variety of minor updates. Pocopson Township should review their existing regulatory language against the model ordinance and update accordingly to minimize public risk and costs associated with flooding.

4-9 Review regulatory controls regarding wetlands to ensure that wetland delineations are being required when necessary.

The current Zoning Ordinance language notes that a full wetland delineation report should be submitted to the Township “where required to comply with state or federal regulations” (§ 250-87.E.5)”. The SLDO notes that the existing resources and site analysis plan should include the location and extent of ponds, streams, and wetlands as defined by the Zoning Ordinance. The regulatory language could be strengthened to note that a wetland delineation report (or a “No Findings” letter) and jurisdictional determination are required whenever land disturbance is proposed.

Land Resources

4-10 Consider implementing net-out provisions to protect agricultural soils, and continue supporting agricultural uses through support of agricultural easements, encouragement of Secondary/Accessory Agricultural Businesses, encouraging enrollment in Agricultural Security Areas and the Clean and Green programs (Act 43 and Act 319), and encouragement of the activities of land preservation organizations.

There are multiple tools available to aid in the preservation of agriculture as an industry and land use. Some focus on retaining the agricultural soils that are most valuable, others focus on maintaining agriculture as open space, and some focus on retaining agriculture as a viable economic industry within a region. Regarding agricultural soils specifically, utilizing a net-out provision at some percentage of the existing resource in calculating permitted density should be investigated to preserve this resource, as well as SLDO language that encourages development layouts that are sensitive to active agricultural operations and agricultural soils. Another valuable regulatory measure is zoning language that permits and encourages Secondary and Accessory Agricultural Businesses.

A non-regulatory option for protecting agriculture is supporting agricultural easements, whether through a state or county program or a non-profit organization. In 2011, Pocopson Township purchased three easements with dedicated open space funds, with one of these being an active farm and the other two including agricultural land uses on the properties. The Township does not anticipate purchasing additional easements in the near future, although opportunities and needs may arise during the timeframe of this Comprehensive Plan. Funding for easements is limited, and the support of the local government through its own actions as well as its policies and regulations, can be critical to a farm within its bounds being determined eligible for funding for an easement.

Another non-regulatory option is encouraging enrollment in Agricultural Security Areas and the Clean and Green programs. While not offering permanent

protection, these programs can provide farms with a tax break and offer a level of protection from nuisance claims and the threat of eminent domain from government sponsored projects.

Biotic Resources

To maintain diversity within the biotic community, the provision of connected, high quality habitats that are large enough to sustain a variety of wildlife and plant species is necessary. Implementing the previous recommendations regarding streams, riparian buffers, and floodplains will help protect biotic resources. Those recommendations, combined with those specific to biotic resources (noted below) can protect existing biotic resources, and with time, strengthen those resources.

4-11 Review the 2006 woodlands, exceptional natural areas, and rare species sites mapping and classification.

Pocopson Township coordinated with the Brandywine Conservancy to develop mapping of existing critical features in 2006, including woodlands, exceptional natural areas, and rare species sites. A review of aerial photography versus the 2006 mapping reveals that there have been, at a minimum, changes to tree coverage since that mapping was completed. The Township should identify the methods by which the areas were defined, categorized and mapped, and use that information to update the mapping and ensure that adequate background information is available should a site come before the Township for regulatory (zoning, subdivision, or land development) purposes. The background information could also be used for public education on management of these valuable resources. The Township should support efforts to plan, seek grant funds, and manage these habitats.

4-12 Promote sustainable plant communities and the restoration of areas dominated by invasive plant species.

The Pocopson Township SLDO currently encourages the use of native species to the “maximum extent practicable” (§ 190-35.C.4.b) and includes a suggested plant list (§ 190-35.H). Chapter 129, Nuisances, addresses invasive species in detail, defining them (referencing the Pennsylvania Noxious Weed Control List) and regulating their presence and removal. Invasive species pose a serious threat to the long-term health and quality of woodland and wetland ecosystems. Ordinances should be reviewed to ensure they permit tall grass meadows to be established in place of mowed lawn (particularly for open space and right of way areas). Such meadows promote groundwater recharge and support native species habitat. Consideration also needs to be given to aesthetic and other issues, as tall grass can harbor ticks and non-native pest species. However, tall riparian vegetation is a less preferred habitat for Canada geese, so its presence would help minimize geese populations.

In addition to the regulatory controls, the Township should periodically provide all property owners (including homeowners associations and rights of way owners) with information on the benefits of using native plants for general

landscaping purposes and methods to manage or remove invasive species. This information could be provided through existing outreach methods. The Pennsylvania Natural Heritage Program has a wealth of information available regarding native and invasive species in support of its mission to conserve biological diversity (www.naturalheritage.state.pa.us). Natural Lands Trust also focuses on this issue, and through their Center for Conservation Landowners offers educational opportunities and a suite of consulting services to landowners and land managers interested in restoring and stewarding habitats native to the region. Information on their services, as well as a download of their publication *The Stewardship Handbook for Natural Lands in Southeastern Pennsylvania* is available on their website (www.natlands.org). Other land preservation organizations in the area, such as The Land Conservancy for Southern Chester County, offer similar resources for sustainable land management.

4-13 Promote beneficial wildlife and consider methods to address the control of habituated wildlife.

Efforts should be made to promote beneficial species, such as through providing bird houses and bat boxes for insect eating species. The resources noted above (Pennsylvania Natural Heritage Program, Natural Lands Trust, and The Land Conservancy for Southern Chester County) are also relevant for this recommendation.

Regarding control of habituated and nuisance wildlife, ordinances should be updated to include a purpose statement that deals with the need to manage animal species to protect human health and safety. The high population numbers of wildlife such as white-tailed deer and Canada geese, combined with the un-naturalized behavior that sometimes results, requires attention. As noted above, allowing riparian areas to revert to a meadow or forest will deter Canada geese, as this is less preferred habitat.

Regarding deer populations, hunting has traditionally been the primary method for controlling population numbers. The Pennsylvania Game Commission considers southeastern Pennsylvania a “Special Regulation Area” and increased deer permits are available. This program does not appear to have had a significant impact on the deer population however, which can partially attributed to limited areas available for hunting. Pocopson Township has a Deer Management Committee, which oversees hunting on Township lands as well as adjacent lands whose property owner has volunteered for inclusion in the management program.

The following options are available to the Township and residents for deer management:

Habitat Modification

Penn State Cooperative Extension has a useful publication entitled “Deer Proofing Your Garden,” which is available at the Chester County office. Options discussed in the brochure include fencing, repellents, and use of deer resistant plants. A list of plants rarely damaged by deer, as well as frequently damaged plants, is included. Another publication available through Cooperative Extension is “Landowner’s Guide to Wildlife Control and Prevention Laws in Pennsylvania”,

which includes additional deer control methods, but also covers a range of other nuisance wildlife. This publication also describes the laws and regulations pertaining to landowner control of wildlife damage. Both publications could be made available at the Township office and promoted by the Township newsletter and website.

Hunting Arrangements

An option for large landowners, including homeowners associations, is to work with groups of hunters to allow them access to their property. This method has worked successfully in Pennsbury and Birmingham townships to help control deer populations, and Pocopson's Deer Management Committee currently selects hunters for Township lands and limited adjacent acreage. Pocopson Township could more actively seek owners of larger properties to participate in the hunting program, particularly those adjacent to lands currently involved in the program. The Deer Management Committee could also coordinate with the Chester County Facilities Department regarding hunting on County lands within Pocopson. The landowners can set rules in addition to state game laws, such as more restrictive hours or methods of hunting. Any hunter within the Township should be fully aware of hunting regulations and safety zones in residential areas. State game laws can be accessed at the Game Commission website at www.pgc.state.pa.us.

Under very specific circumstances, such as the destruction of crops, a landowner may be able to take specific actions to remove wildlife that is causing property damage. Property owners should always contact the regional Game Commission office before taking any action to control nuisance wildlife so they fully understand what is permitted in regard to the capture, removal or harassment of wildlife. Any wildlife taken to protect property must be done in a humane and lawful manner. Laws pertaining to control of nuisance wildlife are covered in Title 58 Section 141.3 of the Pennsylvania Code.

The initiatives noted above could be promoted by the Township newsletter and website, or publicized at a meeting focused on the various options for deer management.

In a municipality with a serious deer overpopulation problem, one management option is the issuance of a "deer control permit." These permits are obtained only through application by the municipality to the Game Commission. A deer management plan must be submitted providing deer density estimates and the number of animals to be removed. It should be noted that it may take up to one to two years from the time of application until the permit is issued.

Other programs may be available through the Game Commission, and coordination should be undertaken with the regional office should the Township wish to aggressively pursue reduction of the deer population.

4-14 Continue to encourage the protection and linkage of significant undeveloped areas to preserve biotic resources.

Protecting and linking habitat to preserve biotic resources is best accomplished through a combination of methods, such as:

- natural resource net-out provisions,
- review of subdivision and land development projects with a focus on avoiding and minimizing impacts to natural resources,
- mandatory park dedication or fee-in-lieu of, and
- encouraging private land conservation programs.

Some of these methods are already in place and simply need continued, while others require an ongoing commitment as projects and opportunities arise. In particular, the Township's park dedication requirements should be clearly specified within the SLDO. This topic is also discussed in the Parks, Recreation, and Open Space Chapter.

Links

Army Corps of Engineers, Philadelphia District

www.nap.usace.army.mil

Brandywine Conservancy

www.brandywineconservancy.org/

Brandywine Valley Association

www.brandywinewatershed.org

Chester County Planning Commission, *Linking Landscapes*

<http://www.chesco.org/planning/openspace>

Chester County Water Resources Authority

www.chesco.org/water

Federal Emergency Management Agency (FEMA)

www.fema.gov

National Wetlands Inventory

www.fws.gov/wetlands

Natural Lands Trust

www.natlands.org

Pennsylvania Cooperative Extension

<http://extension.psu.edu>

Pennsylvania Department of Community and Economic Development (PADCED)

www.newpa.com

Pennsylvania Department of Conservation and Natural Resources

www.dcnr.state.pa.us

Pennsylvania Department of Environmental Protection

www.depweb.state.pa.us

Pennsylvania Natural Heritage Program

www.naturalheritage.state.pa.us

Pennsylvania State Game Commission

www.pgc.state.pa.us

The Land Conservancy for Southern Chester County

<http://tlcforscc.org>

U.S. Geological Survey (USGS)

www.usgs.gov

U.S. Natural Resources Conservation Service (NRCS)

www.nrcs.usda.gov

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HISTORIC AND SCENIC RESOURCES INVENTORY AND PLAN

Introduction

Through policy, regulations, and other means, Pocopson Township has repeatedly reinforced the importance of character - character formed by the landscapes from which it arises, the land uses imposed on those landscapes, and the communities that call the land home. The interrelated elements of agricultural lands, natural resources, open space, and human development help to create the character that the Township's residents call their own and the visual images that residents carry with them of the place they call home.

Historic preservation is an important element in the planning process because it protects and retains historic resources that provide a reminder of original settlement patterns – such as land uses and railroads – that helped create the landscape of today. A plan for historic resource protection is required under the Pennsylvania Municipalities Planning Code (MPC). Historic resources in Pocopson Township are found in the villages of Northbrook and Locust Grove, as well as the surrounding landscapes.

Scenic preservation is not mandated, but is a worthy goal given the value of scenic resources to a community's sense of place. Scenic resources can be found in diverse forms such as scenic features, vistas, corridors, or roads, and can and do overlap with natural, historic, and agricultural features. To avoid duplication, all historic resources identified in this chapter are considered scenic resources for the purpose of developing future protection measures, but will be discussed independently. Natural and agricultural resources that are significant for scenic purposes will be discussed throughout the Chapter as appropriate.

This Chapter also addresses intrusions and negative impacts on the scenic landscape, such as light pollution and outdoor signage. Scenic qualities are lost not only through large scale land use development, but incrementally through poor quality siting and design on a minor scale.

This chapter addresses the following topics:

- Inventory
 - Historic Resources
 - Historic Overview
 - What is a Historic Resource?
 - Township Historic Resources
 - Local Historic Preservation Activities
 - Federal, State, and County Policy and Programs
 - Resource Protection Measures
 - Regional Initiatives and Efforts



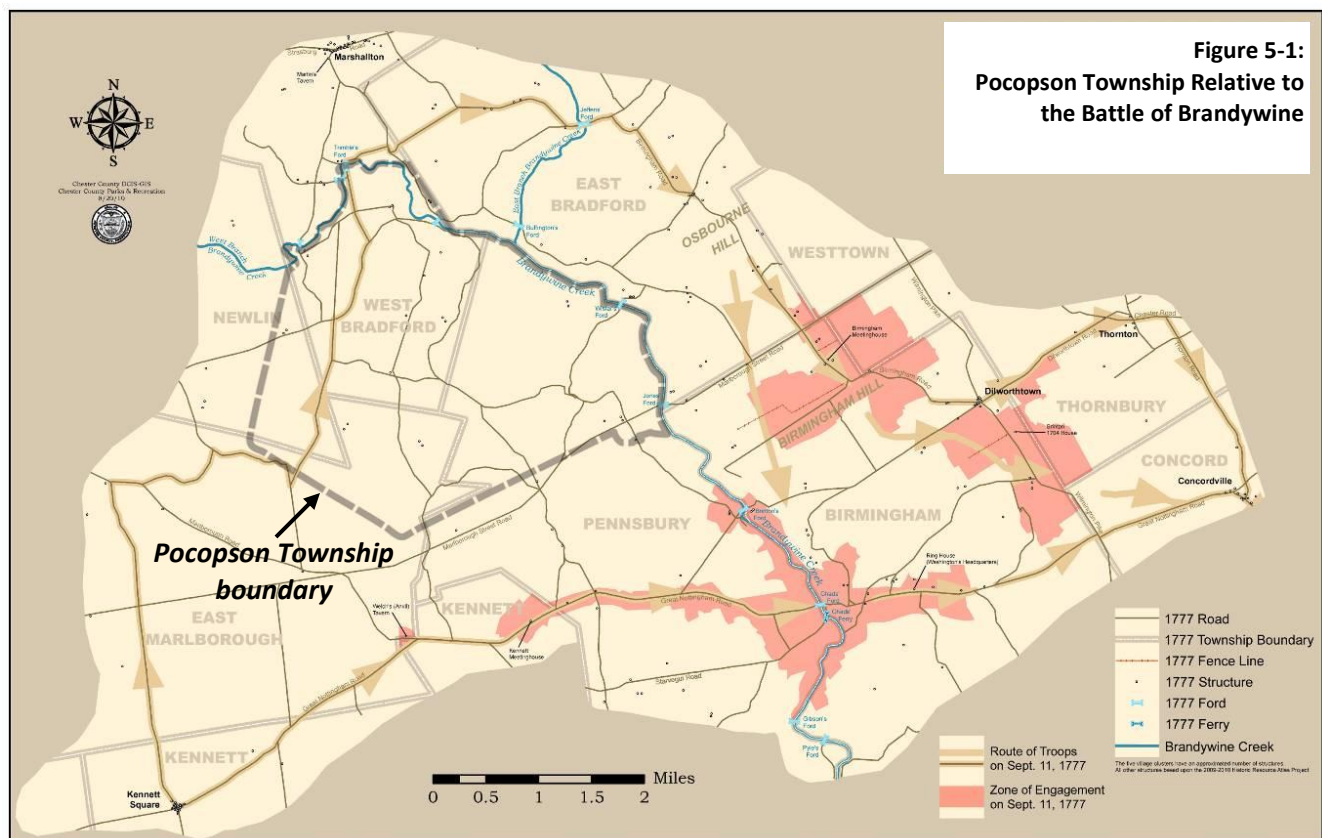
- Scenic Resources
 - Types of Scenic Resources
 - Existing Scenic Resources
 - Scenic Intrusions
 - Resource Protection Measures
 - Regional Initiatives and Efforts
- Planning Implications
- Recommendations

Inventory

Historic Resources

Historic Overview

The municipality of Pocopson Township was formed late relative to other Chester County municipalities. As shown on Figure 5-1, the area recognized today as Pocopson Township was once included within the neighboring townships of West Bradford, Newlin, East Marlborough, and Pennsbury. In 1777 the area consisted of scattered structures, most of them likely farm buildings. The area played an

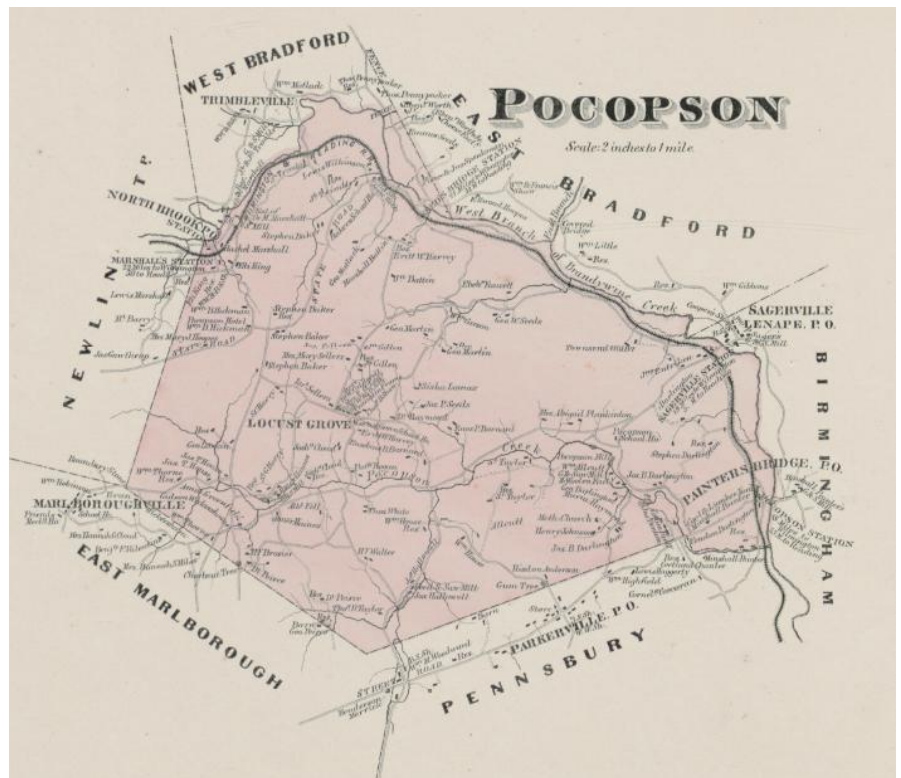


important role in the Battle of Brandywine on September 11, 1777. Unknown to American forces, the British had split their troops, moving along the Great Nottingham Road (modern day Route 1), but also in a flanking maneuver to the north. The British flanking maneuver is believed to have approximately taken them along Red Lion Road, Route 842, and Bragg Hill Road as they headed for an acceptable crossing of the West Branch Brandywine Creek. It was near Trimble's Ford that Justice Thomas Cheyney and Colonel John Hannum sighted a large number of British soldiers pouring over a hill, and Cheyney rode off to warn George Washington of the British movement.

In 1848, 28 male inhabitants of West Bradford, Newlin, East Marlborough, and Pennsbury petitioned for a new township. Three of the four townships contested the petition, but the new township was approved in the Court of Quarter Sessions and elections were ordered for 1849. The name Pocopson, noted in some sources to indicate flowing waters, is actually a variation of the Algonquin word for a high, wooded marsh, fitting for this area along Brandywine Creek and bisected by Pocopson Creek. In the mid-1800s Pocopson Township was an important corridor in the Underground Railroad, as Eusebius Barnard and his family opened their home to black families fleeing slavery. The efforts of the Barnard family in operating a station on the Underground Railroad, as well as the efforts of the larger Quaker community in the area, are documented in *The History of the Underground Railroad in Chester and Neighboring Counties of Pennsylvania* (R.C. Smedley, 1883, republished in 2005).

Pocopson Township in 1874 and 1883 is depicted in Figure 5-2. The villages of Northbrook and Locust Grove (also

Figure 5-2: Pocopson Township in 1874 and 1883



Source: 1874 Witmer Atlas and 1883 Breous Farm Atlas

known as Corinne, the post office name) are evident, as are the Bakers School House (Route 842), Locust Grove School House, and Pocopson School House. Portions of the Township are identified as Northbrook, Sagerville (1874 only), Lenape, Pocopson, Dugdale (1883 only), and Marlborough. The Wilmington and Northern Railroad is evident, and had been in passenger and freight service since 1870, with stops in Pocopson, Lenape, Wawaset, and Northbrook. Still in use today for freight, passenger service on this line ended in the mid-1900s. Other notable features are the bridges at each of the modern crossings – Northbrook Road, Route 842, Route 52, and Route 926.

Beginning in 1891, Lenape was connected to West Chester via a trolley line, which was continued on to Kennett Square in 1904. The trolley was discontinued in 1929. The independent school houses of Pocopson Township were discontinued in 1923 with the consolidation of public education in Unionville.

Pocopson Township has been long described as a rural area of villages and hamlets. Historically businesses in the Township have been limited, but have included saw mills, brick kilns, dairy farms, blacksmiths, and general stores. Non-residential uses remain limited, with clusters at Pocopson, Lenape, and Northbrook. Residential development in recent decades has taken a pattern more suburban in appearance, however the villages remain and the Township is less intensely developed than most surrounding municipalities.

What is a Historic Resource?

Historic resources are defined in various ways by different agencies and organizations that are charged with, or have an interest in, the preservation of these resources. Broadly speaking, historic resources are buildings, sites, districts, objects, or structures evaluated as historically significant. At the federal level, it is the National Register of Historic Places that is the official inventory of historic resources that should be preserved. The National Register was authorized under the National Historic Preservation Act (NHPA) of 1966 and is administered by the National Park Service. Additional information on the NHPA and National Register is provided in the Federal, State, County Policy and Programs section, below. The National Register includes buildings, sites, structures, objects, and districts that are significant in American history, architecture, archeology, engineering, and culture. The National Park Service generally defines historic resource categories as follows:

- **Building:** A house, barn, church, hotel, or similar construction created principally to shelter any form of human activity.
- **Site:** The location of a significant event, a prehistoric or historic occupation or activity, or a building or structure, whether standing, ruined or vanished, where the location itself possesses historic, cultural or archaeological value.
- **Structure:** A building used for purposes other than sheltering human activity.
- **Object:** A form of simple construction that is primarily artistic in nature and relatively small in scale. It may be movable, but is generally associated with a specific setting or environment.
- **District:** A significant concentration, linkage, or continuity of site, buildings, structures, or objects united historically or aesthetically by plan or physical development.

A comprehensive historic preservation program begins with the identification and evaluation of historic resources, so that the nature and types of resources to be protected is understood. Once historic resources have been systematically identified through a survey, implementation strategies can be undertaken to protect these resources. Historic resources change over time and, depending on the type and degree of the change, it should be respected as part of the natural evolution of that resource.

Township Historic Resources

Multiple efforts have been undertaken to identify historic resources and help preserve the local heritage and character of Pocopson Township. The Chester County Historic Sites Survey (1979-82) identified 72 historic sites in Pocopson Township. The County Survey is considered a “preliminary” or “reconnaissance” survey, focusing on a listing of sites, primarily residential, and providing general information such as location and owner. Sites documented in the County Survey are on file at the Chester County Historical Society, as well as stored with the Township and Chester County Parks and Recreation Department. The Pocopson Township Open Space, Recreation, and Environmental Resources Plan (1993) noted the 72 resources of the Chester County Historic Sites Survey resources. Of those 72 historic resources, two were noted as being listed on the National Register of Historic Places – the Wilkinson House and the Northbrook Historic District.

At this time, the state database of historic resources website identifies several resources listed on or determined eligible for listing on the National Register, which are depicted on Map 5-1 and described as follows:

- Northbrook Historic District – listed in 1985, significant for its association with the Lenni-Lenape Indians, the Marshall family, and the Wilmington and Northern Railroad. The majority of the buildings within the district are considered contributing. The District is also located within Newlin and West Bradford townships.
- Trimbleville Historic District – listed in 1985, significant as a hamlet along the West Branch of the Brandywine Creek with a history of Quaker settlement, farming, and mill location, as well as its role in the Battle of Brandywine (as the location of the British crossing of the Brandywine in their effort to flank Washington’s troops). The District is primarily located within West Bradford Township.
- Wilkinson Property – listed in 1985, significant for its Rural Gothic style (with remarkably intact architectural integrity) and use of the property for a coal business along the Wilmington and Northern Railroad. Supporting narrative for its inclusion on the National Register specifically notes the importance of the home, outbuilding, and coal bin.
- Pocopson Station Property – determined eligible in 1995.
- Darlington Farm Property – determined eligible in 1996.
- Williamson/Mordecai Cloud Property – determined eligible in 1996.



The Wilkinson Property along Route 842, once a stop along the Wilmington and Northern Railroad.

In addition to these historic resources within Pocopson Township, the Marlborough Village Historic District (National Register listed resource) is located to the immediate west. The seven arch stone Lenape Bridge over the floodplain is also listed on the National Register, and is immediately adjacent in Birmingham Township (the concrete structure over Brandywine Creek at Lenape is not listed on the National Register). The historic Brandywine Battlefield extends into Pocopson Township (and well as several other municipalities), as depicted on Figure 5-1.

In 2010, Pocopson Township completed a Historic Resource Atlas in coordination with the Chester County Parks and Recreation Department. These resources are depicted on Map 5-1 (with the National Register sites). The Chester County Historic Resource Atlas is an effort between the Chester County Parks and Recreation Department and GIS Department in partnership with the Chester County Historic Preservation Network and municipalities. The Atlas identifies and inventories historic resources 50 years or older for planning purposes, and is being completed on a municipality-by-municipality basis. As of summer 2014, 39 municipalities in the County had completed their Historic Resource Atlases and others were underway.

Historic resources in Pocopson's Atlas have been classified as to their significance based on National Register criteria for resource evaluation. The classification structure was agreed upon by Pocopson and the Chester County Heritage Preservation Coordinator. Class I and II resources are considered to be of critical importance to the quality of life in Chester County and resource protection planning is recommended to protect these resources.

Class I: The resource is listed on, contributes to, or is determined eligible for inclusion in the National Register of Historic Places. This includes contributing resources in a national register district or eligible district.

Class II: Based on National Register eligibility criteria, the resource is considered by the municipality to meet the standards to be considered for the National Register of Historic Places or is identified as highly significant at a local level.

Class III: All remaining resources that are 50 years and older effective at the published date of the Historic Resource Atlas.

In 2010, the Pocopson Atlas identified nine Class I resources. Four are contributing resources within the Northbrook Historic District, one is the Wilkinson Property, one is Lenape Bridge (the historic portion of which is located in Birmingham Township), two are the parcels associated with the Darlington Farm, and one resource was mapped at the intersection of Haines Mill Road and Larkin Bailey Road. It has since been determined the Haines Mill Road/Larkin Bailey Road property was incorrectly mapped. The Class I resource is 651 Haines Mill Road, and 680 Haines Mill Road is a Class II property. Additionally, it has been determined that there are two more Class I resources, specifically 45 Bragg Hill Road (part of the Trimbleville Historic District) and Pocopson Station (determined National Register eligible in 1995). Township copies of the Atlas should be changed to reflect these updates. There are just over 100 Class II resources within the Township.

Even though local historic resources may not be listed on or eligible for the National Register, due to their local significance, these sites should still receive consideration



A residence within the Northbrook Historic District, constructed in 1900 for use as Northbrook Sunday School and at one time used by the Marshallton Grange.

when a change of land use, other zoning permit item, new land development, or subdivision is proposed that may affect the historic integrity of the site. The Pocopson Township Historic Resource Atlas is available for review at the Township Building.

Another historic feature of note within Pocopson Township is evidence of the trolley line that extended from West Chester to Kennett Square by way of Lenape and Unionville in the late 1800s and early 1900s. The West Chester Street Railway ran along Route 52 and Lenape-Unionville Road, and portions of its grading are still extant, particularly to the west of the Route 52/Lenape-Unionville Road intersection.

Local Historic Preservation Activities

Historic preservation activities in Pocopson Township have been supported by the Pocopson Township Historical Committee. The mission of the Historical Committee includes identification of historic resources, encouragement of preservation (to include educational programs and community involvement activities), and acting in an advisory function to the Township Planning Commission. The mission statement also notes that the committee shall include a chairman, vice chairman, and secretary and report to the Board of Supervisors. Bylaws for the Committee were drafted in 2008 but have not been adopted to date.

One of the primary efforts of the Pocopson Township Historical Committee is renovating the Locust Grove Schoolhouse, which was purchased by the Township in 2004. Locust Grove Schoolhouse opened its doors in 1865, and closed with the consolidation of public education in Unionville in 1923. Renovations to the Schoolhouse have been ongoing for several years, with significant progress made with federal, state, grant, and individual funding. The office of Representative Steve Barrar has assisted Pocopson in seeking grant funding for this project. No Township funds have been expended for renovation purposes for the schoolhouse. Plans call for the building to be used for education and outreach purposes and display of historic artifacts. Progress on the renovations and general information on the Schoolhouse can be found at <http://locustgroveschoolhouse.org>.

The Historical Committee is also working on collecting pre-World War II photographs, newspaper articles, or other artifacts of the Township, and recording and transcribing histories from long-time residents. The Historical Committee maintains a presence at the Township's annual Founder's Day, including opening the Locust Grove Schoolhouse.

The reuse of the Eusebuis Barnard House has been the charge of the Barnard House Steering Committee. The Barnard House and 68 acres of open space were transferred from Chester County to the Township in 2008 at no cost to the Township as part of the development process for the Youth Detention Center. Plans call for renovations for use as the Township Building and to house the Kennett Underground Railroad Center. The historical significance of the house, and the Barnard family, are



Locust Grove Schoolhouse closed in 1923 with consolidation of public education in Unionville, but has been renovated and opens for education and outreach.

well documented. The historical marker for the property (part of PHMC's statewide marker program) notes the following:

Being a Quaker, Barnard became a member of the Progressive Friends movement and upheld its active affirmation of the ideals of temperance, equality of women, and the abolition of slavery. His farm became a station on the Underground Railroad. He and his family, at great risk to their own lives, provided shelter to freedom seekers, then escorted them to their next safe haven. He was a founding member of the Longwood Progressive Meeting.

The Barnard House and property are significant reminders of the Quaker and agricultural history of the Township, as well as the role of Pocopson Township families in the Underground Railroad. The Barnard House is also located in a highly visible and convenient location within the Township, making access ideal for local residents and visitors. Major aspects of the Barnard House renovation project are in the design phase, while limited renovations such as window repair have been completed.

Historic preservation requires both public and private sector efforts and activities. There is an interdependent relationship between the public and private sectors: when the public sector is successful, it creates supportive policy and regulation, develops necessary infrastructure, supports economic activities, and creates a desirable quality of life; when the private sector is successful it creates a strong economic base, keeps property values high, and generates tax revenue. This relationship is evident with both the Locust Grove Schoolhouse and Barnard House.



A view of the south and west sides of the Barnard House. The original block of the dwelling is to the right, with the ell addition to the left.

Federal, State, and County Policy and Programs

There are a variety of federal, state, and county programs and policies that are relevant to historic resources and historic preservation. While the discussion below is not a comprehensive listing of these programs and policies, it does cover those most relevant to Pocopson Township.

Federal Policy and Programs

The **National Historic Preservation Act of 1966 (NHPA)** earmarked the beginning of a broad scale federal historic preservation policy and created a strong legal basis for the protection of historic resources through a framework of measures to be used at the federal, state, and local levels. The NHPA was a response to public outcry against the severe loss of historic resources, and was to create a comprehensive framework for protecting historic resources throughout the nation through a system of reviews, regulations, and incentives. The NHPA encouraged cooperation among federal, state, and local governments as well as individual agencies to address the protection of historic resources. Key NHPA programs and mandates include:

- Formalized the National Register of Historic Places.
- Requires any project that receives federal funds, sponsorship, or assistance review its impact on historic properties (Section 106 review).
- Authorized State Historic Preservation Offices (SHPO) to facilitate cooperation among governmental levels by coordinating preservation activities and administering preservation activities contained in the NHPA on a state level. In Pennsylvania, this agency is PHMC.
- Authorized the Certified Local Government (CLG) Program, which enables municipalities to participate directly in federal preservation programs and to access (through the state) certain funds slated for historic preservation activities.



Pennsylvania Historical
& Museum Commission

The **National Register of Historic Places** is the official, comprehensive listing of districts, sites, buildings, structures, and objects of historical, architectural/engineering, or cultural significance to the prehistory and history of the locality, state, or nation that are deemed worthy of preservation. The list is maintained by the National Park Service under the US Department of the Interior. In Pennsylvania the National Register program is managed by PHMC (specifically its Bureau for Historic Preservation).

Sites on the National Register are termed ‘National Register listed’ sites. Through a preliminary review process, sites also may be determined to be eligible for listing, referred to as ‘National Register eligible’ sites or as having received a ‘Determination of Eligibility’ (DOE). In the case of a National Register Historic District, proposed District boundaries are delineated to include areas and properties determined to be significant; these properties are ‘contributing’ to the district. Within those boundaries may also be properties which are not considered significant to the district, and these properties are considered ‘non-contributing’.

A National Register listing on its own does not affect the rights of property owners nor place obligations or restrictions on the use or disposition of property. Local governments can choose to locally regulate historic resources, and include National Register properties within their definition of historic resources. A National Register listing, or determination of eligibility, does impact the use of federal funds or assistance because federal or federally assisted projects need to be reviewed for their potential impact on National Register listed or eligible sites under the Section 106 process (described below).

To determine significance, there is a set of established criteria against which a property will be reviewed to determine whether it could be on the National Register. Criteria for evaluation are:

The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

- that are associated with events, activities, or patterns that have made a significant contribution to the broad patterns of our history; or
- that are associated with the lives of persons significant in our past; or
- that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

- that has yielded, or may be likely to yield, information important in prehistory or history.

National Register listed and eligible properties are included on a listing that is updated frequently and can be found on PHMC's website. As previously noted, the list indicates that Pocopson Township contains three National Register eligible properties, one National Register listed property, one National Register listed bridge, and portions of two National Register Historic Districts. (See Map 5-1.)

The **Section 106 process** was one of the most effective components of the NHPA in reducing the loss of historic resources. This section of the NHPA requires that any federally sponsored, funded or assisted project, including those requiring a federal permit, license, or approval, is reviewed for its impact on historic resources either listed on, or determined eligible for, the National Register. The federal agency directly or indirectly responsible for the project is responsible for ensuring compliance with the review process. Section 106 does not necessarily protect historic resources from demolition or alteration, however, it requires an investigation of alternatives and consideration of mitigation measures for projects that are federally sponsored, funded, or assisted. For example, all PennDOT projects must ensure that a Section 106 review is conducted to determine a project's potential impact on historic resources prior to construction. Some of the Pocopson Township properties listed or eligible for National Register listing were investigated as required by the Section 106 process (such as Pocopson Station and the Darlington Farm properties around the Route 926 bridge).



Pocopson Station Property, once an important stop on the Wilmington and Northern Railroad, and now adaptively reused as a veterinarian's office.

The **Certified Local Government (CLG) Program**, enabled under the NHPA, was established to facilitate greater participation in historic preservation at the local level. It strives to encourage local, state, and federal partnerships to protect historic resources and address historic preservation issues. A CLG is one that meets certain criteria including:

- The adoption and enforcement of historic preservation regulations,
- Establishment of an historical commission or similar body, and
- Engaging in the survey of historic properties.

One of the most important incentives of the CLG program is increased access to federal preservation funds. Ten percent of each state's allocation of historic preservation funds (as authorized by the NHPA) must be allocated to the CLGs. In Pennsylvania, funds are administered by PHMC. As of 2012, Pocopson Township was not a CLG.

The availability of **federal income tax credits for historic preservation** – specifically the rehabilitation of income producing historic resources - has proven to be a very effective means of encouraging their voluntary preservation. Investment tax credits first became available for historic preservation in 1976, and for the next 10 years, they served as a major incentive as billions of dollars were expended in the rehabilitation of historic properties. Although the program was scaled back in 1986, investment tax

credits remain available and may result in substantial savings in rehabilitation costs, often making rehabilitation more financially feasible than new construction. Section 47 of the Internal Revenue Code, promulgated after the Tax Reform Act of 1986, provides a rehabilitation tax credit of 20 percent for the rehabilitation of certified historic structures (for commercial, industrial, agricultural, or rental residential purposes, but not for structures used exclusively as an owner's private residence) or a rehabilitation tax credit of 10 percent for the rehabilitation of a non-historic buildings placed in service before 1936 (applies only to buildings rehabilitated for non-residential uses). A 'certified historic structure' is one that is either individually listed on the National Register or is certified as "contributing" to a National Register Historic District. (See State Policy and Programs for details on Pennsylvania's new companion tax credit program.)

Unrelated to the federal rehabilitation tax credit program, but with separate federal tax implications, are preservation easements. For historic preservation purposes, a preservation easement is a legal agreement designed to protect a significant historic, archaeological, or cultural resource, or a portion thereof. Under an easement, a property owner grants a portion of the property rights to a qualified organization. Many times easements are specifically for the preservation of a historic building's façade – called a façade easement - whereby the focus is to ensure that the historic building's façade will be maintained, protected, and preserved in perpetuity. There are potential financial benefits for a property owner from the charitable donation of a facade easement to a tax-exempt organization. The donation of a façade easement must be made for conservation purposes, such as the protection of a National Register listed historic structure, and must be made in perpetuity. Unlike the rehabilitation tax credit, an easement donation can be for a structure used for either business or non-business use.

State Policy and Programs

The **Pennsylvania History Code, Title 37** of the Pennsylvania Consolidated Statutes reiterates many of the federal mandates required through NHPA. The code pertains to the conservation, preservation, protection, and management of historical and museum resources and identifies PHMC as the responsible agency. It outlines Pennsylvania's legal framework for historic preservation and also mandates cooperation among other state entities in identifying and protecting historic and archeological resources. Additional state legislation addresses preservation, supplementing the provisions of the History Code.

The **Pennsylvania Historical and Museum Commission (PHMC)** is responsible for maintaining and administering the state's sites and museums, making determinations of eligibility for the National Register, managing the State Archives, and administering a wide variety of historic preservation programs as the State Historic Preservation Office (SHPO). PHMC also provides education and outreach about historic preservation and assists municipalities, preservation organizations, and other preservation groups in preservation topics and issues.

Building Better Communities: The Preservation of Place in Pennsylvania - Pennsylvania's Statewide Historic Preservation Plan 2012 - 2017 is the most recent update to Pennsylvania's historic preservation plan, first developed in 1999 by PHMC and its partners. The five main goals of the plan are as follows:

- *Goal 1:* Increase preservation planning at the local level.
- *Goal 2:* Expand and strengthen state and federal partnerships.
- *Goal 3:* Bolster the efforts of preservation advocates and partners.
- *Goal 4:* Identify, recruit, and engage new audiences.
- *Goal 5:* Administer an effective and proactive statewide historic preservation plan.

Act 167, Historic District Act of 1961, authorizes municipalities to create local historic districts and protect historic and architectural character through regulating the erection, reconstruction, alteration, restoration, demolition, or razing of buildings within those historic districts, once they are formally certified through PHMC. Act 167 also requires the appointment of an historic architectural review board (HARB) to advise the local governing body on the appropriateness of building activity in the district. As of 2012, there are no Act 167 Certified Historic Districts in Pocopson Township.

Act 247, the Pennsylvania Municipalities Planning Code (MPC) authorizes the use of municipal land use controls such as use regulations and area and bulk requirements to protect historic resources. MPC enabled regulations primarily focus on land use-oriented provisions, in contrast to the Act 167 regulations that focus on architectural character. The MPC regulates places having unique historical, architectural, or patriotic interest or value through the creation of a specific zoning classification. In Chester County, the MPC has often been applied to protect historic resources through adoption of municipal-wide historic overlay zoning. Relevant portions of the MPC are as follows:

Article I of the MPC establishes General Provisions for the Act:

Section 105, Purpose of Act - “It is the intent, purpose and scope of this act to protect and promote safety, health and morals; ... to promote the preservation of this Commonwealth’s natural and historic resources and prime agricultural land;to encourage the preservation of prime agricultural land and natural and **historic resources** through easements, transfer of development rights and rezoning;...”

Section 107, Definitions - “Preservation or protection,” when used in connection with natural and **historic resources**, shall include means to conserve and safeguard these resources from wasteful or destructive use,...”

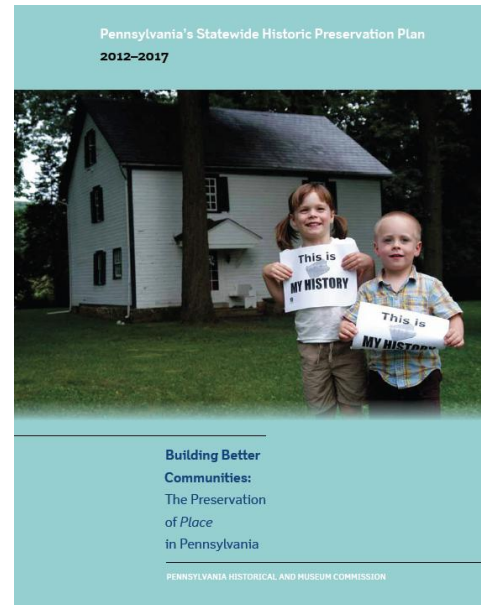
Section 107, Definitions - “Public grounds,” includes: ... “(3) publicly owned or operated scenic and **historic sites**.”

Article III of the MPC establishes the basis for comprehensive planning:

Section 301(a)(6) - “The municipal, multi-municipal or county comprehensive plan... shall include... a plan for the protection of natural and **historic resources**...”

Article VI of the MPC establishes the basis for zoning ordinances and provides for the protection of historic resources through zoning:

Section 603(b)(5) - “Zoning ordinances ... may permit, prohibit, regulate, restrict and determine [among other provisions]... protection and preservation of natural and **historic resources** and prime agricultural land and activities.”



The latest Statewide Historic Preservation Plan focuses on local efforts and partnerships.

Section 603(c)(7) – “Zoning ordinances may contain: [among other provisions]... provisions to promote and preservation prime agricultural land, environmentally sensitive areas and **areas of historic significance.**”

Section 603(g)(2) – “Zoning ordinances shall provide for protection of natural and **historic features and resources.**”

Section 604(1) – “The provisions of zoning ordinances shall be designed to promote, protect and facilitate any or all of the following: ... preservation of the natural, scenic and **historic values** in the environment...”

Section 605(2)(vi) – “... Where zoning districts are created, all provisions shall be uniform for each class of uses or structures, within each district, except that additional classifications may be made within any district: ... for the regulation, restriction or prohibition of uses and structures at, along or near: ... places having unique **historical, architectural** or patriotic interest or value...”

PHMC’s Historical Marker Program, established in 1946, is one of the PHMC’s oldest, most popular, and recognized state programs. Located throughout Pennsylvania, the blue and gold markers highlight people, places, and events significant in history. New markers are approved and erected along Pennsylvania roadways every year. PHMC owns and maintains the markers after they are installed and dedicated. There are over 2,000 markers statewide, including one in Pocopson Township. Located along South Wawaset Road, the marker acknowledges the work of Eusebius Barnard and his family in the areas of the ideals of temperance, equality of women, and abolition of slavery, and was erected in 2011.



A PHMC marker identifies the significance of the Barnard property for all visitors.

Act 537, the Pennsylvania Sewage Facilities Act, requires each municipality in Pennsylvania to have an Official Sewage Facilities Plan that addresses existing and future sewage disposal needs. With limited exceptions, PADEP requires completion of formal sewage facilities planning modules for new subdivisions and/or land development to update the municipal Act 537 plan before a subdivision is created. Once a planning module has been completed by an applicant, it is given to the municipality in which the project is proposed for review, as well as PADEP and various county agencies.

Prior to PADEP review of the planning module, PHMC reviews and comments to PADEP on potential effects on significant historical and archeological resources. PADEP is to consider this review and implement PHMC’s recommendations. An applicant is required to submit a Cultural Resources Notice form to PHMC if a proposal involves ten acres or more of earth disturbance; and/or if a 50 year old or older structure(s) is on the site of the proposed development. Activities which may affect properties included on the National Register are not exempt regardless of project size. Procedural gaps can occur in the process and a municipality should take steps to ensure they receive PHMC comments.

The **Pennsylvania Historic Preservation Incentive Act** closely mirrors the federal program, providing a 25 percent tax credit for restoring historic properties. Historic properties are defined as those listed on the National Register or structures located within a historic district listed on the National Register or certified by the National Park Service. The property must be used for income-producing purposes. The Act was signed into law in 2012, with an annual limit of three million and an individual

property cap of \$500,000. Applications for this program are handled by the Pennsylvania Department of Community and Economic Development (PADCED).

County Policy and Programs

Landscapes2, the Chester County Comprehensive Policy Plan, addresses the loss of important historic resources. *Landscapes2* is a 2009 update to *Landscapes*, which was developed in response to concerns over sprawling development patterns and the high land consumption rate resulting in a reduction and loss of resources. *Landscapes2* champions the balance of growth and preservation, sustainable communities, and “green” communities, including the protection of cultural resources. The Plan includes specific resource protection objectives and policies as well as actions to carry out historic resource protection.

Preserving Our Places: An Historic Preservation Planning Manual for Chester County Communities promotes the implementation of the historic preservation goals and objectives in *Landscape* and *Landscapes2* by providing general background information about historic preservation, providing an outline of core elements of a comprehensive historic resource protection plan, and describing historic resource protection planning for Urban, Suburban, and Rural settings.

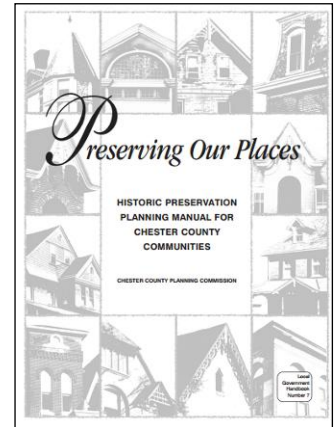
Through the **Vision Partnership Program (VPP)**, the Chester County Commissioners provide matching grants for eligible projects on a competitive basis to qualified municipalities in the County. Historic preservation plan projects, historic resource surveys, and ordinance and special study implementation projects may be eligible for funding under this program.

The **Chester County Historic Preservation Coordinator** promotes heritage tourism for the County as well as provides direct heritage and historic preservation assistance to municipalities in a variety of ways, including the following:

- The **Chester County Historic Resource Atlas**, as noted previously, is a cooperative planning effort to identify and inventory historic resources 50 years or older, and is being completed on a municipality-by-municipality basis. Pocopson Township completed an Atlas in 2010.
- The **Chester County Historic Certification Program** resulted from public and private requests for acknowledgement of locally significant historic resources that may not be eligible for the National Register. Designation is issued upon request for the recognition of locally significant historic resources that meet specific criteria. Documentation (such as assessment and deed records, lineage, and historic maps) must be submitted in support of the designation. Pocopson Township does not have any sites in the County Historic Certification Program.
- **Technical expertise and educational assistance** is provided to the public and municipalities including residents, businesses, property owners, taskforces, historic preservation organizations, and historical commissions, committees and societies, and covers historic preservation issues as well as historic structures preservation and maintenance standards.

Other Programs and Entities

The **Chester County Historic Preservation Network (CCHPN)** is a non-profit organization that provides support to grassroots historic preservation efforts. CCHPN’s mission is to be an affiliation of local organizations and individuals dedicated to protecting and preserving Chester County’s historic resources and landscapes through education, facilitation, and public and private advocacy. Activities include



educational programs for municipal officials and historical commissions on preservation-related topics, a summer picnic that recognizes volunteers and highlights a successful preservation project in the county, publishing a newsletter, providing support to the Chester County GIS Historic Resources Atlas project, and co-sponsoring (with Chester County Parks Department and Conference and Visitors Bureau) the Chester County Town Tours and Village Walks program.

Past federal transportation funding bills have included programs to strengthen the cultural, aesthetic, and environmental aspects of the nation's intermodal transportation system. The current federal funding bill (MAP-21) is more limited with respect to historic resources, with potentially eligible historic projects being restricted to historic preservation of transportation facilities under the **Transportation Alternatives Program (TAP)**.

The **National Trust for Historic Preservation** has helped protect historic resources for more than 50 years. The Trust provides leadership, education, and advocacy to save America's diverse historic places and revitalize communities. The Trust owns and operates a collection of nationally significant house museums and provides a wide range of preservation services across the country, including grant programs.

Partners for Sacred Places, based in Philadelphia, is the nation's only non-denominational, non-profit organization devoted to helping Americans embrace, maintain and make good use of older and historic religious structures. Partners for Sacred Places provides assistance and serves as an information clearinghouse for groups interested in finding out more information on how to maintain historic structures, share property and uses, and conduct outreach and fundraising.

Resource Protection Measures

Pocopson Township's current regulatory controls for historic resources are limited. The floodplain district language within the Zoning Ordinance provides a definition and a waiver for historic resources from certain regulations within that district. Also within the Zoning Ordinance, § 250-16 provides for bonus density for the preservation of historic sites and landscapes or historic restoration/rehabilitation.

Regional Initiatives and Efforts

Kennett Area Historical Commission

Created under the Kennett Area Regional Planning Commission, the Kennett Area Historical Commission provides a regional perspective to historic resources and a forum for individual municipalities to share information and resources. Pocopson Township participates in this group, which is currently focused on efforts related to the Battle of Brandywine.

Southeastern Chester County Historical Society

This regional entity hosts educational lectures on a regular basis to increase knowledge of and interest in historic resources.

Kennett Underground Railroad Center

Founded in 1998, the Kennett Underground Railroad Center (KURC) is a non-profit organization focusing on educating the public through exhibits, Kennett Underground Railroad Heritage Trail Tour, dramas, lectures, and education/outreach



programs. KURC also does extensive research in order to authenticate Underground Railroad “stations”, and has documented over two dozen sites in southern Chester County. A major goal for KURC is a permanent local site for its exhibits, and the organization is currently partnering with Pocopson Township on use of space in the renovated Eusebius Barnard House for this purpose.

Brandywine Battlefield

The Brandywine Battlefield, listed on the National Register as a National Historic Landmark (NHL) in 1961, includes portions of five municipalities in Chester County (Kennett, Birmingham, Pennsbury, Thornbury, and Westtown) and one in Delaware County (Chadds Ford). In recent years there have been efforts to better understand the movements of American and British forces during the Revolutionary War, specifically the Philadelphia Campaign. These efforts have resulted in a clearer understanding of events on and leading up to September 11, 1777, the Battle of Brandywine, and established that portions of six additional Chester County municipalities (East Bradford, West Bradford, Pocopson, Newlin, East Marlborough, New Garden, and Kennett Square) and two Delaware County municipalities (Thornbury and Concord) were also involved in the battle (see Figure 5-1).

The area of present-day Pocopson Township was crossed by British forces as they worked to surprise the American troops with a flanking strategy. Crossing Brandywine Creek was key to this flanking strategy, and the British crossed the West Branch at Trimble’s Ford, located northeast of Northbrook, after travelling north on Red Lion Road, Route 842, and Bragg Hill Road.

The Brandywine Battlefield Task Force formed in 1993 as a volunteer group interested in working collaboratively to preserve and protect the Brandywine Battlefield, its history, and its resources. The Brandywine Battlefield Task Force now includes all 15 municipalities where events occurred, senators and congressional representatives, and other interested parties. The Brandywine Battlefield Preservation Plan was recently completed, and identified 21 historic resources in Pocopson Township related to the Battle of Brandywine. Additional studies are underway on strategic areas, which include areas of Pocopson Township. These efforts have been funded by the American Battlefield Protection Program. Pocopson Township participates in the Brandywine Battlefield Task Force.

Scenic Resources

Scenic resources were addressed in the 1993 *Open Space, Recreation and Environmental Resources Plan*, with a focus on environmental features. This plan updates the inventory of scenic resources in the *Open Space, Recreation and Environmental Resources Plan*, and broadens the definition of scenic resources while categorizing the resources in a modified manner. Broadening the scenic definition more thoroughly captures the features that Township residents would recognize as scenic.

Pocopson Township’s scenic character is formed in part by the variety of uses imposed on the area’s landscapes and the communities that developed on those landscapes. The confluence of natural resources, agricultural properties, historic

resources, and open space helps to create the character that Pocopson Township residents recognize as their own.

Scenic resources can and do overlap with natural, historic, and agricultural features. While natural and agricultural features that are scenic will be discussed in this section, all historic resources identified previously in this chapter will not be addressed again but should be considered scenic. Whether agricultural, historic, or natural, all scenic resources are categorized based on their most prominent attributes that promote the Township's character. Intrusions and negative impacts on the scenic landscape, such as light pollution and signage, are also addressed as part of this discussion. Preserving existing scenic resources, and minimizing intrusions on the landscape, helps preserve local character and quality of life.

Types of Scenic Resources

Each category of scenic resources has unique characteristics that separate it from the others, and together they are distinct from the related natural, historic, and agricultural resource categories. Photographs offer further clarification on the types of resources.

Scenic Feature

A specific feature, visible from multiple public viewpoints, but limited in overall geographic scale, that has inherent scenic or aesthetic value. Stone walls, rock outcrops, or ruins would be examples of scenic features.

Scenic Vista

A physiographic area composed of natural, historic, agricultural, and/or cultural elements that may be viewed from a public area such as a roadway or park, and which has inherent scenic qualities and/or aesthetic values.

Scenic Road

A road that provides a unique traveling experience as a result of the characteristics of the road itself. These characteristics may include its narrow width, a canopy of trees, or the informal nature of the road's alignment.

Scenic Corridor

A corridor, such as a roadway or waterway and its adjacent area, that provides opportunities for the enjoyment of exceptional beauty or natural, historic, or cultural features. For the purposes of this Plan, the scenic corridor can include scenic features within view of the roadway or waterway. A scenic corridor moves the experience of the driver, pedestrian, cyclist, fisherman, or boater beyond the immediate area to those attributes within view.



A scenic feature along Red Lion Road.



A scenic vista of farm and woodlands from South Wawaset Road.

Image courtesy of Barney Leonard.



Portions of Haines Mill Road (above) are a scenic road, with a full tree canopy, meandering alignment, and limited development, while Brag Hill Road (below) is a scenic corridor, with views of rolling pasture.



Existing Scenic Resources

The inventory from the *Open Space, Recreation and Environmental Resources Plan* served as the starting point for this inventory of scenic resources in Pocopson Township. Input from the Task Force and field views updated and verified the information. Scenic resources noted in Figure 5-3 and depicted on Map 5-2 are representative of the area's landscapes, character, and cultural feel. As noted previously, all historic resources identified on Map 5-1 should also be considered scenic, but are not included within Figure 5-3 or Map 5-2 unless it was determined that additional mention of scenic qualities was appropriate (such as with Scenic Features 5 and 6).

Figure 5-3: Existing Scenic Resources

Name	Description
Scenic Feature	
1. Rock outcrops	Near the Route 842 bridge, along Brandywine Creek, along West Creek Road
2. Flowers	Bank of spring blooming wildflowers, bloodroot, fern, and dutchman's breeches along Brandywine Creek
3. Stone structure	Stable converted to residential structure
4. Waterfall	Waterfall/dam at Lenape Park
5. Pocopson Station	Former train station, converted to a commercial business, stone structure
6. Darlington Farm	Stone house and barn
7. Springhouse	
8. Bridge	Stone construction from 1814
9. Ruins and Pond	Stone house ruins on southeast side of road and pond and springhouse on northwest side of road
10. Pond	
11. Two ponds	
12. Springhouse	Stone construction, located directly adjacent to the road
13. Ruins	Brick house ruins
14. House	Including barn and springhouse
15. Brick house	
16. BVA features	Barn (stone and wood framed construction), silo, and 84" dbh White Oak near entrance
Scenic Vista	
A. Bragg Hill Road	View NW and NE from the eastern portion of Bragg Hill Road; view of agricultural fields and Brandywine
B. Davidson Road	View NW and NE from Davidson Road; view of agricultural fields and woodlands
C. Wawaset Road	View N and SE of agricultural fields, woodlands, and Brandywine Creek valley
D. Wawaset Road	View NE of agricultural fields
Scenic Road	
Davidson Road	
Denton Hollow Road	
Red Lion Road	
Northbrook Road	
Corinne Road	
Parkersville Road	
Haines Mill Road (between Brooks Road and Locust Grove Road)	
Scenic Corridor	
Brandywine Creek/Creek Road	
Wawaset-Unionville Road (Route 842)	
Bragg Hill Road/Trail	
Wawaset Road	
Locust Grove Road	
Hickory Hill Road	
Pocopson Creek	

Scenic Intrusions

Scenic intrusions are those manufactured objects or structures that detract from the landscape, such as: poorly sited or designed development (residential, commercial, institutional, or industrial), light pollution, inappropriate signage, utility structures or transmission lines, parking facilities, and abandoned or unkempt properties. A single intrusion can tarnish an otherwise scenic landscape, and depending on how topography and landscaping either permit or obscure views, it can diminish a scenic landscape from multiple viewpoints. A comprehensive listing of existing, individual, scenic intrusions was not developed as part of this Plan because existing features are difficult to change. Avoiding the creation of new scenic intrusions is a feasible goal however, and the discussion below and recommendations at the end of this chapter focus on this purpose.

Poorly Sited or Designed Development

This type of residential, commercial, institutional, or industrial development ignores the context and resources of the site and, in doing so, loses an opportunity to fit in with the existing landscape. In creating and maintaining an up-to-date listing of scenic resources, as well as requiring protection of natural resources, the township can notify developers of the resources they consider critical early in the development process, enabling a site design that fits with the character of the site and surrounding area.

Light Pollution

Light pollution is any adverse effect of artificial light including sky glow, glare, light trespass, light clutter, decreased visibility at night, and energy waste.¹ Light pollution is created by stray outdoor lighting that creates a halo of brightness, blocking out the Milky Way, individual stars, and other features visible under more natural conditions. One need only travel to an area without light pollution on a clear night and view the night sky in comparison to the typical Chester County night sky to understand the difference.

Light pollution is not just a concern because of the impact on our view of the night sky, or the nuisance one neighbor can inflict on another. Impacts can generally be grouped within the following categories: **human health, safety, energy, and wildlife**. **Human health** is impacted through disruption of circadian rhythms, impacts that are significant enough for the American Medical Association to adopt a resolution in 2009 to support the reduction of light pollution. **Safety** can be compromised by “disability glare” (particularly when excessive lighting impacts drivers), and by lighting that may be perceived as increasing security. Various studies, including a 1997 National Institute of Justice study, have shown no conclusive correlation between night lighting and crime. Light pollution is wasted **energy**, which translates to wasted money and wasted natural resources. **Wildlife** perhaps suffers the most from light pollution, as nocturnal animals become confused and disoriented. Species have experienced a decline in reproduction, difficulty foraging for food, increased exposure to predators, and increased mortality due to impairment of their night vision.² Using the appropriate amount of light for the task at hand in the most

¹As defined by the International Dark-Sky Association, www.darksky.org.

² International Dark-Sky Association, www.darksky.org.

efficient manner possible is being energy-efficient, safe, and preserves dark skies for everyone.

Utilities

Utilities come in many forms, and from a scenic perspective, it is the visible structures or transmission lines, such as cell towers, stormwater management facilities, and overhead transmission lines that are of most concern. As with other forms of development, the siting and design of these features should be regulated to the degree possible in order to avoid, minimize, or mitigate impacts to scenic features. Empty detention basins that lack landscaping quickly become eyesores – proper ordinance language regarding design can prevent this. While control of certain utilities, such as cell towers, comes under the purview of state or federal agencies, municipalities retain some control, such as location (within certain zoning districts) and design (such as a flag pole or silo structure).

Other entities may also control some aspects of utility design and location. Federal regulations require that cell tower construction trigger a review of potential impacts to historic resources that are listed or eligible for the National Register of Historic Places. Certain conservation programs, such as the Chester County Agricultural Conservation Easement Program, may prohibit construction of cell towers as part of easement conditions. Lands under conservation easement by any non-profit or government entity may have similar restrictions or prohibitions.

Overhead utility lines, particularly electric transmission towers and lines like those that cross the eastern portion of the Township, can be significant scenic intrusions. Although little can be done with existing lines and structures, redevelopment in selected locations may warrant the requirement that utility lines be located underground. Although costly to implement, in selected locations it may be beneficial in the long term.

Signage

Outdoor signage is a necessity, and when designed appropriately it can complement the character of an area. Advertising that is too close together, distracts drivers, or blocks a scenic vista is inappropriate. The MPC permits municipalities to regulate signage, including size, location, and lighting. Doing so provides municipalities a greater level of control over the impact of advertising.

Parking Facilities

Parking is another feature that can have an impact on a community's character without proper design. Endless pavement, lack of vegetation, and the locational prominence of a parking area can create a scenic intrusion. Appropriate layout and landscaping can turn a parking area into a less offensive, and even pleasant, feature of a development.

Abandoned Buildings/Unkempt Properties

Abandoned buildings and/or unkempt structures or properties are a public eyesore and can become a public nuisance and health concern if not addressed. In addressing this type of scenic intrusion, maintaining the public health and safety should be a primary consideration.

Resource Protection Measures

Pocopson Township currently has extensive natural resource protection measures in place, in both the Zoning Ordinance and Subdivision and Land Development Ordinance. Due to the overlap of natural resources and scenic qualities, these measures are critical in protecting scenic resources. However, there are limited regulatory provisions related specifically to historic or scenic resources.

Regional Initiatives and Efforts

Brandywine Valley Scenic Byway

Initiated in 2002 as a grass roots effort by local communities, the Brandywine Valley Scenic Byway, which includes portions of Route 52, Creek Road, Strasburg Road, and Birmingham Road, was designated a Pennsylvania State Byway in 2005. (See Figure 5-4 for the entire path of the Byway.) Within Pocopson Township, the byway runs along Route 52 (see Map 5-2). The Byway connects with a byway in Delaware of the same name, which holds both state and national byway designations. Seven municipalities in Chester and Delaware Counties (Kennett, Pennsbury, East Marlborough, Pocopson, Birmingham, East Bradford, and Chadds Ford townships) form the Byway Commission and oversee the Byway.

A Corridor Management Plan (CMP) is underway for the Pennsylvania portion of the Brandywine Valley Scenic Byway, and serves two purposes. One is to provide strategies for byway management (covering both preservation and tourism), and the other to provide sufficient documentation for application for National Scenic Byway Designation. The Corridor Management Plan is anticipated to be complete in 2014. In 2010, grant funding was awarded to extend a bikeway north along Route 52 into Pennsylvania to the Pocopson Township boundary. Availability of funding for such efforts in the future is questionable however, as the current (2014) federal transportation program, Map-21, provides no funds for the federal byway program.

PA Scenic River

The “Lower Brandywine” was designated as a Scenic River by Pennsylvania in 1989. The PA Scenic River program is administered by the Pennsylvania Department of Conservation and Natural Resources (PADCNR). The stretch included within the designation extends from the Pennsylvania/Delaware state border north to portions of both the West and East Branches. The Pocopson Creek tributary is also included within the PA Scenic River designation. Map 5-2 depicts the extent of the PA Scenic River designation within Pocopson Township. The Lower Brandywine is identified as “scenic” for the purposes of this program (wild and pastoral are other potential classifications). In this context, PADCNR defines scenic as:

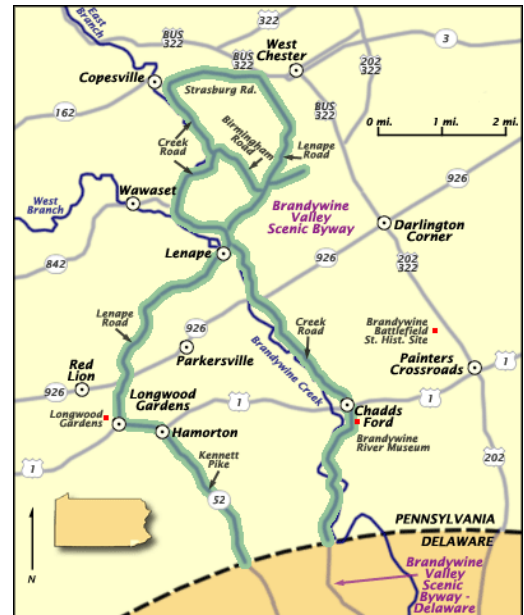


Figure 5-4: Brandywine Valley Scenic Byway winds through seven municipalities, including Pocopson Township.



The scenic qualities of the Brandywine Creek corridor are part of its attraction for recreation users.

Scenic rivers shall be free-flowing and capable of, or under restoration, to support water-based recreation, fish and aquatic life. The view from the river or its banks shall be predominately wild, but may reveal some pastoral countryside. The segment may be intermittently accessible by road.

The Brandywine Conservancy is the managing organization for the Lower Brandywine Scenic River, and is currently working on a multi-municipal greenway plan for the Brandywine Creek. Pocopson Township is participating in this effort.

Planning Implications

Historic

Historic resources are a critical component of Pocopson Township, however they are exposed to potential degradation due to lack of regulatory protection.

Scenic

Scenic resources contribute to the image and character of Pocopson Township. Existing natural resource regulations protect many aspects of the scenic character of the Township, but policies and ordinances could be strengthened to provide more comprehensive protection and minimize the impacts of scenic intrusions.

Recommendations

The recommendations below detail how Pocopson Township can protect and preserve historic and scenic resources, with options ranging from regulatory to public education. Priorities for the implementation of these recommendations are established in Chapter 12, Implementation Measures. Implementation of the recommendations identified below will help Pocopson Township achieve its historic and scenic resources goal to:

Preserve, protect, and enhance the integrity of historic and scenic resources and their settings.

Overall

5-1 Facilitate coordination internally and with outside groups to highlight historic resources, as well as create and preserve scenic areas, in appropriate locations.

Historic resources are often passed by without notice by the public. Installation of markers or interpretative signage can highlight valuable historic resources and bring public attention to the value of these resources and local history. Related to this is the importance of preserving scenic qualities where possible, but also creating new scenic areas, particularly in key public locations, such as historic resources, trailheads, park entrances, and other Township owned facilities. Coordination between the Historical Committee, Barnard House Steering Committee, Public Works Department and Park, Recreation, and Trail Committee could result in the development of a list of potential locations for historic markers and scenic improvements, with priority placed on those locations where both objectives could be met. Projects could include plantings around the Barnard House PHMC marker, plantings around park entrance signs, and installation of new interpretative signage and plantings at key locations (Locust Grove Schoolhouse, Northbrook Historic District, and Barnard House). Advance identification of locations and specific projects would facilitate the use of volunteer assistance for efforts of this nature, which could be coordinated with outside groups such as the Unionville-Chadds Ford School District, or local Boy Scouts.

5-2 Continue participation in regional initiatives related to historic and scenic resources.

Pocopson Township is currently active in several regional efforts related to historic and scenic resources, such as the Brandywine Battlefield Task Force and Brandywine Valley Scenic Byway Commission. Maintaining an active role in efforts of this nature allows the Township to be better aware of regional projects and share information and resources.

Historic

5-3 Investigate installing historic markers using PHMC's Historical Marker Program or developing a local marker program.

Related to recommendation 5-1, the Historical Committee should investigate pursuing PHMC historic markers for significant historic sites in the Township, as well as consider the development of a local marker program. The PHMC historical marker program may be applied for annually by any person or organization. Limited matching grants are available for the manufacture of markers. PHMC's website includes guidelines on the nomination process. A local program could consider additional sites and forms of recognition, such as plaques, and should be undertaken separate from the state program. Most

historical markers are dedicated in public events, which present opportunities for the community to both celebrate and understand their heritage.

5-4 Continue to identify and evaluate historic resources through historic resource surveys.

The *Historic Resource Atlas*, completed by Pocopson Township, in 2010 was a reconnaissance or windshield survey – information collected included physical information such as age, materials, style, and condition. Additional research and documentation should be conducted, such as a comprehensive survey and potentially an intensive survey, when funding and time permit. Surveys of this nature would allow the *Atlas* content to be enhanced to document architectural and historic features and significance, and would require a professional consultant. For consistency, the PA Historic Resource Survey Form should be used, as it is the form used when applying to PHMC for a National Register determination of eligibility.

5-5 Support nominations of high priority properties for eligibility and/or listing on the National Register of Historic Places.

The National Register is an important public education tool, providing recognition of valuable historic resources and heightening community interest in historic resources. The prestige of National Register listing can also be a helpful marketing tool for a property owner and has the potential to help attract historic tourism. National Register status also provides certain levels of protection from the impacts of federally funded or permitted projects, and listing provides access to funding and federal and state tax credits for certain types of uses, primarily nonresidential.

National Register listing is a two step process. First, a Pennsylvania Historic Resource Survey Form, ideally completed as part of the comprehensive historic resource survey, is submitted to PHMC for review and evaluation of National Register criteria. If a property is determined to be eligible, the second step is completion of a National Register nomination form. Should a property be determined eligible but then not pursue listing, it is important to understand that eligible resources are provided the same level of protection with regard to federal projects as are listed resources. However most tax credit programs are limited only to properties formally listed on the National Register. National Park Service guidance documents on pursuing National Register listing are available online (www.nps.gov/history) and include:

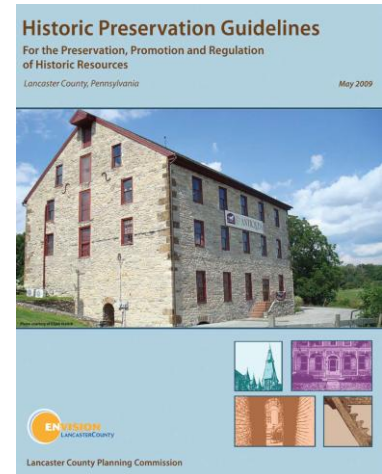
- How to Apply the National Register Criteria for Evaluation (Bulletin #15)
- How to Complete the National Register Registration Form (Bulletin #16A)
- How to Complete the National Register Multiple Property Documentation Form (Bulletin #16B)
- Guidelines for Evaluating and Documenting Rural Historic Landscapes (Bulletin #30)
- Guidelines for Evaluating and Registering Cemeteries and Burial Places (Bulletin #41)
- Guidelines for Evaluating and Documenting Properties Associated with Significant Persons (Bulletin #32)

- How to Evaluate and Nominate Designed Historic Landscapes (Bulletin #18)
- Guidelines for Evaluating and Registering Archeological Properties (Bulletin #36)

5-6 Create a historic overlay district in the zoning ordinance.

Creation of a historic overlay district is most effective in municipalities with historic resources that are scattered rather than concentrated in a single developed area. A historic overlay district is intended to supplement the underlying zoning to foster preservation of historic resources. This approach does not provide for architectural controls (although that can occur through negotiation), but instead modifies characteristics such as use, lot area, setbacks, height and bulk to preserve existing historic resources and ensure that new development is complementary. This type of historic resource protection is enabled through the Pennsylvania Municipalities Code (MPC), and requires documentation of the historic resources that are to be regulated by the overlay district.

Provisions that can potentially be addressed through a historic overlay district include restricting certain uses to conditional use, permitting additional uses in historic resources, and restricting height, bulk and lot coverage to those compatible with existing historic resources. Additional detail on the use of a historic overlay district is provided in the Chester County Planning Commission publication *Preserving Our Places* (1998) and from the Lancaster County Planning Commission publication *Historic Preservation Guidelines* (2009).



5-7 Create a free-standing ordinance to formally establish a Historical Commission and reflect the duties of the Commission.

Given the wealth of historic resources within Pocopson Township, the activities of the existing Historical Committee, and the desire to protect historic resources with a historic overlay district, Pocopson would be well served to create a Historical Commission through a free-standing ordinance. The ordinance would establish the parameters of membership and general administration, but also outline the anticipated activities of the Historical Commission. This step would be essential to successfully implementing a historic overlay district in the zoning ordinance.

5-8 Continue to support the Historical Committee in its role as an advisor to the Board of Supervisors and as the primary public outreach entity for historic resources.

The Historic Committee serves as an advisor to the Board of Supervisors regarding the Township's history and historic and archaeological resources, but is also the primary public outreach entity for historic resources. This outreach includes promotion, advocacy, and education about community history, historic resources and their importance to community character, and historic resource rehabilitation, reuse, and protection.

There are a variety of ways to educate the public regarding historic issues, and the Historic Committee already uses various outreach methods. Additional methods to consider would be hosting workshops or publicly recognizing

business owners or homeowners that undertake construction, rehabilitation, or restoration projects that are sensitive to historic character. Important topics to cover in public outreach would be the National Register of Historic Places and adaptive reuse.

5-9 Update the SLDO to help promote historic resource recognition and protection.

The subdivision and land development process can be used as a means to identify historic resources and work with landowners to preferably avoid impacts to these resources, but at a minimum to minimize and mitigate impacts. The SLDO should require identification of historic resources on subdivision and land development plans and consideration of measures to avoid/minimize/mitigate impacts. This step is necessary if a historic overlay district is created, but advisable regardless.

5-10 Consider becoming a Certified Local Government (CLG).

The CLG program, described in detail under Federal Policy and Programs, is a program of the National Park Service and administered in Pennsylvania by the PHMC. Participation in CLG provides access to federal preservation grant funds and technical assistance, but requires the adoption and enforcement of historic preservation regulations. Additional information is available from the National Park Service (<http://www.nps.gov/hps/clg/2004clg.PDF>) and by contacting PHMC's Community Preservation Coordinator for the Eastern Region.

5-11 Work to ensure all PHMC comments on projects requiring a sewage planning module have been received prior to granting preliminary or final plan approval.

State regulations establish procedures for sewage planning module approvals and permit reviews. PHMC review for historic resources is a requirement of the PADEP sewage planning module process. With many entities at various agencies and locations involved in the review, procedural gaps can occur. Pocopson Township should ensure that they receive PHMC review comments in regard to the impacts of projects on historic resources prior to any action on a project.

5-12 Consider opportunities to preserve and protect features and landscapes related to the Brandywine Battle.

As shown on Figure 5-1, troops involved in the Brandywine Battle crossed through the area of Pocopson Township as part of movements on the day of the battle, September 11, 1777. Much of the Brandywine Battlefield has changed, but Pocopson Township remains largely rural and agricultural in the area of the troop movements. Pocopson Township should consider opportunities to protect and preserve this landscape and related features. Preservation as private open space, or creation of a passive park, should be considered if opportunities arise.

Scenic

5-13 Review and amend municipal ordinances as necessary to guide development to areas less likely to impact scenic resources.

Protection of scenic resources requires that municipal ordinances recognize scenic resources and their value. The following steps are critical to complete this process:

- Recognize the importance of scenic resources within ordinances (Purpose statements),
- Maintain a current listing of resources (through updates to Figure 5-3), and
- Require within ordinances that any proposed subdivision, land development, or permit action in the vicinity of a recognized scenic resource coordinate early and throughout project development with the municipality to avoid, minimize, and/or mitigate negative scenic impacts.

Avoidance could be as simple as relocating an access point to a different portion of a property, avoiding being in the line of a scenic vista. Minimization could be a design that reduces the prominence of new development from the public view. Mitigation could be as simple as a well thought-out landscaping plan that provides a buffer between a new structure and an existing scenic resource. Early awareness and coordination regarding scenic resources is key to protecting the qualities that these resources bring to the community.

5-14 Coordinate with PennDOT (or Chester County as appropriate) on any proposed transportation projects early and throughout the project development process to ensure a context sensitive design.

Construction or rehabilitation of roads or bridges can create significant impacts to the local environment, including scenic, natural, historic, or agricultural resources. In any transportation project it is critical that the local community be involved at the earliest stages to identify significant resources and transportation needs in order to achieve a project that serves the transportation needs while protecting community resources. Pocopson Township is familiar with this process from the Route 926 bridge project and Route 52/Wawaset Road intersection improvement project.

5-15 Support efforts to organize volunteers to participate in PennDOT's Adopt-a-Highway Program and the Great Pennsylvania Cleanup Program.

Participants in the Pennsylvania Department of Transportation's (PennDOT's) Adopt-A-Highway program are requested to adopt a two-mile portion of state highway and pick up litter at least four times a year, with PennDOT providing safety training, safety vests, highway warning signs, and trash bags. PennDOT will also post signs acknowledging the volunteer's efforts and pick up bagged litter from the roadside. The Great American Cleanup of Pennsylvania program is a spring statewide community cleanup program and part of Keep Pennsylvania

Beautiful. The program asks communities to organize and conduct local cleanups – recruit volunteers, promote the event, and report the results for inclusion in statewide and national cleanup totals. Previously active in cleanups, Pocopson Township could again coordinate a cleanup on its own, or partner with area businesses, service clubs, or institutions (such as the Brandywine Valley Association) in the effort.

5-16 Review municipal ordinances and update as necessary to recognize the negative impact of scenic intrusions and require that applicants seeking to construct a new scenic intrusion, or redevelop an existing scenic intrusion, investigate options to avoid, minimize, or mitigate its negative scenic impacts.

Scenic intrusions can be addressed in part through regulations such as zoning and subdivision and land development ordinances. As sites with existing scenic intrusions are redeveloped or require any type of municipal permit, discussion of ways to minimize or mitigate the intrusion should occur between the municipality and the property owner. Early awareness and coordination regarding scenic intrusions is key to minimizing the negative aspects of these features within a community.

5-17 Review and amend ordinance language to more fully address the negative impacts of lighting and promote the continuance of dark skies.

Existing regulations addressing lighting in the Subdivision and Land Development Ordinance are limited and do not address shielding, glare, or full cut-off fixtures. Regulations within the Zoning Ordinance are focused on the level of illumination created once in place, and largely do not address appropriate lighting design. Pocopson Township can help preserve dark skies by updating lighting regulations in a more comprehensive manner in both of the Subdivision and Land Development Ordinance and the Zoning Ordinance to prevent glare and light pollution by requiring the use of reasonable lighting levels, luminaries that do not emit glare and light above the horizontal (full cut-off), and automatic extinguishing of lighting when it is not needed. The Pennsylvania Outdoor Lighting Council is a local resource for model ordinances and will present to municipal or other groups regarding light pollution on request.

5-18 Continue to recognize the importance of dark skies protection and educate residents through the Pocopson Township newsletter, website, and other outreach methods.

Public education is always important to avoiding, minimizing, and mitigating the negative impacts of scenic intrusions, but particularly so with regard to lighting due to the extent of existing lighting that creates light pollution. Educational materials on reasons for promoting dark skies and reducing light pollution, as well as guidance for reducing light pollution within residential neighborhoods, are available from the International Dark-Sky Association.

5-19 Review ordinance provisions and amend as necessary to diminish the impact of outdoor signage, and investigate the option of developing specific design guidelines.

Strengthening signage regulations within the Zoning Ordinance is important to help prevent the overuse of signs of all types, ensure signs are not a distraction to drivers, promote good sign design guidelines, and avoid impacts on scenic resources. While Pocopson Township does have sign standards in the Zoning Ordinance, these could be strengthened to minimize the scenic impact of outdoor advertising. Ordinance provisions regarding signs should always avoid any regulation based on content.

A 2012 amendment to the Zoning Ordinance specified additional allowable size for a sign based on being in harmony with the “surrounding neighborhood with regard to design, color and location” (§ 250-52.G(6)). However there are no guidelines regarding design, color or location. Specific design guidelines could be created to address features such as size, color, material, lighting, legibility, and sign type. By creating guidelines for areas that have a concentration of commercial or mixed uses, a municipality can encourage a consistency in appearance that improves the scenic character of an area while allowing for flexibility and uniqueness. Pocopson Township could establish guidelines to clarify its vision and intent with regarding to § 250-52.G(6).

5-20 Review ordinance provisions to ensure they permit and encourage utility structures and transmission lines (such as cell towers, stormwater management facilities, and overhead utility lines) and to respond to scenic qualities as well as functional requirements, and conduct coordination early with outside groups regarding construction of these features.

Early coordination on design issues for all utilities is most effective in creating an effective, efficient, and aesthetic facility, even when such coordination is not a regulatory requirement. Best management practices (BMPs) should be encouraged and required where appropriate through regulatory means. Regarding stormwater management, the *Pennsylvania Stormwater Management Practices Manual* (PADEP, 2006) and the Chester County Water Resources Authority’s *Countywide Act 167 Stormwater Management Plan for Chester County* offer current guidance.

5-21 Review ordinance provisions and amend as necessary to ensure they permit and encourage design of parking facilities to respond to scenic qualities as well as functional requirements.

Important issues to consider with parking facility design and construction are access, location, layout, surface treatment, screening, buffering, and landscaping. Inadequate consideration of these features can greatly impact aesthetics. Encouraging or requiring the use of native trees, shrubs, and plants has multiple benefits. Ordinance language should be flexible enough to allow for innovative ideas (such as pervious pavement or shared parking) without compromising minimum standards.

Links

Brandywine Battlefield

<http://brandywinebattlefield.org>

Brandywine Creek Greenway

www.brandywinegreenway.org

Chester County Planning Commission – Preserve our Places

www.chesco.org/planning/lib/planning/documents/preservingplaces/hispresmanual.pdf

Chester County Historic Preservation Network

www.cchpn.org

Great Pennsylvania Cleanup

www.gacofpa.org

International Dark Sky Association

www.darksky.org

Kennett Underground Railroad Center

<http://undergroundrr.kennett.net>

Lancaster County Planning Commission – Historic Preservation Guidelines

www.co.lancaster.pa.us/toolbox

Locust Grove Schoolhouse

<http://locustgroveschoolhouse.org>

National Park Service – Cultural Resources and the National Register

www.nps.gov/history and www.nps.gov/nr

National Trust for Historic Preservation

www.preservationnation.org

Partners for Sacred Places

www.sacredplaces.org

Pennsylvania Department of Transportation (PennDOT) – Adopt a Highway

www.dot.state.pa.us/Internet/Bureaus/pdHwyBeau.nsf/AAHHome?OpenFrameset

Pennsylvania Historical and Museum Commission

www.phmc.state.pa.us

Pennsylvania Outdoor Lighting Council

www.polcouncil.org

TRANSPORTATION AND CIRCULATION INVENTORY AND PLAN

Introduction

The transportation and circulation system affects the character and efficiency of the Township and is an important factor in quality of life for Pocopson Township residents. As residential development pressure in the region is expected to continue, maintaining and, where possible, improving the ability to move within and through the community by a variety of means is critical.

Advancing a variety of transportation options - a multi-modal network - is key to effective transportation planning. A balanced multi-modal network meets varied user needs and improves the sustainability of the transportation network and the Township overall. This chapter describes the existing transportation and circulation system and recommendations to address the needs of the system, within the following framework:

- Inventory
 - Land Use Patterns
 - Modes of Travel
 - Commuting Patterns
 - Identified Transportation Needs
 - Interrelationships among Transportation Modes
- Planning Implications
- Recommendations



Inventory

Land Use Patterns

The transportation system and land use patterns in Pocopson Township are related and contribute to the character and accessibility of the community. The location and intensity of different land uses impact the effectiveness of the circulation system and alter traffic patterns and quality of life for residents. The rail line along the Brandywine Creek spurred development in the late 19th century, just as roadway improvements and connections to regionally important routes spurred residential development along Route 52 in the second half of the 20th century. Bridge crossings have always been important within the Township given its adjacency to Brandywine Creek.



Roads, bridges, and the rail line have played an important role in how Pocopson Township has developed.

Most of the residential growth in Pocopson Township has occurred adjacent to and south of Route 52 and Lenape-Unionville Road. More limited residential growth has occurred in the western portion of the Township, along Red Lion Road, Northbrook Road, Corinne Road, and Marlboro Road. Commercial and industrial development in the Township is limited in scope, and concentrated in the Pocopson and Lenape areas, with a smaller concentration in Northbrook. The presence of the Chester County Prison, Youth Center, and Home near the Route 52/Lenape-Unionville Road/Wawaset Road intersection creates a cluster of institutional uses in the south-central portion of the Township.

Pocopson Township is somewhat removed from the regionally significant roads, such as Route 1, Route 202, and I-95. State roadways that pass through Pocopson - Route 842, Route 926, and Route 52 – provide for local travel as well as serve as connectors to other more heavily travelled roads in the region.

Although Pocopson remains rural in areas and agriculture is an important land use, residential development has changed Pocopson Township in recent decades, creating a bedroom community to some extent. Most Pocopson residents must travel beyond the Township for their employment and basic services. At the same time, institutional and other uses bring workers into Pocopson, and routes 52, 926, and 842 bring travelers through Pocopson on their way to destinations such as West Chester and the Route 202 corridor.

Pocopson is served by two-lane roadways – with the lone exception being a section of one-lane roadway – and in areas it is evident that the demands of travelers are in excess of the transportation network's existing facilities. Safety improvements in key locations would help meet the needs of travelers while enhancing safety for all users and maintain the quality of life for Township residents.

Modes of Travel

The primary mode of travel (type of transportation) for Pocopson residents is the roadway system and single-occupancy auto. Public transportation is very limited within and in close proximity to the Township. Pedestrian facilities have improved in recent years with new trails and sidewalks, although these are focused primarily on recreational functions. Rail service within the Township is limited to freight, while passenger rail is available at the regional level. Details on each mode of travel are provided below.

Roadways and Bridges

Ownership

Pocopson Township has a total of 41.8 miles of roadway within its 8.4 square miles of area for a density of 5.0 miles of roadway per square mile of area. Of the 41.8 miles, 13.0 are owned and maintained by PennDOT, with the remainder (28.8 miles) being owned and maintained by Pocopson Township. PennDOT roads include Route 52, Route 842, Route 926, Red Lion Road, Lenape-Unionville Road, South Wawaset Road, Pocopson Road, and Northbrook Road. For a suburban township that lacks higher classification roadways, this roadway ownership is not unusual.

Functional Classification

Roadways can function in different manners, serving varying traffic volumes, trip lengths and purposes, and accommodating varying traffic speeds. The roadway functional classification system is a method of categorizing roadways by their planned purpose to accommodate varying volumes and types (vehicular, pedestrian, and bicyclist) of traffic. Functional classes, as defined by the Chester County Planning Commission, are depicted in Figure 6-1.

The relationship between access and mobility is a key aspect of roadway classification. Accessibility refers to the ease of entering or exiting a roadway from adjacent properties. Mobility refers to the ability of the road to move traffic. They have an inverse relationship - the more efficiently a road can move traffic, the less efficiently it provides access to adjacent properties, and vice versa.

Roadway functional classification and access/mobility are useful in establishing roadway design standards, access management strategies, and to prioritize improvements. Figure 6-2 depicts the roadway functional classification of Pocopson Township roadways as identified by the Chester County Planning Commission, which include local roads (such as Corinne Road, Locust Grove Road, and many others), local distributors (Northbrook Road, Red Lion Road, Wawaset Road, and Pocopson Road), minor collectors (Route 842

Figure 6-1: Functional Classification



Source: Chester County Planning Commission

and Lenape-Unionville Road), and the minor arterials (Route 52 and Route 926). There are no roadways classified by Chester County Planning Commission as major collectors, major arterials, or expressways in Pocopson Township. The Subdivision and Land Development Ordinance for Pocopson Township identifies and defines only two road classifications: residential and collector. The Zoning Ordinance identifies and defines three road classifications: arterial, collector, and local residential.

Traffic Volumes

Figure 6-3 depicts the range of average daily traffic volume (ADT) on Pocopson Township's major roadways based on 2012 data. Route 926 carries the highest volume of traffic, with over 11,300 ADT. Route 52 carries the next highest volume of traffic (over 9,000 ADT). Traffic volumes decrease significantly on the Township's other roadways, with Route 842 being the next heaviest travelled (more than 2,500 ADT east of Northbrook Road and more than 3,200 ADT west of Northbrook Road). Pocopson Road carries approximately 2,400 ADT in the section between Route 926 and Route 52, and less than 1,900 ADT to the south of Route 926. Roadways with an ADT between 1,500 and 2,000 include Wawaset, Northbrook, and Lenape-Unionville. These volumes of traffic are generally consistent with the functional classifications of the roadways.

Roadway Characteristics

Related to functional classification and traffic volumes, roadway characteristics – or the roadway context – refer to the features that define the roadway for users. These include lane width, shoulder width, median, number of travel lanes, buffer, posted speed, operating speed, access density, clear zones, sight distance, horizontal and vertical curvature, roadside development, physical traffic calming measures, and other features. It is important that these features are consistent in the type of experience they are creating for users, in order to encourage the appropriate speeds of auto and truck

Figure 6-2: Highway Functional Classifications in Pocopson

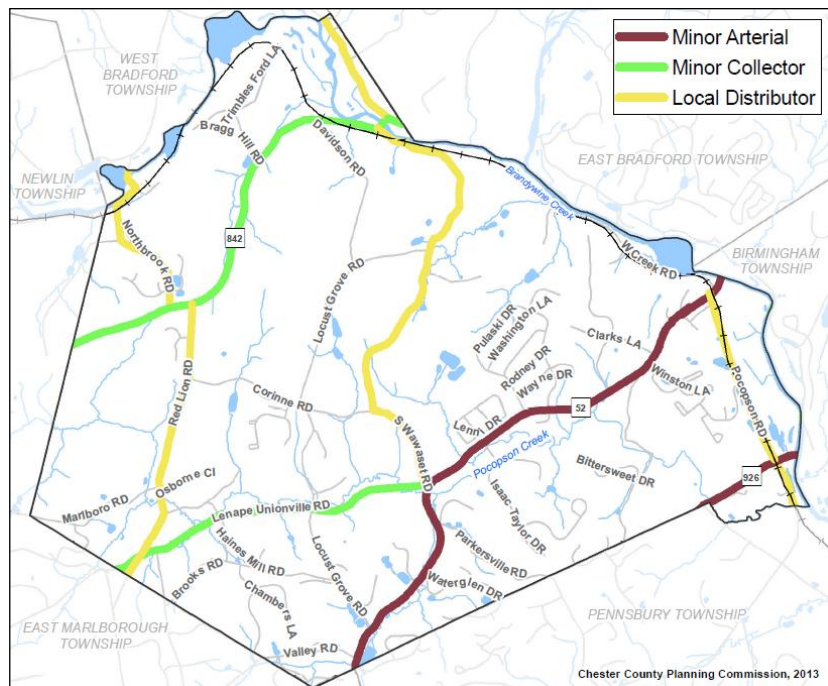
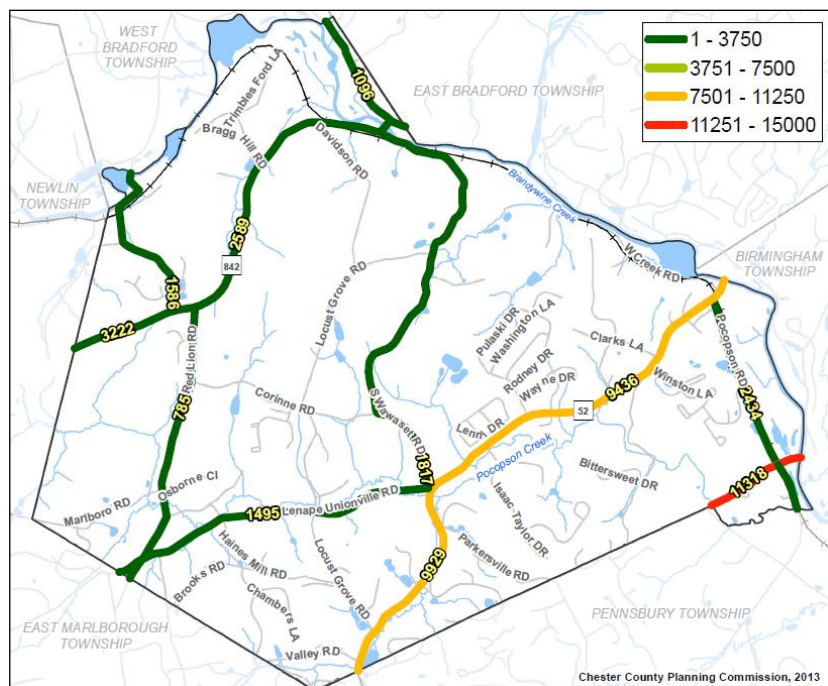


Figure 6-3: Traffic Volumes in Pocopson (ADT)



traffic and improve safety for all users. Context sensitive design is design that responds to corridor characteristics in an appropriate manner to create a safer travel corridor.

The *Smart Transportation Guidebook* defines desired operating speed as the speed of traffic that “best reflects the function of the roadway and the surrounding land use context” (PennDOT and NJDOT, 2008). Identification of the desired operating speed should be made as part of an assessment of roadway and roadside features.

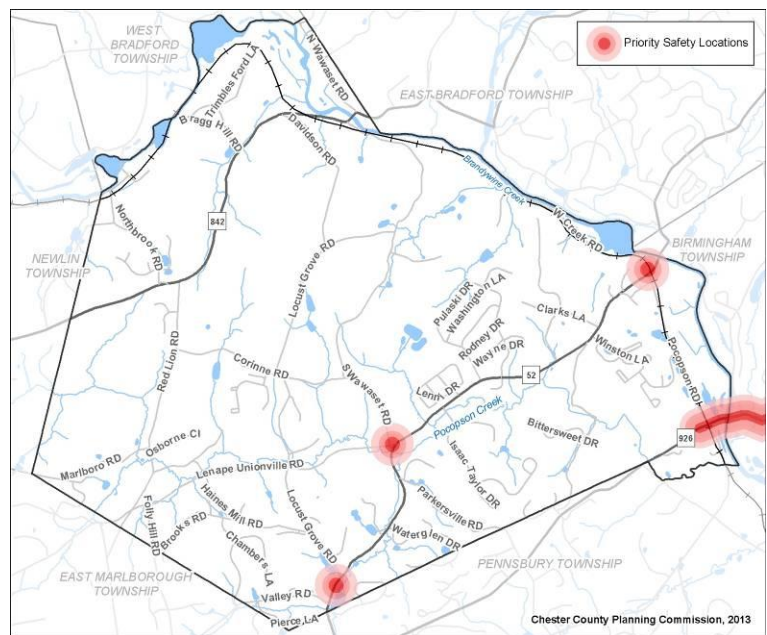
Based on input from the Pocopson Township Roadmaster and the Comprehensive Plan Task Force, areas in Pocopson Township where traffic speeds are currently too fast for the surrounding land use include Red Lion Road, Lenape-Unionville Road, South Wawaset Road, and Route 842 in the area of the Brandywine Valley Association’s Myrick Center. Another specific roadway feature that can be of concern is lane width. There are areas in the Township where limited cartway width may create safety concerns (such as Red Lion Road), but also areas where an excessive of pavement may encourage speeding or unsafe passing (such as Route 52). Access points can also be a concern, as too many access points can impact safety and the effectiveness of the roadway network. Access points are of concern along Route 52.

In addition to consideration of roadway characteristics as part of evaluating and improving existing roads, these characteristics should be carefully assessed in the design and construction of any new roads. Context sensitive design provides a safer experience for users and minimizes the need for future retrofitting. Additionally, properly assessing road characteristics and context ensures that the overall network has the appropriate level of connectivity and is serving users efficiently and safely.

Crash Data

Crash data is collected by PennDOT and distributed to the Chester County Planning Commission for planning and analysis purposes. According to PennDOT a “reportable crash is one in which an injury or a fatality occurs or at least one of the vehicles involved requires towing from the scene.” This definition does not include every accident, but provides data that is both consistent and reliable. Information on specific crashes is not available, but analysis provides insight into where there might be particular areas that should be evaluated for improvements. Figure 6-4 depicts the top four priority locations for safety improvements based on an analysis of the crash data that is collected by PennDOT. Three of the locations are on Route 52, with the fourth being the Route 926/Pocopson Road intersection (and extending along Route 926 to the intersection with Creek Road in Birmingham Township). In addition to the three specific areas along Route 52, other access points onto Route 52 also have a history of crashes.

Figure 6-4: Priority Locations for Safety Improvements



Condition and Maintenance

Several roadways in Pocopson Township have conditions such as sharp bends, poor intersection alignments, poor condition of the pavement edge, and limited sight distances that affect traffic safety. Other features, such as steep adjacent terrain, steep grades, and roadside vegetation contribute to the rural and aesthetic nature of the Township, but can also pose safety issues on roads with higher volumes of traffic. Some safety and efficiency issues have been addressed in recent years with road widening, intersection improvements, and the addition of turning lanes. Examples of recent improvements include the turn lane from Route 52 onto Pocopson Road and the realignment of the Locust Grove/Corinne roads intersection. The roundabout at the intersection of Route 52/Lenape-Unionville Road/South Wawaset Road is scheduled for construction in 2014.



Narrow cartway, poor sight distance, and pavement condition impact several roads within Pocopson Township.

The Township has a five year capital plan for maintenance and repair of Township-owned roads. Base repair and right of way trimming are the main work items currently. Funding for roadway improvements and maintenance is provided through the state liquid fuels revenue and the Township's capital reserve fund.

Bridges

Another important issue for roadways is bridges. For safety reasons, bridges can be posted with weight restrictions or completely closed to traffic. Currently, the Route 926 bridge over Brandywine Creek is posted with a weight restriction. PennDOT also designates bridges as structurally deficient or functionally obsolete when necessary, and assigns sufficiency ratings to track the conditions of bridges. Map 6-1 identifies bridges in Pocopson Township that fall under at least one of these categories, as well as ownership.

Structurally deficient bridges have had deterioration of one or more of the main components. Currently more than 5,000 bridges in Pennsylvania are considered structurally deficient. As noted on Map 6-1, three bridges in Pocopson Township are in this category, including the Route 926 bridge over Brandywine Creek and Denton Hollow Road over Pocopson Creek. Functionally obsolete refers to bridges of an older design or with structural features different from newer bridges. While these features may not be consistent with current design or construction practices, the identification is not an indication of a bridge's structural integrity. Eight bridges in Pocopson Township are in this category, including Denton Hollow Road over Pocopson Creek.

Sufficiency ratings are based on the structure's adequacy and safety (based on inspection), serviceability and functional obsolescence (based on ability to meet current traffic conditions), and how essential the bridge is for public use. The sufficiency rating determines a structure's eligibility for funding for rehabilitation or replacement. Currently funding is not available for those bridges with a sufficiency rating from 80 to 100. Those with a rating from 50 to 79 are eligible for rehabilitation or refurbishment funding, and those with a rating less than 50 are eligible for funding for structure replacement. As noted on Map 6-1, only one bridge has a sufficiency rating less than 50 (Route 926 over Brandywine Creek,

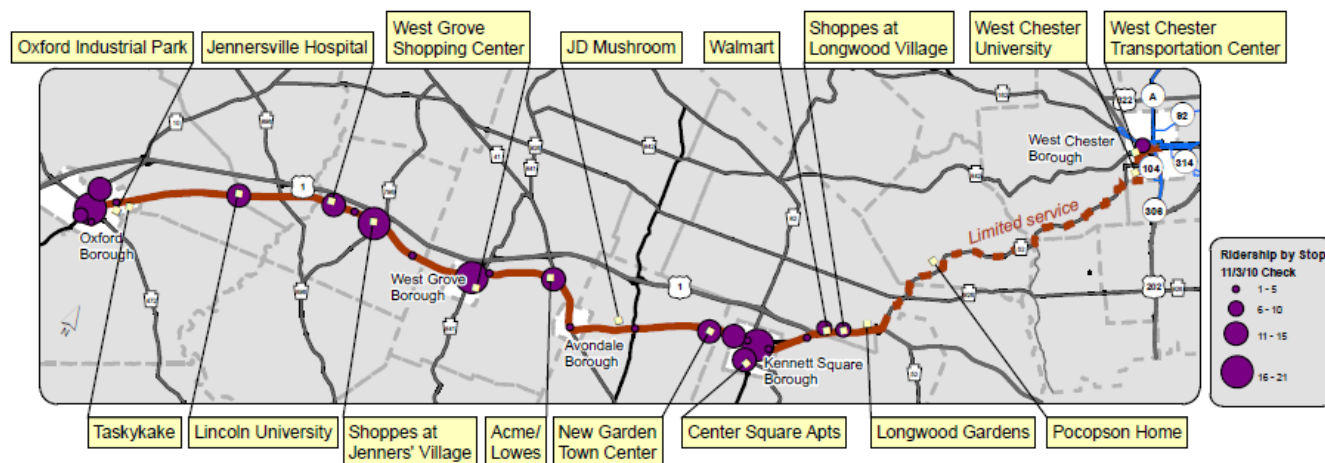


The deck of the Northbrook Road bridge over West Branch Brandywine Creek was rebuilt in 2011. The bridge is categorized as functionally obsolete due in part to the limited width.

with a 10.5 rating) and six have a rating between 50 and 79 (with Denton Hollow Road over Pocopson Creek the lowest of those at 52.7). It is important to note that although many bridges across Pennsylvania have sufficiency ratings that make them eligible for funding, being eligible does not ensure that funds will be available in the near future.

Bus and Taxi

Figure 6-5: SCCOOT Bus Route and Ridership 2010



Source: Chester County Planning Commission

Bus service in Pocopson Township is very limited. The SCCOOT bus route follows Route 52 through Pocopson, but service in the area is noted to be “limited” with only Pocopson Home identified as a stop. Figure 6-5 indicates ridership by stop along the entire route based on a “ridecheck” conducted by TMACC in 2010.

The Southern Chester County Organization on Transportation (SCCOOT) bus provides the only public transportation connection between southern Chester County and SEPTA, and enables residents of southern Chester County to access jobs and services along the Baltimore Pike Corridor and within West Chester. SEPTA provides bus service in West Chester, with connections to various destinations. The service runs Monday through Saturday. SCCOOT bus service is a service of the Transportation Management Association of Chester County (TMACC), and is a partnership with SCCOOT, which is a joint committee of the Southern Chester County Chamber of Commerce and the Oxford Area Chamber of Commerce.

The SCCOOT bus is currently financially supported with federal and state funds through the Job Access and Reverse Commute (JARC) Grant Program, County funds, and funds from Lincoln University. JARC is a competitive grant program which helps fund transportation services that facilitate access to jobs for lower income persons as well as reverse commute trips for the general public. JARC grant funding is considered an unstable funding source, subject to review every two years.

An additional bus service available to Pocopson Township residents is Rover, a reservation based, countywide transportation service partially funded by the Pennsylvania State Lottery and the Commissioners of Chester County. The service operates on weekdays and on a limited basis on weekends. The service focuses on

senior citizens, medical assistance card holders, and persons with disabilities. Fares for those riders are partially subsidized. Service to the general public is full fare and based on availability. The service is currently operating approximately 65 shuttles daily throughout Chester County.

An additional transportation option for Pocopson residents is Rainbow Cab, which operates out of West Chester. Rainbow Cab participates in the Senior Shared Ride Program, in which seniors pay 15 percent of the regular fare. Advance registration in the program is required, as are reservations. The Senior Shared Ride Program is funded through Pennsylvania State Lottery proceeds. A more limited client base can be served through the Ride for Health Initiative, operated in part by the TMACC. The Initiative is a taxi voucher system for clients of partner agencies in need of access to health and human service facilities. The program has been established in the Phoenixville region for several years and began operation in southern Chester County in January 2013.

Rail

Commuter rail service to Philadelphia via SEPTA is available regionally, with the Paoli-Thorndale line accessible at Downingtown, Whitford, Exton, and other points along the Route 30 corridor. Full service along the Paoli-Thorndale line begins at the Malvern station, which recently underwent renovations to improve parking and accessibility. There has been no passenger rail available in West Chester since 1986. The rail service that previously extended to West Chester currently terminates at the Elwyn station in Media, Delaware County. There are long-term plans to extend that line back to the Wawa station, but not into Chester County.

A short line freight railroad crosses the northern portion of Pocopson Township, essentially running parallel to Brandywine Creek and its west branch. The line is operated by East Penn Railroad (part of Regional Rail LLC), which operates roughly one hundred miles of railroad in southeastern Pennsylvania and Delaware. To the west, the line extends to Coatesville, with connections to other regional and national rail systems. To the east, the line extends to Chadds Ford, where it connects to a line coming from West Nottingham Township, and from there the railroad extends to Wilmington, Delaware and connections with national rail systems. East Penn Railroad is in the process of expanding their operations. The rail line is a unique facility that creates economic development opportunities along the length of the corridor, and may attract businesses interested in utilizing the effectiveness of the rail line to send and receive materials or products.



Freight is moved along the East Penn Railroad, pictured here at the Bragg Hill Road at-grade crossing.

Pedestrian and Bicycle Circulation

Existing and proposed trails (including sidewalks) are depicted on Map 8-3 and discussed in detail in the Park, Recreation, and Open Space Inventory and Plan. Bikeability is also discussed in that chapter. Pocopson has invested significantly in trail planning and construction, and is currently guided by the 2010 *Community Trails Master Plan* and the *Concept Plan for the Brandywine Creek Greenway*. Many of the

existing trails are focused on recreation use, and located within or adjacent to recreational facilities (including Pocopson Park, the Barnard House Property, and the Brandywine Valley Association lands). There are trails linking some residential areas to these recreation areas, and a trail linking the Riverside residential development to the Pocopson Elementary School.

The *Master Plan* provides a vision for a complete network across the Township and implementation details. In some areas it is necessary to complete links between existing trail sections, while in other areas entire sections of trail still need to be established. The vision of the *Master Plan* would create a system linking key residential areas and important community facilities. When built out, such a system would provide an important transportation function in addition to its value as a recreation resource.



This trail along Pocopson Road links residential uses, commercial uses, and community facilities.

Commuting Patterns

With public transportation limited regionally, auto dependence is high among Township residents, and the roadway system is of critical importance. Figure 6-6, based on limited surveying through the American Community Survey, indicates what mode of transportation workers use in their daily commute, with Pocopson Township residents more dependent on their autos than Chester County overall.

Figure 6-6: Means of Travel to Work

	Percent of Workers				
	Drove Alone	Carpooled	Public Transit	Other Means	Work at Home
Pocopson	86.1	6.2	2.1	1.1	4.6
Chester County	81.1	7.7	2.6	3.4	5.2

Source: US Census Bureau, American Community Survey 2005 – 2009 Averages.

Figures 6-7 and 6-8 address the travel time to work and work location for Pocopson Township residents (and Chester County residents in comparison). The mean travel time to work for Pocopson residents is approximately 30 minutes. While many Pocopson residents are employed within Chester County, a larger percentage is employed in the surrounding counties.

Figure 6-7: Travel Time to Work

	Percent of Commuters				
	< 15 minutes	15 – 29 minutes	30 – 44 minutes	45 – 59 minutes	➤ 60 minutes
Pocopson	17.8	39.1	22.2	11.6	9.3
Chester County	25.4	33.4	21.4	9.8	9.9

Source: US Census Bureau, American Community Survey 2005 – 2009 Averages.

Figure 6-8: Place of Employment for Pocopson Residents

	Percent of Pocopson Residents
Chester County	41.2
Philadelphia and Suburbs*	34.2
New Castle County, DE	12.7
Other	11.9

*Philadelphia, Delaware, Montgomery, and Bucks counties

Source: US Census Bureau, Center for Economic Studies, 2010 via On The Map

Figure 6-9 identifies the place of residence for the people who work in Pocopson Township (at locations such as the Pocopson Elementary School, Pocopson Home, Chester County Prison, and smaller employers such as Lenape Forge, Fence Authority and Brandywine Hardware). The majority of people who work in Pocopson Township live within Chester County, and there are concentrations of workers in the West Chester, Kennett Square, and Wilmington areas. This distribution of workers indicates that workers are approaching Pocopson from the north, south, and southeast, which illustrates the importance of the entire roadway network. The work commute for those working within Pocopson is shorter than that of Pocopson residents. The data, which reflect 2010, indicate that there were 593 people who worked in Pocopson Township, versus 1, 670 Pocopson residents who are employed.

Figure 6-9: Place of Residence for Pocopson Workers

	Percent of Pocopson Workers
Chester County	66.1
Philadelphia and Suburbs*	15.1
New Castle County, DE	9.1
Other	9.6

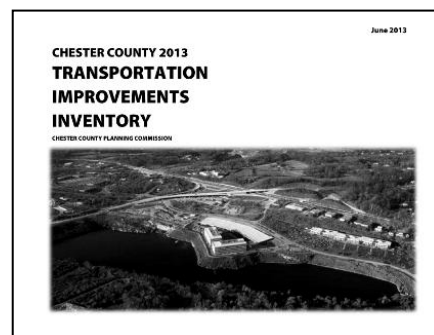
*Philadelphia, Delaware, Montgomery, and Bucks counties

Source: US Census Bureau, Center for Economic Studies, 2010 via On The Map

Identified Transportation Needs

The Chester County Planning Commission's Transportation Improvements Inventory (TII) is a single inventory of identified transportation needs submitted by all municipalities. The TII is updated every two years, most recently in 2013. Inclusion in the TII is the first step for a project to become listed on the Delaware Valley Regional Planning Commission (DVRPC) Transportation Improvements Program (TIP), and encourages municipalities to plan for and prioritize their transportation needs.

The TIP is the regionally agreed upon list of priority transportation projects, as required by federal law. The TIP must list all projects that intend to use federal funds, along with all non-federally funded projects that are regionally significant. Other state funded capital projects are also included. The projects include bicycle, pedestrian, freight related, and innovative air quality projects, as well as the



more traditional highway and public transit projects. The TIP is approved by the Pennsylvania legislature and Federal Highway Administration every other year, and was most recently adopted in 2012 to cover the period 2013 - 2016 (FY13 TIP).

The six projects in the 2013 TII that are located at least partially within Pocopson Township are listed in Figure 6-10. Of those, one is listed on the FY13 TIP: replacement of the Route 926 bridge over Brandywine Creek (SB 2). The Route 926 bridge has the lowest sufficiency rating of any bridge in Pocopson Township, has been designated as structurally deficient, and has a weight restriction (see Map 6-1). The replacement project (PennDOT project number MPMS# 14327) includes improvements to the approach roadways and a structure over Radley Run. The project is still in design. On the TIP, funds for the Route 926 bridge replacement have been designated for right of way acquisition in FY2013 and for construction in FY2013 – 2016.

Figure 6-10 also includes the Route 52 roundabout at the Lenape-Unionville/South Wawaset roads intersection. This project was listed on the prior TII, but has been removed as it is currently (2013) out for bid and close to construction. The roundabout is included on the FY13 TIP (PennDOT project number MPMS# 80101). The project includes the design and construction of a one lane roundabout, with the shifting of the Pocopson Home driveway. The Township was responsible for 100 percent of the funding for engineering and right of way acquisition and PennDOT is responsible for the construction costs. The project is scheduled for construction in 2014.



The Rt 926 bridge over Pocopson Creek is in need of replacement due to structural deficiency.

Figure 6-10: TII (2013) and TIP (2013) Projects In Pocopson Township

Project #	Project Name	Description
FRR 3	Wilmington & Northern Line Rehabilitation	Track and Tie Replacement
BP 28	Brandywine Trail (US 322 to PA 926)	Pedestrian Trail
SB 2; 14327*	PA 926 over Brandywine Creek	Replacement
CB 17	Denton Hollow Road over Pocopson Creek	Replacement or Rehabilitation
80101*	PA 52 Roundabout	Roundabout
INT 109	PA 52 at Locust Grove Road	Add Left Turn Lane
INT 113	PA 926 at Pocopson Road	Add Turn Lanes

*On the FY13 TIP

FRR: Freight Railroad; BP: Bicycle/Pedestrian; SB: State Bridge; RW: Roadway, Reconstruction / Widening; INT: Intersection.

Funding outside of federal and state sources is important in achieving improvements to the transportation network. The left turn lane from Route 52 onto Pocopson Road was partially funded from fees from the Riverside residential development, with the Township covering the remaining cost. Construction of the left turn lane was included on the 2011 TII and was completed in 2012, however the Township is still seeking funding for a light at this intersection. The recent improvement to the Corinne Road/Locust Grove Road intersection, which was not identified on the TII, was accomplished as part of the Preserve residential development.

Another item listed on the 2011 TII and removed from the 2013 TII was the Corridor Management Plan for the Brandywine Valley Scenic Byway. The Plan is scheduled for completion in 2014.

All other TII projects, such as the Denton Hollow Road bridge over Pocopson Creek or turn lanes at various intersections, await consideration for funding through future TIPs or other means, such as Township funding or agreements with developers. There is intense competition for transportation funding in the DVRPC region as well as nationally, which reflects the overall inadequacy of transportation funding at the local, state, and national levels. This trend is expected to continue. In Chester County alone, 441 transportation projects are listed on the 2013 TII and are competing for funding.



The Denton Hollow Road bridge over Pocopson Creek is a County-owned bridge that has been identified as needing replacement or rehabilitation.

Identification of transportation improvements is an on-going process. Land uses change and create changes in traffic volumes and circulation patterns, priorities change, and improvements are achieved. Needs for the Township currently include safety and access improvements along Route 52 (including the light at Pocopson Road), Route 842, Red Lion Road, Lenape-Unionville Road, and South Wawaset Road. Existing deficiencies on these roadways are discussed under Roadway Characteristics, Crash Data, and Condition and Maintenance (Modes of Travel/Roadways and Bridges).

Interrelationships among Transportation Modes

The transportation network, including all modes of travel and facilities discussed in this Chapter, needs to be looked at in a comprehensive and interrelated manner for the network to function efficiently and safely. It is important to research and address each mode and facility on an individual basis, but also to recognize their interrelationships. An individual focus on each transportation mode, with an overall awareness of their interrelationships, will increase effectiveness, create opportunities, and improve safety in meeting the needs of the Township.

Planning Implications

Roadways and Bridges

Bridge condition and related access implications are a critical concern in Pocopson Township, particularly related to the Route 926 bridge. In addition to specific improvements needed on Township roadways and bridges, issues of access management and speeds that are inconsistent with the surrounding land uses are of concern, particularly along Route 52, portions of Route 842, Lenape-Unionville Road, Red Lion Road, and South Wawaset Road. Red Lion Road and South Wawaset Road also have narrow cartways that impact safety.

Pedestrian and Bicycle Circulation

As Pocopson Township adds to its trail network, which serves various users, there will be an increased need for road crossings that connect sections of trail. Providing safe crossing for trail users will be critical.

Public Transportation

While limited within the Township due to a lower density population and a small commercial base, public transportation remains an important link in the overall transportation network. Pocopson Township should remain supportive of public transportation opportunities within the Township and the broader region.

Recommendations

The recommendations below focus on how to best maintain and enhance the transportation and circulation systems in Pocopson Township and best implement the related goal and objectives (as detailed in Chapter 2). These recommendations were developed in consideration of existing infrastructure and the current and anticipated demands placed on that infrastructure. Together with Map 6-2 these recommendations form the transportation improvement plan for Pocopson Township. Priorities for the implementation of these recommendations are established in Chapter 12, Implementation Measures. Implementation of the recommendations identified below will help Pocopson Township achieve its transportation and circulation goal to:

Promote a safe, effective, and diversified circulation system that addresses current and future needs in coordination with land use planning.

Systemwide

6-1 Support completion of projects identified on the Transportation Improvements Inventory (TII) and Transportation Improvements Program (TIP), and continue to coordinate transportation improvement priorities with the Chester County Planning Commission.

Map 6-2 and Figure 6-10 identify projects currently on the TII or TIP. Also depicted on Map 6-2 are additional transportation needs that have been identified, but not currently included on the TII. Figure 6-11 briefly describes these new needs, which are also discussed under Identified Transportation Needs and within recommendation 6-7. Pocopson Township should continue to coordinate with Chester County Planning Commission to ensure that the TII accurately represents the Township's transportation improvement priorities.

Figure 6-11: Transportation Needs In Pocopson Township*

Location	Description
Route 52	Access and safety improvements; light at Pocopson Road
Route 842/BVA	Safety improvements
Red Lion Road	Safety Improvements
Lenape-Unionville Road	Safety Improvements
South Wawaset Road	Safety Improvements

*These are needs in addition to those already identified on the CCPC TII (Figure 6-10).

6-2 Seek out funding from traditional and non-traditional sources for transportation improvements.

Given that transportation needs far outweigh available funds, it is imperative that the Township remain proactive in advocating for its projects and diligent in seeking out funding from all available sources. In addition to the traditional federal and state sources, funding alternatives include developer required improvements through land development (which Pocopson currently requires) and transportation grants. Also, local advancement of projects with preliminary planning or engineering work (such as Pocopson has done with the Route 52 roundabout) can advance projects while seeking additional funds for final engineering and construction. Coordination with Chester County Planning Commission, PennDOT, and other appropriate agencies is critical to advancing priorities.

The DVRPC has published a comprehensive list of funding and implementation tools in their 2009 Municipal Resource Guide, and also maintains a webpage that is updated regularly with newly announced grant and program opportunities (<http://www.dvrpc.org/Funding>).

The current federal surface transportation law, MAP-21, changed several funding streams. Bike and pedestrian program funding is now addressed through the Transportation Alternatives Program (TAP). Projects eligible for funding through TAP include Safe Routes to School and Recreational Trail programs.

6-3 Ensure that context sensitive design is supported and enabled through the Township's regulatory documents and that the Township coordinates with PennDOT to develop context sensitive roadway and bridge improvements.

The context of the roadway is as important as its functional classification. Context sensitive design is design that responds to corridor characteristics in an appropriate manner to create a safer travel corridor. The *Smart Transportation Guidebook* (PennDOT and NJDOT, 2008) provides a wealth of information that may be applied to roadways and bridges regardless of ownership, with a focus on appropriate local context. Evaluating the context is important to moving forward with the appropriate design improvements for the community. Coordination with PennDOT will be necessary as design work continues on the Route 926 bridge replacement and to ensure that the construction and operation of the Route 52 roundabout provides a safe traveling experience.

6-4 Coordinate with East Penn Railroad regarding public safety along the rail corridor.

If East Penn Railroad continues to increase its operations, safety along the rail corridor may become an issue. All of the rail crossings within Pocopson Township (Route 926, Route 52, South Wawaset, Route 842, Bragg Hill Road, and Northbrook Road) are at-grade. Some of these crossings have passive (advance warning sign, pavement markings) and active (flashers, automatic gate) traffic control devices, while others are limited to passive traffic control devices. The Township should maintain an awareness of the railroad's operations and communicate any concerns about the need for safety improvements, including upgrading to active traffic control devices. The Township should also monitor areas where the rail line runs in close proximity to pedestrian uses, such as the trail on the West Creek Road right of way.

6-5 Review ordinances for parking standards and amend as necessary to ensure parking requirements remain both appropriate and flexible.

Guidelines from national organizations or widely used publications have been used as definitive standards for parking regulations, frequently resulting in more parking than necessary for a particular use. Parking standards should be specifically tailored to local conditions and allow for flexibility. Shared parking, where a public or private parking area is used jointly by two or more uses (such as an office and a place of worship), should be permitted when appropriate. Reserve or overflow parking should be permitted in appropriate locations. The Township should remain open to flexible parking requirements.

6-6 Support drivers' education for all ages.

Pocopson Township, as with much of Pennsylvania, includes a substantial senior population. The Township also has many families with younger drivers among its residents. Supporting drivers' education across all age groups is a proactive measure to increase safety on the roadway for everyone. The Township could use its existing public outreach methods, as well as space at the annual Founders Day, to share drivers' education opportunities (such as those available through AAA) and raise awareness. The Township could also consider partnering with the Unionville-Chadds Ford School District or a local non-profit, Safe at Home, The Abby Miller Foundation, to raise awareness of drivers' education. The Abby Miller Foundation (www.abbymillerfoundation.org) aims to save the lives of teens by enhancing teen-driving education programs. The Foundation installed three driving simulators for use in drivers' education programs at Unionville High School and three at Garnet Valley High School in 2009, and holds several events annually to raise funds and awareness.

Roadways and Bridges

6-7 Investigate potential safety improvements for identified transportation needs.

The Township should investigate measures that would improve safety and slow traffic along the Route 52 corridor and sections of other roads (Route 842 near the BVA, Lenape-Unionville Road, Red Lion Road, and South Wawaset Road), as identified in Figure 6-11. Such measures could include coordination with

PennDOT on low-cost safety improvements to be undertaken by PennDOT outside of the TIP process. Potential improvements could include new signage, striping, use of reflectors, and rumble strips.

After any improvements are achieved with PennDOT's assistance, the Township should reassess the areas that remain to be addressed, and whether a traffic calming study would be appropriate. Traffic calming measures can include the placement of raised crosswalks, signs, center and edge striping, reflectors, bump outs, islands, rumble strips, textured pavement, lighting, painted text, plantings, or other aesthetic features. A traffic calming study would provide opportunities for public input and coordination with stakeholders, create concepts to serve all transportation modes, and present detailed recommendations. A traffic calming study should take into consideration locations of heavy pedestrian use, and would increase the potential for funding of identified improvements. See PennDOT's *Pennsylvania's Traffic Calming Handbook, Publication 383* for more information.

6-8 Coordinate with PennDOT on the construction and use of the Route 52 roundabout.

The Route 52 roundabout is scheduled for construction in 2014. Coordination with PennDOT prior to and during the construction period should be undertaken to minimize impacts on residents and travelers to the extent possible. After construction, the Township should track use of the roundabout to ensure that users are properly using the roundabout and coordinate any necessary changes (such as signage) with PennDOT. The roundabout on Route 82, in neighboring East Marlborough Township, had small adjustments made in the period after construction, as the municipality learned what was working and what was not.

6-9 Advocate for funds for the replacement of the Route 926 bridge over Brandywine Creek and monitor and identify necessary maintenance and improvements to other bridges within the Township.

Bridges have a significant impact on the residents and businesses of Pocopson Township. The Township should make a proactive effort to ensure that all bridge facilities are adequately maintained, rehabilitated, or replaced as necessary. Additionally, as improvements occur, consideration should be given to whether or not the bridges should include facilities for pedestrians and bicycles, such as sidewalks, bike lanes, or a wider shoulder.

Of particular concern are those bridges with a sufficiency rating less than 50, as well as those identified as being structurally deficient (see Map 6-1). The Route 926 bridge has the lowest sufficiency rating of any bridge in Pocopson Township (10.5), is identified as structurally deficient, and has a weight restriction. The replacement of this structure is a high priority for the Township, but a lack of funding for transportation projects overall and other issues have delayed the replacement. The Township needs to remain a strong advocate for the replacement project. The Route 926 bridge is important for resident and business needs, as well as a critical link to emergency service providers in West Chester.

6-10 Work to decrease incidences of speeding on roadways.

Speeding has been noted to be an issue on several Township roadways, decreasing the safety of all users. The Township should coordinate with the State Police to target specific areas for speeding enforcement, and consider using radar speed signs to alert travelers to their speed. The Township could coordinate with neighboring municipalities to borrow mobile radar speed signs for use in specific areas for limited periods of time, or consider purchasing its own mobile or mounted signs.

6-11 Continue to ensure that maintenance of local roads is addressed on an annual basis in the budget and capital improvements plan.

The Township's current road maintenance program should be continued. This is an ongoing commitment on the part of the Township.

6-12 Update the Zoning Ordinance, Subdivision and Land Development Ordinance, and other regulations to ensure that standards regarding roadways, sidewalks, and trails are current.

Technical standards are always evolving, particularly in regard to sidewalks, bikeways, and trails, and guidelines for smart transportation and context sensitive design are also still developing. Periodic reviews of regulations will best position the Township to appropriately implement these features as land use changes and developments are proposed.

More specifically, roadway classifications and design criteria have significantly evolved in the past decade with respect to the interaction of surrounding land uses and roadway design and characteristics. There is an increasing focus on the context of the roadway and the impact that context should have on design criteria. The SLDO currently identifies only two roadway classifications: residential and collector. The Zoning Ordinance identifies three: arterial, collector, and local residential. The Township should consider changes to its roadway design criteria within the SLDO to more closely mirror PennDOT and Chester County Planning Commission classifications and design criteria. New standards that more closely match up with the different types of roadways within the Township will allow the design standards to be more consistent with the roadway classification and context. At a minimum, the regulations should be consistent with regard to the classification scheme. Recommended classifications developed by the Chester County Planning Commission are included in Appendix B.

6-13 Consider safety improvements, traffic calming measures, and updates to Township access management regulations to minimize existing safety concerns due to access points and prevent future detrimental access issues.

Multiple access points along roadways with heavy traffic can become problematic, and Route 52 is reflective of this. As shown on Figure 6-4, three of the four top priority areas for safety improvements are along the Route 52 corridor and at access points. While the Route 52 roundabout is likely to improve that section of roadway, the problem extends throughout the corridor. Specific

safety improvements and traffic calming measures at select locations along the corridor could address other areas of concern.

Access management regulations can address the control of access points (driveways) onto a roadway to promote traffic flow, improve safety of pedestrians and motorists, and improve aesthetics by managing the location, quantity, type, and design of access points. Existing access regulation is limited in both the Zoning Ordinance and Subdivision and Land Development Ordinance. The Township should update their access management regulations, and ensure that all basic regulations are included. Minimum standards should include the following: general spacing between intersections, minimum distance between access points, parking lot separation and setbacks from cartways, and curb/buffer requirements. Access management standards may also include the following:

- Siting of access points dependent on road classification, function, and context
- Requiring interconnections between parking areas
- Defined access points
- Clear pavement markings
- Turn lanes
- Medians

For more information, see PennDOT's *Access Management Model Ordinances for Pennsylvania Municipalities Handbook, Publication 574*.

6-14 Continue to coordinate with PennDOT regarding highway occupancy permits (HOPs) to plan for access points on state roads.

The Township should continue to inform and coordinate with PennDOT concerning access points (including any proposed changes to access management regulations) so that the Township's interests are properly considered in the design of access points. This is particularly important along the more heavily travelled roadways, including Route 52. The Public Works Department currently coordinates with PennDOT on HOPs. Municipalities may adopt and apply more stringent access management requirements than those required by PennDOT for both state and local roads. When municipalities adopt updated access management regulations through local ordinances, communication with PennDOT concerning these local requirements is important.

6-15 Review and revise ordinances to address traffic calming measures in association with subdivision and land development.

The Township's ordinances should specifically include language that addresses the installation of traffic calming measures when land development or a subdivision creates a need for such measures. The ordinances should note that the Township is permitted to require traffic calming measures when warranted. See PennDOT's *Pennsylvania's Traffic Calming Handbook, Publication 383* for more information

6-16 Work to minimize impacts to water quality and vegetation during periodic right of way maintenance.

Overzealous maintenance of right of way areas can eliminate vegetative cover that is critical in minimizing stormwater runoff and creating a natural buffer between uses. A more tempered approach to maintenance, particularly in close proximity to waterways and stormwater facilities, should be taken whenever possible. The Township should work internally to ensure that maintenance projects minimize removal of vegetative cover and provide erosion and sedimentation controls when removal is necessary. Outside of Township right of ways, Pocopson is limited to negotiation and influence. Given the importance of water quality and extent of related regulations however, the Township should proactively encourage other right of way owners to minimize the removal of vegetation cover. See Chapter 4 for additional discussion of sustainable land management practices, including information on the services and resources available from Natural Lands Trust and The Land Conservancy for Southern Chester County.

6-17 Support the dissemination of public notification regarding roadway and bridge closures.

Roadway and bridge closures are not uncommon in Pocopson Township due to flooding from the Brandywine Creek and other waterways. Communication to the public regarding such closures is critical, and dissemination of such closure information through a variety of outlets should be a priority. This should include the Township's own website and social media outlets. The Township should also encourage the dissemination of such information on a broader basis, such as through the Chester County Department of Emergency Services and its ReadyNotifyPA alerts.

Pedestrian and Bicycle Circulation

6-18 Continue to support trails as an important component of the overall transportation network.

Trails and related recommendations are discussed extensively in Chapter 8, Parks, Recreation, Trails, and Open Space. Pocopson Township is committed to a network of trails that provides recreation benefits and pedestrian and bicyclist access to community facilities and residential areas. As the network grows, roadway crossings may become more numerous. User safety should be the priority at these locations.

Public Transportation

6-19 Continue to support public transportation options.

SCCOOT provides a critical public transit connection to jobs and services along Baltimore Pike and into West Chester. Dedicated and reliable funding resources are needed to continue providing the bus service in the future, as the JARC grant funding is unstable and subject to review every two years. Pocopson Township

should continue to play an active role in supporting continuing bus service in the Township, and ensure that area stakeholders are aware of the importance and funding needs of the SCCOOT bus service. Stops within Pocopson Township, which are currently limited, could be expanded and improved.

One source of information on public transportation options is the Ride Guide, a publication of the Chester County Planning Commission, available at www.chescorideguide.org. Available in print as well as online, the Ride Guide provides information and direction for transportation options in Chester County, covering rail, bus, taxi, and paratransit services.

6-20 Support the extension of passenger rail service that is convenient and accessible to residents of southern Chester County.

There has been no passenger rail available in West Chester since 1986. The rail service that previously extended to West Chester currently terminates at the Elwyn station in Media, Delaware County. There are long-term plans to extend that line back to the Wawa station, but not into Chester County. Support should be provided to projects that improve the convenience and accessibility of passenger rail service to residents of Pocopson Township, and southern Chester County overall.

Links

Abby Miller Foundation

www.abbymillerfoundation.org

Chester County Planning Commission – Transportation Services and the TII

www.chesco.org/planning/transportation

DVRPC TIP

www.dvrpc.org/tip

DVRPC Municipal Resource Guide and Funding Opportunities

www.dvrpc.org/Funding

East Penn Railroad

www.eastpennrr.com

PennDOT

www.dot.state.pa.us

Rainbow Cab

www.rainbowcab.com

Ride Guide

www.chescorideguide.org

Rover

www.krapfscoaches.com/rover

SCCOOT

www.tmacc.org/transit-schedules/sccoot

Smart Transportation Guidebook

www.smart-transportation.com/guidebook.html

TMACC

www.tmacc.org

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COMMUNITY FACILITIES AND SERVICES INVENTORY AND PLAN

Introduction

This chapter provides an inventory of the community facilities and services that serve Pocopson Township residents as well as recommendations to ensure those facilities and services continue to meet needs. The inventory includes both Township-operated facilities and services and those provided by other agencies, organizations, authorities, and institutions. The adequacy and availability of community services and facilities are essential in establishing municipal priorities and budgets and are directly related to and influenced by future development and demographic changes. Map 7-1 depicts the facilities located within the Township and those in the nearby area that serve the Township. Community facilities and services addressed in this chapter include:

- Township Administration
- Sewage Facilities
- Water Supply
- Stormwater Management
- Solid Waste Collection and Disposal
- Emergency Services (including emergency management, police, fire, and ambulance)
- Libraries
- Education
- Health Care
- Human Services



Inventory

Township Administration

Administration and Facilities

The Pocopson Township building is located on Denton Hollow Road, just south of the intersection with Route 52/Lenape Road. The building consists of a large meeting room, a segmented office, and a file room. Meetings for both the Board of Supervisors and Planning Commission are held in the large meeting room. The public works garage is located on Route 52/Lenape Road across from Williamsburg Road, and is adjacent to the Township building. Access from the Township building to the public works garage is limited to a walking path due to site constraints. The road crew offices are housed in the public works garage along with all road maintenance equipment.

Pocopson Township is a second class Township governed by a three member Board of Supervisors elected by residents for a term of six years, with one being elected every two years. The Board of Supervisors is granted the power to hire personnel and appoint individuals to various commissions and task forces. Other elected positions include the Board of Auditors, Tax Collector, Election Board, and the Constable.

Pocopson Township does not employ a Township manager. Day to day operations are handled by a full-time Township secretary who works directly with the Board of Supervisors in administering all Township business. In 2012, township staff consisted of a secretary, receptionist, treasurer, code enforcement officer (who also serves as fire marshall and emergency management director), and three public works employees. The secretary, treasurer, and three public works employees are full-time, while the receptionist and code enforcement officer are part-time. The Township also hires seasonal help as necessary. Volunteer services are provided by many individuals in a variety of commissions and committees, discussed in the Volunteer Groups/Citizen Participation section.



The current home to Pocopson Township's administrative services formerly housed public works as well.

Volunteer Groups/Citizen Participation

The support and involvement of residents are essential to effective and efficient municipal operation in Pennsylvania. Many Pocopson Township residents are actively involved in community efforts. Citizen participation allows the Township to make use of local knowledge, ensures that Pocopson Township is responsive to residents and businesses, and reduces administrative costs. The following is a list of currently active (2013) Township volunteer and citizen participation groups, with the number of members noted:

- Planning Commission (8)
- Zoning Hearing Board (3 plus 1 alternate)
- Parks, Recreation, and Trails Committee (6)
- Historical Committee (12)
- Agricultural Security Area Committee (5)
- Founders Day Committee (8)
- Stream Team (8)
- Barnard House Steering Committee (13)

The Open Space Advisory Committee ended their work in 2011, after implementing the Open Space Preservation Program authorized by referendum in 2006.

Consultants

Positions currently filled on a contractual basis with outside consultants include the building inspector, engineer, solicitor (separately for the Board of Supervisors and Zoning Hearing Board), and tax collector. The Township also hires consultants on an as needed basis, and in the past has used consultants for planning, auditing, and landscape architecture efforts.

Public Outreach

Public outreach is essential to inform residents and business interests about Township activities, thereby providing them an opportunity to voice opinions, volunteer, and participate in the Township's future direction. Pocopson Township publishes a newsletter to inform residents on various programs and issues such as the Township's budget, recycling and emergency services. Meetings for the Board of Supervisors and Planning Commission are open and provide residents an opportunity to offer input. Notices are posted at the Township Building and on kiosks at all three Township parks. The Township website provides contact information for Township officials, and provides for the dissemination of information on activities and programs such as current events, ordinances, Township meeting schedules and minutes, stormwater, recycling, and public works information. Public outreach connects residents and businesses to the township administration and is a critical part of effective governing.



The Township website provides updated information on community meetings and events.

Finance and Budget

Pocopson Township has held the general fund property tax rate constant at 1.2 mils since 2006. There is an additional 1.0 mil property tax that is dedicated to open space preservation. In 2011 the Township enacted a 0.2 percent earned income tax, which applies to Pocopson residents and non-residents employed in the Township.

Revenue streams for the Township include real property taxes, earned income taxes, real estate transfer taxes, and sources such as cable franchising and fees associated with code enforcement. Expenditures include staff salaries, consultant fees, contributions to fire and ambulance service and local libraries, and public works costs, such as road and bridge construction, maintenance, and snow removal.

Figures 7-1 and 7-2 provide a summary of revenue streams and expenditure

categories for 2014, as well as for 2004 as a comparison. Total revenues and expenditures essentially doubled during this time period (revenue: \$531,433 in 2004 and \$1,114,470 in 2014; expenses: \$648,575 in 2004 and \$1,112,282 in 2014).

In comparing revenue streams over time, taxes have consistently provided the bulk of revenue. The 2011 enactment of the earned income tax is a significant new revenue stream for the Township, and has offset the lack of growth in property tax and state shared revenue (which were driven by the national recession). Fees for services (primarily related to code enforcement) are also an important part of the Township budget, and are reviewed on a periodic basis. Details on the Pocopson Township budget are made available on the Township's website.

The Township is proactive in seeking grants, and has received grant funding in recent years for trail development, historic, and planning projects. The Township participates in the Southern Chester County Co-op, an organization of municipalities that purchases materials for all members to take advantage of better pricing on materials such as road salt. The Township does not have a capital improvements plan in place at this time.

Figure 7-1: Pocopson Revenue 2004 and 2014

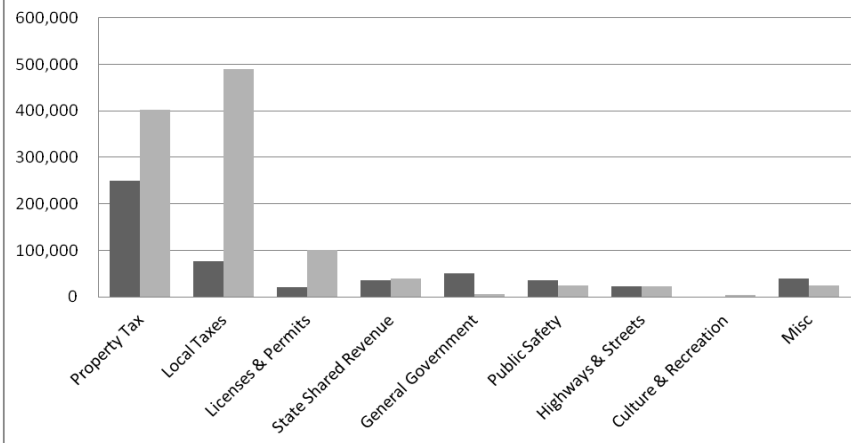
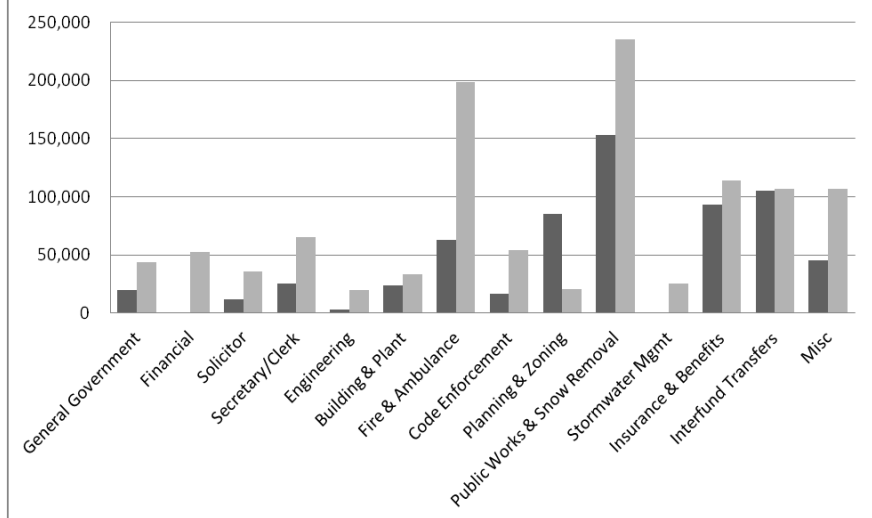


Figure 7-2: Pocopson Expenses 2004 and 2014



Sewage Facilities

Sewage facilities in the Township primarily consist of individual on-lot septic systems. Pocopson Township has an ordinance in place (Chapter 170, Section 170-23) that mandates maintenance of these systems, including pumping every three years. Pocopson Elementary School is served by an on-lot system.

There is a community system that serves 183 residential and commercial units in the Lenape area with a projected flow of 45,150 gallons per day. The system serves the Riverside residential development and a limited number of nearby commercial properties. Referred to as the Riverside community system, it is currently owned and operated by the Delaware County Regional Water Quality Control Authority.

(DELCORA), which acquired the wastewater treatment facility and collection system in 2010 from Pocopson Township.

The Chester County facilities in Pocopson Township (including Pocopson Home, Chester County Prison, and Chester County Youth Center) are served by a community system that is owned and operated by the County. The Preserve at Chadds Ford, a residential development currently under construction (2013), will also use a community system for sewage disposal. Once dedicated, the Township intends to offer the system out for bids for purchase, as was done with the Riverside community system.

Sewage Facilities Planning

Sewage facilities planning in Pennsylvania is governed by the Act 537 Sewage Facilities Plan. A primary purpose of the plan is to determine how sewage facilities can best be provided to meet anticipated future land use needs. The plan can also be used to establish the most preferred methods of sewage treatment for new development. Pocopson Township adopted an Act 537 Plan in 1988 and updated the Plan in 2004.

Ensuring that sewage facilities planning is coordinated and consistent with local and regional planning policies is important in implementing future land use goals. In particular, the extension of public sewer into areas targeted for land or open space preservation should be avoided. The provision of larger public facilities should be considered where it is the most cost effective approach to meet sewage facilities needs, and only with coordination between all public bodies and decision making authorities, and where it is consistent with long range land use planning. Finally, groundwater recharge, rather than export of water out of the area, and the correction of existing failing systems are primary concerns.

Water Supply

AquaPA provides public water to various residential communities and the County facilities within Pocopson Township, primarily along Route 52. AquaPA draws surface water from various sources, including Crum, Pickering, Brandywine, Perkiomen, Neshaminy, Ridley, and Chester creeks, and serves portions of Chester, Delaware, Montgomery, Bucks, and Berks counties in southeastern Pennsylvania.

The remainder of the Township is served by private wells. These private wells are owned and maintained by individual property owners. The Chester County Health Department permits and enforces water quality and quantity standards for new wells. Individual wells are not subject to any ongoing monitoring requirements, and individual owners are responsible for monitoring their water quality. Daycare facilities and other transient community well systems must comply with state drinking water regulations.

Stormwater Management

Stormwater runoff from rain events or snow melt is a leading cause of water pollution. Degradation of both surface and groundwater can occur as a result of stormwater runoff that carries oil, grease, pesticides, fertilizers, sediment, and trash that is picked up by the stormwater. Stormwater management - the safe and effective collection, control, infiltration, and treatment of the stormwater that flows directly into streams after a rain event or snow melt - minimizes intermittent flooding, reduces erosion and sedimentation of streams, and reduces the contamination of groundwater, surface water, the natural ecosystem, and drinking water sources. Stormwater management in Pocopson Township is particularly critical due to a history of flooding along Brandywine Creek, which impacts both properties and transportation corridors. Portions of Pocopson Township drain directly to the West Branch of Brandywine Creek, and the remainder of the Township drains to various tributaries, Pocopson Creek being the largest. Because of the importance of stormwater management in watershed protection and planning, one of the seven major goals of the Chester County Water Resources Plan, *Watersheds* (2002)¹ is to “reduce stormwater runoff and flooding.” Stormwater management is addressed by three major pieces of legislation:

- Pennsylvania Stormwater Management Act (Act 167 of 1978);
- Pennsylvania Erosion and Sedimentation Control Act, Chapter 102; and
- National Pollutant Discharge Elimination System (NPDES) Phase II regulations, specifically MS4.

Act 167

Act 167 assigns responsibility for addressing stormwater to the municipal level, in order to control runoff and reduce soil erosion. Chester County recently finalized an Act 167 Plan that covers all municipalities in the County, with the exception of those municipalities/watershed areas that have adopted individual Act 167 Plans since 2005. Phase I of this process was completed in 2010 with PADEP approving the use of *Watersheds* as the plan document. Phase II of the process includes the plan adoption process and a model stormwater management ordinance, which provides standards and criteria to enable municipalities to meet Act 167 Plan and PADEP goals and objectives. Municipal Involvement was a key component in the development of the standards and criteria. The Act 167 Plan was adopted by Chester County and approved by PADEP in 2013. Pocopson Township adopted a standalone Stormwater Management Ordinance in 2013, which was based on the model ordinance that was part of the countywide Act 167 Plan.

Chapter 102

The Pennsylvania Erosion and Sedimentation Control Act, Chapter 102, establishes the basic planning and implementation requirements to be followed for any land disturbing activity. Chapter 102 establishes the threshold requirements for notifying



Stormwater runoff can create flooding conditions and degrades water quality.



¹ *Watersheds: An Integrated Water Resources Plan for Chester County, PA and its Watersheds*, Chester County Water Resources Authority, September 2002.

the Pennsylvania Department of Environmental Protection (PADEP) of land disturbing activity, and in some cases the permitting requirement through PADEP.

NPDES and MS4

Pocopson Township is considered a “municipal separate storm sewer system” (MS4) by the Environmental Protection Agency (EPA) and therefore must comply with the NPDES MS4 permit program. The NPDES MS4 program is administered by PADEP in Pennsylvania. Pocopson Township has obtained the required MS4 permit for discharge of stormwater to Waters of the Commonwealth and must implement several activities under that permit, as follows:

- Provide public education and outreach activities regarding stormwater;
- Provide public participation and involvement opportunities regarding stormwater management program development and implementation;
- Develop and implement a plan to detect and eliminate illicit discharges to the storm sewer system;
- Develop, implement, and enforce an erosion and sediment control program for construction activities that disturb one or more acres of land;
- Develop, implement, and enforce a program to address discharges of post-construction storm water runoff from new development and redevelopment areas; and
- Develop and implement a program with the goal of preventing or reducing pollutant runoff from municipal operations.

Pocopson Township has undertaken activities as required by the MS4 permit, including identification of all stormwater system inlets and outfalls, semiannual inspection of all outfalls, and requiring that new construction map all new inlets and outfalls. Public education has been undertaken using the Township website and newsletter.



Solid Waste

Solid Waste

Pocopson Township is a member of the Southeastern Chester County Refuse Authority (SECCRA), which is comprised of the ten original members and 14 associate members. Pocopson Township is an associate member. Original member municipalities participate in all services as well as set the policy and operational decisions for the Authority, while associate members are extended all services but do not participate in policy or operational decisions. SECCRA operates a community landfill in London Grove Township, and owns a total of 300 acres at this site, of which 80 acres are in landfill operations, 49 acres are disposal area, and 95 acres are potential disposal area.

SECCRA plans to continue service for the long-term, and anticipates that land currently owned can accommodate three expansions of the landfill and provide capacity for its member organizations until approximately 2050. The SECCRA facility does not accept waste from outside of its membership. SECCRA uses methane gas recovery to generate energy, which creates a new revenue stream for SECCRA and captures a previously lost energy source.



Solid waste collection is handled by various private refuse haulers that contract directly with residents for solid waste removal. Pocopson Township is not directly involved in the collection or transportation of solid waste.

Recycling

In addition to handling disposal of solid waste, SECCRA facilitates recycling by collecting recyclable materials at its site, including car batteries, appliances, electronics, and clothing, along with the more traditional paper, plastic, glass, and aluminum, for shipment to a materials recovery facility for further processing. By removing recyclables from the waste stream, SECCRA lengthens the lifespan of their landfill.

Recycling in Pocopson Township currently can be accomplished through the private haulers who contract directly with residents for solid waste removal (most haulers provide for recycling pickup), and several recycling bins are available at the Township building on Denton Hollow Road. Residents who do not have curbside recycling are encouraged to use these recycling bins. The Township promotes recycling through their website and newsletter.

Act 101, the Pennsylvania Municipal Waste Planning, Recycling, and Reduction Act of 1998, requires that any municipality with a density of 300 persons per square mile and a population of 5,000 or more provide for mandatory curbside recycling. Based on 2010 U.S. Census data, Pocopson Township has exceeded the density requirement (with 545 persons per square mile), but is below the population requirement (with 4,582 persons). Population forecasts anticipate that Pocopson Township will exceed a population of 5,000 between 2020 and 2025. When the population exceeds 5,000 persons compliance with Act 101, and therefore curbside recycling, will be mandatory.

Emergency Services

Emergency Management

Outside of the traditional emergency response supplied by police, fire, and ambulance providers, every municipality has a responsibility to its residents to prepare for a variety of emergency situations. Emergency management is the process of planning in advance for appropriate responses in the event of a major incident such as a tornado, snowstorm, flooding, major accident, or terror activity. Appropriate regulation of natural resources and land development is one way to adequately protect critical features such as steep slopes and floodplains. Such regulations minimize the potential impact when a natural hazard, such as flooding, occurs. Pocopson Township has comprehensive natural resource regulations in place currently (see Chapter 4).

Preparation of a Basic Emergency Operations Plan (EOP), and annual updates to that plan, is a step municipalities are required to take to identify potential hazards and plan an appropriate response. Emergency management requirements are detailed in Pennsylvania's Consolidated Statutes, Title 35, and most specifically in Sections 7101 – 7707, also referred to as the Emergency Management Services Code. Within Chester

County sheltering at the county level is handled by the American Red Cross through a contract with the County Department of Emergency Services.

Current records of the Chester County Department of Emergency Services indicate the most recent Pocopson Township EOP was May 2003. An update is currently (2014) underway. A critically important part of the EOP is an annual update, to ensure that current Township elected officials and staff are accounted for within the plan and made aware of its existence and contents. Periodic training for any Township officials or staff that are assigned responsibilities within the EOP is required to ensure they are able to work in a coordinated manner with other emergency management officials and agencies.

Specific issues to address in the EOP and remain aware of for overall emergency service within Pocopson Township are the presence of the Chester County facilities, the impacts of flooding, and consistent and appropriate property addressing. Institutional settings that house large populations with limited mobility require specific emergency service preparation, training, equipment, and response. Flooding within Pocopson Township impacts properties and transportation corridors within the Township and beyond, including access to medical facilities in and around West Chester. Property addressing – both lack of reflective numbers in a highly visible location and inconsistent numbering of properties – is of concern for all forms of emergency response.

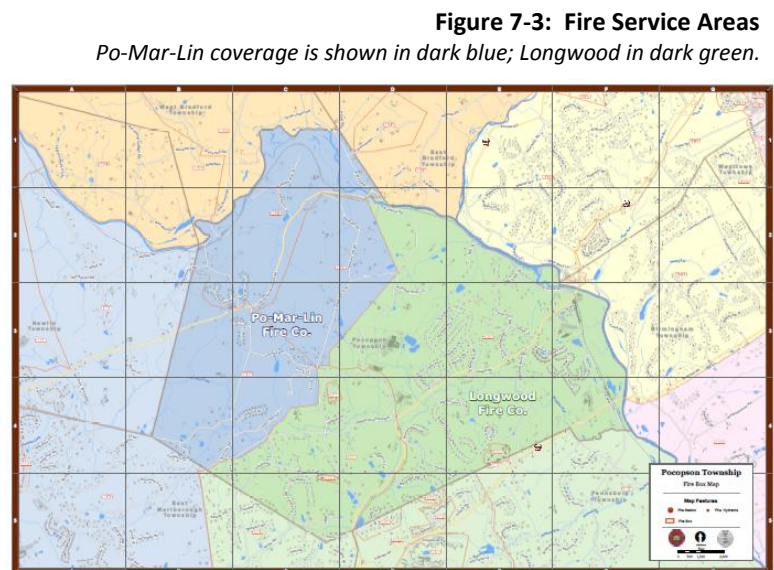
Pocopson Township has signed onto the current Chester County Hazard Mitigation Plan. An update to the Plan is underway and expected to be completed in 2015, at which point Pocopson will need to sign onto the new Plan. The Hazard Mitigation Plan includes goals, objectives, and actions to decrease the impact of future disasters, as well as historical data on past events. The Township has appointed an Emergency Management Coordinator.

Police

Pocopson Township does not operate a municipal police force and instead relies upon the Pennsylvania State Police. The State Police respond from the Avondale State Police Barracks located on Route 41 in London Grove Township, approximately nine miles from the southwest border of Pocopson Township. The Avondale Barracks serve 21 townships and four boroughs in an area of approximately 250 square miles. In information provided by the State Police to Pocopson Township in 2011, it was noted that there were 682 responses from January 2010 through September 2011, for an average of just over 34 incidents monthly. False alarms and cancels were noted to be 24 percent of the total incidents during this time period.

Fire

Fire service in the Township is provided by volunteer-driven organizations. Pocopson Township is divided into two fire districts (see Figure 7-3); the southern portion is served by the



Longwood Fire Company and the northern portion is served by the Po-Mar-Lin Fire Company. In 2004 Pocopson Township adopted a proposal from the Kennett Area Regional Planning Commission to fund fire (and ambulance) service with the equivalent of a 0.25 mil of property tax. The funds are split based on an assessed value of property within the service areas, resulting in approximately 80 percent of the funding going to Longwood and 20 percent to Po-Mar-Lin. The Kennett Area Regional Planning Commission is currently (2012) considering an update to their previous recommendation on funding for these services.

The Longwood Fire Company is located on East Baltimore Pike in East Marlborough Township and serves Pennsbury Township, portions of Kennett and East Marlborough townships, and approximately five square miles of Pocopson Township. Their operations consist of an Engine Company (fire attack), Truck Company (search and rescue in structures) and Rapid Intervention Assignments (firefighter rescue). Across its service area, the Company had 564 fire responses in 2011, up from 511 in 2010.

The Po-Mar-Lin Fire Company covers over 70 percent of Newlin, East Marlborough, and West Marlborough townships, and approximately 3.3 square miles of Pocopson Township. The company operates out of its facility on Route 82 in Unionville, and responded to 239 incidents in 2011 and 233 incidents in 2010. Po-Mar-Lin hosts a meeting for the municipalities in which it has coverage approximately every six months to facilitate coordination and communication, including updates on financial status and future needs assessments. These meetings help ensure residents and businesses the best emergency response required for the safety of all.

Availability of volunteers is of concern, as longer work commutes limit available responders and residents may fail to realize the need for volunteers for fire response. Adequate funding for fire (and ambulance) response is also becoming more problematic. These issues are not specific to Pocopson, but seen across Chester County and beyond. In response to these issues, across Pennsylvania and within Chester County, fire response (and other emergency response) is becoming more regionally based. Keystone Valley Fire Department consolidated the management of Pomeroy, Parkesburg, and Atglen fire departments in early 2013, and serves multiple municipalities in western Chester County.

Ambulance

Unlike fire services, ambulance service is increasingly provided by career staff. Pocopson Township is served by two ambulance companies: Longwood Ambulance (part of Longwood Fire Company) and Good Fellowship Ambulance Club. As noted previously, Pocopson supports ambulance services with direct funding. Additional funding is obtained through fees for services and for Longwood, through a subscription service.

Longwood Ambulance is the primary Advanced Life Support (ALS) and Basic Life Support (BLS) responder for the Township. Longwood Ambulance provides continuous service with the use of career staff, including both Emergency Medical Technicians (EMTs) and Paramedics. At full staffing, Longwood is able to staff three units; minimum service is one unit. Volunteer staff provide support when available. Across its service area, Longwood Ambulance responded to 2,032 emergency medical service incidents in 2011.

Good Fellowship Ambulance is the backup ALS and BLS provider for Pocopson Township. Good Fellowship operates out of their facility on Montgomery Avenue in West Chester Borough, near the Chester County Hospital. They provide continuous service with the use of career staff, including both Emergency Medical Technicians (EMTs) and Paramedics, and provide primary ambulance response service to nine municipalities. In the first quarter of 2012, Good Fellowship responded to over 1,100 emergency medical service incidents across its service area.

Libraries

There are no public libraries located within Pocopson Township. There is a library at the Pocopson Elementary School for use by students. The nearest available public libraries are West Chester Public Library (North Church Street) and Bayard Taylor Memorial Library (East State Street in Kennett Square). Both are part of the Chester County Library System. Through the Chester County Library System users have access to publications within the entire library system, and can access items from across the state through the inter-library loan system.

West Chester Public Library serves West Chester Borough and the townships of Birmingham, East Bradford, Thornbury, West Goshen, and Westtown. While not officially “served” by this library, Pocopson residents are welcome to use the facility as part of the overall Chester County Library System. The Library hosts children’s programs such as storytime and lego clubs and offers book discussion groups for adults. West Chester Public Library has over 55,000 materials for loan.

Bayard Taylor Memorial Library serves eight municipalities (Kennett Square and the townships of East Marlborough, Kennett, New Garden, Newlin, Pocopson, Pennsbury, and West Marlborough). In 2011, there were over 124,000 visits to the Library with more than 165,000 items borrowed. Children’s programs and an adult literacy program are offered. Deficiencies in the existing building and location include limited parking, lack of ADA compliance, ongoing building maintenance costs, and lack of space (particularly for computers). Bayard Taylor Memorial Library is committed to an improved facility to better accommodate the needs of its users.

In the past the Township has provided equal funding to both West Chester Public Library and Bayard Taylor Memorial Library. Funding levels are currently (2014) under consideration.

An additional resource is West Chester University and its Francis Harvey Green Library and Presser Music Library, which are located less than five miles from the Township. High school students, area residents, and area teachers can obtain a library card with borrowing privileges for minimal or no annual cost.



Bayard Taylor Library in Kennett Square serves Pocopson Township residents, as does West Chester Public Library.

Education

Unionville-Chadds Ford School District

Pocopson Township is one of six municipalities within the Unionville-Chadds Ford School District (UCFSD). In addition to Pocopson, UCFSD includes the townships of West Marlborough, Newlin, East Marlborough, Pennsbury, and Birmingham. The District currently operates six public schools. Four are elementary schools, serving kindergarten through fifth grade for defined geographic areas of UCFSD: Unionville Elementary, Chadds Ford Elementary, Hillendale Elementary, and Pocopson Elementary (located at Street Road/Pocopson Road within Pocopson Township). Charles F. Patton Middle School and Unionville High School serve the entire District and are located in East Marlborough Township.

The UCFSD is a well respected school district, with the Unionville High School receiving recognition in 2012 as one of the top high schools in Pennsylvania (U.S. News Best High Schools). Pocopson Elementary School was recognized as a Blue Ribbon School by the U.S. Department of Education in 2011, one of just 13 elementary schools recognized in Pennsylvania.

Pocopson and the other townships in UCFSD have experienced a significant growth in population in recent decades and as a result an increase in student enrollment. This increase has led to expansion of the educational facilities in recent years. Pocopson Elementary School opened its doors in 2002, and the other elementary schools within the District were also renovated in a similar timeframe. With the opening of Pocopson Elementary School, the District went to its current configuration of kindergarten through fifth grade in the elementary schools. The Unionville High School recently completed a large-scale renovation, increasing its capacity to 1600 students. Enrollment projections (Figure 7-4), developed by UCFSD in 2011, do not anticipate growth, but rather a slight decline in enrollment over the next ten years.



Pocopson Elementary School opened its doors to students in 2002.

Figure 7-4: UCFSD Enrollment - Actual and Projections

Year	Pocopson ES	Unionville ES	Hillendale ES	Chadds Ford ES	Patton MS	Unionville HS	Total
Actual Enrollment							
2007-2008	620	449	390	313	1,008	1,350	4,130
2009-2010	616	430	365	312	1,028	1,380	4,131
2011-2012	592	396	347	381	1,006	1,387	4,109
Projected Enrollment							
2013-2014	581	377	325	404	1,080	1,353	4,120
2015-2016	537	349	292	404	1,034	1,427	4,043
2017-2018	528	329	294	376	1,000	1,470	3,997
2019-2020	496	313	279	354	1,025	1,387	3,854
2021-2022	510	322	285	361	913	1,378	3,769

Source: <http://www.ucfsd.org/~boarddocs/FOV1-00037F8F/FAV1-00037F82/FOV1-000443D6/05%20-%202011-12%20Third%20Day%20Enrollment%20Projections%20-%20PRELIMINARY.pdf?FCItemID=S03669F95&Plugin=Loft>; accessed May 4, 2012.

Health Care

Health care is an issue taking on local, regional, and national significance. Access to quality and affordable health care is one of the building blocks of sustainable communities. A community plan for health care begins with an assessment of need and an inventory of existing resources. However, due to the relatively limited resources of most municipalities and the vast expense associated with providing medical services, health services and facilities are mostly provided on a larger scale to serve regional needs.

Health care needs are not generally evident to community leaders. The Health and Welfare Foundation of Southern Chester County conducted a series of focus group meetings in 2006 with residents and community leaders from various communities in the southern part of the county regarding health and human service issues. The focus groups for the Kennett Square area (which covered Pocopson Township) identified the high cost of and limited access to healthcare as an area of concern.

Pocopson Township is served by Jennersville Regional Hospital in Penn Township and Chester County Hospital in West Chester Borough. A complete scope of medical services is available with each of these facilities, and a variety of medical services are provided in the vicinity of Kennett Square. Clinical and educational services are provided by the Chester County Health Department through its main office in West Chester as well as several satellite offices. These include immunizations and services specific to women, infants, and children. Regionally, many hospitals are located within an hour's drive of Pocopson Township. Pocopson Home, the nursing home owned and operated by Chester County, is located within the Township and provides primarily long-term care for approximately 275 residents. Additional nursing homes, as well as assisted living facilities and personal care homes, are located in surrounding municipalities.

While there are very limited medical facilities within the Township, there are ample health care facilities and resources available within a reasonable distance to meet the needs of Pocopson residents. Access to these facilities is limited by the minimal public transportation in Pocopson Township.



Pocopson Home is located centrally in the Township and can accommodate 275 residents.

Human Services

Human services in Chester County are typically directed at economically disadvantaged populations and seniors. Economically disadvantaged populations can have difficulty meeting basic needs such as housing, food, or transportation, while seniors can face increasing difficulty with issues such as transportation and isolation. Although Chester County remains the most affluent county in Pennsylvania (American Community Survey 2005-2009), individuals and families at the lower end of the income scale can have great difficulty meeting basic needs. Seniors may begin to require supportive services as they transition to a different stage in life, one where they may find themselves unable to drive or live independently. Transportation is a

critical issue for seniors, as it can impact access to services, particularly given the limited availability of public transportation in Chester County,

According to the American Community Survey (2006 - 2010), less than three percent of the population of Pocopson Township is living below the federal poverty level, as compared with a countywide rate of just over six percent. While it is clear that the level of need is less in Pocopson Township than countywide, there is still a need and recent economic events have shown how circumstances can quickly change. Since 2007, nonprofit social service agencies in southern Chester County have experienced a dramatic increase in demand and a corresponding decrease in donations. The United Way of Southern Chester County confirms in 2011 that requests for assistance are up significantly and some of those requests are coming from people who have previously not asked for assistance. The Kennett Area Food Cupboard has seen the same trend.

Human services were covered as part of The Health and Welfare Foundation of Southern Chester County's focus group meetings in 2006 (also discussed under Health Care). The focus groups for the Kennett Square area, which covered Pocopson Township, identified housing (high cost and limited availability) and youth activities as areas of concern, as well as transportation, particularly with regard to accessing medical care.

Poverty level living conditions are known to have multiple and long term negative impacts on individuals and families with children related to health and well being, educational attainment, and long term employment potential. Housing costs (further discussed in Chapter 11) are very high and lower-income households may be paying 50 percent or more of their monthly income on housing (including utilities), leaving very little for other basic needs including food, clothing, transportation, health care, and daycare.

Human services are provided generally through nonprofit agencies or volunteer groups to low-income residents, disadvantaged residents, and seniors to ensure that the basic needs of all members of the community are being met. Chester County has a strong and diverse group of nonprofit agencies and community support that provides a safety net of assistance. The following is not an exhaustive list but includes some examples of assistance available to residents of Pocopson Township:

- Maternal and Child Health Consortium of Chester County – Based in West Chester and with a location in Kennett Square, this nonprofit provides home visiting and parent education to families with children through age five.
- Chester County Intermediate Unit Head Start – With locations in Kennett Square and West Chester, Head Start is a national program that promotes school readiness by enhancing the social and cognitive development of children through educational, health, nutritional, social and other services.
- Kennett Area Community Services/Kennett Area Food Cupboard - Provides temporary assistance for families in the Unionville-Chadds Ford, Kennett, and Avon Grove school districts who need assistance with food, clothing, lodging, heat or rent.
- United Way of Southern Chester County - Serving the southern Chester County community since 1944 with programs that distribute basic needs assistance, strengthen families, help kids succeed, prevent crime and violence, and promote health and independence among the elderly.

- PathStone – A national nonprofit with an office in East Marlborough Township that provides emergency food and shelter, financial education, Head Start for migrant and seasonal farm workers, and home buyer pre- and post-purchase counseling.
- Kennett Area Senior Center – Located in Kennett Square, its goal is to support senior citizens to remain independent as long as possible. The Center serves older adults in southern Chester County, and offers multiple services and programs, including fitness and wellness programs, the Reassurance Program (offering companionship to homebound individuals), the Assisted Senior Program (for members dealing with mild memory impairment or related issues), and Neighbors in Action (a partnership with the Chester County Department of Aging Services to provide needed services like home maintenance, home repairs and transportation).
- La Comunidad Hispana - Located in Kennett Square, La Comunidad Hispana strives to improve the quality of life, health, and well-being of low-income persons within the Latino community as well as other underserved people through advocacy and bilingual programs in health care, education, and social services.
- Seniors Helping Seniors Southern Chester County – This program matches seniors in the community with other seniors, providing non-medical in-home services such as transportation, meal preparation, light house work, maintenance work, and companionship. Similar services can be found from additional sources, such as Home Instead, which is located in West Chester.
- The Garage Community and Youth Center – With its closest location in Kennett Square, The Garage provides services such as tutoring, mentoring, community service opportunities, computer lab use, youth groups, and enrichment activities.



Planning Implications

Township Administration

The Township should carefully monitor expenditures and revenue sources in the coming years. Changes in the real estate market have stalled tax revenues from property and property transactions. The Township needs to carefully consider the mix of taxes and fees for services that generate the majority of the Township's revenue.

Sewage Facilities

Pocopson Township should ensure that its current Act 537 Plan clearly defines its vision for the provision of sewage facilities, particularly where community systems or public sewer should not be used.

Water Supply

As with sewage facilities, provision of public water can have a significant impact on development patterns. As such, the Township should be clear on where public water is appropriate and where reliance on private wells is appropriate.

Stormwater Management

As a developing community with existing flooding issues, Pocopson Township needs to remain aware of improvements in stormwater management techniques and ensure that Township regulations permit and encourage use of current best practices. The Township also needs to remain current with evolving state and federal regulatory requirements.

Solid Waste

Pocopson Township is expected to cross over the minimum thresholds for mandatory compliance with Act 101 between 2020 and 2025 and should remain aware of the associated obligations, which currently include mandatory curbside recycling.

Emergency Services

Emergency Management

Obligations in the area of emergency management are growing at the municipal level. Pocopson Township must remain aware of its responsibilities, including annual updates to the EOP, appointment of an Emergency Management Director, and participation in the County Hazard Mitigation Plan, as well as consider the benefits of coordinating with neighboring municipalities on this issue. The presence of the Chester County facilities, the history of flooding within the Township, and appropriate property addressing are critical items to address in emergency management.

Police

The Township's reliance on the Pennsylvania State Police for police service requires proactive coordination on the part of the Township for this service to remain successful in providing the necessary protection for residents and businesses. Consideration of other arrangements for police service may become necessary in the future.

Fire and Ambulance

Pocopson Township should maintain an awareness of the increasing need for paid staff for these services. Funding levels from the Township will likely need to increase over time to maintain the level of service required for residents and businesses. Funding and staffing shortages may require consideration of a more regional approach to these and other emergency response services.

Libraries

As funding needs increase for these libraries (due to cuts in state funding and plans for future renovation/expansion), the Township may benefit from investigating the level of usage by residents at area libraries.

Education

The location of Pocopson Elementary School within the Township requires Pocopson Township to be proactive in coordinating with the UCFSD, both on enrollment and facility related issues.

Health Care

Ample health care facilities are available within the larger region, but access may be an issue for those without use of a personal vehicle. Public transportation, discussed further in Chapter 6, is essential for some in accessing medical care.

Human Services

An aging population that may become increasingly dependent on public transportation and the effects of the 2008 recession have increased the demands on the human services system. While many resources are available to provide supportive services, residents in need may be unaware of how to access these services.

Recommendations

The recommendations below detail how Pocopson Township can improve the provision of community facilities and services, particularly noting opportunities for coordination and communication with other organizations. Given that most community facilities and services are not within the direct control of Pocopson Township, coordinating with, supporting, and encouraging other entities is a significant part of ensuring that community facilities and services are meeting the needs of residents. Priorities for the implementation of these recommendations are established in Chapter 12, Implementation Measures. Implementation of the recommendations identified below will help Pocopson Township achieve its community facilities and services goal to:

Provide appropriate types and levels of community facilities and services that are commensurate with the residents' needs in a manner that is both cost effective and environmentally appropriate.

Township Administration

7-1 Create a capital improvements plan to address long-term maintenance and improvements to Township facilities.

Over time, the Township has acquired a significant level of infrastructure, including the Township building, public works garage, and parks. Development and implementation of a capital improvements plan would help address future maintenance and improvements to these facilities in a comprehensive and fiscally responsible manner. A capital improvements plan could also address the Township's administrative space needs, including use of the Barnard House.

7-2 Periodically review staffing and use of consultants to ensure that the needs of residents are being addressed.

The Township should periodically review the need for and benefits of additional staff as regulatory requirements expand and the population increases. Many surrounding municipalities have found it beneficial to employ a manager to coordinate the many programs and activities at the municipal level.

Use of consultants can provide necessary assistance to municipalities, and when properly managed, can be a wise use of limited financial resources. Pocopson Township should continue to use consultants when in the best long-term interest of the Township, and ensure that such consultants are well qualified and current with evolving information and technologies.

7-3 Continue a volunteer recognition program to acknowledge those residents and businesses that significantly contribute to the Township and to promote volunteerism.

Acknowledging volunteers, via an annual luncheon, awards program, or recognition on the Township website and newsletter, are simple ways the Township can thank volunteers for their time and to promote volunteerism within the community. A first volunteer recognition and buffet event was held in 2013.

7-4 Continue to seek grants and explore other sources of revenue to address specific facility or service needs.

Pocopson Township has a history of seeking grants and other non-tax sources of revenue, and this practice should continue. The Township should consider if a volunteer grant committee should be established to maintain a focus on grant opportunities and improve consistency in the Township's search for and beneficial use of grant funding. While tax revenue is critical to the basic activities of the Township, procurement of other revenue sources can ease the burden on Township residents or provide for programs that otherwise would not be feasible.

7-5 Ensure that public outreach is timely and comprehensive by regularly updating the Township website, publishing the Township newsletter on a regular basis, and using other media outlets as appropriate.

To be effective, public outreach needs to reach all residents and businesses, and to convey current information. The Township website should continue to be updated on a regular basis. A comprehensive update of the website may be necessary to allow for routine updates to occur on a more frequent basis. Content could be added to the website to improve its value as a general resource for area residents and businesses. As social media evolves and grows the Township should consider expanding use of social media for public outreach purposes. The newsletter should be published on a regular basis to reach those residents that do not have internet access. The Township office and park kiosks are an additional means of public outreach. There should also be a variety of methods for the public to provide feedback to the Township.

Sewage Facilities

7-6 Periodically update the Act 537 Plan in order to consider population growth while maintaining consistency with the Comprehensive Plan, its Future Land Use Plan, and those regulatory tools that work to implement the Comprehensive Plan.

As the Act 537 Plan for Pocopson Township is updated over time, it should maintain consistency with the Future Land Use Plan of the Township regarding land use planning goals. In particular, community sewer systems or extensions of public sewer lines into areas targeted for land preservation should be avoided. Updates to the Act 537 Plan should also maintain logical and consistent service areas. The Land Use Plan chapter of this Comprehensive Plan can provide guidance concerning where concentrated development is considered most appropriate and where public sewer services should be either avoided or provided. Additionally, the regulatory tools of the Township, particularly the Zoning Ordinance and Subdivision and Land Development Ordinance, should be reviewed to ensure that they support the Future Land Use Plan and appropriate provision of sewage disposal facilities.

7-7 Continue to encourage and mandate management and maintenance of on-lot and community sewage facilities to protect water quality and increase the lifespan of these systems.

A concern for the Township is the proper maintenance of private sewage systems – both community and individual on-lot. Municipal management programs for community systems are currently required by PADEP. A municipal management program, such as requiring pumping and inspection of system components on a regular basis, is strongly recommended by the Chester County Health Department and Chester County Planning Commission for all municipalities with individual on-lot sewage systems. Pocopson Township mandates maintenance of on-lot systems, including a requirement to pump the initial treatment unit every three years at a minimum. In addition to enforcing its own ordinance, Pocopson Township should make materials on appropriate maintenance practices (available from the Chester County Health Department) available at the Township office, and discuss proper maintenance in the Township newsletter and via links on the Township website.

7-8 Maintain a focus on innovative wastewater treatment and disposal systems to reduce impacts on natural resources and watershed water balances.

An important environmental policy to promote in sewage facilities planning is the use of sewage facilities that boost groundwater recharge as opposed to those that export water out of the local watershed. Where community systems are utilized, the use of spray irrigation or land application is considered preferable to a stream discharge package treatment plant. Pocopson Township should maintain an emphasis on the recharge of groundwater in their Act 537 Plan and with their sewage disposal facilities.

Water Supply

The issue of both ground and surface water protection is covered extensively in Chapter Four, Natural Resources Inventory and Plan. The following recommendations focus on drinking water.

7-9 Encourage the routine testing of on-lot wells used as a source of drinking water and educate the public on protecting the water quality of these wells.

Utilizing public outreach methods currently in place, the Township should educate residents on the importance of understanding and protecting water quality.

7-10 Maintain consistency between the provision of water supply and the Comprehensive Plan, its Future Land Use Plan, and those regulatory tools used to carry out the Comprehensive Plan.

As with sewage facilities, public water lines should not be extended into areas where open space or land preservation is a goal, so as to not encourage higher intensity uses in inappropriate areas. Pocopson Township should discourage use of public water in the more rural, northern portion of the Township, and establish a dialogue with AquaPA regarding provision of public water within the Township.

7-11 Consider creating a municipal level inventory of storage tanks.

Storage of fuel oil and other hazardous materials can impact water quality if there is a leak or spill. Limited records are maintained at the state level of storage tanks. The Township could investigate if the state records are complete with regard to the number, location, and material stored for storage tanks. If the Township determines that creating its own inventory is appropriate, thresholds should be established regarding the size of the storage tank.

Stormwater Management

7-12 Review and amend as necessary to ensure that stormwater management ordinances maintain compliance with Act 167 and mandate proper design, construction, and maintenance of stormwater management infrastructure.

Pocopson Township adopted a new standalone Stormwater Management Ordinance in 2013 that was based on Chester County's Act 167 Plan's model ordinance. Stormwater management is an evolving field, and the Township will need to periodically review its regulatory controls to ensure that they are meeting the requirements of Act 167, the MS4 program, the needs of the Township, and other state and federal requirements. Regulations should also remain current with emerging technologies and practices and advocate for innovative and best practices. New development should be held to the most current standards to ensure prevention and minimization of stormwater runoff and flooding.

7-13 Provide public education and information about cost-effective and reasonable maintenance practices to owners and operators of stormwater management facilities and the general public.

There are multiple sources for information regarding stormwater runoff and maintenance of stormwater facilities, such as the Chester County Water Resources Authority or PADEP, or websites such as www.stormwaterpa.org. Pocopson Township can deliver this information to its residents and businesses through the various public outreach tools available to the Township. This could include informational packets available at the Township office, and links on the Township website to information on rain barrels, rain gardens, dangers of pesticides and herbicides in runoff, and other issues.

7-14 Track NPDES Phase II and MS4 requirements to ensure that the Township is in compliance with the regulations, to include regular inspection of inlets and outfalls, updates to mapping of stormwater infrastructure as necessary, opportunities for the public to participate in stormwater management program development and implementation, and development of a plan to reduce runoff from municipal properties and operations.

Pocopson Township is required by PADEP to fulfill the requirements of the MS4 permit. These permit requirements may change with time, and many requirements of the permit are of an on-going nature. The Township needs a continuous focus on the different requirements of the program, which range in nature from maintenance issues such as inspecting inlets and outfalls to detect illicit discharges, to development of plans to prevent or reduce runoff from municipal operations.

Solid Waste Collection and Disposal

7-15 Continue to promote recycling by residents and businesses with outreach, education, and provision of convenient drop-off locations.

While many private haulers provide curbside recycling service, it is not mandated, and convenient drop-off locations continue to serve a purpose. The bins at the Township building should be maintained as long as they are serving a need. The Township newsletter and website can serve a critical role in convincing residents of the value of recycling, whether through a private hauler or the Township's bins. While not expected to be required during the life of this Plan, mandated curbside recycling by private haulers will likely be necessary by 2025 (in compliance with Act 101).

7-16 Support the continued use of the SECCRA landfill as an essential element in the Township's long-term solid waste management program, and support SECCRA's commitment to recycling and alternative energy generation as critical components of extending the landfill's lifespan.

SECCRA has fulfilled the solid waste disposal needs of its member municipalities for many years, and will continue to do so with proper management. Encouraging recycling with public education and providing convenient drop-off

locations for recycling will ensure that the landfill continues to serve its member municipalities. As an added benefit, the generation of energy through methane gas recovery at SECCRA captures a previously lost energy source, which will likely only increase in importance over time.

Emergency Services

Overall Emergency Management

7-17 Update the Basic Emergency Operations Plan (EOP) on an annual basis in coordination with the Chester County Department of Emergency Services, and participate in updates to the Chester County Hazard Mitigation Plan.

EOPs need to be updated on an annual basis to ensure effective and efficient operations in the case of a disaster. The Township's Emergency Management Coordinator should lead this effort in full coordination with Chester County Department of Emergency Services. Current records of the Chester County Department of Emergency Services indicate the most recent Township EOP was adopted in May 2003, and an update is currently (2012) underway. Coordination with the Longwood Fire Company and Po-Mar-Lin Fire Company should also occur regarding the EOP, with a special consideration of the Chester County facilities and their populations with respect to emergency response. Flood-prone areas and transportation corridors also require special consideration within the EOP. The Township has signed onto the current Chester County Hazard Mitigation Plan, which is undergoing an update. The Township will need to sign onto the updated County Hazard Mitigation Plan once completed. The Township needs to remain aware of its responsibilities in regard to both the EOP and Hazard Mitigation Plan.

7-18 Consider creation of a committee dedicated to public safety and emergency management issues.

Pocopson Township should investigate the need for a committee to address public safety and emergency management issues. Such a committee could focus on emergency services and public safety related recommendations within this Plan, consider the potential need for and benefits of a town watch, and research methods to improve public safety within the Township. The committee could also assist with updates to the EOP.

7-19 Disseminate information to area residents and businesses on prevention and preparedness such as use of fire alarms, proper display of house numbers, escape plans, 911 protocols, and the Special Needs Registry.

Use of public outreach tools to share emergency management and emergency services information can benefit residents, businesses, and the emergency responders that serve the Township. For example, while the International Building Code (ICC) requires appropriate display of the street address for all new

construction, public outreach can focus on encouraging existing structures to display their address in a consistent manner. Additionally, commercial and industrial development can be encouraged to display the address at all entrances, including areas used for loading or employee entrance. Information such as this should be available on a continuous basis on the Township website and periodically featured in the Township newsletter and other outlets.

The Township should also publicize the existence of the Special Needs Registry, a coordinated effort at the County level to better identify those who are most at risk during a disaster because they are unable to receive, understand, or act upon emergency protective orders. Anyone that might require extra help in an evacuation or other disaster situation is encouraged to register in order to aid emergency response and planning. Periodically highlighting this resource through a variety of public outreach outlets will enable it to serve as an effective tool of emergency management. Provision of services to those most in need during times of an emergency is a critical government function, and the Township can best serve its residents by identifying in advance those most in need. Information and brochures on the Special Needs Registry and other prevention and preparedness issues can be obtained by contacting the Chester County Department of Emergency Services.

7-20 Review addressing within the Township to ensure that all properties have appropriate and consistent addresses.

Inconsistent addressing has been identified as an area of concern in Pocopson Township. Inconsistent addressing can impede the ability of emergency responders to locate a person in need. While potentially inconvenient for those who are accustomed to an existing address, the ability of emergency responders to find a location should be the priority. The Township should consider linking certain activities to an automatic review of appropriate addressing, such as a property owner requesting a Township permit.

7-21 Encourage and support volunteer emergency service providers to seek grant funding from the state and federal levels and alternative sources, and seek funding at the municipal level as appropriate.

As Pocopson Township has made good use of grant funding, its emergency service providers should be encouraged and supported to do the same within their available funding programs to maintain and upgrade their facilities and equipment. Additionally, the Township should remain aware of grant opportunities and low-interest loans that are directed only to municipalities and limited to emergency response functions. Agencies such as the Department of Homeland Security, Southeastern Pennsylvania Regional Task Force, Pennsylvania Department of Agriculture, Pennsylvania Department of Community and Economic Development, and the Pennsylvania Office of the State Fire Commissioner may at times offer grants or low-interest loans related to emergency response. The Pennsylvania Fire and Emergency Services Institute (www.pfesi.org) is a useful resource to investigate emergency services grants and loans from a variety of organizations.

7-22 Continue coordination between the Township and local emergency service providers to provide information regarding new development in the Township and other issues of concern.

Seeking the comment of local emergency service providers on proposed subdivisions is beneficial to all parties, and can allow for review of details such as roadways widths and turning radii with respect to emergency equipment. Any changes to the transportation system should be coordinated with emergency responders for their input. For example, new traffic signals or upgrades to existing signals should always provide for preemption for emergency response vehicles. Additionally, providing information regarding proposed and approved subdivision and land developments (such as location maps with the number and type of dwellings) to the fire and ambulance providers on a regular basis assists them in providing better coverage and service to Pocopson Township and its residents. Regular contact, as is currently done with Po-Mar-Lin Fire Company, also provides a time to discuss any areas of concern before problems become widespread or critical.

7-23 Investigate the potential of regional emergency management and continue participation in the Southern Chester County Co-op.

Regional emergency management can provide an individual municipality with improved training, expertise, and equipment when an emergency arises. As Pocopson Township is already a part of the Kennett Area Regional Planning Commission, this organization could be a starting point for forming a regional emergency management organization. Similar organizations exist for other areas of Chester County (AGREM for the Avon Grove area; OXREM for the Oxford area). Such coordination could also form the basis to consider further regionalization for emergency services (see recommendation 7-28).

Continued participation in the Southern Chester County Co-op is a cost-effective and efficient way to ensure that the Township is obtaining materials at the best cost. Mutual aid and cost-sharing arrangements help protect residents and decrease costs. The Township should continue to participate in the Southern Chester County Co-op and investigate regional emergency management to benefit residents.

7-24 Identify potential hazard mitigation projects.

Mitigation is the process of preventing disaster based on known, high-risk hazards that have caused damage and destruction in the past. Having a prepared list of potential mitigation projects, such as a bridge replacement for a site that currently causes upstream flooding, will position the Township better when competitive grant funding becomes available. Additional information is available from the Chester County Department of Emergency Services.

7-25 Ensure emergency service providers have the appropriate training.

In this context, emergency service providers include not only fire, police, and ambulance responders, but also elected officials and staff for the Township that are assigned duties under the EOP. Personnel that have responsibilities in the EOP, such as the Emergency Management Coordinator, need the appropriate

National Incident Management System (NIMS) training as defined by the U.S. Department of Homeland Security. This training can be obtained through the Chester County Department of Emergency Services, and some training can be taken online. Appropriate training for responders is a requirement of certain grants, so compliance with training requirements can have financial implications.

7-26 Adopt an ordinance ensuring minimum acceptable in-building radio coverage for emergency communications.

Radio communications are essential for emergency services. While single family residential structures typically do not interfere with radio communications between emergency responders, larger structures can. The Township should adopt an ordinance that covers multi-family residential housing and commercial, industrial, and institutional facilities to ensure that new construction is designed and built to ensure radio coverage. The Chester County Department of Emergency Services has a model ordinance for municipal use regarding in-building radio coverage. There are no identified issues with in-building radio coverage currently, but an ordinance would help ensure that future construction does not create problems.

Police

7-27 Monitor state police staffing levels and response times to ensure that adequate protection is provided.

Pocopson should continue to monitor State Police staffing and response time. If issues with response times arise, Pocopson should communicate their concerns to the Avondale barracks, State Police headquarters, and elected officials to ensure the appropriate level of staffing at the Avondale Barracks and adequate response times. If response times are inadequate over an extended period of time, Pocopson may need to investigate options, such as a cooperative effort with other municipalities for police coverage.

Fire and Ambulance

7-28 Monitor fire and ambulance staffing levels, response times, and the number of calls within Pocopson Township to ensure that adequate protection is being provided.

Fire protection is provided by Longwood Fire Company and Po-Mar-Lin Fire Company. Ambulance service is provided by Longwood Ambulance. Understanding the number of fire and ambulance calls that Pocopson Township residents and businesses place annually, and the response times provided, is a critical first step in ensuring that these services are adequately protecting the Township's residents and businesses. Meetings currently take place on a regular basis with Po-Mar-Lin Fire Company to understand and address emergency service issues. Coordination with the Kennett Area Regional Planning

Commission regarding service and response times is appropriate. Regular communication with emergency service providers can assist both the Township and the providers in ensuring adequate service. Population growth and cost increases may require that the Township consider coordination with surrounding municipalities on fire and ambulance service that is managed on a larger regional basis, as recently done with the consolidation of Atglen, Parkesburg, and Pomeroy fire departments into the Keystone Valley Fire Department in western Chester County.

7-29 Determine equitable funding for fire and ambulance services and budget appropriately on an annual basis.

Both fire companies that serve Pocopson Township are volunteer-driven organizations. The ambulance service is primarily staffed by paid professionals, but still supported by volunteers. Each fire company has its own needs; in particular the funding needs for Longwood Fire Company are higher, due in part to the ambulance service. These arrangements of a mix of volunteers and paid staff are typically very cost-effective and efficient service for the municipalities served. However, the necessary facilities, equipment, and paid staff require funding, and Pocopson Township should provide funding on an annual basis in proportion to the services its residents require to ensure the health and safety of residents. Pennsylvania law requires that municipalities ensure that “fire and emergency medical services are provided within...including the appropriate financial and administrative assistance for those services” (1933, P.L.103, No.69, § 1553). Coordination with the Kennett Area Regional Planning Commission regarding the level of support is appropriate.

7-30 Support local fire companies through publicizing the benefits and needs of volunteer fire and ambulance service.

The Township can use its existing public outreach methods to encourage its residents and businesses to support the local fire and ambulance service with volunteer service or financial support. Existing public outreach tools are low-cost methods by which Pocopson Township can promote the benefits these organizations provide to the community and communicate the need to support them.

7-31 Support local fire company participation in the Pennsylvania Fire Incident Reporting System (PennFIRS).

PennFIRS is intended to assist the state’s fire departments in managing the flow of their reports to the United States Fire Administration’s National Fire Data Center, and can also be used for reviewing and analyzing Pennsylvania’s fire situation. The information available through PennFIRS can be an important resource for agencies and organizations that participate in the system. Additionally, some state and federal grant or loan programs require participation in PennFIRS. At this time, both Longwood Fire Company and Po-Mar-Lin Fire Company participate in PennFIRS.

Libraries

7-32 Determine equitable funding for the Bayard Taylor Memorial Library and West Chester Public Library and budget appropriately on an annual basis.

Individual municipalities choose whether or not to provide funding to their local library. The library system has a formula to determine what each municipality's appropriate portion is, based on multiple factors, including population and use. However, the individual municipality chooses whether to contribute the recommended level of funding, or a higher or lower level. In past years Pocopson Township has split its library funding between the Bayard Taylor Memorial Library and the West Chester Public Library. The Township should maintain contact with both libraries to remain up to date regarding the recommended level of funding and review annual contributions as part of the annual budget process. Additionally, in time, it may benefit the Township to investigate usage of each library by residents to re-evaluate if an even split of the funding is appropriate.

7-33 Publicize within the local community the need to support (with funding and time) both the Bayard Taylor Memorial Library and West Chester Public Library.

In addition to funding from local municipalities, public libraries within Chester County rely on support from residents and businesses within their communities, both financial and volunteer. Providing information on the many services provided by the libraries, and the need for the community to support those services, on the Township website and in newsletter articles is one way for the Township to support the libraries.

Education

7-34 Communicate on a regular basis with the Unionville-Chadds Ford School District regarding development plans that may impact student enrollment and use of school facilities for community purposes.

Pocopson Elementary School opened its doors in 2002, and other UCFSD elementary schools were renovated in a similar timeframe. The Unionville High School is near completion of its most recent renovation. As noted previously (Figure 7-1), the student population is expected to stabilize and even decrease in the coming years. Slowed growth lessens the need for extensive infrastructure projects. Even a single residential development can impact the school district however, so coordination on proposed and approved residential development plans remains important.

Regardless of student population numbers, communication regarding issues such as transportation and community use of Pocopson Elementary School is appropriate. Transportation issues become magnified with the traffic associated with a school facility, and coordination on proposed transportation projects should take place as necessary. Schools routinely fill a gap for community needs, such as before- and after-school child care or fields and courts for recreation

leagues. An open dialogue between the Township and the school district should be maintained through regular meetings to discuss all of these issues.

7-35 Consider sponsorship of youth service projects on a routine basis.

Within Pocopson Township there has been periodic work with area Boy Scouts on projects, primarily on improvements to the Township parks. The Township should consider a more focused effort to involve area youth in municipal projects, thereby providing an outlet for area students, scouts, or other youth to engage in civic projects. Such an effort would require the oversight of a committee or other volunteer to ensure that projects meet the needs of volunteers and the Township.

Health Care

7-36 Support public transportation to improve access to health care facilities in the region.

While there are many health care facilities in the broader region, the few that are located in Pocopson Township are limited in the services they provide. Access to health care generally requires use of a personal vehicle. Supporting public transportation within Chester County will assist in improving access to essential health care facilities and services. One source of information on public transportation options in Chester County is the Ride Guide, available at www.chescorideguide.org. Available in print as well as online, the Ride Guide provides information and direction for transportation options in Chester County, covering rail, bus, taxi, and paratransit services.

Human Services

7-37 Provide information and referral materials regarding human service programs through the Township's public outreach methods.

The 2008 economic downturn placed an increased number of people in need of assistance with basic needs, which in turn increased demands on the human services system. By providing information on available programs and services, the Township can assist its residents who are in need, as well as remind others of the opportunity to support local human service programs. Highlighting programs in the newsletters, maintaining a listing of programs online, and making information available at the Township office are simple ways to make residents aware of local human service programs.

7-38 Publicize public transportation services available within the Township, and promote enhancement and expansion of public transportation services, to assist senior citizens and disadvantaged populations with access to jobs and supportive services.

Rover and SCCOOT provide public transportation within Pocopson Township. Rover provides transportation for seniors and the disabled at discounted fares, and general ridership at full fare. The SCCOOT bus route includes a stop at Pocopson Home. Seniors, people with disabilities, and the Latino population are populations that tend to be more isolated, and may need specific outreach in order to access services such as public transportation. Use of existing public outreach methods would make residents more aware of public transportation services and issues.

Links

AquaPA

www.aquaamerica.com/our-states/pennsylvania.aspx

Bayard Taylor Memorial Library

www.bayardtaylor.org

Chester County Department of Emergency Services

www.chesco.org/des

Chester County Hospital

www.cchosp.com

Chester County Intermediate Unit Head Start

www.cciu.org

Chester County Water Resources Authority

www.chesco.org/water

Delaware County Regional Water Quality Control Authority

www.delcora.org

Good Fellowship Ambulance

www.goodfellowship.com

Jennersville Regional Hospital

www.jennersville.com

La Comunidad Hispana – Project Salud

www.lacomunidadhispana.org

Longwood Fire Company

www.longwoodfireco.com

Kennett Area Community Services/Kennett Area Food Cupboard

www.kacsonline.net

Kennett Area Senior Center

www.kennettseniorcenter.org

Maternal and Child Health Consortium of Chester County

www.ccmhc.org

PathStone

www.pathstone.org

Pennsylvania Fire and Emergency Services Institute

www.pfesi.org

Pocopson Township

www.pocopson.org

Po-Mar-Lin Fire Company

www.pomarlinfc.org

Ride Guide

www.chescorideguide.org

SECCRA

<http://seccra.org>

Seniors Helping Seniors Southern Chester County

<http://seniorcarechestercountysouth.com>

Stormwater Information

www.stormwaterpa.org

The Garage Community and Youth Center

www.garageyouthcenter.org/

Unionville Chadds Ford School District

www.ucfsd.org

United Way of Southern Chester County

<http://unitedwayscc.org>

West Chester Public Library

<http://wcpubliclibrary.org>

PARK, RECREATION, AND OPEN SPACE INVENTORY AND PLAN

Introduction

Pocopson Township has put substantial effort into parks, recreation, and open space planning and protection since the enactment of the previous comprehensive plan. Regional planning and partnerships have been important to these efforts. Parks, recreation, and open space are important to public health and highly valued by residents of the Township. This Chapter addresses several components of parks, recreation, and open space, including:

- Inventory
 - Terminology
 - Parks and Recreation
 - Existing Conditions
 - Evaluation of Needs
 - Open Space
 - Existing Conditions
 - Evaluation of Needs
 - Trail, Path, and Pedestrian Networks
 - Existing Conditions
 - Evaluation of Needs
 - Recreation Programming and Administration
 - Existing Conditions
 - Evaluation of Needs
 - Resource Protection Measures
 - Regional Initiatives and Efforts
- Planning Implications
- Recommendations



Inventory

Terminology

Park, recreation and open space planning use a number of terms that need to be defined for a municipality to set policies that can be implemented through ordinances and regulations. The key terms are:



Pocopson Park is an active recreation park and includes a children's playground and fields for team sports.

Recreation and Recreation Facilities

Recreation can be generally defined as an activity that provides therapeutic restoration of one's mind or body. Recreation facilities can refer to any public- or privately-owned property used for recreation, including indoor or outdoor activities. Recreation facilities can range from sport fields and nature preserves to indoor pools and gyms. A recreation facility can even be a paved downtown plaza or a municipal parking lot used as seating for an outdoor summer movie.

Park

In general, a park is an outdoor facility established to provide the public with opportunities for recreation. A park can be a wildlife preserve, a historic site, a quarter-acre tot-lot, or the almost 3,500 square miles of Yellowstone National Park. In Chester County some properties set aside as natural areas are called "parks," even though they do not provide public recreation.

Linking Landscapes: A Plan for the Protected Open Space Network in Chester County, PA (Chester County Planning Commission, 2002) defines a park as any outdoor property with few if any structures that is: 1) owned in-fee or permanently eased for recreation by a government agency, 2) is open to the general public, 3) is specifically managed to provide public recreation, and 4) has public recreation as its primary use. This definition stresses that parks are acquired, designed, and managed to be public recreation facilities.

Passive and Active Recreation

Parks are typically identified based on the type of recreation they provide, which in general terms can be described as active or passive recreation. *Linking Landscapes* includes the following definitions for passive and active recreation:

Active Recreation includes recreation activities that are usually rigorously athletic, not quiet, and have a noticeable impact on the surrounding environment. These may include individual or team sports, large picnics, children's playgrounds, and recreational events with a high density of people. Parks that provide active recreation commonly include tennis, volleyball and basketball courts; swing sets, playgrounds, and tot-lots; or fields for team sports such as football, soccer, and baseball/softball. Active recreation parks can be quite small, as in the case of a tot-lot, or they can cover multiple acres, as in the case of a sports field complex.

Historically, active recreation parks in Chester County have been purchased and managed by municipal governments, and municipal parks currently provide the majority of public active recreation opportunities within the County. This situation is likely to continue. County or state facilities are primarily designed for passive recreation and may require a further distance to travel. Some sports fields are owned by sports leagues or schools, which may be closed to the public.

Passive Recreation includes recreation activities that are usually quiet and not rigorously athletic, and have a low impact on the surrounding environment. These activities may include walking, hiking, fishing, bird watching, and quiet picnicking. Parks that provide passive recreation may include trails, public gardens or memorial parks, open areas, and picnic areas. Passive recreation parks in suburban or rural settings tend to be larger than active recreation facilities and may have natural or scenic significance, containing a stream, woodland, or historically significant resource.

The same recreational activity may be regarded as passive in one situation, but active in another, depending on the scale of the activity or the size of the park. For example, most people would classify a pair of hikers or a small picnic of four people as being passive recreation, while a hiking group of 50 energetic teenagers or a large family reunion picnic would be called active recreation. Similarly, a group of mountain bikers or horseback riders in a 5,000 acre wilderness preserve might have little impact and be called passive recreation, while the same group in a 50 acre park might be called active recreation. Simply put, there are some activities that cannot be clearly categorized as being exclusively active or passive recreation. It is up to each municipality to define what constitutes active and passive recreation, and include these definitions in regulations and ordinances. In this way, parks can be designated as active recreation facilities, passive recreation facilities or both. In some instances parts of one park can be designated for active use, while other parts can be set aside for passive recreation. What is most important is to make these designations clear to park users.

Trails, Paths, and Routes

A trail is a kind of recreation facility. There is no universally recognized definition for trail and in common conversation the term is often used interchangeably with path or route. In this chapter, trails, paths, and routes will be discussed using definitions developed by the Chester County Planning Commission in *Linking Landscapes* and based on terminology used by the Pennsylvania Department of Conservation and Natural Resources (PADCNR).

A **trail** is an off-road facility with a permanent alignment that is open to the general public and that is designed, constructed, and maintained as part of a public park system, and used for a variety of non-motorized forms of travel including walking, hiking, bicycling, cross-country skiing, or horseback riding.

A **path** is a specific type of trail that has been designed, constructed, maintained, and used primarily for one form of travel. Thus a bike path is an off-road facility that has been designed to be used primarily by bicyclists. Although paths are designed to be used by only one mode of travel, they are often used by other types of users. Limiting the use of a path to one type of user is difficult to enforce, and so path managers commonly rely on voluntary compliance by the users.



Pocopson Township has many trails that are designed and constructed for a variety of users.

A **route** is a facility that utilizes the shoulders of paved streets or the motor vehicle travel lanes of roads with low traffic volumes. In general, bicycle routes extend along streets or rights-of-way owned by the Pennsylvania Department of Transportation (PennDOT). Roadside routes are sometimes used to link together trail segments that cannot be linked by an off-road corridor, and so should be considered in any trail network project.

Open Space

As with trails, there is no single accepted definition for “open space” in either the planning or the legal profession. To prevent confusion, it is important to be clear what type of open space is being referred to in the discussion of municipal and regional open space planning. Open space can be defined very broadly as any land that is not covered by buildings or pavement. For the purposes of this Plan, open space is primarily discussed in terms of being either protected or unprotected open space. Open space can be protected either through deed restrictions (such as conservation or agricultural easements) or through public ownership where the intent is long-term preservation (such as a park).

Economic benefits of open space include the maintenance of property values and the ability to attract both employers and employees. In Chester County, open space is closely linked to the vitality of the agricultural and equine industry. Tourism, such as taking a scenic drive, visiting historic sites, or bicycling, is another important element of the county economy that depends on open space.

Greenway

A linear corridor of open space, usually established along streams, ridges or abandoned rail lines, which is used for recreation or resource preservation or restoration. A greenway can vary in width and length, and should link destinations such as downtowns, historic districts, parks or nature preserves.



Though not typically identified in this manner, easements have left their mark on Pocopson Township by restricting development.

Parks and Recreation

Existing Conditions

Types of Ownership

Park and recreation facilities fall under the following three general categories of ownership:

Public

Public parks or recreational facilities are owned and maintained by governments to provide recreation opportunities to the general public. The governmental body may impose access limitations that are related to the health, safety and welfare of the public, such as closing the park at dusk or requiring permits for large group activities.

Limited-public Access

Most limited-public access recreation facilities are owned and maintained by schools and other institutions. They are commonly used by the public for informal recreation, but the facility owner maintains the option to limit or ban public use. Limited-public access facilities also include fields that provide playing fields and practice areas for organized leagues.

Private

Private parks and recreational facilities are privately owned properties such as golf courses and arboretums. Public access is usually granted by permission of the owner, and may be limited to paying members. These facilities may be non-profit or commercial facilities.

Public Parks within Pocopson Township

As Figure 8-1 shows, Pocopson Township has three municipally-owned and managed recreational areas, two of which have limited facilities. There is a deed restriction on the Barnard House parcel that limits development, leaving the site as a passive park resource.

Figure 8-1: Public Parks and Recreation Facilities within Pocopson Township

Park or Recreation Features	Pocopson Park	Pocopson Creek Park	Barnard House Property
Size (acres)	28.9	8.5*	64.2
Active Recreation Facilities	Playgrounds, Courts, Fields, Pavilion	None	None
Passive Recreation Facilities	Trails, Open Areas	Trail, Benches	Trail
User Support Amenities	Parking, Restrooms	Parking	Parking
Level of Maintenance	High	Low	Low
Ease of Access by Pedestrians	Low	Low	Low

*This includes area used by the Public Works Building, which shares a parcel with Pocopson Creek Park.

Pocopson Park, which is the most developed of the Township's park areas, is centrally located in the Township (see Map 8-1). Parking areas are located on the opposite sides of the park (off Locust Grove Road and off Wawaset Road) and amenities are clustered near the access points. A loop trail connects the two areas. The Barnard House Property is just south of Pocopson Park, and recreational facilities are limited to a 1.3 mile loop trail. The trail on the Barnard House Property links to the trail within Pocopson Park via a crosswalk over Wawaset Road. Pocopson Creek Park is located along Route 52, sharing the parcel with the Township Public Works Building. As with the Barnard House Property, the Pocopson Creek Park is limited to passive facilities.

In addition to these formal park and recreation facilities, there are informal access points to Brandywine Creek for canoeing, kayaking, and fishing. One access is located adjacent to the Northbrook Road bridge and another is located adjacent to the Route 842 bridge. Both are within the road rights of way. During the rehabilitation of the bridge at Northbrook the parking for the access was improved with a gravel area. Each access provides limited parking (approximately five cars). Beyond Pocopson Township there are more formal access points at ChesLen Preserve in Newlin Township and Shaw's Bridge Park in East Bradford Township (see Figure 8-2).



This gravel area provides public access to Brandywine Creek at the Northbrook Road bridge.

Parks and Recreation Facilities used by Pocopson Township Residents

Residents in Pocopson Township have access to a number of publicly, quasi-publicly, and privately owned parks and recreation facilities that are located either within the

Township or within a 10 to 20 minute drive. See Figure 8-2 for a listing of recreation facilities commonly used by Pocopson Township residents that are outside the ownership of Pocopson Township. Within the Township, this includes the property of the Brandywine Valley Association (BVA) and Pocopson Elementary School. The BVA property includes extensive trails that are open to the public, and recreation programming related to environmental education is provided by the BVA for a fee. The Pocopson Elementary School includes fields and playgrounds that can be used by the public outside of school hours.

Northbrook Canoe Company is a privately owned recreation business in the Township providing access to Brandywine Creek for canoeing, tubing, and kayaking for a fee. Brandywine Picnic Park is another privately owned recreation business, and is located directly adjacent to the Township. Brandywine Picnic Park has been at its present location since the 1890s, adjusting its recreation amenities to meet public needs. Additional recreation facilities in nearby communities that are used by Pocopson residents include other municipal parks and preserves held by land trusts.



Northbrook Canoe Company provides equipment and drop-off/pick-up for canoeing, kayaking, and tubing.

Figure 8-2: Recreational Facilities Used by Pocopson Township Residents

Facility Name/Location	Recreation Amenities
Public Recreation Facilities	
Anson B. Nixon Park, Kennett Square	106 acres, Borough park with trails, fields, courts, and playground
Pennsbury Park, Pennsbury Township	54 acres, Township park with trails and bark park
Shaw's Bridge Park, East Bradford Township	37 acres, trails and access to Brandywine Creek
Brandywine Creek State Park, Delaware	933 acres, state park with trails, fields, and access to Brandywine Creek
Limited-Public Access Recreation Facilities	
Brandywine Valley Association	236 acres; non-profit environmental education center with public trails and fee-based recreational/education programs.
Pocopson Elementary School	34 acre public school campus with sports fields and playground
ChesLen Preserve, Natural Lands Trust	1,263 acres, preserve in Newlin Township, trails and access to Brandywine Creek
Stroud Preserve, Natural Lands Trust	571 acres, preserve in East Bradford Township, trails
Brandywine Battlefield	50 acres, historical park with museum
Laurels Preserve, Brandywine Conservancy	771 acres, preserve in Newlin, East Fallowfield, and West Marlborough townships, trails
Longwood Gardens	1,077 acres, arboretum with trails and events
Private Recreation Facilities	
Northbrook Canoe Company	6 acres, canoeing, kayaking, and tubing on Brandywine Creek
Brandywine Picnic Park	22 acres, rides, swimming area

Evaluation of Needs

Land Use and Demographic Trends

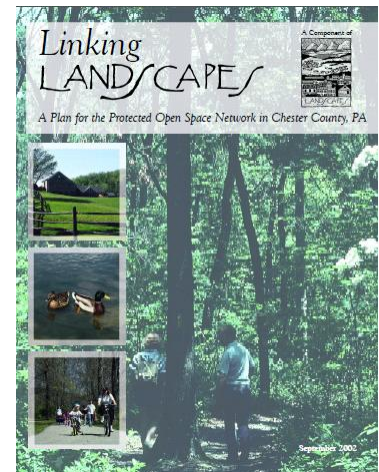
For most of its history, Pocopson Township has been a rural agricultural community where traditional outdoor physical activity was part of everyday life. However, recent decades have witnessed a rise in sedentary activities and a loss of open lands traditionally used for recreation. As a result, a growing number of residents now rely on dedicated recreation facilities for their recreation needs.

Demographics are also an important consideration in understanding recreation needs. (See Chapter 3 for additional detail on community demographics.) These characteristics indicate a need for recreation planning and programming to place a special emphasis on families and children, while providing for all age groups.

Understanding the demographics of the community can help ensure that the recreation needs and preferences of all groups are taken into consideration, but direct communication with the public is also important.

Guidelines

There are several equally valid techniques that can be used to determine park needs within a community. The most current National Recreation and Park Association (NRPA) guidelines are from 1996. These guidelines refer to a service area which is a circle drawn around a park that represents the area in which most of the park's users are likely to live. In general, small parks will attract users from a small service area, while larger parks with more facilities or unique features will attract users from a much larger radius. The NRPA classifies parks using a system similar to the one presented in Chester County's *Linking Landscapes*, as shown in Figure 8-3.



Linking Landscapes provides a vision for multi-municipal open space planning on a countywide basis.

Figure 8-3: Park Guidelines Comparison

Park Classification	NRPA's Current Guidelines (1996)	<i>Linking Landscapes</i> (2002)
Mini-park	2,500 square feet to 1 acre, in a residential setting serving the surrounding 0.25 miles	0.01 to 0.49 acre, with 0.25-mile service area equal to 8-minute walk
Neighborhood Park	5 to 10 acres in size, serving the surrounding 0.25 to 0.50 miles	0.5 to 19.9 acres, with 0.5-mile service area equal to 15-minute walk
Community Park	30 to 50 acres in size, serving the surrounding 0.50 to 3.0 miles	20 to 399 acres, with 2.5-mile service area equal to 5-minute drive or 30-minute walk

In recent years, the NRPA has determined that promoting a strict classification of parks is not an effective tool for creating parks or addressing recreation needs. As a result, they propose that park classifications be used as general guidelines, not hard and fast standards. Most often, parkland is acquired on short notice when unique opportunities arise, such as through a developer's donation. Therefore, municipalities should be flexible, and build a network of parks based on public desire and the municipality's ability to fund and maintain the acquisition. More information can be found at the NRPA's website: www.nrpa.org.

Needs within Pocopson Township

In the past, recreation planning in Chester County evaluated existing active recreation park facilities using NRPA guidelines to project future park needs. As

noted previously, *Linking Landscapes* provides an updated philosophy and guidelines called the Chester County Recreational Park Standards, shown in Figure 8-4.

Figure 8-4 Chester County Recreational Park Standards

	Regional Park	Sub-regional Park	Community Park	Neighborhood Park	Mini Park
Service Radius	30 mi. (equal to a 60 min. drive)	7.5 mi. (equal to a 15 min. drive)	2.5 mi. (equal to a 5 min. drive or a 30 min. walk)	0.5 mi. (equal to a 15 min. walk)	0.25 mi. (equal to an 8 min. walk)
Minimum Acreage	20 ac. per 1,000 people	8.5 ac. per 1,000 people	3.0 to 6.0 ac. per 1,000 people	2.5 to 3.5 ac. per 1,000 people	0.25 ac. per 1,000 people
Maximum Population*	None	100,000	25,000	5,000	2,000
Size of Park	1,000 acres or more	400 acres to 999 acres	20 acres to 399 acres	0.5 acres to 19.9 acres	0.01 acre to 0.49 acres

Note: * Maximum Population is the largest recommended population for a given service area.

In 2002, *Linking Landscapes* applied the County standards to evaluate Pocopson Township's projected recreation needs. This analysis determined that Pocopson Township, which in 2002 had zero acres of recreational parks, would need 45.6 acres by the year 2025, to include a community park and a neighborhood park. All three of Pocopson Township's park areas have been developed since this analysis, addressing the acreage requirement and the community (Pocopson Park) and neighborhood park (Pocopson Creek Park) recommendations.

Population is not used for determining how much passive recreation is needed in a community. Typically, passive parks focus on protecting or conserving a specific natural, historical, or locally significant landscape, regardless of population. Passive recreation is currently provided at the Pocopson Creek Park and on the Barnard House Property in the form of trails. Both of these areas overlap with other resources – the stream in the case of Pocopson Creek Park, and the historic structure in the case of the Barnard House. Pocopson Township residents also benefit from the BVA property, which has recently (2011) been protected from future development through a conservation easement.

When planning to acquire property for sports fields or other outdoor recreation facilities, local officials and community leaders should be aware of the dimensional requirement for the facilities that they wish to accommodate. Figure 8-5 presents an overview of design standards for the most common sports and outdoor recreation facilities.



The BVA lands, which were recently preserved, provide a recreation resource with extensive trails that are open to the public.

Figure 8-5: NRPA Suggested Outdoor Facility Development Standards (Sampling)

Activity	Size and Dimensions	Area Needed
Basketball, Youth	46' – 50' x 84'	2,400-3,036 sq. ft.
Basketball, HS	50' x 84'	5,040-7,280 sq. ft.
Tennis	36' x 78' with 12 ft. clearance on both ends	Minimum of 7,200 sq. ft. single court area
Baseball, Official	Baselines - 90', Pitching distance - 60.5', Foul lines - min. 320', Center field - 400'+	Minimum 3.0-3.85 ac.
Baseball, Little League	Baselines - 60', Pitching distance - 46', Foul lines - 200', Center field - 200' to 250'	Minimum 1.2 ac.
Football	160' x 360' with minimum 6' clearance on all sides	Minimum 1.5 ac.
Soccer	195' to 225' x 330' to 360' with 10' minimum clearance on all sides.	1.7 to 2.1 ac.
Golf- driving range	900' x 690' wide. Add 12' width each add. tee	13.5 ac. for min. 25 tees
Quarter mile running track	Overall width - 276', length - 600', track width for 8 to 4 lanes is 32'	4.3 ac.
Softball	Baselines 60', pitching distance 40' (women) & 45' (men) , fast pitch field radius from plate 225', slow pitch field radius from plate 250' (women) & 275' (men)	1.5 to 2.0 ac.
Multiple use court	120' x 80'	9,840 sq. ft.
Golf, Par 3 (18 hole)	Average length varies – 600 – 2,700 yards	50 to 60 ac
Golf, 9-hole	Average length 2,250 yards	Minimum of 50 ac.
Golf, 18-hole	Average length 6,500 yards	Minimum 110 ac.
Swimming Pools, Teaching	Minimum 25 yards x 45', even depth of 3-4 ft.	Varies, usually 1 to 2 ac.

Source: Park, Recreation, Open Space and Greenway Guidelines, NRPA, 1996.

Open Space

Existing Conditions

Map 8-1 presents the existing open space in Pocopson Township. Township-owned parks and open space account for approximately 119 acres of open space. In addition to the three parks previously mentioned, this includes two parcels between Brandywine Creek and Pocopson Road that were deed restricted and dedicated to the Township as part of the Riverside development. Much of the open space is property with conservation easements, ensuring that the land will remain open permanently. A conservation easement is a type of deed restriction that involves a third party, usually a non-profit land trust or a government agency, which ensures that the property will not be developed by either the person selling the land (the first party) or the person buying the land (the second party.) Lands protected by land trusts easements total approximately 1.165 acres in the Township. The majority of land trust eased properties are located in the northern portion of the Township, although a significant block is located in the southeast.

Lands protected through agricultural conservation easements total approximately 66 acres, covering one property in the central portion of the Township. This easement is administered by the Chester County Agricultural Lands Preservation Board (ALPB). The ALPB purchases development rights from farmers using state and County funding. These easements benefit the farmer by lowering the



Open Space Planning: A Guide for Municipalities is a Chester County Planning Commission publication that presents guidance on planning for open space as well as natural and cultural resources.

land's value, thus lowering the taxes that are based on that value. The community as a whole benefits from agricultural preservation because farmers maintain the land as open space in perpetuity.

Homeowner's association (HOA) open space, protected through the subdivision and land development process, totals approximately 390 acres. HOA open space is clustered in the southern portion of the Township, with more limited areas of HOA open space along Corinne Road, Red Lion Road, and Northbrook Road.

Institutional uses that include areas of open space are the Pocopson Elementary School, Chester County Prison and Youth Detention Facility, and Pocopson Home. Uses on these properties could change in the future and the areas could be further developed, because they are not permanently protected. Indeed, there are many examples in the region of schools, golf courses, and other open land that became developed, despite the objection of elected officials and surrounding neighbors.



Deed restricted open space surrounds the Tullamore residential development.

Needs Evaluation

Pocopson Township has extensive acreage permanently protected as open space, approximately one-third of the Township's total acreage. Map 8-2 depicts parcels of land that are currently protected open space, as well as lands within an Agricultural Security Area (ASA). Parcels can be enrolled in an ASA by the township if they are used for farming and meet other criteria. Farmers whose land is within an ASA are protected from nuisance lawsuits relating to odors or noises associated with regular farming activities. Although farms within an ASA are not protected from development, the ASA designation typically indicates that a parcel is open and well suited for protection. Map 8-2 also shows lands that are undeveloped (based on current tax assessment records) and measure 10 acres or more, which is typically the smallest acreage that can be protected by a conservation easement.

Map 8-2 shows that there remains potential for additional permanent protection of open space in the northern portion of the Township. There are currently several undeveloped parcels that are enrolled in the ASA program but that are not permanently protected. If protected, these parcels would link other areas of permanently protected open space, creating an extensive area of permanently protected open space.

Trail, Path, and Pedestrian Networks

Existing Conditions

Pocopson Township has an extensive trail system, although it is lacking links (see Map 8-3). There are trails within the Township parks, within and connecting residential neighborhoods, and within the BVA property. The trails are typically on public lands or provide for public use through an easement. Most of the trails are unpaved, with limited areas of paved trails around the Riverside neighborhood and



Most trails within Pocopson are gravel, but there are sections of paved trails.

linking to the Pocopson Park and Barnard House Property trails. Extensive planning for a trail network has been completed by the Township, with a significant effort to map existing trails and resources in 2006 with the Brandywine Conservancy. Two sections of trail have been established through the closing of sections of local roads (West Creek Road and Bragg Hill Road). In addition to providing a trail link within the larger network, these areas now offer improved protection of critical natural, scenic, and historic resources.

In addition to trails, bicycling is popular on certain roads within the Township. An important consideration with bicycling is the safety of all users. There are no dedicated bike lanes in the Township. PA Bike Route L is located on the east side of Brandywine Creek, just beyond the Township. Roads within Pocopson Township lack bicycle facilities to accommodate cyclists (such as dedicated bike lane or complete coverage of “share the road” signage).

The Chester County Planning Commission identified the bikeability levels of certain roadways in Pocopson, as shown on Figure 8-6. Only one road - Creek Road - is designated as above average, while Route 842, Red Lion Road, and Lenape-Unionville Road are designated as average. Route 52 is designated as below average, indicating that the route is intended for riders with greater expertise. These classifications provide guidance on existing conditions, and do not assess where it might be most appropriate to locate a dedicated bike lane in the future.

In 2002, *Linking Landscapes* designated the Red Clay-Pocopson and Brandywine-Struble as possible major trail corridors. As Figure 8-7 shows, the Pocopson section of the Red Clay-Pocopson generally follows the alignment of the Pocopson Creek, while the Brandywine section of the Brandywine-Struble generally follows the alignment of Brandywine Creek. There has been substantial effort on the Brandywine concept, mostly recently with the development of the *Concept Plan for the Brandywine Creek Greenway* (2012). More information on that plan is included below. In 2011 Chester County also mapped “Heritage Loops”, which are potential trail corridors that are well suited to link natural or cultural resources. Pocopson Township is crossed by the Campaign of 1777 Loop (see Chapter 5: Historic and Scenic Resources Inventory and Plan for information related to the Campaign of 1777).

Figure 8-6: Bikeability

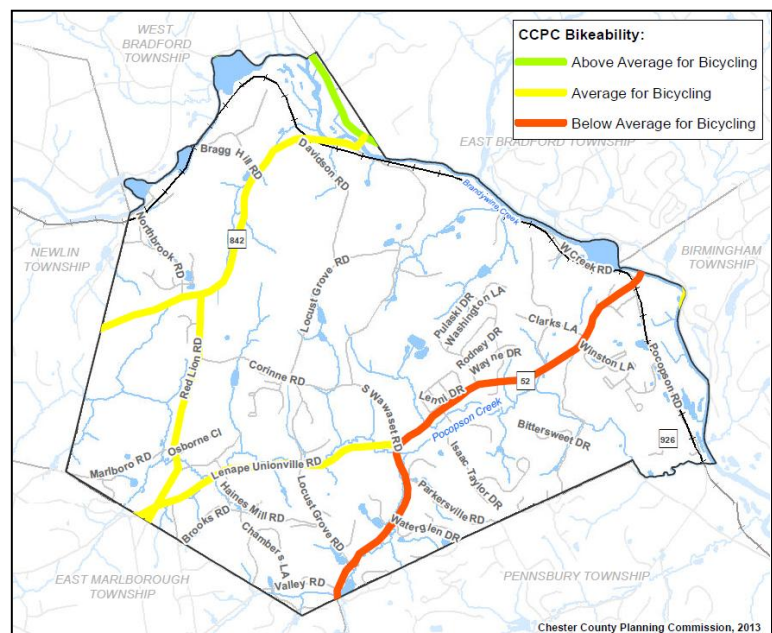
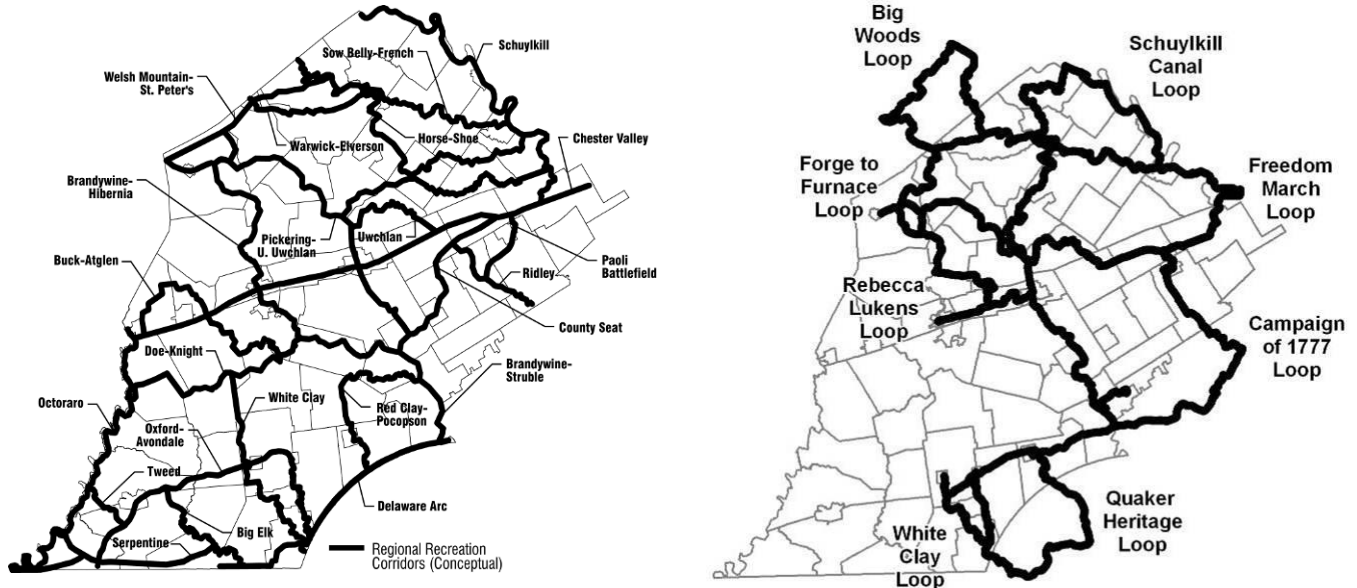


Figure 8-7: Chester County Regional Recreation Corridors and Heritage Loops



Needs Evaluation

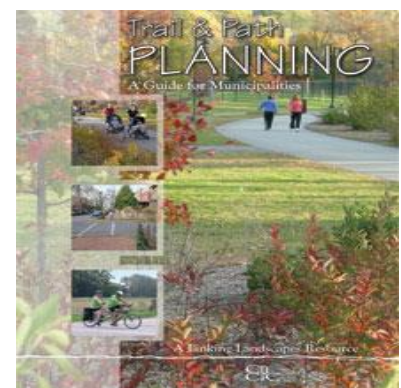
Network Evaluation

In general, the “need” for a trail is based on how well a trail could link a population center to a destination such as a park or downtown. In Pocopson Township, as part of a history of trail planning and as part of the *Concept Plan for the Brandywine Creek Greenway*, there has been identified a need for a trail along Brandywine Creek and extending along Route 842 to the BVA property. Although an unpaved trail can be found along areas of this route, a more formal trail would increase recreation opportunities, provide improved access to Brandywine Creek, and improve links to the BVA. This would be an extensive undertaking, but could be implemented in stages. Details on the alignment and potential funding sources can be found in the *Concept Plan*.

Map 8-3 depicts existing trails and the concept trail network along Brandywine Creek and Route 842. The concept trail network is within the larger Brandywine Greenway that is the primary focus of the *Concept Plan*. Given the significant natural and historic resources located within the area, placing the trail within a larger greenway effort is appropriate. Such a network could be expanded to include on-road bicycle routes where appropriate.

Planning and Funding

Sections 303(a)(3), 401(a)(3), 503.3, 603(b)(2), and 604.(1) of the Pennsylvania Municipalities Planning Code (MPC) empower a municipality to address trail and path planning through its ordinances and regulations. Because bicycle and pedestrian planning is a relatively young field, municipal ordinances and regulations do not always include the kind of regulations that facilitate the construction of trails and paths. One key trail planning concept that can be included in ordinances is that trails and paths in new developments should be constructed prior to the construction of the buildings. There also should be



Trail & Path Planning: A Guide for Municipalities is a Chester County Planning Commission resource that presents ways for municipalities to address trail and path planning in policies and regulations.

documentation setting forth which parties are responsible for the maintenance, security, and liability for trails and paths within developments or on public lands.

Recreation Programming and Administration

Existing Conditions

In the past, municipal recreation planning focused primarily on acquiring and constructing parks and recreation facilities. Overall coordination of recreational events or programming is necessary however, to ensure that there are recreation events that respond to the community's needs. Increasingly, local governments are now using civic events such as parades, concerts, and festivals as a way to build a sense of community. The following section addresses recreation programming by the Township and outside entities, as well as issues of maintenance and funding for the entire area of parks, recreation, and open space.

Recreation Programming

Municipal

Pocopson Township has no formal recreation programming or staffing. The Parks, Recreation, and Trails Committee oversees park and trail activities and improvements. Rules and regulations for park areas are found in Chapter 147 of the Township Code. A reservation form for park facilities is available online and notes user fees. A current useage schedule for fields is posted online as well.

Community Events and Non-Sports Recreation

Community events, such as parades or festivals, are an important form of recreation in most communities. Each September, Pocopson Township hosts a Founders Day at the Pocopson Park that features food, entertainment, and displays sponsored by local businesses and community organizations. Founders Day has been held annually since 2006 and attracts approximately 1,000 attendees. In 2013 the Township also held a spring open house, encouraging public visitation of the various municipal facilities, including the Public Works Building, Locust Grove Schoolhouse, and Barnard House. The Brandywine Valley Association also hosts frequent events at the Myrick Center, ranging from music concerts to volunteer days to clean-up efforts.



Traditional Recreation

Traditionally, hunting and fishing have been a common recreation activity. These activities have typically taken place on private properties with the permission of landowners. In general, the focus for fishing is Brandywine Creek and Pocopson Creek, while hunting takes place on forested and agricultural lands. More information on use of public lands for hunting can be found under Biotic Resources in Chapter 4: Natural Resources Inventory and Plan.

Sports Leagues and Public School Athletics

Pocopson Township is not involved in athletic programming beyond scheduling use of fields at Pocopson Park. Organized leagues can reserve the fields at Pocopson Park for a fee. Pocopson Elementary School includes a limited number of fields, and

outside of the Township, the Unionville-Chadds Ford School District includes a variety of sports facilities for school-based activities, including gymnasiums, grass fields, tennis courts, and a synthetic turf field. These facilities are available to outside users for a fee when scheduling permits. Pocopson residents can become involved with organized recreation activities through a variety of entities, including the Unionville Recreation Association, Southern Chester County Soccer Association, Kennett Area Park and Recreation Board, and others.

YMCA

The closest YMCA facility to Pocopson Township is the Kennett Area Branch, located within the Borough of Kennett Square. The Kennett Area YMCA is part of the YMCA of the Brandywine Valley that serves Chester County. The Kennett Area YMCA serves over 12,000 members and offers indoor recreational facilities, programming, and a variety of recreation activities for all ages. It has a gymnasium, pools, and courts for indoor sports such as basketball and volleyball. The Kennett Square facility is heavily used and recently completed an expansion. Details on the YMCA facility and programs are available on their website: www.ymcabwv.org.

Administration

Maintenance, Security, Safety, and Liability

Pocopson Township provides the same maintenance, security, safety, and liability for their recreational facilities as they do for all other municipal property. Chapter 147 of the Township Code addresses rules and regulations for the park areas. The Public Works Department maintains all park areas.

An important law for the Township and residents to be aware of is Pennsylvania's Recreation Use of Land and Water Act (RULWA) of 2003, which limits the legal liability of private landowners who make their land available to the public without charge for recreation, such as hiking, fishing, or mountain biking. The goal of this law is to make it easier for people to open their land for public recreation. Under RULWA, a land owner "owes no duty of care to keep the premises safe for entry or use by others for recreational purposes, or to give any warning of a dangerous condition, use, structure, or activity on such premises to persons entering for such purposes." In general this law states that a land owner who does not charge an entrance fee and who maintains his or her land using safe, conventional management practices may not be held liable by someone who has an accident while using their land for recreation such as hiking.

Budget and Funding

Funds for parks, recreation, and trails are generated by user fees and fee-in-lieu through the development process. The Township currently has separate ordinance requirements for trails and active recreation, and separate fees-in-lieu for each (which are reviewed and adjusted periodically). The Trails Fund was established for trail and bikeway acquisition, construction, and management. The Recreation Fund is for purchasing and developing land suitable for active recreation. There is a dedicated parks, recreation, and trails budget completed as part of the annual budget process. As of 2013, the Recreation Fund has a balance that exceeds the upcoming needs for active recreation, while the Trails Fund is not meeting trail maintenance and construction needs.

Needs Evaluation

As the Township grows in population it can be expected that park and recreation issues will require more coordination with outside organizations, and that more consideration may be required regarding security and emergency services. A more pressing issue for the Township with regard to programming and administration is the need and desire for additional trails to provide a more thorough network across the Township, while active recreation funds exist that do not have a use in the foreseeable future. Changes in how fees-in-lieu are addressed within Township ordinances could better match fees to the needs of the Township.

Resource Protection Measures

Pocopson Township's current regulatory measures for parks, recreation, and open space include requirements for park, recreation, trails and open space through the both the zoning and subdivision and land development ordinances. Sections 250-20 and 250-98 of the Zoning Ordinance address active recreation, trails and open space requirements, while Section 190.28 of the SLDO addresses recreation areas. In addition to regulatory measures, the Township has actively worked on conservation easements outside of the subdivision and land development process, recently completing the purchase of easements on three properties with bond funding that will be repaid through an open space tax.

Regional Initiatives and Efforts

Efforts that are related to parks, recreation, and open space, but discussed under their primary topic area, include the Brandywine Battlefield Task Force (historic), Brandywine Valley Scenic Byway (scenic), and Lower Brandywine PA Scenic River (scenic). Participation in these regional efforts on historic and scenic resources may provide opportunities to address issues of recreation, trails, and open space.

As discussed in the trail information, the *Concept Plan for the Brandywine Creek Greenway* is a regional effort in which Pocopson Township is currently participating. While progress on regional efforts can at times seem slow, the confluence of multiple issues to address and the support of multiple municipalities creates favorable conditions for receiving outside funding support for local projects.



Planning Implications

Parks and Recreation

Pocopson Township has added significant park and recreation facilities over the past ten years, providing residents with improved recreation opportunities. Minor

additions to the existing facilities, continued maintenance, and a focus on meeting resident needs should be the focus in the near future.

Open Space

A substantial portion of the Township is currently protected open space, whether in the form of homeowners association lands, township recreation facilities, or lands with a conservation or agricultural easement. Continuing support of these open space lands, and additions to the open space network as opportunities arise, are important to maintaining the character of the Township.

Trail, Path, and Pedestrian Networks

In recent years many trails and paths have been established in Pocopson Township. Linking existing trail and path segments, and upgrading as necessary, will be key to creation of a complete network.

Recreation Programming and Administration

Park and recreation administration has grown in recent years with the substantial increase in Township park and recreation facilities. However, Pocopson has largely stayed out of recreation programming, as outside entities have filled this need in the area. Coordination with these outside entities is essential to meeting the recreation needs of Township residents, as is administration of Township facilities. Changes in how fees-in-lieu are addressed within Township ordinances could better match fees to the needs of the Township.

Recommendations

The recommendations below detail how Pocopson Township can provide park and recreation opportunities and preserve open space, with options ranging from regulatory to public education. Priorities for the implementation of these recommendations are established in Chapter 12, Implementation Measures. Implementation of the recommendations identified below will help Pocopson Township achieve its parks, recreation, and open space goal to:

Promote the establishment and maintenance of, and programming for, a network of park and recreation facilities, and permanently protect open space, to provide public health, ecological, economic, and quality of life benefits in a manner that is both cost effective and environmentally appropriate.

Overall

8-1 Consistently define terms such as open space and different types of ownership in plans, ordinances, and other Township materials.

Consistency in the use of park, recreation, and open space terminology can clarify expectations among the public and Township officials. Currently open space is only defined as “common open space” in the Subdivision and Land Development Ordinance. Clarification of private versus public open space would be useful.

8-2 Review existing provisions and adjust as necessary to provide the necessary funding and staff to maintain existing park, recreation, and trail facilities.

While funding has generally been adequate, there is a backlog of trail projects in the Township. Pocopson currently has two fee-in-lieu recreation programs established (Recreation Fund and Trails Fund). The Recreation Fund has a substantive balance, while the Trails Fund is unable to keep up with trail maintenance and construction. Pocopson Township should review its existing ordinance language with its solicitor to determine if Recreation Funds can be used for trail projects. If not, the Township should consider broadening the language (and potentially the name) of the Recreation Fund to allow the future fees to be used for trail maintenance and construction or efforts such as restoration projects on existing publicly owned open space.

Additionally, the Township should consider if it would be beneficial to have a more formal capital improvement program (CIP) for park, recreation, and trail facilities. While there have not been issues with the current process of a dedicated parks, recreation, and trail budget within the annual budget process, given the extent of facilities (and ongoing additions to trails) it may be prudent to establish a CIP to help the Township appropriately plan for significant expenditures related to maintenance or acquisition. A park and recreation CIP should:

- Plan for future parks and recreation facilities for the next five years.
- Accommodate the requirements of county, state, and federal grant programs.
- Address land acquisition.
- Address the replacement, upgrade, and installation of recreation, sports, and playground equipment.

8-3 Review and update as necessary formal recreation policies that address property issues and organizational structure.

Pocopson Township addresses park and recreation rules and regulations in Chapter 147 of the Township Code. This information should be reviewed and updated to include the following critical items if not currently addressed:

- Security and safety: The Township should seek the review and comment of emergency service providers regarding park and recreation facilities while still in the planning and design stages to ensure access can be accommodated.
- Liability and maintenance: There should be formal designation of responsibility and timing of maintenance and safety inspections of Township park and recreation facilities. The inspections should be carried out in a manner that minimizes liability and insurance cost. Additionally, the Township should ensure that all park and recreation facilities identify activities that are restricted or limited, activities that require a permit or proof of liability insurance, and any public access restrictions to facilities (such as dawn to dusk use).

Other items to address as part of this recommendation include:

- Compliance with the Americans with Disabilities Act, which may involve designating some but not all parts of natural or historic resources area as locations that can accommodate the handicapped
- Identification of a chain of command
- Grant writing
- Ground and facilities maintenance
- Marketing, public relations, and event planning
- Setting rates and guidelines for renting facilities
- Hiring and managing recreation staff
- Programming recreational activities
- Cooperative agreements with other public or private entities
- Special event organizing, liability, and set-up/clean-up.

8-4 Investigation methods to generate funds from the local community for park and recreation facilities and initiatives.

Involving the public in creative funding streams for critical and popular community amenities can raise awareness and funds. Potential methods include establishment of a friends group, an endowment fund, or a gift catalog. These efforts could overlap or be addressed individually. A friends group could be established to cover a range of issues, including minor maintenance, grant application preparation, fundraising, or creation of a non-profit to further enhance the appeal of donations. The Township could also establish an endowment fund on its own to attract donations specific to park and recreation facilities and activities. Less cumbersome would be the development of a gift catalog that identifies specific recreation equipment and structures that could be funded by a donation. There are multiple examples of park friends groups in Pennsylvania, while the gift catalog method primarily has been used in other states. Additional information on methods to generate funds from the local community is available from the PADCNr publication *Financing Municipal Recreation and Parks* (http://www.dcnr.state.pa.us/brc/publications/Pubs/Finance_Handbook.pdf).

8-5 Use the Township website and other methods of public outreach to publicize Township park and recreation facilities, with a focus on providing current information.

The website currently provides information under the Parks, Recreation, and Trails Committee heading, with a substantial portion of the page devoted to the Committee and past meetings. Information on parks and trails is located further down the page, and includes a 2008 trail map, parks reservation form, and park field usage schedule. Individual maps of the parks would be a useful addition to the site. The Township should also consider separating the Committee information from information that a park or trail user would be seeking. In addition, the Township could consider adding an events calendar for Township recreation activities and events, as well as those in the surrounding area. Use of other social media could be expanded, such as has been done with a Facebook page for Founders Day.

8-6 Consider the adoption of an Official Map.

Pocopson Township currently has regulatory language that requires new land development to provide for trails or pay a fee-in-lieu of a trail, with detailed mapping of the existing and proposed trail network to support the regulatory language. This process has worked well for the Township, but in time other options may be more suitable. One option that is similar but broader in scope is an Official Map. An Official Map provides options without requiring an immediate commitment for acquisition or improvement on the part of the municipality. Potential transportation features, trails, facilities, parks, and other public lands and infrastructure are all items that may be placed on an Official Map. Pocopson Township could designate, among other things, potential trail corridors or areas that are a high priority for open space protection.

An Official Map provides notification to property owners and land developers about the location of potential future public improvements. By identifying improvements on the Official Map, the municipality is provided a one-year time period in which to acquire (or ease) the mapped area once the property owner has provided written notification to the municipality of the intent to subdivide or build on the mapped lands.

In cases where the municipality expects public improvements to be dedicated by the developer to the municipality, the Official Map is equally useful because it establishes the desired pattern of the improvement. Enabled under the Pennsylvania Municipalities Planning Code, the Official Map and an accompanying Ordinance (which provides the explanation of the map and its purpose) is adopted by the municipal governing body. Additional information on the process of developing and adopting an Official Map is available from PennDOT Publication 703, *The Official Map: A Handbook for Preserving and Providing Public Lands and Facilities* (June 2011).

8-7 Pursue grant funding to support park, recreation, trail, and open space efforts.

Many projects, particularly those that cross municipal boundaries or serve multiple purposes, are eligible for grant funding. For trails, potential funding sources include programs such as the Pennsylvania Community Transportation

Initiative (PCTI), which is available through PennDOT and administered in this region by DVRPC. DVRPC itself can be a source for grants, and also compiles a Municipal Resource Guide that summarizes funding opportunities (www.dvrpc.org). PADCNr is another potential source for recreation grants, particularly their Community Conservation Partnership Program (C2P2). Information on open space grant programs in general, and grants specific to certain open space projects, can be obtained from the Chester County Open Space Preservation Department.

Parks and Recreation

8-8 Continue to provide a balance of passive and active recreation facilities, and consider the capability of active recreation facilities to serve multiple uses.

A mix of passive and active recreation facilities provides recreation opportunities across a broad range of demographics, helping to meet the needs of all residents. It should be clear to the public which areas are passive and which are active, with specific activities identified as permitted or prohibited. Active recreation facilities that can serve multiple uses can adjust with changing desires. This includes fields that can accommodate multiple sports activities, or facilities that can serve as community gathering areas or host community events (such as Founders Day at Pocopson Park).

8-9 Consider the need for future park sites to meet specific needs.

This could include smaller park sites to provide active recreation within residential areas, or dedicated and formal access to Brandywine Creek for canoeing, kayaking, and fishing. Nearby, East Bradford Township provides access to Brandywine Creek at Shaw's Bridge Park, which is located south of the confluence of the east and west branches. Related to this, see recommendation 5-12, which discusses preservation of landscapes important to the Battle of the Brandywine.

8-10 Periodically review user fees at Township recreation facilities to ensure that they return funds to recreation facilities without discouraging users.

User fees should be based on a logical and practical rationale that is developed with community input.

8-11 Continue to offer special events to build awareness of parks as community centers.

Founders Day is one example of a special event that increases awareness of Pocopson Park and brings the community together. Township officials and staff should continue to periodically evaluate and report on the viability of community events, whether they are hosted at a Township facility or in conjunction with a partner (such as the Brandywine Valley Association). Examples of events that other municipalities host on a periodic basis include:

- Music performances and summer outdoor family film nights

- Parades, bike races, 5K runs, and charity walks
- Seasonal events such as the 4th of July, Christmas house tours and Easter egg hunts
- Farmers markets, artisans markets, outdoor restaurant festivals
- 4H farm shows, vintage car shows, and other show events

Open Space

8-12 Continue to support open space and agricultural preservation efforts.

A substantial percentage of the Township is open space already, but opportunities to protect critical parcels (such as links in the open space network or parcels with important natural, historic, or scenic features) can arise at any time. Potential lands to target for preservation would include those identified on Map 8-2 as undeveloped lands of 10 acres or more (particularly those currently enrolled in Agricultural Security Areas), lands that include critical feature (see historic and scenic mapping), or lands identified on the 2006 Open Space Protection Opportunities Map (developed with the Brandywine Conservancy). Supporting efforts could also include facilitating communication between landowners and land preservation organizations, or providing information on appropriate management of open space. Maintaining open communication with preservation organizations active in the area can help to facilitate preservation when opportunities arise. Additionally, it is important to advocate for, and when possible, require the proper monitoring of lands that are eased or owned by land trusts. Related to this, please see recommendation 5-12, which discusses preservation of landscapes important to the Battle of the Brandywine.

8-13 Continue to promote the creation of large, contiguous areas of homeowners association (HOA) open space.

Ideally HOA open space should encompass natural features such as wetlands, woodlands, steep slopes or wide floodplains to preserve these natural features in an intact state and prevent their fragmentation among multiple landowners. HOA open space can also be used to create a natural buffer from surrounding land uses. In certain instances, protection of natural features may be best served by allowing open space to be located on a separate property away from the constructed development site, either in part or in whole. Creating open space in this manner requires ordinance provisions that permit it, which Pocopson Township currently has in place. Protection of the Brandywine and Pocopson stream corridors are a priority for the Township, and a protected greenway consisting of HOA lands and preserved lands has developed along both waterways to a degree.

8-14 Continue to support the extension of a protected open space network via greenways.

Pocopson Township has been involved with the Brandywine Creek Greenway plan since its inception, and this involvement should continue. The goals of the

greenway plan overlap with many of the Township's other objectives – preservation of natural resources and protection of open space among them. Greenways can be developed and protected through the development process, land acquisition, appropriate land management, and the activities of land preservation organizations. Coordination with entities such as HOAs, institutions, schools, utility companies and rail companies should be undertaken to determine if their open lands can be managed to serve as greenways.

8-15 Continue to coordinate with agricultural landowners and other stakeholders to investigate options to protect agricultural interests.

Protecting agricultural interests in Pocopson Township can include land preservation as well as support of the business of agriculture. Encouraging enrollment in Agricultural Security Areas (ASA, Act 43) and the Clean and Green program (Act 319) are other options to support agriculture. Encouragement of secondary or accessory agricultural businesses by ensuring regulations permit and encourage these activities – as understood now and as they may evolve in the future – is a critical part of supporting the agricultural community.

8-16 Establish guidelines that clearly state what types of protected open spaces do or do not permit public access.

Such guidelines should be based on ecological, liability, and other practical considerations to determine what level of public access is appropriate for protected open space properties that permit access.

8-17 Encourage appropriate management of open space lands.

Open space management plans, for both Township owned lands and privately held lands, should take into account ecological sustainability, public access, recreation use, and on-going maintenance, as well as identify potential restoration projects (such as reforestation, invasive plant removal, or stream bank restoration). For Township owned open space, management plans should be developed with outside assistance and in coordination with Public Works. There are currently detailed provisions in § 250-98 of the Zoning Ordinance regarding open space created through the subdivision process.

See also the Biotic Resources discussion on Chapter 4, and specifically recommendation 4-13.

8-18 Investigate the possibility of a wetland restoration project along Brandywine Creek.

A potential site for such a project would be the recently acquired parcel between Route 52 and Route 926. The site is currently dominated by invasive species. Given its prominent location in the Township, and its proximity to Pocopson Elementary School, the site presents a unique opportunity for environmental education to occur in tandem with site restoration.

Trail, Path, and Pedestrian Network

8-19 Continue to plan and establish a recreational network of trails, paths, sidewalks, and bicycle routes.

Pocopson Township has invested significant effort in a network of trails, paths, and sidewalks in recent years. The Community Trails Master Plan was completed in 2010 and provides a vision for a complete network and details on implementation over the next ten years. Map 8-3 provides a summary depiction of the mapping from the Trail Master Plan, showing the existing network as well as proposed trails. In places it is necessary to complete links between trail sections, while in other places entire sections of trail still need to be established. Future considerations also include upgrades in heavily used sections, and potentially restricting uses to reduce conflicts.

8-20 Ensure ordinances include provisions that address the planning and funding of trails, paths, and bicycle routes through the land development process.

The implementation of this action could include updating ordinances, particularly the SLDO, to address:

- Construction of trails and paths in new developments prior to the construction of surrounding buildings.
- Documentation of what parties are responsible for the maintenance and security of trails and paths within developments or on public lands.

Recreation Programming and Administration

8-21 Continue to pursue opportunities to coordinate recreation programming initiatives with public, private, and institutional stakeholders.

Such stakeholders might include adult and youth athletic leagues, Pocopson Elementary School, Brandywine Valley Association, health clubs and commercial gyms, age-restricted communities, adjacent municipalities, and trail, hiking, and equestrian advocacy groups. Pocopson Elementary School and the Brandywine Valley Association are established entities that reach a broad spectrum of the public and teaming with them, particularly on environmental education initiatives, would advance overlapping interests. Because Pocopson Township has a modest population, in many instances it is most effective to participate in joint or regional recreation programming efforts.

8-22 Support a balanced diversity of competitive sports and non-sports recreation programming to meet the various interests of the public.

Awareness of community demographics and public input is critical to meeting recreational needs. Seeking public input on a periodic basis helps inform future efforts, as can a review of Township demographics.

8-23 Support the continuation of responsible hunting, fishing, and outdoor recreation as a formally recognized form of public recreation.

Pocopson Township currently schedules managed deer hunts at Pocopson Park and the Barnard House Property. The Township could also facilitate continued access to sport fishing areas and hunting grounds, including the establishment of access agreements between private landowners and hunting or fishing clubs. The Township could also promote hunting, fishing, and boating safety and education through publicly sponsored events such as festivals or fishing clinics.

See also the Biotic Resources discussion in Chapter 4, and specifically recommendation 4-14.

Links

Brandywine Creek Greenway

www.brandywinegreenway.org

Brandywine Conservancy

www.brandywineconservancy.org/

Brandywine Valley Association

www.brandywinewatershed.org

Brandywine Valley YMCA

www.ymcabwv.org

CCPC Publications (*Linking Landscapes, Trail and Path Planning, Open Space Planning*)

www.chesco.org/planning/openspace

Chester County Open Space Preservation

www.chesco.org/openspace

Delaware Valley Regional Planning Commission (DVRPC)

www.dvrpc.org

National Recreation and Park Association (NRPA)

www.nrpa.org/

Natural Lands Trust

www.natlands.org

Pennsylvania Department of Conservation and Natural Resources (PADCNR)

www.dcnr.state.pa.us

ENERGY ASSESSMENT AND PLAN

Introduction

As the Township and surrounding region continue to experience growth, it is important to understand and implement strategies for energy conservation and sustainable practices. Such strategies and practices will protect and enhance sensitive resources, employment and economic options, and public health.

This chapter presents a discussion of energy both on its own and within the broader framework of sustainability. Broad trends in energy production and consumption are addressed, as well as trends in Pocopson Township. Energy conservation can be integrated into a variety of activities and projects, and is a critical part of overall sustainability. Sustainable practices involve a balance of economic, environmental, and social factors that positively impact overall quality of life.

Pocopson Township's focus on natural resource protection and its future land use plan are crucial to its overall sustainability, and improving energy conservation will add to the resiliency and sustainability of the Township. Sustainability issues and recommendations most directly related to land use, natural resources, or other topic areas are discussed in detail in the related chapter. This chapter focuses on issues and recommendations most directly related to energy. The chapter addresses energy and sustainability within the following framework:

- Inventory
 - Sustainability
 - Energy
 - Energy Production
 - Energy Use and Emissions
 - Renewable Energy
 - Design, Construction, and Operations
 - Current Energy Conservation Measures
- Planning Implications
- Recommendations



Inventory

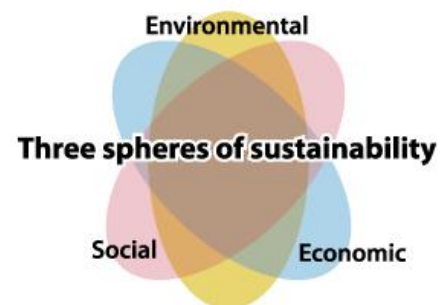
Sustainability

In 1987, the United Nations released the "Brundtland Report", which defined sustainable development as "development which meets the needs of the present without compromising the ability of future generations to meet their own needs." Beyond the specific concept of development, sustainability is a state of equilibrium in which human use of resources is balanced with the replenishment of those resources. As Pocopson Township and the surrounding area continue to experience development pressure, implementing sustainable practices and systems will help to protect the environment, create jobs, and provide residents with healthy lifestyle options.

Sustainability is often described as a three-legged stool whose supporting elements are environmental sustainability, social sustainability, and economic sustainability. Like a stool that requires all three legs for support, overall sustainability requires interaction and integration of the environmental, social, and economic systems. Sustainability requires that the environmental, economic, and social systems be examined in relation to one another and that a balanced be established that optimizes overall sustainability rather than maximizes any one system.

Environmental sustainability focuses on a healthy and self-sustaining natural environment, and integrates with the social and economic spheres for high quality water resources, open spaces, and recreational lands as well as businesses that minimize environmental impacts. Environmental sustainability requires appropriate land use policy and regulation, including comprehensive natural resource regulations. Land use and natural resource policies and regulations in Pocopson Township are covered in detail in chapters four and ten, respectively. Stormwater management is covered in chapter seven. The Future Land Use Plan works to focus future development in appropriate areas and at appropriate densities, while current natural resource and stormwater regulations within the Township protect and preserve critical resources and their functions.

Social sustainability focuses on a safe and healthy community with a high quality of life for all, and requires access to needed facilities and services for all. **Economic sustainability** focuses on a stable and diverse economy that is viable over the long term, and offers everyday needed goods and services as well as employment opportunities close to home. The integration of the social and economic systems calls for employment and equal opportunities for advancement. Pocopson residents currently enjoy a high quality of life but have to travel to access most services and employment. There are limited services and employment within the Township, but a



wide array of options regionally. Transportation and community facilities and services are discussed in chapters six and seven, respectively.

For more information and strategies on sustainable practices, visit Chester County's Discover the Future website (www.chescopagreen.org). This educational and outreach website includes tools for addressing sustainability within the municipal, residential, and business communities.



Energy

Only recently has energy become more of a focus for local planning. The increased interest is largely the result of rising energy costs, better understanding of the consequences of global warming and climate change, and concerns about compromising national security with over dependency on imported fuels. Energy conservation and efficiency is a major tool to reduce greenhouse gases, which the global scientific community has identified as having the greatest human impact on climate change.

Act 247, the Pennsylvania Municipalities Planning Code (MPC) encourages municipalities to address energy conservation and the effective utilization of renewable energy sources. Section 301.1 allows a comprehensive plan to include a plan element examining present and future use of energy; Section 503 allows the subdivision and land development ordinance to include provisions for the use of renewable energy systems and energy conserving building design; and Section 604 requires that zoning regulations facilitate access to incident solar energy.

Energy is a broad topic that affects, directly or indirectly, most aspects of local planning. To help guide local planning efforts, *Landscapes2* identified five key areas that should be considered when assessing energy at the local level:

- Reducing Demand and Consumption
- Improving Energy Efficiency
- Redevelopment, Reuse, and Recycling
- Alternative and Sustainable Energy
- Removing Unintentional Barriers to Energy Conservation

There is a growing consensus that meeting the energy needs of the United States in the future will require several activities – energy conservation (from design to construction to operations and maintenance), further development of renewable energy sources (such as solar, wind, and geothermal), and gains in the extraction of usable energy from traditional sources (such as coal, gas, and nuclear).

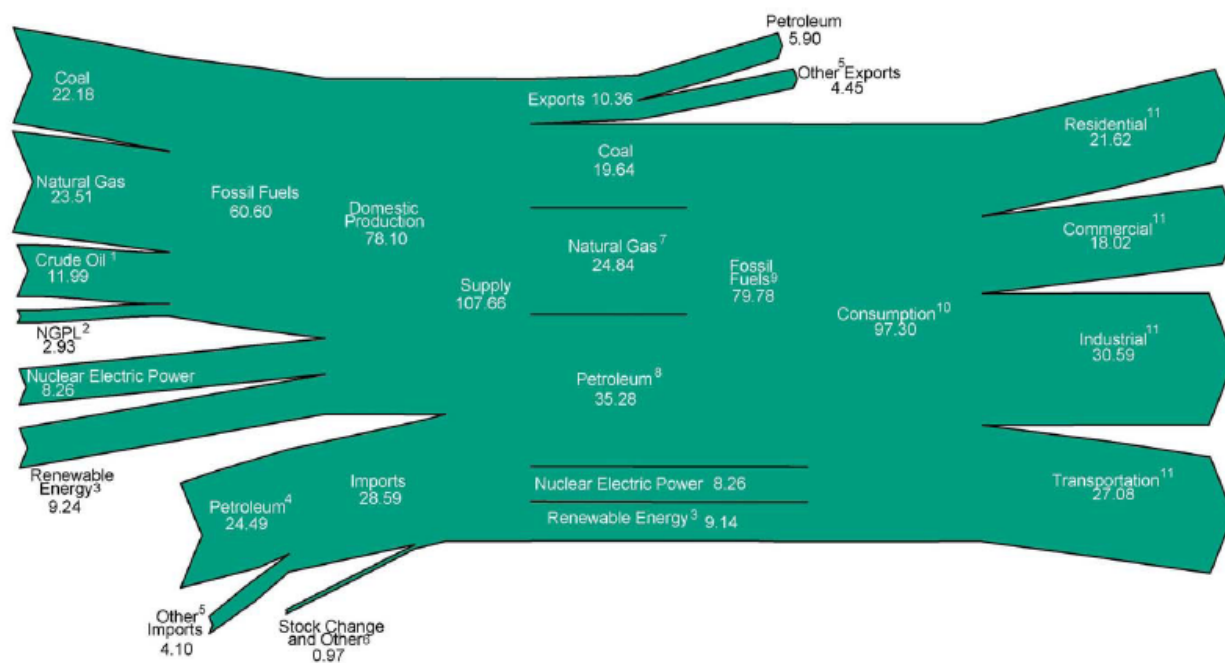
At the local level, energy conservation relates to all forms of energy use and generation by individuals, businesses, institutions, and government. Energy conservation and efficiency strategies range from the simplest of actions, such as individuals turning out lights upon leaving a room, to more involved actions, such as property owners installing small scale solar systems or municipalities incentivizing energy efficient design and construction.

While municipalities have limited control over the level and type of energy consumption by others, they do have control over energy use and efficiency for municipal facilities and operations, can incentivize energy conservation through regulatory controls, and promote and encourage land use patterns that support energy conservation and sustainability. Land use patterns are an important influence on energy usage and one over which municipalities have a degree of control. Municipalities can also influence energy activities of others through outreach and education.

Energy Production

Sources of energy production in the United States are broadening, but are still heavily reliant on fossil fuels. As depicted in Figure 9-1, fossil fuels accounted for approximately 78 percent of energy production from the United States in 2011. Renewable sources of energy accounted for approximately nine percent of U.S. energy production.

Figure 9-1: United States Energy Flow 2011
(expressed in quadrillion British Thermal Units - BTU)

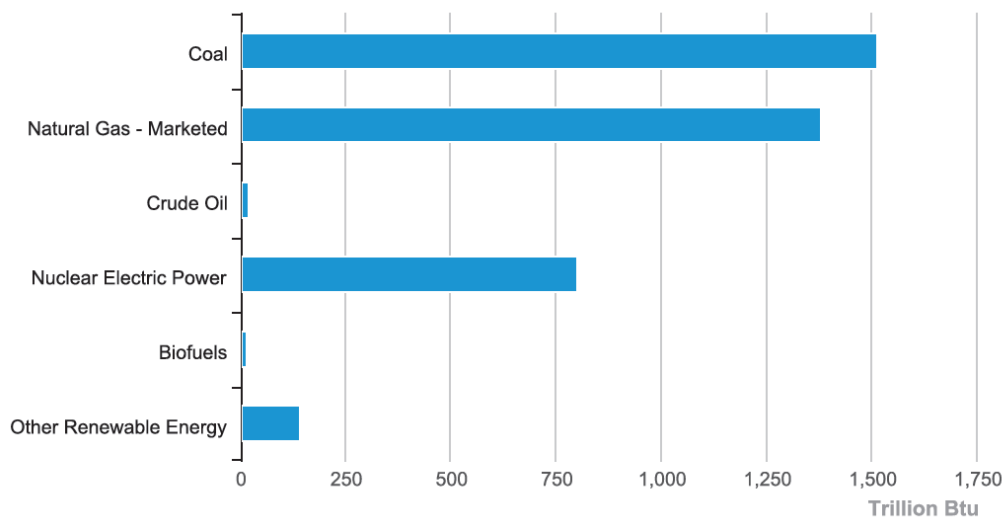


Source: U.S. Energy Information Administration, Annual Energy Review 2011.

In Pennsylvania, energy production is dominated by coal, natural gas, and nuclear electric power. Figure 9-2 depicts the energy produced within Pennsylvania in 2011. Natural gas production has increased very significantly in recent years with production from Marcellus shale (annual gross natural gas production more than doubled in 2011 in Pennsylvania). Pennsylvania remains strong in coal production as the fourth largest coal-producing state in the United States and strong in nuclear power (second in the United States in electricity generated by nuclear power). Pennsylvania is the only state that produces anthracite coal, which has a higher heat

value than other kinds of coal.¹ Other Renewable Energy and Biofuels are part of the energy production picture in Pennsylvania, but still a limited component.

Figure 9-2: Pennsylvania Energy Production 2011



 Source: Energy Information Administration, State Energy Data System

Energy Use and Emissions

Energy usage is the amount of power required and consumed for applications (such as motor vehicles, factories, stores, and houses) to function. It is analyzed by end-use sector or those broadly categorized entities - residents, commercial and industrial businesses, and transportation² - that consume energy. Energy use throughout the United States is highest among the industrial and transportation sectors (31 and 27 percent, respectively), with residential and commercial sectors using marginally less energy (22 and 18 percent, respectively).³ End-use sector in Pennsylvania is similar, with industrial and transportation sectors at 32 and 26 percent respectively, and residential and commercial sectors at 25 and 17 percent, respectively.⁴

Pocopson Use and Emissions

Data on energy use in southeastern Pennsylvania is available from the Delaware Valley Regional Planning Commission's (DVRPC) *Greenhouse Gas Emission Inventory*, which provides energy-related estimates for 2010. Figure 9-3 shows per combined capita energy usage for residents and workers in each municipality in the DVRPC region. Pocopson Township falls in the lower range in terms of energy used by residents and businesses. Chester County falls in the mid-range of energy use.

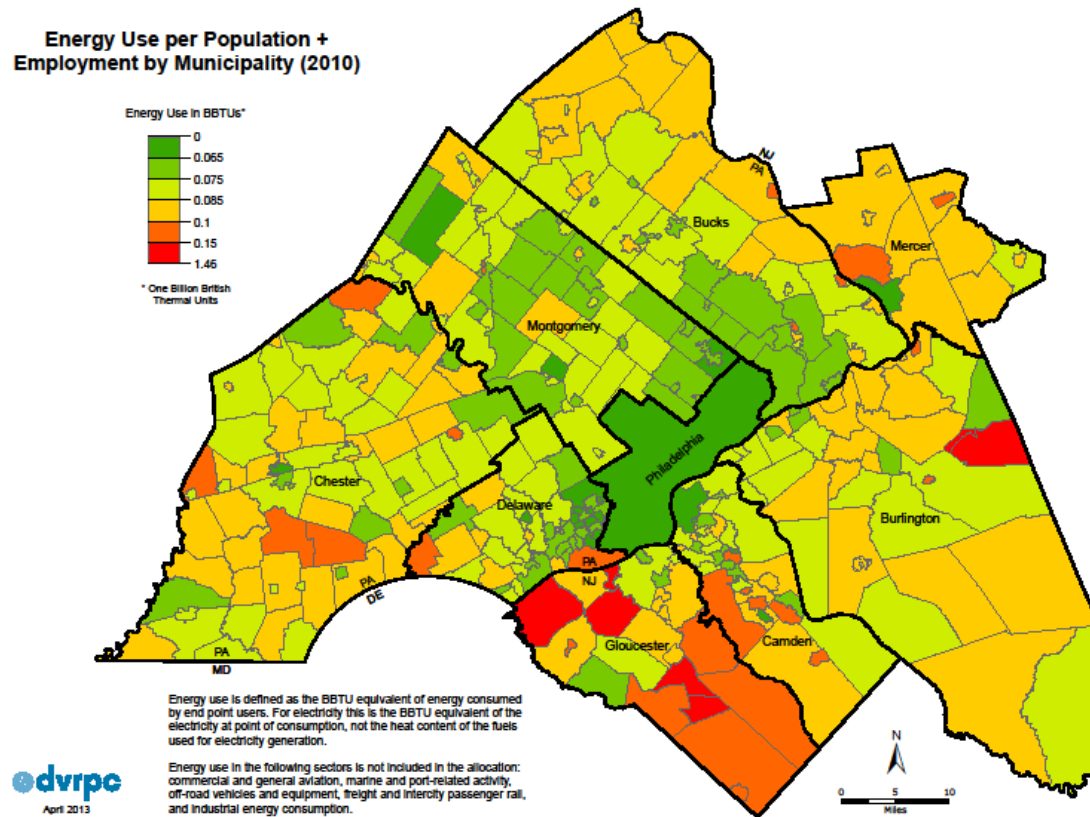
¹ U.S. Energy Information Administration, Pennsylvania State Profile and Energy Estimates; accessed January 15, 2014.

² Transportation end-use section includes on-road transportation, passenger and freight rail, aviation, marine transportation, and off-road vehicles.

³ U.S. Energy Information Administration, Annual Energy Review 2011; accessed January 15, 2014.

⁴ U.S. Energy Information Administration, Pennsylvania State Profile and Energy Estimates; accessed January 15, 2014.

Figure 9-3: DVRPC Region per Capita Energy Use by Municipality 2010



DVRPC estimates that in 2010 energy consumers in Pocopson Township used 526 billion British Thermal Units (BBTU) of energy at a cost of approximately \$13,200,000 and yielding approximately 46,200 metric tons of CO₂ equivalent, or MTCO₂e (Figure 9-4). The mobile-highway sector consumed the most energy and also produced the most greenhouse gas (GHG) emissions of any sector, with residential following in each category. Commercial and industrial energy use had less use and lower emissions, which reflects the limited commercial and industrial land uses in Pocopson Township.

Figure 9-4: Pocopson Energy Use and Greenhouse Gas Emissions by Sector 2010

	Use by Sector		GHG Emissions by Sector	
	BBTU	Percent	Emissions (MTCO ₂ e)	Percent
Residential	147	28	14,586	32
Commercial	55	11	4,359	9
Industrial	114	22	8,088	18
Mobile-Highway	210	40	16,268	35
Mobile-Transit	0	<1	35	<1
Non-Energy GHS	-	-	2,832	6
Total	526	100	46,168	100

Source: DVRPC, *Energy and Emissions Profile for Pocopson Township, Chester County, PA*, 2013.

DVRPC also reported that electricity provided the most energy (49 percent) and generated the most greenhouse gas emissions (66 percent) for the residential sector in Pocopson Township. Natural gas, fuel oil, and liquefied petroleum gas provided almost all of the remaining energy use and greenhouse gas emissions for the residential sector. For the commercial and industrial sector natural gas was the predominant energy source (70 percent) and responsible for 50 percent of greenhouse gas emissions. Electricity was the next most used energy source, with limited use of fuel oil or liquefied petroleum gas in the commercial and industrial sector.

Not surprisingly, motor gasoline provided 73 percent of energy use in the mobile energy sector (vehicles of all kinds – person and commercial vehicles and public transit). Diesel fuel provided almost all of the remainder.

Sources of greenhouse gas emissions other than energy use within Pocopson Township are detailed in Figure 9-5. Industrial processes were the largest source. Land Use, Land Use Change, and Forestry within Pocopson Township counteracted greenhouse gas emissions. Additional detail can be found in DVRPC's *Energy and Emissions Profile for Pocopson Township, Chester County, PA*, available at www.dvrpc.org/EnergyClimate.

Figure 9-5: Pocopson Non-energy Greenhouse Gas Emissions* 2010

Agricultural Sources	Fugitive Emissions	Waste Management	Wastewater Management	Industrial Processes	Land Use, Land Use Change, and Forestry	Total
899	415	697	446	1,701	-1,325	2,832

*Expressed in metric tons of CO₂ equivalent (MTCO₂e)

Source: DVRPC, *Energy and Emissions Profile for Pocopson Township, Chester County, PA*, 2013.

Regional Emissions

Greenhouse gas emissions in the DVRPC region made up about 1.2 percent of total emissions in the United States. With about 1.8 percent of the total U.S. population living in the DVRPC region, DVRPC regional emissions were around 30 percent lower than the U.S. as a whole. Municipalities having higher densities in the DVRPC region tended to emit less greenhouse gas per capita. From 2005 to 2010, region-wide total emissions lowered by an estimated 8.1 metric tons of CO₂ equivalent. This reduction may have resulted from factors such as a slowed economy, a reduction in the percentage of electricity produced from coal versus cleaner fuels, increased use of public transportation, and an increase in motor vehicle fuel efficiency.

Renewable Energy

Renewable energy sources are a limited but growing part of energy production nationwide and regionally. Reducing dependence on fossil fuels and, in turn, decreasing greenhouse gas emissions and increasing sustainability will require growth in the use of renewable energy sources.

Use of renewable and other alternative energy sources at the local level is part of a nationwide transition away from a solely centralized energy generation system to a more decentralized energy generation system. Centralized systems are characterized by large electricity generating plants that are located at a distance

from where the energy is consumed, with the electricity being transported through a transmission and distribution system to the consumer. Decentralized, or distributed systems, include the traditional energy sources as well as additional sources of energy, such as small scale solar systems, geothermal systems, or wind turbines as well as larger scale solar or wind farms. In Pennsylvania, net metering – calculating the energy consumed and produced on a site with its own alternative energy generator – is a requirement. This is critical to a decentralized system and use of renewable energy sources in general, as it allows the site of the alternative energy source to be compensated for excess electricity produced.

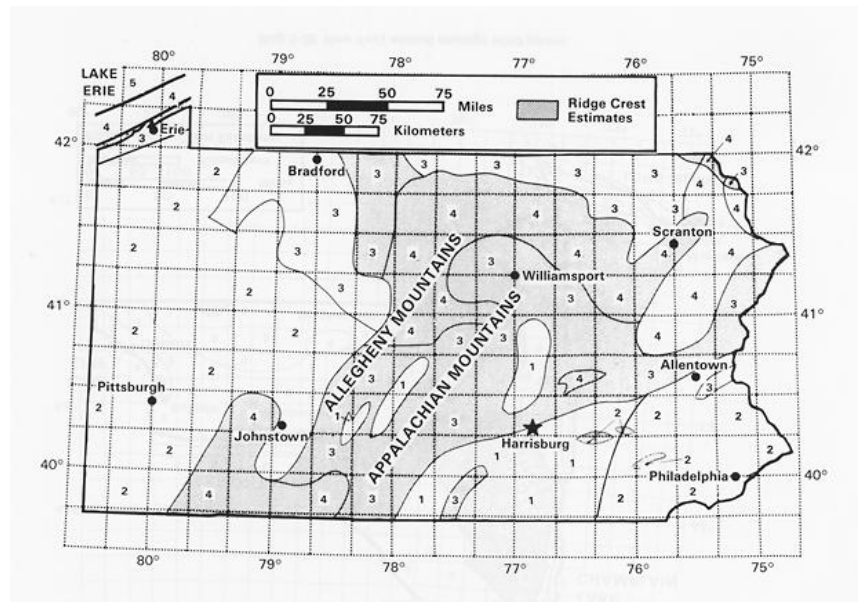
Potential for alternative energy in Pennsylvania and Pocopson Township varies by source, with solar and geothermal holding the most potential at this time. Details on solar, wind, and geothermal energy systems are provided below. Additional detail on these and other alternative forms of energy production can be found in the Montgomery County Planning Commission's publication *Renewable Energy: A Series on Alternative Energy Sources* (2011), available at: <http://www.montcopa.org/index.aspx?NID=1601>.

Wind Power

Chester County is not particularly well suited for wind production, as shown in Figure 9-6. Wind power estimates apply to areas that are free of obstructions to the wind and to areas that are well exposed to the wind, such as open fields and hilltops. Areas designated Class 3 and 4 are suitable for most wind turbine applications, while Class 2 areas (which include Pocopson Township) are marginal. Class 1 areas are generally not suitable.

Given the marginal wind power available in Chester County, most wind power generation within the county takes place at the individual property level, where the energy generated can be significant to the energy needs of the property. Wind power produces no carbon emissions. Wildlife impacts are under study, with the primary focus on large scale wind farms. Modern small wind turbines can be compact, quiet, and efficient. They are produced in a variety of styles and sizes, with the horizontal axis wind turbine most commonly used. Installation costs for wind turbines can be steep, however there are very limited maintenance costs. Regulatory considerations include height, setbacks, noise, and aesthetics, and regulations should seek to minimize conflicts between differing uses.

Figure 9-6: Pennsylvania Annual Average Wind Power



Source: Wind Energy Resource Atlas of the United States, U.S. Department of Energy, 1986

Solar

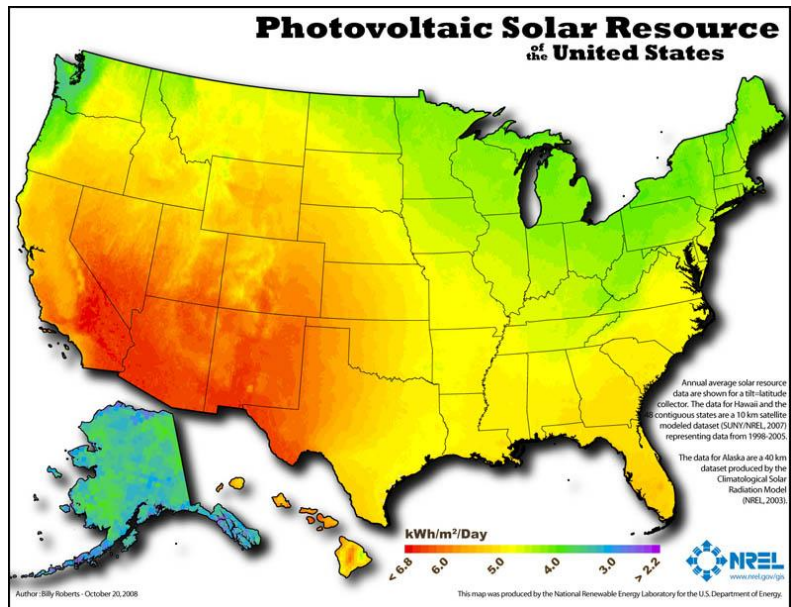
Solar energy systems harness the power of sunlight to heat a building or produce electricity. Currently, solar energy systems typically consist of solar thermal systems (with flat-pane collectors or glass tubes) or photovoltaic systems (for conversion to direct and then alternate current). Photovoltaic (PV) systems use panels of PV cells, which are evolving into a variety of forms – panels, film, and roof shingles. Both solar thermal systems and PV systems can be installed in different manners, such as roof mounted, pole mounted, or rack systems on the ground. Solar technology is continually evolving, and municipalities should be prepared to respond to emerging forms of solar systems. Gains have been made in aesthetics, efficiency, and maintenance and operation across all types of solar energy systems.

As Figure 9-7 shows, southeastern Pennsylvania lies in the mid-range regarding exposure to sunlight. In comparison, Germany, which is a leader in solar energy generation, has a lower photovoltaic rating. Small scale solar energy systems have become more common across Chester County in the past decade due to a combination of energy costs, environmental awareness, and various incentives to offset costs (including grants, rebates, and tax credits). Installation costs are typically significant for solar energy systems, including small scale systems.

In contrast to small scale systems, solar farms or utility scale solar applications, are much larger in scale. The technology is similar, but the intent is the sale of energy to an energy company for commercial gain. Siting of utility scale solar applications and stormwater considerations are particularly important regulatory considerations.

Solar power produces no carbon emissions, and owners of small scale systems benefit from net metering. All solar power systems benefit from energy production during peak demand hours. The systems require regular maintenance. Regulatory considerations include solar rights, aesthetics, setbacks, and height. Regulations should seek to minimize conflicts between differing uses, and appropriately regulate small scale systems versus solar farms/utility scale solar applications.

Figure 9-7: Photovoltaic Solar Resource of the United States



Source: National Renewable Energy Laboratory, U.S. Department of Energy, 2008



Examples of ground and roof mounted solar PV systems in Chester County.

Credit: Barney Leonard

Geothermal

A geothermal heat pump system (Figure 9-8) is made up of underground pipes, a heat exchanger, and ductwork into a building that takes advantage of the near constant underground temperature (in contrast to the fluctuating outside air temperature). In winter, heat from the warmer ground goes through the heat exchanger into the building. In summer, hot air from the building is pulled through the heat exchanger into the cooler ground. Heat removed during the summer can be used as no-cost energy to heat water. By using the temperature of the earth as the exchange medium rather than outside air, the systems have much higher efficiencies.

The U.S. Environmental Protection Agency notes that geothermal systems can reduce energy consumption and corresponding air emissions up to 44 percent compared to air-source heating pumps and up to 72 percent compared to electric resistance heating in standard air-conditioning.⁵ Geothermal systems are utilized in Chester County to an increasing extent with many large-scale uses, such as West Chester University, using these systems.

Geothermal systems are also suitable for single-family residences, however the installation cost is significant (particularly the cost of drilling). Geothermal systems commonly pay for themselves within approximately ten years. Maintenance is minimal, and the systems have low carbon emissions. Regulatory considerations are focused heavily on well drilling regulations, with closed loop systems becoming more commonly used than open loop (which has increased impacts to water quality if not properly installed and maintained).

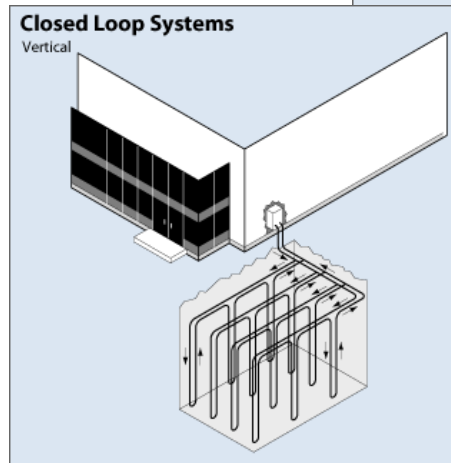
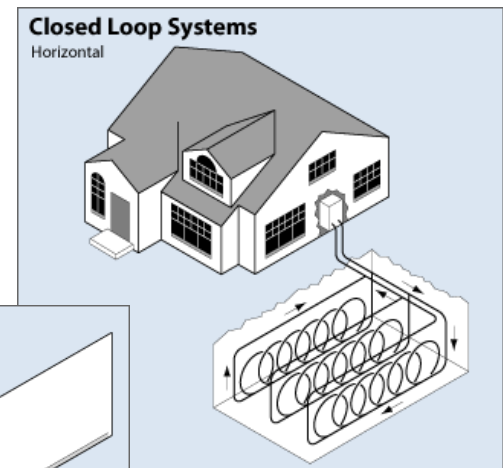


Figure 9-8: Closed Loop Geothermal Systems

Source: www.energy.gov

Design, Construction, and Operations

Site Selection and Design

Energy efficiency starts with sustainable site planning and its multiple considerations for site selection and design (Figure 9-9). Outside of protecting the natural resources that are located on site (see Chapter 4), consideration of micro-climate is critical. Access to solar (whether for solar power systems or daylighting of the structure), wind tunnels or wind breaks, and vegetation to create shade are important considerations, and structures should be oriented to maximize benefits. Additional information on sustainable site planning is available online from a variety of sources, including the Whole Building Design Guide, a program of the National Institute of Building Sciences (www.wholebuildingdesignguide.org) that is dedicated to creating high-performance building by applying an integrated design and team approach during planning and programming phases. The Sustainable Sites Initiative program seeks to create voluntary national guidelines and performance benchmarks for sustainable land design, construction and maintenance practices (www.sustainablesites.org).

⁵ <http://energy.gov/energysaver/articles/choosing-and-installing-geothermal-heat-pumps>

Leadership in Energy and Environmental Design (LEED) created a program specific to site selection and design - LEED for Neighborhood Development (LEED-ND). LEED-ND focuses on how well a development's location and design integrate the principles of smart growth, urbanism, and green building. The rating system focuses on the site selection, as well as the design and construction elements that bring buildings and infrastructure together into a neighborhood and relate the neighborhood to its landscape, local surroundings, and regional context. LEED-ND can serve as a guide in creating standards and incentives for residential site selection and neighborhood development.

More information on site selection and design, as well as municipal strategies to encourage appropriate site selection and design, can be found on the Chester County Discover the Future website (www.chescopagreen.org). The Montgomery County Planning Commission's publication *Renewable Energy: A Series on Alternative Energy Sources* (www.montcopa.org/index.aspx?NID=1601) provides issues of consideration on site selection and design, including lot and building orientation and landscaping considerations.

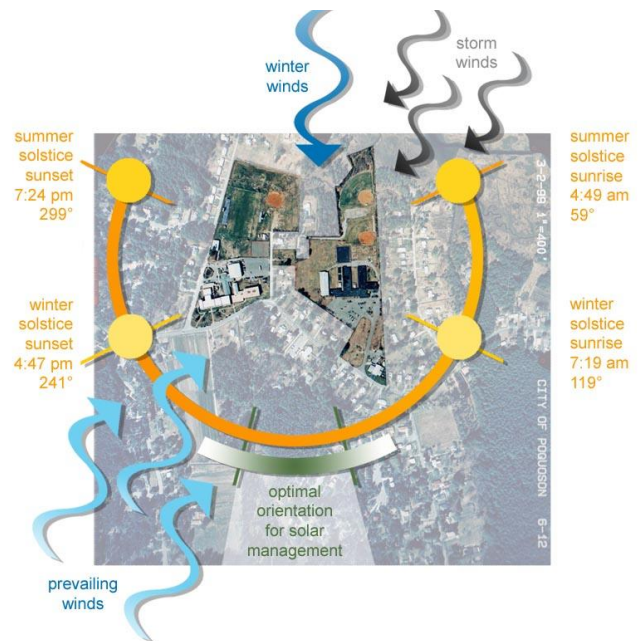
Building Design and Construction

There are a number of techniques that can be used to make buildings more energy efficient (Figure 9-10). Increased efficiency can be realized in the way a building is constructed and the efficiency of the appliances and systems used for heating, ventilation, and air conditioning (HVAC). The standards commonly used to rate the efficiency of buildings, appliances, and HVAC systems include:

Energy Star was created in 1992 and is now an international standard for energy efficient consumer products such as computer products, kitchen appliances, buildings, and other products. Devices carrying the Energy Star logo typically reduce energy by 20 to 30 percent.

LEED Green Building Rating System was developed in 1998 by the U.S. Green Building Council to provide a suite of standards for environmentally sustainable construction. It has since become a nationwide standard.

Figure 9-9: Energy Efficient Site Planning



Source: www.ecofuturesbuilding.com

Figure 9-10: Energy Efficient Construction Techniques



Source: www.ecofuturesbuilding.com

Operations and Maintenance

For existing residences and facilities, energy audits can be a critical first step to determining upgrades and retrofits to increase energy efficiency and reduce energy costs. Everyday operations and maintenance of existing homes and facilities are a significant contributor of greenhouse gases. As these buildings are maintained over time, improvements can be integrated, and when significant upgrades or renovations are conducted, energy conservation should be a priority consideration. Improvements to insulation and the HVAC systems can create notable energy conservation improvements.

Current Energy Conservation Measures

Pocopson Township has addressed energy use and conservation in a regulatory manner in two distinct ways. The first is with an alternative energy ordinance, which is currently (2014) in draft form, awaiting finalization and adoption. The second is with a bonus density for green building in the Zoning Ordinance (§ 250-16.B.3.h). The bonus density is for 350 square feet of gross floor area for every 3,500 square feet of gross floor area in a new or renovated building constructed with or recognized for use of green building standards.

Additionally, according to the U.S. Environmental Protection Agency, recycling is a major tool for reducing energy consumption because it greatly reduces the energy intensive consumption that is required to harvest, extract, or process raw materials. In 2005, recycling was conservatively projected to save 900 trillion BTUs, equal to the annual energy use of nine million households. Pocopson Township has been proactive with recycling efforts, and these are detailed in the Community Facilities and Services chapter.

Planning Implications

Energy Production and Use

As energy sources within the United States continue to diversify and the use of renewable sources expands, municipalities will be required to balance potential conflicts with the desire of individual property owners to obtain their energy from more energy efficient and sustainable sources.

Design, Construction, and Maintenance

Energy efficiency and conservation goes beyond energy source, to the selection of a site for development or redevelopment, design, and then construction and maintenance. The energy and sustainability implications of site selection, construction choices, and maintenance should be considered early and throughout the process, with municipalities encouraging, incentivizing, and at times regulating, appropriate choices.

Recommendations

The recommendations below focus on how to best achieve energy conservation and best implement the energy goal and objectives (as detailed in Chapter 2). Recommendations include regulatory provisions and education. Priorities for the implementation of these recommendations are established in Chapter 12, Implementation Measures. Implementation of the recommendations identified below will help Pocopson Township achieve its energy goal to:

Encourage energy conservation and the effective utilization of renewable energy resources to reduce energy costs and environmental impacts.

9-1 Promote the installation of alternative energy generation systems where appropriate and update ordinances as necessary to adequately regulate these evolving technologies.

The Township's regulation of alternative energy generation systems, such as solar, geothermal, or wind power, should focus on minimizing conflicts between uses while respecting an individual property owner's right to generate power on-site. Guidance for regulations is noted within the inventory, with additional information available from the Montgomery County Planning Commission's publication on alternative energy, *Renewable Energy: A Series on Alternative Energy Sources* (2011), as well as from DVRPC's model ordinances for solar, geothermal, and wind, as developed by their Alternative Energy Ordinance Working Group (available at: <http://www.dvrpc.org/energyclimate/aeowg.htm>). Moving forward, the ordinance will require periodic review to ensure that it doesn't discourage energy efficiency and sustainability, and that it is current with the technologies in use.

9-2 Review ordinances to ensure they do not unnecessarily restrict energy conservation with respect to land use practices.

Regulatory provisions at times conflict with energy conservation practices, often with respect to maintenance of open space or low-use lawn areas. For example, requiring regular maintenance of these areas increases energy consumption, when seasonal mowing may be more appropriate for the area (and less energy intensive). Township ordinances, and specifically requirements for operations and maintenance of open space, should be reviewed for appropriateness.

9-3 Promote energy efficient standards in design, development, and construction (such as LEED, LEED-ND, and Energy Star certification).

See Chapter 10, Existing Land Use Patterns and Future Land Use Plan, for details on this recommendation.

9-4 Encourage the development and redevelopment of housing that meets Leadership in Energy and Environmental Design (LEED), Energy Star, or other green building standards.

See Chapter 11, Housing Inventory and Plan, for details on this recommendation.

9-5 Ensure Township facilities, equipment, and operations are integrating energy conservation measures.

The Township can take the lead on energy conservation efforts with its own facilities, equipment, and activities. This could start with an energy audit of all Township facilities, equipment, and activities with consideration of potential future uses, and then follow-up activities and changes as appropriate. Based on the audit findings, the Township can prioritize improvements based on return on investment, funding availability, and the condition of the existing equipment.

Additionally, as the Township works to develop the Barnard House for municipal purposes, consideration of energy conservation and sustainability across the property and within the house (HVAC systems, insulation, lighting fixtures, etc.) should be a priority. In this manner the Township can save energy costs over the long-term and encourage use of energy efficient design and construction with its own demonstration project. Incorporating energy efficiency into the renovation of the Barnard House would serve to educate Township residents and others interested in energy conservation.

9-6 Support education efforts that encourage energy conservation and sustainability at home, school, and the work place.

The Township should play an active role in educating residents, institutions, and businesses regarding energy, sustainability, and resiliency. The Township could provide information at community events (such as Founders Day) and through the Township newsletter and website. Topics could include energy efficiency topics such as Energy Star, water conservation, low energy lighting, and winterizing a structure. Another measure to promote is reusing and recycling items beyond the standard glass, plastic, and aluminum. SECCRA accepts a variety of items for recycling at the landfill (such as motor oil, antifreeze, and vehicle batteries), and various websites and organizations exist to transfer unwanted, but still useful, items from one person to another.

This effort could also include coordination with homeowners associations regarding any provisions that negatively impact energy efficiency. Education of developers and the public to discourage unnecessary restrictions in homeowner association covenants would be beneficial.

The Township should also support demonstration projects within the area that exhibit and implement energy conservation and sustainable practices. Public tours of new technologies being installed and in place can serve to familiarize the public with such technologies and encourage their use on a broader scale. The Dansko headquarters in Penn Township is one example of a business incorporating multiple energy efficient and sustainable practices in new construction and opening the process to the public. A residential property within Pocopson Township recently utilized many energy efficient measures in its new

construction and provided information online and during tours. Should the Township implement energy efficient measures in the renovation of the Barnard House (see recommendation 9-5), it could also serve as a demonstration project.

Links

Chester County – Discover the Future

www.chescopagreen.org

DVRPC

www.dvrpc.org/EnergyClimate

DVRPC – Alternative Energy Model Ordinances

www.dvrpc.org/energyclimate/aeowg.htm

Energy Star

www.energystar.gov

LEED and LEED-ND

www.usgbc.org

Montgomery County Planning Commission - Renewable Energy: A Series on Alternative Energy Sources

www.montcopa.org/index.aspx?NID=1601

Sustainable Sites Initiative

www.sustainablesites.org

Whole Building Design Guide

www.wholebuildingdesignguide.org

U.S. Energy Information Administration

www.eia.gov

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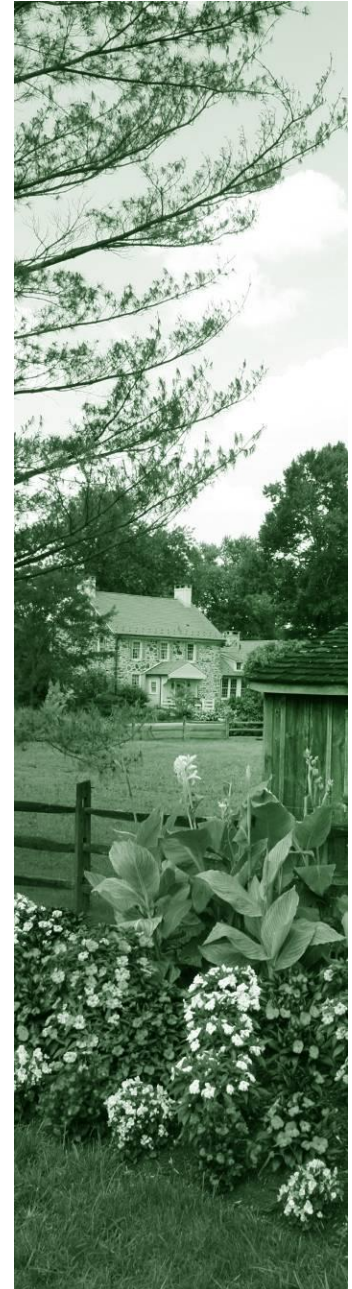
EXISTING LAND USE PATTERNS AND FUTURE LAND USE PLAN

Introduction

The future land use plan provides the overall framework for guiding future land use and related policy decisions for the next ten years. Existing land use information, the preferences of Township residents and officials, and policy for other Comprehensive Plan elements together provide the basis for the future land use plan and recommendations to achieve that plan.

This chapter provides an overview of land use patterns and development trends in Pocopson Township to understand how development has occurred to date. An analysis of remaining developable lands is provided, as these are the areas where additional development could potentially occur and where land use policies and regulations will be of greatest importance in influencing the future character of the Township. The future land use plan and implementation recommendations are critical pieces in meeting future population growth needs while protecting resources and providing for appropriate community facilities and services. This chapter addresses these issues within the following framework:

- Existing Land Use
 - Existing Land Use Patterns
 - Land Development Trends
 - Developable Lands
- Planning Implications
- Future Land Use Plan
 - Land Use Plan Categories
 - Accommodation of Future Growth
 - Consistency with Adjacent Land Use Plans
- Recommendations



Existing Land Use

Existing Land Use Patterns

The existing land use patterns in Pocopson Township are shown on Map 10-1. This map is based on the existing tax assessment records of the Chester County Office of Tax Assessment, supplemented by field checks and review by the Comprehensive Plan update task force to confirm correct classification according to the current use of property. The land use categories and their extent in 2012 are shown in Figure 10-1. The land use categories are based on categories developed by the Chester County Planning Commission in coordination with the Chester County Office of Tax Assessment and are discussed below under each category. The predominant land uses in Pocopson Township are single family residential and agricultural.

Figure 10-1: Existing Land Use Distribution 2012

Land Use Category	Acres	Percent of Total
Single Family Residential	1,936	36%
Agriculture	1,356	25%
Open Space/Parks and Recreation	932	17%
Vacant	694	13%
Institutional	296	6%
Transportation/Utilities	68	1%
Commercial	38	1%
Two Family Residential	23	<1%
Industrial	13	<1%
Multifamily Residential	13	<1%
Mixed Use	7	<1%
TOTAL ACRES	5,376	100%

Source: Chester County Office of Tax Assessment, 2012, Chester County Planning Commission, 2012.

Residential Uses

1,972 acres, 37% of the total Pocopson Township area

Residential uses include single family residential (36%), two family residential (<1%), and multifamily residential (<1%). Most of the residential growth in Pocopson Township has occurred adjacent to and south of Route 52 and Lenape-Unionville Road. Residential uses that are more limited in scale and density are found in the western portion of the Township, along Red Lion Road, Northbrook Road, Corinne Road, and Marlboro Road. Portions of this residential use are related to the villages of Northbrook and Locust Grove.

Residential uses in Pocopson Township include single family detached dwellings, two family dwellings, and multifamily dwellings (such as townhouses). Single family



Single family residential uses occupy more land area than any other single use in the Township.

development is by far the most prevalent residential dwelling type. Single family residential includes all detached units on separate lots. Many lots are one to two acres, although there are developments with a larger lot size. Single family detached residential uses are found along Route 52 and Lenape-Unionville Road, as well as scattered throughout the Township, and are served by on-lot septic systems. The two family and multifamily uses developed more recently in the Township and are characterized by a smaller lot size, surrounding open space, and community sewer systems. Two family residential includes attached units on shared or divided lots. Within Pocopson Township the retirement community of Coniston, part of Crosslands, consists of two family units. Multifamily residential can include townhouses, apartments, and group quarters. In Pocopson Township the existing multifamily housing is predominantly townhouses. These include the Riverside development off Route 52, Tullamore off Denton Hollow Road, and Windy Hill off of Locust Grove Road.



The lot size for a single family home is typically one to two acres, but can range from less than one to more than ten acres.

Although Pocopson remains rural in areas and agriculture is an important land use, residential development has changed the character of Pocopson Township in recent decades, creating a bedroom community to an extent. Single family residential land use was significantly more limited in the past, with previous Township plans identifying single family residential use as 6.3 percent of the Township's area (1964 *Pocopson Township Development Policy Plan*) and as 25.7 percent of the Township's area (1998 data, 2001 *Pocopson Township Comprehensive Plan*). Approximately 550 acres were converted to single family residential land use between 1998 and 2012, with most of that acreage previously in agricultural use.

Agriculture

1,356 acres, 25% of the total Pocopson Township area

Agricultural use represents the second largest land use in Pocopson Township and includes all lands devoted to crops, pastures, orchards, nurseries, or other agricultural uses. Farmsteads and associated buildings are included in agricultural land use.

Overall, agricultural activity in the area has been steadily declining as a result of development pressures and increasing costs. Previous Township plans identified agricultural uses as 58.5 percent of the Township's area (1964 *Pocopson Township Development Policy Plan*) and as 42.3 percent of the Township's area (1998 data, 2001 *Pocopson Township Comprehensive Plan*). Approximately a quarter of the Township currently remains in agricultural use, and agricultural lands are particularly dominant in the northern and western portions of Pocopson



Pocopson's agricultural uses are located in close proximity to residential uses in many instances.

Township. In the southern portion, agricultural lands are fragmented by development – residential, institutional, and commercial. Approximately 900 acres of land categorized as agricultural in 1998 were converted to other uses since that time.

Several agricultural properties are enrolled in Agricultural Security Areas or Acts 515 or 319 in the Township. Under the Agriculture Security Area program, farmers are protected from nuisance laws and other regulations that can hinder normal farming practices, but this program does not restrict use of the land nor preclude subdivision. Acts 515 and 319 allow farms to be taxed according to their current use rather than potential market value, thus reducing property tax burden for working farms, but do not preclude future development.

Permanent easements do restrict future subdivision of the land. In Pocopson Township, there are multiple properties under permanent easement, either through a private land trust or a government preservation program. Map 8-1 depicts various forms of protected lands. Map 10-1 depicts the use currently on the site, regardless of any easements. Most easements in Pocopson Township are held by a private land trust. Private land trust easements cover approximately 1,369 acres in Pocopson Township. Much of this land is in agricultural use, but portions are more accurately described as open space, recreation, or large lot residential use. Only one property in Pocopson Township (66 acres) is protected through an agricultural easement administered by the Chester County Agricultural Lands Preservation Board (ALPB). Despite the substantial acreage of protected lands, there remain clusters of agricultural lands that are not preserved, particularly along the Route 842 corridor.

Open Space/Parks and Recreation

932 acres, 17% of the total Pocopson Township area

The open space category represents specific deed-restricted lands dedicated for non-development open space as part of clustered residential developments, as well as public park and recreation areas. Public park and recreation areas include Pocopson Park, Pocopson Creek Park, and the Barnard House Property, which are clustered in the central portion of the Township. Lands owned by the Brandywine Valley Association are also included in this category, as public access is provided on the property, and specifically the trails, during daylight hours. Open space associated with residential development is significant in the southern portion of the Township. In addition to these lands, but generally counted elsewhere in the existing land use inventory, are agricultural lands that are deed-restricted. When combining all deed-restricted and Township park lands into one category approximately one-third of Pocopson Township is protected open space.



Pocopson's parklands include active recreation, including these tennis and basketball courts.

Vacant

694 acres, 13% of the total Pocopson Township area

The vacant land use category includes areas that are unused and not tied to any other uses. There are several parcels of various sizes categorized as vacant scattered throughout Pocopson Township. Substantial portions of this category are located

along Brandywine Creek, and are likely to remain vacant due to floodplain regulations, while other vacant areas could be developed in the future. Ownership of these lands is varied.

Institutional

296 acres, 6% of the total Pocopson Township area

Institutional uses include hospitals, government buildings, educational facilities, churches, and cemeteries. The presence of the Chester County Prison, Youth Center, and Home near the Route 52/Lenape-Unionville Road/Wawaset Road intersection creates a cluster of institutional uses in the south-central portion of the Township. Other institutional uses in the Township include Pocopson Elementary School and Township properties that are not in recreational use, such as the Township Building and Public Works Garage.



Chester County Prison, along with the Youth Center and Pocopson Home, creates a block of institutional uses to the north of Route 52.

Transportation/Utilities/Right of Way

68 acres, 1% of the total Pocopson Township area

This category includes power generation substations, major transmission lines, communications towers, transportation corridors, and related right of way. The rail line along the Brandywine Creek and PECO lands related to the transmission lines that cross the eastern portion of the Township are the majority of these uses in Pocopson Township.

Commercial

28 acres, 1% of the total Pocopson Township area

Commercial uses include retail, wholesale, personal and professional services, hotels, and motels. Commercial development in the Township is limited in scope overall, with small concentrations in the Pocopson and Lenape areas and even more limited uses in Northbrook. These include professional offices, small retail services, and restaurants.



Northbrook Market is an example of the limited commercial development found within Pocopson.

Industrial

13 acres, <1% of the total Pocopson Township area

Industrial uses include areas devoted to fabrication and/or assembly of raw materials or components, and the associated uses involved in developing and distributing these products. Industrial development in the Township is very limited in scope, and is concentrated in Lenape, where it is anchored by Lenape Forged Products.

Mixed Use

7 acres, <1% of the total Pocopson Township area

This category describes uses that have a residential and commercial component on the same property. Within Pocopson Township, this is typically a small scale home-based business conducted either within the dwelling or on the same property in an accessory building. There are currently only three properties in Pocopson that are considered mixed-use.

Land Development Trends

The number, type, and size of subdivisions and land developments proposed in Pocopson Township over the last ten years provide one measure to assess growth pressure. Figure 10-2 summarizes the subdivision and land development applications received for review by the Chester County Planning Commission between 2003 and 2012. While not every submitted plan is approved, or necessarily built if approved, these proposed plans provide insight into development trends in the Township during the last decade.

The impact of the economic downturn that began in late 2007 is evident, although development has traditionally been sporadic in the Township with year to year variation. Such variation is typically part of development, however the period of 2008 to 2010 was an extended period of reduced development within all of Chester County, as well as nationally. Significant institutional square footage reviewed in 2003 was related to Pocopson Elementary and the expansion at the Chester County Prison, while the high number of units/lots reviewed in 2005 was related to the Riverside residential development. The Preserve residential development was reviewed in 2010, significantly increasing the number of units/lots reviewed over the previous four years.

Figure 10-2: Subdivision and Land Development Reviews 2003 - 2012

Year Reviewed	Single Family Detached	Attached and Multifamily	Total Residential Lots or Units	Agricultural Units or Lots	Commercial, Industrial, and Institutional		Total Lots or Units	Total Land Area (acres)	New roads (feet)
					Units	Square Feet			
2003	92	118	210	0	2	190,462	212	414	8,638
2004	71	0	71	0	2	1,596	73	275	957
2005	110	42	152	1	2	-	155	240	11,256
2006	9	0	9	0	0	-	9	44	-
2007	15	0	15	0	7	240	22	493	-
2008	2	0	2	0	1	3,200	3	136	-
2009	0	0	0	0	3	19,276	3	145	-
2010	64	0	64	2	1	2,800	67	263	-
2011	0	0	0	0	1	3,149	1	139	0
2012	3	0	3	0	0	-	3	35	-
Total	366	160	526	3	19	220,723	548	2185	20,851

Source: Chester County Planning Commission, 2013.

Developable Lands

The amount and location of potentially developable lands remaining in the Township are of particular importance for planning purposes. Developable lands are those lands that are available for future development, as they are NOT protected by easement or public ownership, NOT constrained by natural features, and NOT currently developed. Map 10-2 depicts each of these different land categories – protected, constrained, developed, and developable. Figure 10-3 provides a summary of the number of acres that are included in each of these categories as well as the specific types of lands that comprise those categories. By determining which lands are developable, it is possible to determine the amount, type, and location of future growth that could occur in the Township and where and how land preservation and other planning efforts should be focused. Adjustments to land use and zoning policies can be made on the basis of this information.

Figure 10-3: Constrained, Protected, Developed, and Developable Lands 2013

Land Use Category	Lands Included In Category	Acres in Category	Percent of Township
Protected Lands	Parks, eased or partially eased parcels, HOA lands, other protected open space.	1,739	33%
Natural Constraints* (excluding areas in Protected Lands or Developed Lands)	Very Steep Slopes (>20%), Floodplain Conservation District, Wetlands, Riparian Buffer Zone One, Rare Species Sites, Exceptional Natural Areas, Forest Interior Habitat.	822	15%
Developed Lands	Existing development, street rights of way, and approved subdivisions.	1,611	30%
Developable Lands**	Remaining lands that are not constrained, protected, or already developed.	1,137	21%

Source: Chester County Planning Commission, June 2013.

*Consisting of resource areas that permitted 10% or less maximum disturbance per the SLDO § 250.87B.8.

**For the purposes of this analysis, larger parcels with existing limited development (i.e., a parcel of 4 or more acres with a single house located on it) are considered potentially developable unless they are otherwise protected or constrained.

Based on the information in Figure 10-3, 48 percent of land in the Township is either protected or contains significant natural constraints and is, therefore, not available for development. Protected lands include homeowners association (HOA) open space, properties under permanent easement, and township parkland. The majority of the protected lands in the northern portion of the Township are eased agricultural lands; the protected lands in the central portion of the Township are primarily Township owned recreation lands; the protected lands in the southern portion of the Township are primarily HOA lands. The Brandywine Valley Association lands and Township parks ensure a moderate or high level of public access. Other protected lands are privately held or access is limited to trail use in dedicated corridors.

Natural constraints are concentrated along the stream corridors, primarily Brandywine Creek and Pocopson Creek. Pocopson Township ordinances provide significant protection of natural resources, and all areas that are restricted to



Wetlands are within the category of natural constraints due to the limited disturbance limit required by ordinance.

ten percent or less disturbance in the Subdivision and Land Development Ordinance (§ 250.87B.8) were considered to be constrained lands.

Approximately 30 percent of the land in the Township is already developed in a variety of uses, predominantly residential. Once accounting for the protected, constrained, and developed areas, Pocopson is left with approximately 21 percent of its area available for future development. The developable lands located in the northern portion of the Township are more contiguous, while developable lands in the southern portion of the Township are more fragmented. The fragmented nature of developable lands in the southern portion of the Township limits the impact of future development in that area to a degree. Land use policies for the areas of potential future development will have a substantial influence on the future character of the Township.

Existing Land Use Regulations

The existing Zoning Ordinance provides several different options for residential development, including conventional development, conservation subdivision, two cluster options, and two village design options, all of which are generally available over the entire Township, in the Residential and Agricultural – RA – district. The ordinance also provides for Transfer of Development Rights (TDR) and density bonuses and reductions related to resource protection or degradation. These options are also generally available across the entire RA district as well. Other than the RA, the Township includes only three other zoning districts: a Mobile Home Park (MHP) district off Red Lion Road, the Limited Industrial (LI) district along Pocopson Road, and the Neighborhood Commercial (C1), which is located in small, scattered areas of the Township.

Permitted density within the different residential development options vary and are influenced by resources present (through a net-out process) and can be influenced by the density bonuses and reductions. Density is addressed at times through a minimum lot size and in other instances through the net-out process, use of bonuses, and lot setbacks, with no minimum lot size established. For example, conventional development has a minimum lot size of two acres. Cluster two provides for a density of one net acre after bonuses are applied with no minimum lot size. Village design two provides for 0.75 net acre plus bonuses. Use of the village and cluster options has been greater in the southern portion of the Township, which has created areas of open space but also increased density in newer residential developments, particularly versus the northern portion of the Township. Additionally, the village design options provide for mixed use, with limited commercial uses and institutional uses permitted.



The Limited Industrial (LI) zoning district includes the area of Lenape Forged Products.

Planning Implications

Protected Lands

As on June 2013 a third of Pocopson Township is protected from further significant development, with the majority of those lands being preserved through conservation easements. While conservation easements vary from property to property and can allow for the development of one or two additional residential units based on overall parcel size, the future development potential of these lands is very limited.

Natural Constraints

The natural constraints in the Township are focused around the stream valleys and significant natural resources. There is considerable overlap between natural constraints and protected lands, as in some cases the preservation effort was focused on the natural resources. Regardless of any easements, areas of natural constraints are under strict regulation through existing Township ordinances. Unless there are substantial changes to the regulatory documents, significant future growth is unlikely in these areas.

Developed Lands

Development has been heavily residential in Pocopson Township, although there is commercial, institutional, and industrial development as well. Regardless of the type of development, it has largely been focused along the Route 52 corridor, including along Lenape-Unionville Road. The presence of public water within most of this corridor, as well as areas of community sewer and the broader roadway network, has played a role in this pattern.

Developable Lands

Given the extent of other land categories, developable lands are not extensive in Pocopson Township. A significant area remains available for development in the western portion of the Township and scattered areas within the southern portion. Management of these lands will play a large role in determining the future character of the Township.

Development Pressure

The economic downturn that began in 2008 slowed development pressure across Chester County. Recently growth has been returning, although at a slower pace. Development in Pocopson has historically been sporadic in nature, but even one development can have significant impacts. Balancing development pressure with protection of resources will be critical to the future of Pocopson Township.

Future Land Use Plan

This section of the Chapter recommends an overall land use pattern for the Township and provides recommendations for how to achieve that pattern. This Chapter responds to, and is informed by, the goals, objectives, and recommendations of the other elements of the Plan, such as community facilities and natural resources. Consistency in the vision for the many elements that create communities is key to maintaining the quality of life that Pocopson Township residents currently enjoy.

Land Use Plan Categories

The land use plan categories described below were developed with consideration of the Planning Implications previously noted, as well as projected population growth, the need to allow for a variety of housing types, and consistency with the land use policies of the Chester County Policy Plan, *Landscapes*². The overall intent is to contain growth in areas where it can best be accommodated (Potential Growth Areas) and to limit development in areas where it is least appropriate (Resource Protection Areas). Map 10-3 depicts the land use plan categories, which are described below.

Potential Growth Areas (2,103 acres, 39%)

Potential Growth Areas include those categories intended for orderly and efficient development at appropriate densities to meet the population growth in the Township while taking infrastructure and natural resource limitations into consideration. These areas are planned to accommodate a diversity of residential uses (with the average density being approximately one acre) to meet the needs of the socioeconomic range of the population, while also accommodating commercial, industrial, and institutional uses to provide for services for the local community and an adequate tax base. Development should occur in a manner that preserves community character. This area includes two land use categories: Crossroads Mixed Use and Residential.

Crossroads Mixed Use

This area (434 acres) is focused around Lenape and Pocopson (along Route 52, Pocopson Road, and Route 926). This area has historically been a mix of uses with a higher density of residential uses than elsewhere in the Township. While much of the area is currently developed, pockets of developable lands remain and redevelopment potential exists. This area should remain the core area for mixed uses and more intense development in the Township, while respecting the natural resources of the area, particularly the Brandywine and Pocopson creek corridors.

Residential

This area (1,669 acres) is currently heavily residential and is envisioned to remain so. Much of the area is already developed, but pockets of developable lands remain and redevelopment potential exists.

Resource Protection Areas (3,224 acres, 61%)

Resource Protection Areas are characterized by agricultural operations, recreation lands, and institutional uses, while still including limited residential uses and minimal commercial uses. Other than the facilities for the Chester County Prison, the absence of public sewer and water and the extent of conservation easements have restricted the development of large residential subdivisions and commercial uses. The Township has expressed a desire to restrict expansion of public water and sewer infrastructure into these areas. Development that does take place in these landscapes should have resource protection as a key focus. A desired density for residential uses across the Resource Protection Area is two to four acres. This area includes three land use categories: Historic Village, Rural, and Constrained Lands.

Historic Village

Northbrook is considered a Historic Village and is envisioned to remain so. There is a mix of uses that have evolved over time, with a pattern of small lot sizes. Preservation of the existing character is the priority for future land use in this area, which covers approximately 18 acres.

Rural

The Rural area (1,410 acres) is characterized by open lands, including agricultural and recreational uses, with limited residential and minimal commercial uses. The Chester County Prison is located within this landscape along the southern boundary. Easements have preserved a significant portion of the lands within this area, and the vision for this landscape is to preserve the existing character. Infrastructure improvements such as community sewer and public water are not present in this landscape (with the exception of facilities to serve the Chester County Prison) and are not encouraged. Future development should be limited and have protection of critical resources as a focus.

Constrained Lands

Constrained Lands (1,796 acres) includes areas with critical natural resources that have been regulated to avoid and minimize impacts from development. These areas should be preserved in a natural state to extent possible, and enhanced through habitat restoration when opportunities are available. Protection of water quality, high quality habitat, and rare species are essential goals in this landscape.

Accommodation of Future Growth

Accommodation of Residential Growth

A land use plan must consider whether future population growth can realistically be accommodated within the areas it has designated for growth. In this section, an

estimate of potential future development is determined based on the Future Land Use Plan Map, the accompanying descriptions of each Land Use Plan category, and developable land. This information, in conjunction with the future population and housing projections, is used to determine whether the Future Land Use Plan can accommodate projected growth to the year 2035 within the Potential Growth Areas.

Developable land consists of the remaining lands in the Township after protected, constrained, and developed lands are subtracted from the total area of the Township. Parcels of four acres or more that had one house on them were also included in developable lands to reflect their potential for further subdivision. Figure 10-4 shows the amount of developable land in each Future Land Use Plan category. Resource Protection Areas account for 61 percent and Potential Growth Areas account for 39 percent of the Township. Figure 10-4 reflects the developed nature of both the Crossroads Mixed Use and Residential landscapes, but developable lands remain in each. Much of the Rural area has been preserved, although a significant area of developable lands remains, with a large block in the western portion of the Township.

Figure 10-4: Land Use Plan Categories - Developable Land

Land Use Plan Category	Acres of Land in Category	Percent of All Township Land In Category	Acres of Developable Land in Category
Potential Growth Areas			
Crossroads Mixed Use	434	8	108
Residential	1,669	31	544
<i>Total</i>	<i>2,103</i>	<i>39</i>	<i>652</i>
Resource Protection Areas			
Historic Village	18	<1	10
Rural	1,410	26	548
Constrained Lands	1,796	34	0
<i>Total</i>	<i>3,224</i>	<i>61</i>	<i>558</i>
<i>Total All Lands</i>	<i>5,327</i>		<i>1,210</i>

Source: Chester County Planning Commission, June 2013.

An estimate of the potential development that could occur in each Future Land Use Plan category is provided in Figure 10-5. In addition to subtracting protected, constrained, and developed, 15 percent is subtracted from each category to account for infrastructure such as roads, sewers, and stormwater facilities (column C). An estimate for the portion of the area that will be developed in residential uses (versus non-residential uses) is also factored in, based on existing development patterns and uses permitted under current zoning regulations (column D).

The last column in Figure 10-5 indicates the approximate amount of growth that could occur in each land use designation based on the Future Land Use Plan's recommended guidelines for development in that category. The information in Figure 10-5 is an approximation of potential development and provides an estimate of future build-out short of a highly detailed parcel by parcel analysis. The purpose of this analysis is to evaluate the general capacity of the Future Land Use Plan Map in

accommodating projected population for the estimated timeframe of this Plan. The Township is projected to need an additional 315 total dwelling units to accommodate the population growth by the year 2035. Figure 10-5 indicates the potential for a range of 337 to 419 residential dwelling units under the Future Land Use Plan under the stated assumptions, exceeding the required units (315) for growth projected through 2035. Of the potential dwelling units, 253 are within the Potential Growth Areas (Crossroads Mixed Use, Residential).

Figure 10-5: Potential Future Development by Land Use Plan Categories and Map

Land Use Plan Category	A. Density Range*	B. Acres of Developable Lands in Category	C. Net Developable Land in Acres (B)(.85)	D. Land Assumed for Residential Use**	e. Potential Residential Units [(C)(D)(A)]
Crossroads Mixed Use	1 du/1.0 acres	108	92	50%	46
Residential	1 du/2.0 acre	544	462	90%	207
Historic Village	1 du/2.0 acre	10	9	70%	3
Rural	1 du/2.0 - 4.0 acre	548	466	70%	81 - 163
<i>Totals</i>		<i>1,210</i>			<i>337 - 419</i>

* Based on existing patterns and development options within the current Zoning Ordinance, with the assumption that higher density options will be eliminated from the Resource Protection Areas (see Recommendations).

** Based on existing development patterns and permitted uses in the Zoning Ordinance

Accommodation of Non-residential Growth

Figure 10-5 directly discusses potential residential development, but can also be used to discuss non-residential development. As noted in column D, a certain percentage of the land use plan category is assumed for residential use (based on existing development patterns and permitted uses in the Zoning Ordinance), leaving the remainder (50 percent in Crossroads Mixed Use and 10 percent in Residential) for other forms of development, such as commercial, institutional, or industrial. In the Crossroads Mixed Use, 50 percent of the remaining developable lands equates to 26 acres; in the Residential, 10 percent equates to 46 acres being available for non-residential uses. Assuming average building coverage in the range of 20 to 30 percent, between 627,264 and 940,896 square feet of additional non-residential development is possible. By way of comparison, the Exton Mall is 1,086,859 square feet and the Shoppes at Longwood Village is 141,940 square feet.

Another way to view non-residential development potential is to compare available acres with acres already developed. There are 58 acres of existing commercial, mixed use, and industrial uses in Pocopson Township, and 296 acres of institutional uses. Approximately 72 acres are assumed to be available for non-residential development, which exceeds existing commercial square acreage and will clearly accommodate a significant amount of non-residential development. Commercial and industrial uses provide a more diversified tax base, and, unlike most residential uses, typically generate more tax revenue than municipal services consumed. Institutional uses do not improve the tax base in the form of real estate-based taxes, but often provide a steady employment base and critical services.

Consistency with Adjacent Land Use Plans

Adjacent Municipalities

East Bradford Township

East Bradford Township borders Pocopson Township to the east, with Brandywine Creek providing a buffer between the municipalities. In its 2004 Strategic Comprehensive Plan, East Bradford identified the area along Brandywine Creek as Rural Residential, Open Space/Conservation, Recreation, and Agriculture (moving north to south). These conservation and low-density uses are generally consistent with the Rural, Constrained, and Residential uses that Pocopson has identified along the shared border.

Birmingham Township

The Birmingham Township Comprehensive Plan (2002) identifies Limited Commercial and Parks/Permanent Open Space/Resource Conservation and Recreation (OS) along its shared border with Pocopson Township, which runs through Brandywine Creek. The areas of Limited Commercial are at Lenape and Pocopson, with OS elsewhere. Low Density Residential is identified in close proximity. These uses are generally consistent with the Constrained and Crossroads Mixed Use uses that Pocopson has identified along the shared border.

Pennsbury Township

Pocopson's southern border is shared with Pennsbury Township. The Pennsbury Township Comprehensive Plan (2006) identifies the area immediately adjacent to the municipal boundary as Suburban Residential, with areas of Planned Neighborhood, Village, and Public Recreation in close proximity. These uses are generally consistent with Pocopson's identified uses of Crossroads Mixed Use and Residential, particularly Pennsbury's Suburban Residential use, which calls for infill development consistent with the character of the existing neighborhoods.

East Marlborough Township/Newlin Township (Unionville Area Region)

Pocopson's western border is shared with East Marlborough and Newlin townships, which planned jointed with West Marlborough in the 2011 Unionville Area Regional Comprehensive Plan. The Unionville Area Plan identified Suburban uses through the entire shared border with East Marlborough and a portion of Newlin, and Flexible Rural uses within a portion of the shared border with Newlin Township. The change from Suburban to Flexible Rural in the Unionville Area Plan corresponds closely to the change from Residential to Rural in Pocopson's designations. Additionally, Pocopson Township's Historic Village designation is adjacent to the Flexible Rural in Newlin Township. These uses are generally consistent.

West Bradford Township

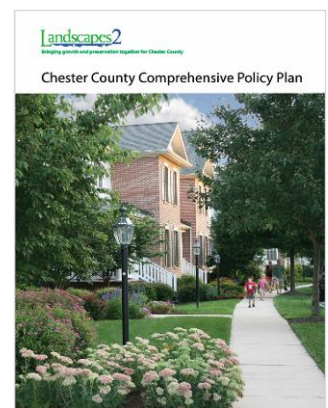
West Bradford Township borders Pocopson to the north, with Brandywine Creek serving as a buffer. This portion of West Bradford is designated as Low Density Single Family Residential in the 2009 Comprehensive Plan. Pocopson's designations along the shared municipal boundary are Historic Village, Constrained Lands, and Rural. These uses are generally consistent.

Kennett Area

The Kennett Area Regional Comprehensive Plan (2000) covers the townships of Pocopson, Pennsbury, Kennett, and East Marlborough and the borough of Kennett Square. The future land use plan designates the northern portion of Pocopson Township as a Rural Community and most of the southern portion as Suburban Residential. The Lenape/Pocopson area is designated a variety of uses, including Industrial/Office, Planned Neighborhood, and Institutional. There are also specific designations of Institutional for the County facilities along Route 52 and a Village designation for Locust Grove. These uses are generally consistent with the uses this Plan identifies for Pocopson Township.

Consistency with Chester County Comprehensive Policy Plan

The Chester County Comprehensive Policy Plan, *Landscapes2*, was adopted in 2009, and includes the Livable Landscapes map. *Landscapes2* designates portions of the Route 52 corridor as being within a growth area, with the area being designated as Suburban. The northern portion of the Township is primarily designated as Rural, a Rural Resource Area. A Natural Landscape overlay follows the Township's stream valleys. The Pocopson Township Future Land Use Plan is generally consistent with *Landscapes2*. Greater consistency could be achieved through a request to the Chester County Planning Commission to revise the Livable Landscapes map in recognition of the updated Future Land Use Plan. Such a revision should focus on the Residential and Crossroads Mixed Use areas along the Route 52 corridor.



Recommendations

The recommendations below focus on how to best achieve the Future Land Use Plan for Pocopson Township and best implement the related goal and objectives (as detailed in Chapter 2). Priorities for the implementation of these recommendations are established in Chapter 12, Implementation Measures. Implementation of the recommendations identified below will help Pocopson Township achieve its land use goal to:

Plan for and manage the use of land in a manner that provides for a balanced range of uses, meets the needs of current and future residents, and establishes a balance among resource protection, preservation of community character, and growth.

10-1 Review and amend the Zoning Ordinance for improved consistency with the Future Land Use Plan and to better reflect opportunities for development within the Township.

The existing Zoning Ordinance provides several different options for residential development, including conventional development, conservation subdivision, two cluster options, and two village options, all of which are available over the entire RA district). The ordinance also provides for Transfer of Development Rights (TDR) and density bonuses and reductions related to resource protection or degradation. To achieve the Future Land Use Plan, which responds to differences in existing character, densities, and infrastructure within the Township, the Township should amend the zoning map and ordinance with respect to districts. A resource for consideration of the zoning districts and uses and densities permitted is *Rural Residential District: Protecting Natural, Scenic, and Historic Resources*, developed by the Montgomery County Planning Commission (2008). Specific tasks within this overall recommendation include the following:

- Given that the Township has refined its vision for the northern portion of the Township, creation of a new zoning district for this area would be beneficial. In particular, some of the existing development options are likely inappropriate uses in the Rural future land use plan category. The cluster and village options should be reviewed, as they could require public or community water and sewer infrastructure, which the Township has identified as undesirable in the northern portion of the Township. Uses within this area should also be reviewed.
- The Township should review the development options and permitted uses in the Crossroads Mixed Use future land use plan category, to ensure that they are reflective of the mixed use and density vision as previously described. This area is currently zoned RA, Limited Industrial (LI), and Neighborhood Commercial (C1).
- Review all district boundaries and permitted uses for appropriateness. As an example, community wastewater treatment facilities are permitted by conditional use across the entire RA district. Given the Township's vision for the Rural area, this use should be reconsidered. Another example would be the Limited Industrial (LI) district, which currently includes a significant portion of the Riverside residential development and the Pocopson Elementary School site, although its permitted uses are not reflective of this existing reality.
- The Township should review the need for the TDR provision. While a useful tool for land preservation, TDR does require available land from which to pull development rights and available land to which development rights are sent. TDR functions best if the sending area is at least of a moderate contiguous acreage, and if the receiving area is at least of a moderate contiguous acreage. Pocopson Township currently only has one contiguous area of developable land of at least moderate acreage. Other areas of developable land are smaller in size, fragmented, and scattered across the Township, making them less appropriate for TDR utilization and limiting the potential benefits of TDR for the Township.

- The Township should consider developing a chart of permitted densities, uses, minimum lot sizes and other key provisions regarding area and bulk for each residential development option permitted under the Zoning Ordinance. Such a chart could allow the Planning Commission to more easily review development proposals.

10-2 Coordinate the Act 537 Plan (Sewage Facilities) with the Future Land Use Plan to manage the extension of public sewer in growth areas and restrict the extension of those facilities into resource protection areas.

As noted above, public sewer plays a critical role in reinforcing growth areas and resource protection areas. The Township needs to ensure consistency between the Act 537 Plan and the Future Land Use Plan.

10-3 Review zoning regulations to ensure that agricultural operations have the ability to adapt to a changing market, and support such operations with existing outreach methods.

Promoting local agricultural products is already done in the Township to some degree (such as inclusion of local agricultural products at the annual Founders Day event). Additional ways for the Township to support local agricultural would be promoting the County Agricultural Development Council's "Buy Fresh, Buy Local" guide to local agricultural products and fresh food markets or hosting a farmer's market at a centralized location at specified days during the harvest season.

The zoning regulations should be reviewed to ensure that agricultural opportunities such as Community Supported Agriculture (CSAs) and other appropriate secondary and accessory uses on agricultural lands are permitted, better enabling agricultural operations to remain financially solvent as the marketplace for agricultural products changes.

10-4 Promote energy efficient standards in design, development, and construction (such as LEED, LEED-ND, and Energy Star certification).

Pocopson currently includes an incentive for green building in its zoning (§ 250-16.B.3.h), which provides a bonus density of 350 square feet of gross floor area for every 3,500 square feet of gross floor area in new or renovated buildings that are constructed to recognized green building standards. This bonus should be reviewed for appropriateness, with consideration of greater incentives for renovation over new construction.

For broader development, the Township could consider use of Leadership in Energy and Environmental Design – Neighborhood Design (LEED-ND). LEED-ND is an offshoot of the original LEED green building rating system, and focuses on how well a development's location and design integrate the principles of smart growth, urbanism, and green building. This rating system focuses on site selection and the design and construction elements. LEED-ND can serve as a guide in creating standards and incentives for residential site selection and neighborhood development. While Pocopson Township has many regulatory and incentive based controls for development, the LEED-ND system may provide additional items for consideration.

The Township could also use existing public outreach methods to promote green building standards and alternative energy systems, as well as ensure Township facilities are as sustainable as possible. Chester County’s sustainability website, www.chescopagreen.org, provides various resources for the public and municipalities related to energy efficient and sustainability. See Chapter 9 for additional information on energy efficiency.

See Chapter 4, Natural Resources Inventory and Plan, and Chapter 8, Parks, Recreation, and Open Space Inventory and Plan for recommendations that address the resources contained within the Constrained Lands portion of the Resource Protection Area.

Links

Chester County – Discover the Future

www.chescopa.green.org

Landscapes2

www.landscapes2.org

Leadership in Energy and Environmental Design

www.usgbc.org/leed

Montgomery County – Rural Residential District: Protecting Natural, Scenic, and Historic Resources

www.planning.montcopa.org/planning

CHAPTER 11

HOUSING INVENTORY AND PLAN

Introduction

The Pennsylvania Municipalities Planning Code (MPC) sets forth each municipality's responsibilities in terms of housing. It requires that these needs be addressed in the comprehensive plan and offers examples of strategies that include conservation, rehabilitation of existing housing, and facilitating new construction based on projected needs. Although the MPC stops short of mandating housing for all incomes, it does reference the accommodation of "new housing in different dwelling types and at appropriate densities for households of all income levels."

This chapter discusses housing trends and emphasizes key issues as they impact Pocopson Township. Housing is closely tied to land use, and should be considered together. Recommendations are designed to address issues and implement the housing goal and objectives of this Plan. This chapter addresses housing within the following framework:

- Inventory
 - Number of Housing Units
 - Person Per Household
 - Housing Projections
 - Housing Types
 - Home Ownership and Occupancy
 - Housing Costs
 - Housing Cost Burden
 - Fair Share Analysis
- Planning Implications
- Recommendations



Inventory

Number of Housing Units

As noted in Figure 11-1, Pocopson experienced limited growth in the number of housing units between 1990 and 2000 (60 units, 7.2 percent), but experienced significant growth between 2000 and 2010 (299 units, 33.6 percent). The County overall was more consistent with the growth of housing units over these two decades, with 17.3 percent and 17.5 percent growth, respectively. In municipalities that border Pocopson, growth in housing units was highly variable, with Birmingham Township having both the lowest and highest percentage of growth (3.3 percent in the 2000s after 63.2 percent growth in the 1990s). East Bradford had the highest number of units added in one decade (883 in the 1990s).



Almost 300 new housing units were built in Pocopson between 2000 and 2010.

Figure 11-1: Number of Housing Units 1990 to 2010

	1990	2000	Change 1990 - 2000		2010	Change 2000-2010	
			Number	Percent		Number	Percent
Pocopson	830	890	60	7.2	1,189	299	33.6
Birmingham	866	1,413	547	63.2	1,459	46	3.3
East Bradford	2,267	3,150	883	39.0	3,450	300	9.5
East Marlborough	1,682	2,188	506	30.1	2,667	479	21.9
Newlin	411	446	35	8.5	504	58	13.0
Pennsbury	1,141	1,438	297	26.0	1,550	112	7.8
West Bradford	3,217	3,464	247	7.7	4,217	753	21.7
Chester County	139,597	163,773	24,176	17.3	192,462	28,689	17.5

Source: US Census Bureau.

Persons per Household

The national trend of decreasing numbers of persons per household is not evident in Pocopson Township (Figure 11-2). Pocopson's predominance of single family detached housing and lack of retirement communities play a role in persons per household.

Figure 11-2: Average Household Size

	1990	2000	2010
Pocopson	3.04	2.80	2.95
Chester County	2.73	2.65	2.65

Source: US Census Bureau.

Housing Projections

Pocopson Township can expect an increase in the demand for new housing units over the next 20 years to accommodate the growing population. The housing projections are provided in Figure 11-3 for Pocopson Township and the County overall. The projections are typically calculated by dividing the population projection (see Chapter 10) for the year by the average household size based on 2010 Census data; however for Pocopson Township the impacts of the Pocopson Home and Pocopson Prison populations have been accounted for in the calculation.

Figure 11-3: Housing Unit Projections 2025 and 2035

	2010 (actual)	Projections		Change 2010 - 2025		Change 2025 - 2035	
		2025	2035	Number	Percent	Number	Percent
Pocopson	1,189	1,368	1,504	179	15.1	136	10.0
Chester County	192,462	220,471	241,803	28,009	14.6	21,332	9.7

Source: US Census Bureau, DVRPC, CCPC.

The projections indicate that Pocopson Township will need an additional 179 housing units between 2010 and 2025, and then an additional 136 units between 2025 and 2035, for a total increase of 315 units by 2035. In 2010 there were 1,189 housing units in Pocopson Township. The factors affecting actual population increase (available land, land use regulations, and the economy) will also influence housing growth, as will the social conditions reflected in household size.

Housing Types

Figure 11-4 shows a comparison of unit types from American Community Survey (ACS) data between Pocopson Township and Chester County. Based on this data, 87.5 percent of units in Pocopson are single family detached, a less diverse housing inventory than Chester County overall. However, with this data it is important to review the limitations of the ACS, which is a sampling (rather than a count) from which estimates are made, and to review the differing terminology of housing types.

The ACS data are provided in five year averages to minimize the impact of the sample size, but comparison of the 2010 Census housing count, local land use records, and the ACS reveal distinct differences. As noted in Figure 11-5, the ACS data estimated 809 units in Pocopson, which is substantially different that the 2010 Census count of 1,189 units (as noted in Figure 11-1).

A review of local land use records and input from the Comprehensive Plan Taskforce in 2013 identified 90 multifamily units in the Township, versus the 14 identified by the ACS. Some of this discrepancy can be attributed to varying interpretations of single family attached versus multifamily. For purposes of the fair share analysis, multifamily is housing with three or more dwelling units (twins are specifically excluded). Under that definition, a total of 90 multifamily units are found in



Riverside’s townhouses account for a significant percentage of multifamily housing in Pocopson.

Pocopson in Riverside (42), Tullamore (33), and Windy Hill (15). The Riverside units are townhouses (with three or four units per structure), while those in Tullamore and Windy Hill more closely resemble cottages (with three units per structure). There is a cluster of twins (18 units total) located off Haines Mill Road, which is part of the Kendal Crosslands retirement community. From the ACS estimate, combining the single family attached (87) and multifamily (14) yields 101 units, close to the combined number (108) of multifamily (90) and twins (18) revealed through a review of local land use records.

Figure 11-4: Housing Units by Type*

	Total Number of Units	Single Family Detached		Single Family Attached		Multifamily		Mobile Home	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent
Pocopson	809	708	87.5	87	10.8	14	1.7	0	0
Chester County	183,127	114,017	62.3	30,735	16.8	33,196	18.1	5,179	2.8

Source: US Census Bureau, American Community Survey, 2005 – 2009 Averages.

*As noted in the discussion above, a review of local land use records indicates 90 multifamily units and 18 twins.

Of additional note with regard to housing types is the allowance for accessory dwelling units in the existing Zoning Ordinance. Although not widely used by residents, the Zoning Ordinance allows accessory dwelling units with a single family detached structure throughout the Residential and Agricultural (RA) District by conditional use. Regulations permit one accessory dwelling unit per lot. Accessory dwelling units must be within the primary residence or an attached garage unless the lot is greater than three acres, in which case it may be contained within a detached structure. Accessory dwelling units can provide a valuable option for small households and add to the economic viability of the existing housing stock in the Township.

Home Ownership and Occupancy

The percentage of residents who either rent or own their homes generally corresponds to the types of housing available in a particular community. The higher the number of single family detached homes, the higher the percentage of homeowners versus renters. Pocopson Township's percentage of owner occupied units is just over 90 percent (see Figure 11-5), which is very similar to its percentage of single family detached units (87.5 percent, Figure 11-4). In comparison, 72.4 percent of Chester County units are owner occupied.

Figure 11-5: Housing Ownership and Occupancy 2010

	Percent of Units		
	Owner Occupied	Renter Occupied	Vacant
Pocopson	90.8	5.9	3.3
Chester County	72.4	22.6	5.0

Source: US Census Bureau.

Housing Costs

The median housing value in the Township (as reported by homeowners to the Census Bureau) is well above that of the County overall (Figure 11-6). Rent in the Township is also well above that of the County overall. The predominance of single family detached housing is likely part of the higher values in Pocopson Township.

Figure 11-6: Median Housing Value and Rent

	Value		Rent	
	2000	2006-2010	2000	2006-2010
Pocopson	\$242,900	\$494,900	\$888	\$1,363
Chester County	\$182,500	\$334,300	\$754	\$1,077

Source: US Census Bureau; American Community Survey 2006-2010 Averages.

Figure 11-7 shows the median sales price of homes sold in Pocopson Township and the County, in five year increments beginning in 1995. This is a different data set than that provided in Figure 11-6. Housing value is reported by the homeowner to the U.S. Census Bureau, while median home sales price is obtained from the Chester County Assessment Office. Going back to 1995, Pocopson has had a much higher median sales price than the Chester County median, a trend that continues. In 2010 and 2011 Pocopson had the second highest median sales price in Chester County.

Figure 11-7: Median Home Sales Price 1995 to 2010

	Median Price			
	1995	2000	2005	2010
Pocopson	\$258,750	\$304,000	\$510,000	\$506,500
Chester County	\$155,000	\$188,000	\$295,000	\$295,000

Source: Chester County Planning Commission, *Housing Costs Profiles*, published annually.



Pocopson's median housing price is among the highest in Chester County.

Housing Cost Burden

Households at every income level are in need of quality, affordable housing. Housing is generally considered affordable if the household spends 30 percent or less of its gross monthly income on housing costs. Any household that is paying more than 30 percent of income on housing is considered to be cost burdened and therefore at risk of experiencing a housing crisis.

Based on the 2007 – 2011 ACS estimate, approximately 29 percent of households (whether owners or renters) within Pocopson Township are cost burdened by housing costs. ACS estimates for Chester County indicate that approximately one-third of county households are cost burdened. Cost burden specifically for renters in Pocopson Township is difficult to accurately determine due to the limited number of rental units in the Township and the sampling methodology of the ACS. Cost burden among renters throughout Chester County is approximately 40 percent.

Fair Share

The 1988 amendments to the Pennsylvania Municipalities Planning Code (MPC) require that through zoning, each municipality provide “... for residential housing of various dwelling types encompassing all basic forms of housing, including single family and two family dwellings, and a reasonable range of multiple family dwellings in various arrangements...” (MPC § 604.4). This amendment stemmed from the judicial determination that local governments are required to plan for and implement land use regulations that meet the legitimate needs of the range of people who may desire to live in the community. In spite of this “fair share” mandate, however, the Pennsylvania Legislature has not specified the necessary amount of any residential use, nor has the Legislature offered guidance for a municipality to determine if it has met its obligation to provide for each residential use.

The courts have been more instructive on how a community may determine if it has met its fair share obligations. In 1977, the Pennsylvania Supreme Court decided the landmark case, *Surrick v. Zoning Hearing Board of Upper Providence Township* 776 Pa. 182, 382 A.2d 105, which laid out an analytical “fair share” test, or methodology, to help determine if a municipality is allowing only a token provision of a residential housing type, particularly multifamily dwellings (three or more dwelling units)¹, or whether a municipality is meeting its fair share obligation. A fair share analysis attempts to assess, based on available information, whether a municipality is providing for its “fair share” of all housing types, particularly multifamily housing, and whether the municipality is attempting to meet its obligation to accommodate future growth.

Included as Appendix B is a detailed fair share analysis that considers the availability of land and the provision for multifamily housing from several different perspectives to ensure that Pocopson Township has designated a reasonable amount of land for multifamily dwellings based upon the Future Land Use Plan and its recommendations. The analysis is intended to prevent the Township from directly or indirectly excluding any common form of residential housing, particularly multifamily housing, from within its borders. As detailed in Appendix B:

- Pocopson Township is located in the path of growth
- Pocopson Township provides an adequate amount of total lands for multifamily housing
- As demonstrated by the number of units and percentages of land (both developable and total) and the population growth pressure, there is no exclusion of multifamily housing in the Township

¹ Note that in the context of this fair share analysis, the term “multifamily” means any housing type of three or more dwelling units, including but not limited to townhouses, quadruplexes, and apartments. The definition does not include twins, duplexes, or two family units. This distinction is based on the MPC language in Section 604(4) that supports distinguishing two family homes from structures with three or more dwelling units.

Planning Implications

Housing Supply

Pocopson Township's population and housing stock grew rapidly between 2000 and 2010 after limited growth in the 1990s. While the housing stock remains largely single family detached, options became more diverse in the past decade under the variety of development options available in the Township's zoning ordinance. Demographic and market changes are likely to continue a push for diverse housing options, as residents seek a lifestyle that is more affordable and offers a lower maintenance commitment than more traditional single family detached dwellings.

Household Size

The ratio of persons per household plays a critical role in determining future housing demand, and also in determining the types of services needed by those households. Chester County, as with the nation, has experienced a declining ratio, with municipalities needing to react to smaller household sizes and a corresponding need for more units, land and infrastructure to serve the same population. Pocopson's household size has remained relatively stable at a higher level, perhaps an indication of being a preferred location for families to reside. The high owner occupancy rate and percentage of single family detached homes would support this conclusion.

Housing Affordability and Diversity

Median sales price for homes in Pocopson Township have been strong in recent decades, and significantly higher than the County's median home sales price. This is driven for the most part by market forces but also by Township policy. Approximately 20 percent of households in the Township, including rental units, are cost burdened. This situation reinforces the importance of encouraging housing affordability and diversity.

Fair Share Obligations

A "fair share" housing analysis is necessary to determine if, based on current case law and Township regulations, opportunity for a reasonable diversity of housing is being provided. The influence and limitations imposed by market conditions on the development and availability of various housing types is also an important factor. Under current conditions and future land use recommendations, this analysis found that the Township allows for a reasonable mix of housing types.

Housing Accessibility

Pocopson Township should be aware of its obligation under the Fair Housing Act to permit housing opportunities for all people, including members of the protected classes. Those classes include race, color, national origin, gender, religion, disability, and familial status (the presence of children under 18 in the household).

Recommendations

The recommendations below focus on how to best achieve a diversity of housing options and best implement the housing goal and objectives (as detailed in Chapter 2). Recommendations include both regulatory controls and outreach and education on the part of the Township. Priorities for the implementation of these recommendations are established in Chapter 12, Implementation Measures. Implementation of the recommendations identified below will help Pocopson Township achieve its housing goal to:

Provide for adequate, safe, and diverse housing to accommodate current and future residents in a manner consistent with the existing character of Pocopson and supported by necessary infrastructure.

Housing Supply

11-1 Continue to support a diversity of housing choices in the Potential Growth Areas and options such as accessory dwelling units across the Township.

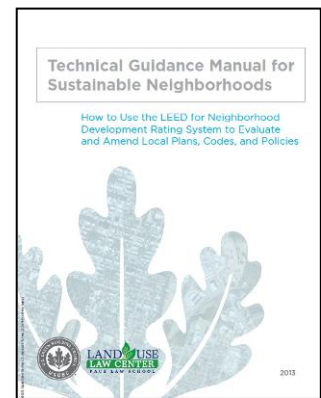
While there has been construction in recent years of multifamily housing, Pocopson's housing stock remains predominantly single family detached. The Township should consider where and how it could encourage more single family attached and multifamily housing in the Potential Growth Areas. A diversity of housing choices in the Potential Growth Areas would benefit residents as well as make efficient use of existing infrastructure and limit impacts on natural resources. Accessory dwelling units, currently permitted across much of the Township by conditional use, also make efficient use of existing infrastructure and can provide a valuable option for small households and extended families.

Housing Sustainability

11-2 Encourage “green” building and development practices through Leadership in Energy and Environmental Design (LEED), Energy Star, or other green building standards to improve the sustainability of housing and development within the Township.

Sustainable housing is affordable to the resident over the long term, within healthy, vibrant neighborhoods. For some homeowners and renters, housing becomes unaffordable with the additional cost of heat and other utilities. Incorporating green methods and materials reduces energy costs, making utility costs more manageable. Features such as water conserving fixtures, energy star

appliances, high efficiency lighting, renewable energy sources (including photovoltaic and geothermal), and green roofs all contribute to reducing energy usage and therefore lowering the long term costs for the resident. Pocopson Township currently addresses green building practices through a density bonus for new developments within the Zoning Ordinance, but does not address the existing housing stock or redevelopment. There are multiple resources available from the U.S. Green Building Council on how to incorporate sustainability into development that could help the Township to broaden its support of green building and development practices (www.usgbc.org/neighborhoods). Two specific resources of note include *A Local Government Guide: to LEED for Neighborhood Development* and the *Technical Guidance Manual for Sustainable Neighborhoods*.



11-3 Review procedures for inspection of rental properties related to concerns about health, safety, and welfare protections.

The Township should consider new regulations for rental property inspections to occur at the time of change in occupancy. Such regulations should focus on the health, safety, and welfare of residents, and the necessary enforcement capabilities should be addressed during the annual budget process. Rental properties are an important part of providing a diversity of housing options for residents, and the Township should be supportive of rental units and residents who choose this form of housing.

11-4 Inform homeowners about available resources to assist with home repair and maintenance needs through local and countywide home repair programs.

Good Neighbors, a faith-based non-profit affiliated with Koinonia Christian Ministries, provides home repair services to low-income households, with a focus on southern Chester County and the US Route 1 corridor. The services are provided at no or low cost to the eligible homeowner. Often, low- or moderate-income residents in need of home repair services are not aware that these programs exist and continue to live in substandard conditions when help may be available. The Township newsletter and website should be used to inform residents about these programs.

Housing Affordability and Diversity

11-5 Support development of quality, attractive housing that is well integrated into the community and meets low- to moderate-income affordability standards.

The median sales price in Pocopson is the second highest in Chester County, while U.S. Census Bureau data indicate that approximately 29 percent of households in Pocopson (ownership and rental) are cost burdened. These numbers suggest a need for additional moderately-priced housing options in the Township. The Township could work with developers and local nonprofits to plan for mixed-income developments where the more moderately-priced units (affordable to households earning 80 percent of the area median or less) are indistinguishable from market rate units in the same development.

11-6 Assist in educational efforts that focus on the need for affordable housing to reduce opposition to moderately priced development.

Most local opposition to affordable housing is based on a lack of understanding and misconceptions about persons who may occupy what is considered to be “low-income housing.” The County and numerous local and countywide non-profit advocacy groups can provide information and educational materials aimed at addressing incorrect assumptions about affordable housing. Pocopson Township should take a leadership role in supporting such programs and participate in efforts dealing with the affordability issue. Making existing educational materials available at the Township Building and using the website and newsletter would be appropriate methods to inform residents about this issue.

Fair Share Obligations

11-7 Ensure that zoning regulations continue to create adequate opportunities for the development of additional multifamily housing.

As Pocopson Township reviews the existing zoning regulations and recommendations for land use, the Township should ensure that regulations for the Potential Growth Areas remain flexible and allow for multifamily housing.

Housing Accessibility

11-8 Review Township ordinances, and update as needed, to provide for housing opportunities for all members of the classes protected under the federal Fair Housing Act.

The Fair Housing Act prohibits discriminatory treatment with regard to housing opportunities toward any group or individual based upon race, color, national origin, gender, religion, disability, or familial status (presence of children under 18). A request to provide housing that would serve members of the protected classes cannot be denied on the basis of discrimination against members of those groups who are expected to occupy that housing.

11-9 Review zoning regulations to ensure that they support opportunities for congregate living situations for people with special needs.

People with disabilities face some of the greatest challenges compared with other demographic groups with regard to securing safe, affordable, and accessible housing. Physically accessible units are in very short supply across the County. Also, regulatory restrictions on uses such as group homes and/or negative stereotypes of residents may have the impact of restricting housing choices available to individuals with disabilities.

11-10 Continue to grant “reasonable accommodations,” that may include Zoning Ordinance variances and Subdivision and Land Development Ordinance waivers, to permit development or redevelopment of housing situations for individuals with disabilities.

The federal Fair Housing Act requires that a request for relief from zoning, SLDO, or other local code requirements be granted if the request is reasonable and the relief creates an opportunity for the disabled to access housing of their choice within the local community. The request may be denied if it would create an undue burden on the municipality or result in a fundamental change to the character of the neighborhood. Based on the law, a congregate living situation for people with disabilities should be treated like any other residential use with like requirements and restrictions.

11-11 Support programs offered through community agencies that provide supportive services to senior citizens desiring to “age-in-place” and remain living in their own homes.

Aging seniors remaining at home will eventually need some level of supportive services. The goal of the Kennett Area Senior Center is to support senior citizens to remain independent as long as possible. Kennett Area Senior Center programs offer in home support to seniors, including support for tasks of daily living, transportation, home repairs, friendship, and companionship. Pocopson Township should support these programs that provide quality of life enhancements to senior residents. Information on available programs could be provided on through existing outreach methods, including the website and newsletter.

Links

Chester County – Discover the Future

www.chescopagreen.org

DVRPC – Population Projections

www.dvrpc.org/webmaps/Popforecast/index.htm

Fair Housing Council of Suburban Philadelphia

www.fhcsp.com

Good Neighbors Home Repair

www.goodneighborshomerepair.org

Landscapes2

www.landscapes2.org

U.S. Department of Housing and Urban Development – Fair Housing Act

http://portal.hud.gov/hudportal/HUD?src=/program_offices/fair_housing_equal_opp/FHLaws/yourrights

U.S. Green Building Council

www.usgbc.org/neighborhoods

IMPLEMENTATION STRATEGIES

Introduction

This chapter provides both a broad overview of plan implementation and a summary of the specific recommendations described in the preceding plan chapters.

Implementation Framework

In the preceding chapters, planning issues and recommendations are discussed within the context of a specific resource, such as natural resources. Stepping back from that resource-specific focus, this section discusses issues and actions in a broader framework. Most of the specific recommendations noted in the plan chapters should be considered within the context of implementing the full vision of the Future Land Use Plan, protecting Historic Resources, and advancing a Regional Greenway. Such a context will help the Township understand the interactions of specific recommendations and prioritize implementation.

Future Land Use Plan

The Future Land Use Plan identifies a clear vision for protection of natural resources and open spaces within the northern portion of the Township. This includes a desire to not extend public water and sewer into this area, and therefore limit the density of development that is permitted. To implement this vision, changes to the Zoning Ordinance are required. The Plan also identifies a vision of continued mixed use in and around the areas of Pocopson and Lenape. Changes within the Zoning Ordinance would make regulations better reflect the mixed use vision identified for this area.

Historic Resources

Historic Resources were identified early in this comprehensive plan process as a critical resource, and one needing improved regulation and support. This could include a historic resource overlay to foster preservation of historic resources, as well as investigating the benefits of becoming a Certified Local Government through the Pennsylvania Historical and Museum Commission. A key component to preserving



historic resources is providing incentives that encourage owners to care for and maintain these properties.

Regional Greenway

Pocopson Township has long been active in creating trails for its residents, and is also a strong advocate for protecting natural resources, including the Brandywine Creek. Recently these efforts have come together with the Brandywine Creek Greenway effort, which with its 2010 Concept Plan identified these goals:

- To protect and improve vital natural resources within the Brandywine watershed.
- To promote and enhance the recreational use of municipal, county, and state-owned open space.
- To provide safe transportation alternatives for walkers, cyclists, and equestrians.
- To mitigate flooding in flood-prone areas.
- To preserve nationally- and municipally-designated historic resources and their surrounding landscapes.
- To foster education of the Brandywine Creek and its resources.
- To preserve state- and municipally-designated scenic resources and buffer scenic resources from new development.
- To foster economic activity in urbanized areas.

These goals overlap with many goals that Pocopson Township has identified, and continuing to work with regional partners to advance a regional greenway will serve all of these interests.

Resource Based Recommendations

Figures 12-1 through 12-8 present all of the plan's recommendations, along with pertinent information for implementation. The implementation strategies in Figures 12-1 through 12-8 are organized in the same manner that resources were presented in the preceding chapters, with individual recommendations presented as discussed within each plan chapter. Also included are the corresponding chapter recommendation number, priority, responsible entities, and additional discussion on method or partnering organizations as appropriate.

Priority

The priority assigned to the implementation strategies should be interpreted as follows:

Immediate

The recommendation is related to a high priority item for the Township, and implementation should be commenced within the next one to two years. Typically these types of recommendations can be accomplished relatively quickly, or are the first step in a long-term program.

Short-Term

The recommendation is a medium priority for the Township, and implementation should be commenced within the next three to five years.

Long-Term

The recommendation is a lower priority for the Township, and implementation should be commenced within the next five to ten years or as funding becomes available.

Ongoing

The recommendation will require a continued effort. The initial action, if not already begun, should be undertaken in the next one to two years. These actions often involve monitoring or the continuation of existing programs.

Periodic

The recommendation is of a nature that requires effort at intervals, such as every two years.

Who

The group or groups with primary responsibility for implementing a particular recommendation are listed under this heading. Generally, the groups with the most responsibilities assigned are the Planning Commission, Board of Supervisors, or staff.

Groups are identified as follows within Figures 12-1 through 12-8:

BoS: Board of Supervisors

PC: Planning Commission

HC: Historical Committee

PRTC: Parks, Recreation and Trails Committee

Staff: Township Staff (to include staff such as the Township Secretary, Zoning Officer, or Public Works Director as appropriate)

EMC: Emergency Management Coordinator

The leadership of the elected officials of Pocopson Township in setting priorities and assigning groups to undertake the tasks outlined in this chapter is very important. In the case of ordinances, while it is the Board of Supervisors that must adopt a proposed ordinance, primary responsibility for ordinance development falls to the Planning Commission. If appropriate, a task force can be formed to address specific recommendations.

Suggested Method/Partners

Specific implementation methods are noted here, such as ordinance updates or public outreach tools. Potential partnering organizations are also noted if appropriate, particularly when a recommendation cannot be accomplished without reaching beyond the Township, or when a partnering organization can bring valuable skills to the task at hand. Organizations are also noted if they can provide information for public education purposes.

Figure 12-1: Implementation Strategies – Natural Resources

#	Recommendation	Priority	Who*	Suggested Method/ Partners
#: Corresponds to the recommendation number in the Chapter, refer to chapter narratives for additional detail.				
*BoS: Board of Supervisors; PC: Planning Commission; HC: Historical Committee; PRTC: Parks, Recreation and Trail Committee; Staff: Township Staff; EMC: Emergency Management Coordinator				
OVERALL				
4-1	Direct growth to the most appropriate areas, as identified in the Future Land Use Plan and supported by the Zoning Ordinance, Subdivision and Land Development Ordinance, and natural and historic resource mapping.	Ongoing	<ul style="list-style-type: none"> ➤ BoS ➤ PC 	See Future Land Use recommendations.
4-2	Educate residents, businesses, and local institutions regarding methods to protect, preserve, and enhance water resources, land resources, and biotic resources in the Township through existing public outreach methods and new options as possible.	Ongoing	<ul style="list-style-type: none"> ➤ BoS ➤ PC ➤ Staff ➤ Stream Team 	Public outreach methods - Township newsletter, website, and building, as well as social media and Founders Day displays.
4-3	Partner with other municipalities, agencies, and organizations to protect and enhance natural resources through voluntary methods.	Short-term	<ul style="list-style-type: none"> ➤ BoS ➤ Stream Team 	Potential partners include Brandywine Valley Association, Christina Basin Clean Water Partnership, area land trusts, and adjacent municipalities.
4-4	Consider the creation of an Environmental Advisory Committee.	Short-term	<ul style="list-style-type: none"> ➤ BoS ➤ PC 	
WATER RESOURCES				
4-5	Investigate options to improve public access to Brandywine Creek for recreation purposes while ensuring such access does not impact natural features.	Short-term	<ul style="list-style-type: none"> ➤ BoS ➤ PC ➤ Staff 	As opportunities arise and through coordination with landowners at existing access points.
4-6	Support and where possible pursue efforts to address the prioritized needs presented in the <i>Brandywine Creek Watershed Action Plan</i> (2002) and <i>Watersheds</i> (2002).	Short-term	<ul style="list-style-type: none"> ➤ BoS ➤ PC ➤ Stream Team 	Implementation of a Township-wide water quality improvement plan, to include prioritization.
4-7	Monitor TMDL requirements within the Brandywine Creek/Christina River watershed to ensure compliance, and coordinate with other organizations to identify opportunities to improve water quality and wildlife habitat within the watershed.	Ongoing	<ul style="list-style-type: none"> ➤ BoS ➤ PC ➤ Staff 	Monitoring and coordination with Chester County Water Resources Authority as necessary.
4-8	Review floodplain regulations to ensure that all feasible and prudent measures are being carried out to reduce flood risk.	Short-term	<ul style="list-style-type: none"> ➤ BoS ➤ PC 	Review and amend as necessary.
4-9	Review regulatory controls regarding wetlands to ensure that wetland delineations are being required when necessary.	Short-term	<ul style="list-style-type: none"> ➤ BoS ➤ PC 	Review and amend as necessary.
LAND RESOURCES				
4-10	Consider implementing net-out provisions to protect agricultural soils, and continue supporting agricultural uses through support of agricultural easements,	Short-term and Ongoing	<ul style="list-style-type: none"> ➤ BoS ➤ PC 	Review and amend as necessary the zoning language regarding net-out and agricultural businesses; encourage easements and participation in ASAs and Clean and Green

	encouragement of Secondary/Accessory Agricultural Businesses, encouraging enrollment in Agricultural Security Areas and the Clean and Green programs (Act 43 and Act 319), and encouragement of the activities of land preservation organizations.			programs.
BIOTIC RESOURCES				
4-11	Review the 2006 woodlands, exceptional natural areas, and rare species sites mapping and classification.	Short-term and Ongoing	<ul style="list-style-type: none"> ➤ BoS ➤ PC ➤ Staff 	Identify the methods by which the areas were defined, categorized and mapped, and use that information to update and for public education purposes.
4-12	Promote sustainable plant communities and the restoration of areas dominated by invasive plant species.	Ongoing	<ul style="list-style-type: none"> ➤ BoS ➤ PC ➤ Staff 	Enforce regulatory controls of invasive species and encourage use of native plants with public education.
4-13	Promote beneficial wildlife and consider methods to address the control of habituated wildlife.	Short-term and ongoing	<ul style="list-style-type: none"> ➤ BoS ➤ PC ➤ Staff 	Education via public outreach methods; regulatory controls as necessary.
4-14	Continue to encourage the protection and linkage of significant undeveloped areas to preserve biotic resources.	Short-term and ongoing	<ul style="list-style-type: none"> ➤ BoS ➤ PC 	Continued regulatory controls, mandatory park dedication or fee-in-lieu of, and encouragement of private land conservation programs.

Figure 12-2: Implementation Strategies – Historic and Scenic Resources

#	Recommendation	Priority	Who*	Suggested Method/ Partners
#: Corresponds to the recommendation number in the Chapter, refer to chapter narratives for additional detail.				
* BoS: Board of Supervisors; PC: Planning Commission; Historical Committee; PRTC: Parks, Recreation and Trail Committee; Staff: Township Staff; EMC: Emergency Management Coordinator				
OVERALL				
5-1	Facilitate coordination internally and with outside groups to highlight historic resources, as well as create and preserve scenic areas, in appropriate locations.	Ongoing	➤ BoS ➤ HC	Coordination with Historical Committee, Barnard House Steering Committee, Public Works, Park, Recreation, and Trail Committee; use of local historic markers or interpretative signage; use of volunteer assistance
5-2	Continue participation in regional initiatives related to historic and scenic resources.	Ongoing	➤ BoS ➤ HC	Continued participation with Brandywine Battlefield Task Force, Brandywine Valley Scenic Byway Commission and others
HISTORIC				
5-3	Investigate installing historic markers using PHMC's Historical Marker Program or developing a local marker program.	Long-term	➤ HC	PHMC historic marker program; prioritized list of potential Township sites
5-4	Continue to identify and evaluate historic resources through historic resource surveys.	Long-term	➤ HC	Research and documentation to build on the 2010 <i>Historic Resource Atlas</i>
5-5	Support nominations of high priority properties for eligibility and/or listing on the National Register of Historic Places.	Periodic	➤ HC	Nomination by the Historical Committee or support of private nominations
5-6	Create a historic overlay district in the zoning ordinance.	Immediate	➤ BoS ➤ PC ➤ HC	Zoning amendment
5-7	Create a free-standing ordinance to formally establish a Historical Commission and reflect the duties of the Commission.	Immediate	➤ BoS ➤ PC ➤ HC	Ordinance development
5-8	Continue to support the Historical Committee in its role as an advisor to the Board of Supervisors and as the primary public outreach entity for historic resources.	Ongoing	➤ BoS ➤ HC	Coordination between the Board and Historical Commission; continued use of a variety of public outreach methods
5-9	Update the SLDO to help promote historic resource recognition and protection.	Short-term	➤ BoS ➤ PC ➤ HC	SLDO amendment
5-10	Consider becoming a Certified Local Government (CLG).	Short-term	➤ BoS ➤ HC	Investigation of the CLG program
5-11	Work to ensure all PHMC comments on projects requiring a sewage planning module have been received prior to granting preliminary or final plan approval.	Ongoing	➤ PC ➤ HC ➤ Staff	Coordination with PHMC and applicants as necessary
5-12	Consider opportunities to preserve and protect features and landscapes related to the Brandywine Battle.	Ongoing	➤ BoS ➤ PC ➤ HC	Preservation of private open space or creation of a passive park
SCENIC				
5-13	Review and amend municipal ordinances as necessary to guide development to areas less likely to impact scenic resources.	Short-term	➤ BoS ➤ PC	Ordinance updates
5-14	Coordinate with PennDOT (or Chester County as appropriate) on any proposed	Ongoing	➤ BoS ➤ PC	Coordination with PennDOT

	transportation projects early and throughout the project development process to ensure a context sensitive design.			
5-15	Support efforts to organize volunteers to participate in PennDOT's Adopt-a-Highway Program and the Great Pennsylvania Cleanup Program.	Short-term	<ul style="list-style-type: none"> ➤ BoS ➤ Staff 	Renewed Township activity and potential teaming with partners such as the BVA
5-16	Review municipal ordinances and update as necessary to recognize the negative impact of scenic intrusions and require that applicants seeking to construct a new scenic intrusion, or redevelop an existing scenic intrusion, investigate options to avoid, minimize, or mitigate its negative scenic impacts.	Short-term	<ul style="list-style-type: none"> ➤ BoS ➤ PC 	Ordinance updates
5-17	Review and amend ordinance language to more fully address the negative impacts of lighting and promote the continuance of dark skies.	Short-term	<ul style="list-style-type: none"> ➤ BoS ➤ PC 	Ordinance updates
5-18	Continue to recognize the importance of dark skies protection and educate residents through the Pocopson Township newsletter, website, and other outreach methods.	Ongoing	<ul style="list-style-type: none"> ➤ PC ➤ Staff 	Public outreach methods
5-19	Review ordinance provisions and amend as necessary to diminish the impact of outdoor signage, and investigate the option of developing specific design guidelines.	Short-term	<ul style="list-style-type: none"> ➤ BoS ➤ PC 	Ordinance updates
5-20	Review ordinance provisions to ensure they permit and encourage utility structures and transmission lines (such as cell towers, stormwater management facilities, and overhead utility lines) and to respond to scenic qualities as well as functional requirements, and conduct coordination early with outside groups regarding construction of these features.	Immediate	<ul style="list-style-type: none"> ➤ BoS ➤ PC 	Ordinance review and updates as necessary
5-21	Review ordinance provisions and amend as necessary to ensure they permit and encourage design of parking facilities to respond to scenic qualities as well as functional requirements.	Short-term	<ul style="list-style-type: none"> ➤ BoS ➤ PC 	Ordinance review and updates as necessary

Figure 12-3: Implementation Strategies – Transportation and Circulation

#	Recommendation	Priority	Who*	Suggested Method/ Partners
#: Corresponds to the recommendation number in the Chapter, refer to chapter narratives for additional detail.				
* BoS: Board of Supervisors; PC: Planning Commission; Historical Committee; PRTC: Parks, Recreation and Trail Committee; Staff: Township Staff; EMC: Emergency Management Coordinator				
SYSTEMWIDE				
6-1	Support completion of projects identified on the Transportation Improvements Inventory (TII) and Transportation Improvements Program (TIP), and continue to coordinate transportation improvement priorities with the Chester County Planning Commission.	Ongoing	➤ BoS	Advocate for funding and improvements; fund improvements (partially or fully) when possible
6-2	Seek out funding from traditional and non-traditional sources for transportation improvements.	Ongoing	➤ BoS ➤ Staff	Remain aware of alternative funding opportunities
6-3	Ensure that context sensitive design is supported and enabled through the Township's regulatory documents and that the Township coordinates with PennDOT to develop context sensitive roadway and bridge improvements.	Ongoing	➤ BoS ➤ PC	Advocate for context sensitivity in regulatory documents and through coordination with PennDOT
6-4	Coordinate with East Penn Railroad regarding public safety along the rail corridor.	Periodic	➤ BoS	Coordination with East Penn as necessary
6-5	Review ordinances for parking standards and amend as necessary to ensure parking requirements remain both appropriate and flexible.	Short-term	➤ BoS ➤ PC	Ordinance review and amendments as necessary
6-6	Support drivers' education for all ages.	Long-term	➤ BoS ➤ PC ➤ Staff	Public outreach methods and partnerships
ROADWAYS AND BRIDGES				
6-7	Investigate potential safety improvements for identified transportation needs.	Immediate	➤ BoS ➤ PC	Coordination with PennDOT on low-cost safety improvements; consideration of a traffic calming study
6-8	Coordinate with PennDOT on the construction and use of the Route 52 roundabout.	Immediate	➤ BoS	Regular coordination with PennDOT
6-9	Advocate for funds for the replacement of the Route 926 bridge over Brandywine Creek and monitor and identify necessary maintenance and improvements to other bridges within the Township.	Immediate	➤ BoS	Advocate for transportation funds and monitor bridge conditions
6-10	Work to decrease incidences of speeding on roadways.	Short-term	➤ BoS	Speeding enforcement; use of radar speed signs
6-11	Continue to ensure that maintenance of local roads is addressed on an annual basis in the budget and capital improvements plan.	Ongoing	➤ BoS ➤ Staff	Annual budget process
6-12	Update the Zoning Ordinance, Subdivision and Land Development Ordinance, and other regulations to ensure that standards	Short-term	➤ BoS ➤ PC	Ordinance updates

	regarding roadways, sidewalks, and trails are current.			
6-13	Consider safety improvements, traffic calming measures, and updates to Township access management regulations to minimize existing safety concerns due to access points and prevent future detrimental access issues.	Immediate and ongoing	➤	Low-cost safety improvements; consideration of a traffic calming study; review of access management regulations and updates as necessary
6-14	Continue to coordinate with PennDOT regarding highway occupancy permits (HOPs) to plan for access points on state roads.	Ongoing	➤ BoS ➤ PC ➤ Staff	Coordination with PennDOT through Public Works
6-15	Review and revise ordinances to address traffic calming measures in association with subdivision and land development.	Short-term	➤ BoS ➤ PC	Ordinance review and updates as necessary
6-16	Work to minimize impacts to water quality and vegetation during periodic right of way maintenance.	Short-term	➤ BoS ➤ PC ➤ Staff	Develop internal policies on maintenance protocols; negotiation with right of way owners
6-17	Support the dissemination of public notification regarding roadway and bridge closures.	Short-term	➤ BoS ➤ Staff	Existing public outreach methods; support of broader notification systems
PEDESTRIAN AND BICYCLE CIRCULATION				
6-17	Continue to support trails as an important component of the overall transportation network.	---	---	See Chapter 8 recommendations
<i>Additionally, see recommendations within Chapter 8 regarding trails.</i>				
PUBLIC TRANSPORTATION				
6-18	Continue to support public transportation options.	Ongoing	➤ BoS ➤ PC	Support of SCCOOT; consider improvements to stops
6-19	Support the extension of passenger rail service that is convenient and accessible to residents of southern Chester County.	Long-term	➤ BoS ➤ PC	Support of rail improvements

Figure 12-4: Implementation Strategies – Community Facilities and Services

#	Recommendation	Priority	Who*	Suggested Method/ Partners
#: Corresponds to the recommendation number in the Chapter, refer to chapter narratives for additional detail.				
* BoS: Board of Supervisors; PC: Planning Commission; Historical Committee; PRTC: Parks, Recreation and Trail Committee; Staff: Township Staff; EMC: Emergency Management Coordinator				
TOWNSHIP ADMINISTRATION				
7-1	Create a capital improvements plan to address long-term maintenance and improvements to Township facilities.	Short-term and periodic	➤ BoS ➤ Staff	Development of a capital improvements plan.
7-2	Periodically review staffing and use of consultants to ensure that the needs of residents are being addressed.	Periodic	➤ BoS	
7-3	Continue a volunteer recognition program to acknowledge those residents and businesses that significantly contribute to the Township and to promote volunteerism.	Short-term and periodic	➤ BoS ➤ Staff	Annual luncheon, awards program, or recognition on the Township website and newsletter.
7-4	Continue to seek grants and explore other sources of revenue to address specific facility or service needs.	Short-term and ongoing	➤ BoS ➤ PRTC ➤ HC ➤ Staff	Potentially through a volunteer grant committee; otherwise through existing committees and staff.
7-5	Ensure that public outreach is timely and comprehensive by regularly updating the Township website, publishing the Township newsletter on a regular basis, and using other media outlets as appropriate.	Ongoing	➤ BoS ➤ Staff	Regularly scheduled updates and periodic comprehensive reviews of outreach methods by the staff with the assistance of existing committees.
SEWAGE FACILITIES				
7-6	Periodically update the Act 537 Plan in order to consider population growth while maintaining consistency with the Comprehensive Plan, its Future Land Use Plan, and those regulatory tools that work to implement the Comprehensive Plan.	Periodic	➤ BoS ➤ PC ➤ Consultant	Act 537 updates.
7-7	Continue to encourage and mandate management and maintenance of on-lot and community sewage facilities to protect water quality and increase the lifespan of these systems.	Ongoing	➤ BoS ➤ Staff	Regulatory enforcement and public education through public outreach methods.
7-8	Maintain a focus on innovative wastewater treatment and disposal systems to reduce impacts on natural resources and watershed water balances.	Ongoing	➤ BoS ➤ PC ➤ Staff	Maintain an emphasis on the recharge of groundwater in their Act 537 Plan and with sewage disposal facilities.
WATER SUPPLY				
7-9	Encourage the routine testing of on-lot wells used as a source of drinking water and educate the public on protecting the water quality of these wells.	Ongoing	➤ BoS ➤ Staff	Existing public outreach methods.
7-10	Maintain consistency between the provision of water supply and the Comprehensive Plan, its Future Land Use Plan, and those regulatory tools used to carry out the Comprehensive Plan.	Ongoing	➤ BoS ➤ PC	Coordination with public water suppliers.

7-11	Consider creating a municipal level inventory of storage tanks.	Long-term	➤ BoS ➤ PC	
STORMWATER MANAGEMENT				
7-12	Review and amend as necessary to ensure that stormwater management ordinances maintain compliance with Act 167 and mandate proper design, construction, and maintenance of stormwater management infrastructure.	Immediate and periodic	➤ BoS ➤ PC	Periodic review and amendment as necessary
7-13	Provide public education and information about cost-effective and reasonable maintenance practices to owners and operators of stormwater management facilities and the general public.	Ongoing	➤ PC ➤ Staff	Existing public outreach methods; information available through Chester County Water Resources Authority, PADEP, and stormwaterpa.org
7-14	Track NPDES Phase II and MS4 requirements to ensure that the Township is in compliance with the regulations, to include regular inspection of inlets and outfalls, updates to mapping of stormwater infrastructure as necessary, opportunities for the public to participate in stormwater management program development and implementation, and development of a plan to reduce runoff from municipal properties and operations.	Periodic	➤ BoS ➤ PC ➤ Staff	Regularly scheduled inspections, permit applications, and periodic review of Phase II and MS4 requirements
SOLID WASTE COLLECTION AND DISPOSAL				
7-15	Continue to promote recycling by residents and businesses with outreach, education, and provision of convenient drop-off locations.	Ongoing	➤ BoS ➤ Staff	Maintenance of convenient drop-off locations and education through existing public outreach methods
7-16	Support the continued use of the SECCRA landfill as an essential element in the Township's long-term solid waste management program, and support SECCRA's commitment to recycling and alternative energy generation as critical components of extending the landfill's lifespan.	Ongoing	➤ BoS	Support as a SECCRA member municipality
EMERGENCY SERVICES				
Overall Emergency Management				
7-17	Update the Basic Emergency Operations Plan (EOP) on an annual basis in coordination with the Chester County Department of Emergency Services, and participate in updates to the Chester County Hazard Mitigation Plan.	Periodic	➤ BoS ➤ Staff ➤ EMC	Annual updates to the EOP; coordination with Chester County DES on periodic updates to the Hazard Mitigation Plan
7-18	Consider creation of a committee dedicated to public safety and emergency management issues.	Short-term	➤ BoS ➤ EMC	Consider creation of a new committee
7-19	Disseminate information to area residents and businesses on prevention and preparedness such as use of fire alarms, proper display of house numbers, escape plans, 911 protocols, and the Special Needs Registry.	Ongoing	➤ Staff ➤ EMC	Public outreach tools; information available from the Chester County DES

7-20	Review addressing within the Township to ensure that all properties have appropriate and consistent addresses.	Short-term	➤ BoS ➤ Staff ➤ EMC	Review of addressing; establishing an automatic review through existing Township activities
7-21	Encourage and support volunteer emergency service providers to seek grant funding from the state and federal levels and alternative sources, and seek funding at the municipal level as appropriate.	Ongoing	➤ BoS ➤ EMC	Coordination with local responders
7-22	Continue coordination between the Township and local emergency service providers to provide information regarding new development in the Township and other issues of concern.	Periodic	➤ BoS ➤ PC ➤ Staff ➤ EMC	Coordination with local responders
7-23	Investigate the potential of regional emergency management and continue participation in the Southern Chester County Co-op.	Long-term and ongoing	➤ BoS ➤ Staff ➤ EMC	Discussion within the Kennett Area Regional Planning Commission
7-24	Identify potential hazard mitigation projects.	Short-term	➤ BoS ➤ EMC	Coordination with Chester County DES
7-25	Ensure emergency service providers have the appropriate training.	Periodic	➤ BoS ➤ EMC	Periodic review of training
7-26	Adopt an ordinance ensuring minimum acceptable in-building radio coverage for emergency communications.	Short-term	➤ BoS ➤ PC ➤ EMC	Ordinance adoption
Police				
7-27	Monitor state police staffing levels and response times to ensure that adequate protection is provided.	Ongoing	➤ BoS ➤ Staff	Coordination with State Police
Fire and Ambulance				
7-28	Monitor fire and ambulance staffing levels, response times, and the number of calls within Pocopson Township to ensure that adequate protection is being provided.	Ongoing	➤ BoS ➤ Staff	Coordination with local fire and ambulance service providers
7-29	Determine equitable funding for fire and ambulance services and budget appropriately on an annual basis.	Periodic	➤ BoS	Annual budget process; discussion within the Kennett Area Regional Planning Commission
7-30	Support local fire companies through publicizing the benefits and needs of volunteer fire and ambulance service.	Ongoing	➤ BoS ➤ Staff	Public outreach methods
7-31	Support local fire company participation in the Pennsylvania Fire Incident Reporting System (PennFIRS).	Ongoing	➤ EMC	Coordination with local fire service providers
LIBRARIES				
7-32	Determine equitable funding for the Bayard Taylor Memorial Library and West Chester Public Library and budget appropriately on an annual basis.	Ongoing	➤ BoS ➤ Staff	Annual budget process; investigate usage at each library
7-33	Publicize within the local community the need to support (with funding and time) both the Bayard Taylor Memorial Library and West Chester Public Library.	Ongoing	➤ BoS ➤ Staff	Public outreach methods
EDUCATION				
7-34	Communicate on a regular basis with the Unionville-Chadds Ford School District regarding development plans that may impact student enrollment and use of school facilities for community purposes.	Periodic	➤ BoS ➤ PC	Coordination with Unionville-Chadds Ford School District and Pocopson Elementary School

7-35	Consider sponsorship of youth service projects on a routine basis.	Long-term	➤ BoS	Provide oversight through a committee or volunteer
HEALTH CARE				
7-36	Support public transportation to improve access to health care facilities in the region.	Ongoing	➤ BoS	Support for SCCOOT
HUMAN SERVICES				
7-37	Provide information and referral materials regarding human service programs through the Township's public outreach methods.	Ongoing	➤ BoS ➤ Staff	Public outreach methods
7-38	Publicize public transportation services available within the Township, and promote enhancement and expansion of public transportation services, to assist senior citizens and disadvantaged populations with access to jobs and supportive services.	Ongoing	➤ BoS ➤ Staff	Public outreach methods

Figure 12-5: Implementation Strategies – Parks, Recreation, and Open Space

#	Recommendation	Priority	Who*	Suggested Method/ Partners
#: Corresponds to the recommendation number in the Chapter, refer to chapter narratives for additional detail.				
*BoS: Board of Supervisors; PC: Planning Commission; Historical Committee; PRTC: Parks, Recreation and Trail Committee; Staff: Township Staff; EMC: Emergency Management Coordinator				
OVERALL				
8-1	Consistently define terms such as open space and different types of ownership in plans, ordinances, and other Township materials.	Short-term	<ul style="list-style-type: none"> ➤ BoS ➤ PC ➤ PRTC 	Ordinance and plan review and changes as necessary
8-2	Review existing provisions and adjust as necessary to provide the necessary funding and staff to maintain existing park, recreation, and trail facilities.	Short-term	<ul style="list-style-type: none"> ➤ BoS ➤ PC ➤ PRTC 	Ordinance review and amendments as necessary
8-3	Review and update as necessary formal recreation policies that address property issues and organizational structure.	Short-term	<ul style="list-style-type: none"> ➤ BoS ➤ PC ➤ PRTC 	Review and update as necessary
8-4	Investigation methods to generate funds from the local community for park and recreation facilities and initiatives.	Long-term	<ul style="list-style-type: none"> ➤ BoS ➤ PRTC 	Consideration by the PRTC of creative funding streams
8-5	Use the Township website and other methods of public outreach to publicize Township park and recreation facilities, with a focus on providing current information.	Short-term	<ul style="list-style-type: none"> ➤ BoS ➤ PRTC ➤ Staff 	Public outreach methods
8-6	Consider the adoption of an Official Map.	Long-term	<ul style="list-style-type: none"> ➤ BoS ➤ PC ➤ PRTC 	Official Map
8-7	Pursue grant funding to support park, recreation, trail, and open space efforts.	Ongoing	<ul style="list-style-type: none"> ➤ BoS ➤ PC ➤ PRTC 	Ongoing awareness of grant opportunities
PARKS AND RECREATION				
8-8	Continue to provide a balance of passive and active recreation facilities, and consider the capability of active recreation facilities to serve multiple uses.	Periodic	<ul style="list-style-type: none"> ➤ BoS ➤ PRTC 	Periodic review of active versus passive needs and clarification of any language related to these differing uses
8-9	Consider the need for future park sites to meet specific needs.	Periodic	<ul style="list-style-type: none"> ➤ BoS ➤ PRTC 	Review of resident needs and opportunities
8-10	Periodically review user fees at Township recreation facilities to ensure that they return funds to recreation facilities without discouraging users.	Periodic	<ul style="list-style-type: none"> ➤ BoS ➤ PRTC ➤ Staff 	Periodically review fees
8-11	Continue to offer special events to build awareness of parks as community centers.	Periodic	<ul style="list-style-type: none"> ➤ BoS ➤ PRTC 	Continuation of successful special events and consideration of new events as warranted
OPEN SPACE PRESERVATION				
8-12	Continue to support open space and agricultural preservation efforts.	Ongoing	<ul style="list-style-type: none"> ➤ BoS ➤ PC 	Support when preservation opportunities arise; providing information on appropriate management of open space lands
8-13	Continue to promote the creation of large, contiguous areas of homeowners association (HOA) open space.	Ongoing	<ul style="list-style-type: none"> ➤ BoS ➤ PC 	Through the development process

8-14	Continue to support the extension of a protected open space network via greenways.	Ongoing	<ul style="list-style-type: none"> ➤ BoS ➤ PC ➤ PRTC 	Support of the Brandywine Creek Greenway effort and related recommendations
8-15	Continue to coordinate with agricultural landowners and other stakeholders to investigate options to protect agricultural interests.	Ongoing	<ul style="list-style-type: none"> ➤ BoS ➤ PC 	Coordination with agricultural landowners; support for ASAs and the Clean and Green program; clear regulations for secondary or accessory agricultural businesses
8-16	Establish guidelines that clearly state what types of protected open spaces do or do not permit public access.	Short-term	<ul style="list-style-type: none"> ➤ BoS ➤ PC ➤ PRTC 	Establishment of guidelines
8-17	Encourage appropriate management of open space lands.	Short-term and ongoing	<ul style="list-style-type: none"> ➤ BoS ➤ PC ➤ PRTC 	Management plans for Township lands; enforcement of regulatory requirements for HOA lands
8-18	Investigate the possibility of a wetland restoration project along Brandywine Creek.	Long-term	<ul style="list-style-type: none"> ➤ BoS ➤ PC 	Investigation of options; potentially partner with the BVA
TRAIL, PATH, AND PEDESTRIAN NETWORK				
8-19	Continue to plan and establish a recreational network of trails, paths, sidewalks, and bicycle routes.	Ongoing	<ul style="list-style-type: none"> ➤ BoS ➤ PC ➤ PRTC 	Continued work to implement the Community Trails Master Plan
8-20	Ensure ordinances include provisions that address the planning and funding of trails, paths, and bicycle routes through the land development process.	Short-term	<ul style="list-style-type: none"> ➤ BoS ➤ PC ➤ PRTC 	SLDO review and potential updates
RECREATION PROGRAMMING AND ADMINISTRATION				
8-21	Continue to pursue opportunities to coordinate recreation programming initiatives with public, private, and institutional stakeholders.	Ongoing	<ul style="list-style-type: none"> ➤ BoS ➤ PRTC 	Coordination with Pocopson Elementary School, BVA, and others
8-22	Support a balanced diversity of competitive sports and non-sports recreation programming to meet the various interests of the public.	Ongoing	<ul style="list-style-type: none"> ➤ BoS ➤ PRTC 	Period review of resident needs
8-23	Support the continuation of responsible hunting, fishing, and outdoor recreation as a formally recognized form of public recreation.	Ongoing	<ul style="list-style-type: none"> ➤ BoS ➤ Deer Mgmt Committee ➤ Staff 	Access on Township lands and facilitation of access to other lands as landowners allow; education through public outreach methods

Figure 12-6: Implementation Strategies – Energy

#	Recommendation	Priority	Who*	Suggested Method/ Partners
<i>#: Corresponds to the recommendation number in the Chapter, refer to chapter narratives for additional detail. * BoS: Board of Supervisors; PC: Planning Commission; Historical Committee; PRTC: Parks, Recreation and Trail Committee; Staff: Township Staff; EMC: Emergency Management Coordinator</i>				
9-1	Promote the installation of alternative energy generation systems where appropriate and update ordinances as necessary to adequately regulate these evolving technologies.	Immediate and periodic	<ul style="list-style-type: none"> ➤ BoS ➤ PC 	Ordinance development; existing public outreach methods
9-2	Review ordinances to ensure they do not unnecessarily restrict energy conservation with respect to land use practices.	Short-term	<ul style="list-style-type: none"> ➤ BoS ➤ PC 	Ordinance review
9-3	Promote energy efficient standards in design, development, and construction (such as LEED, LEED-ND, and Energy Star certification).	---	---	See Chapter 10, recommendation 10-4
9-4	Encourage the development and redevelopment of housing that meets Leadership in Energy and Environmental Design (LEED), Energy Star, or other green building standards.	---	---	See Chapter 11, recommendation 11-2
9-5	Ensure Township facilities, equipment, and operations are integrating energy conservation measures.	Short-term	<ul style="list-style-type: none"> ➤ BoS ➤ Staff 	Energy audit; prioritized implementation of recommendations
9-6	Support education efforts that encourage energy conservation and sustainability at home, school, and the work place.	Ongoing	<ul style="list-style-type: none"> ➤ BoS ➤ Staff 	Existing public outreach methods; demonstration projects

Figure 12-7: Implementation Strategies – Land Use

#	Recommendation	Priority	Who*	Suggested Method/ Partners
<i>#: Corresponds to the recommendation number in the Chapter, refer to chapter narratives for additional detail.</i> <i>* BoS: Board of Supervisors; PC: Planning Commission; Historical Committee; PRTC: Parks, Recreation and Trail Committee; Staff: Township Staff; EMC: Emergency Management Coordinator</i>				
10-1	Review and amend the Zoning Ordinance for improved consistency with the Future Land Use Plan and to better reflect opportunities for development within the Township.	Immediate	<ul style="list-style-type: none"> ➤ BoS ➤ PC 	Zoning Ordinance amendments
10-2	Coordinate the Act 537 Plan (Sewage Facilities) with the Future Land Use Plan to manage the extension of public sewer in growth areas and restrict the extension of those facilities into resource protection areas.	Ongoing	<ul style="list-style-type: none"> ➤ BoS ➤ PC 	Ensure consistency between the Act 537 Plan and Future Land Use Plan
10-3	Review zoning regulations to ensure that agricultural operations have the ability to adapt to a changing market, and support such operations with existing outreach methods.	Short-term and ongoing	<ul style="list-style-type: none"> ➤ BoS ➤ PC ➤ Staff 	Zoning review and updates as necessary; promotion through existing outreach methods
10-4	Promote energy efficient standards in design, development, and construction (such as LEED, LEED-ND, and Energy Star certification).	Short-term and ongoing	<ul style="list-style-type: none"> ➤ BoS ➤ PC ➤ Staff 	Ordinance review and updates as necessary; education through public outreach methods

Figure 12-8: Implementation Strategies – Housing

#	Recommendation	Priority	Who*	Suggested Method/ Partners
#: Corresponds to the recommendation number in the Chapter, refer to chapter narratives for additional detail.				
* BoS: Board of Supervisors; PC: Planning Commission; Historical Committee; PRTC: Parks, Recreation and Trail Committee; Staff: Township Staff; EMC: Emergency Management Coordinator				
HOUSING SUPPLY				
11-1	Continue to support a diversity of housing choices in the Potential Growth Areas and options such as accessory dwelling units across the Township.	Ongoing	➤ BoS ➤ PC	Options within the Zoning Ordinance
HOUSING SUSTAINABILITY				
11-2	Encourage “green” building and development practices through Leadership in Energy and Environmental Design (LEED), Energy Star, or other green building standards to improve the sustainability of housing and development within the Township.	Short-term	➤ BoS ➤ PC	Zoning Ordinance review and updates as necessary
11-3	Review procedures for inspection of rental properties related to concerns about health, safety, and welfare protections.	Short-term	➤ BoS ➤ Staff	Review of procedures and changes as necessary
11-4	Inform homeowners about available resources to assist with home repair and maintenance needs through local and countywide home repair programs.	Ongoing	➤ BoS ➤ Staff	Public outreach methods
HOUSING AFFORDABILITY AND DIVERSITY				
11-5	Support development of quality, attractive housing that is well integrated into the community and meets low- to moderate-income affordability standards.	Ongoing	➤ BoS ➤ PC	Coordination with developers and local nonprofits
11-6	Assist in educational efforts that focus on the need for affordable housing to reduce opposition to moderately priced development.	Ongoing	➤ BoS ➤ Staff	Public outreach methods
FAIR SHARE				
11-7	Ensure that zoning regulations continue to create adequate opportunities for the development of additional multifamily housing.	Ongoing	➤ BoS ➤ PC	Review any regulatory amendments to ensure they do not impact opportunities
HOUSING ACCESSIBILITY				
11-8	Review Township ordinances, and update as needed, to provide for housing opportunities for all members of the classes protected under the federal Fair Housing Act.	Short-term and ongoing	➤ BoS ➤ PC	Review ordinances and amend as necessary
11-9	Review zoning regulations to ensure that they support opportunities for congregate living situations for people with special needs.	Short-term and ongoing	➤ BoS ➤ PC	Review ordinances and amend as necessary
11-10	Continue to grant “reasonable accommodations,” that may include Zoning	Ongoing	➤ BoS ➤ PC	Granting of reasonable accommodations

	Ordinance variances and Subdivision and Land Development Ordinance waivers, to permit development or redevelopment of housing situations for individuals with disabilities.		➤ Staff	
11-11	Support programs offered through community agencies that provide supportive services to senior citizens desiring to “age-in-place” and remain living in their own homes.	Ongoing	➤ BoS ➤ Staff	Public outreach methods