



Honoring Our Past Planning Our Future

West Pikeland Township Comprehensive Plan

Adopted: December 6, 2010

Thomas Comitta Associates, Inc.
Town Planners & Landscape Architects
West Chester, Pennsylvania

Sarcinello Planning and GIS Services
Swarthmore, Pennsylvania

**This project was financed in part by a Vision Partnership Program grant
from the Chester County Planning Commission.**

Project Participants

West Pikeland Township Comprehensive Plan Task Force

Nancy Bartley, Park and Recreation Board
Curt Grogan, Open Space Advisory Committee
Todd Majors, Historic Architectural Review Board
Joe Loughran, Financial Review Committee
Kevin O'Rourke, Community at Large
Harry Miller, Planning Commission
Beth Madarang, Community at Large
Mario DiBenedetto, Strategic Planning Committee
Lisa Lacroix, Federation of Northern Chester County Communities
Gary Dienes, Community at Large
Harold Gibson, Community at Large
Judith Belinas, Historic Commission
Melinda Mercurio, Arts and Culture Committee
Rena Ferris, Twin Hills Homeowners Association
Robert Barker, Former Board of Supervisors
William Cracas, Former Board of Supervisors
Robert Shemonsky, Board of Supervisors
Stephen J. Ross, Township Manager

West Pikeland Township Board of Supervisors

Robert Shemonsky	Ernie Holling
Richard Bright	Tom Tucker
Harold M. Hallman, III	

West Pikeland Township Planning Commission

Frank Best	Harry Miller
Thomas Dinan	Bill Normyle
Paul Dowie	Sean O'Neill
John Henssler	Albert Wachsmuth

Project Consultants

Thomas Comitta Associates, Inc.
Edward A. Theurkauf, RLA, ASLA

Sarcinello Planning and GIS Services
Nanci Sarcinello, AICP

Project Oversight

Chester County Planning Commission
Jake Michael
Carol J. Stauffer, AICP

Thanks also to the many residents of West Pikeland Township who lent their time, energy, enthusiasm, and insight in preparing this plan.

Table of Contents

Chapter	Page
Introduction.....	1-1
Demographic Profile.....	2-1
Natural Resource Protection Plan.....	3-1
Historic Resource Protection Plan.....	4-1
Transportation Plan.....	5-1
Land Use Plan.....	6-1
Housing Plan.....	7-1
Community Facilities & Utilities Plan.....	8-1
Parks, Recreation, and Open Space Plan.....	9-1
Regional Compatibility and Plan Component Inter-relationships.....	10-1
Action Plan.....	11-1

Appendix

Natural Resources Protection Plan.....	A-1
Historic Resources.....	A-2
Road Functional Classification.....	A-3
Transportation Plan.....	A-4
Bike Routes.....	A-5
Existing Land Use.....	A-6
Potential Residential Build-out.....	A-7
Future Land Use Plan.....	A-8
Community Facilities Plan.....	A-9
Utilities Plan.....	A-10
Park, Recreation & Open Space Plan.....	A-11
Trail Plan.....	A-12
Public Opinion Survey Summary.....	A-13

Chapter 1 Introduction

BACKGROUND

West Pikeland Township

Pastoral natural beauty has imbued West Pikeland Township with exceptional quality of life throughout its history. In recent decades, the Township has transitioned from an agricultural landscape to a primarily exurban bedroom community. Despite this development pressure, West Pikeland Township has maintained its historic, scenic, and rural character. However, the growth and transformation of the Township could ultimately put these qualities in jeopardy. In response, the Township has recognized the need to re-evaluate its current land planning policies and strategies for future growth management.

Updating the comprehensive plan is the first step in this process.

Regional Setting



West Pikeland Township lies within the Schuylkill River valley in the Piedmont region of southeastern Pennsylvania, and is one of Chester County's 73 municipalities. Adjoining municipalities include West Vincent Township to the north, Uwchlan and Upper Uwchlan Townships to the west, Charlestown Township to the south, and East Pikeland Township to the east. Nearby commercial and employment centers are in Exton (5 miles away), Great Valley (6 miles away), Phoenixville (7 miles away), and King of Prussia (17 miles away). Center City Philadelphia is 33 miles away.

As the fertile Piedmont soils gave rise to agriculture, and the sulfur waters of Yellow Springs spawned an early form of medical tourism, West Pikeland's proximity to the east coast megalopolis and its accessibility to high capacity roads could change the landscape to suburbia. Rush hour traffic on Yellow Springs Road and at Opperman's Corner provide evidence that this transformation is well under way.

Comprehensive Plan

The comprehensive plan is a policy and planning tool enabled by the Commonwealth of Pennsylvania through Act 247, the Pennsylvania Municipalities Planning Code (MPC). It inventories a community's existing conditions, outlines planning goals, and provides recommendations and strategies aimed at achieving those goals. As a policy document (rather than a regulatory document), the comprehensive plan guides future land use decisions. The policies and recommendations put forth in the comprehensive plan are implemented through regulatory documents such as the zoning and land development ordinances, and through other non-regulatory means. The comprehensive plan is also important from a legal standpoint in that it provides the underlying rationale for ordinance provisions and amendments, and other planning initiatives.

The West Pikeland Township Comprehensive Plan update includes the following elements as mandated by the MPC:

- Demographic Profile
- Statement of Community Development Goals and Objectives
- Natural and Historic Resources Protection Plan
- Transportation Plan
- Housing Plan
- Land Use Plan
- Community Facilities and Utilities Plan
- Park, Recreation, and Open Space Plan
- Statement of the Interrelationships Among the Plan's Components
- Statement of the Plan's Compatibility with Adjoining Municipalities and the County Comprehensive Plan
- Plan Implementation Strategies



Work on the comprehensive plan update began in February 2009. Meetings of the Comprehensive Plan Task Force were conducted monthly, a township-wide public opinion survey was distributed, and workshops to gather community input were held in May 2009 and January 2010. The first of the two public workshops focused on the analysis of existing conditions and the formulation of community development goals and objectives. The second public workshop focused on future planning recommendations. Draft summaries of each of the plan elements were presented and participants were invited to comment and ask questions.

The policies and recommendations contained in the comprehensive plan update are based on input gathered at the two public workshops and the monthly task force meetings, and on various analyses. Understanding that development pressures on the township have been significant, the overall goal of the plan is to direct growth to the most suitable areas of the township, and coordinating it with infrastructure and services. Environmentally sensitive areas, best suited for conservation, receive appropriate protection measures. These principles result in a coherent land use pattern that accommodates future growth with maximum efficiency and sustainability while minimizing adverse impacts on the community and environment.

Chapter 2

Demographic Profile

INTRODUCTION

The demographic profile describes West Pikeland Township's socioeconomic conditions and contains data from the U.S. Census on population, income, and employment. Population projection data and interpretation are also included. To gain a broader perspective and a measure of comparison, data for the adjoining municipalities, Chester County, and the Commonwealth of Pennsylvania are included where appropriate.

PLANNING IMPLICATIONS

Summary

According to the demographic analysis, West Pikeland Township is a relatively young, upper-income community comprised largely of families. The population is highly educated and the majority of residents are in the labor force in professional and managerial occupations.

West Pikeland Township is situated in a growing area. Population in the Township and in the neighboring communities has been steadily increasing over the past several decades. In West Pikeland Township, much of this growth is the result of in-migration originating from other areas of Chester County and the state. Much of this growth can be attributed to an increase in the number of families with young children and teens. The senior and elderly populations have also increased since 1990.

US Census and Delaware Valley Regional Planning Commission (DVRPC) population projection methods suggest that population will continue to increase through 2020. Census projections for 2020 based on the average annual rate of growth estimate 4,605 persons; the DVRP projections reach 5,023 persons.

However, the recent economic downturn has significantly reduced growth so that actual population may be less than projected. Projected growth rates notwithstanding, planning for future growth is in the township's best interest.

Projections can be updated periodically to monitor growth and ensure that planning strategies are current. The 2010 Census report will provide information useful for revised projections.

Planning for anticipated growth involves all aspects of the Comprehensive Plan, including land use, housing, natural and historic resources protection, community facilities and utilities, and transportation. The Township must identify areas that are most suitable for development and plan for providing necessary utilities, transportation infrastructure, and services. It must also identify areas that are most suited for conservation in order to ensure that water supply, habitat, and natural amenities remain functional and sustainable.

Demographic trends indicate that the Township might encounter the need to enhance existing community facilities and provide new community facilities that would serve its population. This might include enhancements to the Township's emergency services to ensure that the level of service is sufficient to meet the needs of a growing population. It might also include the provision of social, recreational, and cultural amenities serving families and youth. The Township might also begin to plan for the possibility of an expanding senior and elderly population. Nationwide, this age segment is expected to increase drastically as the Baby Boomers age. This will put enormous strain on services and resources for seniors and the elderly. The township must closely monitor this trend over the next few decades.

POPULATION TRENDS

Population 1970-2007

To assess population trends, U.S. Census data from 1970 to 2000 are utilized along with 2008 estimates. The data show large increases in population since 1970 in West Pikeland Township and surrounding townships, exceeding the growth rates of Chester County and Pennsylvania (Table 2.1 and Figure 2.1). From 2000 to 2008, the largest growth has occurred in neighboring Charlestown and Upper Uwchlan Townships. Specific findings are as follows:

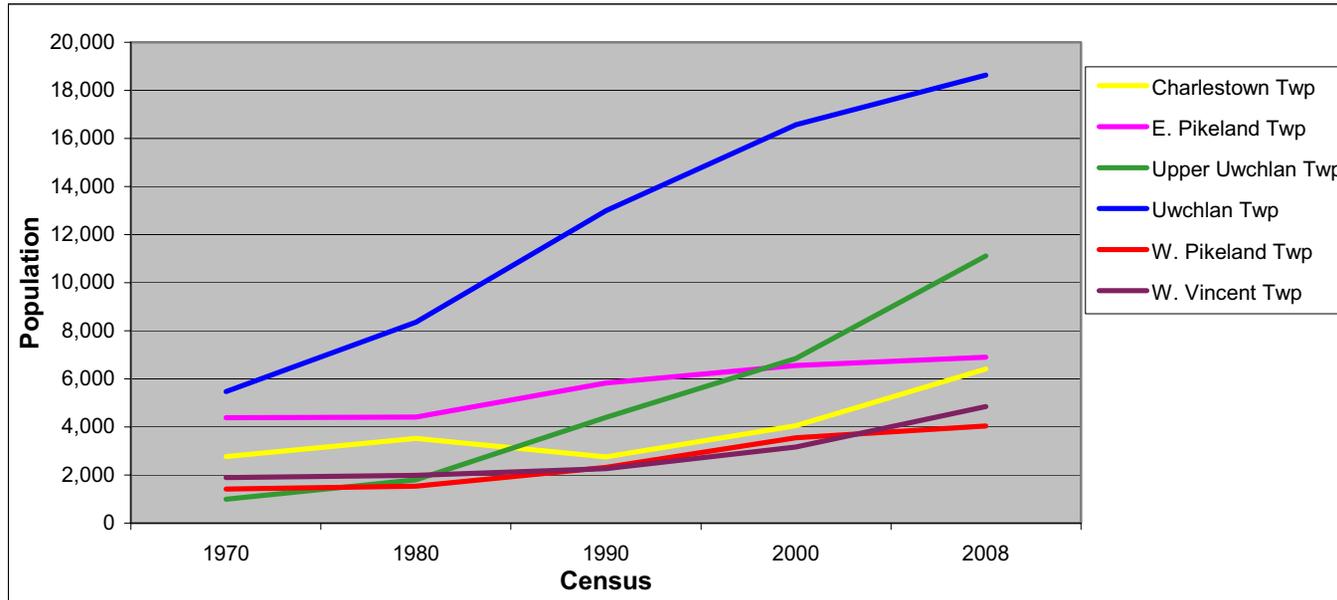
- West Pikeland Township experienced very modest population growth (8%) from 1970 to 1980. The growth rate then accelerated through the 1980s and 1990s, reaching 53%. The 2008 estimates indicate that population growth has slowed again. Altogether the Township's population has nearly tripled since 1970.
- Neighboring Upper Uwchlan Township has seen a consistently high rate of population growth, with its population growing ten-fold since 1970. Growth during the current decade continues to be high at 53%.
- Charlestown Township is experiencing large and anticipated increasing population growth. While growth has slowed since 1980 in the other neighboring townships, it has continued to climb in Charlestown. Charlestown's population decline in the 1980s is an anomaly due to the closing of the Valley Forge Military Hospital.

Table 2.1. Population: 1970 - 2008

Municipality	1970 Census	1980 Census	# Change 1970-1980	% Change 1970-1980	1990 Census	# Change 1980-1990	% Change 1980-1990	2000 Census	# Change 1990-2000	% Change 1990-2000	2008 Estimate	# Change 2000-2008	% Change 2000-2008
Charlestown Twp	2,770	3,528	758	27%	2,754	-774	-22%	4,051	1,297	47%	6,408	2,357	58%
E. Pikeland Twp	4,384	4,410	26	1%	5,825	1,415	32%	6,551	726	12%	6,904	353	5%
Upper Uwchlan	996	1,805	809	81%	4,396	2,591	144%	6,850	2,454	56%	11,106	4,256	62%
Uwchlan Twp	5,473	8,364	2,891	53%	12,999	4,635	55%	16,576	3,577	28%	18,641	2,065	12%
W. Pikeland Twp	1,420	1,536	116	8%	2,323	787	51%	3,551	1,228	53%	4,035	484	14%
W. Vincent Twp	1,890	1,992	102	5%	2,262	270	14%	3,170	908	40%	4,846	1,676	53%
Chester County	277,746	316,680	38,934	14%	376,396	59,716	19%	433,501	57,105	15%	491,489	57,988	13%
Pennsylvania	11,800,766	11,864,720	63,954	1%	11,881,643	16,923	0.14%	12,281,054	399,411	3%	12,448,279	167,225	1%

Source: U.S. Census Bureau

Figure 2.1. Population Trend Lines: 1970 - 2008



Source: U.S. Census Bureau

Population Trends by Age

Population trends are also analyzed by examining changes within age groups occurring between 1990 and 2000 (Table 2.2 and Figure 2.3). Based on this information, the Township can begin to consider planning for services for special populations such as children and the elderly.

Population trends by age show that West Pikeland Township's has experienced growth across nearly all age groups. The shifts in age groups are primarily reflected in increases in families with young children and teens, mature workers and seniors, and the elderly. The number of young adults has declined. These age trends are due to in-migration and out-migration, college bound students, and an existing population that is aging in place. Specific findings are as follows:

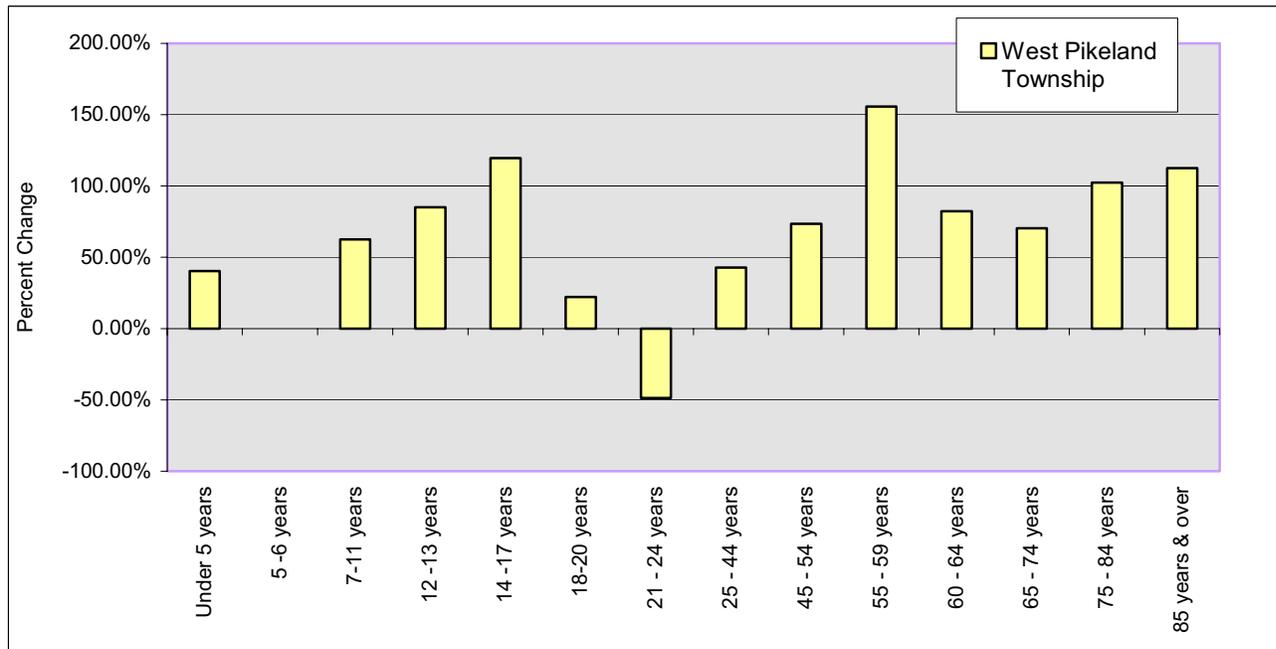
- The largest increases by age group in West Pikeland Township have occurred among the mature workers and seniors aged 55 to 59 years (156% change) and teens aged 14 to 17 (119% change). The elderly populations age 75 to 84 and 85 years and over have also doubled in size; however, their absolute numbers remain relatively small.
- The decline in population aged 21 to 24 suggests that young adults are moving out of the Township.

Table 2.2. Population Trends by Age – 1990 to 2000

West Pikeland Township									
Age Range	1990 Census	2000 Census	# Change 1990-2000	% Change 1990-2000	Age Range	1990 Census	2000 Census	# Change 1990-2000	% Change 1990-2000
Under 5 years	203	285	82	40.39%	Under 5 years	203	285	82	40.39%
5 -6 years	96	96	0	0.00%	5 to 17 Years	486	805	319	65.64%
7-11 years	213	346	133	62.44%					
12 -13 years	74	137	63	85.14%					
14 -17 years	103	226	123	119.42%					
18-20 years	54	66	12	22.22%	18 to 24 Years	163	122	-41	-25.15%
21 - 24 years	109	56	-53	-48.62%					
25 - 44 years	729	1,040	311	42.66%	25 to 64 Years	1,287	2,080	793	61.62%
45 - 54 years	400	694	294	73.50%					
55 - 59 years	79	202	123	155.70%					
60 - 64 years	79	144	65	82.28%					
65 - 74 years	91	155	64	70.33%	65 Years & Over	142	259	117	82.39%
75 - 84 years	43	87	44	102.33%					
85 years & over	8	17	9	112.50%					

Source: U.S. Census Bureau, age cohorts formatted to Township specification

Figure 2.3. Population Trends by Age – 1990 to 2000 Percentage Change



Source: U.S. Census, age cohorts formatted to Township specification

In-Migration

An examination of migration data provides further insight into the origins of the Township’s recent population growth (Table 2.3). Migration data are based on reported residency of individuals in 1995. The data show the number of individuals that moved into West Pikeland Township between 1995 and 2000 from other parts of Chester County, from other counties within Pennsylvania, from other states, and from other countries. This reveals patterns of in-migration and provides an understanding of where recent population growth is coming from.

Statistics on residency show that the majority of West Pikeland Township’s recent population growth is due to in-migration. Approximately 36% of the population age 5 years and over migrated to West Pikeland Township from other places. Most came from other areas of Chester County, followed by those from other states in the nation, mainly from the northeast and south.

Table 2.3. In-Migration: Residence in 1995

Residence in 1995	West Pikeland Township	
	2000 Census	% of Total
Population 5 years & over	3,266	100.00%
Migrated to West Pikeland	1,172	35.88%
From Foreign Country	45	1.38%
From Chester County	561	17.18%
From Other PA County	249	7.62%
From Different State	317	9.71%
From Northeast	101	-
From Midwest	82	-
From South	110	-
From West	24	-

Source: U.S. Census

Population Projections

Population projections represent anticipated future growth for which the Township must be prepared to plan. The reliability of population projections at the small scale of a municipality is suspect since projections may change drastically as the result of one large development project. Furthermore, different statistical models may yield very different results at this scale. Population projections at the municipal level are therefore intended to serve as a general measure of expected growth.

Projections are calculated for 2010 and 2020, with two types of projections presented. The first is based on the average annual rate of growth between 2000 and 2008 (Table 2.4). Annual growth rates for this time period show a steady decline from 2.18% in 2000 to 0.30% in 2008, with a noticeable slow-down beginning in 2006. This is likely a result of the nation's current economic climate. Assuming that a weak economy will continue into the near future, the 2010 projection was calculated using the 0.30% growth rate realized in 2008. The 2020 projection was calculated using the eight-year annual average growth rate of 1.27%.

The second set of projections is from the Delaware Valley Regional Planning Commission (DVRPC). The DVRPC produces its projections using an age-cohort component model that incorporates birth rates, death rates, and migration rates.

Table 2.4. Population Projections by Average Annual Rate of Growth

	2000	2008	2010	Abs. Change	% Change	2020	Abs. Change	% Change
	Census	Estimate	Projection	2000-2010	2000-2010	Projection	2010-2020	2010-2020
West Pikeland Twp	3,551	4,035	4,059	508	14.31%	4,605	546	13.45%

Source: U.S. Census Bureau; Consultant's Analysis

Figure 2.4 Population Projections by Average Annual Rate of Growth

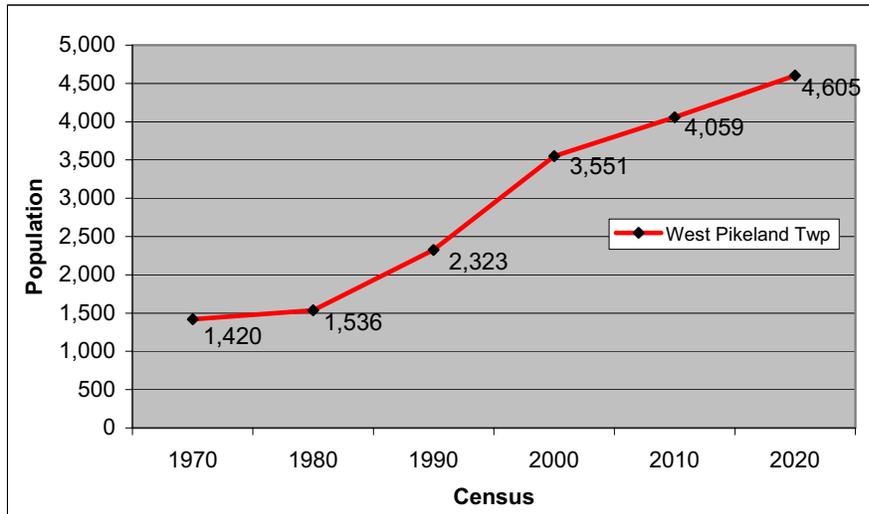
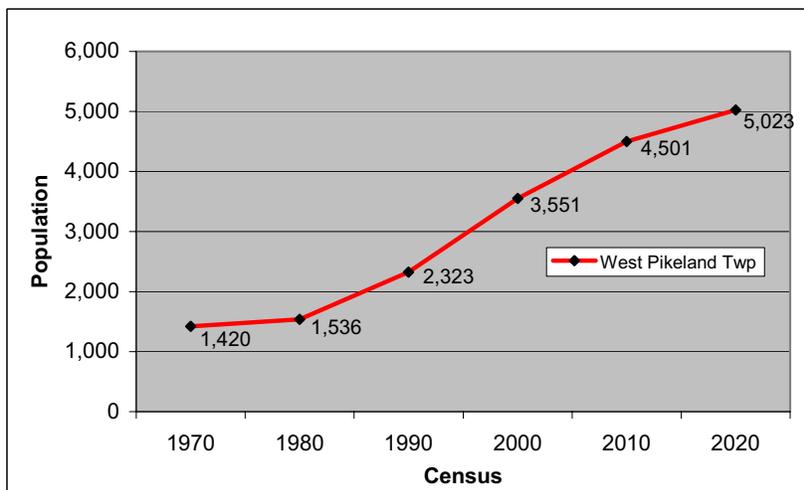


Table 2.5. DVRPC Population Projections

	2000	2010	Abs. Change	% Change	2020	Abs. Change	% Change
	Census	Projection	2000-2010	2000-2010	Projection	2010-2020	2010-2020
West Pikeland Twp	3,551	4,501	950	26.8%	5,023	522	11.6%

Source: Regional, County, and Municipal Population and Employment Forecasts: 2005-2035, Delaware Valley Regional Planning Commission

Figure 2.5 DVRPC Population Projections



However, these projections on growth may be tempered by economic and other conditions. For example, data on school bus ridership for the 2008/2009 through 2010/2011 academic years show a decline from 972 to 894 riders. This might indicate a decline in the township's overall population growth rate.

	1990 Census	2000 Census	2008/2009 Bus Riders	2009/2010 Bus Riders	2010/2011 Bus Riders
Grade K-12	486	805	972	937	894

If the current slow down in the economy continues, or if political and economic conditions alter the trend of exurban growth of the last 50 years, population growth rates could be considerably less than projected.

SOCIOECONOMIC CHARACTERISTICS

Overview

Socioeconomic characteristics are examined in terms of age, education, income, and employment. This provides a description of the current social and economic composition of the Township.

Age Composition

Data on age composition show the Census 2000 population broken down by age group (Table 2.6 and Figure 2.6). Unlike Table 2.2, which shows which age groups are growing and declining, these data show the current age composition of the Township's population. Based on this information, the Township can evaluate the availability and need for resources targeted to various age segments.

The analysis of West Pikeland Township's age composition shows that the Township is largely comprised of families with school-aged children, evidenced by the large number persons aged 25 to 54 and under 17 years of age. Specific findings are as follows:

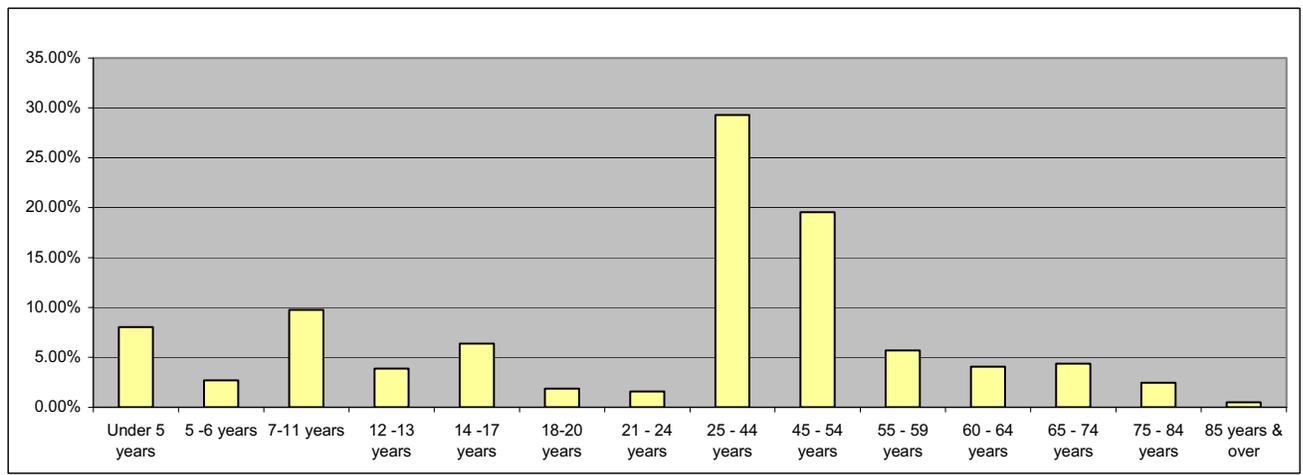
- Approximately 50% of the township's population is between 25 and 54 years of age. Approximately 31% of the population is under 17 years of age. This indicates that West Pikeland Township is primarily a community of families comprised of young to middle aged parents with school-aged children.
- The number of post-retirement and elderly persons (65 years and over) in West Pikeland Township is relatively low (at approximately 7% of the total population) compared to the County (12%) and the state (16%).
- In West Pikeland Township, individuals approaching retirement (aged 55 to 64 years) account for approximately 10% of the total population. This is consistent with County and the figures.
- Over the next 10 to 20 years, the number of seniors and elderly residents in the Township may increase as the "Baby Boomer" generation (individuals currently aged 41 to 59) ages.

Table 2.6 - Age Composition

Age Range			Age Range		
	2000 Census	% of Total		2000 Census	% of Total
Total Population	3,551	100%		3,551	100%
Under 5 years	285	8.03%	Under 5 years	285	8.03%
5 -6 years	96	2.70%	5 to 17 Years	805	22.67%
7-11 years	346	9.74%			
12 -13 years	137	3.86%			
14 -17 years	226	6.36%			
18-20 years	66	1.86%	18 to 24 Years	122	3.44%
21 - 24 years	56	1.58%			
25 - 44 years	1,040	29.29%	25 to 64 Years	2,080	58.58%
45 - 54 years	694	19.54%			
55 - 59 years	202	5.69%			
60 - 64 years	144	4.06%			
65 - 74 years	155	4.36%	65 Years & Over	259	7.29%
75 - 84 years	87	2.45%			
85 years & over	17	0.48%			

Source: U.S. Census Bureau

Figure 2.6 - Age Composition



Source: U.S. Census Bureau

Educational Attainment

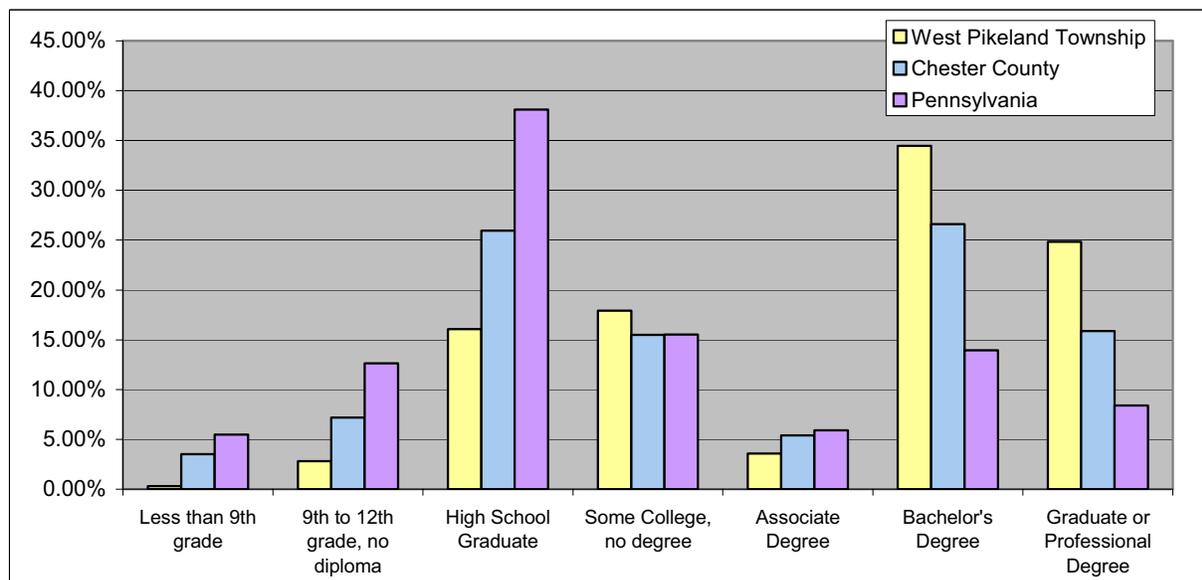
Educational attainment is surveyed from among the population aged 25 years and over. Data are presented for the township, Chester County and Pennsylvania (Table 2.7 and Figure 2.7). The data reveal that West Pikeland Township is a very well-educated community with nearly 60% of residents having attained a bachelor's degree or higher. Almost one-quarter of the population has earned a graduate or professional degree. These figures far exceed the County and the state:

Table 2.7 - Educational Attainment

Educational Attainment	West Pikeland Township		Chester County		Pennsylvania	
	2000 Census	% of Total	2000 Census	% of Total	2000 Census	% of Total
Population 25 years and over	2,339	100.00%	285,816	100%	8,266,284	100%
Less than 9th grade	7	0.30%	10,085	3.53%	452,069	5.47%
9th to 12th grade, no diploma	66	2.82%	20,491	7.17%	1,044,036	12.63%
High School Graduate	376	16.08%	74,179	25.95%	3,150,013	38.11%
Some College, no degree	419	17.91%	44,280	15.49%	1,284,731	15.54%
Associate Degree	84	3.59%	15,429	5.40%	487,804	5.90%
Bachelor's Degree	806	34.46%	76,003	26.59%	1,153,383	13.95%
Graduate or Professional Degree	581	24.84%	45,349	15.87%	694,248	8.40%
% high school or lower		19.2%		36.7%		56.2%
% bachelor's degree or higher		59.3%		42.5%		22.4%

Source: U.S. Census Bureau, 2000

Figure 2.7 - Educational Attainment



Source: U.S. Census Bureau, 2000

Income

For the purposes of this study, a detailed break down of household income is provided, where the number of households within each income bracket is reported (Table 2.8 and Figure 2.8). Household income is used because it is a more inclusive measure than family income in that, in addition to family households, it represents single persons living alone and unrelated persons living together.

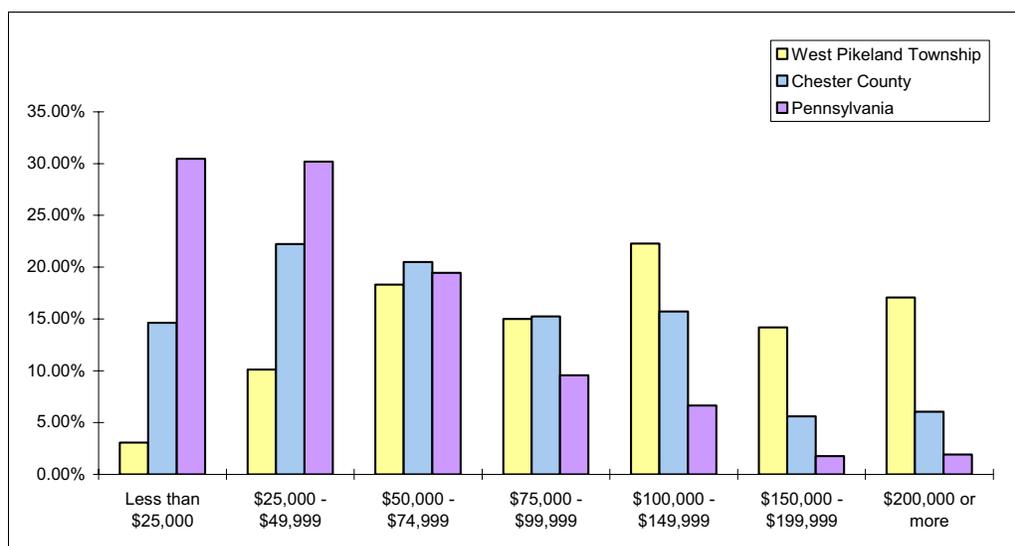
The data indicate that West Pikeland Township is high-income community. Median household income, median family income, and per capita income far exceed the County and the Commonwealth with figures at more than 50% higher than the County and more than twice as high as the Commonwealth. Greater than one-half of the Township’s households have an annual income of \$100,000 or more.

Table 2.9 - Income

Household Income	West Pikeland Township		Chester County		Pennsylvania	
	2000 Census	% of Total	2000 Census	% of Total	2000 Census	% of Total
# of Households	1,207	100.00%	158,025	100.00%	4,779,186	100.00%
Less than \$25,000	37	3.07%	23,124	14.63%	1,456,507	30.48%
\$25,000 - \$49,999	122	10.11%	35,153	22.25%	1,443,118	30.20%
\$50,000 - \$74,999	221	18.31%	32,407	20.51%	929,863	19.46%
\$75,000 - \$99,999	181	15.00%	24,098	15.25%	457,480	9.57%
\$100,000 - \$149,999	269	22.29%	24,851	15.73%	317,171	6.64%
\$150,000 - \$199,999	171	14.17%	8,853	5.60%	84,173	1.76%
\$200,000 or more	206	17.07%	9,539	6.04%	90,874	1.90%
Median Household Income	\$105,322		\$65,295		\$40,106	
Median Family Income	\$111,760		\$76,916		\$49,184	
Per Capita Income	\$48,616		\$31,627		\$20,880	

Source: U.S. Census Bureau, 2000

Figure 2.9 - Income



Source: U.S. Census Bureau, 2000

Employment

Employment statistics are derived from the population aged 16 years and over (Table 2.10). Individuals of this age are legally eligible to work. The data indicate that West Pikeland Township has a stable work force with 73% of the population in the labor force and a low 1.44% unemployment rate (as of the 2000 Census). These figures are slightly better than the County's, at 69% in the labor force and a 2.47% unemployment rate, and out-perform the state (62% in the labor force and 3.5% unemployment rate). Recent unemployment figures (as of December 2008) stand at 4.6% for Chester County, 6.7% for Pennsylvania, and 7.2% for the nation.

Table 2.10. Employment Status

Employment Status	West Pikeland Township		Chester County		Pennsylvania	
	2000 Census	% of Total	2000 Census	% of Total	2000 Census	% of Total
Population 16 years and over	2,576	100.00%	332,513	100.00%	9,693,040	100.00%
Not in labor force	693	26.90%	102,882	30.94%	3,692,528	38.09%
In labor force	1,883	73.10%	229,631	69.06%	6,000,512	61.91%
Armed forces	0	0.00%	162	0.05%	7,626	0.08%
Civilian labor force	1,883	73.10%	229,469	69.01%	5,992,886	61.83%
Employed	1,846	71.66%	221,255	66.54%	5,653,500	58.33%
Unemployed	37	1.44%	8,214	2.47%	339,386	3.50%

Source: U.S. Census Bureau, 2000

Occupation

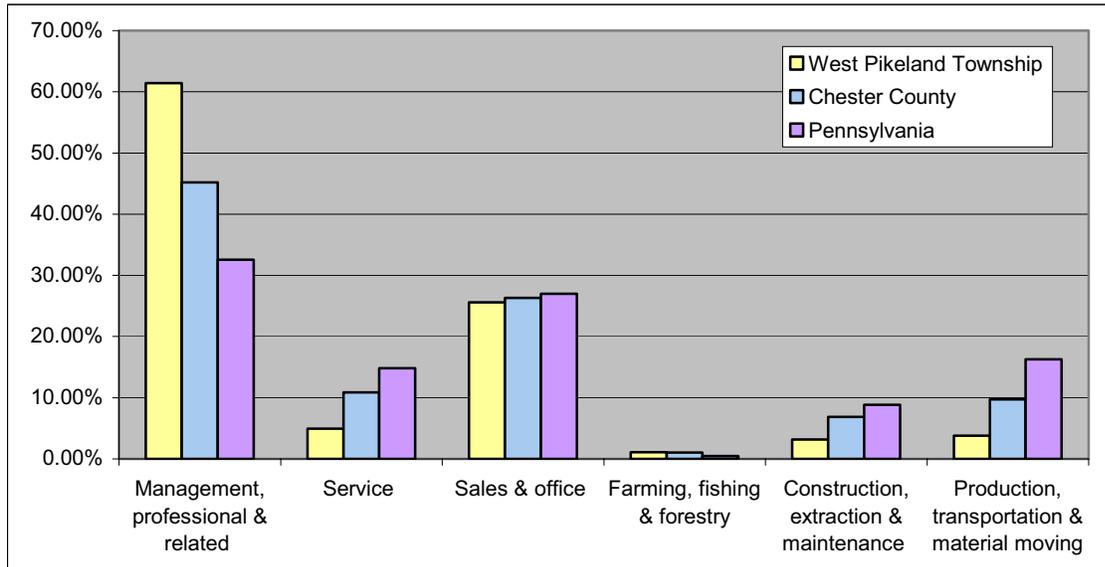
Occupation is surveyed from among the population 16 years and over in the civilian labor force (Table 2.11). West Pikeland Township's labor force is largely concentrated in "management, professional and related" occupations, with 61% of workers in these occupations. At 26%, the second leading occupation is "sales and office." Occupations are consistent with the levels of educational attainment in West Pikeland Township indicating that the population is suitably employed (as opposed to under-employed). The leading industries for employment are "education, health, and social services" (20%); "manufacturing" (18%); "finance, insurance, and real estate" (13%); "professional, scientific, management, administrative, waste management" (13%); and "retail trade" (11%).

Table 2.11. Occupation

Occupation	West Pikeland Township		Chester County		Pennsylvania	
	2000 Census	% of Total	2000 Census	% of Total	2000 Census	% of Total
Employed civilian population 16 years and over	1,846	100.00%	221,255	100.00%	5,653,500	100.00%
Management, professional & related	1,134	61.43%	99,985	45.19%	1,841,175	32.57%
Service	91	4.93%	24,066	10.88%	838,137	14.83%
Sales & office	472	25.57%	58,170	26.29%	1,525,131	26.98%
Farming, fishing & forestry	20	1.08%	2,267	1.02%	26,722	0.47%
Construction, extraction & maintenance	59	3.20%	15,208	6.87%	500,898	8.86%
Production, transportation & material moving	70	3.79%	21,559	9.74%	921,437	16.30%

Source: U.S. Census Bureau, 2000

Figure 2.11. Occupation



Source: U.S. Census Bureau, 2000

Chapter 3 Natural Resource Protection Plan

INTRODUCTION

Overview



Located in the Schuylkill River watershed in Pennsylvania's Piedmont, West Pikeland Township is known throughout the area for its scenic landscape and distinctive natural and historic features. This landscape gives West Pikeland Township its definitive character and has been an integral part of its unique history, attracting visitors and residents to the area since before the American Revolution. Residents of West Pikeland Township and surrounding areas have enjoyed an abundance of natural resources that have provided an exceptional quality of life, and the protection of natural resources is among the primary desires expressed by township residents in surveys and at the Comprehensive Plan goals workshop. As the area continues to grow, it is incumbent upon the township to preserve the health, safety, and welfare of its residents, as well as the identity and heritage of the community, by committing to natural resource protection.

- Preserve rural character and viewsheds that are the foundation for the distinctive Northern Chester County cultural and artistic heritage.
- Recognize the essential role of clean and picturesque streams in determining Township history and culture and regulate accordingly.
- Preserve the bucolic, natural setting, and “landscape context” for historic Yellow Springs.

EXISTING CONDITIONS

Overview

This discussion provides an inventory of the township’s natural features, issues related to their current state, and protections afforded by township and other regulatory agencies. The inventory includes physiography, topography, and geology; soils; forest and vegetative cover; watersheds and streams; wetlands; floodplains; and critical habitat. The assessment of existing conditions forms the basis of future planning policy recommendations and implementation strategies.

Geology/Groundwater

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



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

The geology of West Pikeland consists mostly of hybrid granitic gneisses, with graphitic gneisses found in the northern regions and granodiorite found in the south and southeastern regions. Hybrid granitic gneisses are metamorphic rocks that originally were both sedimentary and igneous. They tend to be quite hard, weathering to a moderate depth. Depending on local conditions, the elevations formed by the weathering of these rocks tend to be higher, with low valleys and steep stream banks. Because of their hardness, these formations are considered excellent foundations. However, because they are hard and

dense, they tend to have fewer fractures to hold groundwater and are consequently poor water sources.

Pickering gneiss, a specific type of graphitic gneiss found near the Pickering Creek, differs slightly from the general description in that it has a higher presence of graphite and tends to hold a somewhat larger supply of groundwater. This formation also engendered a graphite mining industry in and around the township in the years after the Civil War, the evidence of which is still present.

In general, the groundwater capabilities of West Pikeland's geology ranges from a low (1-10) gallons per minute to moderate (10-60) gallons per minute. It should be noted that wells drilled within relatively close proximity to one another have been found to produce dramatically different results. The groundwater seems to sufficiently support low-density development. However, increasing the number of wells in any one location could reduce the potable water supply for a larger area. An evaluation of the groundwater supply should accompany all new development proposals located outside of the public water service area to ensure that the existing wells will not be adversely affected.

Aging and inadequate wastewater disposal and stormwater management systems may place the township's aquifers and surface waters at risk of contamination. Enhanced measures are needed to promote groundwater recharge, address potential sources of contamination, and ensure safe and adequate water supply for township residents.

Topography

West Pikeland's topography is typical of the Piedmont physiographic province. The Pickering gneiss found in the northern quadrants of the Township forms hills with low to medium relief and gently rolling but stable slopes. The granodiorite underlying the southern regions is more highly resistant with only slight weathering and to shallower depths. Streams have cut deeper forming narrow stream valleys. The hills tend to be of a medium relief with steep, but stable slopes. Elevations range from over 580 feet near Yellow Springs and the West Vincent Township border to less than 230 feet where Pickering Creek and Pigeon Run exit the Township into East Pikeland. Steep slopes are a particular environmental concern because inappropriate development and disturbance in these locations can result in uncontrolled storm water runoff and severe erosion. The areas of steep slopes are delineated on Appendix A-1.

Disturbance of steep slopes and vegetation alters topography and drainage, contributes to slope instability and erosion, and diminishes the quality of groundwater supplies and surface water. It is important that natural vegetative cover be retained on steep slopes and adjacent to streams and wetlands.

Soils

The weathering of the underlying rock forms soil as other natural processes have affected it. The characteristics of a given soil are the result of the physical and mineralogical composition of the parent materials, the climate under which the parent material formed and exists, plant and animal life in and on the soil, relief of the land and the length of time these forces have acted on the parent material. Soil in turn influences local vegetative cover, hydrology, and land use patterns and activities.

For planning purposes, soils are analyzed in terms of suitability for development, cultivation, and groundwater recharge. Data provided by the USDA Natural Resource Conservation Service, Soil Survey Geographic Database (SSURGO) for Chester County, 2007 are used for this analysis. The main soil association present in West Pikeland is the Glenelg-Manor-Chester association, which is the largest association in the County and is found in all regions.

- Hydric soils and soils with drainage limitations are found throughout the township in low-lying areas, along watercourses, or where a “perched” water table lies above bedrock or a clay soil horizon (Appendix A-1). Hydric soils are soils that formed under conditions of saturation, flooding or ponding long enough during the growing season to develop anaerobic conditions in the upper part. These soils are often indicative of a wetland. Soils with drainage limitations are those classified by USDA as very poorly drained, poorly drained, and somewhat poorly drained.

Hydric soils and soils with drainage limitations are unsuitable for development due to the risk of damage to structures caused by seepage of water and generally wet conditions. They frequently have poor stability and therefore cannot adequately support structures. These soils also serve as important groundwater recharge areas and should be left undisturbed.

Hydric soils and soils with drainage limitations include the Cokesbury, Hatboro, and Towhee series found in low-lying areas throughout the township. Glenville soils also present significant limitations, due to extended seasonal periods of shallow groundwater.

- The township has significant areas of soils that are suitable for cultivation, including classes I, II, and III agricultural soils. Soils in classes I and II are considered prime agricultural soils and include soils within the Califon, Codura, Edgemont, Glenstone, Glenelg, Mount Lucas, Neshaminy, Parker, and Penn Series. For agriculture to have a viable future in the township, the prime agricultural soils must be kept free from development and managed with sustainable practices.

Problems associated with soil erosion and sedimentation are exacerbated by development of steep slopes and removal of vegetative cover. Retaining or establishing forest cover on the steepest slopes will reduce erosion and promote stormwater infiltration. Agricultural practices such as no till, crop rotation, contour cultivation, and pasture management should be used to retain the productivity of agricultural soils. Development should be directed away from soils with limitations to structures and septic systems and coordinated with open space to retain soils necessary to functioning habitat areas and viable agriculture.

Forests & Vegetative Cover Forest and vegetative cover is important for several reasons: it provides habitat; it contributes to clean air and clean water; it regulates climate;

and it stabilizes soils and steep slopes preventing erosion. Large, contiguous areas of forest and vegetative cover are desirable as they provide habitat for interior forest species and establish migration corridors for wildlife. Fragmentation of forests and vegetation leaves small, isolated habitats that cannot sustain wildlife communities and ecosystem health.

The Chester County Natural Areas Inventory (1994) describes the entire County as located in the Piedmont Section of the original Oak-Chestnut Forest Region, which was once dominated by the American Chestnut. Most of the forests have been cleared and with the effective loss of Chestnut to blight, the new growth is now comprised of Red, White, and Black Oak, often mixed with other species including Tulip Poplar, Red Maple, Ash, and Beech. Most of the township's remaining forested areas are located on steep slopes, and in floodplains and wetlands. Forests located on moderately rolling uplands in prime soils were usually cleared for agricultural purposes. The forests now present are relatively new, having grown only since the mid to the late nineteenth century when wood was no longer a primary fuel source. Some of the largest contiguous forested areas are located adjacent to the Pickering and the Pine Creeks.



Woodlands and forests are renewable resources that should be carefully managed in order to support growth and re-growth of native species. Information on woodland and forest management can be obtained through the Pennsylvania Department of Conservation and Natural Resources, Bureau of Forests.

Although many cultivated areas in West Pikeland have been lost to new construction, some still remain. Horse farms and small cattle operations still occupy considerable acreage in the township, where the land is well suited to raising livestock. Pastures play an environmental role in providing habitat and moderating the negative impacts of adjacent development in terms of storm water runoff and groundwater recharge. Many large tracts of previously cultivated areas have been left fallow and natural communities are now beginning to evolve. Hedgerows, or linear stretches of small trees, shrubs and related plant materials, are also common features of these large tracts. Pastures provide habitat for many animal species, adding to the natural diversity of the region.

The Township has a Forest Stewardship Plan to guide the management and protection of woodlands and natural ecosystems on municipally owned properties.

As development pressures change landscapes from rural to suburban, natural diversity is sacrificed and the ecological balance is threatened. The township should encourage land use patterns that promote the preservation and regeneration of forests, particularly on environmentally sensitive lands. In addition, policies to retain the economical and practical viability of agriculture should be pursued.

Wetlands

Wetlands are defined by the Pennsylvania DEP (25 PA Code, Chapter 105) as: "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." Wetlands contain

three main components: (1) water at or near the surface for significant parts of the year, (2) hydric soils, and (3) wetland indicator vegetation such as cattails and skunk cabbage. In addition to providing habitat, wetlands serve as important groundwater recharge areas.

Wetland data are limited to that provided by the National Wetlands Inventory and the USGS. These sources identify only the largest wetland areas (Appendix A-1).

Numerous smaller wetlands that are not captured by the NWI or USGS mapping exist throughout the township. Many of these are associated with hydric and shallow groundwater soils. Their identification would require a detailed field survey.

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

Wetlands receive protection under the federal Clean Water Act, which regulates the discharge of dredged and fill material into waters, including wetlands. Activities that are regulated include fill for development, water resource projects (such as dams and levees), infrastructure development (such as highways), and conversion of wetlands to uplands for farming and forestry. Any proposed activity within a wetland must receive a permit from the U.S. Army Corp of Engineers.

The basic premise of the federal wetlands protection program is that no discharge or dredged or fill material can be permitted if a practicable alternative exists that is less damaging to the aquatic environment or if the waters would be significantly degraded. A permit applicant must demonstrate that he has taken steps to avoid wetland impacts where practicable, minimized potential impacts to wetlands, and provided mitigation for any remaining unavoidable impacts through activities to restore or create wetlands (Source: US Environmental Protection Agency, Wetland Regulatory Requirements).

Township ordinances currently provide buffer protection for wetlands beyond that afforded by federal and state regulation. Due to risk of contamination from stormwater runoff and other development related impacts, the ordinances should be updated to augment buffer protection.

Floodplains

Floodplains are formed by the shifting of streams as they meander through valleys. The shifting of a stream produces an increasingly broad, flat valley floor covered by alluvial soils deposited by the stream. The stream usually occupies only a small portion of the flat valley floor;

however, during periods of flood, the entire floor may be inundated, thus the term floodplain. Floodplains are important for controlling floodwaters and accommodating the natural shifting of watercourses.

The Federal Emergency Management Administration (FEMA) encourages municipalities to regulate development in floodplains in order to reduce or prevent potential damage to private property and to not disrupt the natural functions of floodplains. The National Flood Insurance Program, administered by FEMA, serves as the incentive for these types of regulatory measures since municipalities must adopt such regulations in order for residents to participate in the insurance program. The standard established by FEMA to measure floods and flood potential is the 100-year flood. This translates to a one percent chance of a flood reaching a particular elevation in any given year. Floodplain maps prepared by FEMA are used to administer the national flood insurance program and to delineate floodways and floodplain elevations.

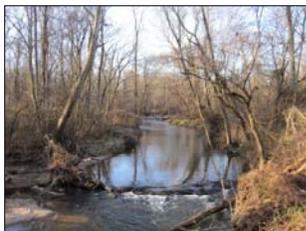
Both the Pine and the Pickering have extensive floodplains associated with their corridors. The Pigeon Run, which parallels the boundary within Charlestown Township, crosses into West Pikeland for a short distance, and the floodplain of the Pigeon Run extends well into West Pikeland Township.

Construction and development in the 100-year floodplain is currently regulated by township ordinance. These regulations apply only to the 100-year floodplain identified on the Flood Insurance Rate Maps or where revision to the floodplain is warranted by a flood study and approved by the Federal Insurance Administration.

Watersheds & Streams

A watershed (or drainage basin) is an area of land that contributes overland flow and groundwater to a common stream or water body. It includes the land across its surface, the streams that drain the land, and the underlying soils, geology and groundwater. Watersheds are defined by drainage divides (ridgelines), which direct surface and groundwater down the valley and into the stream channel or water body. Ridgelines separate adjacent watersheds.

Watersheds function as a series of natural processes related to the hydrologic cycle. In general, when rainfall reaches the land, it either evaporates, runs downward across the surface (surface runoff) into a stream or water body, or infiltrates through the soil, migrating under the surface as groundwater.



Groundwater may be stored in an aquifer, eventually reaching the surface again through a seep or spring. Thus, the protection of unconfined (surface) aquifers is essential to maintain the base flow volume and water quality in streams.

Watershed form and function is dependent upon geology, topography, soils and vegetative cover. These features influence surface runoff, flow, and accumulation; water quality; and the health of aquatic habitat. The important contributing components of a watershed are groundwater recharge areas, stream base flows, tributary streams (especially first order streams), stream channels, floodplains, and riparian and aquatic habitats. Each is critical to ensuring the proper function of the watershed and the hydrologic cycle.

Watersheds are organized in a hierarchy whereby the drainage basin of a principal stream encompasses the smaller drainage areas of its tributary streams. The terms frequently used to describe this hierarchy are as follows from the largest unit to the smallest: drainage basin, watershed, sub-basin, and first order stream drainage area.

Stream size, flow and water quality are directly related to the watershed's natural features (soils, vegetation, etc.) and land use. These factors influence the flow and accumulation of stormwater runoff, as well as infiltration, groundwater storage and seepage, and filtration of pollutants. The quality and function of stream systems, therefore, depend on the health of these other natural inputs.

Stream size is categorized according to stream order. First order streams are the uppermost perennial tributaries in the watershed and have not yet intersected another perennial stream. When two first order streams intersect, they form a second order stream; when two second order streams intersect, they form a third order stream, and so on. The quality and health of first order and headwater streams is extremely important in that they impact all subsequent streams in the hierarchy. For example, if a pollutant is introduced to a first order stream, it has the potential to flow into the downstream channels polluting those streams as well. Thus, protection of headwater streams is important to the health of the entire watershed.

The federal Clean Water Act establishes regulations that prohibit the degradation of streams and water quality. In accordance with these regulations, the Commonwealth of Pennsylvania has instituted a classification system that designates certain streams as Exceptional Value or High Quality. Exceptional Value (EV) streams are those that constitute an outstanding national, state, regional or local resource. These streams are granted special protection from potentially harmful activities. High Quality (HQ) streams are those that have excellent quality waters and environmental or other features that require special protection.

Special protection (i.e. protection beyond basic standards) is afforded to EV and HQ streams under the state's Anti-degradation policy. This policy protects and maintains the existing water quality of EV and HQ streams, and protects existing in-stream water uses and water quality necessary to maintain those uses for all surface waters. It pertains specifically to point and non-point source discharges, and requires the use of cost effective and environmentally sound non-discharge alternatives. In cases where non-discharge alternatives are not feasible, there must be evidence that the discharge will not degrade existing water quality or use, or it must be demonstrated that the discharge method is socially or economically necessary. However, all discharge methods must use the best available combination of cost-effective treatment, land disposal, pollution prevention and wastewater reuse technologies (Anti-degradation Best Available Combination of Technologies) (Source: PA Title 25, Chapter 93, Water Quality Standards).

In addition to stream quality designations, the state administers the Pennsylvania Scenic Rivers System. This program classifies rivers meeting certain criteria as scenic, wild, pastoral or recreational. A Scenic

River is defined as a river that is “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 predominantly wild, but may reveal some pastoral countryside. The segment may be intermittently accessible by road.” (Source: Pennsylvania Scenic Rivers Act)

West Pikeland Township lies completely within the Delaware River Basin, and the Schuylkill sub-basin. The major stream of this sub-basin draining West Pikeland is the Pickering Creek, with named tributaries including Pine Creek and Pigeon Run. The main branch of the Pickering Creek enters the Township just south of the Twin Hills development. Several smaller creeks drain mainly the west and a north quadrant of the Township and merge into the Pickering as it traverses the Township. The Pine Creek enters the Township near the southern tip and merges with a smaller tributary north of the Township boundary near Lower Pine Creek Road. Another tributary of the Pine Creek enters the Township from the west. The confluence of the Pickering and Pine Creeks is located in the vicinity of Chester Springs. The Pickering exits the Township and passes through East Pikeland and Charlestown Townships before emptying to the Pickering Creek Reservoir and the Schuylkill River just south of Phoenixville. Pigeon Run flows along the township’s southeast border with Charlestown, flowing eastward to its confluence with the Pickering Creek in East Pikeland Township.

The entirety of West Pikeland is within designated High Quality (HQ) watersheds, and the Pigeon Run wetlands are identified in Chester County’s Landscapes as a Natural Area of Local Significance. The Green Valleys Association submitted a petition requesting that Pickering Creek be re-designated from High Quality–Trout Stocking to Exceptional Value, and the Township is in support of this application. PA DEP has completed fieldwork and information gathering. Concurrent with the DEP review, the petitioners began providing additional information such as land use, management plans, local ordinances, and easements for DEP consideration in hopes of satisfying the EV qualifying criteria. This additional information is being reviewed, and a draft report and recommendations are in progress, which is hoped will be ready for public review and comment in the summer of 2010.

West Pikeland Township’s watersheds have the most potential risk from intensive development, malfunctioning wastewater systems, and inadequate stormwater control. Neglected septic systems cause risk of contamination of surface and groundwater sources. Excessive stormwater runoff introduces pollutants into the stream system, increases peak flows, increases downstream flooding, and damages stream banks. Existing township ordinances can be strengthened to promote watershed and stream protection.

Ponds

Ponds are the small bodies of open water found throughout the Township. Many are quite shallow and no more that a few acres in size. They often form when naturally occurring depressions fill with water or are continually fed by springs. They can, however, be man-made and created to support livestock or to help manage stormwater runoff. In West Pikeland, some ponds are man-made and were constructed to support agricultural operations while others help manage stormwater and provide a water source for wildlife. The mining activity once prevalent in the Township led to larger ponds. The mine pits and depressions filled

with water once the mining operations ceased and the resulting ponds have become permanent landscape features.

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

Sensitive Natural Areas

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

Although many sensitive natural communities are located in proximity to Township boundaries, only the Pigeon Run Wetland is physically located within the Township. This area is defined as a locally significant wetland complex located on the floodplain of Pigeon Run. It is forested with Red Maple, White Ash, Pin Oak, and American Elm. The shrub layer and understory is diverse and although no rare species have yet been identified at this location, the potential exists. Maintenance of the forest cover is necessary to preserve the site and to encourage propagation of native species. Any development proposed in proximity to the wetland should include mitigation measures designed to reduce potentially damaging impacts.

Riparian/Wetland Buffers

Natural buffer areas are important to maintain ecological function of streams and wetlands. Many municipalities in Pennsylvania have adopted a standard prohibiting any disturbance within 100 feet of a riparian or wetland area. Especially in woodland environments, this type of buffer provides viable habitat accommodation; efficient removal of pollutants, sediments and nutrients from stormwater runoff; and effective thermal protection of streams and wetlands.

The Chesapeake Bay Riparian Handbook cites a 100 foot width as the minimum buffer to accommodate all environmental protection functions, including bank stabilization, thermal protection, nitrogen and sediment removal, flood mitigation, and wildlife habitat. Below 50 feet width, pollutant removal, flood mitigation, and habitat protection benefits are severely compromised, and at 25 feet or less the buffer is only effective for bank stabilization and thermal protection.

PA DEP recommends riparian buffers of 150 feet minimum width, and has an assumed 50-foot floodplain along streams. Effective November 19, 2010, 150 foot wide buffers are among several BMP options for stormwater management in association with NPDES permitting.

The Chester County Planning Commission's Landscapes manual for water resources describes wetland and riparian buffers that allow greater amounts of disturbance activity at greater distances from the protected resource. Under this scenario, West Pikeland Township could adopt buffers of no disturbance within 50 feet of a wetland or stream, and buffers that allow grading and clearing but no structures within the area 50-100 feet from the resource. A 100 foot staged buffer would retain most of the desired environmental benefits, although pollutant removal, flood mitigation, and habitat protection would be compromised.

FUTURE PLANNING POLICIES & RECOMMENDATIONS

Overview

The following future planning policies and recommendations are measures intended to achieve the township's natural resource protection goals. These policy recommendations will guide future decisions and actions related to natural resource protection (Appendix A-1).

Topography & Geology

Preservation of topographic and geologic features is important for maintaining natural drainage patterns, slope stability, erosion control, and surface and groundwater quality. The following policy recommendations are intended to promote the protection of these features:

- Limit soil removal, grading, and fill.
- Strictly limit disturbance (tree and vegetation removal, soil removal, grading) of steep and very steep slopes.
- Exclude 50% of steep slope (slopes 15%-25%) areas from lot area determination.
- Establish design and performance criteria for buildings or structures on steep slopes.
- Preserve rock outcrops and unique geologic features.

Soils



Soils play an important role in the hydrological cycle, allowing infiltration of stormwater and recharge of groundwater sources. They are also important determinants of vegetation type and cover. Soils can also inhibit development—due to their wet conditions, hydric and soils with drainage limitations are not suitable for development. Policy recommendations aimed at preserving soils and promoting sound development are as follows:

- Strictly limit soil removal, especially on steep and very steep slopes.
- Prohibit building on hydric soils and soils with drainage limitations.
- Exclude 100% of hydric soils from lot area determination.
- Exclude 50% of non-hydric soils with drainage limitations from lot area determination.

- Change the designation of prime agricultural soil to classes from classes I, II, and III to classes I and II only, consistent with Landscapes.

Forest & Vegetation

Because of the value of forests and vegetative cover in climate, air quality, habitat, nutrient cycle, and hydrological functions, the following policies are recommended:

- Protect dense and mature forested areas especially on steep and very steep slopes, along stream courses and wetlands, and in headwater (first order) drainage areas.
- Protect the diversity of vegetative cover and native plant communities.
- Promote the establishment of large contiguous areas of permanently protected forests including, but not limited to, greenway areas identified on the Park, Recreation & Open Space Plan (Appendix A-12) and areas containing natural and scenic resources.
- Strictly limit disturbance and removal of forests and vegetation and require replacement mitigation for woodland disturbance.

Specifically, reduce the maximum woodland clearing allowance without replacement plantings from 15,000 square feet to 10,000 square feet. Further, any tree clearing without replacements should be allowed only when there is no alternative.

- Encourage the use of native species and prohibit the use of invasive plants.
- Pursue a forest pest management program.

Wetlands

Wetlands provide unique habitat and serve as important groundwater recharge areas, filtering water before it enters an aquifer. Wetland buffer areas are necessary to ensure proper filtration of runoff prior to its entry into the wetland system. Buffers also diminish the opportunity for degradation of the wetland itself, and provide edge habitat for transitional wetland species. The following policies for wetland protection are recommended:

- Prohibit disturbance of wetlands and within a 50-foot wetland buffer area, and permit no structures and a maximum 20% disturbance within the area 50-100 feet from a wetland.

In order to protect property owners with existing improvements within buffers, the Township could grant exceptions for reasonable expansions of such features. A suggested allowance would be no greater than 150% of the existing buffer encroachment, and only when the property owner demonstrates to the Township's satisfaction that there is no feasible alternative.

In addition, the Township could reduce yard setback requirements on existing properties impacted by buffers, in order to accommodate construction outside of the buffer areas. Such reductions should

apply only to existing uses on existing lots at the time of ordinance adoption and should not apply to subdivisions.

Exceptions could also be considered for certain agricultural practices.

The Township may also consider buffer exemptions for wetlands created by artificial drainage swales, unless such wetlands are deliberately created for mitigation.

- Exclude 50% of wetland buffer area from lot area determination.
- Obtain detailed wetland data that identifies wetlands that are not captured by the NWI. Wetland protection measures would apply to these wetlands as well as the NWI wetlands.

Floodplains

Floodplains are important for their natural functions and the hazards associated with them. They play an important role in flood flow conveyance, stream channel formation and water filtration. Building within floodplain areas upsets flood conveyance and increases risks to human life and property. Because of their natural functions and potential hazards, this plan recommends strict limitations on development activities within 100-year floodplains, as follows (policies and regulations would apply to the FEMA 100-year floodplain or, if available, 100-year floodplains delineated by a detailed flood study approved by the Federal Insurance Administration):

- Permit only agricultural use and passive recreational use in the 100-year floodplain and ensure that floodplain disturbance associated with these uses is minimized.
- Permit installation of utilities and public infrastructure (i.e roads, stormwater management facilities) only if no feasible alternative location exists and only if Best Management Practices are employed to achieve minimal floodplain disturbance.
- Prohibit impervious cover (i.e. paved areas and surfaces that do not allow for infiltration of water) within the 100-year floodplain.

Watersheds & Streams



Protection of watersheds is imperative for ensuring a safe and sufficient water supply and maintaining water quality. This is particularly true of first order drainage areas and the township's High Quality streams. These streams rely upon certain water quality levels and stream flows. They must be protected from pollutants, high sediment loads, stormwater runoff, and diminished base flows. The state Anti-degradation policy is intended to protect surface water bodies by requiring non-discharge alternatives and the use of Anti-degradation Best Available Combination of Technologies. Local policies that protect individual natural features, including steep slopes, soils, forests and vegetation, wetlands, and floodplains, also advance the health of the township's watersheds and streams, and more specifically, support the state's anti-degradation policies. In addition to policy recommendations related to the protection of these individual features, the following are suggested:

- Support the petition to PA DEP to designate the Pickering Creek and tributaries as an Exceptional Value (EV) watershed.

- Increase the no disturbance buffer along streams and surface water bodies from 25 feet to 50 feet, and allow no structures and a maximum 20% disturbance within the area 50-100 feet from a stream or surface water body.

In order to protect property owners with existing improvements within buffers, the Township could grant exceptions for reasonable expansions of such features. A suggested allowance would be no greater than 150% of the existing buffer encroachment, and only when the property owner demonstrates to the Township's satisfaction that there is no feasible alternative.

In addition, the Township could reduce yard setback requirements on existing properties impacted by buffers, in order to accommodate construction outside of the buffer areas. Such reductions should apply only to existing uses on existing lots at the time of ordinance adoption and should not apply to subdivisions.

Exceptions could also be considered for certain agricultural practices.

- Exclude 50% of the riparian buffer (outside of the FEMA 100-year floodplain) from lot area determination.
- Limit the extent of impervious cover and promote the use of pervious materials throughout the township.
- Comply with the most recent stormwater management rules and regulations promulgated by state and/or federal statute.
- Be a leader in promoting innovative and comprehensive stormwater management that incorporates alternative systems and methods, including Best Management Practices (BMPs), stormwater recharge techniques, and control of non-point source pollution.
- Integrate utilities and development planning: Water supply and wastewater systems are an important part of watershed planning, affecting water balances and overall watershed health. A coordinated growth pattern, where development is directed to areas that have existing sewer and water infrastructure, or are programmed to have such infrastructure, will help to safeguard water supply and quality.
- Conduct aquifer studies to determine water quality and availability of potable water.

Habitat

Protection of habitat is accomplished by maintaining and promoting the health and diversity of natural areas as follows:

- Protect critical habitat areas through protection of topography and geology, soils, forest and vegetative cover, wetlands, floodplains, watersheds and streams.
- Protect as open space those properties that contain sites identified in the Pennsylvania Natural Diversity Inventory (PNDI).

- The Pigeon Run wetlands are identified in Chester County's Landscapes as a Natural Area of Local Significance. The buffer and watershed protection measures advocated in this plan should be implemented to preserve this valuable resource.
- Establish a networked system of large contiguous areas of open space.
- Establish a network of riparian corridors and greenways.

Viewsheds

Prominent ridgelines help to define the picturesque and pastoral landscape of West Pikeland. The zoning ordinance requires buildings to be sited entirely below the elevation of any adjacent ridgeline. The Township should continue to protect its critical viewshed resources.

IMPLEMENTATION STRATEGIES**Overview**

Implementation strategies are the specific means by which the township can execute the future planning policy recommendations. They take the form of regulatory provisions included in the zoning, subdivision and land development ordinance, and other ordinances, as well as non-regulatory initiatives. The following implementation strategies are organized according to zoning ordinance amendments, subdivision and land development ordinance amendments, and additional measures.

Zoning Ordinance

Zoning Ordinance amendments intended to implement the Natural Resource Protection Plan are as follows:

- Modify the natural resources protection ordinance to include:
 - Limits on grading, fill and soil removal.
 - Tighter limits of disturbance of steep and very steep slopes.
 - Prohibition of building and earth disturbance on hydric soils and soils with drainage limitations.
 - Improved riparian and wetland buffer regulations.
- Strengthen the floodplain ordinance to prohibit the use of impervious surfaces in the floodplain and further limit construction activities in the floodplain.
- Amend the Lot Area definition to include:
 - Exclusion of 100% of the area in surface water bodies and hydric soils.
 - Exclusion of 50% of the area in steep slopes, soils with drainage limitations, riparian buffers, and wetland buffers.

SLDO

Subdivision & Land Development Ordinance amendments intended to implement the Natural Resource Protection Plan are as follows:

- Require large developments to conduct aquifer studies for water quality and water supply.
- Ensure that design standards maximize environmental protection.
- Prohibit the introduction of invasive species.
- Strengthen the provisions for replacement plantings for woodland clearing.

Additional Measures

Additional measures intended to implement the Natural Resource Protection Plan are as follows:

- Monitor flood elevations to evaluate whether the 2005 FEMA mapping remains accurate in the face of ongoing development in the watershed.
- Review the Stormwater Management Ordinance to maximize the benefits of Best Management Practices.
- Complete the update of the Act 537 Sewage Facilities Plan and support regular and expeditious updates consistent with the County's Landscapes 2 plan.
- The Township Land Trust should continue its work with landowners, conservation organizations and land trusts, and state and county representatives to promote natural resource protection and land preservation among landowners.
- Consider the use of the Open Space Lands Act and other legislation that enables the protection of natural resources.
- Consider an Official Map to designate areas for future public open space and recreation.

Chapter 4 Historic Resource Protection Plan

INTRODUCTION

Overview

The aim of historic resource protection is to retain the identity of the Township as reflected in its natural and built environment. It ensures that the Township's heritage and unique character are preserved for future generations. Historic resources provide a sense of place that fosters a connection to the community, a sense of pride among its residents, and contribute to the community's quality of life. They also provide an awareness of the community's roots and traditions, and are a valuable educational tool.



Many locally and regionally significant historic resources remain in West Pikeland Township. Their preservation is due to the efforts of concerned individuals and organizations, and to the fact that much of the Township's land remains undeveloped. However, with increasing development pressure, history structures and sites may be sacrificed or altered to the point that their historic value is lost. Continuing preservation efforts are necessary in order to maintain the Township's and the region's heritage, identity, and quality of life.

Township History



The following is excerpted from the Pennsylvania Historical and Museum Commission and the 1999 West Pikeland Township Comprehensive Plan.

The Delaware Valley contains evidence of a rich and unique history. Archaeological investigations in the region have uncovered artifacts supporting human occupation of the region as far back as 16,000 years ago (the Paleoindian Period). These are some of the earliest known inhabitants of the North American continent. Native inhabitants subsisted in the Delaware Valley until the mid 1700s when the Lenni Lenape tribe were forced to move to western Pennsylvania, then eventually to Indiana, as a result of William Penn's land purchases.

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

Following settlement, much of the land was cleared for crops and livestock. Agriculture became the dominant industry and gristmills were constructed along the streams to process the grain. One of the most important of these local mills still stands at Anselma. It was built in 1747 and was the first gristmill on Pickering Creek. As the area grew so did the need for roads to accommodate travelers and transport crops. The first roads were actually Indian trails that mainly followed streams. One of the most developed of the Indian trails was Route 401, which was originally called the Allegheny Path and then the Conestoga Turnpike. It linked Philadelphia and Carlisle, a community just west of Harrisburg. Route 113, the other major route through the Township, was built by settlers to accommodate travel between the communities now known as Phoenixville and Lionville. Horseshoe Trail was another historic route previously called the Nantmeal Road. It linked Philadelphia and the Warwick furnace.

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

A newspaper was even started in the area in 1829 but was relocated to West Chester combining with an existing newspaper.

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

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



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

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

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

Commercial and industrial activity declined in the twentieth century and mining ceased along with the operation of the rail line. The strong agricultural tradition continued, however, and West Pikeland still is recognized for its contribution to regional agriculture. It is known as the

place where the nation's first commercial hay bailer was used. Farming takes place on a much smaller scale now. Fortunately, many of the early farmsteads with their stone houses, bank barns, springhouses, and outbuildings are still intact. Over the past three decades, many new residents have been enticed to the area by its scenic landscape and strong rural character.

The following organizations have taken leading roles in protecting and preserving West Pikeland's historic resources:

- The non-profit French and Pickering Creeks Conservation Trust was formed in 1967 to preserve historic resources and open space in the watersheds of the French and Pickering Creeks.
- Historic Yellow Springs, Inc. is a site-oriented non-profit organization, dedicated to preserving the architectural and historical heritage of the Yellow Springs area, which was listed in the National Register in 1971.
- The Township Board of Supervisors enacted a historic district ordinance (under the authority of Act 167) establishing the Chester Springs Historic District in July, 1973. The ordinance is currently incorporated into the Zoning Ordinance as Article VII and requires that the HARB advise the Supervisors about the appropriateness of any changes (including erection, reconstruction, alteration, restoration, demolition, or razing) to all land, buildings, and structures within the boundaries of the Yellow Springs Historic District and the Anselma Mill Historic District.

GOALS & OBJECTIVES

Goals and objectives aimed at the protection of historic resources are as follows:

Goal #1

Preserve the historic integrity of the Township

- Consider expansion of Township historic zoning districts.
- Review the existing historic protection regulations for adequacy.
- Respect the evolution of different periods in historic protection ordinances.
- Promote open space, farming, equestrian use, and recreation as critical elements of the Township's enduring cultural history.

Goal #2

Protect historic villages

- Allow mixed uses consistent with historic context to promote viability.

Goal #3

Protect historic sites and buildings

- For adaptive reuse, consider exemptions from some ordinance requirements.
- Promote density and use incentives to preserve historic resources.

Goal #4

Retain the historic visual quality of roads

- Consider scenic road designation with protection standards for highest value landscapes.
- Ensure that road improvements are sensitive to the Township's rural character.

EXISTING CONDITIONS

Overview

West Pikeland Township is widely known for its scenic landscape and important historic resources. Its historic buildings and districts have local, regional, and even national significance. Along with these are historic farmsteads and landscapes that have remained virtually unchanged for years and are intrinsic to the region's history. The Township is fortunate to have an active historical commission, Historic Yellow Springs, the Mill at Anselma, and other active organizations and individuals working to preserve its heritage. The Township has also been spared the intense development that has occurred in neighboring municipalities.

Historic resources are categorized as National Register Listed, National Register Eligible, Certified Historic Districts, Historic Resources of Local Significance, and Archaeological Sites.

National Register of Historic Places



The National Register of Historic Places was established by the National Historic Preservation Act of 1966. In Pennsylvania, the program is managed by the state's Bureau for Historic Preservation, a department within the Pennsylvania Historical & Museum Commission (PHMC). Properties listed on the National Register include districts, sites, buildings, structures, and objects that are significant in American history, architecture, archeology, engineering, and culture. National Register resources are evaluated and selected according to uniform criteria. The program is designed to assist state and local governments, federal agencies, and others identify significant historic and archeological properties worthy of preservation and of consideration in planning and development decisions. Listing on the National Register does not interfere with a private property owner's right to alter, manage or dispose of property. However, it often changes the way communities perceive their historic resources and gives credibility to efforts to preserve these resources as irreplaceable parts of our communities. In addition to the recognition of historical significance, the benefits of being listed on the National Register include eligibility for tax incentives for income producing properties, and grant funding for planning and rehabilitation of buildings owned by non-profit organizations and local governments¹.

The PHMC's Bureau for Historic Preservation provides services to assist in the National Register process, including technical assistance to

¹ Source: Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

preparers of National Register nominations, guidance on conducting architectural and historic surveys, evaluation of National Register eligibility, and nomination of properties to the National Register of Historic Places. The State Historic Preservation Board reviews all nominations. If approved, the nomination is then sent to the National Park Service, which either approves or denies the nomination. If approved, it is entered into the National Register of Historic Places.

Properties listed on the National Register of Historic Places (see Appendix A-2) are:

Chester Springs Historic District (Historic Yellow Springs) – Located along Art School Road. This village developed following the discovery of sulfur springs in 1722 that were believed to have healing qualities. For the next one hundred and fifty years, Yellow Springs was a popular resort and spa that attracted visitors from all over the country. It was the site of a hospital established by Dr. Samuel Kennedy during the Revolutionary War. After the Civil War, the property was sold and used as a school for orphans and then as a school for the arts. Many of the buildings and nearly one hundred and forty acres are now owned and managed by Historic Yellow Springs, Inc.. The village presently consists of several primary buildings and several privately owned residential structures clustered at the intersection of Yellow Springs and Art School Roads. The Chester Springs Library, the offices of Historic Yellow Springs, Inc., and the Chester Springs Studio are all located in the heart of the village with the individual residences surrounding this core. Remnants of the spa and bath house and the sites of the sulfur springs are located on the south side of Art School Road.

Middle Pickering Rural Historic District (Pickering & Pigeon Run Rural Historic District) – Located along the northern boundary of Charlestown Township and extends into East and West Pikeland Townships. In West Pikeland Township it occupies the eastern corner along a portion of Street Road, Pikeland Road, and Clover Mill Road. The district contains fifteen farmsteads and 120 historic resources. It is “a rare survival of the rural way of life. It conveys a bucolic sense of a nineteenth century Welsh/German agricultural community...All of the major 18th century farmsteads are represented in their 19th century progressions and agricultural settings...West Pikeland Township, a part of which is in this district, has, out of sixty-some barns noted on an 1883 map, only seven left in the entire township which are still used as barns. The Middle Pickering Historic District claims 15 barns, one of which makes up the seven in West Pikeland” (source: National Register nomination form).

Good News Building (Yellow Springs Spa)- Listed May 27, 1971. Located at the intersection of Yellow Springs and Art School Roads. It was the headquarters of Good News Productions from 1952 until 1974, a film studio that created over 400 films including the sci-fi original *The Blob*.

Clinger-Moses Mill Complex (Clement's Mill) - Listed on July 17, 1980. Located on Pine Creek Lane just north of Yellow Springs Road. It is the site of two mills, a stone dam, a mill house, barn and outbuildings, and a house.

Fagley House (Art School Road) – Listed May 3, 1976. Located on Art School Road just south of the West Vincent Township boundary. The house was built in 1860 by brothers Samuel, David and John Fagley. It is significant for its architecture represent the standard farmhouse type characteristic of local farmhouses since the early nineteenth century.

Fox Meadow Farm (Rice Pennebecker Farm/Hench, Johannes Farm)
- Listed on August 21, 1986. Located on Clover Mill Road. This site consists of a Georgian style house, a barn, a wagon house, a storage building, and a corn crib.

Ker-Feal – Located at 1081 Bodine Road. The site consists of five contributing buildings (main house, garage, shed, springhouse and smokehouse), terraced gardens and a man-made pool fed by a natural spring, and an 18th century quartz quarry that was converted to a botanic garden in the mid-twentieth century. The site is significant for its architecture, its contributions to art and education, and its association with Dr. Albert Coombs Barnes internationally known for his collection of impressionist and post-impressionist art and African sculpture.



Mill at Anselma (Lightfoot Mill /Collins Mill) – Listed on April 13, 1973. Located at 1703 Conestoga Road. This building is listed on the National Register and is also designated a National Historic Landmark (nationally significant historic places designated by the Secretary of the Interior because they possess exceptional value or quality in illustrating or interpreting the heritage of the United States). “The combination grist and lumber mill was built in 1747 by Samuel Lightfoot. It is an excellent example of a mid-eighteenth century mill operation vital to the region’s agricultural and commercial growth. It is architecturally significant because of its early date and largely original condition” (source: National Register nomination form).

Anselma developed as a commercial center and at one point supported the County’s second largest creamery, as well as the gristmills, a general store and post office, the Franklin Hall School, and a train station. The grounds of the general store were well known as the location of tractor sales events held during the 1930s and 1940’s. The abandonment of the railroad led to the decline of the village and there is little left to give evidence to this once important commercial area. A gristmill and several key historic homes still stand in this area, and together they serve as important reminders of the Township’s historical development.

National Register Eligible

A resource may be deemed eligible for the National Register by the PHMC Bureau for Historic Preservation. However, that resource might never obtain a listing on the National Register. A list of National Register Eligible resources is maintained by the Township Historic Commission.

Certified Historic Districts

Certified historic districts are those established by local ordinance under of Act 167, the Historic District Act (1961) and “certified” by the Pennsylvania Historical and Museum Commission. Certification means that the district has been determined eligible for the National Register of Historic Places and authorization has been given to protect the character of the district through regulatory means. Act 167 enables municipalities to regulate the erection, reconstruction, alteration, restoration, demolition or razing of buildings within the district boundaries. A Historical and

Architectural Review Board (HARB) must be established and contain at least five members comprised of a registered architect, licensed real estate broker, the municipal building inspector and at least two others with interest or knowledge of local history or historic preservation. The HARB advises the governing body whether to issue permits for work proposed on buildings within the district.

West Pikeland Township has two Certified Local Historic Districts (see Appendix A-2). The Chester Springs Historic District (i.e. Historic Yellow Springs) was established on July 11, 1973 and the Anselma Mill Historic District was established May 1, 1985. West Pikeland Township's Historical and Architectural Review Board is responsible for reviewing requests for alterations and modifications of buildings within these districts and advising the Board of Supervisors on the appropriateness of proposed construction activity.

Locally Significant



Historic resources of local significance are those that are meaningful to the community and important to its identity and heritage. These resources have been identified by the West Pikeland Township Historical Commission and are contained in the Township's Historic Resource Inventory (see Appendix A-2).

The Township also contains several small historic villages that served as the commercial and social centers of the community. In addition to Historic Yellow Springs and Anselma Mill (described above under National Register), they are:

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

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

Chester Springs - This village grew around the railroad station located near the intersection of Route 113 and Yellow Springs Road. It was the ultimate rail destination for those visiting the Yellow Springs spa. It developed as a Victorian village and a number of homes in the vicinity dating from the late 1800's still contain architectural details from this period.



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

was also the site of a cooperative creamery that operated between 1882 and 1907. Opperman's Corner will always be a community focal point due to the intersection of the two largest roads through the Township. Minor commercial enterprises are located on three of the four corners and the historic building lining the north and east legs of the intersection provide an interesting context for additional uses.

Archaeology

Nine archaeological sites are identified by the PHMC in West Pikeland Township. Available information pertaining to these sites is as follows:

- One site is a quarry. Its National Register status is listed by the PHMC as “insufficient data available to make a decision.”
- One site is “historic/unknown/other/multiple types.” Its National Register status is listed by the PHMC as determined not eligible by submitter.”
- One site is “open prehistoric/unknown function.” Its National Register status is listed by the PHMC as “insufficient data available to make a decision.”
- Two sites are “historic and prehistoric.” The National Register status of one of these sites is listed by the PHMC as “listed or determined eligible for the National Register.” The National Register status of the other site is listed by the PHMC as “insufficient data available to make a decision.”
- Four sites are “open habitation/prehistoric.” The National Register status of each of these sites is listed by the PHMC as “insufficient data available to make a decision.”

PLANNING IMPLICATIONS

West Pikeland Township regulates historic resources protection through its zoning ordinance. Regulations applicable to the Certified Local Historic Districts are provided in accordance with Act 167. Regulations involving all other identified historic resources (i.e. outside of the Certified Local Historic Districts) are provided in accordance with the MPC in the form of a Historic Preservation Overlay District. These provisions regulate the demolition, alteration, and adaptive reuse of the Township’s historic resources.



As in most communities, the main threats to historic resources are: demolition to make way for new development; demolition by neglect; inflexible modern building and land use codes that preclude the ability to adaptively reuse a historic building; and the practical and financial difficulties of maintaining a historic home or structure. New development also changes the character of the Township and alters the historic landscape for which it is known. The Township should continue to support the implementation of Act 167 and the protection of historic resources afford by the MPC through its zoning ordinance.

Finally, because the Township's history is reflected in its natural landscape, the protection of historic resources must coincide with natural resource protection and the preservation of open space. Land use, open space and recreation policies and actions must include consideration of historic resources.

FUTURE PLANNING POLICIES & RECOMMENDATIONS

Overview

The history of West Pikeland Township is extremely important, providing evidence of early human and Native American inhabitants, European contact, and European settlement in the 1700s. Remnants of this history are found today in West Pikeland Township and provide the community with a unique identity and heritage that is locally, regionally and nationally significant. The following planning and policy recommendations are intended to achieve the goal of historic resource protection:

Recommendations

- Preserve the township's historic buildings, structures, sites and districts.
- Preserve the rural landscape and open spaces, which are intrinsic to the Township history.
- Protect the villages, which are so important to the local and regional history and identity.
- Raise awareness of the Township's heritage and historic and archaeological resources.
- Incorporate historic resources protection with land use, open space, and recreation planning.
- Establish partnerships with historic preservation organizations.

IMPLEMENTATION STRATEGIES

Zoning Ordinance



- Continue to enforce zoning ordinance provisions applicable to the Act 167 Certified Local Historic Districts and the Historic Preservation Overlay District.
- Amend the Village zoning districts to create four distinct districts that include specific design standards focused on maintaining the unique characteristics of each village.
- Require viewshed protection in order to preserve historic landscapes.
- Comply with the most recent stormwater management rules and regulations promulgated by state and/or federal statute in order to protect mineral water in Historic Yellow Springs.

Additional Measures

- Use GIS to map historic resources and to store data pertaining to historic resources, such as address, owner, name of resource, date built, condition, etc.
- Continue to support the West Pikeland Historical Commission.
- Develop objective criteria for determining a Class II historic resource.
- Continue to identify significant historic resources.
- Pursue listing of select resources on the National Register.
- Consider applying for National Register listing and Act 167 Certified Local Historic District status for the villages of Opperman's Corner, Rapp's Corner and Chester Springs.
- Promote public education to raise awareness of the Township's history and historic resources.
- Preserve historic sites by incorporating them with open space and recreation planning and promoting them as recreational, educational, and tourist destinations.
- Partner with Historic Yellow Springs , Inc., the Mill at Anselma, Ker-Feal, the County, the PHMC and other organizations concerned with historic resource preservation.
- Investigate ways to provide owners of historic buildings with informational resources pertaining the rehabilitation and update of their historic buildings.

Chapter 5 Transportation Plan

INTRODUCTION

Overview

Like most communities in southeastern Pennsylvania, West Pikeland Township faces increasing congestion on its roads as the region grows. Its proximity to Route 202 and the Pennsylvania Turnpike has helped transform the Township into a bedroom community. Commute to work data indicate that 88% of the Township's workers travel to work by automobile and the average travel time is 29.2 minutes. The Township also experiences high traffic volumes as commuters from surrounding areas travel the Township's roads en route to business and commercial centers in neighboring municipalities.



The high rate of growth in the region in recent years translates into more vehicles and more time spent on the road. This places demands on the Township's roads, many of which were not designed for such a high level of use. As a result, road safety decreases, road maintenance costs rise, and the quality of life of Township residents diminishes.

Transportation planning can have a significant impact on land use and on a community's quality of life. A balance must be reached between planning for needed road improvements and maintaining the community's rural character. It is the intent of this plan to emphasize needed circulation system improvements that will enhance the safety and efficiency of the Township's road network while avoiding increased capacity and accessibility to lands in the Township's undeveloped areas, which might alter the landscape. This approach is consistent with the goal of preserving the Township's rural character and sensitive natural features.

This chapter describes West Pikeland Township's existing circulation system and provides recommendations for future circulation system improvements. It focuses on current road conditions, the functional classification of roads, scenic roads, regional transportation system initiatives, and recommendations for future transportation system improvements.

GOALS & OBJECTIVES

Goal #1

Provide a safe, efficient road system consistent with rural character.

Objectives:

- Establish design standards for main roads and country roads.
- Identify problem intersections and intersections affected by recreation area traffic.
- Effect necessary bridge repair and upgrades.
- Alleviate traffic volumes and congestion to help maintain rural character.
- Coordinate recreation area planning with adequate road access.

Goal #2

Promote fuel efficiency and greenhouse gas reduction.

Objectives:

- Promote carpools.
- Create links to regional transit, such as bus connection to Septa regional rail.

Goal #3

Develop bicycle routes and trails.

Goal #4

Provide adequate access/parking at trailheads.

Goal #5

Create and expand pedestrian linkages.

Objectives:

- Provide trailheads at recreation areas.
- Establish a cross-Township rail/trail that approximates the former Pickering Valley Railroad.

EXISTING CONDITIONS

Road Network

West Pikeland Township's road network is largely comprised of country roads and two lane rural highways. The Township contains approximately 48 miles of roadway. Roads under state jurisdiction are PA 401 (Conestoga Road), PA 113 (Kimberton Road), Art School Road, Byers Road, Clover Mill Road, Lower Pine Creek Road, Seven Oaks Road, Worthington Road, and Yellow Springs Road. These roads typically carry the heaviest traffic as evidenced by traffic volume data.

Traffic volume data are indicators of the potential for road capacity problems and help determine roadway function, design, and appropriate improvements. The Annual Average Daily Traffic count (trips per day) data for West Pikeland Township show the heaviest volumes along Route 113 and Route 401. These two roads serve as the Township's major arteries carrying both local and regional traffic.

Road Segment	Annual Average Daily Traffic (Trips per Day)
PA 113 from Turnpike to PA 401	36,000
PA 113 from PA 401 to Yellow Springs Rd	18,000
PA 113 from Yellow Springs Rd to East Pikeland	14,000
PA 401 from Byers Road to St. Matthews Rd	8,600
PA 401 from Byers Rd to PA 113	11,000
PA 401 from PA 113 to Newcomen Rd	11,000
Lower Pine Creek Rd from PA 401 to Yellow Springs Rd	700
Yellow Springs Rd from Lower Pine Creek Rd to Foster Rd	800
Yellow Springs Rd from Lower Pine Creek Rd to PA 113	950
Yellow Springs/Art School Rd from PA 113 to West Vincent Township Boundary	500
Byers Road from PA 401 to PA 100	4,300
Clover Mill Road from PA 113 to Charlestown Road	1,200
Worthington Road between Uwchlan and Charlestown Township Boundaries	1,600

Source: "2007 Traffic Volume Map, Chester County, Pennsylvania," PennDOT, April 2009.

Functional Classification



Functional classification is a system developed by the Federal Highway Administration and used by planning and transportation agencies to categorize roads according to the character of service they are intended to provide. It defines the function of each road in channeling the flow of trips through a road network. Functional classification informs the standards to which a road is improved, can determine the appropriate level of development in an area, and helps in prioritizing road improvements and maintenance.

The Township's Subdivision and Land Development ordinance contains design standards for roads and references "minor," "collector," and "major" roads as shown on the "Official Plan" (i.e. Comprehensive Plan). It appears that the SLDO is inconsistent with the functional classifications shown in the previous comprehensive plan and with current functional classifications designated by PennDOT.

The Chester County Planning Commission's *Technical Memorandum #01-04, Roadway Functional Classification* classifies the Township's roads according to the criteria below:

Chester County Planning Commission Road Functional Classification—Variables and Criteria

Variables	Expressway	Major Arterial	Minor Arterial	Major Collector	Minor Collector	Local Distributor	Local
Daily Traffic Volume Range (1)	15,000 to over 100,000 vehicles	10,000–60,000 vehicles	8,000–20,000 vehicles	4,000–10,000 vehicles	1,000–5,000 vehicles	Less than 1,500 vehicles	Less than 1,000 vehicles
Mobility	Strict priority to moving vehicles	Mobility more critical than property access	Mobility more critical than property access	Even priority to mobility and access	Even priority to mobility and access	Access more important than mobility	No priority to mobility
Access	Only at interchanges	Strict median access control	Some control of property access	All roads and properties have access	All roads and properties have access	Priority is given to property access	Priority is given to property access
Corridor Length	Over 15 miles	Over 15 miles	Over 10 miles	4–15 miles	2–10 miles	Less than 4 miles	Less than 2 miles
Connections (Relationship to LANDSCAPES)	Connects states, regions, counties, cities and landscapes urban centers	Connects regions, counties and multiple landscapes centers	Connects multiple landscapes centers some inter-county trips	Connects landscapes centers and villages, primarily intra-county trips	Connects villages and multiple neighborhoods primarily intra-county trips	Connects neighborhoods some inter-municipal trips	Links individual properties to distributors and collectors
Truck Traffic	Highest truck mobility	High truck mobility	High truck mobility	Moderate truck mobility	Moderate truck mobility	Local delivery only	Local delivery only
Basic Geometry and Design	Wide lanes and shoulders; medians; more than 2 through lanes	Wide lanes and shoulders; occasional median; turning lanes	Wide lanes and shoulders; no medians; turning lanes	Two lanes; no medians; limited turning lanes	Two lanes; no medians; limited turning lanes	Narrow Lanes	Narrow lanes
On-Street Parking	Prohibited	Only in urban areas	Only in urban areas	Discouraged outside "centers"	Discouraged outside "centers"	Limited use outside "centers"	Appropriate on selected streets
Through Traffic (2)	Over 50%	Over 50%	Over 50%	25–50%	25–50%	Less than 25%	Less than 10%
Vehicle Speed (Posted)	55–65 mph 40 mph minimum	35–55 mph	35–55 mph	35–55 mph	35–55 mph	Less than 45 mph	Less than 35 mph
Bicycle Pedestrian Access	Only through separate facilities	Specially designed facilities	Adjacent facilities and crossings	Adjacent facilities and crossings	Adjacent facilities and crossings	High priority to bike and pedestrian access	High priority to bike and pedestrian access

(1) Wide range of traffic volumes accounts for differences between urban, suburban, and rural areas.

(2) Through traffic has no origin or destination in the immediate neighborhood, community, village or center. Source: Adopted by Chester County Planning Commission, 2003

The Township's roads are classified in the Chester County Planning Commission's *Technical Memorandum #01-04, Roadway Functional Classification* as follows (see Appendix A-3):

- Expressway: The Pennsylvania Turnpike
- Major Arterial: PA 113 southwest of PA 401
- Minor Arterial: PA 401, PA 113 northeast of 401
- Minor Collector: Byers Road, Clover Mill Road
- Local Distributor: Art School Road, Davis Road, Horseshoe Trail Road, Lower Pine Creek Road, Pikeland Road, Street Road, Yellow Springs Road
- Local: All roads not included in a higher classification above

Scenic Roads

The preservation of visual quality along the Township's country roads is essential to maintaining the rural aesthetic that is treasured by residents and visitors. Scenic roads should be designated, and protected by effective use and design requirements.



The Township should create an updated inventory of scenic roads whose visual quality could be diminished by inappropriate use or development. Priority consideration should be given to roads with notable views of farmlands, mature forest, stream corridors, historic resources, and distant landscapes.

Given the visual resources of West Pikeland, one could conceivably describe nearly all of the roadways as scenic. However, it is recommended that those roads exhibiting the very best of the Township's visual qualities be so designated. Suggested candidates for the refinement of scenic road designation are as follows:

- Route 113, between Horseshoe Trail Road and the East Pikeland Township boundary;
- Clover Mill Road, entire length;
- Art School Road, entire length;
- Pikeland Road, between Route 113 and Street Road;
- Yellow Springs Road, between Art School Road and Elbow Lane;
- Lower Pine Creek Road, entire length;
- Horseshoe Trail Road, between Lower Pine Creek Road and Highview Drive; and
- Street Road, between Clover Mill Road and "S" bends 4/10 mile south of Pikeland Road.

The Planning Commission and the Board of Supervisors should work together on the refined scenic road designation and develop appropriate design standards.

Sidewalks

Sidewalks are in general not in keeping with the rural character of West Pikeland Township, but may be appropriate in the villages and within Open Space (cluster residential) Developments to enable pedestrian access to the various uses and facilities. For pedestrian walkways, materials and alignments other than the typical concrete ribbon along a street curb may be more in keeping with the local context. A Master Plan for Historic Yellow Springs is in progress and contains a pedestrian circulation plan linking parking areas to the Village's various buildings.

Alternative Modes of Transportation

Alternative modes of transportation include regional rail, bus, commuter lots and airports, as well as sidewalks, trails and bikeways. West Pikeland Township has very few alternative modes of transportation available. The Township is not served directly by any public transportation. The closest bus service is SEPTA Route 99, on Route 23 in Phoenixville. SEPTA's R5 regional rail and Amtrak commuter trains along US Route 30 destined for Philadelphia to the east and Harrisburg to the west. The closest commercial service airport is the Philadelphia International Airport. There is no formal bicycle circulation system and no pedestrian circulation system in the Township, other than the historic Horseshoe Trail.

A proposed bicycle network is illustrated in Appendix A-5. Route 113 is identified as a Commuter bike route linking West Pikeland Township to Downingtown and Lionville to the west, and Phoenixville and the Schuylkill Trail to the east. Art School Road, Yellow Springs Road, and Lower Pine Creek Road are designated for recreational use by beginner level bicyclists. Byers Road, Messner Road, Horseshoe Trail Road, Art School Road, Upper Pine Creek Road, and Bodine Road are designated for recreational use for intermediate level bicyclists.

Road & Bridge Conditions

Most roads and bridges in West Pikeland Township are in reasonably good condition and do not have significant safety problems. The majority of the identified problems occur on the Township's major roadways – those that carry highest traffic volumes. Factors affecting road safety and access include traffic congestion, intersection alignment, and limited sight distance.

The *Chester County Transportation Improvements Inventory*, adopted July 2007, identifies road, bridge, rail, and transit projects that have been recommended to the Chester County Planning Commission and identified by technical land use and transportation studies. The County submits the *Inventory* to PennDOT, SEPTA, and DVRPC as input in the development of their capital budget and improvement programs. Following are the Improvements identified in the *Inventory*, listed by their identification code. The codes are referenced on the map in Appendix A-4.

- NF93: Channelization (i.e. restricting vehicular movements to a single path to reduce movement conflicts, such as turn only/straight only lanes) and safety improvements of PA 113 from Davis Road to Pikeland Road.

- NF102: Channelization and safety improvements of PA 401 from Byers Road to Upper Pine Creek Road.
- NF107: Intersection Realignment at PA 401 and Messner Road.
- NF118: Installation of left turn lanes on PA 113 at Yellow Springs Road.
- NF175: Realignment and widening of Byers Road near Pickering Creek.
- SB26: Replacement of state-owned bridge at PA 401 over Pine Creek.
- SB74: Replacement of state-owned bridge at Art School Road over Pine Creek.

Replacement bridges, especially in the Township's historic villages, must be designed in a manner that is consistent with historic character and that does not cause an increase in traffic.

Other problem areas identified by the Township are listed below and numbered. The numbers are referenced on the map in Appendix A-4.

- TWP1 - Intersection of Byers Road and PA 401: Poor sight distance and difficulty entering PA 401 from Byers Road.
- TWP2- Horseshoe Trail Road at Pickering Creek: Horseshoe Trail Road floods during periods of heavy rain.
- TWP3 - PA 113 at Montgomery School: Traffic congestion when speed limit is reduced to 15 MPH for several hours each day.
- TWP4 - PA 113 at Pikeland Road: Dangerous intersection and speed limit changes from 55 to 40 MPH but traffic does not slow down.
- TWP5 - Intersection of Lower Pine Creek Road and Yellow Springs Road: Poor sight distance.
- TWP6 - Intersection of Bodine Road and Yellow Springs Road: Poor sight distance.
- TWP7 – Intersection of PA 401 and Meadow Creek Road – Poor sight distance.
- TWP8 - Intersection of PA 401 and Skyline Drive – Poor sight distance.
- TWP9 - Traveling west on PA 401 approaching intersection with PA 113 – traffic backed up along PA 401 at intersection is difficult to see due to curve on PA 401. Need a warning signal.



There are no road or bridge improvements cited in the DVRPC's *FY 2009 Transportation Improvement Program for PA (FY2009-2012)*. The TIP

reflects the priority program of projects adopted by the DVRPC Board and included in the *Statewide FY2009 Transportation Improvement Program (STIP) of Pennsylvania*.

Act 120 of 1970, as amended, requires PennDOT to prepare and submit to the State Transportation Commission every two years a program of transportation improvements that PennDOT recommends to be undertaken during the next twelve years, listing only programs and projects that are reasonably expected to be funded over the twelve-year period. This is known as the Twelve Year Program. Input is solicited from the public and interested parties through regional hearings. Transportation projects include all transportation modes: highway, bridges, aviation, rail freight, public transit and other transportation modes¹. PennDOT's current Twelve Year Program does not cite any improvements in West Pikeland Township.

PLANNING IMPLICATIONS

Summary

Current Township ordinances contain provisions for the construction and dedication of roads, and for parking and loading. However, these regulations are only applicable to roads under the Township's jurisdiction. The Township does not have the authority to initiate action on roads owned by homeowners associations or those under state jurisdiction. It must appeal to the homeowners associations, the County, the DVRPC, and PennDOT for improvements to these roads.

The Township must also bear in mind the impacts that road and bridge improvements can have on the community's character. Safety and access are compromised on many scenic, rural roads due to their curves, slopes, and more narrow widths. As population grows and the number of vehicles on the roads increases, safety and access problems are exacerbated. The challenge for the Township is to balance safety and access with the preservation of community character. To achieve this balance, new development must be directed to roads that have been designed to carry larger volumes of traffic and future improvements must be sensitive to the Township's rural context.

FUTURE PLANNING POLICIES & RECOMMENDATIONS

Overview

Future planning and policy recommendations are intended to address the issues identified in the County Transportation Improvements Inventory and by the Township (listed above), and to achieve the Township's transportation goals and objectives.

Recommendations

Policy and planning recommendations are as follows:

- Adopt the current Functional Classification system as shown in Appendix A-3 and update the SLDO's roadway design standards consistent with the functional classifications.

¹ Pennsylvania's 2009 Transportation Program. PennDOT, adopted August 7, 2008

- Conduct a study to determine appropriate improvements on Horseshoe Trail Road near PA 113 to mitigate flooding conditions, and construct the needed improvements.
- Recognize the potential future need for public transportation and plan accordingly (i.e., locate residential development along main roads where transit stops are most likely to be located).
- Work with community associations to institute a road maintenance program.
- Lobby the County, the DVRPC, and PennDOT to get the road improvements identified in the County Transportation Improvement Inventory and by the Township (listed above) included in the Twelve Year Program.
- Continue to identify and document needed transportation system improvements.
- Pursue funding for needed transportation system improvements through the federal, state, county, and DVRPC grant programs, and traffic impact fees.
- Consider developing a carpool program in partnership with local employment centers that employ Township residents.
- Participate in regional transportation initiatives to advocate for the Township's goal to enhance the safety of its roads, reduce congestion, and preserve its rural character.
- Develop a pedestrian and bicycle system that links the Township's commercial and cultural destinations and trip generators, such as the library, post office, municipal building, and the Montgomery School and residential neighborhoods.

IMPLEMENTATION STRATEGIES

Overview

The following strategies are intended to implement the policies and recommendations pertaining to transportation:

Zoning Ordinance

- The Zoning Ordinance provisions should be fine tuned as follows to promote the protection of visual resources along scenic roads:
 - Larger principal and accessory structure setbacks from scenic roads may be required unless they are designed in a manner that is compatible with existing historic character.
 - Increased lot widths may be required along scenic roads to decrease the visual prominence of new buildings by increasing the open space between them unless lots are otherwise designed in a manner that is compatible with existing historic character.

SLDO

- Lot averaging or clustering may be required along scenic roads to place development within areas where it will be less visually disruptive.
- Establish a Scenic Road Overlay District along PA 113 and PA 401 to regulate uses and establish setbacks
- Create an ordinance that provides regulations for billboards.
- Amend the SLDO to achieve consistency between roadway Functional Classifications and require design standards.
- Amend SLDO to require a Traffic Impact Study.
- Design standards specific to properties along scenic roads should be incorporated in refinements to the Subdivision and Land Development Ordinance, as follows:
 - A visual resources analysis should be required for any development abutting a scenic road, and development should be sited in accordance with that analysis.
 - Stricter tree protection standards should be implemented to mitigate the visual impacts of new development. Specifically, existing woodlands and hedgerows along scenic roads should be preserved and managed to eliminate invasive species.
 - Visual buffering of new development along scenic roads should be required.
 - Design standards for the improvement of designated scenic roads themselves should be in keeping with the maintenance of their rural character. Requirements on width and curbing are especially significant.
 - Elimination of overhead wires along scenic roads.

Additional Measures

- Create a Township transportation committee to spearhead efforts related to the circulation system, to lobby appropriate agencies to get needed improvements underway, and to coordinate a carpool system.
- Consider an Official Map to facilitate needed circulation system improvements.
- Prepare and adopt an Act 209 Traffic Impact Fee Ordinance, which allows municipalities to assess developers for a portion of the transportation capital improvements costs necessitated by, and attributed to their development.
- Work with PennDOT to establish appropriate speed limits on state roads and coordinate enforcement with the Township police.
- Plan to create bicycle lanes when road widening and other road improvements occur.

Chapter 6 Land Use Plan

INTRODUCTION

Overview



Decades of growth have transformed West Pikeland Township from a quiet agricultural community to a transitional exurb of the Great Valley/Valley Forge “edge city”. Paradoxically, the Township’s pastoral scenery and historic treasures create growth demand that in turn threatens those very attributes. Although the immediate pace of growth changes due to economic and other factors, the overall trajectory in areas like West Pikeland is toward development and the attendant loss of open space and rural character. The purpose of the land use plan is to devise strategies to effectively manage inevitable growth, to balance the pressures of development with the desire to preserve resources, and to retain the essential beauty and high quality of life of the community.

GOALS & OBJECTIVES

Goal 6-1

Accommodate forms of residential development in harmony with the environment and the Township’s rural character.

Objectives:

- Establish growth boundaries.
- Create context appropriate cluster development densities.
- Allow various residential use types in appropriate locations.

- Provide incentives for conservation development.
- Promote Transferable Development Rights to protect valuable resources and save open space.
- Coordinate development intensity with infrastructure.
- Consider Traditional Neighborhood Development as a preferable alternative to conventional subdivision.

Goal 6-2**Allow limited non-residential development in harmony with the Township's rural character.***Objectives:*

- Promote effective buffers and setbacks.
- Allow non-residential uses only where appropriate to location and supporting infrastructure.
- Develop aesthetic standards for highway oriented commercial uses.

Goal 6-3**Recognize the vital role of agriculture to Township character and support its viability.***Objectives:*

- Enhance the tax abatement program.
- Protect prime agricultural soils.
- Promote Transferable Development Rights.
- Expand the Agricultural Security Area.
- Encourage conservation easements.

**Goal 6-4****Coordinate with other municipalities in regional planning efforts.***Objectives:*

- Coordinate with adjacent municipalities through regional planning cooperatives.

EXISTING CONDITIONS

Existing Land Use

West Pikeland Township's current land use pattern, illustrated on the map in Appendix A-6, is primarily a mix of farms, open land, and rural residential lots. Residential subdivisions predominate in the southwest third of the township, and the only multifamily residences are in the Twin Hills development on Eagle Farms Road. Isolated small commercial uses are found at Opperman's Corner, Anselma, Chester Springs, and

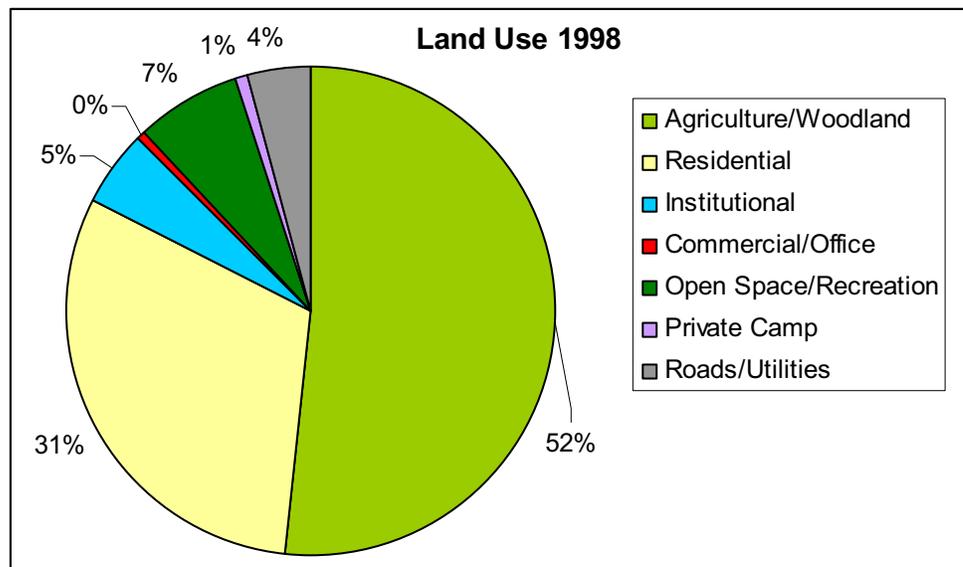
Pikeland. Approximately 2,040 acres in the township are protected lands, but a nearly equal area could be vulnerable to future development.

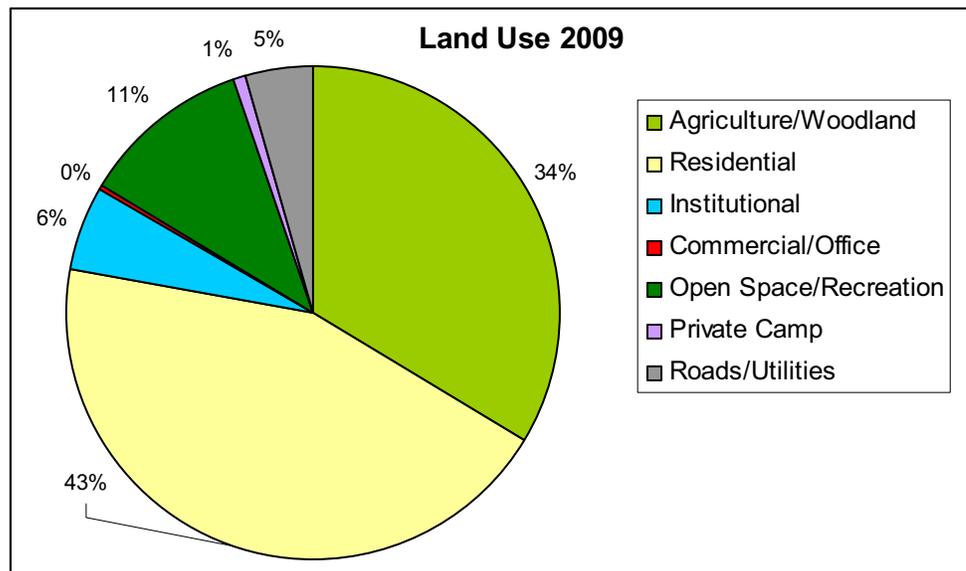
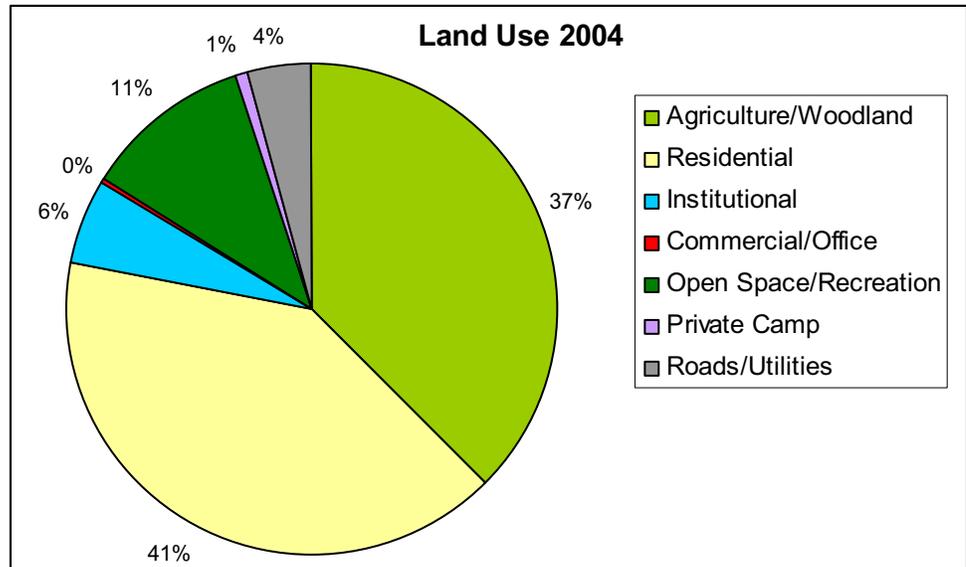
Land Use Trends

Since the 1999 Comprehensive Plan, the land use pattern in the township has changed as follows:

Land Use Category	Acreage		
	1998	2004	2009
Agriculture/Woodland	3,297	2,383	2,137
Residential	1,956	2,589	2,815
Institutional	324	351	351
Commercial/Office	29	16	20
Open Space/Recreation	456	719	719
Private Camp	43	43	43
Roads/Utilities	269	273	289
Total	6,374	6,374	6,374

Sources: 1999 Comprehensive Plan; 2006 Open Space, Recreation and Environmental Resources Plan; and Consultant's analysis





Source: Consultant's Analysis

Although considerable area has been converted from agricultural/woodland uses to residential, the township has also increased the amount of protected open space. Conservation easements have also been placed on several large properties that are included as agricultural/woodland. There has been very little change in commercial and office use, which has historically been a minor presence in the township.

Economic conditions in recent years have dramatically slowed the pace of development. However, an economic upswing without careful planning and additional conservation efforts would ultimately transform the township from a largely rural exurb to a residential bedroom community, as has already happened in several of the surrounding municipalities.

BUILD-OUT ANALYSIS

Overview

A residential build-out analysis was conducted to illustrate the land use pattern if West Pikeland Township were developed to its full potential under existing zoning regulations.

Methodology

The residential build-out analysis includes all buildable properties in the RC and RD zoning districts. Buildable properties include all unprotected agricultural/woodland properties, institutional properties, Indian Springs Camp, and all residential properties that can be further subdivided. All protected properties and all properties currently in commercial and utility land uses are considered unbuildable or already developed and are excluded from the build-out analysis. Although multi-family uses are permitted the V-1, V-2, and V-3 zoning districts, they are also excluded because these districts permit more valuable commercial uses and are to a large extent already developed.

The analysis assumes that properties of 10 acres or more would be developed according to the Open Space Design Option, and that properties of less than 10 acres would be developed conventionally.

Findings

The build-out analysis illustrated on the map in Appendix A-7 reveals that:

- The Township can accommodate an additional 1,216 residential dwelling units – 790 units in the RC district and 426 in the RD district.
- Housing estimates based on projected population growth show the addition of 411 residential units between 2000 and 2020; that is one-third of the estimated residential build-out.
- If fully built-out, residential land use would increase from 44% to 57% of the Township's land area –an increase of 842 acres.
- If fully built-out, agricultural/woodland land use would decrease from 34% to 13% of the Township's land area – a loss of 1,291 acres. However, an additional 746 acres would be preserved as Open Space/Recreation in developments built according to the Open Space Design Option. The net result is a 9% decrease (545 acres) in undeveloped land.
- Residential land use would sprawl across the Township's landscape.



Housing Unit Projections

	2000 Census	2008 Estimate	2010 Projection	# Change 2000-2010	% Change 2000-2010	2020 Projection	# Change 2010-2020	% Change 2010-2020
W. Pikeland Twp	1,240	1,445	1,455	215	17.34%	1,651	196	13.47%

Note: Housing unit projections are based on the U.S. Census average of 2.79 persons per household in West Pikeland and are extrapolated from the more conservative population growth projection in the Chapter 2 Demographic Profile.

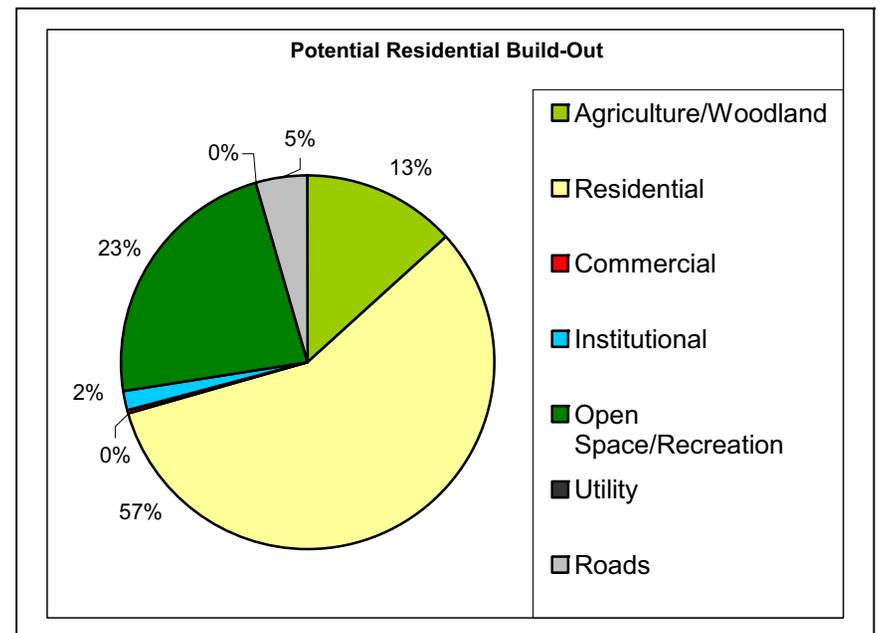
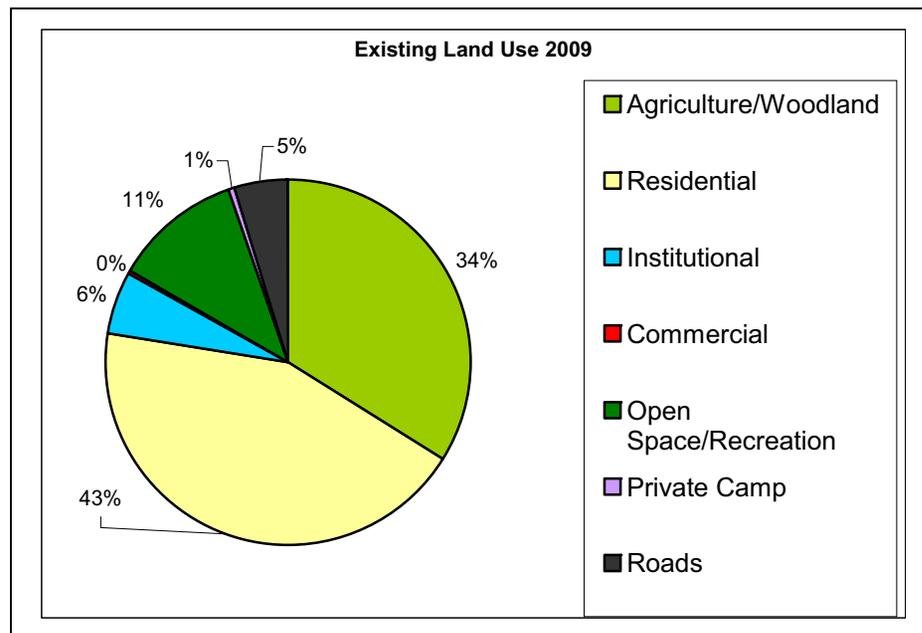
Comparison of Existing Land Use and Residential Build-Out

Existing Land Use 2009

Land Use	Acres	% of Total
Agriculture/Woodland	2137	34%
Residential	2815	43%
Institutional	351	6%
Commercial	20	0%
Open Space/Recreation	719	11%
Private Camp	43	1%
Roads	289	5%
Total	6374	100%

Potential Residential Build-Out

Land Use	Acres	% of Total
Agriculture/Woodland	846	13%
Residential	3657	57%
Commercial	20	0%
Institutional	97	2%
Open Space/Recreation	1465	23%
Utility	1	0%
Roads	288	5%
Total	6374	100%



Note:

1. Potential build-out acreages are based on the township's current zoning provisions (Ordinance dated December 1, 2004)
2. Future Land Use acreages are based on the recommendations contained in the Future Land Use Plan.

PLANNING IMPLICATIONS

Summary

West Pikeland Township is faced with challenges and opportunities in its current land use configuration and policies.

- Due to regulatory restrictions, environmentally constrained land along streams will remain undeveloped. The township has an opportunity to supplement its existing park and open space areas with greenway corridors and by working with private interests that own properties in optimal locations or that contain valuable resources.
- Several large privately owned tracts of land exist throughout the township, with some owned by institutions. High land values and the financial need of landowners may lead to sale of these properties. The township must begin an outreach effort and partner with landowners so that these properties are preserved rather than developed.
- Current zoning permits significant density bonuses for open space development over that attainable through conventional plans without open space. The Township may consider reducing the density bonus to reduce build out potential and thereby help to retain rural character.
- The Township permits churches, educational uses, nursing homes, and mobile home parks anywhere in the Residential Development district, and churches, educational uses, attached single-family housing, and multifamily housing anywhere in the Residential Conservation district. Thus, relatively intensive uses could occur essentially anywhere throughout the township regardless of supporting infrastructure capacity, compatibility with surrounding uses, and access to services.
- With the exception of the V1 Yellow Springs Village district, the Township's villages are treated essentially identically from the standpoint of land use and intensity. It is recommended that standards be developed that recognize and enhance the individual attributes and inherent capacities of each of the villages.
- The V2 Village District in Anselma, Chester Springs, and Pikeland permits commercial uses with drive-through, automobile sales and repair, trucking, self-storage, junkyard, adult commercial, and betting establishments. These uses are generally incompatible with the residential and historic character of these villages.
- There are no standards in the zoning requiring enhanced setbacks and buffering of incompatible uses from one another.
- There are no existing aesthetic standards for highway commercial uses.



- The Township's transferable development rights provisions are clear and provide generous incentives to participate. However, an evaluation of density credits in sending areas, eligible receiving areas, maximum density in receiving areas, and reduction in open space in receiving areas is recommended.

FUTURE PLANNING POLICIES & RECOMMENDATIONS

Overview

Planning policies and recommendations are embodied in the Future Land Use Plan (Appendix A-8). The Future Land Use Plan is intended to accommodate projected growth while preserving the township's rural character, historic features, and natural resources. It addresses land conservation, sustainable residential development, opportunities for context sensitive commercial and office development, and remedies for potential incompatible land uses.



The development pattern proposed in the Future Land Use Plan is coordinated with the Natural Resource Protection Plan, Historic Resource Protection Plan, Transportation Plan, and Community Facilities & Utilities Plan. In general, the Future Land Use Plan forms a development pattern based on a gradient of development intensity and conservation consistent with natural resources, area context, and supporting infrastructure. Consistent with Township policies over recent decades, residential growth would be largely accommodated in the southwest portion of the Township, adjacent to developed areas in Uwchlan and Upper Uwchlan Townships. Non-intensive commercial and office uses would be permitted in Yellow Springs, Chester Springs, and Anselma villages with appropriate architectural and site design controls. Intensive uses would be confined to the Opperman's Corner commercial village, consistent with historical land use patterns, coordinated with infrastructure, and with architectural, site design, and buffering requirements to promote compatibility with surroundings. All development would be coordinated around greenway corridors that promote environmental protection and recreational accessibility throughout the Township.

Recommendations

Planning policies and recommendations to guide land use planning are as follows:

Redefine the Township's land use area designations.

- **Residential Growth Area** – This area includes moderate density residential development at 1.0 dwelling unit (DU)/acre, with higher densities allowed in conjunction with Transferable Development Rights (TDR). Attached and multifamily residences would be allowable by conditional use. The growth area boundary reflects existing zoning and is generally consistent with Landscapes 2.
- **Rural Conservation Area** – This area occupies approximately two thirds of the Township and includes agriculture, resource protection, and single-family detached residential development at a maximum density equivalent to 2 acre zoning. It is contiguous to rural areas in adjacent municipalities.

- **Villages** – These mixed-use areas of differing characters would accommodate commercial/office, industrial, multifamily, and historic preservation. This plan represents a refinement of the Township's existing village preservation concept to promote the individual character and viability of each village.
- **Open Space** – These are areas for resource conservation and/or recreation, under public or quasi-public ownership, serving as primary greenway and trail corridors. They connect parks and open spaces with each other and with developed areas.

Preserve the unique character and viability of each of the Township's historic villages.

- **Opperman's Corner Commercial Village** – Intensive highway commercial, industrial, and other uses incompatible with Township's rural character will be limited to Opperman's Corner. Multifamily residential may be included in conjunction with commercial/office uses to promote mixed-use village character. Emphasis is on architectural design, streetscape enhancement, interconnection of uses and properties, pedestrian accommodation, and buffering of incompatible uses.



- **Anselma Historic Commercial Village** – This village would permit commercial, office, and institutional uses (e.g. church) compatible and in synergy with the Historic Anselma Mill. Multifamily residential may be included in conjunction with commercial/office uses to promote mixed-use village character. Emphasis is on historically complementary architectural design, streetscape enhancement, interconnection of uses and properties, and pedestrian accommodation.

- **Chester Springs/Pikeland Historic Crossroads Villages** – These villages would permit low impact commercial and office uses, single family detached residential, twin residential, and institutional uses (e.g. post office, Montgomery School). Development would be strongly related to greenway/trail links along the Pickering Creek and the former Pickering Valley RR. Emphasis is on historically complementary architectural design, streetscape enhancement, interconnection of uses and properties, greenways and pedestrian/intermodal accommodation.



- **Yellow Springs Historic Arts and Culture Village** – Yellow springs is the nexus of the Township's cultural/historic/civic identity. Single family detached residential, municipal and cultural center, institutions, inn/restaurant use, and low intensity office as adaptive reuse of historic buildings would be permitted. Emphasis is on historically compatible architectural design, streetscape enhancement, and pedestrian accommodation.

Establish greenway corridors for environmental protection, coordination of conservation efforts, and enhanced recreational accessibility.



- **Pickering Valley RR and Pickering Creek** – This trail/greenway protects vital scenic and natural resources along the Pickering Creek; provides access to historical resources including Anselma, Yellow Springs, and the former railroad itself; creates links to Homeowners Association open space and developed areas; and establishes a critical regional greenway/trail corridor in accordance with the County’s Landscapes Plan.
- **Pine Creek** – This greenway/trail corridor connects open space resources in the south of the Township, including Windolph Knoll, with Pine Creek Park and Chester Springs/Yellow Springs.
- **Pigeon Run** – The County identified this as a Natural Area of Local Significance. A greenway/trail corridor in this area could connect to Horse-shoe Trail and networks in Charlestown and East Pikeland Townships.

IMPLEMENTATION STRATEGIES

Overview

Implementation of the land use plan can be accomplished through the following initiatives:

Zoning Ordinance

Recommended Zoning Ordinance amendments are as follows:

Villages

- Create four different Village zoning districts to reinforce and preserve the unique characters of Yellow Springs, Chester Springs/Pikeland, Anselma, and Opperman’s Corner.
- Limit intensive commercial uses to Opperman’s Corner only.
- Create design and use standards for each of the Village Districts that will result in development that complements the unique historic character of each Village.
- Allow limited nonresidential uses with appropriate use, intensity, and design controls to ensure residential compatibility in the historic villages of Chester Springs and Pikeland.
- Maintain and develop use and design regulations to establish Yellow Springs as the historical, cultural, and civic center of the community.

Uses and Densities in Residential Districts

- Recommendations for the RC - Residential and Conservation District

In order to maximize open space preservation and promote conservation within the RC district, the Township should consider whether to decrease allowable density in the RC district to the lowest that is legally defensible. In addition, to encourage open space development with density incentives, the minimum lot size could be increased for conventional development and the minimum tract size for open space development could be eliminated. Thus, requirements

could be changed as follows to maximize open space preservation in the RC district:

Conventional Development	5 acre minimum lot
Open Space Development	0.43 DU/ac and 50% open space

This 0.43 DU/ac figure is derived by dividing net tract area by 2 acres (minimum lot size), times 0.85 to account for inefficiency due to layout, infrastructure, etc. Applicants would have the option of creating a conforming yield sketch plan using conventional 2-acre subdivision in lieu of the calculation.

One result of this would be the creation of small open space areas (2.0 acre) on minimum size development tracts (4 acre). However, even open space areas this small can produce important environmental and/or recreational benefits as buffers, habitat areas, and trail/greenway corridors. In addition, when located adjacent to other open space areas, these benefits would accrue.



In order to avoid challenges based on lot area requirement for existing small tracts, the Township could allow minimum lot area of 2 acres for conventional development only when no subdivision is proposed. Thus, when there is enough area for 2 lots (4 acres minimum), a 2-lot subdivision with at least 2.0 acres of open space would be required.

The Township should also consider whether allowing attached and multifamily housing is consistent with the stated purposes of the RC district. These housing types may be better suited to the Residential Development district.

- Recommendations for the RD - Residential Development District

The Township's existing density bonus of 76% for open space development is much higher than necessary to provide a disincentive to conventional development. If the maximum density were lowered to 1.0 DU per acre, that would provide a sufficient bonus of 15% over conventional development and would be more in keeping with other cluster development ordinances.

The existing density bonus for age-restricted open space development of 353% is also excessive. The diminished impacts of age-restricted development are realized primarily in school fiscal matters, with other impacts on services and infrastructure similar to non age-restricted development. The need for emergency services is actually greater in age-restricted communities.

It is noted that mobile home parks are permitted throughout the RD district, at relatively high density, and with only 35% open space required. The Township should consider limiting the area in which this use is permitted, and decreasing density and increasing open space requirement to be more consistent with surrounding areas.

An evident part of the purpose for elevated density for open space development is to provide for different housing types consistent with state law. In order to advance this purpose, it may be preferable to allow higher densities in conjunction with a required mix of housing

types, and with a required transferable development rights component. This would allow the Township to promote housing diversity while fostering rural area preservation.

- Open space should be required to be dedicated to the Township, owned by a community association, or owned by a recognized conservation organization. Agricultural use of open space should be through lease, use license, or easement arrangement.

Conditional Use Recommendations



- Within the moderate intensity RD residential zone, certain permitted high intensity non-residential uses are of questionable appropriateness. At the least, churches, educational uses, and nursing homes should be well buffered from adjacent residences. Further, they should be required to have frontage on arterial streets.
- Mobile home parks are currently allowed throughout the RD district, which creates many chances for incompatibility with adjacent residential uses. It may be preferable to locate the mobile home park use in a smaller district, such as Opperman's Corner. Regardless, the ordinance should be revised to ensure design controls, adequate perimeter setbacks, and screening.
- Mobile home park base density should be lowered from 3.0 DU/acre to 2.5 DU/acre. With transferable development rights, the density could be increased up to 3.5 DU/acre.
- High intensity residential and non-residential uses are incompatible with the RC low density residential and conservation district. It is recommended that attached housing and multifamily housing not be permitted in the RC district. Churches and educational uses may be acceptable if located on arterial streets and with generous setbacks and buffering. If the Township perceives the need to create additional areas for attached residential and multifamily uses, it would be preferable to expand the RD district than to allow these uses throughout the Township.
- The V-2 district occupies the historic village communities of Anselma, Pikeland, and Chester Springs. As such, it is inappropriate to include high impact commercial uses such as commercial with drive-through, automobile sales and repair, trucking, self-storage, junkyard, adult commercial, or betting establishments. It is recommended that these uses be limited to the V-1 district at Opperman's Corner, which due to access and regional context is their logical best location.
- It is recommended that the zoning ordinance be revised to establish requirements for buffer widths and landscape screening when conditional uses are incompatible with their surroundings, or when they detract from the scenic quality viewed from roads. Currently, there are no specific protections.

Parking Setbacks and Buffering

- Improper location of parking can have a dramatic negative impact along streetscapes in rural and non-rural areas. The zoning ordinance requires nonresidential parking areas and access drives to be set back 15 feet from a residential property line or street ROW. In all other cases, parking must be set back at least 5 feet from street lines or property lines. The setbacks should be increased.



No parking should be permitted within 20 feet of a street line. In nonresidential situations and residential uses requiring large off-street parking areas, this would allow sufficient area for adequate buffering and vegetative screening. In the case of residential uses, it would cause garages to be set back further from the street, placed in side or rear yards, and/or oriented in such a way that garages doors do not dominate the street frontage.

If the Township desires a more aggressive solution, it could require that no parking be permitted between the front building line and the street. This may require reduced front building setbacks to be effective in practice, and would create street frontages lined by buildings rather than parking lots.

Nonresidential parking setbacks of 5 feet from other nonresidential use property lines is also inadequate, as is the allowance to place residential parking 5 feet from any property line. This setback does not permit adequate room for vegetative screening. It is recommended that nonresidential parking or parking lots for multifamily or attached housing be set back at least 20 feet from property lines. Other parking for residential use should be set back at least 10 feet from a property line.

- The existing parking lot buffer objective requirements are inadequate as there is no standard for height and placement of shrubs. In addition the ordinance standard does not require enough shrubs to promote effective buffering. Since parking lots can create highly negative visual impacts on adjacent properties and roads, the requirements should be strengthened.

Gas Stations

- The zoning ordinance permits pumps, air stations, light standards, and presumably overhead canopies within 15 feet of a street ROW. Although this provision may be intended to accommodate existing service stations in the Township, it would extend the requirement to any new or expanded facility. As the architecture and lighting of service stations have changed, the negative visual impact imposed by the pump area and canopy has increased dramatically.

It is recommended that the setback for any pumps or overhead canopy be increased to 35-40 feet, consistent with that for other nonresidential use structures. This would also allow for driveway space in front of the fueling area and a landscaped buffer strip along the road frontage. In addition, recommended design standards for each of the Village Districts (see "Villages" on page 6-10) should apply to gas stations as well as other commercial uses.

Transferable Development Rights (TDR)



- The township's transferable development rights provisions are clear and provide generous incentives to participate. However, an evaluation of density credits in sending areas, eligible receiving areas, maximum density in receiving areas, and reduction in open space in receiving areas is recommended.
- Sending area development rights in the RC district are calculated on the basis of 0.6 dwelling units per acre. However, under the open space development provisions, maximum achievable density is 0.55 DU/acre. Thus, transferable development rights increase the amount of development in the township. It is recommended that the sending credits provision be revised to be density neutral with non-transferable development.
- Like most TDR ordinances, in West Pikeland the sending area property would receive no compensation until a receiving area development acquires those rights. This may be a disincentive to sending area property owners participating in the program. Instead, the township could consider a TDR "bank" whereby developers pay a fee to acquire additional development rights. The fees could be accumulated as dedicated funding exclusively for municipal open space conservation through easement or ownership.
- The TDR ordinance allows non-prime soil areas in the RC district to be receiving zones for transferable development rights, at density increased from 0.55 DU/acre to 0.85 DU/acre, a 55% increase. This, combined with use regulations that permit attached and multifamily dwellings, is not consistent with a low-density rural zoning district. Further, since classes I, II, and III soils are considered prime, the increased development would be pushed into the areas least suited for it. It is recommended that the RC district be a sending area only, and that development rights be transferred only to areas designated by the township as growth areas.
- The following describes existing allowable density with and without transferable development rights:

<u>District/Development Type</u>	<u>without TDR</u>	<u>with TDR</u>
RC/Open Space	0.55 DU/ac	0.85 DU/ac
RD/Open Space	1.5 DU/ac	2.25 DU/ac
RD/Age Restricted	3.0 DU/ac	4.5 DU/ac
RD/Mobile Home Park	3.0 DU/ac	4.5 DU/ac

As previously stated, the township should consider not including the RC district as a receiving zone. If the township desires more area for receiving TDR, it could expand the RD district and thus ensure that higher density development occurs within the framework of planned growth areas, rather than randomly throughout the township.

Similarly, the allowable densities for receiving areas in the RD district constitute overly large density bonuses that may make TDR development inconsistent with surrounding areas. As proposed,

TDR density enhancement is 150% for open space development, age restricted development, and mobile home parks.

Further, the allowable reduction in required open space to facilitate TDR receiving may be less desirable than reduced lot sizes and/or change in unit mix to protect large amounts of open space at elevated densities.

The township should consider base zoning and TDR receiving area densities as follows:

<u>District/Development Type</u>	<u>without TDR</u>	<u>with TDR</u>
RC/Open Space	0.43 DU/ac	n/a
RD/Open Space	1.0 DU/ac	1.5 DU/ac
RD/Age Restricted	1.5 DU/ac	3.0 DU/ac
RD/Mobile Home Park	1.5 DU/ac	3.0 DU/ac

Regardless of whether the recommended specific density enhancements are adopted, allowable densities should be tied to an understanding of land value, relative value of different unit types, traffic and infrastructure impacts, and compatibility with surrounding areas.

Lighting

- Refine lighting requirements to control light pollution and to promote dark skies.

SLDO

Subdivision and Land Development Ordinance amendments are recommended as follows:

- Create landscaping standards to require screening and buffering between incompatible uses and improvements.
- Create design standards to guide the architectural and exterior appearance of buildings and other improvements in a manner that is suited the township's rural character.
- Enact a recreation requirement or fee-in lieu ordinance to fund greenway acquisitions or easements.

Additional Measures

Additional recommended measures are as follows:

- The township should continue its participation in an Agricultural Security Area.
- The township should engage dialogue with private and institutional owners of large properties to promote conservation, especially within and adjacent to greenway corridors.
- Work with Historic Yellow Springs to develop a plan for parking and pedestrian accessibility in the village.

Chapter 7 Housing Plan

INTRODUCTION

Overview

The Housing Plan examines the characteristics of West Pikeland Township's existing housing stock and provides estimates of future growth. It is intended to meet the housing needs of existing Township residents and to accommodate anticipated growth. It also seeks to ensure that the Township provides for housing of various types and in various arrangements.

GOALS & OBJECTIVES

Goal #1

Provide a diversity of housing types at varying levels of affordability, in proper context with Township infrastructure and character.

Objectives:

- Meet "fair share" obligations to accommodate different housing types in accordance with state law.
- Accommodate multifamily uses in areas with adequate supporting infrastructure.

Goal #2

Promote "green building" technology.

Objectives:

- Maximize energy efficiency.
- Promote use of renewable and recycled materials.

Goal #3

Promote alternative energy.

- Promote use of wind, solar, and geothermal energy sources.

EXISTING CONDITIONS

Housing Trends

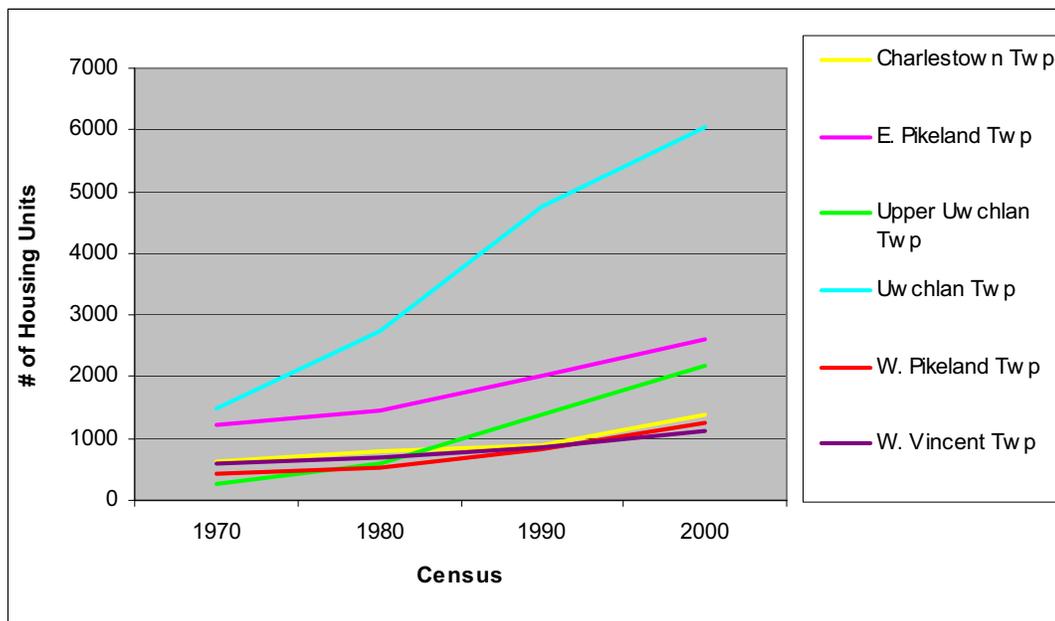
Housing trends examines housing unit growth in West Pikeland Township and neighboring municipalities from 1970 to 2000, based on US Census data (Figure 7-1 and Table 7-1). An estimate of the number of housing units in West Pikeland Township in 2009 based on residential building permit data is provided in Table 7-2.



The US Census data show steady housing growth in West Pikeland Township and surrounding municipalities from 1970 to 2000, though the rate of growth declined from 1990 to 2000 in all townships except Charlestown and West Vincent. Chester County has also experienced steady housing growth with a lower growth rate from 1990 to 2000.

The 2009 housing unit estimates are based on West Pikeland Township residential building permits records as of September 25, 2009. The estimates indicate a substantial decline in housing unit growth since the 2000 Census. In that nine year period 142 new housing units were built, representing an 11% growth rate – a steep decline from the 57% growth seen in the 1980s and the 48% growth rate experienced in the 1990s.

Figure 7.1. Housing Unit Trends 1970 - 2000



Source: US Census Bureau

Table 7.1. Housing Unit Trends: 1970 - 2000

Housing Units	1970 Census	1980 Census	# Change 1970- 1980	% Change 1970-1980	1990 Census	# Change 1980- 1990	% Change 1980-1990	2000 Census	# Change 1990- 2000	% Change 1990-2000
Charlestown Twp	611	806	195	32%	876	70	9%	1397	521	59%
E. Pikeland Twp	1222	1465	243	20%	2014	549	37%	2604	590	29%
Upper Uwchlan Twp	279	584	305	109%	1390	806	138%	2167	777	56%
Uwchlan Twp	1491	2744	1253	84%	4743	1999	73%	6030	1287	27%
W. Pikeland Twp	433	532	99	23%	837	305	57%	1240	403	48%
W. Vincent Twp	581	686	105	18%	846	160	23%	1121	275	33%
Chester County	80473	110183	29710	37%	139597	29414	27%	163773	24176	17%
Pennsylvania	3927206	4596743	669537	17%	4938140	341397	7%	5249750	311610	6%

Source: US Census Bureau

Table 7.2. 2009 Housing Unit Estimate

Housing Units	1970 Census	1980 Census	# Change 1970- 1980	% Change 1970- 1980	1990 Census	# Change 1980- 1990	% Change 1980- 1990	2000 Census	# Change 1990- 2000	% Change 1990- 2000	2009 Estimate
W. Pikeland Twp	433	532	99	23%	837	305	57%	1240	403	48%	1382

Source: US Census Bureau; West Pikeland Township Residential Building Permit Records

Housing Characteristics

Housing characteristics examines the overall condition of the Township's existing housing stock. It includes housing occupancy and tenure, diversity of housing types, and house values. Findings are as follows:



- Approximately 98% of West Pikeland's housing units are occupied; only 2% are vacant (Table 7-3). This is indicative of a very healthy and stable residential base. These figures are consistent with those of Chester County. The percentage of occupied units is higher than that of Pennsylvania.
- Of the total number of occupied units in the Township, 93% are owner occupied and 7% are renter occupied (Table 7-3). Owner occupancy is substantially higher in West Pikeland Township than in Chester County and Pennsylvania.
- West Pikeland Township's homeowner and rental vacancy rates are very low (Table 7-3). This is indicative of high demand and perhaps unmet demand for owner units, and slightly less demand for rental units.
- Approximately 85% of housing in West Pikeland Township is in the form of single-family detached units. This is a substantially higher percentage than in Chester County and Pennsylvania. Approximately 14% of housing is in the form of one unit attached homes (i.e. townhomes). Less than one percent are dwellings of two units or more. The disproportionate percentages of single-family and multi-family dwellings are presumably due to the lack of demand for multi-family dwellings.
- House values in West Pikeland Township are very high. Most housing in West Pikeland Township is valued between \$200,000 and \$500,000 (Table 7-4). This skews the distribution of house value toward the high end of the price scale (Figure 7-4). In comparison, house values in Chester County are normally distributed with most in the \$100,000 to \$300,000 price range. House values in Pennsylvania are skewed toward the lower end of the price scale with most less than \$200,000. The median house value of \$279,100 in West Pikeland Township is more than 50% higher than Chester County and nearly three times higher than Pennsylvania. Median gross rent is also significantly higher in West Pikeland than in Chester County and Pennsylvania.
- As of the 2000 Census, 16.9% of owner households and 31.4% of renter households were cost burdened, defined as spending more than 30% of their income on housing costs.



Table 7.3 - Housing Characteristics

Housing Characteristics	West Pikeland Township		Chester County		Pennsylvania	
	2000 Census	% of Total Units	2000 Census	% of Total Units	2000 Census	% of Total Units
Housing Occupancy						
Total Housing Units	1,240	100.00%	163,773	100%	5,249,750	100%
Occupied Units	1,214	97.90%	157,905	96.42%	4,777,003	90.99%
Vacant Units	26	2.10%	5,868	3.58%	324,517	6.18%
Seasonal, Occasional Use	3	0.24%	571	0.35%	148,230	2.82%
Housing Tenure						
Total Occupied Units	1,214	100.00%	157,905	100.00%	4,777,003	100.00%
Owner Occupied Units	1,130	93.08%	120,428	76.27%	3,406,337	71.31%
Renter Occupied Units	84	6.92%	37,477	23.73%	1,370,666	28.69%
Homeowner Vacancy Rate		0.50%		1.00%		1.60%
Rental Vacancy Rate		2.30%		4.80%		7.20%
Type of Structure						
1 unit detached	1,060	85.48%	101,669	62.08%	2,935,248	55.91%
1 unit attached	168	13.55%	27,258	16.64%	940,396	17.91%
2 units	5	0.40%	3,389	2.07%	273,798	5.22%
3 or 4 units	0	0.00%	5,288	3.23%	241,745	4.60%
5 - 9 units	7	0.56%	5,919	3.61%	179,909	3.43%
10 - 19 units	0	0.00%	6,768	4.13%	131,691	2.51%
20 or more units	0	0.00%	8,359	5.10%	283,714	5.40%
Mobile home	0	0.00%	5,030	3.07%	258,551	4.93%
Boat, RV, Van, etc.	0	0.00%	93	0.06%	4,698	0.09%

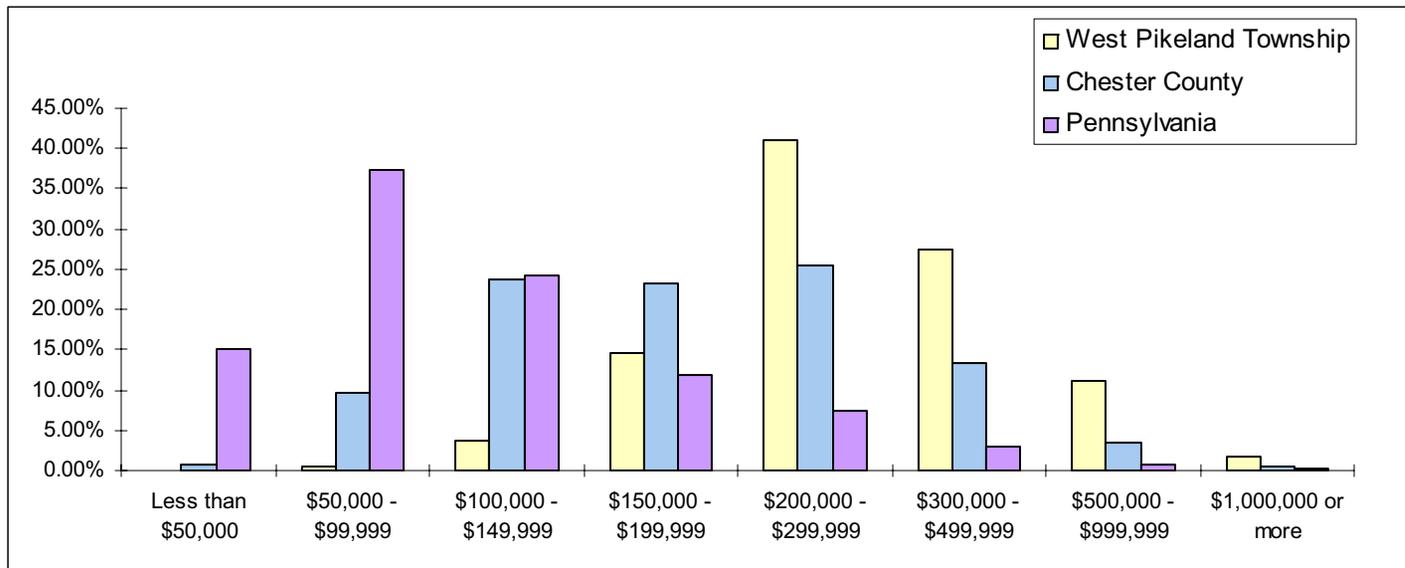
Source: U.S. Census Bureau, 2000

Table 7.4 - House Value

Housing Value	West Pikeland Township		Chester County		Pennsylvania	
	2000 Census	% of Total	2000 Census	% of Total	2000 Census	% of Total
Specified Owner-Occupied Units	973	100.00%	106254	100.00%	2889484	100.00%
Less than \$50,000	0	0.00%	871	0.82%	435,193	15.06%
\$50,000 - \$99,999	5	0.51%	10,200	9.60%	1,079,698	37.37%
\$100,000 - \$149,999	35	3.60%	25,313	23.82%	703,093	24.33%
\$150,000 - \$199,999	143	14.70%	24,646	23.20%	344,172	11.91%
\$200,000 - \$299,999	399	41.01%	26,969	25.38%	214,812	7.43%
\$300,000 - \$499,999	266	27.34%	14,268	13.43%	84,425	2.92%
\$500,000 - \$999,999	109	11.20%	3,549	3.34%	23,654	0.82%
\$1,000,000 or more	16	1.64%	438	0.41%	4,437	0.15%
Median House Value	\$279,100		\$182,500		\$97,000	
Median Rent	\$900		\$754		\$531	

Source: U.S. Census Bureau, 2000

Figure 7-3. House Values



Source: U.S. Census Bureau, 2000

Housing Projections



Housing unit projections are provided for 2010 and 2020 (Table 7-5). The number of units estimated for 2010 is taken from West Pikeland Township residential building permit data, which includes building permits as of September 25, 2009. Housing unit projections for 2020 are derived by dividing the population projections (see Demographic Profile chapter) by the average household size.

Housing unit projections at the municipal level offer only general estimates base on past trends. They do not account for the possibility that one or two large subdivisions could occur in the next ten years causing an anomalous increase in the number of units. Regardless, housing unit projections for West Pikeland Township suggest low rate of growth (11% over 10 years) through 2010, then a slight increase in the growth rate (19% over 10 years) through 2020. By 2020, the Township is projected to have a total of 1,651 housing units, an increase of 269 units over the 2010 figure.

Table 7.5 - Housing Unit Projections: 2010 - 2020

	2000	2010	#	% Change	2020	#	% Change
	Census	Projection	Change 2000-2010	2000-2010	Projection	Change 2010-2020	2010-2020
W. Pikeland Twp	1,240	1,382	142	11.45%	1,651	269	19.46%

Source: US. Census Bureau, 2000; Consultant's Analysis

PLANNING IMPLICATIONS

Summary

The type and price of housing available in any municipality is largely market driven and beyond a municipality's direct control. However, municipalities can take steps to encourage innovative forms of housing that meet the community's needs, satisfy the market, and satisfy the Township's "fair share" obligation (i.e. to provide sufficient opportunities for housing of various forms including single-family, two-family, and multi-family dwellings, and mobile homes).

The current Township zoning ordinance provides for various housing types. It must continue to do so, while ensuring that housing development adheres to natural and historic resource protection standards and is supported by the appropriate utilities and transportation infrastructure.

FUTURE PLANNING POLICIES & RECOMMENDATIONS

Recommendations

Policies and recommendations are as follows:

- Accommodate mixed-use development in villages that would provide for various dwelling types in proximity to commercial and civic services.
- Continue to provide for a variety of housing types, including single-family attached and multi-family dwellings, in order to accommodate individuals and families of various income levels.
- Coordinate new housing development with the location of sewer, water, and transportation infrastructure and community facilities.

IMPLEMENTATION STRATEGIES

Zoning Ordinance

Zoning ordinance provisions intended to implement the policies and recommendations are as follows:

- Amend the Village zoning districts to accommodate residential uses, including multifamily housing, in conjunction with non-residential uses in villages, with appropriate architectural and site design standards.
- Continue to accommodate multifamily housing in the RD zoning district, and consider limitations on the area within which mobile home developments can occur.
- Consider accommodating mobile home developments in the Opperman's Corner Commercial Village.
- Amend the use regulations in the Rural Conservation area to prohibit multifamily housing and mobile homes.

SLDO

Subdivision and Land Development ordinance amendments intended to implement the policies and recommendations are as follows:

- Create design standards that promote attractive, interconnected communities with pedestrian access and appropriate landscaping.

Chapter 8 Community Facilities, Services & Utilities Plan

INTRODUCTION

Overview

Community facilities and services are the buildings and services owned and provided by governmental and institutional entities. This includes municipal facilities, libraries, emergency services, and cultural organizations. Utilities refer to water supply, sewerage and wastewater treatment, stormwater management, and energy supply.



This Comprehensive Plan addresses issues related to community facilities, services, and utilities, and seeks to coordinate the provision of these amenities with the development pattern advocated by the Future Land Use Plan. Community facilities and services are planned to be accessible to all Township residents. Utilities are planned to correspond to the intensity of uses proposed by the Future Land Use Plan. That is, public water supply and wastewater treatment systems are planned for areas where higher intensity of uses are proposed. In the low-density residential area, on-lot systems are more appropriate. The aim is to achieve more efficient allocation of facilities, services, and utilities and minimize potential widespread, adverse environmental impacts that often arise from unmanaged growth.

GOALS & OBJECTIVES

Goal #1

Provide for community facilities and services that address the needs of residents and are consistent with the overall goals for the Township.

Objectives:

- Provide effective municipal services to Township residents.
- Monitor emergency services specifically police, fire and ambulance, to ensure that services are fiscally responsible and effective in meeting Township residents' needs.
- Fund and support the Chester Springs library.
- Advance the mission of Historic Yellow Springs.
- Preserve and promote the Mill at Anselma.
- Coordinate with area regional planning initiatives.
- Define and embrace the cultural/artistic heritage of Northern Chester County as part of the Philadelphia regional culture, and as distinct from that of the Brandywine Valley.
- Recognize the value of clean and picturesque streams in determining Township history and culture.

Goal #2

Provide adequate water supply.

Objectives:

- Require new development to demonstrate adequacy of water supply.

Goal #3

Provide safe and effective sewage disposal.

Objectives:

- Promote sewage disposal methods for optimal water quality, environmental protection, and quality of life.
- Implement the Act 537 sewage facilities plan.

EXISTING CONDITIONS

Municipal Services

West Pikeland Township has a five member governing body supported by various commissions and committees. It employs a Township Manager, and Township Secretary. General administrative services are performed by the governing body and the hired staff, as well as by contracted firms.

Municipal Building

The Township relocated its municipal offices in 2007 from PA 113 in Chester Springs Village to Art School Road in Historic Yellow Springs. Municipal offices and the Police Department are located here. (See Appendix A-9)

Emergency Services

West Pikeland Township has its own full-time police force. Two volunteer fire companies handle fire protection, and ambulance service is provided by three emergency services companies.

The West Pikeland Township Police Department is housed in the municipal building on Art School Road. The police force consists of four full-time and four part-time police officers. Coverage equates to approximately twenty hours per day, seven days per week. The



Department owns four vehicles. In 2008, officers responded to 4,892 calls for service. Citations and arrests were issued for traffic incidents, DUI, drug violations, and other criminal incidents. The departments also responded to numerous quality of life calls (alarms, suspicious activity, criminal investigations, business and vacation checks, and traffic enforcement). The State Police provide back up from the Embreeville location. The police department's foremost concerns are traffic flow, violators, and funding.

Two fire companies serve the Township. Lionville Fire Company provides service to the southwestern portion of the Township. It is located on Village Avenue in Lionville and has approximately 60 active fire fighters. The Kimberton Fire Company serves the northeastern region of the Township. It is located on PA 113 in Kimberton and is supported by approximately 43 active fire fighters. The boundary between the two service areas roughly parallels Yellow Springs Road.

Three entities provide ambulance service to West Pikeland Township. The West End Fire Company is located in Phoenixville and services the northern region of the Township, the Uwchlan Ambulance Corps is located in Uwchlan Township and provides service to the southern region while East Whiteland Fire Company, located in Frazer, serves a small region in the eastern part of the Township. Most medical emergencies are directed to the Phoenixville, Brandywine, Paoli, and Chester County hospitals.

Library

The Chester Springs Library is located on Art School Road near the intersection of Route 113 and Yellow Springs Road. It serves West Pikeland, West Vincent and East Nantmeal Townships. It is part of the Chester County Library System, providing members with access to the seventeen libraries in the county system. The library houses a collection of 19,500 items, has four personal computers with high-speed internet, and has wireless internet access for laptops and mobile devices. (See Appendix A-9)

Schools

West Pikeland Township is part of the Downingtown Area School District along with the Borough of Downingtown and the townships of East Brandywine, East Caln, Upper Uwchlan, Uwchlan, Wallace, and West Bradford. Downingtown Area School District is comprised of ten elementary schools (grades K-5), two middle schools (grades 6-8), and two high schools (grades 9-12). There are no public schools physically located in West Pikeland Township. Students in West Pikeland attend Pickering Valley and Lionville Elementary Schools, the Lionville Middle School, and Downingtown East High School.

The Montgomery School is a private school located on 42-acres on Route 113 near Horseshoe Trail Road. It offers a pre-school program and educational programs for grades K-8. The school recently underwent renovations and is expected to remain in the Township. (See Appendix A-9)

Parks & Recreation

Refer to the Open Space and Recreation Plan

Mail

Rural delivery postal services are available. The Chester Springs Post Office is located on Route 113 in Chester Springs. Concerns have been

raised about safe vehicular access to this facility, due to limited sight distance and high traffic volume.

Solid Waste Disposal

West Pikeland has no municipal waste or recycling program. Residents and businesses contract private haulers individually for waste removal and recycling.

The Solid Waste Management Act (Act 97 of 1980) provides for the planning and regulation of solid waste and requires municipalities with a population density of over 300 people per square mile to prepare and submit solid waste management plans. A second law, the Municipal Waste Planning, Recycling and Waste Reduction Act (Act 101 of 1988) was passed to supplement Act 97 in an effort to promote recycling and reduce the volume of solid waste. Act 101 requires that a source separation and collection program (curbside recycling pickups) be established in Townships that have at least 5,000 in population and a density threshold of 300 persons per square mile.

Act 101 also includes provisions for leaf waste/composting, recycling of lead acid batteries, and hazardous waste collection. Grants are available from PA DEP to assist participating municipalities with waste reduction and recycling.

The 2000 Census reported West Pikeland Township's population density at 356.3 persons per square mile, but the Township is not expected to attain the threshold population of 5,000 by 2,020. Thus, Township compliance with the State waste and recycling acts would be voluntary.

Water Supply

West Pikeland Township's water supply is delivered through both domestic wells and public water systems, with most residents reliant on domestic wells. Five residential developments-Twin Hills, Fairfield, Pickering Meadows, Chantilly Farms and Bridlewood-are currently served by public systems (see Appendix A-10). These developments are located in the proposed growth area west of Route 401 and in the vicinity of Chantilly Lane. Because of the existence of public water service, new growth will be directed to this area.

The remainder of the Township is reliant on domestic wells for its potable water supply. Groundwater yields in West Pikeland have been sufficient to accommodate the low-density development that has occurred. However, water supply is a concern because the Township's underlying geology may not yield sufficient groundwater needed to support higher density development¹. In addition, there are a number of failing and aged on-lot systems that threaten surface and ground water quality, particularly in the RD zoning district². Wastewater treatment alternatives are currently being explored for these areas.

Wastewater Management

The following analysis and recommendations are summarized from the draft West Pikeland Township Act 537 Sewage Facilities Plan dated 5-31-2010 and are depicted in Appendix A-10:

The majority of the Township is served by on site septic disposal systems. Community sewer systems serve Twin Hills, Pickering

¹ West Pikeland Township Comprehensive Plan Update. November 15, 1999

² West Pikeland Township, Draft Act 537 Plan dated May 31, 2010

Meadows, and Yellow Springs. At present, there is no available treatment capacity from neighboring municipalities, the Valley Forge Sewer Authority, or the Downingtown Area Regional Authority.

The Twin Hills/Pickering Meadows treatment facility is rated for 78,850 gallons per day (GPD) and currently treats 54,000 GPD. The Yellow Springs system is permitted for 6,927 GPD and treats 2,735 GPD. The Montgomery School has a treatment system permitted for 4,080 GPD, but actual treatment volume is unknown.



Currently, the only “public” wastewater treatment facility within the Township is the Twin Hills Wastewater Treatment Plant that services the Twin Hills Development and the Pickering Meadows Development. The sewage facilities are owned and operated by the Little Washington Wastewater Company (LWWC), an Investor Owned Public Utility Company, regulated by the Pennsylvania Public Utilities Commission.

In the RC zoning district, which constitutes over two-thirds of the Township area, lots typically are greater than 2 acres and generally have sufficient suitable area for a replacement soil absorption system should the primary system fail. For this area of the Township, the continued use of on lot systems with proper operation and maintenance is considered a viable long-term method of sewage disposal. No expansion of centralized sewer service is planned for lands in the RC zoning district.

However, for RC zone development under the Township’s open space design option, which allows small lots, townhouses, and multifamily development, new community sewage disposal systems would be necessary.

There are a number of failing and aged on-lot systems that threaten surface and ground water quality, and many homes cannot be certified for real estate transfers. This is particularly the case in the RD zoning district in the area southwest of Route 401, where lots of 2 acres and less have insufficient area for a replacement soil absorption system. The V-1 and V-2 Village Commercial Districts and the Pickering Estates development have similar problems with on site systems. Providing public sewer service for these areas is a potential long-term method of sewage disposal. Draft sewage facilities plans have considered combinations of new sewer lines, existing treatment facilities, and new treatment facilities to address failing residential systems and commercial areas in the vicinity of Opperman’s Corner, Pickering Estates, and along and to the southwest of Route 401.

For on lot systems, the Township should advise property owners of proper maintenance protocol consistent with the requirements of PA DEP and the Township’s Act 537 sewage facilities plan.

Residents of Twin Hills are negatively impacted by odors coming from the wastewater treatment plant. They have filed complaints but have received no relief. The Township should work with LWWC to eliminate this problem as soon as possible. Any additions or upgrades to the system should be required to permanently eliminate this problem as a matter of quality of life.

In accordance with the Chester County “Landscapes” Comprehensive Plan, the Township is encouraged to utilize innovative wastewater systems, with a preference for land application. Further, the Township should discourage treatment methods that transport water outside of local watersheds. Therefore, future wastewater treatment will probably rely on community based or on-lot systems. Since the Township lies within a Special Protection watershed, PA DEP would most likely require land application for any community sewage facility.

PLANNING IMPLICATIONS

Summary

With the exception of needed sewage facilities to address insufficient service in the south of the Township, municipal facilities and services appear to be regularly used and sufficiently serve Township residents. The existence of a public water system and planned expansion of the sewer system in the area west of Route 401 make this area the most likely area for future growth. The Township must ensure, however, that new development in this area is sensitive to its natural and historical features and that building design is compatible with the existing built and natural environment.

FUTURE PLANNING POLICIES & RECOMMENDATIONS

Recommendations

Policies and recommendations are as follows:

- Continue to provide existing levels of municipal services.
- Continue to support the township’s emergency service providers.
- Provide a recycling drop off center to encourage recycling among residents.
- Require a groundwater study with all new development proposals to ensure that adequate water supply is available and sustainable.
- Require regular maintenance of on-lot septic systems.
- Encourage the use of wastewater management systems that provide groundwater recharge.

IMPLEMENTATION STRATEGIES

Zoning Ordinance

Zoning ordinance provisions intended to implement the policies and recommendations are as follows:

- See that centralized sewer and water systems are coordinated with zoning provisions governing uses and intensities of development.

SLDO

Subdivision and Land Development Ordinance amendments intended to implement the policies and recommendations are as follows:

- Require groundwater withdrawal studies for developments where public water is not proposed, and require public water service where groundwater supplies are determined to be inadequate or marginal, consistent with policy UI 2.3 of the County's Landscapes 2 plan.
- Require replacement areas for in ground septic systems for use in the event of primary system failure.

Additional Measures

Additional measures intended to implement the policies and recommendations are as follows:

- Adopt a municipal Act 537 Sewage Facilities Plan that addresses current deficiencies and accommodates future development in coordination with the Future Land Use element of the Comprehensive Plan, consistent with policies UI 2.9 and UI 2.10 of the County's Landscapes 2 plan.
- Require LWWC to remedy the problem with odors emanating from the Twin Hills Wastewater Treatment Plant.
- Investigate methods to improve the efficient and economical delivery of municipal services, without reducing the quality and availability of those services.
- Design and implement parking and pedestrian accessibility enhancements for the cultural, civic, and municipal facilities in Yellow Springs Village, in coordination with Historic Yellow Springs, Inc.
- Work with the Township Arts and Culture Committee, the Chester Springs Studio, and Historic Yellow Springs to promote a local arts and culture milieu consistent with the traditions of northern Chester County.
- Coordinate water supply, wastewater, and land use planning with the County, other municipalities, and utility service providers, consistent with policy UI 2.4 of the County's Landscapes 2 plan.
- Work with wire utilities to relocate services below ground where feasible, especially along scenic roads.

Chapter 9 Open Space, Parks, and Recreation Plan

INTRODUCTION

Overview



Open space coincides with natural resource protection areas, forming greenways along stream corridors, as well as conservation lands on farms and other large properties. Trails through the open spaces provide links between population and recreation facilities, historic resources, and other significant destinations within and beyond the Township's borders. Active recreation includes facilities for sports and athletic play and is proposed accessible to population centers.

The overall goal of this plan is to create a contiguous network of open space, greenways, and trails that provides recreational opportunities while achieving environmental protection. This network could be linked to a regional or countywide system.

GOALS & OBJECTIVES

Public Opinion

A 2005 Township questionnaire was conducted pertaining to recreation and open space issues. Approximately 20% of all households in the Township participated, and a summary of questionnaire tabulations is as follows:

- 42% of the respondents were in the 36 to 59 year old age group;

- 26% of the respondents lived in the Township from 11 to 20 years;
- 35% of the respondents live in the eastern portion of the Township (closest to Pine Creek Park);
- 49% of the respondents have properties of less than 2 acres;
- 76% of the respondents support public recreation facilities even if they were an infrequent user;
- 91% of the respondents favor passive recreation;
- 53% of the respondents would support a Township tax for open space; and
- The most favored recreation facilities that would increase satisfaction for the respondents include: trails, nature preserves, historic sites, fishing areas, theatre/concerts, picnic areas, and tennis courts.

These survey results were compiled with the 2009 Comprehensive Plan survey results (Appendix A-13) and input from the 6-10-09 Community meeting to derive the following goals and objectives:

Goal 9-1

Maximize conservation of large contiguous areas of open space.

Objectives:

- a. Preserve remaining parcels of undeveloped land that are prominent in terms of visual character or important in terms of linking and/or buffering open space destinations.
- b. Focus open space acquisition based on a plan to connect open space parcels into greenway corridors.
- c. Devise strategies for prioritizing and acquiring land for open space, such as land purchase or creating conservation easements for open space land each year.
- d. Maintain open space along the Route 113 and 401 corridors to promote the rural character of West Pikeland Township.
- e. Consider Transferable Development Rights.
- f. Create conservation incentives.
- g. Encourage clustering of development to create open space.
- h. Acquire easements on properties vulnerable to development.
- i. Coordinate open space planning with adjacent municipalities.

- j. Consider Township purchase of lands.
- k. Transfer open space to land trusts to own and monitor in perpetuity.
- l. Consider Township purchase of easements and development rights.
- m. Encourage private easements.

Goal 9-2**Establish a Township and regional trail network.**

- a. Accommodate hikers, bicyclists, and equestrians.
- b. Protect and expand off road portions of the Horse-shoe Trail.
- c. Preserve the existing trail network.
- d. Provide interconnected access to public open space and establish key destinations such as Historic Yellow Springs.
- e. Promote easements and purchase of development rights for public trail access.
- f. Coordinate trail planning with adjacent municipalities and the Federation of Northern Chester County Communities.
- g. Coordinate trail access on privately owned lands with conservation easements.
- h. Maintain a registry of publicly accessible trails.

Goal 9-3**Provide sufficient facilities for active recreation.***Objectives:*

- a. Promote utilization of existing Township resources, including Pickering Grove, Windolph Knoll, and Hallman's Field.
- b. Explore all options for regional recreation participation.
- c. Explore public use of school facilities, such as at Montgomery School.

Goal 9-4**Provide diversified recreation amenities for all ages and abilities.***Objectives:*

- a. Serve all of the Township's demographic constituencies.

- b. Comply with the Americans with Disabilities Act.
- c. Provide facilities including but not limited to tennis, fishing access, and equestrian passage.

Goal 9-5

Provide accessible neighborhood parks.

Objectives:

- a. Require park amenities in all new developments. In the alternative, allow a fee in lieu requiring mutual agreement with the Township for offsite recreational facilities necessitated by those developments.
- b. Connect parks to trails and other open space.

OPEN SPACE PLANNING POLICIES & RECOMMENDATIONS

Overview

These policies are intended to promote an open space system that connects the community and establishes the continued identity of West Pikeland Township as a scenic rural home for its residents. Existing Township open space is provided as follows (See Appendix A-11):

Open Space/Recreation	# of Parcels	Acres	% of Total
Township Park	1	71.09	1.12%
Township-Owned Open Space	17	258.51	4.06%
Township Multi-Use Open Space	1	23.84	0.37%
Township Conservation Easement	23	202.06	3.17%
Private Conservation Easement	17	247.04	3.88%
Land Trust	9	215.70	3.38%
Homeowners Association Open Space	42	209.02	3.28%
Restricted by Subdivision	94	711.25	11.16%
Institutional	17	347.45	5.45%
Private Camp	1	43.28	0.68%
Total	223	2329.24	36.54%

This plan seeks to knit the Township's open spaces together into a cohesive, interconnected, and accessible network, organized around greenway and trail corridors along the major streams.

TOWNSHIP OWNED CONSERVATION LANDS/PASSIVE OPEN SPACE

Some of the open space associated with residential development has been dedicated to the Township. These areas present opportunities for trail connections and ecological enhancement.

Recommendations & Implementation Strategies

- **Natural Resource Conservation Areas** - The Township owned natural areas are predominantly wooded. Therefore, limited maintenance activities are required. However, local scouting, hiking, equestrian, and ecology groups could become involved in efforts to identify and eradicate invasive plant species if they should become established, and to see that any trails are in good condition.

The Township Park and Recreation Board or the Land Trust should oversee the continued health of the natural areas.

- **Future Open Space Acquisitions** – Priorities will be given to lands within designated greenway/trail corridors and larger parcels with significant environmental, scenic, and/or agricultural resources.

The West Pikeland Land Trust will continue to advance open space protection by establishing priorities and pursuing opportunities. Open space acquisitions will be funded through various mechanisms, including the Township's Earned Income Tax, Municipal bonds, County and State grants, and donated easements from landowners.

- **Trails** - Trail connections should be protected where they exist, and new trail connections should be established where appropriate. Recommendations specific to designated parcels of Township owned open space are as follows:
 - a. A trail connection to the County's Pickering-Upper Uwchlan Regional Recreation Corridor, which coincides roughly with the former Pickering Valley Railroad, should be established in the open space to the east of Meadow Creek Road. This open space is also contiguous to the open space at the Pickering Meadows development, creating potential for networked trails.
 - b. The open space at Dunsinane Hill contains an existing trail with connections to other existing equestrian trails to the east. These connections should be maintained.
 - c. Fairfield's open space has no existing trails, but there is potential to use a stream corridor to link a trail to the Pickering-Upper Uwchlan Regional Recreation Corridor and to Milky Way Farm in Uwchlan Township.
 - d. Oak Hill open space has no existing trails, but could provide trail links to trails in Wildlife Farm and to an eased property along Clover Mill Road, which could create a connection to the open space and trail along Pickering Creek and to Binky Lee Farm.
 - e. Open space between Upper Pine Creek Road and Saddlebrook Circle, known as Bridlewood, has no existing trails, but the stream corridor could be utilized to create a pedestrian link between the Saddlebrook and Pickering Estates communities and Windolph Knoll.

The Township Trails Subcommittee should coordinate this work, reporting to the Park and Recreation Board and the Board of Supervisors. Trail easements/rights of way will be funded through the Township's Earned Income Tax, County and State grants, and donated easements from participating landowners.

HOMEOWNERS ASSOCIATION OPEN SPACE

Open space associated with residential development should fulfill a useful recreation or conservation purpose. Existing open space areas owned by Homeowners Associations (HOA) present opportunities for trail connections and ecological enhancement. In addition, the Township should enact development regulations for future HOA owned open space that ensure that environmental resources will be protected and recreational needs will be met.

Recommendations & Implementation Strategies

- **Trails** - Trail connections should be maintained and protected where they exist, and new trail connections should be established where appropriate. Recommendations specific to designated parcels of HOA owned open space are as follows:
 - a. The open space at Chantilly Farm provides an opportunity for an off-road re-alignment of Horseshoe Trail. The current path utilizing the Horseshoe Trail Road cart way is ill suited to pedestrian use.
 - b. Fairfield's open space has no existing trails, but there is potential to use a stream corridor to link a trail to the Pickering-Upper Uwchlan Regional Recreation Corridor and to Milky Way Farm in Uwchlan Township.
 - c. Haverhill open space has no existing trails, but could provide trail links to the Pickering Meadows open space. In addition, an existing trail across Horseshoe Trail Road from the development provides a linkage to Historic Yellow Springs Village.
 - d. Open space at Pickering Meadows currently has a system of mulched trails for use of the residents of the development, although equestrian trails previously existed on the property. If the Township accepts dedication, public access could be permitted. This open space should accommodate a trail link between the Pickering-Upper Uwchlan Regional Recreation Corridor and Haverhill to create a trail connection between Yellow Springs and Upper Uwchlan Township.
 - e. Twin Hills has a looped recreation path for the use of the development's residents that could easily be connected to the Pickering-Upper Uwchlan Regional Recreation Corridor. The Township and the HOA should discuss the potential for public access.
 - f. Wildlife Farm open space contains remnants of equestrian trails. These trails, if re-established, could provide valuable

connections to the privately owned Indian Springs Camp (which links to Charlestown Township's trail system) and Binky Lee Farm.

The Trails Subcommittee should conduct this work, reporting to the Park and Recreation Board and the Board of Supervisors.

- **Natural Resource Conservation Areas** - For the forested areas within HOA owned open space, no formalized maintenance activities are needed. However, local scouting, hiking, equestrian, and ecology groups could become involved in efforts to identify and eradicate invasive plant species if they should become established, and to keep the trails clear and in good condition.

Non-wooded open space areas require maintenance to keep them free of invasive plants. Instead of large lawn areas that require frequent and wasteful regular mowing and fertilizing, it is recommended that the open space areas be established as native grass and wildflower meadows. After installation and establishment, naturalized meadows require only an annual mowing, and they provide numerous benefits in habitat, stormwater infiltration, water quality and aesthetics.

The Township Park and Recreation Board or the West Pikeland Land Trust should oversee HOA management practices for the continued health of wooded natural areas and trails. The Land Trust and the Board of Supervisors should educate HOA boards on the benefits of meadows in non-wooded areas.

- **New Developments** - Ordinances should be used to ensure that new developments provide open space that facilitates conservation and recreation, in accordance with the following:
 - a. Open space should be required in developments for recreation purposes, in the form of playgrounds, sports/playfields, trails, and other amenities.
 - b. The Township should enact a fee in lieu of recreation ordinance to provide for the creation of offsite recreational resources to serve the needs of development when they cannot be accommodated on site. Such fee would be paid only by mutual consent of the applicant and Township.
 - c. Protection of existing trails should be required.
 - d. Natural resources, including floodplains, steep slopes, riparian and wetland buffers, should be preserved and their preservation used to facilitate the establishment of trail corridors.
 - e. Enforcement of woodland protection and replacement standards should aim to encourage the preservation of woodland habitats.
 - f. Consideration should be given to further protection of critical environmental areas by adjusting permitted densities of development in light of a broader range of sensitive environmental features.

The Planning Commission and the Board of Supervisors should periodically review the effectiveness of existing Ordinance provisions in protecting environmental features and update the ordinances as necessary to maximize environmental protection and promote recreational utility of HOA owned open space.

CONSERVATION EASEMENTS AND LAND TRUSTS

Conservation easements represent legal rights on a tract of land that limit activities to conserve certain natural features. A conservation easement is donated or sold by the landowner to a receiving party, typically a land trust or governmental unit. Through the use of conservation easements, the Township accomplishes its goal of resource protection without having to purchase and maintain the land. The landowner retains the use of his land and the ability to sell it while also receiving a tax benefit.

Local conservation organizations active in the Township include French and Pickering Creeks Conservation Trust, the Natural Lands Trust, the Brandywine Conservancy, the North American Land Trust, and West Pikeland Land Trust. These organizations hold easements on 15 properties in West Pikeland Township, which are shown in Appendix A-11.

The West Pikeland Land Trust (WPLT) is the Township-appointed Open Space Advisors, whose role is to assess opportunities and recommend priorities for the expenditure of open space funds, plus meet with landowners, map properties, coordinate transactions and develop grant requests for matching funds. With the passage of the Open Space Preservation Tax referendum in 2007, West Pikeland now has a stable source of funding for conservation initiatives. Township conservation investments through WPLT are supplemented where possible with county grants, state grants, and landowner contribution.

Recommendations & Implementation Strategies

- **Establishment of Easements** - Pursue and promote the use of conservation easements on properties that further the Township's preservation goals. Recommendations specific to the use of conservation easements are as follows:
 - a. Identify and prioritize properties where preservation would contribute to the Township's open space, recreation, historic or natural resource protection goals. Highest priority should be given to the creation of primary greenway and trail links shown on the plan.
 - b. Reach out to the landowners of identified properties to promote the use of conservation easements.
 - c. Where appropriate, include West Pikeland Township as the beneficiary of conservation easements to enable the Township to enforce the easements.



- d. Seek to coordinate with easement holders and monitors, in order to insure Township awareness of easement terms and enforcement issues.
- e. Require conservation easements whenever practicable as one of the options for lands set aside as open space or recreation resulting from the subdivision process.
- f. Enforce the terms of existing Township-owned conservation easements.

The Board of Supervisors should continue with this work in cooperation with the Park and Recreation Board, the West Pikeland Land Trust, property owners, developers, and others.

- **Trails/Greenways** - Trail connections should be protected where they exist, and new trail/greenway connections should be established where appropriate. Recommendations specific to designated parcels of eased and land trust properties are as follows:
 - a. Land trust property on Clover Mill Road could provide a valuable trail link between Binky Lee Farm, the Pickering-Upper Uwchlan Regional Recreation Corridor (Bridge to Bridge Trail), and East Pikeland's planned Pickering Loop Trail. There is an existing trail on the parcel.
 - b. Binky Lee Farm has trails that connect to Wildlife Farm, Clover Mill, and the Pickering Creek open space. It could become part of a trail connection westward to Pine Creek Park, using existing trails.
 - c. A connection utilizing existing trails links Pine Creek Park to the Horse-shoe Trail.
 - d. Trails through Indian Springs provide a connection to the trail network in Charlestown Township.

The Trails Subcommittee should conduct this work, reporting to the Park and Recreation Board and the Board of Supervisors.

INSTITUTIONAL OPEN SPACE AND PRIVATE CAMP

The Township has substantial area in conservation easement and under institutional ownership, which contribute greatly to its rural character. Many of these lands are interconnected by existing trails. The owners of these properties should be encouraged to allow the continued use of trails, and to allow for new connections where appropriate and desirable.

Recommendations & Implementation Strategies

- **Trails/Greenways** - Trail connections should be protected where they exist, and new trail/greenway connections should be established where appropriate. Recommendations specific to designated parcels of institutional open space are as follows:



- a. An extension of the off-pavement alignment of the Horseshoe Trail would be desirable through Ker-Feal, to take hikers and equestrians off of Bodine Road.
- b. Trails through Indian Springs provide a connection to the trail network in Charlestown Township.
- c. The Historic Yellow Springs property contains several trails providing links to Yellow Springs Village, westward toward the Horseshoe Trail, and northward toward West Vincent Township. It could also be a primary destination along the Pickering Creek greenway.
- d. The Montgomery School has no existing trails, but could accommodate part of the Pickering-Upper Uwchlan Regional Recreation Corridor the Pickering Creek greenway, and connections to the Horseshoe Trail.

The Trails Subcommittee should conduct this work, reporting to the Park and Recreation Board and the Board of Supervisors.

RECREATION PLANNING POLICIES & RECOMMENDATIONS

Overview

Because there is no imminent demand for additional recreational land, the focus of this plan is on the use, management, and maintenance of existing parkland and recreational properties, and on strategies for improving, enhancing and linking open space, recreational and environmental resources. However, the Township may consider whether the geographical distribution of parks provides sufficient accessibility to existing and future residential development.

Existing Recreational Resources and Future Demand

Four existing properties owned and maintained by West Pikeland Township lend themselves to active and passive recreational use. The properties have been evaluated to determine the degree to which they function as parkland. The sites shown in Appendix A-11 are as follows:

- Pine Creek Park
- Hallman's Field
- Pickering Grove
- Windolph Knoll

Three types of parks typically provided are defined generally as follows in the County's Linking Landscapes Plan:

Park Type	Service Radius	Minimum Acreage Standard	Maximum Population Served
Community Park	2.5 miles	3.0-6.0 acres per 1,000 people	25,000
Neighborhood Park	0.5 miles	2.5-3.5 acres per 1,000 people	5,000
Mini Park	0.25 miles	0.25 acres per 1,000 people	2,000

Community parks contain an array of active and passive resources and are intended to serve the entire population of an area. Neighborhood parks also contain a diversity of active and passive elements, but are generally to serve a population within walking distance. Mini parks tend to be specialized small spaces to serve a specific demographic, such as small children or senior citizens within a development.



Pine Creek Park is the Township's only developed park and is considered to be a community park. Hallman's Field is an informal playfield and has no built park features. Pickering Grove contains a barn and pavilion structures that are currently used by a private summer day camp. Windolph Knoll is currently undeveloped, and its recreational use will be determined by sewage facilities required by the Utilities Plan and Act 537 Plan.

Even assuming the robust population growth rates of projected averages and the methodology of DVRPC, the Township will have more than adequate recreational area for the 4,657 to 5,023 residents in 2020. At 71.09 acres, Pine Creek Park more than satisfies the projected 14 to 30 acres for community parkland demand in 2020. By even the most generous estimates of population growth (6,520 residents in year 2030) and 10.5 assumed acres of parkland needed for every 1,000 persons, the Township already exceeds the hypothetical maximum 68 gross acres of parkland demand.

Relative to Neighborhood Parks and their proximity within ½ mile of the users served, two solutions could be pursued to address the need for 12 to 18 acres in 2020. A portion of the Windolph Knoll property owned by West Pikeland Township could be outfitted to serve as a neighborhood Park. In addition, a neighborhood park could be developed in the southern portion of the Township, below Route 401.

Where residential densities justify or where neighborhood parks are not accessible, individual developments should provide Mini Parks to serve their local populations within ¼ mile.

The Township is insured by the PA Intergovernmental Risk Management Association and part of the PIRMA Pool for liability and property damage. Limits of liability include \$5 million for each occurrence on publicly owned parks, trails, and other open space.

As regards public opinion, there is currently no consensus regarding the adequacy of youth sports facilities in the Township.

Future acquisition and development of parklands will be funded through various mechanisms, including the Township's Earned Income Tax, Municipal bonds, County and State grants, and charitable contributions from landowners. Operational expense is handled by general fund.

TRAILS



The Township has an extensive trail network that is used by hikers, equestrians, and bicyclists. Nearly all of the trails are unimproved and on private property, with no mechanism to ensure their continued existence. The Township Parks and Recreation Board has a trail subcommittee that oversees trail planning and maintenance issues.

The Pennsylvania Recreational Use of Lands and Water Act (PA Statutes 68:477-1 et seq) provides liability protection for landowners (public and private) who permit recreational use of their property where no fee is charged.

The Horse-Shoe Trail is a regional trail running from Valley Forge National Park to the Appalachian Trail in central Pennsylvania. In West Pikeland, much of this trail currently coincides with Horseshoe Trail Road.

In addition, the "bridge to bridge" trail lies on Township lands along Pickering Creek between Pikeland and Clover Mill Roads. This trail could be an important part of the County's proposed Pickering-Upper Uwchlan Regional Recreation Corridor and provides a connection to East Pikeland Township's proposed Pickering Loop Trail.

The Township should act to protect existing trails, create new connections where desirable, and to establish a permanent and viable off road trail network (See Appendix A-12).

Recommendations & Implementation Strategies

- Important trails should be shown on a Township Official Map, which gives the Township the ability to establish permanent trail corridors when land is developed and subdivided.

The Township Park and Recreation Board, the Planning Commission, and the Board of Supervisors should begin consideration of this upon adoption of this Comprehensive Plan Update.

- The Subdivision and Land Development Ordinance should be amended to include a Trail Protection Ordinance requiring subdivisions and land developments to maintain existing trails or to provide acceptable alternative alignments.

The Township Parks and Recreation Board, the Planning Commission, and the Board of Supervisors should begin consideration of this upon adoption of this Comprehensive Plan Update.

- The Township should work with adjoining municipalities and the County to coordinate trails into a regional network.

The Trails Subcommittee should conduct this work, reporting to the Park and Recreation Board and the Board of Supervisors.

- The Horseshoe Trail should be recognized as the Township's most valuable trail corridor, linking Valley Forge National Park, the Schuylkill River Trail, the Chester Valley Trail, Warwick County Park, Hopewell Furnace National Park, French Creek State Park, and the Appalachian Trail. As such, the Township should work with landowners and the Horse-Shoe Trail Conservancy to re-establish a non-paved route for the trail wherever the trail alignment coincides with a public road.

The Trails Subcommittee should conduct this work, reporting to the Park and Recreation Board and the Board of Supervisors.

- Through cooperation with the County, East Pikeland Township, Uwchlan Township, and Upper Uwchlan Township, the Pickering-Upper Uwchlan Regional Recreation Corridor should be established, using remnants of the Pickering Valley Railroad as its basis. This corridor would provide a trail link from Marsh Creek State Park and the Struble Trail to the proposed French Creek Trail and the Schuylkill River Trail. This trail should also be coordinated with the Pickering Creek greenway. As this trail is a potential link to regional multi-use trails, the Township should consider whether this trail should have an improved surface.

The Trails Subcommittee should conduct this work, reporting to the Park and Recreation Board and the Board of Supervisors.

- A connection to the Chester Valley Trail, Exton County Park in West Whiteland, and the paved County trail through Uwchlan should be established in cooperation with Charlestown Township, East Whiteland Township, West Whiteland Township, and Uwchlan Township.

The Trails Subcommittee should conduct this work, reporting to the Park and Recreation Board and the Board of Supervisors.

- The Township should utilize easements, rights-of-way, user licenses, and other initiatives and incentives to establish public right of access to important trails on privately owned, HOA, and institutional property. When public safety is an issue, the Township's power of eminent domain could be considered as a possible solution.

The Board of Supervisors should conduct these initiatives, with the advice of a Trail Subcommittee and the Park and Recreation Board.

- Trail surfaces should be tailored to the anticipated use. Wood chip or mulch trails are prone to washouts, are very expensive to maintain, and offer an inferior walking surface.

If the trail is to be for hikers and equestrians, no surface improvement is necessary. As in the case of existing trails in the

area, the trail users will form their own path. Markers on trees and/or posts may be desirable to indicate the route.

If the trail is intended to be a community pedestrian link, stabilization with a compacted gravel medium is recommended as a minimum treatment, particularly in non-wooded areas. In wooded areas, accumulated leaf litter may be sufficient to stabilize the surface. The improved surface should be at least five (5) feet wide, to allow users to pass one another comfortably.

If the trail is intended to be a multi-use recreational amenity, then paving with asphalt is recommended. This surface is durable, accommodates all users with the exception of equestrians, and can be used in any weather condition. Recommended minimum width for a paved multi-use trail is ten (10) feet according to the American Association of State Highway and Transportation Officials (AASHTO). Paved paths for pedestrians only may be narrower.

Depending on the anticipated needs of the community, a trail system with loops improved to different standards could be created.

- Recommendations specific to trails on Township, HOA, and institutional properties are covered in the section on Open Space Planning Policies and Recommendations.

TRAILHEAD PARKING

Parking lots should be provided at significant trailheads to facilitate access to users who arrive by vehicle.

Recommendations & Implementation Strategies

- The Township should establish a priority ranking of existing and proposed trails, based on relationship to regional trails, destination points, and anticipated volume of use. Among the busiest trails, the Township should accommodate users who arrive by motor vehicle by providing parking areas. Existing parking at township property should be used to facilitate trail access at the following locations:

- a. Pine Creek Park
- b. Pickering Grove

The Township should consider contacting owners of private properties to discuss the establishment of parking and/or trailheads at the following locations:

- a. Indian Springs Camp
- b. Anselma
- c. Ker Feal
- d. Binky Lee Farm

- e. Historic Yellow Springs
- f. Montgomery School

In places where there are no existing connections between parking and existing trails, the trails should be extended accordingly.

The Park and Recreation Board and the Board of Supervisors should coordinate these efforts, with the assistance of scouting, hiking, and equestrian groups.

- Where new parking areas are created, they should accommodate no more than five (5) vehicles. Surfaces should be gravel or stabilized earth to support intermittent use. If regular use is anticipated, trash receptacles should be provided.

The Park and Recreation Board and the Board of Supervisors should coordinate these efforts, with the assistance of scouting, hiking, and equestrian groups, and in cooperation with landowners.

- Signs should be posted at trailhead parking areas posting the rules and etiquette of trail use. Markers should be used as necessary to direct visitors from parking areas to the trails.

The Park and Recreation Board and the Board of Supervisors should coordinate these efforts, with the assistance of scouting, hiking, and equestrian groups, and in cooperation with landowners.

HALLMAN'S FIELD

Hallman's Field, located in the southern portion of what is known as the Pickering Creek Open Space, has direct access to Pikeland Road. The property has a deed restriction requiring that it be available to residents of the township as a ball field. Until the early 1980's, the field contained dugouts and a backstop for baseball. Subsequently, this parcel has been used as an informal playfield with no structural improvements other than a fence with gate along the road frontage. However, in recent years, wetness has rendered the field less useable.

Recommendations & Implementation Strategies

- Study the best use of Hallman's Field.
- Install signage to indicate Park Rules and Regulations.

The Board of Supervisors and the Park and Recreation Board should initiate a study to determine the best use of Hallman's Field.

PICKERING GROVE

Pickering Grove is a site consisting of 16.4 acres, with direct vehicular access from Route 113. This site has a picnic pavilion, barn, and parking area, and provides direct pedestrian access and fishing opportunities along Pickering Creek. It is currently leased in the summer by a private day camp.

Recommendations & Implementation Strategies

- Maintain Pickering Grove as a primarily passive recreational facility.
- Include trails as part of the Pickering Creek greenway corridor.
- Install and maintain picnic tables to expand opportunities for picnicking.
- Maintain opportunities for trail activities, nature study and fishing.
- Maintain opportunities for day camps.
- Install signage to indicate Park Rules and Regulations.
- Maintain and improve areas for parking.

The Board of Supervisors and the Park and Recreation Board should continue to maintain Pickering Grove as a primarily passive recreational facility.

PINE CREEK PARK



Pine Creek Park, a 71.09-acre property with direct vehicular access from Yellow Springs Road, is the major Community Park in West Pikeland Township. The park was developed for a variety of active and passive recreational opportunities following the completion of the Pine Creek Park Master Plan in May of 1998 and includes soccer fields, a playground, pavilion, barn, house, trails, a stream, woodlands, and meadows.

Recommendations & Implementation Strategies

- Maintain existing active and passive recreational opportunities, and day camps.
- Update the 1998 Master Plan, to address future needs such as parking, trails, benches, shade trees, the possible adaptive reuse of existing buildings, and additional picnicking opportunities.
- Investigate the feasibility for expanding trails and picnicking opportunities.
- Investigate the feasibility of providing activities and programs for seniors at Pine Creek Park using existing or new facilities.
- Consider appropriate recreational uses for existing buildings.
- Consider the formation of a Friends of Pine Creek Park group to assist with fundraising (such as plant sales, art shows) and programming/special events.

The Board of Supervisors, Park and Recreation Board, and consulting Architects and Landscape Architects should collaborate to address the needs for this Community Park.

WINDOLPH KNOLL

Windolph Knoll is a 23.84-acre property at the corner of Route 401 and Upper Pine Creek Road, with vehicular access from the later. Acquired in 2005, this property could be utilized for combined active recreation and passive recreation use. Part of the area could also be used to facilitate septic treatment in accordance with the township's Act 537 sewage facilities plan.

Recommendations & Implementation Strategies

- Prepare a Master Plan for Windolph Knoll that identifies a program for the use of the property over the next 10 years.
- Continue to utilize the property for agricultural use until recreational uses are developed.
- Investigate the feasibility for trails and trail linkages, and integration with the Pine Creek greenway.
- Investigate the feasibility for playfields for flat field use.
- Investigate the feasibility for court sports, especially tennis courts.

The Board of Supervisors, Park and Recreation Board, and consulting Landscape Architects should collaborate on the Master Plan and use program for this facility.

RECREATIONAL PARTNERSHIPS WITH THE TOWNSHIP

Downingtown Area Recreation Consortium (DARC)

The Downingtown Area Recreation Consortium (DARC) is a multi-government entity composed of municipalities in the Downingtown Area School District. The municipalities include Downingtown Borough and the townships of East Brandywine, East Caln, Upper Uwchlan, Uwchlan, Wallace, West Bradford and West Pikeland, as well as the School District. DARC is a regional municipal recreation office providing recreation, adult education and youth learning opportunities for residents. The goal of these municipalities is to work together to provide economical recreational opportunities to the community. The Consortium does not own any facilities, and utilizes the School District's nine Elementary Schools, the two Middle Schools and two High Schools. In addition, DARC uses the Townships' parks and meeting rooms, as well as several privately contracted facilities. Activities are broken down into Adult Programs, Youth Programs, Workshops, Computer, On-Line Courses, Leagues, and Trips. During the summer months DARC offers a Playground Program, Full-Day Day Camp, two Full Day Teen Camps and weeklong sports, science, nature and theater

camps. DARC also sells discounted ski lift tickets, amusement park tickets and movie tickets.

Lionville Youth Association (LYA)

Lionville Youth Association (LYA) provides programs in baseball, softball, field hockey, basketball, and lacrosse, wrestling, and summer camps, for boys and girls in the Downingtown Area School District. LYA uses fields owned by the School District and participating townships.

Recommendations & Implementation Strategies

- Continue to work with and support regional recreation partners.
- Consider senior programs focused on the cultural and historic assets of West Pikeland Township in partnership with DARC.
- Utilize and create linkages to the regional trail networks as more fully set forth in the trails narrative and the Trails Plan in Appendix A-12.
- Continue to support and promote youth activities and programs including: Girls Softball; Little League Baseball; Lacrosse; Intramural Soccer; Travel Soccer; Girls Field Hockey; Fall Baseball; Wrestling; Basketball; and Summer Sports Camps.
- Consider expanding youth opportunities by providing additional active recreation facilities at the Windolph Knoll site.

The Board of Supervisors, Park and Recreation Board, DASD, youth athletic organizations, DARC, and property owners should collaborate to provide on-going recreational opportunities for West Pikeland residents.

RECREATION FOR PERSONS WITH DISABILITIES

Recreational facilities and trails shall provide accessibility to disabled users, and the requirements of the Americans with Disabilities Act (ADA) should be followed.

Recommendations & Implementation Strategies

- Provide ramped access to recreational facilities not to exceed 8.33% grade, and preferably 5% grade.
- Provide transfer stations on play apparatus to enable a person in a wheelchair to dismount and more easily access the apparatus.
- Provide trails in parks for disabled users, preferably with looped sections of 250 feet or less.

The Board of Supervisors and the Park and Recreation Board should collaborate on opportunities for disabled park users.

RECREATIONAL RESOURCES OUTSIDE THE TOWNSHIP

The following regional parks provide recreational resources for residents of the Township:

Valley Forge National Park (12 miles away) – This 3,500-acre park has a 6.6-mile paved multi-use trail, hiking trails, picnicking, hiking, biking, cross country skiing, horseback riding, and a youth ranger badge program.

French Creek State Park (19 miles away) – This 7,500 acre park has fishing, swimming, mountain biking, hiking, camping, fishing, hunting, boating, horseback riding, disc golf, cross country skiing, picnicking, and playground amenities.

Marsh Creek State Park (8.5 miles away) – This 1,700 acre park has fishing, swimming, mountain biking, hiking, fishing, hunting, boating, horseback riding, disc golf, cross country skiing, and picnicking.

Warwick County Park (11 miles away) – This 540 acre park features trails and meadows for hiking, biking, horseback riding and bird watching. The day use area offers picnic pavilions and numerous single-family picnic tables. Park facilities feature two age-appropriate play areas, a sand volleyball court, horseshoe pits and a quoits pit.

Hibernia County Park (18 miles away) – This park has over 900 acres of trails, woodlands, meadows, open fields, play areas, pavilions, with camping & picnic areas strewn throughout. Popular fishing sites include the Brandywine Creek's west branch, Birch Run & a children's pond. Small boating & fishing occur on the 90 –acre Chambers Lake.

Exton Park (7 miles away) – This combined County and West Whiteland municipal park is as yet undeveloped and currently has several miles of trails for hiking, horseback riding, and mountain biking. Future development will include sports fields and courts, multi-use trail, amphitheatre, and natural areas.

NEW RECREATION FACILITIES



The Park and Recreation system of West Pikeland Township has grown considerably since 1992 when the initial Open Space, Recreation and Environmental Resources Plan was adopted. Based on the findings and recommendations of this Comprehensive Plan update, limited new facilities are needed as summarized below.

Recommendations & Implementation Strategies

- Develop up to two Neighborhood Parks in the southern and western portions of the Township over the next 10 years, one at Windolph Knoll (Township owned and maintained) and one in proximity to Twin Hills.
- Develop three Mini-Parks in new subdivisions and land developments through the Open Space Design Option process outlined in the Zoning Ordinance.

- Provide up to two new soccer fields at the Windolph Knoll facility.
- Provide up to two new tennis courts at the Windolph Knoll facility.
- Provide new trail connections to the extent shown in Appendix A-12, Trails Plan.
- Provide a bocce court.
- Consider the adaptive reuse of the barn complex at Pine Creek Park.
- Provide facilities and opportunities for persons with disabilities.

The Board of Supervisors and Park and Recreation Board should take the lead on new facilities.

GENERAL IMPLEMENTATION STRATEGIES FOR OPEN SPACE AND RECREATION

Zoning Ordinance

Recommended Zoning Ordinance Amendments are as follows:

- The Zoning Ordinance permits both conventional development and open space design as by right uses in the RD Residential Development and the RC Residential and Conservation Districts on parcels less than ten acres. In order to encourage site design that maximizes resource protection benefits, consideration should be given to permitting conventional development of three or more lots only as a conditional use and not by-right. Further, conditional use approval for conventional development might only be permitted when the applicant can demonstrate that the negative impacts of conventional development will be less than those of open space design or lot averaging.

The Planning Commission and the Board of Supervisors should periodically review the effectiveness of current Ordinance provisions and consider amendments as necessary.

- Allowable densities for open space design are higher than those achievable under conventional development and are intended to provide incentive for open space development. It is recommended that allowable maximum densities for open space design be periodically reviewed to make sure that only as much density incentive is being granted as is actually needed to ensure the use of the open space design option.

The Planning Commission and the Board of Supervisors should work together to review and potentially revise density incentives.

- With lot sizes permitted as small as 10,000 square feet for single-family detached dwellings with accessory structures, it is possible to provide substantial open space. The minimum required open space is 40% in the RD district and 50% in the RC district, plus all constrained lands subject to net tract area provisions. Thus, the

minimum on a relatively unconstrained tract could approach only 40% or 50%. Consideration should be given to establishment of an absolute minimum open space requirement that is higher than the 40% and 50% thresholds.

The Planning Commission and the Board of Supervisors should work together to consider potential amendments to the Zoning Ordinance.

SLDO

Subdivision & Land Development Ordinance amendments are as follows:

- Prepare and adopt an ordinance to require developers to provide for recreation within the development, or to pay a fee in lieu of recreation facilities to help fund active and passive recreational needs in the Township.
- Require trails and recreational amenities in open space subdivisions.
- Prepare and adopt a trail protection ordinance.

OFFICIAL MAP

The Township should adopt a Township Official Map. The Official Map is a planning tool supported by the state of Pennsylvania and the Chester County Planning Commission, enabled by Article IV of the Pennsylvania Municipalities Planning Code (MPC). The Official Map identifies properties or features that a municipality may wish to reserve for future public use including, but not limited to:

- Public streets
- Public grounds
- Public parks and playgrounds
- Public open space
- Pedestrian ways and easements
- Railroad and transit rights-of-way and easements
- Flood control basins and floodplains
- Stormwater management areas
- Drainage easements



If development were proposed on any property identified on the Official Map, the Township would have up to one (1) year to acquire the property or begin condemnation proceedings to acquire the property. If the one (1) year time period lapses and the Township has not acquired the property or begun condemnation proceedings to acquire the property, the landowner may proceed to build, subdivide or otherwise develop the land covered by the reservation.

The Township could consider an Official Map to preserve historic resources, environmentally sensitive areas, viewsheds, parklands, and important trail and pedestrian linkages, and in particular the proposed greenway corridors. The Official Map should be used as part of the Township's plan for public use and welfare.

The Planning Commission, the Township Land Trust, and the Board of Supervisors could work together on preparing and adopting an Official Map.

Additional Measures

Additional measures are as follows:

- Acquire easements for greenways and trails.
- Coordinate with neighboring municipalities, Chester County, conservation organizations, and Pennsylvania DCNR on trails, greenways, and open space initiatives.
- Explore funding opportunities through the PA DCNR and Chester County.
- Work with PennDOT to include bikeways in transportation improvement plans.
- Investigate federal TEA-21 funding sources for trail and bikeway projects.

Prioritize Open Space

To pursue open space preservation in a logical and systematic manner, the Township must set priorities for open space acquisition. Such a system of prioritization not only gives the township a logical framework within which to work, but is often a requirement of state laws and open space funding programs.

Prioritization can be accomplished through a weighted scoring system, whereby any property in the Township can be evaluated for its merits as an open space or recreational resource based on its characteristics and the features it contains. Under this system individual characteristics are assigned a weighted value based on the township's expressed priorities for recreational needs and resource protection. For any given property, the weighted values of each individual feature it contains can be totaled to yield a final score representing that property's value (priority) for open space/recreation.

Under the scoring system, individual characteristics are assigned a weighted value ranging from 1 to 3. Assigning a weighted value acknowledges that some characteristics are more important than others. The weighted values reflect township's goals for open space, recreation, and resource protection. They are as follows:

<u>Weighted Value</u>	<u>Characteristic/Feature</u>
3	Lies within or adjacent to a proposed greenway corridor
2	Addresses an active recreational need in the Township
2	Contiguous to protected open space



2	Contains rare, threatened or endangered species
2	Facilitates a trail link
1	Contains a historic resource
1	Contains sensitive environmental features, including wetlands, floodplains, steep slopes
1	Contains or abuts a stream or surface water body

Based on this system, for example, a property that is within a proposed greenway, is contiguous to protected land, contains a threatened species, facilitates a trail link, and contains a wetland, would receive a score of 10. This score can then be used to provide a rationale for the Township’s desire to protect a particular property and obtain funding to do so.

Although this scoring system can be a useful measure in determining the appropriateness of a property for open space acquisition, it should not be the sole determinant. Non-quantifiable considerations unique to the property or the Township’s immediate needs may also weigh heavily in the decision to acquire open space.

RELATIONSHIP TO THE COUNTY’S LINKING LANDSCAPES PLAN

Linking Landscapes is the open space element of the Chester County Comprehensive Plan titled “Landscapes 2”. Its purpose is to promote the establishment and protection of a permanent countywide network of open space. The goals and objectives of Linking Landscapes include the preservation of natural, scenic and historic resources; the interconnection of open space into continuous natural greenway and recreation corridors; the promotion of a diverse array of recreational opportunities; and the facilitation educational and cultural programs. The Township is compliant with many of the key policies of Linking Landscapes as follows:

- The Township’s current park system meets the 2002 Chester County Recreational Park Standards for needed facilities through the year 2025.
- The Township has implemented zoning policies to protect open space including lot averaging, cluster development, and transferable development rights.
- Historic structures and villages are identified and protected by zoning provisions and by a Historic Architecture Review Board.
- The West Pikeland Land Trust has been formed to actively pursue open space conservation.

By following the recommendations of this Report, West Pikeland Township will further advance the goals, objectives, and policies of Linking Landscapes.

Recommendations & Implementation Strategies

- The Township should establish its goals for active and passive open space and should clearly and publicly state its plans in that regard for each of its facilities.

The Parks and Recreation Board and the Board of Supervisors should coordinate these efforts, with the input of the citizens of the Township.

- West Pikeland Township is at the nexus of the Horse-Shoe Trail and the Pickering-Upper Uwchlan Regional Recreation Corridors, with existing and potential links to Valley Forge National Historic Site, Marsh Creek State Park, French Creek State Park, the Schuylkill River Corridor, and Warwick County Park. As such, the Township plays a critical role in the regional recreation and open space plan. The Township should use all available means to promote the establishment and protection of these corridors.

The Parks and Recreation Board, the West Pikeland Land Trust, and the Board of Supervisors should coordinate these efforts with the County and the Federation of Northern Chester County Communities, who are currently working on a regional recreation plan.

- According to the Chester County Comprehensive Plan Landscapes 2, West Pikeland is within the Rural and Suburban Landscapes with Natural Landscapes overlays, and contains lands that are part of a Potential Protected Open Space Cluster as shown in the County's Linking Landscapes Plan. By protecting open space through municipal action, incentives, and cooperation with landowners, the Township can help to create the interconnected network of open space that is the essential purpose of Linking Landscapes.

The Parks and Recreation Board, the Planning Commission, the Township Land Trust, and the Board of Supervisors should coordinate these efforts, in cooperation with landowners and the citizenry of West Pikeland Township.

Chapter 10 Regional Compatibility and Plan Component Inter-relationships

INTRODUCTION

Overview

An effective comprehensive plan establishes policies that are compatible with those of neighboring municipalities and the county. In preparing the West Pikeland Township Comprehensive Plan, the comprehensive plans of neighboring municipalities and the draft County comprehensive plan *Landscapes 2 – Livable Landscapes* were considered to facilitate sound regional planning.

STATEMENT OF REGIONAL PLANNING COMPATIBILITY

Chester County

In 2009, the Chester County Commissioners adopted *Landscapes 2* as the Chester County Comprehensive Policy Plan. Based on the draft maps, the West Pikeland Township Comprehensive Plan is compatible with County planning policy in the following regards:

- The proposed boundary between Residential Growth Area and Rural Conservation Area in the west Pikeland Plan is consistent with the boundary between Suburban and Rural Landscapes shown in *Landscapes 2*.

- The Natural Resources Protection Plan promotes conservation policies to benefit the abundance streams, forests, and floodplains described as essential Natural Landscapes in the County plan. The proposed Pickering and Pine Creek Greenways extend this policy into Township Land Use, Open Space and Recreation planning.
- The Township's Land Use and Historic Resource Protection Plans foster recognition and conservation of the historic villages of Chester Springs and Yellow Springs, consistent with the County plan. In addition, Anselma Village and the former Pickering Valley Railroad are recognized as critical historic elements to be enhanced and revitalized.
- The Township is within the Schuylkill River Heritage Area, identified in Landscapes 2 as a Protection Area of National Significance. The Land Use, Historic Resources, Natural Resources, and Open Space/Recreation Plans all recognize and promote the historic and environmental qualities that define the region, and particularly with regard to the colonial era legacy of Yellow Springs and Anselma.
- The Land Use and Open Space/Recreation Plans support the Horse-Shoe Trail and the proposed Pickering-Upper Uwchlan Regional recreation Corridor consistent with the County's Linking Landscapes Plan.
- The Natural Resource, Land Use, and Open Space/Recreation Plans support the priority management objectives for the Pickering Creek watershed as described in the County's Watersheds Plan.

Charlestown Township

Charlestown Township revised its Comprehensive Plan in 2001. The West Pikeland Township Comprehensive Plan is compatible with Charlestown's in the following regards:

- There is an overall goal to maintain rural and historic character.
- West Pikeland's residential Growth Area is adjacent to Charlestown's PRD/Moderate Impact development area along Route 401.
- The Pigeon Run Greenway reinforces Charlestown's Middle Pickering Rural Historic District.
- Both townships support the Horse-Shoe Trail as an important regional resource.
- The Rural Conservation area is responsive to Scenic Areas as identified in Charlestown's Plan.

East Pikeland Township

East Pikeland Township revised its Comprehensive Plan in 2001. The West Pikeland Township Comprehensive Plan is compatible with East Pikeland's in the following regards:

- Conservation lands are proposed next to one another along the municipal boundary, creating large contiguous open space.

- Development is to occur near existing development, and is not to sprawl across the natural areas of the townships.
- Land uses along both sides of the townships' common borders are to be of rural residential and conservation.
- The Pickering Greenway and trail connections are consistent with East Pikeland's proposed Pickering Loop trail.

West Vincent Township

West Vincent Township revised its Comprehensive Plan in 1985. The West Pikeland Township Comprehensive Plan is compatible with West Vincent's in the following regards:

- Land uses along both sides of the townships' common borders are to be agriculture, rural residential, and conservation.
- Both townships support the Horse-Shoe Trail as an important regional resource.

West Vincent currently coordinates its comprehensive planning through the Phoenixville Regional Comprehensive Plan. The Phoenixville Regional plan generally reflects the same land use policies as the Township's Comprehensive Plan, and is consistent with the West Pikeland Township Plan.

Upper Uwchlan Township

Upper Uwchlan Township revised its Comprehensive Plan in 2002. The West Pikeland Township Comprehensive Plan is compatible with Upper Uwchlan's in the following regards:

- Land use along both sides of the townships' common border is to be moderate density residential.
- The Pickering Creek Greenway connects to floodplain/hydric soil areas in Upper Uwchlan. Trails proposed in Upper Uwchlan could be extended to connect to this greenway.

Uwchlan Township

Uwchlan Township revised its Comprehensive Plan in 2000. The West Pikeland Township Comprehensive Plan is compatible with Uwchlan's in the following regards:

- Mixed land uses consisting of medium density residential, rural residential, and community facilities (churches) are proposed in Uwchlan adjacent to West Pikeland's residential Growth area. This represents a logical continuum toward the higher intensity commercial uses in Lionville.

Phoenixville Region

A Phoenixville Regional Planning Commission was formed to coordinate planning policies between member municipalities through the Phoenixville Regional Comprehensive Plan. Although West Pikeland is not a participant in this effort, Charlestown, East Pikeland, and West

Vincent Townships are. Since the Comprehensive Plans of Charlestown, East Pikeland, and West Vincent Townships are coordinated within the Regional Comprehensive Plan, the West Pikeland Township Comprehensive Plan is also consistent with the Phoenixville Regional Comprehensive Plan.

INTER-RELATIONSHIP OF COMPREHENSIVE PLAN COMPONENTS

Overview

The various components of the comprehensive plan cannot be considered in isolation, as they are interdependent aspects of a coherent whole. Each element of the plan interacts with and impacts all of the others. Some of the most critical plan inter-relationships are described as follows:

- Growth can compromise and degrade the natural and historic attributes that characterize the community. Thus, growth must be channeled via the Land Use Plan to areas where it is most compatible with surroundings and infrastructure. Simultaneously, Natural and Historic Resource Protection Plans aim to preserve the elements that make West Pikeland an attractive place to live.
- The residents of the township highly value natural and historic resources. The preservation of natural features is critical if community growth is to occur in a sustainable manner consistent with public health, safety, and welfare. The Land Use Plan is created to accommodate growth while protecting valuable resources and maintaining quality of life for citizens.
- The Land Use Plan is supported by adequate infrastructure, including road access, utilities, public services, and recreation.
- The Parks, Recreation, and Open Space Plan is derived from the Land Use Plan and the Natural Resource Protection Plan, to ensure that the public has adequate recreational opportunities and that critical natural areas are protected.
- The Villages defined in the Land Use Plan have policies for use and aesthetics to protect resources described in the Historic Resource Protection Plan.
- Land uses are coordinated with trails and greenways.
- Greenways and trails enhance the public connection to the natural and historic resources that define the township.

Chapter 11 Action Plan

INTRODUCTION

Overview

The Action Plan summarizes and prioritizes the implementation strategies contained in each of the previous chapters of this plan. It is designed as a quick reference for the township to facilitate implementation and monitor progress. It is vital that the township involve its citizens, commissions, stakeholders, Chester County, and state and federal agencies to obtain support and assistance in implementing the Comprehensive Plan. Forming partnerships with such groups will expand the township's resources and aid in accomplishing its goals.

Implementation strategies are summarized by chapter. Each action is given a general timeframe for implementation (short-term, long-term, or on-going), and the parties responsible for implementation are identified along with organizations that provide technical assistance and funding.

The following pages should be published as a Comprehensive Plan Action Checklist for use by the Board of Supervisors, Planning Commission, and other Township boards and committees to track progress on meeting the goals, objectives, and initiatives recommended in this Comprehensive Plan.

Chapter 3 – Natural Resource Protection Plan Actions	Timeframe	Responsible Parties	Partners/ Funding Sources
<i>Zoning Ordinance</i>			
3-1 Modify the natural resources protection ordinance	ST	1,2,7	8,10
3-2 Strengthen the floodplain ordinance	ST	1,2,7	8,10
3-3 Amend the Lot Area definition	ST	1,2,7	8,10
<i>Subdivision & Land Development Ordinance</i>			
3-4 Require aquifer studies for large developments	ST	1,2,7	8,10
3-5 Strengthen tree protection & replacement standards	ST	1,2,7	8,10
3-6 Ensure that design standards promote environmental protection	ST	1,2,7	8,10
3-7 Prohibit the introduction of invasive species	ST	1,2,7	8,10
<i>Additional Measures</i>			
3-8 Monitor flood elevations to evaluate whether 2005 FEMA mapping remains accurate in the face of on-going development in the watershed	OG	6	13,19
3-9 Review the Stormwater Management Ordinance to maximize benefits of BMPs	ST	1,2,6,7	8,13
3-10 Complete the update of the Act 537 Sewage Management Plan	ST	1,2,6	8,13
3-11 Continue Open Space Committee work with landowners, conservation organizations, land trusts, and state and county representatives to promote natural resource protection and land preservation among landowners	OG	5	8,11,17
3-12 Consider Open Space Lands Act and other natural resource protection legislation	ST	1,2,5,7	8,17
3-13 Consider use of an Official Map to designate areas for future public open space and passive recreation	ST	1,2,7	8

Timeframes for implementation, responsible parties, and organizations offering technical assistance and funding are coded as follows:

ST – Short-Term

LT – Long-Term

OG – On-Going

TBD – To Be Determined

1 – West Pikeland Township Board of Supervisors

2 – West Pikeland Township Planning Commission

3 – West Pikeland Township Park and Recreation Board

4 – West Pikeland Township Historical Commission

5 – West Pikeland Township Open Space Committee

6 – West Pikeland Township Engineer

7 – West Pikeland Township Planning Consultant

8 - Chester County

10 - PADCED (PA Dept. of Community and Economic Development)

11 - PADCNR (PA Department of Conservation and Natural Resources)

12 - PHMC (Pennsylvania Historic Museum Commission)

13 - PADEP (PA Department of Environmental Protection)

14 - PA Game Commission and PA Fish & Boat Commission

15 - Homeowners Associations

16 – Historic Yellow Springs, Inc.

17 – Conservation Organizations and Inter-municipal Alliances

18 - National Park Service

19 - FEMA (Federal Emergency Management Administration)

20 – Area Recreation Organizations (DARC, youth athletic organizations)

21 – Fire, Police, EMS Organizations

Chapter 4 – Historic Resource Protection Plan Actions		Timeframe	Responsible Parties	Partners/ Funding Sources
<i>Zoning Ordinance</i>				
4-1	Enforce Act 167 Historic District and Historic Preservation Overlay District provisions	ST	1,2,4,7	8,12
4-2	Amend Village zoning districts to create four villages including design standards focused on maintaining the unique character of each village	ST	1,2,4,7	8,12
4-3	Require viewshed protection to preserve historic landscapes	ST	1,2,4,7	8,12
4-4	Comply with current state and/or federal stormwater management rules and regulations to protect mineral water in Historic Yellow Springs	ST	1,2,4,6,7	8,12
<i>Additional Measures</i>				
4-5	Use GIS to map and store data pertaining to historic resources	ST	4,7	12
4-6	Continue to support the West Pikeland Township Historical Commission	OG	1,2	TBD
4-7	Develop objective criteria for determining a Class II historic resource	ST	4	12
4-8	Continue to identify significant historic resources	OG	4	12
4-9	Pursue listing of select resources on the National Register	OG	4	12,18
4-10	Consider applying for National Register listing and Act 167 Certified Local Historic District status for Opperman's Corner, Rapp's Corner and Chester Springs	LT	1,4	12,18
4-11	Raise public awareness of the Township's history and historic resources	OG	4	8,12,16
4-12	Preserve historic sites by incorporating them with open space and recreation planning and promoting them as recreational, educational, and tourist destinations	OG	4,5,2	8,12,16
4-13	Partner with local institutions, the County, the PHMC and other organizations concerned with historic resource preservation	OG	2,4	TBD
4-14	Provide informational resources to owners of historic buildings/structures	ST	1,2,4, 5	8,11

Timeframes for implementation, responsible parties, and organizations offering technical assistance and funding are coded as follows:

ST – Short-Term

LT – Long-Term

OG – On-Going

TBD – To Be Determined

1 – West Pikeland Township Board of Supervisors

2 – West Pikeland Township Planning Commission

3 – West Pikeland Township Park and Recreation Board

4 – West Pikeland Township Historical Commission

5 – West Pikeland Township Open Space Committee

6 – West Pikeland Township Engineer

7 – West Pikeland Township Planning Consultant

8 - Chester County

10 - PADCED (PA Dept. of Community and Economic Development)

11 - PADCNR (PA Department of Conservation and Natural Resources)

12 - PHMC (Pennsylvania Historic Museum Commission)

13 - PADEP (PA Department of Environmental Protection)

14 - PA Game Commission and PA Fish & Boat Commission

15 - Homeowners Associations

16 – Historic Yellow Springs, Inc.

17 – Conservation Organizations and Inter-municipal Alliances

18 - National Park Service

19 - FEMA (Federal Emergency Management Administration)

20 – Area Recreation Organizations (DARC, youth athletic organizations)

21 – Fire, Police, EMS Organizations

Chapter 5 – Transportation Plan Actions	Timeframe	Responsible Parties	Partners/ Funding Sources
<i>Zoning Ordinance</i>			
5-1 Require larger structure setbacks or design standards along scenic roads.	ST	1,2,7	8,10
5-2 Require increased lot widths or design standards along scenic roads.	ST	1,2,7	8,10
5-3 Require lot averaging or clustering along scenic roads.	ST	1,2,7	8,10
5-4 Establish a Scenic Road Overlay District along PA 113 and PA 401	ST	1,2,7	8,10
5-5 Create an ordinance regulating signs and billboards	ST	1,2,7	8,10
<i>Subdivision & Land Development Ordinance</i>			
5-6 Amend to achieve consistency between functional classifications and design stds.	ST	1,2,7	8,10
5-7 Require a Traffic Impact Study	ST	1,2,7	8,10
5-8 Require a visual resources analysis for any development abutting a scenic road, and require that development is sited in accordance with that analysis.	ST	1,2,7	8,10
5-9 Implement stricter tree protection and invasive species control along scenic roads.	ST	1,2,7	8,10
5-10 Require visual buffering of new development along scenic roads	ST	1,2,7	8,10
5-11 Ensure that design standards for the improvement of designated scenic roads are in keeping with the maintenance of their rural character.	ST	1,2,7	8,10
5-12 Require utility wires underground along scenic roads.	OG	1, 2, 6	TBD
<i>Additional Measures</i>			
5-13 Create a Township Transportation Improvements Committee to spearhead efforts related to the circulation system, to lobby appropriate agencies to get needed improvements underway, and to coordinate a carpool system.	ST	1	TBD
5-14 Create an Official Map to facilitate needed circulation improvements	ST	1,2,7	8
5-15 Prepare and adopt an Act 209 Traffic Impact Fee Ordinance	ST	1,2,7	8,10
5-16 Work with PennDOT to establish appropriate speed limits on state roads and coordinate enforcement with the Township police	OG	Trans Cmte	9

Timeframes for implementation, responsible parties, and organizations offering technical assistance and funding are coded as follows:

ST – Short-Term

LT – Long-Term

OG – On-Going

TBD – To Be Determined

1 – West Pikeland Township Board of Supervisors

2 – West Pikeland Township Planning Commission

3 – West Pikeland Township Park and Recreation Board

4 – West Pikeland Township Historical Commission

5 – West Pikeland Township Open Space Committee

6 – West Pikeland Township Engineer

7 – West Pikeland Township Planning Consultant

8 - Chester County

10 - PADCED (PA Dept. of Community and Economic Development)

11 - PADCNR (PA Department of Conservation and Natural Resources)

12 - PHMC (Pennsylvania Historic Museum Commission)

13 - PADEP (PA Department of Environmental Protection)

14 - PA Game Commission and PA Fish & Boat Commission

15 - Homeowners Associations

16 – Historic Yellow Springs, Inc.

17 – Conservation Organizations and Inter-municipal Alliances

18 - National Park Service

19 - FEMA (Federal Emergency Management Administration)

20 – Area Recreation Organizations (DARC, youth athletic organizations)

21 – Fire, Police, EMS Organizations

Chapter 6 – Land Use Plan Actions	Timeframe	Responsible Parties	Partners/ Funding Sources
<i>Zoning Ordinance</i>	ST		
6-1 Create different Village zoning districts to reinforce and preserve the unique characters of Yellow Springs, Chester Springs, Anselma, and Opperman’s Corner	ST	1,2,7	8,10
6-2 Limit intensive commercial uses to Opperman’s Corner only	ST	1,2,7	8,10
6-3 Create design and use standards for each of the Village Districts that will result in development that complements the historic character of the Villages.	ST	1,2,7	8,10
6-4 Allow limited nonresidential uses with appropriate use, intensity, and design controls to ensure residential compatibility in the historic village of Chester Springs	ST	1,2,7	8,10
6-5 Maintain and develop use and design regulations to establish Yellow Springs as the historical, cultural, and civic center of the community	ST	1,2,7	8,10
6-6 Amend the RC district to decrease density, eliminate the current minimum tract size requirement. Consider eliminating attached and multi-family housing	ST	1,2,7	8,10
6-7 Amend the RD district to lower the density bonus for Open Space Development and age restricted development; to decrease the density and increase open space contained within mobile home parks and limit the area allotted to such development; and to require dedication of open space to the Township, a HOA, or conservation organization.	ST	1,2,7	8,10
6-8 Amend Conditional Uses to eliminate uses that are inappropriate within certain districts and to require buffering between incompatible uses	ST	1,2,7	8,10
6-9 Amend parking provisions to increase setbacks and strengthen buffering standards	ST	1,2,7	8,10
6-10 Increase setbacks and include design standards for gas stations	ST	1,2,7	8,10
6-11 Amend the TDR provisions to make Sending Area development rights density neutral with non-transferable development; to create a TDR bank; to make the RC a Sending Area only (not a Receiving Area); to decrease the TDR density bonus in Receiving Areas; and to allow reduction in lot size rather than a decrease of open space to accommodate TDRs in Receiving Areas.	ST	1,2,7	8,10
<i>Subdivision & Land Development Ordinance</i>			
6-12 Create landscaping standards to require screening and buffering between incompatible land uses and improvements	ST	1,2,7	8,10
6-13 Create design standards to guide the architectural and exterior appearance of buildings and other improvements suited to the Township’s rural character	ST	1,2,7	8,10
6-14 Enact a recreation requirement or fee-in-lieu to fund greenway acquisitions and easements	ST	1,2,7	8,10

<i>Additional Measures</i>				
6-15	Encourage participation in Agricultural Security Areas	ST	1	TBD
6-16	Communicate with private and institutional owners of large properties to promote conservation, especially within and adjacent to greenway corridors	ST	1	TBD

Timeframes for implementation, responsible parties, and organizations offering technical assistance and funding are coded as follows:

ST – Short-Term

LT – Long-Term

OG – On-Going

TBD – To Be Determined

1 – West Pikeland Township Board of Supervisors

2 – West Pikeland Township Planning Commission

3 – West Pikeland Township Park and Recreation Board

4 – West Pikeland Township Historical Commission

5 – West Pikeland Township Open Space Committee

6 – West Pikeland Township Engineer

7 – West Pikeland Township Planning Consultant

8 - Chester County

10 - PADCED (PA Dept. of Community and Economic Development)

11 - PADCNR (PA Department of Conservation and Natural Resources)

12 - PHMC (Pennsylvania Historic Museum Commission)

13 - PADEP (PA Department of Environmental Protection)

14 - PA Game Commission and PA Fish & Boat Commission

15 - Homeowners Associations

16 – Historic Yellow Springs, Inc.

17 – Conservation Organizations and Inter-municipal Alliances

18 - National Park Service

19 - FEMA (Federal Emergency Management Administration)

20 – Area Recreation Organizations (DARC, youth athletic organizations)

21 – Fire, Police, EMS Organizations

Chapter 7 – Housing Plan Actions		Timeframe	Responsible Parties	Partners/ Funding Sources
<i>Zoning Ordinance</i>				
7-1	Amend Village zoning districts to accommodate residential uses, including multifamily housing, in conjunction with non-residential uses in villages, with appropriate architectural and site design standards.	ST	1,2,7	8,10
7-2	Consider limitations on the area within which mobile home developments can occur in the RD district.	ST	1,2,7	8,10
7-3	Amend use regulations in the Rural Conservation area to prohibit multifamily and mobile homes	ST	1,2,7	8,10
<i>Subdivision & Land Development Ordinance</i>				
7-4	Create design standards that promote attractive interconnected communities with pedestrian access and appropriate landscaping.	ST	1,2,7	8,10

Timeframes for implementation, responsible parties, and organizations offering technical assistance and funding are coded as follows:

ST – Short-Term

LT – Long-Term

OG – On-Going

TBD – To Be Determined

1 – West Pikeland Township Board of Supervisors

2 – West Pikeland Township Planning Commission

3 – West Pikeland Township Park and Recreation Board

4 – West Pikeland Township Historical Commission

5 – West Pikeland Township Open Space Committee

6 – West Pikeland Township Engineer

7 – West Pikeland Township Planning Consultant

8 - Chester County

10 - PADCED (PA Dept. of Community and Economic Development)

11 - PADCNR (PA Department of Conservation and Natural Resources)

12 - PHMC (Pennsylvania Historic Museum Commission)

13 - PADEP (PA Department of Environmental Protection)

14 - PA Game Commission and PA Fish & Boat Commission

15 - Homeowners Associations

16 – Historic Yellow Springs, Inc.

17 – Conservation Organizations and Inter-municipal Alliances

18 - National Park Service

19 - FEMA (Federal Emergency Management Administration)

20 – Area Recreation Organizations (DARC, youth athletic organizations)

21 – Fire, Police, EMS Organizations

Chapter 8 – Community Facilities Plan Actions		Timeframe	Responsible Parties	Partners/ Funding Sources
<i>Zoning Ordinance</i>				
8-1	Review zoning ordinance to ensure that centralized sewer and water systems are coordinated with zoning provisions governing uses and intensities of development.	ST	1,2,7	8,10
<i>Subdivision & Land Development Ordinance</i>				
8-2	Amend the SLDO to require groundwater studies for developments where public water is not proposed, and require public water service where groundwater supplies are determined to be inadequate or marginal.	ST	1,2,7	8,10
8-3	Amend the SLDO to require replacement areas for in ground septic systems for use in the event of primary system failure.	ST	1,2,7	8,10
<i>Additional Measures</i>				
8-4	Adopt a municipal Act 537 Sewage Facilities Plan that addresses current deficiencies and accommodates future development in coordination with the Future Land Use element of the Comprehensive Plan.	ST	1,2,6	8,13
8-5	Investigate methods to improve the efficient and economical delivery of municipal services, without reducing the quality and availability of those services	OG	1,2	21
8-6	Design and implement parking and pedestrian accessibility enhancements for the cultural, civic, and municipal facilities in Yellow Springs Village	ST	16	12
8-7	Work with the Township Arts and Culture Committee, the Chester Springs Studio, and Historic Yellow Springs to promote a local arts and culture milieu consistent with the traditions of northern Chester County	OG	1,2,4	TBD
8-8	Work with wire utilities to relocate services below ground where feasible, especially along scenic roads.	OG	1, 2, 6	TBD

Timeframes for implementation, responsible parties, and organizations offering technical assistance and funding are coded as follows:

ST – Short-Term

LT – Long-Term

OG – On-Going

TBD – To Be Determined

1 – West Pikeland Township Board of Supervisors

2 – West Pikeland Township Planning Commission

3 – West Pikeland Township Park and Recreation Board

4 – West Pikeland Township Historical Commission

5 – West Pikeland Township Open Space Committee

6 – West Pikeland Township Engineer

7 – West Pikeland Township Planning Consultant

8 - Chester County

10 - PADCED (PA Dept. of Community and Economic Development)

11 - PADCNR (PA Department of Conservation and Natural Resources)

12 - PHMC (Pennsylvania Historic Museum Commission)

13 - PADEP (PA Department of Environmental Protection)

14 - PA Game Commission and PA Fish & Boat Commission

15 - Homeowners Associations

16 – Historic Yellow Springs, Inc.

17 – Conservation Organizations and Inter-municipal Alliances

18 - National Park Service

19 - FEMA (Federal Emergency Management Administration)

20 – Area Recreation Organizations (DARC, youth athletic organizations)

21 – Fire, Police, EMS Organizations

Chapter 9 – Park, Recreation & Open Space Plan Actions	Timeframe	Responsible Parties	Partners/ Funding Sources
<i>Zoning Ordinance</i>			
9-1 Amend Zoning Ordinance to permit conventional development of three or more lots only as a conditional use and not by-right	ST	1,2,7	8,10,11
9-2 Periodically review allowable maximum densities for open space design to make sure that only as much density incentive is being granted as is actually needed to ensure the use of the open space design option	OG	1,2,7	8,10,11
9-3 Consider establishing minimum open space requirement that is higher than the current 40% and 50% thresholds	ST	1,2,7	8,10,11
<i>Subdivision & Land Development Ordinance</i>			
9-4 Adopt a Recreation or Fee-in-Lieu Ordinance	ST	1,2,7	8,10,11
9-5 Require trails and recreational amenities in open space subdivisions	ST	1,2,7	8,10,11
9-6 Prepare and adopt a trail protection ordinance	ST	1,2,7	8,10,11
<i>Official Map</i>			
9-7 Adopt an Official Map that identifies properties or features that the municipality may wish to reserve for future public use	ST	1,2,3	TBD
<i>Additional Measures</i>			
9-8 Acquire easements for tails and greenways	OG	1,3,4	8,11,17
9-9 Coordinate with neighboring municipalities, Chester County, conservation organizations, and PA DCNR on trails, greenways, and open space initiatives	OG	3,5	TBD
9-10 Explore funding opportunities through the PA DCNR and Chester County	OG	3,5	TBD
9-11 Work with PennDOT to include bikeways in transportation improvement plans	OG	3	TBD
9-12 Investigate TEA-21 funding sources for trail and bikeway projects	OG	3	TBD
9-13 Prioritize and pursue future open space acquisitions	OG	5	TBD

Timeframes for implementation, responsible parties, and organizations offering technical assistance and funding are coded as follows:

ST – Short-Term

LT – Long-Term

OG – On-Going

TBD – To Be Determined

1 – West Pikeland Township Board of Supervisors

2 – West Pikeland Township Planning Commission

3 – West Pikeland Township Park and Recreation Board

4 – West Pikeland Township Historical Commission

5 – West Pikeland Township Open Space Committee

6 – West Pikeland Township Engineer

7 – West Pikeland Township Planning Consultant

8 - Chester County

10 - PADCED (PA Dept. of Community and Economic Development)

11 - PADCNR (PA Department of Conservation and Natural Resources)

12 - PHMC (Pennsylvania Historic Museum Commission)

13 - PADEP (PA Department of Environmental Protection)

14 - PA Game Commission and PA Fish & Boat Commission

15 - Homeowners Associations

16 – Historic Yellow Springs, Inc.

17 – Conservation Organizations and Inter-municipal Alliances

18 - National Park Service

19 - FEMA (Federal Emergency Management Administration)

20 – Area Recreation Organizations (DARC, youth athletic organizations)

21 – Fire, Police, EMS Organizations

Appendices

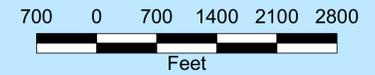
Appendix

Natural Resources Protection Plan..... A-1
Historic Resources..... A-2
Road Functional Classification..... A-3
Transportation Plan..... A-4
Bike Routes..... A-5
Existing Land Use..... A-6
Potential Residential Build-out..... A-7
Future Land Use Plan..... A-8
Community Facilities Plan..... A-9
Utilities Plan..... A-10
Park, Recreation & Open Space Plan..... A-11
Trail Plan..... A-12
Public Opinion Survey Summary..... A-13

A-1: Natural Resources

Legend

-  Streams
-  Ponds & Lakes
-  Wetlands
-  Zone 1 Riparian Buffer
-  Zone 2 Riparian Buffer
-  Very Steep Slopes (>25%)
-  Moderately Steep Slopes (15-25%)
-  100-Year Floodplain
-  Hydric Soils
-  Soils with Drainage Limitations
-  Prime Farmland Soils (Class 1&2)



Data Sources:
 Base Features - Chester County GIS, Fall 2008
 Slope - Derived from 2005 Digital Elevation Model
 Wetlands - USFWS, National Wetlands Inventory, 1971-1992
 Floodplain - FEMA DFIRM, 9/29/2006
 Soils - NRCS SSURGO, 6/14/2007

Comprehensive Plan Update

West Pikeland Township
 Chester County, Pennsylvania

Map Prepared By:
 Nanci Sarcinello, AICP
 Sarcinello Planning & GIS Services
 for
 Thomas Comitta Associates, Inc.
 Town Planners & Landscape Architects
 West Chester, Pennsylvania 19380

Adopted: December 6, 2010



A-2: Historic Resources

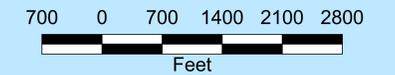
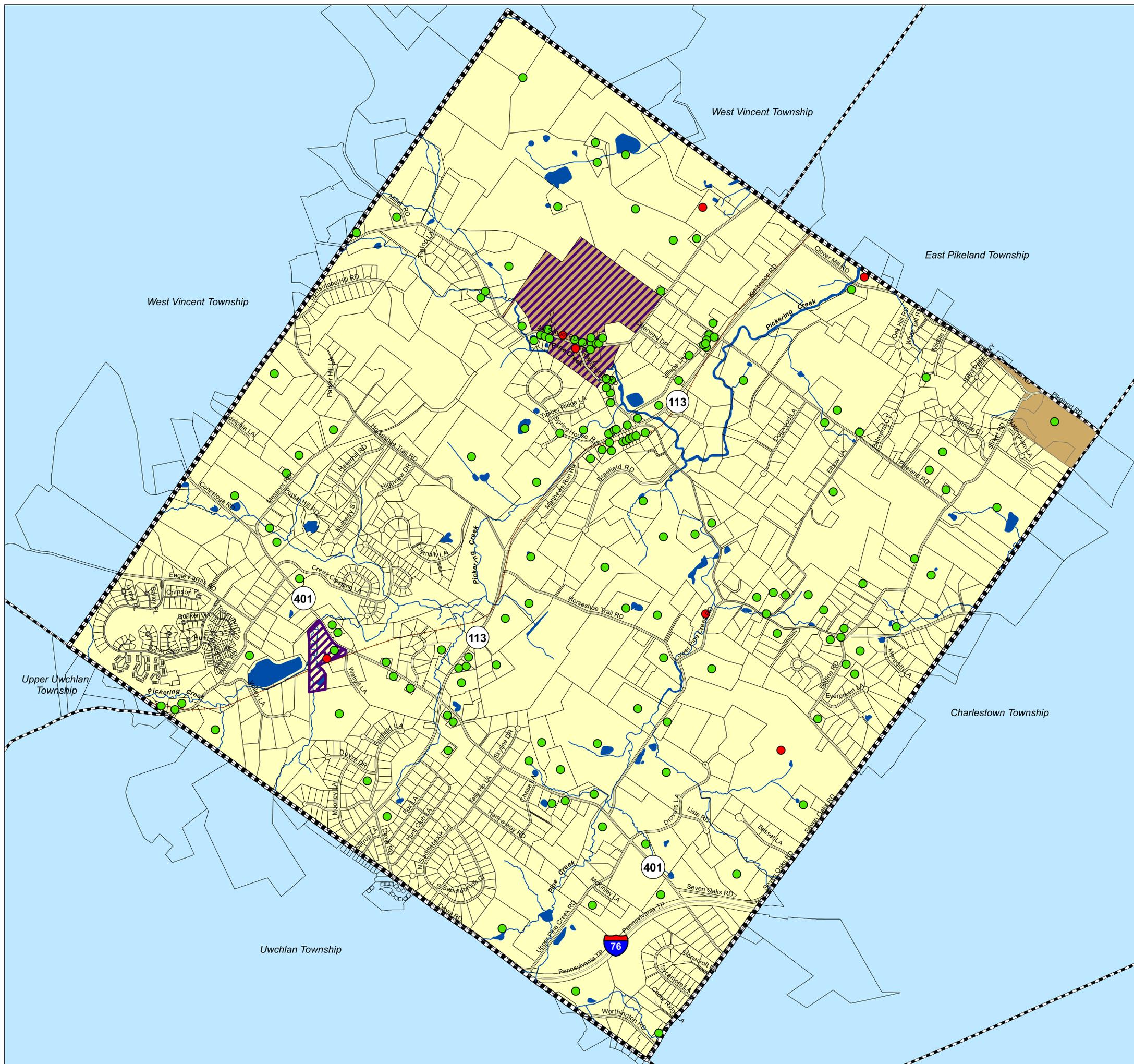
Legend

Historic Resources

- Class I
- Class II

Historic Districts

- Natl Register Listed
- Certified (Act 167)



Data Sources:
Base Features - Chester County GIS, Fall 2008
Historic Resources - West Pikeland Historic Commission, Historic Resources List, 2008

Comprehensive Plan Update

West Pikeland Township
Chester County, Pennsylvania

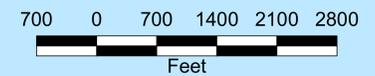
Map Prepared By:
Nanci Sarcinello, AICP
Sarcinello Planning & GIS Services
for
Thomas Comitta Associates, Inc.
Town Planners & Landscape Architects
West Chester, Pennsylvania 19380

Adopted: December 6, 2010

A-3: Road Functional Classification

Legend

- State Route
- Functional Classification**
- Expressway
- Major Arterial
- Minor Arterial
- Minor Collector
- Local Distributor
- Local Road
- 1,200** Annual Average Daily Traffic Count



Data Sources:
 Base Features - Chester County GIS, Fall 2008
 Functional Classification- Technical Memorandum #01-04, CCPC, June 2004
 Traffic Counts - 2007 Traffic Volume Map, PennDOT, April 2009
 Improvements - 2007 Transportation Improvement Initiatives, CCPC, July 2007

Comprehensive Plan Update

West Pikeland Township
 Chester County, Pennsylvania

Map Prepared By:
 Nanci Sarcinello, AICP
 Sarcinello Planning & GIS Services for
 Thomas Comitta Associates, Inc.
 Town Planners & Landscape Architects
 West Chester, Pennsylvania 19380

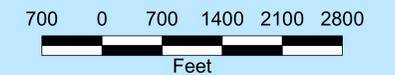
Adopted: December 6, 2010

A-4: Transportation Plan

Legend

-  Road Centerlines
-  Road Channelization
-  Intersection/Road/Bridge Improvement

Refer to the Comprehensive Plan text for a description of the road improvement codes shown on this map.



Data Sources:
 Base Features - Chester County GIS, Fall 2008
 Improvements - 2007 Transportation Improvement Initiatives, CCPC, July 2007; Comprehensive Plan Task Force Input, 2009

Comprehensive Plan Update

West Pikeland Township
 Chester County, Pennsylvania

Map Prepared By:
 Nanci Sarcinello, AICP
 Sarcinello Planning & GIS Services
 for
 Thomas Comitta Associates, Inc.
 Town Planners & Landscape Architects
 West Chester, Pennsylvania 19380

Adopted: December 6, 2010

A-5: Bike Routes

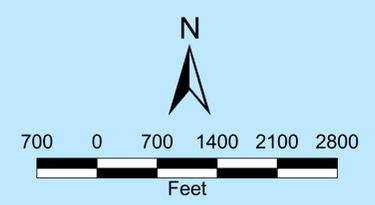
Legend

Bike Routes

- Commuter
- Beginner Recreation
- Intermediate Recreation

Points of Interest

-  Municipal Building
-  Public Library
-  Black Box Theater
-  Post Office
-  School
-  Parks & Open Space



Data Sources:
 Base Features - Chester County GIS, Fall 2008
 Community Facilities - West Pikeland Township
 Bike Routes - Chester County Planning Commission;
 Bicycle Coalition of Greater Philadelphia

Comprehensive Plan Update

West Pikeland Township
 Chester County, Pennsylvania

Map Prepared By:
 Nanci Sarcinello, AICP
 Sarcinello Planning & GIS Services
 for
 Thomas Comitta Associates, Inc.
 Town Planners & Landscape Architects
 West Chester, Pennsylvania 19380

Adopted: December 6, 2010

A-6: Existing Land Use



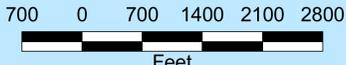
Legend

Land Use

- Agriculture/Woodland
- Residential
- Commercial
- Institutional
- Open Space/Recreation
- Private Camp
- Utility



N



700 0 700 1400 2100 2800
Feet

Data Sources:
Base Features: Chester County GIS, Fall 2008
Land Use: Chester County GIS & Consultant's Analysis

Comprehensive Plan Update

West Pikeland Township
Chester County, Pennsylvania

Map Prepared By:
Nanci Sarcinello, AICP
Sarcinello Planning & GIS Services
for
Thomas Comitta Associates, Inc.
Town Planners & Landscape Architects
West Chester, Pennsylvania 19380

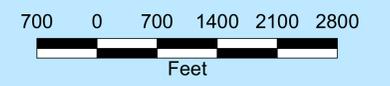
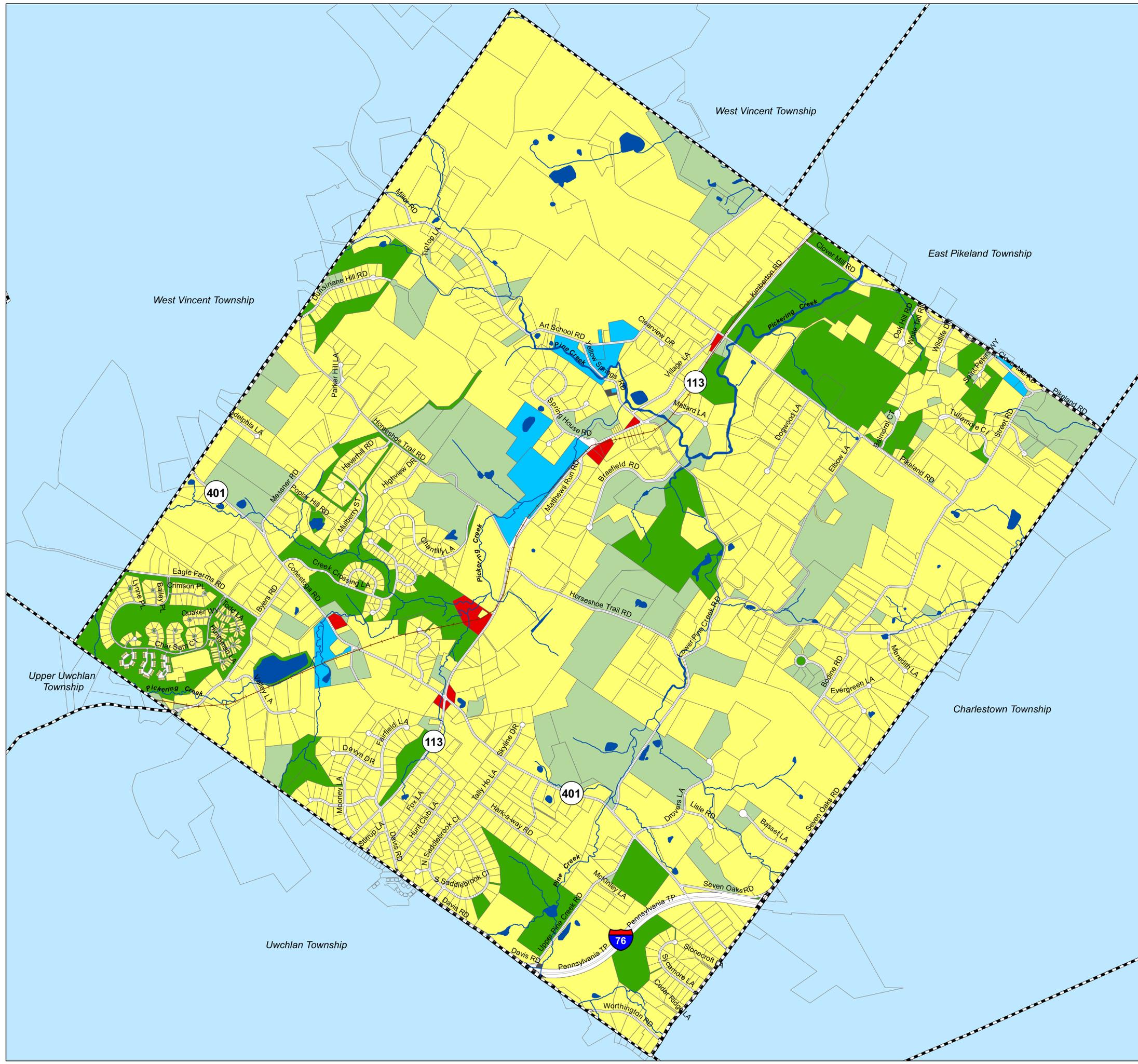
Adopted: December 6, 2010

A-7: Potential Residential Build-Out

Legend

Land Use

- Agriculture/Woodland
- Residential
- Commercial
- Institutional
- Open Space/Recreation
- Utility



Data Sources:
 Base Features - Chester County GIS, Fall 2008
 Build-Out - Consultant's Analysis

Comprehensive Plan Update

West Pikeland Township
 Chester County, Pennsylvania

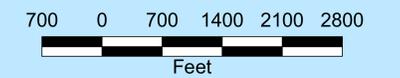
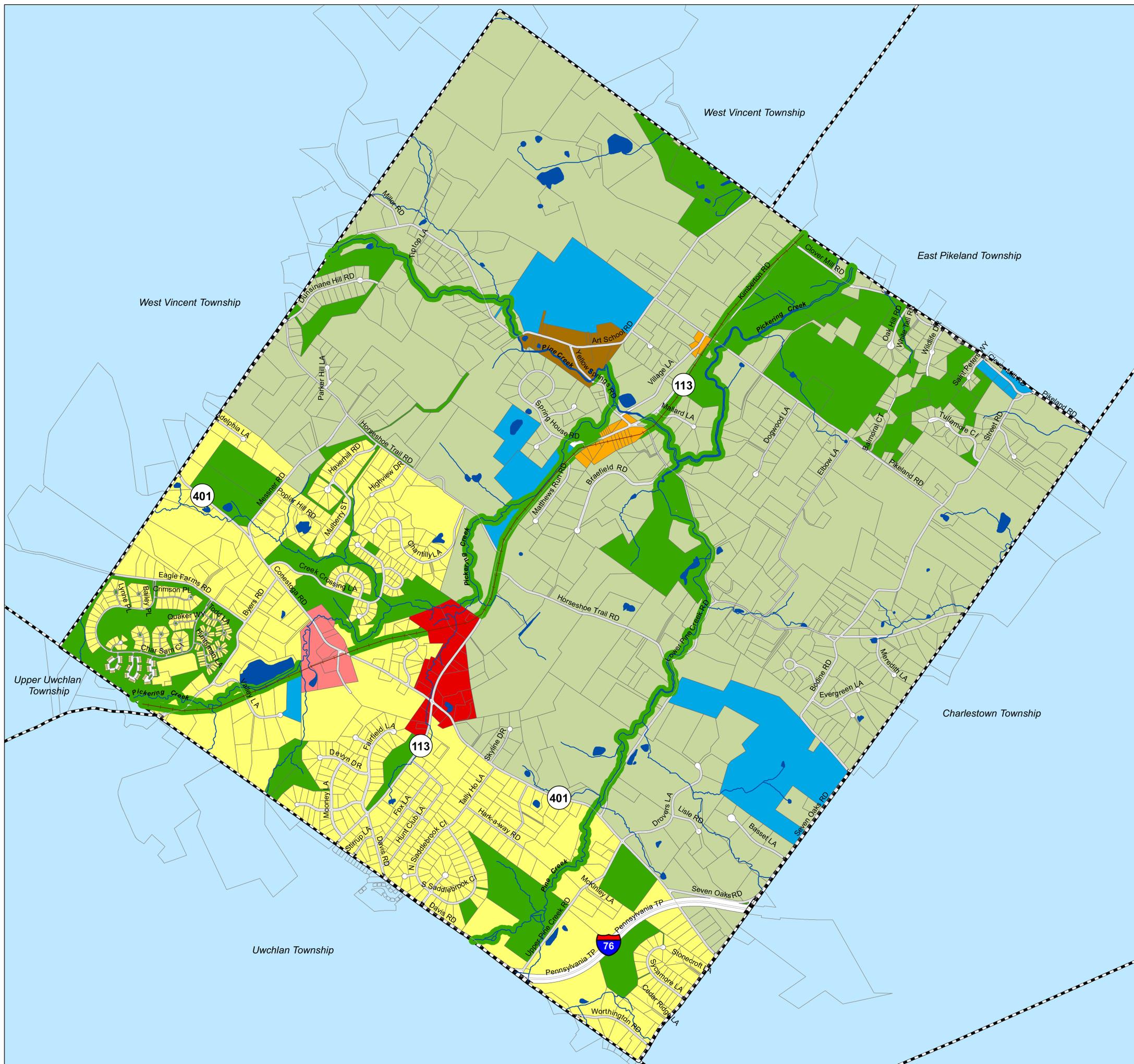
Map Prepared By:
 Nanci Sarcinello, AICP
 Sarcinello Planning & GIS Services
 for
 Thomas Comitta Associates, Inc.
 Town Planners & Landscape Architects
 West Chester, Pennsylvania 19380

Adopted: December 6, 2010

A-8: Future Land Use

Legend

- Residential Growth Area
- Rural Conservation Area
- Institutional
- Open Space/Park/Greenway
- Commercial Village - Opperman's Corner
- Historic Commercial Village - Anselma
- Historic Crossroads Village - Chester Springs/Pikeland
- Historic Arts & Culture Village - Yellow Springs



Data Sources:
 Base Features: Chester County GIS,
 Fall 2008
 Future Land Use - West Pikeland
 Township

Comprehensive Plan Update

West Pikeland Township
 Chester County, Pennsylvania

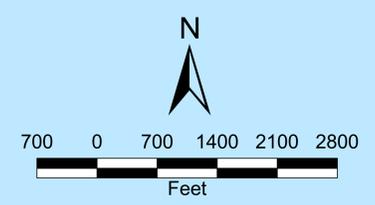
Map Prepared By:
 Nanci Sarcinello, AICP
 Sarcinello Planning & GIS Services
 for
 Thomas Comitta Associates, Inc.
 Town Planners & Landscape Architects
 West Chester, Pennsylvania 19380

Adopted: December 6, 2010

A-9: Community Facilities

Legend

-  Municipal Building
-  Public Library
-  Black Box Theater
-  Post Office
-  School
-  Parks & Open Space



Data Sources:
 Base Features - Chester County GIS, Fall 2008
 Community Facilities - West Pikeland Township
 Bike Routes - Chester County Planning Commission,
 Bicycle Coalition of Greater Philadelphia

Comprehensive Plan Update

West Pikeland Township
 Chester County, Pennsylvania

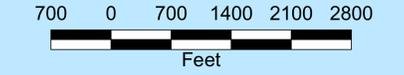
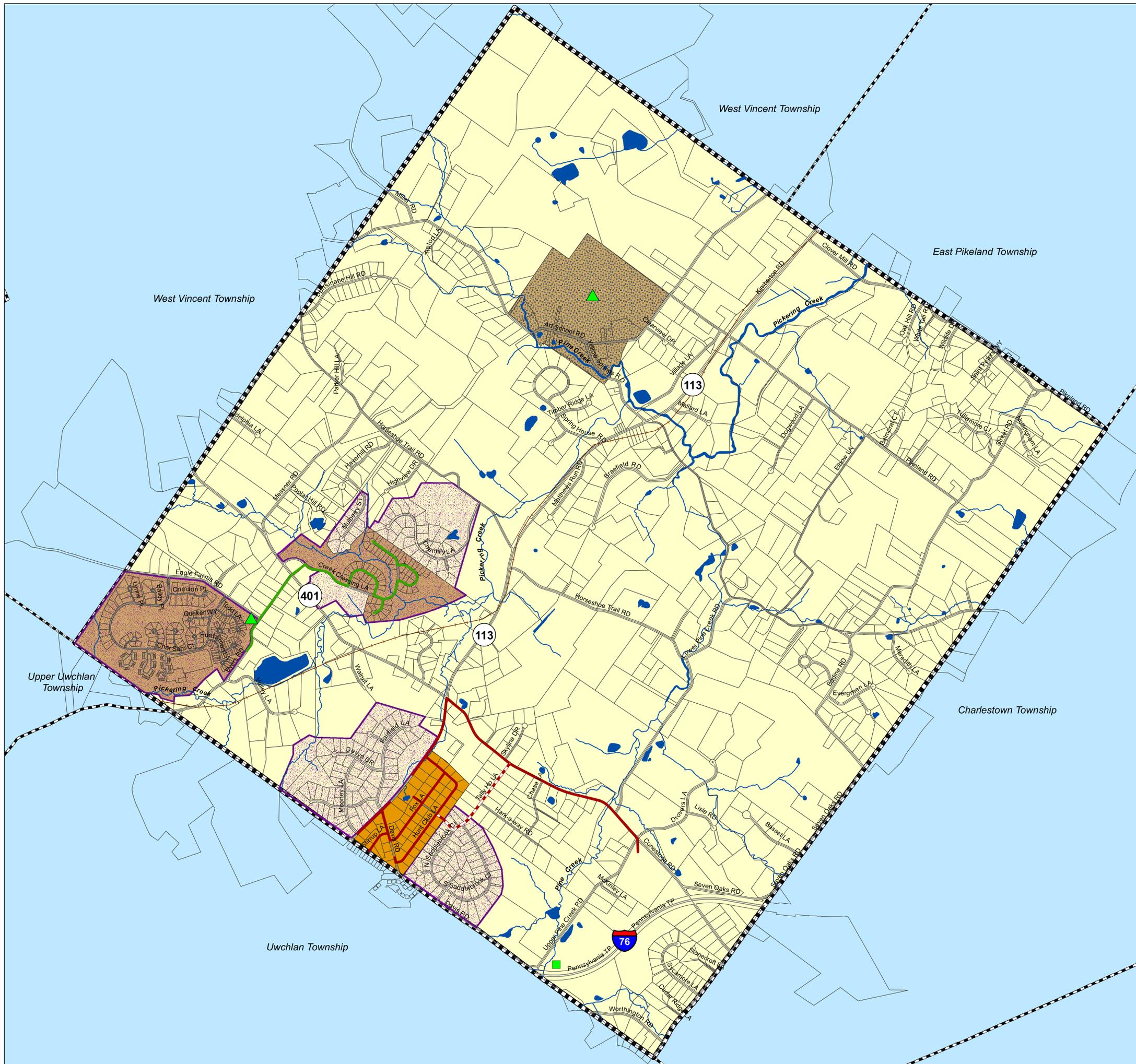
Map Prepared By:
 Nanci Sarcinello, AICP
 Sarcinello Planning & GIS Services
 for
 Thomas Comitta Associates, Inc.
 Town Planners & Landscape Architects
 West Chester, Pennsylvania 19380

Adopted: December 6, 2010

A-10: Utilities Plan

Legend

-  Existing Public Water Service Area
-  Existing Community Water Service Area
-  Existing Community Sewer Service Area
-  Existing Sewer Line
-  Existing Pumping Station
-  Existing Sewage Treatment
-  Proposed Sewer Service Area
-  Proposed Pressure Sewer Line
-  Proposed Alternate Routing



Data Sources:
 Base Features - Chester County GIS, Fall 2008
 Sewer & Water Facilities - Act 537 Plan, Draft 5/31/10

Comprehensive Plan Update

West Pikeland Township
 Chester County, Pennsylvania

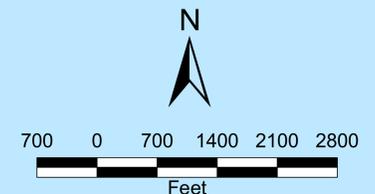
Map Prepared By:
 Nanci Sarcinello, AICP
 Sarcinello Planning & GIS Services
 for
 Thomas Comitta Associates, Inc.
 Town Planners & Landscape Architects
 West Chester, Pennsylvania 19380

Adopted: December 6, 2010

A-11: Park, Recreation & Open Space Plan

Legend

- Proposed Greenway
- Township Park
- Township-Owned Open Space
- Township Multi-Use Open Space
- Township-Owned Easement
- Private Easement
- Land Trust Property
- Homeowners Association Open Space
- Restricted by Subdivision
- Institutional
- Private Camp
- Horse-Shoe Trail



Data Sources:
 Base Features - Chester County GIS, Fall 2008
 Park, Recreation, Open Space: West Pikeland Township Park, Recreation & Open Space Plan, 2006

Comprehensive Plan Update

West Pikeland Township
 Chester County, Pennsylvania

Map Prepared By:
 Nanci Sarcinello, AICP
 Sarcinello Planning & GIS Services
 for
 Thomas Comitta Associates, Inc.
 Town Planners & Landscape Architects
 West Chester, Pennsylvania 19380

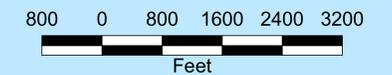
Adopted: December 6, 2010

A-12: Trail Plan

Legend

-  Existing Trail
-  Horse-Shoe Trail (On Road)
-  Planned or Potential Trail
-  Open Space/Recreation

Note:
Most of the Existing Trails are on private property. Permission to use any such trail should be obtained from the property owner in advance of use.



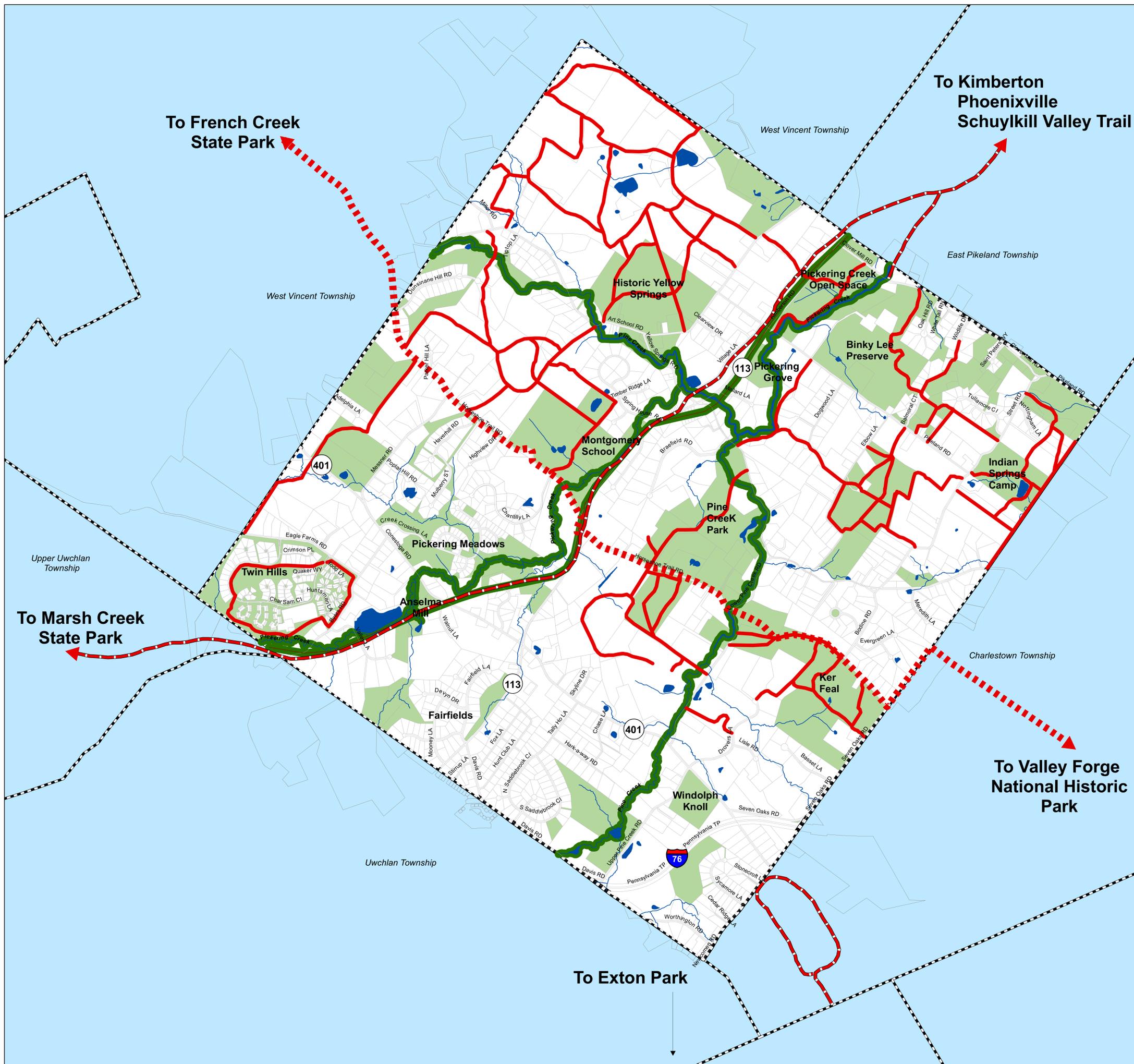
Data Sources:
 Base Features - Chester County GIS, Fall 2008
 Trails - Consultant, 2009

Comprehensive Plan Update

West Pikeland Township
 Chester County, Pennsylvania

Map Prepared By:
 Nanci Sarcinello, AICP
 Sarcinello Planning & GIS Services
 for
 Thomas Comitta Associates, Inc.
 Town Planners & Landscape Architects
 West Chester, Pennsylvania 19380

Adopted: December 6, 2010



A-13: Comprehensive Plan Public Opinion Survey Results Summary

The survey was conducted in Spring 2009 by way of a questionnaire mailed to each Township residence. There were 199 survey respondents, which represent roughly 16% of Township households. The survey indicates strongest support of the following values, expressed in percentages of respondents who agree or strongly agree:

1. Streams and water quality should be protected. (96%)
2. Open space should be preserved. (93%)
3. The Township's rural character should be maintained. (91%)
4. Scenic resources should be protected. (91%)
5. Woodlands should be protected. (90%)
6. The Township should coordinate planning efforts with other municipalities. (86%)
7. Historic villages are important cultural resources. (85%)
8. All residential developments should include open space. (85%)
9. The police force is vital to the community. (85%)
10. Historic buildings and sites are critical to Township character. (84%)

The survey indicates least support of the following values, expressed in percentages of respondents who agree or strongly agree:

1. Development should be largely unrestricted. (6%)
2. Apartments are desirable. (10%)
3. The Township needs sidewalks. (10%)
4. The Township needs more affordable housing. (12%)
5. Local government has too much control with regard to development. (12%)
6. Townhouses are desirable. (14%)
7. The existing police force is inadequate. (14%)
8. Conservation is less important than the development rights of landowners. (20%)
9. The existing police force is excessive. (21%)
10. Commercial uses should be promoted. (26%)

The survey responses support the following conclusions with regard to community values:

- Residents strongly support open space and environmental conservation, and think the Township should acquire open space for these purposes.
- Citizens believe that open space should be publicly accessible, and there is strong support for a trail network for hikers, bicyclists, and equestrians.
- The public strongly values the area's history and rural character.
- There is no apparent consensus regarding the acquisition or development of open space for additional active recreational facilities.
- Citizens believe development areas should have community sewer and water.
- The public favors local government action to control development.
- Citizens do not want more affordable housing, including townhouses or apartments.
- Township inhabitants perceive highway congestion to be a problem.
- Residents believe the police force is vital to community and is effective.
- Most agree that library resources are important and adequate.
- A strong majority favors planning coordination with other municipalities.
- Residents want the township to be a leader in environmentally sound policy.