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CHAPTER 1 INTRODUCTION & BACKGROUND



SECTION 1.1 INTRODUCTION

The Phoenixville Regional Planning Committee

Five municipalities are represented on the Phoenixville Regional Planning Committee (“PRPC”): Phoenixville Borough and Charlestown, East Pikeland, West Vincent, and Schuylkill Townships. All of the participating municipalities adopted the Phoenixville Regional Comprehensive Plan by _____, and on July 6, 2016, The Phoenixville Region Intergovernmental Cooperative Implementation Agreement for Regional Planning was authorized by the participating municipalities to guide future actions.

The Phoenixville Regional Planning Committee is comprised of representatives of the participating municipalities and was formed to address multi-municipal issues including agricultural and open space preservation, cultural and historic resources, quality of life, multi-modal transportation, housing, economic development, natural resource protection, historic preservation and tourism, environmental management and protection, growth management, and the administration and interpretation of the Phoenixville Regional Comprehensive Plan on matters relating to zoning, land use, public infrastructure and services, and related issues with a regional impact.

The Phoenixville Region

The Phoenixville Region is a well-balanced region with a richly diverse landscape of historic sites and communities, attractive neighborhoods and villages, industry, commercial centers, rolling farmlands and abundant natural resources. The Borough of Phoenixville has historically been the commercial center of the Region, with the surrounding Townships, historically agricultural communities, experiencing significant suburban type development in recent decades. As set out in the "Intergovernmental Cooperative Planning Agreement for the Municipalities of the Phoenixville Region," signed on January 15, 2003, the Region’s communities recognize that they are at a crossroads for directing growth and this is the catalyst for the Region’s municipalities working together to plan their future. Especially important for the Region is directing growth into recognized designated growth areas and into the older communities, particularly the Borough of Phoenixville, in order to revitalize these older places; maximizing the efficient use of the public infrastructure; and, preserving the Region’s historic sites, rural areas and natural resources.

Through regional cooperation and planning, the Phoenixville Region intends to:

- Protect the unique historical, cultural, aesthetic, agricultural and natural resources and the quality of life of the Region.
- Promote economic vitality through effective organization and coordination of development, attributes and resources.
- Implement growth management practices to provide for orderly and well-planned new development in the Region.
- Preserve open space, natural resources and agriculture in the Region.
- Develop multi-modal transportation choices for better mobility in and through the Region.
- Encourage walkable communities with a mix of uses and a range of housing options, where appropriate in the Region.
- Maintain and improve recreation options, including the trail system, of the Region.
- Address the specific needs and unique conditions of each municipality in the Region.

Plan Guidance:

The adopted Phoenixville Regional Comprehensive Plan shall serve as the guide for all future growth in the Region. Upon its adoption by all the participating municipalities, each municipality's land use planning decisions shall be guided by the Regional Comprehensive Plan and be consistent with its goals and objectives.

SECTION 1.2 REVIEW OF EXISTING REGIONAL POLICIES

The 2008 Phoenixville Regional Comprehensive Plan, the constituent municipalities' Comprehensive Plans and additional policies from Chester County and other regional organizations were analyzed for shared goals, objectives, and implementation strategies. By synthesizing the fundamentals of Regional policies, a picture of common Regional priorities can be established.

At the municipal level, Charlestown (2001), East Pikeland (2001), Phoenixville (2011), and Schuylkill (1991, 2005) each have Comprehensive Plans. Since the 2008 Phoenixville Regional Comprehensive Plan was drafted in large part to reinforce the existing policies of the Municipal Members, there is a high degree of consistency between the Regional and Member Municipal Comprehensive Plans. West Vincent has adopted the 2008 PRPC Regional Comprehensive Plan as its municipal Comprehensive Plan.

Land Use

The PRPC region represents a mixture of rural, suburban, and urban areas, creating an inherent tension in the patterns of development. By concentrating growth within established economic development zones and emphasizing the reuse and revitalization of existing neighborhoods, the region's municipalities may cooperate to promote vibrant and sustainable land use patterns that counteract the various pathologies of sprawl.

Existing Regional Policies:

- The 2008 *Phoenixville Regional Comprehensive Plan* provides calls for the revitalization of Phoenixville, the development of walkable, mixed-use villages, context-appropriate infill, and the creation of a network of greenbelts and open space. The Plan proposes to achieve those goals by promoting regional Transferrable Development Rights (TDRs), establishing design guidelines for new developments, and regulating large buildings which generate a high volume of traffic.
- *Landscapes2*, Chester County's Comprehensive Plan, calls for reinvestment in urban centers, echoing the PRPC goal of revitalizing Phoenixville. *Landscapes2* also promotes the preservation of the character of Chester County by concentrating growth in the most appropriate areas and a diversified mix of land uses in order to maintain a balance between growth and preservation. This will be achieved through building sustainable communities within designated growth areas and preserving large amounts of open space.
- The 2001 *Charlestown Comprehensive Plan* calls for a reduction of sprawl development patterns through a mix of dwelling types, adaptive reuse of historic buildings, and Traditional

Neighborhood Development practices, which supports the PRPC’s goal of walkable, mixed-use villages.

- The 2001 *East Pikeland Comprehensive Plan*, however, is not entirely consistent with the PRPC: the growth boundaries proposed in 2001 are less extensive than those put forth in the 2008 PRPC plan, while the proposed growth areas do not fully accord with those established by the PRPC. Since the Regional Plan was adopted after the municipal plan, and with Township review and adoption, these minor inconsistencies are not viewed as significant.
- The 2011 *Phoenixville Comprehensive Plan Update* addresses the location, design, and density of development within the Borough. In addition, it advocates coordination of TDRs by Regional Planning and the establishment of a regional financial and administrative entity to facilitate the purchase and sale of development rights. The 2011 map shows an expanded mixed-use growth area along French Creek continuing into the Cromby Road area and a neighborhood center in the North Hill area just north of Andre Thornton Park. The 2011 map also indicates an expansion of industrial uses in the vicinity of the Kindergarten Center along the Schuylkill River and between the Phoenixville Shopping Center and French Creek.
- The 2005 *Land Use Element* of Schuylkill Township’s Comprehensive Plan utilizes a Transect system to organize and classify land use, land development, and physical parameters into “Character Zones”. It also includes topical areas with Guidelines and Best Practices that are generally consistent with the Regional Comprehensive Plan. Schuylkill Township has four “Character Zones” described as follows:
 - T-1 Most Rural: Farmland, Horse Farms, and Woodland/Forested Areas
 - T-2 More Suburban: already subdivided, and not T-1, T-3, or T-4
 - T-3 Most Suburban/Less Urban: not as intense as T-4 (density of 2-4 units/gross acre)
 - T-4 More Urban: closer to Phoenixville, and adjoining Phoenixville (density of 4-6 units/gross acre)

Aside from minor mapping inconsistencies, the policies of the constituent municipalities and other regional organizations support the land use goals and objectives of the 2008 PRPC. Through enhanced coordination on goals, objectives, and policy proposals, the member entities can establish directions in future land use that will benefit the entire region.

Natural Resources

The PRPC region possesses a wide variety of valuable natural resources, each of which poses preservation and regulatory challenges. By regulating natural resources in a coordinated manner, the municipalities of the region can protect the function of natural systems which in turn positively affects quality of life in the region.

Existing Regional Policies:

- The 2008 *Phoenixville Regional Comprehensive Plan* calls for regionally consistent resource protection standards and the creation of integrated open spaces and greenways. Policies to support these goals include the maximizing of open space protections, the implementation of stormwater best management practices (BMPs), the mapping of all flood areas, the development of water conservation programs, the regulation of riparian buffers, and the implementation of a reforestation program.
- *Landscapes2* proposes a county-wide policy of maintaining a network of natural resources integrated into the built environment.
- The Chester County *Watersheds Plan* establishes a range of goals focused on preserving and/or enhancing water quality in the region. By reducing stormwater runoff, promoting water-based recreational and cultural resources, and integrating utility and municipal planning to meet future water supply and wastewater needs, existing water resources will not only serve the region's existing needs, but be safeguarded for the future.
- The 2001 *Charlestown Comprehensive Plan* calls for the protection of water resources.
- The 2013 *East Pikeland Plan for Open Space and Economic Development* seeks to preserve natural resources through the establishment of open space and greenway corridors, the promotion of healthy forest ecosystems, the maximization of groundwater recharge, and the promotion of energy conservation and environmentally sound design.
- Phoenixville's 2011 *Comprehensive Plan Update* recommends that new development and zoning incorporate significant environmental features into their designs while limiting stormwater runoff. It further calls for a 35' wide riparian buffer along French Creek.
- The 1991 *Schuylkill Township Comprehensive Plan* identifies woodlands in the Township as a valuable resource warranting preservation. Further, the 1991 Schuylkill Township Comprehensive Plan establishes the Township's intent to preserve and protect all waterways, streams, wetlands, and areas of vulnerable soil conditions considered vital for the continued health, safety, and welfare of all Township residents.

Riparian buffers are critical tools for protecting the integrity of the region's waterways. There is a lack of consistency among the ordinances of the constituent municipalities, and thus a lack of uniformity in protections for the region's waterways beyond those existing in Federal and State laws. All of the six watersheds within the PRPC region contain areas designated as either High Quality or Exceptional Value by the Pennsylvania Department of Environmental Protection (see Map 5). As such, the waterways within those designated areas are subject to statewide regulatory standards.

While the natural resource protection goals of the region's municipalities are largely consistent, the regulations designed to achieve those goals are not. By establishing a consistent vision and a regional regulatory framework through the PRPC, the region's townships are more likely to achieve those goals and thereby safeguard the region's natural resources. Indeed, because the functional limits of natural

systems rarely coincide with political boundaries, they are best suited for management on a broader scale.

Housing

The existing goals and policies of the region all generally agree: promotion of mixed-use development, discouragement of sprawl, and the reuse of historic structures should guide the region's planning for its residents' housing needs.

Existing Regional Policies:

- The 2008 *Phoenixville Regional Comprehensive Plan's* stated goal for housing is meeting the needs of all household sizes, ages, and/or incomes. The Plan calls for this to be achieved through a balanced pattern of development that enhances existing communities and the natural scenic landscapes of the region. The plan encourages village-style mixed-use development and discourages sprawling development patterns. A diversity of housing options facilitated through the creation of new residential opportunities and the stabilization of existing residential areas in older communities and neighborhoods is proposed to meet the region's housing needs.

The plan further recommends targeting new residential development in existing residential and mixed-use areas and encouraging innovation and diversity in site design, thus resulting in a diversity of housing types.

- *Landscapes2* calls for providing diverse and affordable housing options consistent with the principles of smart growth and sustainability.
- The 2001 *Charlestown Comprehensive Plan* aims to reduce sprawl development patterns with a mix of dwelling types, the adaptive reuse of historic buildings, and Traditional Neighborhood Development.
- Phoenixville's 2011 *Comprehensive Plan Update* promotes mixed-use new and infill development, including a wide variety of housing types, and the preservation of existing housing stock.
- Schuylkill Township's 2005 *Land Use* element establishes a continuum of densities and design parameters from rural to urban to create a mix of housing opportunities.
- The existing policies largely agree on strategies for approaching housing needs in the region. By codifying these shared goals and policies, the region as a whole has a greater opportunity to address the housing needs of its residents in both urban and rural/village settings.

Community Facilities

While the existing regional plans and policies do not all address the same categories of community facilities, they do agree that regional coordination is the key to implementing a comprehensive vision for providing services to the region's residents.

Existing Regional Policies:

- The community facility goals of the 2008 *Phoenixville Regional Comprehensive Plan* consist of coordinating sewer and water systems with overall land use goals and existing infrastructure. The plan further calls for regional coordination of recreational facilities and programs.
- *Landscapes2* broadly advocates for providing accessible community services and facilities.
- The 2001 *Charlestown Comprehensive Plan's Community Facilities Plan* aims to provide the community with integrated open space by linking them together with regional trail systems.
- The 2011 update to the *Phoenixville Comprehensive Plan* notes that the region should cooperatively address any modifications to the PA DEP's Act 537 Wastewater Facilities Plan. It further recommends adoption and implementation of stormwater management regulations. This echoes the need for regional coordination on the protection of regulated natural resources.
- The 1991 *Schuylkill Township Comprehensive Plan* establishes that Schuylkill Township will continue to provide the broadest possible range of community facilities and services for all residents within the financial resources of the Township, including police and fire protection, improved roads, library facilities, refuse disposal, and additional governmental administrative services to be considered.

All in all, the regional policies that address community facilities all call for coordination between regional governments, across a variety of municipal systems, to achieve goals.

Community Facility systems such as sewer and water are complex and dependent on coordination, while regional systems such as recreation and open space benefit greatly from a broad, regionally-based perspective.

Economic Development

Planning for regional economic development is focused mostly on the utilization of existing business districts, both in more developed, suburban settings, and in village settings. By utilizing infill and reuse, the region will promote economic growth while retaining the rural character of the region.

Existing Regional Policies:

- The 2008 *Phoenixville Regional Comprehensive Plan* recognizes Phoenixville Borough as the economic center of the region. The plan further proposes a concentration of other commercial, office, and industrial activity in designated areas of the region while maintaining the economic viability of existing commercial districts.

The plan recommends a path to achieve these goals through the promotion of cultural tourism in the region, the development of the French Creek Center as a mixed-use economic hub and the expansion of commercial services in mixed-use village settings. It further calls for a diversity of housing types, which echoes regional housing goals.

By seeking to utilize infill development and adaptive reuse in the revitalization of downtown Phoenixville, economic development will be further concentrated in existing business districts. This also supports regional goals addressing the preservation of historical and cultural resources through reuse.

Finally, the plan calls for the creation of a new retail village at the location of the proposed Schuylkill Valley Metro Station and the promotion of compatible pedestrian-oriented retail environments in existing villages.

- *Landscapes2* promotes a reinvestment in urban centers, which supports the idea of targeting Phoenixville for reuse and development. The plan further advocates the support of a strong and diverse economy through sustainable development practices.
- The East Pikeland 2013 *Plan for Open Space and Economic Development* encourages context appropriate economic development through the extension of public infrastructure along Routes 23 and 724, the development of zoning incentives for revitalization, the establishment of appropriate zoning and pedestrian accessibility in Kimberton, and the promotion of cultural heritage and tourism.
- The 2001 *Charlestown Comprehensive Plan* aims to reduce sprawl patterns while the Phoenixville 2011 Comprehensive Plan Update directs development to the Centre at French Creek shopping development and promotes the continued revitalization of the downtown area.
- The 1991 *Schuylkill Township Comprehensive Plan* encourages the continued exploration of opportunities for managed commercial use and expansion in the Township to the extent compatible with the natural and man-made environment of the area including services, facilities, and transportation network.

In sum, the region has approached economic development mostly in concert, envisioning economic growth occurring around established commercial districts, both in urban/suburban retail developments and in context-appropriate village settings. By focusing economic development in appropriate areas, systems of transportation and facilities may also be coordinated to create complementary region-wide systems.

Transportation

Transportation is a vital planning area for a region largely characterized by single passenger car commuting. Regional policies are largely in agreement about the importance of facilitating expanded public transportation options in conjunction with pedestrian, bicycle, and parking planning to create a multimodal transportation system.

Existing Regional Policies:

- The 2008 *Phoenixville Regional Comprehensive Plan* aims to develop regional roadway design standards, preserve scenic roadways, villages, and historic resources, and coordinate safety,

operational and capacity improvements across the region. Through the development of additional public transportation services, including more pedestrian and bicycle facilities throughout the region. These non-automobile based transportation systems should be supported by safe pedestrian links and a sufficient parking supply, and coordinated through a regional implementation plan.

- *Landscapes2* envisions an intermodal county-wide transportation system that sustains quality of life, strengthens the economy, and protects the environment.
- The Chester County 2014 *Public Transportation Plan* proposes the development of a reliable, consistent, flexible, and efficient system to maximize transit service coverage and provide practical transit options. By providing a barrier-free and multimodal means of transport, the county hopes to improve the convenience, reliability, and safety of transit.
- The Charlestown 2001 *Comprehensive Plan* aims to reduce traffic congestion while promoting trails and walkability through a circulation plan supporting scenic roads and local and regional bikeways.
- The 2013 *East Pikeland Comprehensive Plan Supplement* promotes the use of public transportation and multi-modal accessibility through complete streets and coordination of development and open space with a regional system of trails.
- The 2011 *Phoenixville Comprehensive Plan Update* establishes a transportation and circulation plan which identifies a site for a SEPTA rail station, recommends sidewalks be provided by new development and that a public parking program be implemented. New developments should further provide a parking plan to show how parking needs will be addressed. It calls for studies on pedestrian circulation studies and parking supply and demand.
- The 1991 *Schuylkill Township Comprehensive Plan* aims to continue to protect the residential character of each neighborhood by discouraging through-traffic on residential streets. All proposed changes in land use, of any type, will be reviewed and analyzed for potential consequences on the Township as a whole, particularly as it relates to vehicular congestion and the possible degradation of residential neighborhoods.

The overall goals of the region's constituent municipalities are generally in accord. By providing accessible public transportation options, particularly to areas targeted for revitalization and/or growth, quality of life and economic development may both be augmented. The development and support of a regional bicycle and pedestrian trail network will further promote quality of life and public health while linking open space recreational opportunities in the region.

Cultural Resources

There is an agreement among existing regional policies: the PRPC region possesses an abundance of cultural resources, including historical buildings and scenic rural landscapes. By creating a regional

inventory and a program of reuse in development planning, these assets will not only be protected, but will help enhance complementary economic development and housing goals.

Existing Regional Policies:

- The 2008 *Phoenixville Regional Comprehensive Plan* proposes the conservation of historic resources and the protection of their settings through mapping, implementation of zoning protections, context-sensitive infill, and the promotion of cultural tourism.
- *Landscapes2* promotes the concentration of growth in the most appropriate areas in order to protect and maintain Chester County's historical fabric, archeological resources, and cultural landscapes.
- *Watersheds* calls for an enhancement of water-based recreational and cultural resources
- The 2001 *Charlestown Comprehensive Plan* emphasizes visual quality, scenic viewsheds, heritage, and agricultural landscapes.
- The 2001 *East Pikeland Comprehensive Plan* emphasizes visual quality, vistas, and scenic roadways, the preservation of rural character and the preservation of agriculture.
- The 2013 *East Pikeland Plan for Open Space and Economic Development* calls for the preservation of township heritage and character through the creation of a comprehensive open space network, an open space requirement for all new development, the protection of the visual quality of scenic roads, and the improvement of the appearance of the 23/724 corridor.
- Schuylkill Township's *Comprehensive Plan* of 1991 establishes that the Township should pursue programs designed to preserve historical resources in the Township. Effective preservation begins with an inventory of resources prepared by interested citizens. A Historical Commission, established by the Township, could be the nucleus of the program.
- Finally, the 2011 *Phoenixville Comprehensive Plan Update* recommends that all new infill development conforms to and enhances the historic streetscape and that development in the Local Historic District (HARB District) conform to the *Borough Guidelines for Storefronts*.

By working in unison to inventory and positively repurpose existing cultural resources, the region as a whole may reap the tourism and economic revitalization benefits.

Open Space/Recreation

The PRPC region includes a variety of high quality open spaces, providing active and passive recreational opportunities and allowing for the enjoyment of the region's natural, cultural, and historical resources.

Existing Regional Policies:

- *Landscapes2* calls for the development of an integrated network of protected open spaces linked together by greenways or trail corridors.
- *Linking Landscapes* promotes an inventory of open space features and the creation of a county-wide vision for protected open space.
- The County *Watersheds* Plan advocates the enhancement of water-based recreational resources.
- The 2012 Federation of Northern Chester County Communities *Parks, Recreation and Open Space (PROS) Plan* adopted by East Pikeland and West Vincent Townships seeks to establish a premier park, recreation, and open space system that connects historic, cultural, recreational, natural, and scenic resources to public health. It proposes policies aimed at acquiring and developing additional park land for sports fields through mandatory dedication of fees-in-lieu. A master plan for future parks should be developed while planned regional trail networks should be completed, improved, and expanded.
- The 2001 *Charlestown Comprehensive Plan* calls for enhancing recreation opportunities and promoting trails and walkability. The plan further calls for a reduction in traffic volume and the creation and/or enhancement of local and regional bikeways.
- The 2013 *East Pikeland Plan for Open Space and Economic Development* calls for the development of a comprehensive and accessible recreation system, to be realized through the implementation of a Township Plan for an interconnected local and regional trail network. Open space should be coordinated with trail development and neighborhood parks should be created where needed. Local and regional bike routes should be developed and a Complete Streets approach to planning should be promoted.
- The 2011 *Phoenixville Comprehensive Plan Update* includes all proposed regional trail systems.
- Schuylkill Township's 1991 *Comprehensive Plan* recognizes the importance of Valley Forge National Historical Park for providing recreational and open space opportunities, but identifies that additional recreational and open space facilities may be appropriate in selected Township locations. The Plan also encourages the use of private means to preserve and maintain open preserves and sensitive natural features at every opportunity, particularly as new building proposals are presented for review. Together with interested larger landowners, the Township should be aware of other conservation options that would promote the preservation of open space.

The existing regional policies addressing open space agree on key initiatives: the preservation and enhancement of existing open spaces and the linking of those spaces through the continued

implementation of plans for regional and county-wide trail networks. These goals mesh well with transportation, cultural resource, and natural resource preservation goals. When planned cooperatively, a regional open space and trail network will help realize a public health benefit as well as opportunities to enjoy the region's cultural heritage.

SECTION 1.3 PUBLIC OUTREACH

In order to establish a vision of the future direction of the region that is responsive to the needs of residents, public outreach was critical. An online Community Values Survey and a public workshop were utilized in order to engage a broad cross section of the public and establish priorities for the planning trajectory of the PRPC region.

Community Values Survey

In this process, several common areas of concern were identified. Two main themes that emerged were the importance of preserving natural open spaces and the rural, historic character of the region, and tackling transportation issues related to population growth, namely regional traffic congestion and parking shortages in the Borough.

More specifically, respondents to the online survey identified the following areas of concern:

- On the topic of Natural and Historic Resources, there was a strong consensus among respondents that both the natural resources and rural and scenic character of the region. Respondents to the online survey overwhelmingly supported the preservation of the rural character of the region, through the protection and enhancement of both open space/natural areas and historic/cultural sites and structures. Additionally, there was widespread support for the development of trail networks throughout the region that would link existing green spaces and provide transportation alternatives to automobile travel.
- When asked about economic development, respondents indicated that they preferred that new development be directed toward existing commercial areas, namely Phoenixville and established commercial corridors e.g. along 113 and 724. Residents felt that while there were adequate commercial services available to them, overall there was too great a volume of residential development.
- As previously noted, the issue of transportation was at the forefront of respondents' minds. The majority of residents expressed frustration with the volume of car traffic and the lack of high-quality alternatives, such as passenger rail. In addition to congestion on the roadways, competition for parking places in Phoenixville was noted as a problem in need of creative solutions.
- While some respondents felt that the volume of high density residential development was impacting the rural character of the region, there was no identifiable consensus on an ideal approach to providing housing in a growing region. Generally, approximately 60% of survey respondents indicated that there were too many apartment- and townhouse-style projects being developed in the region.

- While there were numerous consensus issues identified by the survey, there were also a number of topics on which public opinion was divided. In general, the topic of housing did not produce consensus views. While some respondents indicated that housing in the region had become too expensive, particularly rental options, others were happy with the residential offerings.
- Social issues such as homelessness and poverty also drew a divided response, indicating a disparity in the perception of economic struggle in the Region.

The final question on the Community Values Survey asked respondents to identify what they believed the Phoenixville Region's three top planning priorities should be. The word cloud below represents the most commonly used words and phrases included in those responses.



Community Workshop 1

A Community Workshop was held on June 22, 2017 at the Kimberton Fire Company to introduce the Regional Comprehensive Plan project to the citizens and to assist in the formulation of vision, goals, and objectives for the Regional Comprehensive Plan Update.

Approximately 75 citizens took part in the workshop, including residents and business owners from each of the five Member Municipalities and representatives of local and regional organizations. Attendees worked separately in subcommittees to formulate a vision and establish priorities pertaining to the following aspects of regional planning:

- Land Use
- Environmental Resource Protection
- Housing
- Economic Development
- Community Facilities
- Parks and Recreation

- Transportation
- Historic and Cultural Resources
- Quality of Life

Each topical subcommittee selected a spokesperson to relay its findings and recommendations to the entire workshop audience for comment and further discussion. A summary of public input from Community Workshop 1 is included in Appendix A.

Community Workshop 2

A second Public Participation Workshop will be conducted on August 29, 2018 to present the draft policy elements and receive public comment. Attendees will be assembled into teams with representation from each municipality to offer comments on the policy elements and work toward consensus. The teams will then present their findings to the entire audience for further comment and summary by the project team consultants.

Community Workshop 3

The final Public Participation Workshop will be conducted on (date) to discuss overall priorities and policies of the Regional Comprehensive Plan Update.

CHAPTER 2 DEMOGRAPHICS



SECTION 2.1 POPULATION

As of the 2010 Census, the PRPC region had a population of 42,273. Population in the Phoenixville Region grew from 2000 to 2010 at a rate higher than Chester County, the State of Pennsylvania and the United States. The growth rate estimated from 2010 to 2015 by the U.S. Census Bureau’s American Community Survey (ACS) shows a significant slow-down in the rate of growth within the Phoenixville Region, which is likely a carry-over from the 2008 recession. The Regional growth rate from 2010 to 2015 was lower than Chester County, comparable to the National growth rate, and higher than the State of Pennsylvania. Figure 2.1-1 illustrates the Regional population growth, and the Population Growth table (Table 2.1-1) shows the population growth from 1980 through 2015 for the municipalities of the Region, the Region as a whole, as well as County, State and US growth rates.

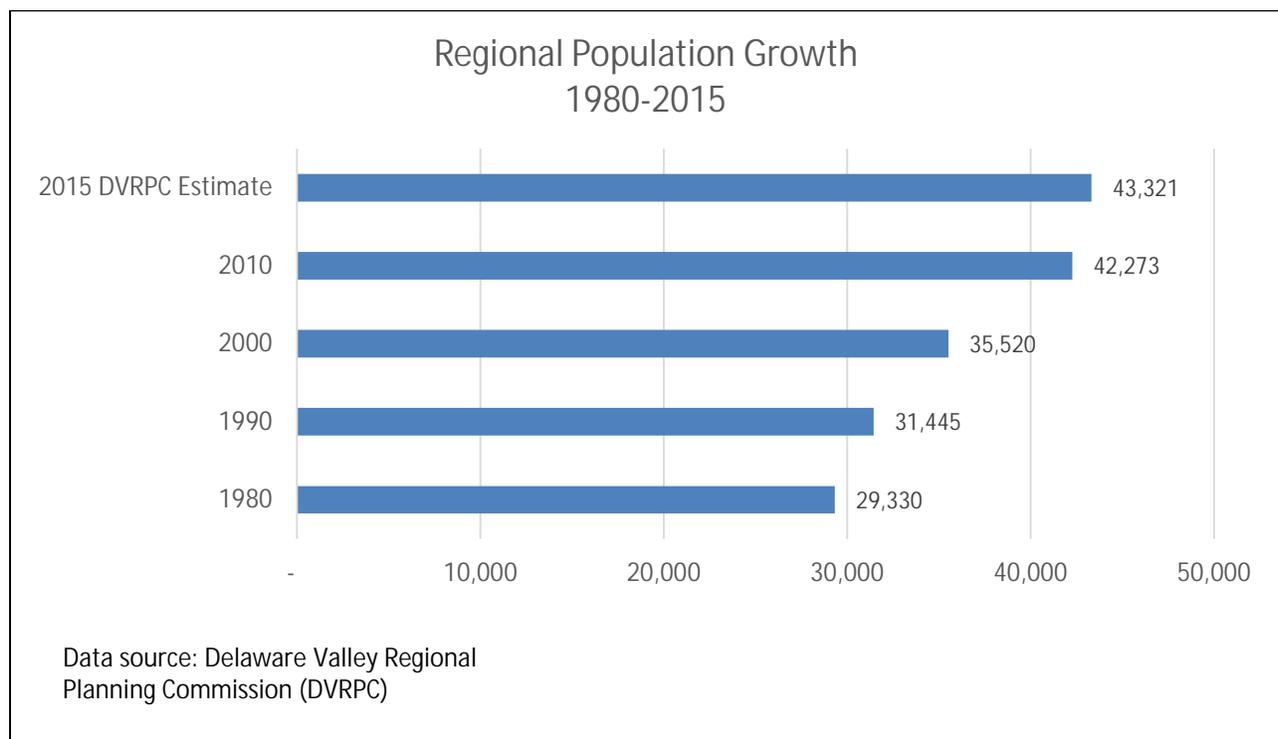


Fig. 2.1-1: Regional Population Growth

West Vincent and Charlestown show evidence of rapid growth during the 2000-2010 period. However, these numbers do not reflect more recent construction of apartment buildings in Phoenixville and East Pikeland.

While the recession did make a regional impact, it wasn’t uniform across the region. For example, West Vincent has had more recent multifamily construction.

In the short term, growth looks to be slowing, with a 19% growth rate between 2000 and 2010, but only a 2.5% growth rate between 2010 and 2015. However, long term projections indicate that the region will grow by more than 40% over the next 30 years, as it continues to be one of the fastest growing parts of the county and state.

Population Growth 1980-2015							
Municipality	1980	1990	2000	2010	%Change 2000-2010	2015 DVRPC Estimate	% Change 2010-2015
Charlestown Township	2,770	2,754	4,051	5,671	40.0%	5,690	0.3%
East Pikeland Township	4,410	5,825	6,551	7,079	8.1%	7,359	4.0%
Phoenixville Borough	14,165	15,066	14,788	16,440	11.2%	16,658	1.3%
Schuylkill Township	5,993	5,538	6,960	8,516	22.4%	8,576	0.7%
West Vincent Township	1,992	2,262	3,170	4,567	44.1%	5,038	10.3%
Regional Total	29,330	31,445	35,520	42,273	19.0%	43,321	2.5%
<i>Chester County</i>	<i>316,660</i>	<i>376,396</i>	<i>433,501</i>	<i>498,886</i>	<i>15.1%</i>	<i>515,939</i>	<i>3.4%</i>
<i>Pennsylvania</i>	<i>11.86 million</i>	<i>11.88 million</i>	<i>12.28 million</i>	<i>12.7 million</i>	<i>3.4%</i>	<i>12.78 million</i>	<i>0.6%</i>
<i>United States</i>	<i>226.55 million</i>	<i>248.71 million</i>	<i>281.42 million</i>	<i>308.75 million</i>	<i>9.7%</i>	<i>316.52 million</i>	<i>2.5%</i>

*2011-2015 ACS Population Estimates

Table 2.1-1: Population Growth Comparisons 1980-2015

DVRPC Population Forecast											
Municipality	U.S. Census		2015 DVRPC Est.	Population Forecasts*						2015 - 2045 Absolute Change	2015 - 2045 Percent Change
	2000	2010		2020	2025	2030	2035	2040	2045		
Charlestown Township	4,051	5,671	5,690	6,198	6,703	7,217	7,661	8,026	8,336	2,646	46.50%
East Pikeland Township	6,551	7,079	7,359	7,932	8,502	9,081	9,583	9,995	10,344	2,985	40.56%
Phoenixville Borough	14,788	16,440	16,658	18,696	20,725	22,481	24,002	25,051	25,710	9,052	54.34%
Schuylkill Township	6,960	8,516	8,576	8,922	9,265	9,615	9,917	10,165	10,376	1,800	20.99%
West Vincent Township	3,170	4,567	5,038	5,230	5,422	5,616	5,784	5,923	6,040	1,002	19.89%
Regional Total	35,520	42,273	43,321	46,978	50,617	54,010	56,947	59,160	60,806	17,485	40.36%

* Population projections through 2030 are of relevance to this Regional Comprehensive Plan. Although DVRPC projections run through 2045, projections over extended time become progressively more speculative. Further, a municipality’s capacity to absorb projected population may be affected by factors not accounted for in projections, such as environmental constraints, zoning or infrastructure limitations, or increased land preservation.

Table 2.1-2: DVRPC Population Forecast through 2045

SECTION 2.2 AGE

The Regional age breakdown of 2000 and 2010 is shown in Fig. 2.2-1 and the Regional Age Breakdown table (Table 2.2-1). The Regional population over this time period followed a generally similar

distribution pattern with the exception of the age group between 35 and 44, where the population decreased from 2000 to 2010. Most notably, by 2010 there has been a marked increase in the number of preschool, school age, and later working age people as opposed to other cohorts.

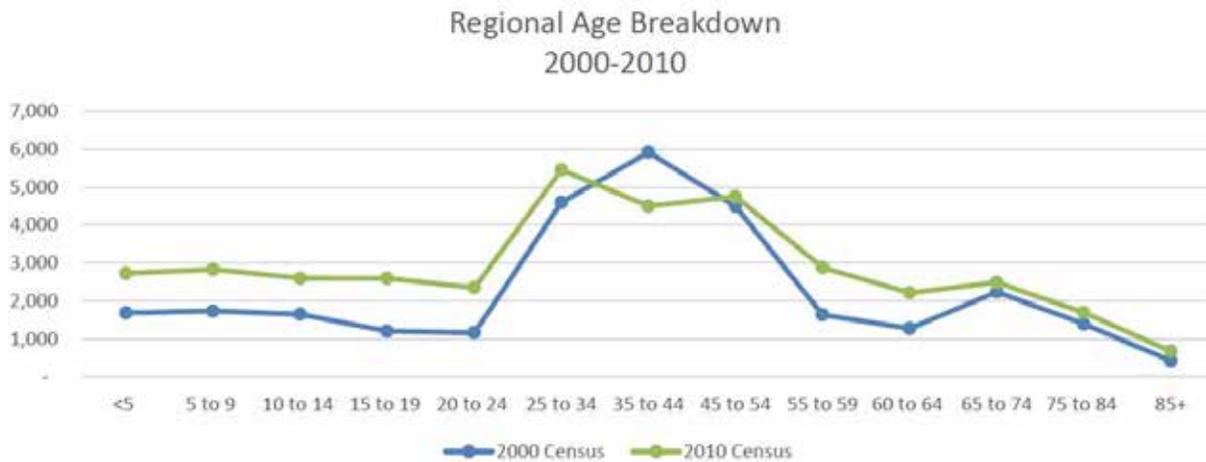


Fig. 2.2-1: Regional Age Breakdown, 2000 & 2010

	2000 Census		2010 Census	
	Number	Percent	Number	Percent
Total population	31,469		42,273	
<5 years	1,686	5.4%	2,727	6.5%
5 to 9 years	1,735	5.5%	2,833	6.7%
10 to 14 years	1,648	5.2%	2,599	6.1%
15 to 19 years	1,205	3.8%	2,596	6.1%
20 to 24 years	1,164	3.7%	2,351	5.6%
25 to 34 years	4,597	14.6%	5,454	12.9%
35 to 44 years	5,919	18.8%	4,496	14.7%
45 to 54 years	4,494	14.3%	4,750	16.9%
55 to 59 years	1,634	5.2%	2,880	6.8%
60 to 64 years	1,275	4.1%	2,215	5.2%
65 to 74 years	2,238	7.1%	2,489	6.8%
75 to 84 years	1,389	4.4%	1,693	4.0%
85+ years	418	1.3%	676	1.6%

Table 2.2-1: Regional Age Breakdown, 2000-2010

The median ages by municipality (below) indicate a steadily decreasing population age in Phoenixville, which has a greater variety of housing types and lower overall costs, making it more attractive to young people. In the other municipalities, the median age increased from 2000 to 2010, before plateauing for the next five years. The increase in children in the region, as indicated in the figures above, has depressed the rate of aging in these municipalities.

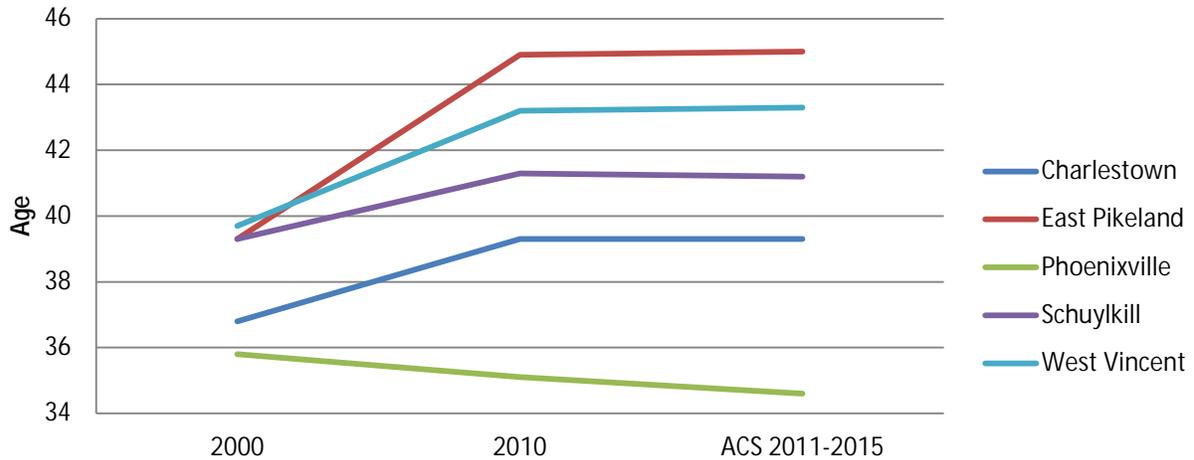


Fig. 2.2-2: Median Age by Municipality, 2000-2015

An examination of age stratification by municipality shows some interesting trends. In Charlestown, there has been an increase in both school aged children and middle-aged adults, indicating an increase in family households. At the same time, the number of young adults has decreased. East Pikeland shows a decrease in middle-aged adults and an increase in older adults, indicating an aging population. Phoenixville shows the greatest increase in young adults (25-34), as was evident in the overall decrease in median age. Finally, both Schuylkill and West Vincent show similar patterns to Charlestown, indicating more families in those municipalities.

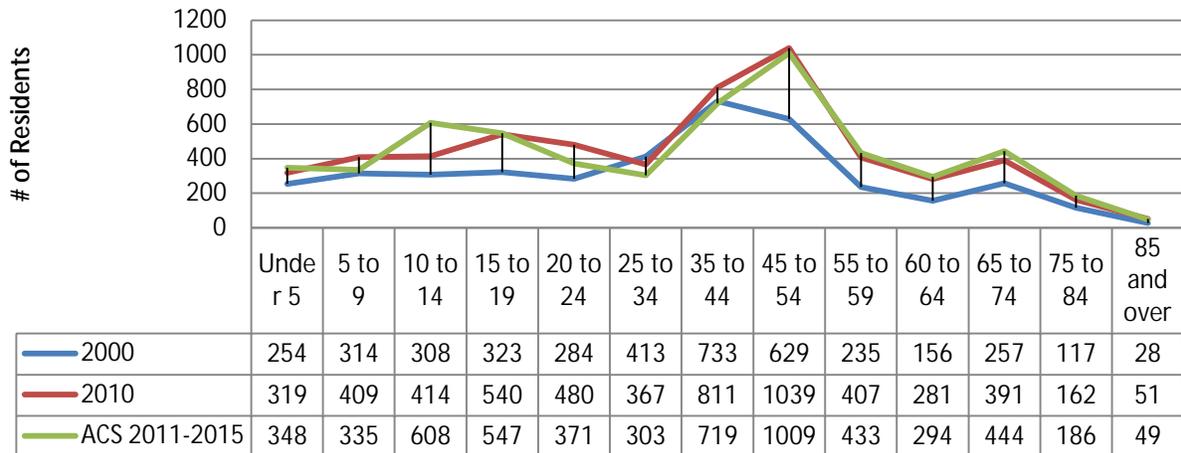


Fig. 2.2-3: Charlestown Township Age Stratification

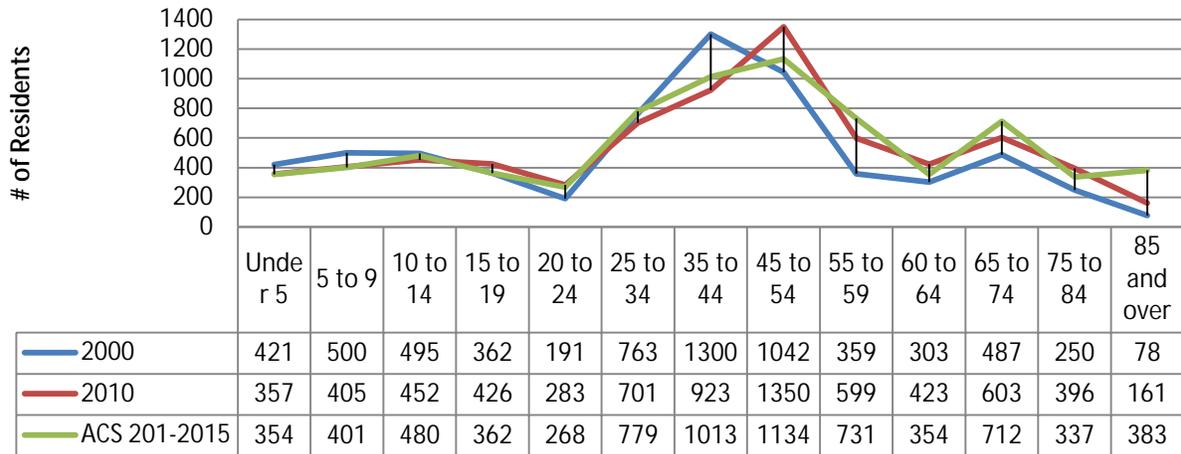


Fig. 2.2-4: East Pikeland Township Age Stratification

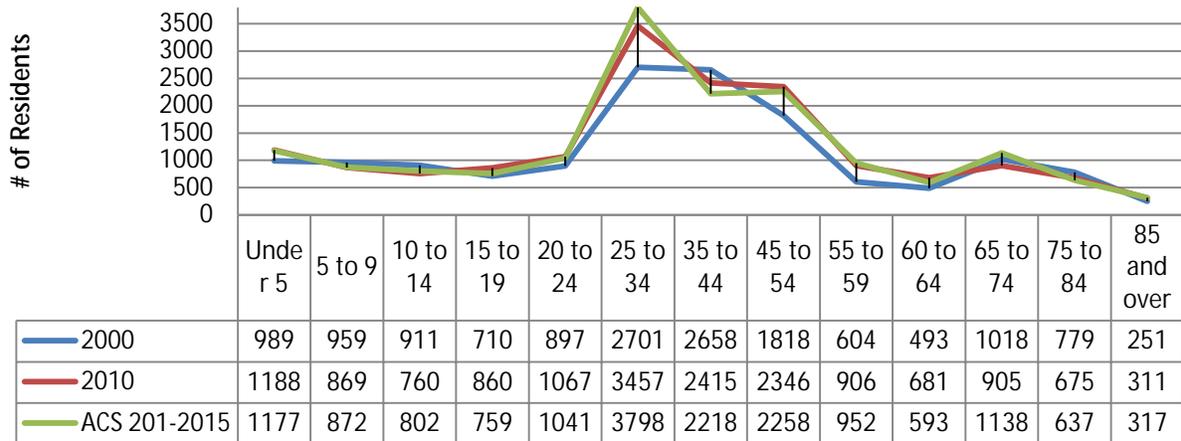


Fig. 2.2-5: Phoenixville Borough Age Stratification

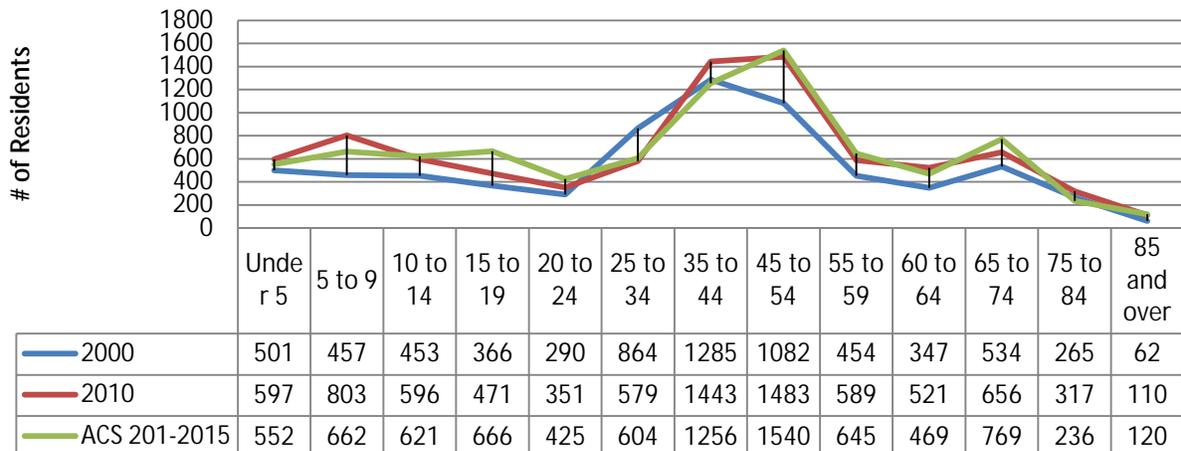


Fig. 2.2-6: Schuylkill Township Age Stratification

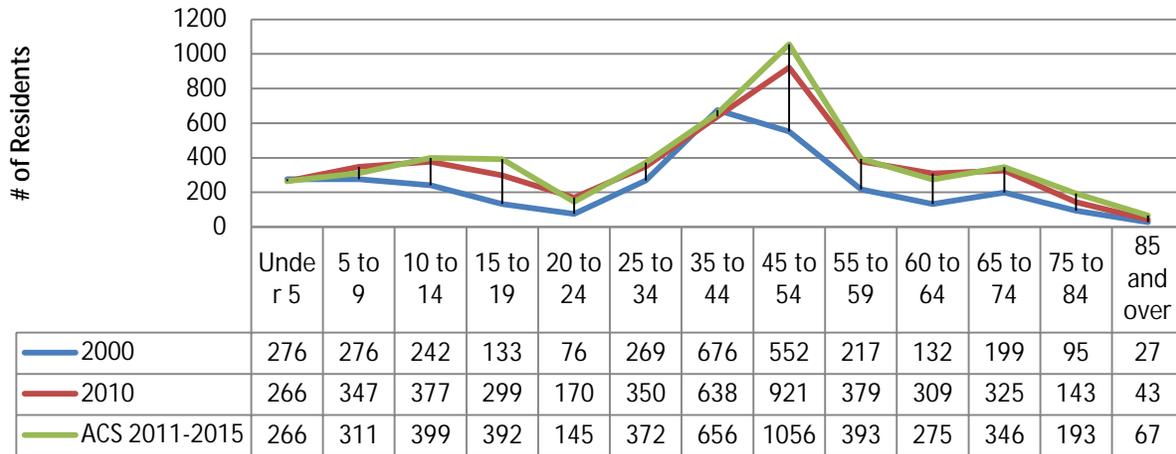


Fig. 2.2-7: West Vincent Township Age Stratification

SECTION 2.3 HOUSEHOLD COMPOSITION

An examination of the composition of households in the region reveals greater numbers of families in the more sparsely populated townships and greater numbers of non-family households concentrated in Phoenixville Borough. This aligns with the number of children present in these households, indicating that the population of Phoenixville, in comparison to the other constituent municipalities, consists of more individuals or non-family cohabitation arrangements. East Pikeland and Schuylkill Township look to be changing in terms of traditional family structures, with relatively larger numbers of non-family households.

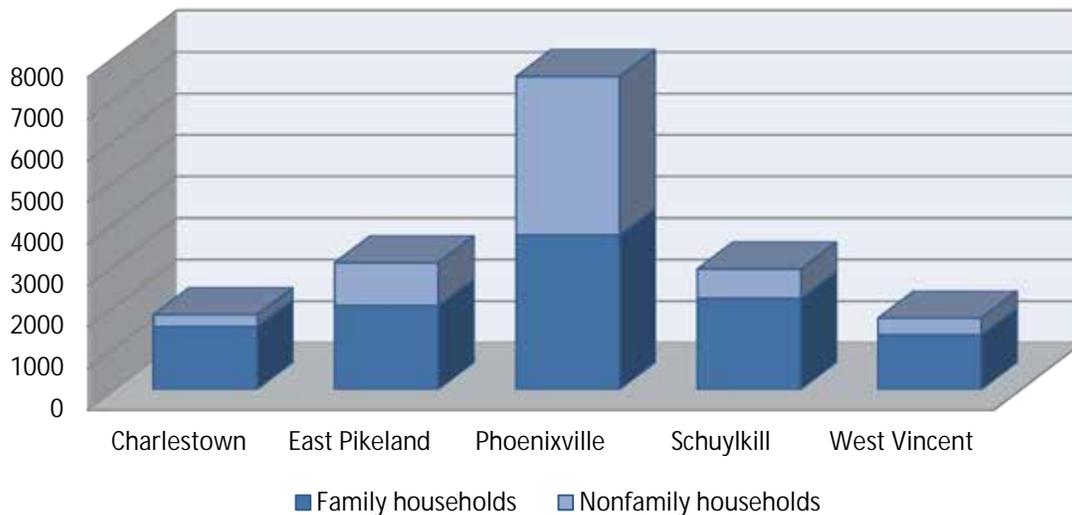


Fig. 2.3-1: Family vs. Non-Family Households by Municipality

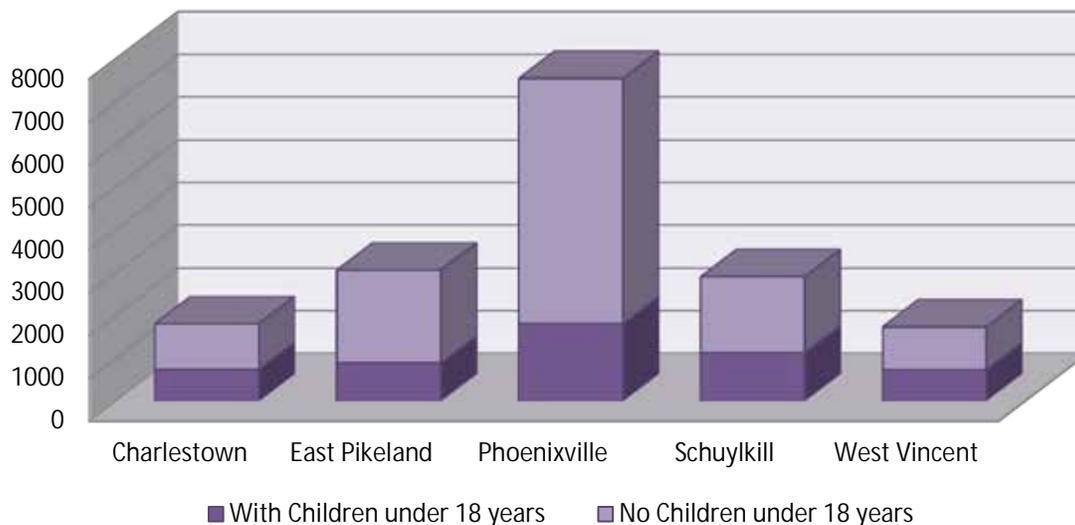


Fig. 2.3-2: Households with Children vs. without Children by Municipality

SECTION 2.4 EDUCATION

The following table shows the educational attainment of the regional population 25 years and older. It is noted that more than 50% of the identified regional population has a bachelor's degree or graduate degree and approximately 5% of the identified regional population has less than a high school diploma. The numbers show generally high levels of educational attainment around the region. At the high end, nearly 80% of Charlestown's population has a bachelors or graduate degree. On the lower end, nearly 8% of Phoenixville residents do not have a high diploma or GED. These numbers raise questions about the type and location of work opportunities available to residents throughout the region. While a highly educated populace is desirable, some classes of employment may be more accessible to residents with fewer qualifications. In this respect, a diversity of educational attainment may help some sectors of the local economy to function.

2011-2015 ACS Educational Attainment								
Municipality	Population = /> 25 years	Less than 9th grade	9th-12th- no diploma	HS Grad (includes equivalency)	Some college, no degree	Associate's degree	Bach's Degree	Grad or Prof Degree
Charlestown Township	3,437	4	24	293	289	169	1,346	1,312
East Pikeland Township	5,443	74	153	1,354	614	246	1,969	1,033
Phoenixville Borough	11,911	335	605	3,874	1,615	764	3,310	1,408
Schuylkill Township	5,639	39	91	1,059	564	385	1,924	1,577
West Vincent Township	3,358	92	120	418	483	188	1,229	828
Regional Total	29,788	544	993	6,998	3,565	1,752	9,778	6,158

Table 2.4-1: Regional Educational Attainment

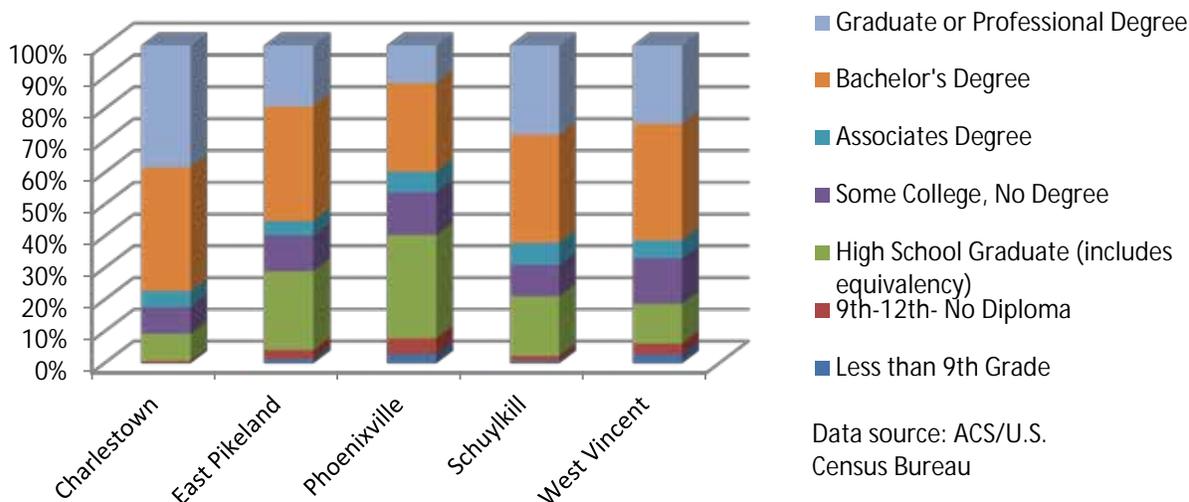


Fig. 2.4-1: Educational Attainment by Municipality

SECTION 2.5 EMPLOYMENT STATUS

The following table provides an overview of the employment status within the individual municipalities and the Region. The average unemployment rate of the region between 2011 and 2015 (4.1%) was below state and national rates. Pennsylvania unemployment between 2011 and 2015 ranged from 7.9% to 5.3%, while the national rate ranged between 9.2% and 5.5%.

2011-2015 Employment Status

Municipality	Total population		Employed		Unemployed		Not in labor force	
	Male	Female	Male	Female	Male	Female	Male	Female
Charlestown Township	2,043	2,163	70.9%	63.3%	4.6%	1.8%	24.5%	34.9%
East Pikeland Township	2,897	3,082	68.1%	65.9%	5.1%	3.9%	26.7%	30.2%
Phoenixville Borough	6,532	6,900	75.0%	67.0%	5.2%	5.1%	19.5%	27.9%
Schuylkill Township	3,255	3,299	67.2%	64.6%	3.7%	2.4%	29.1%	33.0%
West Vincent Township	1,971	1,789	75.7%	56.0%	1.7%	4.2%	22.6%	39.8%
Regional Total	16,698	17,233	71.9%	64.7%	4.4%	3.9%	23.6%	31.4%

Table 2.5-1: Employment Status of the Region's Population

According to the 2014 DVRPC Analytical Data Report titled *Regional Employment Centers and Sites, 2010*, the Route 23/Phoenixville/Oaks area is identified as an Employment Center. Employment centers are defined as areas where a number of employers together employ at least 500 employees and have an employment density of at least 2.0 employees per acre. While the Employment Center associated with

Employment in Centers by Sector, 2010*												
Employment Center	Total County Employment	Employment in Centers	Land Area in Centers (Acres)	Agriculture, Forestry, Fishing, and Hunting/ Mining	Construction	Manufacturing	Transportation and Warehousing/ Utilities	Wholesale Trade	Retail Trade	Finance and Insurance/ Real Estate	Services (except Public Admin)	Public Admin/ Military
Chester County	292,015	212,951	32,028	2,417	8,138	28,242	5,640	14,557	27,864	27,121	94,549	4,423
Route 23/ Phoenixville Oaks		9,835	3,183	5	417	748	189	467	1,666	646	5,593	104

*May 2014 DVRPC Analytical Data Report Regional Employment Centers and Sites, 2010

Table 2.5-2: 2010 Employment in Region vs. Chester County

the Phoenixville Region extends into Oaks, Montgomery County, it provides a more detailed look at this area than general information might. The following table provides a breakdown of employment by sector in the Phoenixville Area Employment Center as reported in the 2014 DVRPC Analytical Data Report titled Regional Employment Centers and Sites, 2010. The services and retail trade sectors together represented 73.8% of employees in the Route 23/Phoenixville/Oaks Center, indicating an employment environment heavily skewed toward those commercial activities.

SECTION 2.6 EMPLOYMENT FORECAST

The following Employment Forecast table indicates an expectation that the overall employment within the Phoenixville Region is forecasted to increase relatively significantly through 2045, by 36.22% overall. However, the region’s population is expected to increase by over 40% over the same period (see Table 2.1-2). It is unclear if this is indicative of a changed economic condition or higher growth in age cohorts that are not part of the labor force.

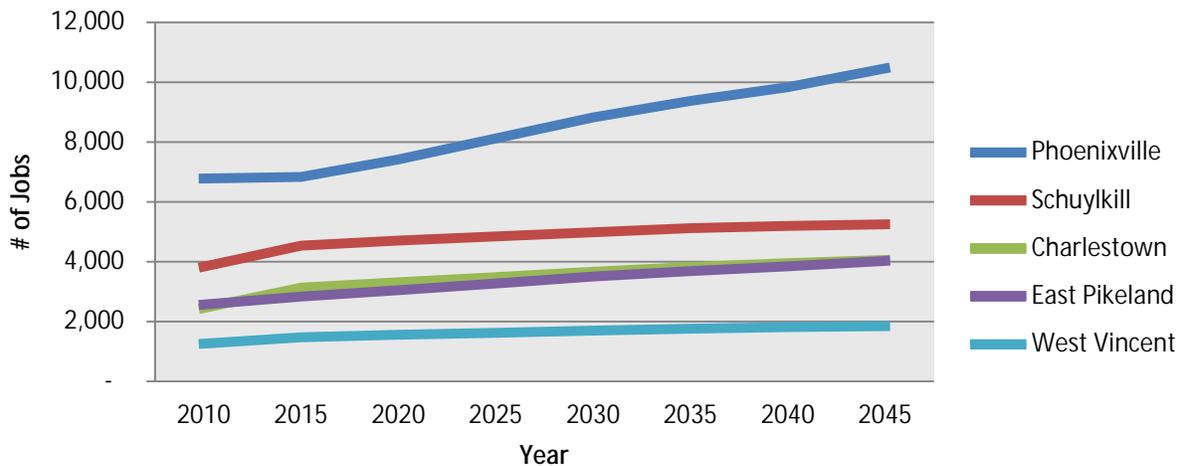


Fig. 2.6-1: Regional Employment Forecast through 2045

PRPC Employment Forecast

Municipality	2010 Employment	Employment Forecast Estimates (by year)							Absolute Change 2015 - 2045	% Change 2015 - 2045
		2015	2020	2025	2030	2035	2040	2045		
Charlestown Township	2,454	3,134	3,309	3,483	3,661	3,818	3,947	4,050	916	29.23%
East Pikeland Township	2,570	2,836	3,040	3,268	3,499	3,687	3,845	4,025	1,189	41.93%
Phoenixville Borough	6,781	6,835	7,419	8,119	8,823	9,378	9,835	10,456	3,621	52.98%
Schuylkill Township	3,837	4,530	4,706	4,840	4,977	5,124	5,197	5,247	717	15.83%
West Vincent Township	1,263	1,476	1,552	1,623	1,695	1,759	1,816	1,846	370	25.07%
Regional Total	16,905	18,811	20,026	21,333	22,655	23,766	24,640	25,624	6,813	36.22%

* Population and employment projections through 2030 are of relevance to this Regional Comprehensive Plan. Although DVRPC projections run through 2045, projections over extended time become progressively more speculative. Further, a municipality's capacity to absorb projected population may be affected by factors not accounted for in projections, such as environmental constraints, zoning or infrastructure limitations, or increased land preservation.

Table 2.6-1: Regional Employment Forecast through 2045

SECTION 2.7 INCOME

The following chart and table show estimated household income for the Region and the individual municipalities within the Region for the period ending 2015. Concentrations of wealth are evident in the high income households present in Charlestown, Schuylkill, and West Vincent Townships in particular. In contrast, nearly half of households in Phoenixville earn less than \$50,000 per year.



Fig. 2.7-1: Household Income, 2011-2015

SECTION 2.8 RACIAL COMPOSITION

The Region is more predominantly white than either Pennsylvania or the nation. Phoenixville exhibits the most racial diversity, with a notable Latino population (9.8% of the Borough).

Racial Composition – Regional, Statewide, and Nationwide

<u>Region</u>	<u>Pennsylvania</u>	<u>United States</u>
Other – 4.4%	Other – 0.7%	Other – 3%
Hispanic/Latino – 6%	Hispanic/Latino – 6.8%	Hispanic/Latino – 18%
Asian – 3%	Asian – 3.4%	Asian – 6%
Black – 3.8%	Black – 11.7%	Black – 12%
White – 82.8%	White – 77.4%	White – 61%

Table 2.8-1: Racial Composition Comparison of the Region to the State and Nation

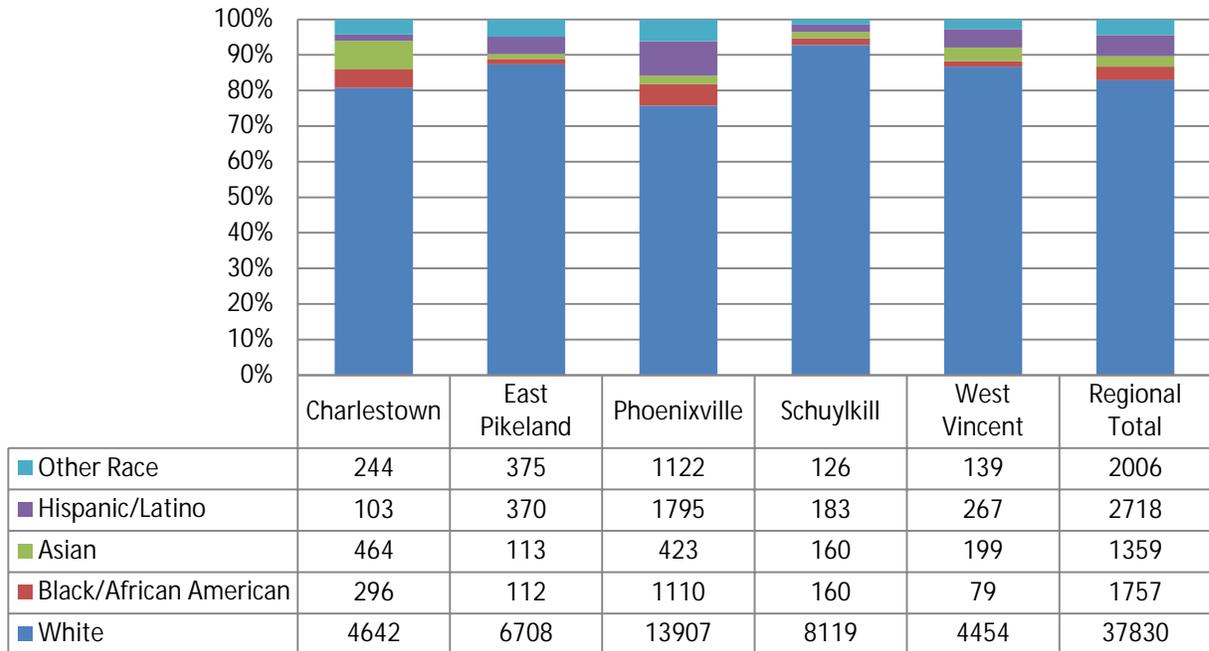


Fig. 2.8-1: Racial Composition by Municipality

SECTION 2.9 POVERTY

Despite the relative overall prosperity of the region, significant numbers of residents are living in poverty. 6% of residents over all, or 1,022 people, are living below the poverty line (\$24,600 annual income for a family of four). This includes 8% of the children and 6% of seniors in the region. A side-by-side comparison indicates relatively greater rates of childhood poverty in Phoenixville and West Vincent and relatively greater rates of senior poverty in the remaining municipalities. These numbers may be helpful in planning for appropriate social assistance programs such as school lunches.

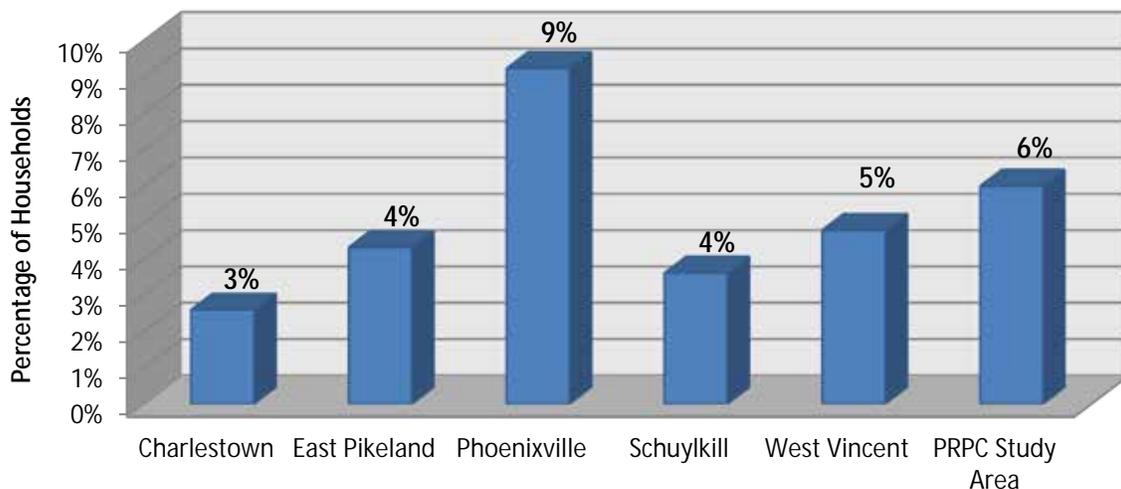


Fig. 2.9-1: Percentage of Households in Poverty by Municipality

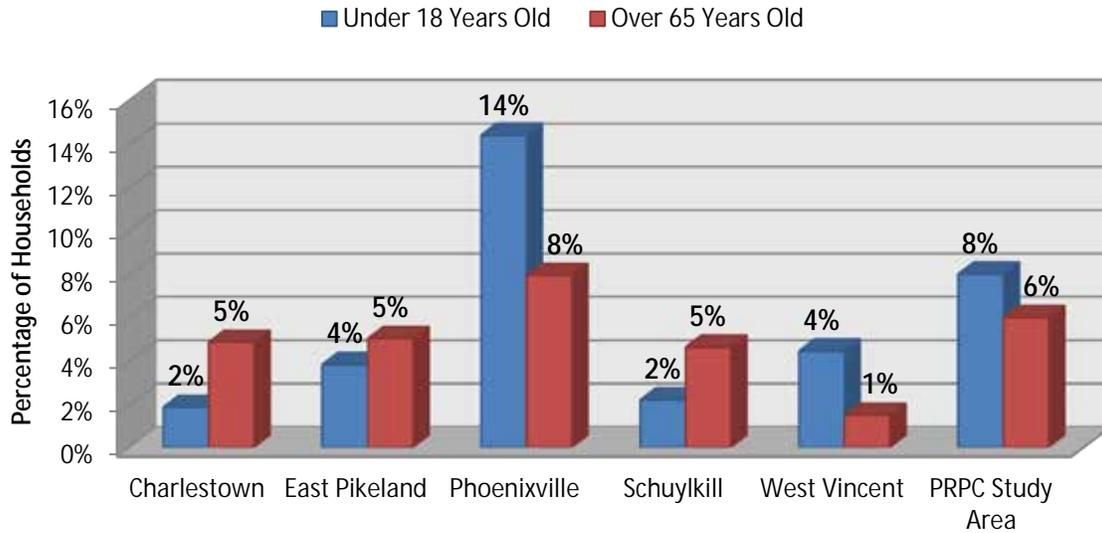


Fig. 2.9-2: Percentage of Households in Poverty with Children vs. with Seniors by Municipality

SECTION 2.10 VEHICULAR ACCESS

Access to vehicular transportation is an important issue for assessing economic growth opportunities where public transportation services are not extensive. While the majority of households in region possess at least one automobile, 5.8% of residents do not have access to personal motorized transportation, which may impact their access to employment opportunities. In planning for future public transit infrastructure, this segment of the population and their location should be considered. Lack of access should not be considered a detriment to participation in the job market per se, and indeed in the more densely populated parts of the region, such as Phoenixville, it may be desirable to plan for a transportation network that precludes the need for personal automobile transport.

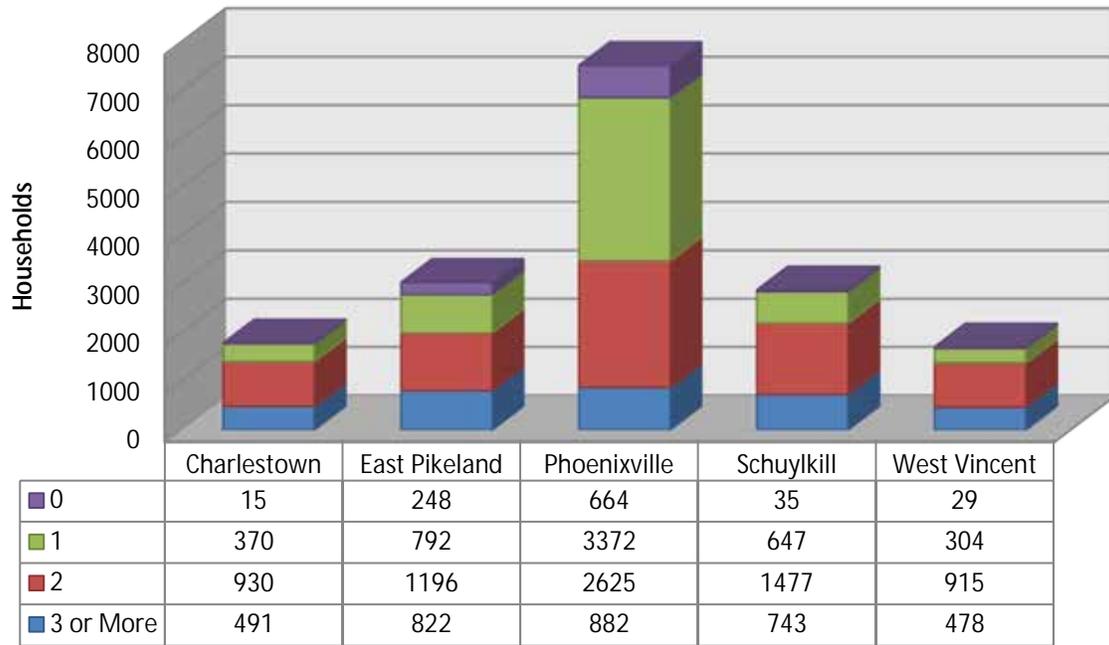


Fig. 2.10-1: Number of Vehicles per Household by Municipality

CHAPTER 3 LAND USE PLAN



As the functional driver of all other plan interrelationships, the Land Use Plan is the fundamental element of comprehensive planning. Land use dictates impacts on environmental systems, it establishes the locations of housing and economic centers, it generates the need for supporting infrastructure, and it forms the functional, cultural, and aesthetic character of the community. Historically, land use patterns have been shaped by opportunities and constraints afforded by the natural environment. As technology has advanced, it has become possible to separate the interdependency of human activity and environment, which has often led to the unintended consequences of impaired ecological systems and ultimately the degradation of quality of life and culture. Thus, it is critical that land use be conceptualized within the context of all of its complex interrelationships, so that human activity and its physical and cultural artifacts are compatible and sustainable within their natural setting.

SECTION 3.1 LAND USE PLAN GOAL AND OBJECTIVES

Preserve and enhance the Region's valuable natural, scenic, cultural, and economic assets through development patterns coordinated to integrate land uses appropriately, and to identify and plan for conservation and growth areas that maintain and complement the essential character of the Region.

This goal is to be advanced through the pursuit of the following specific objectives:

1. Identify and conserve areas that by virtue of their natural, scenic, agricultural, historic, and/or recreational significance are worthy of protection.
2. Continue revitalization efforts in the mixed use urban core of Phoenixville, with a balance of commercial uses and employment centers that support residential uses and growth in the Borough and throughout the Region.
3. Designate areas for new mixed use development that is safely pedestrian-accessible and context appropriate in terms of design, location, and scale, that creates functional interconnections between adjacent complementary uses, and is coordinated with supporting infrastructure.
4. Promote context-sensitive infill development within existing developed areas, neighborhoods, and villages, including provisions for adaptive re-use of historic sites and structures.
5. Encourage redevelopment of brownfield sites and underutilized buildings, including consideration of adaptive re-uses and zoning.

SECTION 3.2 HISTORIC LAND USE

Historically, Phoenixville grew as a steel mill community, and current land use remains somewhat reflective of the original pattern. Following the closure of Phoenix Steel Corporation in the early 1980's, Phoenixville endured a nearly two decade period of decline, but has re-emerged as a vibrant center of dining, entertainment, culture, and urban lifestyle. With this revitalization, the steel mill site is being redeveloped as a multifamily residential area with some supporting commercial. In addition, a number of former industrial buildings throughout the Borough have found new life as residential apartments, offices, cultural centers, and educational institutions. Challenges remain, as some feel the commercial resurgence has been largely eating and drinking establishments and may not be sufficiently diverse.



Fig. 3.2-1: Aerial photograph of Phoenixville along the Schuylkill River, circa 1978. The Phoenix Steel Corporation complex is visible along the railroad tracks. (Credit: THCPHOTOGRAPHY.COM)

The amount of land designated for industrial uses has declined significantly in the Region since the 1970's and 1980's, particularly in Phoenixville. Industrial jobs have historically been associated with good paying, blue-collar skilled jobs, but industrial uses have also been associated with pollution and other undesirable impacts such as noise, dust, and truck traffic. Industrial businesses and industrial land continue to play an important role in the Region's economy. With the shift away from an industrially based economy, the Region continues to redefine the employment centers to maintain a healthy balance between jobs and housing.

The Region's Townships were originally agricultural communities with interspersed villages that formed around mills, at road intersections, and along rail lines that have since gone to inactive and abandoned status. The post-World War II exurban housing boom transformed much of the area permanently. In the 1950's and 60's, residential subdivisions of modestly sized single family housing sprung up in places like Bevan's Orchard and surrounding Kimberton. From 1970 to the early 2000's, the housing trend continued, with ever larger houses and more affluent households occupying large tracts of previously farmed land. Within this period and increasing subsequently, multi-family housing established in the Townships, beginning with apartment and townhouse projects in East Pikeland and Schuylkill Townships, close to Phoenixville. In addition, Planned Residential Developments (PRD) and more recently Traditional Neighborhood Developments (TND) including various residential types have proliferated in Charlestown, Schuylkill, and West Vincent. Despite these Regional changes, the pastoral agricultural landscape remains largely intact in West Vincent, and in parts of Charlestown, East Pikeland, and Schuylkill.

The pace of housing growth in the Townships steadily accelerated from 1940 up to the Great Recession of 2007-2009. In the post-Recession recovery, there has so far been a greater emphasis on multi-family development including significant townhouse and apartment projects. From 2008 to the present, the only approved project with a significant detached single family component is the Spring Oak TND in Charlestown, which is under construction.

SECTION 3.3 EXISTING LAND USE

Existing land use patterns are described on Map 1, which shows the urbanized core area of Phoenixville, with largely moderate density residential uses generally closer to the Schuylkill River and lower residential densities and agricultural uses predominant as one moves westward across the Region. Commercial and industrial areas occur within Phoenixville and in pockets along major roads in each of the other municipalities. Industrial areas are also located along the Schuylkill River in those municipalities located along the Schuylkill River. Institutional uses serving educational and cultural purposes are distributed regionally in general relationship to centers of population, but also include organizations dedicated to historical settings and events. The breakdown of existing land uses by area is as follows:

Existing Land Use	Acreage	% Total Area
Agriculture	8,978.20	27.07
Commercial	922.03	2.78
Industrial	142.62	0.43
Institutional	474.28	1.43
Mining	119.40	0.36
Recreation	623.53	1.88
Residential - Single Family Detached Houses	9,479.01	28.58
Residential - Mobile Homes	29.85	0.09
Residential - Attached and Multi-Family Housing	759.52	2.29
Utilities	288.55	0.87
Vacant	888.86	2.68
Water	563.83	1.70
Wooded/Natural Landscape	9,896.92	29.84
Total	33,166.60	100.00

Table 3.3-1: Regional Existing Land Use 2015

SECTION 3.4 FUTURE LAND USE PLAN AND POLICY

The future land use plan and policy of the Region is in keeping with the stated goal and objectives to conserve natural resources and strategically guide future development and use to the most appropriate areas. It provides the basis for the Region to coordinate inter-municipal zoning, as well as promoting consistency with the municipalities adjacent to the Region. The land use categories shown on Map 2 are generalized by type and range of intensity, with further specification decided by the individual municipalities. Growth areas are established in the future land use map to limit non-rural zoning intensities outside of these boundaries and to ensure that transportation and utility infrastructure improvements are coordinated with areas designated for the appropriate use and intensity of development.

The future land use map was created using a variety of resources. First, generalized land use categories were developed using the policy vision, goals, and objectives developed by the Phoenixville Regional Planning Committee and through the public visioning process. The future land use map was then created with generalized land use categories and in consideration of the following:

- Natural features analysis
- The County Landscapes Comprehensive Plan
- Existing municipal zoning
- Existing land use patterns
- Current and anticipated development trends

Rural areas are intended to protect natural resources such as prime agricultural soils, wooded areas, watercourses, wetlands, and steep slopes, as well as maintaining viable agricultural uses and permanent open spaces. Mixed use and industrial areas were located based on the location of established commercial and industrial areas and the capacity of transportation, wastewater, and water infrastructure, including any anticipated extensions of that infrastructure. Redevelopment is an important part of the plan's development strategy, and includes context appropriate adaptive re-use, infill and expansion of existing urban, commercial, and village settlements. Residential uses are proposed at appropriate density depending on adjacency to existing development and supporting infrastructure.

The future land use pattern for the Region is based on preserving the rural areas and improving the quality of the built environment in the areas with existing development and infrastructure. The Borough of Phoenixville will continue in its role as the Region's economic and residential hub. Although Phoenixville has little remaining vacant land, investments in the existing infrastructure and redevelopment parcels will continue to strengthen the Borough and regional economy while providing opportunities for desirable infill development. Other favorable locations for commercial and mixed use development and redevelopment include the 724 corridor in East Pikeland, Ludwigs Corner in West Vincent, and Devault in Charlestown. Smaller village areas exist in Kimberton, Wilmer, Birchrunville, Charlestown, and Valley Forge, offering opportunities for appropriate small scale uses within a historic resource preservation context.

Overall, the future land use policy strives to conserve the rural character and natural and historic resources of the Region. The goal of this plan is to direct growth away from the rural areas and into traditional economic centers such as Phoenixville and the supporting villages and commercial centers, each with its unique character and cultural and economic vibrancy.

SECTION 3.5 FUTURE LAND USE CATEGORIES

Future land uses are expressed in generalized categories to reflect the essential qualities of designated areas in terms of allowable uses, intensity, aesthetics, etc. Within each category, a number of different uses could occur, provided that they support the landscape character of the category and do not create conflicts. Due to the scale of mapping and the scope of this plan, not all possible land uses are specifically called out in the descriptions, but this does not mean that they are prohibited. For example, public and institutional uses such as parks, schools, government assets, and community facilities may occur within any land use category, provided they comply with regional planning objectives and municipal zoning. Map 2 illustrates future land uses and intensities as follows:

Mixed Use

Mixed Use areas include existing commercial development areas and adjacent lands where those uses may expand in the future. These areas may be developed as commercial retail, service, light industrial/ small-scale start-up businesses or office uses, and may include a residential component as integral to the majority commercial use. They are within urbanized areas or oriented along major roadways and coordinated with supporting sewer and water infrastructure. Mixed use developments shall be

walkable with well-integrated uses and interconnections between adjacent lots to ameliorate auto dependency and traffic congestion within the mixed use area. Design standards shall be incorporated to enhance the pedestrian-friendly feel of these landscapes, while

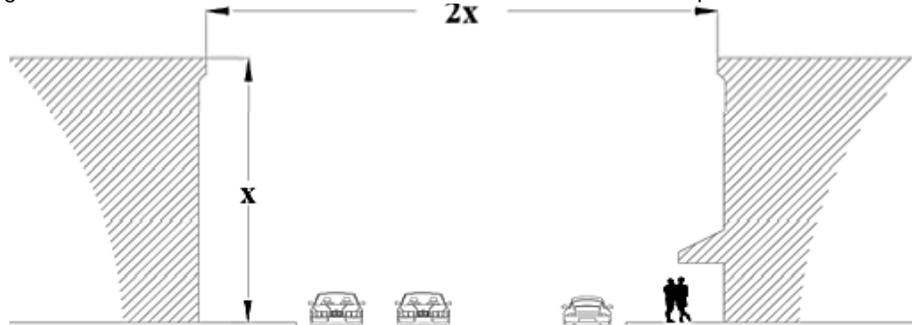


Fig. 3.5-1: Typical street-width-to-building-height ratio

promoting environmentally sustainable techniques where practicable. These areas may include zoning provisions to enable adaptive re-use of existing underutilized buildings and developed sites as blight remediation and revitalization, which is discussed in greater detail later in this chapter. Intensity of development within mixed use areas shall depend on proximity within or adjacent to urbanized areas, so that commercial uses are adequately supported by residential neighbors. Infill development within mixed use areas shall adhere to design standards that promote compatibility with neighborhood context, particularly within historic settings.

In terms of design, the following attributes characterize appropriate infill and new development in mixed use areas:

- Buildings arranged to reinforce pedestrian scale streetscape
- Combinations of single use and multi-use buildings, including buildings with both residential and non-residential uses. Buildings may be vertically integrated with residential use on upper floors and commercial or office use on the ground floor.
- Pedestrian links between sidewalks and building entrances
- Surface parking lots located to the side or rear of buildings, or screened from street
- Complete Street design that accommodates motor vehicles, pedestrians, bicycles, mass transportation, and environmental functions
- Eliminate or minimize front yard parking. In areas where front yard parking is permitted, limit to no greater than one or two bays deep
- Landscaped areas in parking areas for microclimatic, stormwater, and aesthetic benefits
- Traffic calming measures on streets to promote pedestrian comfort and safety



Fig. 3.5-2: Complete Street example

- Building entrances oriented to the streetscape
- Outdoor landscaped pedestrian areas that serve as gathering spaces and spots for temporary commercial activities.
- Façade and roofline variations to diminish the apparent scale of buildings
- Interior and exterior architectural treatments that create interrelationships between the private indoor realm and the public realm of the sidewalk and street

The use and intensity characteristics of mixed use areas are:

- Uses:** Retail, Service, Eateries, Office, Cultural/Entertainment, Sports/Fitness, Innovative Practices and Technologies, etc.
Multifamily Residential permitted as a component of broader Commercial use.
- Intensity:** Urban – 75-100% impervious
Exurban – 40-65% impervious

Industrial

Industrial areas are those areas with businesses that typically produce, manufacture or otherwise generate goods on a large scale that are later sold to commercial businesses. Industrial areas include existing industrial businesses and adjacent lands where those uses may expand in the future. Typically included in the definition of industrial land are manufacturing facilities, fabrication, building construction, warehouses, factories and storage facilities. Industrial areas are typically characterized by truck traffic and tend to be found on the outer limits of the urbanized areas and oriented to obtain easy and quick access to major transportation routes. In the Phoenixville Region a significant amount of the remaining industrial lands are also located along the Schuylkill River reflecting historical patterns.



As the land area dedicated to industrial uses decreases in the Region, consideration should be given to opportunities for other types of employment centers to maintain a healthy balance of jobs and housing.

As technology improves and small-scale start-up businesses become more desirable, the integration of low-impact uses that may have traditionally been only permitted in industrial zones should be considered in the mixed-use areas.

- Uses:** Manufacturing, warehousing, factories, fabrication, building construction, innovative technology, and storage facilities.
- Intensity:** 40-80% impervious cover

Village

Villages are mixed use areas of low to moderate intensity where a historical context is to be maintained, in Birchrunville, Charlestown, Kimberton, Wilmer, and Valley Forge. Villages shall promote pedestrian and bicycle accessibility, and equestrian accessibility where appropriate. Buildings shall be modest in scale, and design standards for architecture and streetscape shall be in keeping with the specific

historical context of each settlement. Mixed residential/commercial use buildings and development are encouraged to maintain a community where people can live and work without commuting by vehicle. Commercial uses shall be neighborhood oriented as opposed to highway oriented, and may include local



service/retail, cultural, artisan, farm produce, and similar establishments. High volume traffic generators such as banks, pharmacies, fast food, etc. would not be appropriate. Adaptive re-use of historical buildings is promoted in order to maintain their viability, and this may include flexible zoning standards specific to those buildings and sites. Infill and expansion of village areas shall be fully integrated with the historic neighborhood context in terms of use, scale, and design.

In terms of design, the following attributes characterize appropriate development of infill and expansion of village areas:

- Buildings of 2 or three stories, with façade length no greater than 80-100 feet
- Combinations of attached and detached buildings
- Combinations of single use and multi-use buildings
- Building facades and entrances oriented toward the street
- Parking lots to side or rear of buildings only
- Sidewalks or other pedestrian accommodations, such as trails or pedestrian streets required
- Architecture that is compatible with or that complements the historical neighborhood precedents
- Streets designed with traffic calming measures

The use and intensity characteristics of village areas are:

Uses: Local oriented retail, service, professional office, destination dining, artisan, cultural, civic, and residential.

Intensity: 30-60% impervious cover
1-3.5 dwelling units per acre (residential)

Residential

Residential areas are typically separated from non-residential uses to support dedicated living opportunities for residents. Residential communities are classified into three categories; low-density, medium-density, and high-density residential. The future land use plan reinforces historical development patterns while concentrating high density multifamily housing where there is available transportation and utility infrastructure. Low density residential is located in areas with less supporting infrastructure and configured to maximize protection of open space and environmental resources. Medium density residential consists of mixed unit types and is located adjacent to existing developed areas and where there is available supporting infrastructure.

As opposed to the postwar sprawl pattern of development where all available land is placed within private lots, all new residential development should include open space for recreational, aesthetic, and environmental protection purposes. High density and medium density residential areas should have park and public gathering spaces, which may consist of private resources within a development or municipal parklands. Medium density developments in exurban settings should have at least 40% open space. Low density residential areas should have clustered arrangements of lots or dwellings with at least 40-50% open space that is dedicated to environmental protection, viewshed preservation, recreation, and/or agricultural purposes.



- Uses:** High Density – Single-family attached and apartments
Medium Density – Single-family detached, single-family attached, TND, PRD developments with open space
Low Density – Single-family detached, cluster developments arranged to maximize open space

- Intensity:** Low-density residential – <1 dwelling unit per acre
Medium-density residential - 1-4 dwelling units per acre
High-density residential - 4- 15 dwelling units per acre

Rural

Rural areas constitute the open signature landscapes that define the character of the Region and of Chester County, and consist of agricultural and natural landscapes to be preserved to the maximum extent possible. These areas are critical to maintaining headwater quality in the Region's Special Protection watersheds and they also preserve the expansive contiguous undeveloped lands necessary for viable farming. Rural uses shall consist of agriculture, resource conservation, and very low density residential. Residential density should be limited to the lowest legally sustainable, and clustering/open space design should be required in all non-minor subdivisions to assure



that prime agricultural soils, environmentally sensitive lands, and highly valued open space resources remain protected. Opportunities to promote and support the viability of agricultural uses should be considered with land use policies. When locating development within rural areas, planning should begin with prioritizing the most important lands for conservation, rather than the regrettably common practice of designating left over areas as open space after development planning. In addition, land conservation measures including agricultural/conservation easements and public purchase or transfer of

development rights are most appropriate in rural areas. The general characteristics of rural areas are as follows:

- Uses:** Agriculture, conservation, parks/recreation, very low density residential.
Intensity: Residential Density – 0.3 to 0.45 dwelling units per net developable acre
Minimum Open Space – 40-70% required

SECTION 3.6 REVITALIZATION AND ADAPTIVE REUSE

Revitalization of brownfield sites and underutilized buildings is an important objective of the Land Use Plan. A number of historical and current trends have led to a growing number of underutilized sites and buildings in the Region. The most obvious of these was the closing of the Phoenix Steel Company, which created a 130 acre vacant and contaminated brownfield area that persisted for decades until recent redevelopment activity, which has transformed most of the site to viable use. Still, the revitalization of the site is not yet completed, and there are other former industrial sites throughout the Region that would benefit from redevelopment.

Other trends that have created vacant and underutilized sites in the Region afflict office uses. Thanks to computerization and changes in workplace practices, office buildings have seen a reduction in the amount of space required for employees, from approximately 250 square feet per worker in the 1990's to 195 square feet today. Traditional suburban office parks have been abandoned by many employers for a more downsized and walkable environment offered in urban areas. Another factor has been the increasing popularity of flexible work schedules. The shifting generational preferences of Millennials have driven much of this change.

In the commercial environment, there have also been shifts that have increased vacancy. Most prominent is the growing public preference for on-line shopping, which is forcing the closure of small, medium, and large traditional retail stores. In addition, there has been a history of developers building newer and trendier shopping centers that cannibalize the older centers, leaving them in disuse. The result is increasing amounts of vacant retail space, including "big box" stores and shopping centers with now-unutilized broad expanses of asphalt.

Common examples of candidate underutilized sites and buildings for revitalization and adaptive re-use are:

- Industrial buildings and industrial parks
- Contaminated sites such as gas stations, car dealerships, repair shops, etc.
- Office buildings and office parks
- Vacant institutional buildings and sites
- Shopping centers and large retail buildings



In order to revitalize these blighted and vacant landscapes, innovation in terms of use, design, integration, accessibility, infrastructure, financing, and taxing can serve as catalysts. This chapter shall examine the aspects of use and design. Other considerations are treated in the chapters on Economic Development and Community Facilities. For further examination of revitalization issues, Chester County Planning Commission has published three policy manuals offering analysis and practical solutions and methodologies:

Reinventing Office Parks for the 21st Century (April 2017)

Stimulating Community Revitalization through Brownfields (April 2017)

Transforming Greyfields into Dynamic Destinations (April 2017)

Underutilized office parks, industrial parks, and commercial centers can be revitalized as mixed use areas including residential, commercial, and office components in a walkable configuration with accessibility to mass transit where available. Included in the use mix could be sport/entertainment uses, dining, hotels, and institutional/civic facilities, as well as seasonal or “pop-up” uses like farmers/artisans markets, festivals/fairs, temporary retail, and beer gardens. Revitalized centers should also include public and/or recreational spaces that anchor the community and contribute to pedestrian activity and the sense of place. An important benefit of revitalization is the capacity to direct development pressure to previously altered landscapes, thus potentially sparing undeveloped woods and fields from conversion to housing and other uses.

From the design standpoint, pedestrian accommodation is critical to foster interrelationships between various uses. Part of this is the creation of so-called “third places” that create nexuses of social gathering where the private and public realms of commerce and the street/sidewalk coexist. Shared parking between uses with differing peak demand times, and parking that is either screened or located away from the street frontage diminishes negative visual and environmental impacts on the landscape. In addition, minimizing driveway entrances to the main road and interconnecting parking lots internally can serve to decrease the apparent auto-dominance of revitalization sites.

In order to promote the desired use and design conditions, revitalization zoning can employ a number of incentives. Changes to maximum building heights, maximum impervious cover, and minimum setbacks can be utilized to create density incentives to finance costly environmental remediation, design amenities, and infrastructure, and can lead to improved streetscape aesthetics and place-making.

Often, derelict sites were built at higher impervious and/or building coverages than are allowed under current zoning, and with impacts on environmental resources that would not currently be permitted. In

Future Land Use	Charlestown		East Pikeland		Phoenixville		Schuylkill		West Vincent		Region	
	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%
Mixed Use	193.83	2.42%	460.98	8.11%	609.26	25.64%	291.03	5.11%	201.80	1.77%	1,756.90	5.30%
Industrial	332.39	4.15%	315.47	5.55%	77.70	3.27%	451.07	7.92%	42.19	0.37%	1,218.82	3.67%
Village	32.03	0.40%	184.74	3.25%	11.88	0.50%	154.91	2.72%	53.59	0.47%	437.15	1.32%
High Density Residential	0.00	0.00%	0.00	0.00%	609.73	25.66%	0.00	0.00%	23.94	0.21%	633.67	1.91%
Medium Density Residential	851.41	10.63%	2,354.39	41.42%	1,067.63	44.93%	1,657.90	29.11%	641.90	5.63%	6,573.23	19.82%
Low Density Residential	2,354.00	29.39%	224.54	3.95%	0.00	0.00%	1,427.24	25.06%	2,144.60	18.81%	6,150.38	18.54%
Rural	4,245.84	53.01%	2,144.08	37.72%	0.00	0.00%	1,713.15	30.08%	8,293.38	72.74%	16,396.45	49.44%
Total	8,009.50	100.00%	5,684.20	100.00%	2,376.20	100.00%	5,695.30	100.00%	11,401.40	100.00%	33,166.60	100.00%

Table 3.5-1: Future Land Use

fact, these conditions have in many places contributed to the lifeless and barren aesthetic that contributes to their current state of disuse. In such cases, it is useful to look at the revitalization site in terms of improving upon existing conditions, rather than meeting all of the current objective standards of the zoning ordinance that would apply to an undeveloped site. For example, instead of requiring a revitalization project to meet an otherwise required 100 foot stream setback where a lesser setback exists, rain gardens, green roofs, pervious parks and parking, and landscaping can be utilized to promote stormwater infiltration and water quality throughout the site. Features such as these vastly improve on the environmental impacts of the development while creating a human environment that is conducive to economic activity, living, and enjoyment. These considerations unique to revitalization can be achieved through special use districts or overlay zoning.

SECTION 3.7 IMPLEMENTATION STRATEGIES

The following policy recommendations will implement the goals and objectives of the Land Use Plan:

LU-1 Maintain municipal zoning maps that are consistent with the Future Land Use Map.

Assure that land use categories on municipal zoning maps support the Future Land Use Map and that any future changes of zoning maps or use designations remain consistent.

LU-2 Along zoning district and municipal boundaries, assure that zoning requires buffering as needed to mitigate land use incompatibility, and that interconnections between adjacent uses are provided as appropriate.

Strive to establish compatible uses along municipal boundaries. Where incompatible uses are adjacent to one another, zoning shall provide for adequate setbacks and/or screening. In cases where adjacent uses are mutually supporting of one another, zoning shall include provisions for pedestrian and vehicular interconnection. Require trail and sidewalk connections across municipal boundaries where they exist in one or both municipalities.

LU-3 Establish use and development intensities consistent with the Land Use policies for each area designated on the Future Land Use Map.

Assure that allowable uses and development intensities support the Future Land Use Map and that any future changes of zoning requirements remain consistent.

LU-4 Revise zoning for commercial and certain industrial areas to be mixed use districts.

Implement zoning classifications to allow for innovative combinations of uses and design standards to create lively and synergistic development around principles of place-making and pedestrian accessibility where people can live, work, and play. Commercial zoning districts should be re-classified as mixed use districts that include low-impact flex and incubator uses to support a broad range of employment opportunities.

LU-5 Implement bulk and design standards for infill development that is compatible with the context of established neighborhoods and historical settings.

Consideration of front setbacks, streetscape/building interface, pedestrian access, and architecture that complements neighborhood/historical context shall be invoked for successful

infill development.

LU-6 Dedicate the remaining industrial areas identified on the Future Land Use Map to larger-scale industrial uses.

Coordinate between municipalities for potential redevelopment of industrial areas that are adjacent to one another, but in different municipalities. Discourage non-industrial uses on the remaining land zoned for industrial uses. Amend industrial zoning districts to reduce the variety of non-industrial uses permitted in these areas.

LU-7 Create and/or maintain zoning districts for the Villages of Birchrunville, Charlestown, Kimberton, Wilmer, and Valley Forge that allow uses and design consistent with their historical mixed use character.

Establish regulations and standards that maintain the unique and self-sufficient ambiance of village settlements. Focus on provisions that promote viable and consistent adaptive re-use of the historic buildings and landscapes that define the historic character of each village, and consider the impact of development that immediately surrounds those areas when zoning for village expansion.

LU-8 Continue to concentrate higher density housing in the core of Phoenixville and designated villages.

Ensure that zoning for high-density residential developments includes requirements for adequate parking and resident amenities. Integration of new high-density development into the existing communities should be maximized via design, pedestrian linkages and continuation of existing amenities.

Encourage new high density residential developments to incorporate affordable housing units into development by providing incentives such as density bonuses.

LU-9 Encourage innovative moderate density housing for infill development in proximity to downtown Phoenixville and the villages to continue the availability of a range of housing types.

Encourage moderate density housing in the form of small-lot single family and attached housing to provide a range of housing opportunities within the urbanized areas of the Region.

LU-10 Establish low-density residential zoning that places housing in proximity to existing development, and that protects large areas of open space within undeveloped areas.

Require new development to be located in a manner that preserves natural resources prioritized for preservation. Clustered development with open space shall be incentivized through density penalties for conventional residential layouts without open space.

LU-11 Work with landowners, conservation organizations, and public agencies to place rural lands into conservation and agricultural easements.

Focus on creating large and contiguous expanses of permanently protected open space.

- LU-12 Establish zoning for rural areas that limits allowable development to the lowest legally sustainable density, with provisions that require open space set asides within residential subdivisions to protect environmental resources, prime agricultural lands, and critical viewsheds and landscapes.**

Utilize zoning provisions to prohibit suburban sprawl development patterns that degrade environmental resources and eradicate the pastoral rural landscape of the Region. Clustered development with open space shall be incentivized through density penalties for conventional residential layouts without open space.

- LU-13 Enact municipal and/or inter-municipal purchase of development rights or transfer of development rights ordinances and programs to facilitate permanent protection of open space in rural areas.**

These programs could be funded through open space taxes, bonds, grants, or developer purchases. Transfer of rights programs require that conservation and development parcels be in play at the same time, or else a mechanism for banking of lands and/or purchase funds must be created.

- LU-14 Create and update a regional inventory of brownfields and other underutilized buildings and sites that are suitable for revitalization initiatives.**

Consider factors such as road/mass transit accessibility, neighborhood development context, potential for pedestrian interconnections, and contamination and other remediation required.

- LU-15 Create revitalization zoning districts with use, bulk, and design provisions that incentivize redevelopment of blighted and underutilized buildings and sites.**

These may be conventional districts or overlays, and shall have density and use advantages over ordinary development. In addition, streamlined permitting and review processes could be incorporated for redevelopment projects. Together, these provisions shall create financial and regulatory incentives to revitalization projects and the design improvements needed to transform blight into vibrant and sustainable new development.

- LU-16 Pursue opportunities to share zoning and land use obligations within the Region when there are advantages to doing so.**

Enact municipal zoning provisions that allow certain land uses to occur within those areas of the Region most suited to those uses, rather than distributed in all five municipalities. For example, higher intensity uses could be limited to those areas within the Region where there is adequate supporting transportation and utility infrastructure.

CHAPTER 4 ENVIRONMENTAL RESOURCES PLAN



Located in the Piedmont physiographic region in northeastern Chester County, Pennsylvania, the Phoenixville Regional Planning Committee (PRPC) region covers 51.82 square miles (33,167 acres). More than 100 miles of rivers and streams flow through the region's high quality and exceptional value watersheds. 11,280 acres of mature woodlands cover the land, providing habitat for a wide variety of wildlife, while more than 11,730 acres of prime agricultural farmland are present within the region, serving as the basis for land use in the region since European settlement. The rolling topography is generally moderately sloping, with pronounced ridges and stream valleys that include steep slopes.

By preserving these resources through a sustainable approach to conservation and future development, the municipalities of the PRPC region will safeguard important quality of life factors for their residents and for future generations. Because these systems do not coincide with political boundaries, they are best managed on a larger scale. By working together through the PRPC, the constituent municipalities can realize a greater benefit from these resources than they would by managing them in isolation.

SECTION 4.1 ENVIRONMENTAL RESOURCES PLAN GOAL AND OBJECTIVES

Protect natural resources as essential to public health, safety, and welfare and to maintaining the character of the Region.

This goal is to be advanced through the pursuit of the following specific objectives:

1. Promote surface and groundwater quality through protection of floodplains, wetlands, stormwater infiltration areas, steep slope areas, and the creation of buffers.
2. Protect essential and vulnerable soil resources such as prime agricultural soils and erodible soils.
3. Protect habitats and species diversity through identification of critical areas including high quality forests and woodlands, riparian areas, specific microclimates, essential geological or physiological characteristics, and state and federally listed rare, threatened, and endangered species.
4. Promote remediation of degraded environments.
5. Organize resource protection into effective and integrated regional systems, such as greenways.
6. Develop uniform Regional resource protection regulations that incorporate strategies appropriate to differing existing land uses and conditions.

SECTION 4.2 INVENTORY OF NATURAL RESOURCES

Geology and Physiography

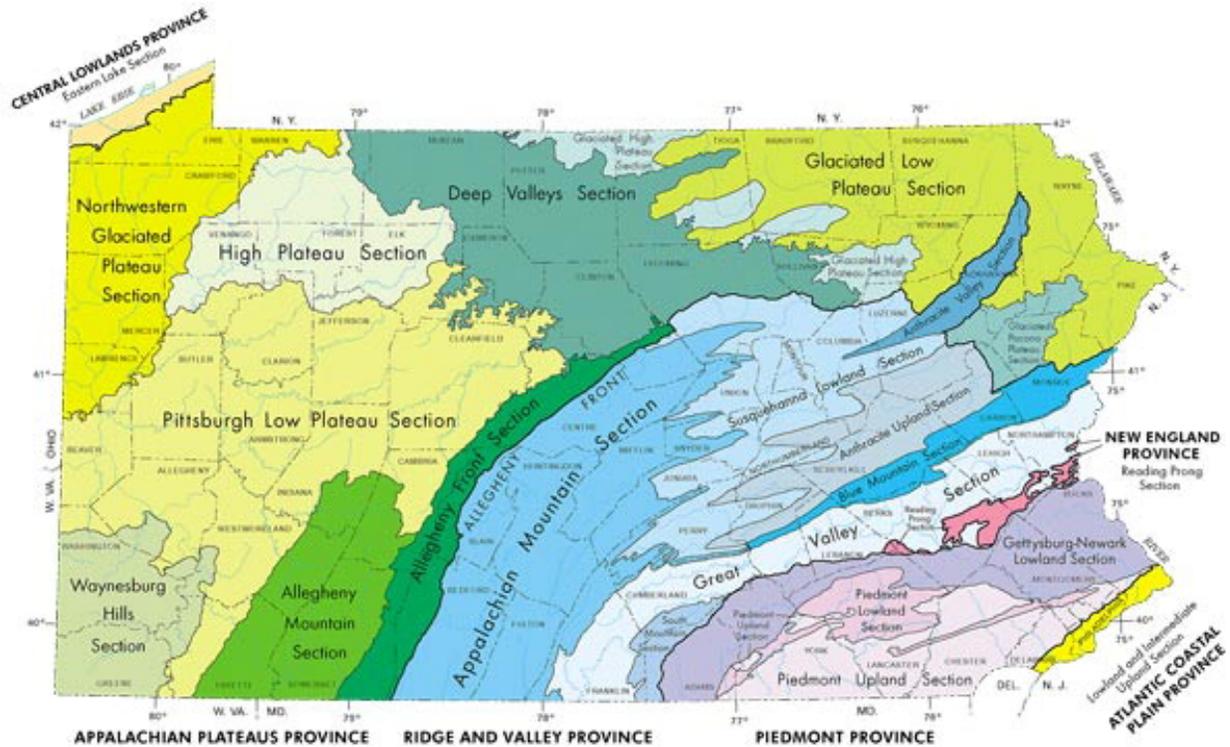


Fig. 4.2-1: Physiographic Provinces Map of Pennsylvania (PA Dept. of Conservation and Natural Resources/DCNR)

The underlying geology of the region informs the character of the landscape in a variety of ways. Geology and weathering dictate topography and hydrology. Through weathering of the underlying bedrock, climate (e.g. precipitation, wind, and solar radiation) and biological processes, the conditions that support varying plant and animal communities have developed over eons. These conditions in turn dictate human history by presenting differing sets of opportunities and constraints to human activities, including settlement, agriculture, and resources.

The PRPC municipalities are located within the Piedmont physiographic province. Characterized by rolling hills, the Piedmont (from the French for “foothills”) is so named for its location relative to the Appalachian Mountains. This region stretches from New York City to Birmingham, Alabama and sustains a relatively concentrated human population amid diverse wildlife communities and extensive natural areas.

Within the PRPC region, there are three separate geological sub-provinces: the Piedmont Uplands (approximately 22,400 acres in the southern portion of the region), the Gettysburg- Newark Lowland (nearly 10,624 acres along the Schuylkill River), and the Piedmont Lowland (a small 211-acre sliver to the south of Route 76). Corresponding to the division between the Piedmont Upland and the Gettysburg-Newark lowland, the geology of the region (see Fig. 4.2-2, next page) is divided between the harder gneiss rock to the west and south, and several softer formations of sandstone, mudstone, and quartz. These softer rocks, formed from river mud, and are easily erodible, resulting in a more gradual, gently sloping terrain. The bedrocks associated with the Piedmont lowland are also more porous than gneiss, allowing for greater recharge of the aquifer as water percolates through the sandstone.

The Piedmont Upland’s underlying bedrock consists of gneiss (felsic gneiss & graphitic felsic gneiss), a relatively hard rock somewhat resistant to erosion. This leads to the rolling hill character of the area. In

contrast to the Piedmont Upland, the Gettysburg-Newark Lowland is underlain by a variety of bedrock types. Generally softer than the Piedmont Upland, the bedrock of the Gettysburg-Newark Lowland is more susceptible to erosion, meaning this portion of the study area is flatter, though areas of erosion-resistant diabase rock has left hills and small elevated regions. The Piedmont Lowlands are comprised of even softer rock, such as limestone, dolostone, and phyllite, and is geologically younger than the surrounding uplands.

In the lowland, Stockton, Lockatong, Brunswick, and Chickies Formations are prevalent. Each formation is a mixture of rock types: argillite, sandstone, mudstone & quartzite. Argillite and mudstone are formed from lithified mud, while quartzite is formed from sand. These bedrocks are relatively porous and allow for greater percolation of water into the aquifer. As a group, they are softer than gneiss, meaning that erosion is more uniform and the character of the slope is less undulating. In fact, much of the lowland is relatively flat, especially as it nears the floodplain of the Schuylkill.

Topography

The overall topography of the region is characterized by a relatively gentle slope, moving from a highpoint of more than 810' in the gneiss hills of southern West Vincent Township, to the low point of less than 60' in the floodplain of the Schuylkill River in the west of Schuylkill Township.

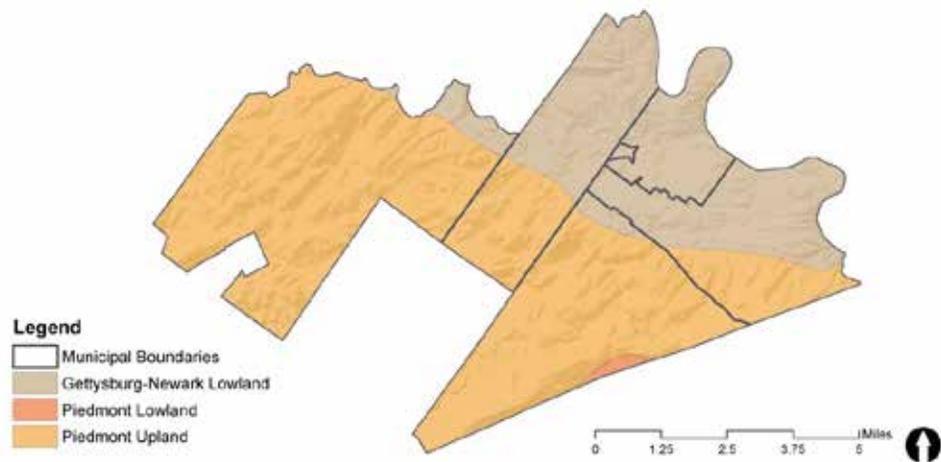


Fig. 4.2-2: Physiographic Sub-provinces of the PRPC Region

There are areas of relatively steep slope, classified as moderate (15-25% grade) or steep (over 25% grade), particularly along Pickering Creek in Charlestown Township and to the western side of West Vincent Township where steep valley walls and stream banks are found (see Regulated Natural Resources Map). Consistent with patterns of land use, areas of steep slopes most often coincide with mature forest cover. Since the land is unsuitable for development, woodlands have been allowed to remain on these sloped areas. The woodlands are valuable for habitat, and the root systems of the native plant communities found on steep slopes hold soil in place, thereby limiting erosion and subsequent sediments into the region's water bodies. The shade provided by canopy cover also contributes to cooling streams, thus helping promote a balanced ecosystem that allows for a variety of aquatic wildlife to flourish.

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, especially adjacent to streams and wetlands.

Soils

There are two main soil associations within the region: Penn silt loam and Gladstone gravelly loam. Penn silt loam is the major soil type found in the Gettysburg-Newark Lowland. It is formed from the weathering of shale, siltstone, and sandstone, which are the major bedrock types found within the Gettysburg-Newark Lowland. Penn silt loam is a moderately deep, well-drained soil. Gladstone gravelly loam, the major soil group within the Piedmont Upland, is formed from the weathering of gneiss bedrock, the predominant bedrock type in the upland. It is a very deep, well-drained soil particularly suited to cultivation.

Beyond soil associations, soils in the region may be classified according to the regulatory framework governing their capabilities for use. These regulated soils, which are of particular concern in creating land use and development plans, are prime agricultural soils and hydric soils.

Prime agricultural soils, identified as Classes I and II by the United States Department of Agriculture (USDA), are soils whose chemistry, access to water, and exposure to sunlight make them particularly suited to cultivation. These soils, found in regions of relatively flat topography, are often desirable to developers for because of the same characteristics. However, they should be protected in order to maintain the viability of farming in the region, which in turn is responsible for much of the appealing visual character of the region.

Hydric soils¹, found in proximity to waterways and often indicative of wetlands, are not suited to development. Particularly in proximity to the region's special protection waterways, hydric soils should be accurately mapped and protected through the regulation of riparian buffer zones. In addition to wetlands subject to regulatory protection, hydric soils are also indicative of areas of groundwater recharge. There is therefore an interest in water quality protection associated with hydric soils. Where wetlands are not mapped, the presence of hydric soils can indicate a high probability for the presence of wetlands.

Soils located on steep slopes should be considered in planning for future development. Soils on steep slopes are not only unstable and prone to erosion; they are also home to native plant communities in the form of mature woodlands and should therefore be of particular consideration for protection through regulatory action. Two problems associated with soil are erosion and resultant sedimentation, which impairs water quality. By protecting forest cover on steep slopes, water quality and wildlife habitat are both safeguarded.

There is a general overlap between soils unsuited to development and other natural resources to be protected. For example, soils on steep slopes often overlap with areas of preserved mature woodlands. By protecting those woodlands from clearing through development, the soils are also protected from erosion due to stormwater runoff. As noted above, the protection of hydric soils from development as protects the quality of water present in those areas. And the preservation of farmland promotes

¹ U.S. Department of Agriculture, Natural Resources Conservation Service (USDA-NRCS) defines hydric soils as "soil that formed under conditions of saturation, flooding or ponding long enough during the growing season to develop anaerobic [oxygen-deprived] conditions in the upper part". USDA-NRCS includes under this definition soils that became saturated with water as a result of land alteration as well as naturally saturated soils. (Source: https://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/use/hydric/?cid=nrcs142p2_053961)

economic activity and local food source sustainability while retaining the bucolic character of the PRPC region.

Forests & Vegetative Cover

Forest cover represents an important natural resource in several regards. Healthy and mature woodlands provide a range of ecological services that benefit the region as a whole. Large stands of woodland provide habitat for a wide variety of wildlife. They clean the air through the process of photosynthesis and regulate climate by removing carbon dioxide from the atmosphere. They protect water quality through removal of pollutants, infiltration, and providing the structural integrity of streambanks by stabilizing soil and slowing stormwater runoff.



While any size woodland can have a positive effect on the environment, these functions are best realized when woodland is allowed to remain un-fragmented. This means that large stretches of woodland are kept intact, with as large an area of undisturbed woodland as possible remaining on the interior of any given stand. The stable conditions that characterize interior forests are found a minimum of 300 feet from the nearest forest edge, and many plant and animal species require these conditions for survival. Such interior habitats are a rare and vulnerable resource in the Piedmont Region.

While much of the mature woodland once present was cleared for agriculture or other development, large contiguous stands of woods remain in the region. In West Vincent Township, around French Creek, and in Charlestown Township, along Pickering Creek, there are particularly large areas of relatively undisturbed woodland. Since woodlands coincide with other important ecological systems, they should be managed within the larger natural resource context of the region. By promoting land use patterns that allow for the preservation and enhancement of mature woodlands, fully functional ecosystems can remain intact. The region's forests should be managed in light of adverse impacts from pollution, clearing, invasive species, and stormwater runoff.

Hydrology

The hydrological system is comprised of waterways, wetlands, floodplains, and groundwater. Each of these elements contributes to the overall health of the hydrological system and impacts on any part of the system will have an effect on the overall function. As a natural system that corresponds to geology, topography, soils, and vegetation, the hydrological function of the region should be a major consideration in all future land use and development planning.

Negative impacts to the function of the hydrological system are posed by intensive development (particularly impervious surfaces such as roofs and parking lots) and associated concerns, such as stormwater runoff and wastewater systems. These impacts will be felt in the form of pollution, sedimentation, and erosion in the waterways.

Stormwater best management practices that strive to replicate predevelopment conditions in terms of infiltration and runoff are critical. The preservation of naturally vegetated areas and development which

is responsive to the hydrological attributes will not only safeguard water quality but help mitigate flood damage and enhance the natural beauty of the region.

Waterways and Watersheds

Waterways are categorized by stream order, as they run from the smallest 1st order headwaters eventually out to the ocean. The Schuylkill River, which is a 6th order watercourse, borders the region to the east and flows north to south on its way to join the Delaware River in Philadelphia. French and Pickering Creeks, 5th order streams, bisect the region, flowing from west to east towards their confluences with the Schuylkill River, in Phoenixville Borough and Schuylkill Township, respectively. Higher order waterways of the region include Birch Run, Valley Creek, Pigeon Run, Bull Run, and Black Horse Creek, which are all 4th order streams. Jug Hollow and Stony Run, 3rd order streams, flow directly into the Schuylkill.

Stream orders begin with the headwaters and 1st order streams. As recognized by the Stroud Water Research Center, “Scientific evidence clearly shows that healthy headwaters — tributary streams, intermittent streams, and spring seeps — are essential to the health of stream and river ecosystems. The evidence demonstrates that protecting these headwater streams with forested riparian buffer zones and protecting and restoring the watersheds in which they arise will provide benefits vital to the health and well-being of Pennsylvania’s water resources and its citizens. Healthy, undisturbed headwaters supply organic matter that contributes to the growth and productivity of higher organisms, including insects and fish. Headwaters also help to keep sediment and pollutants out of the stream system’s lower reaches. In addition, they enhance biodiversity by supporting flora and fauna that are uniquely acclimated to this habitat.” Any deleterious impacts within headwaters are compounded as water flows successively to higher order streams on its way to the Schuylkill.

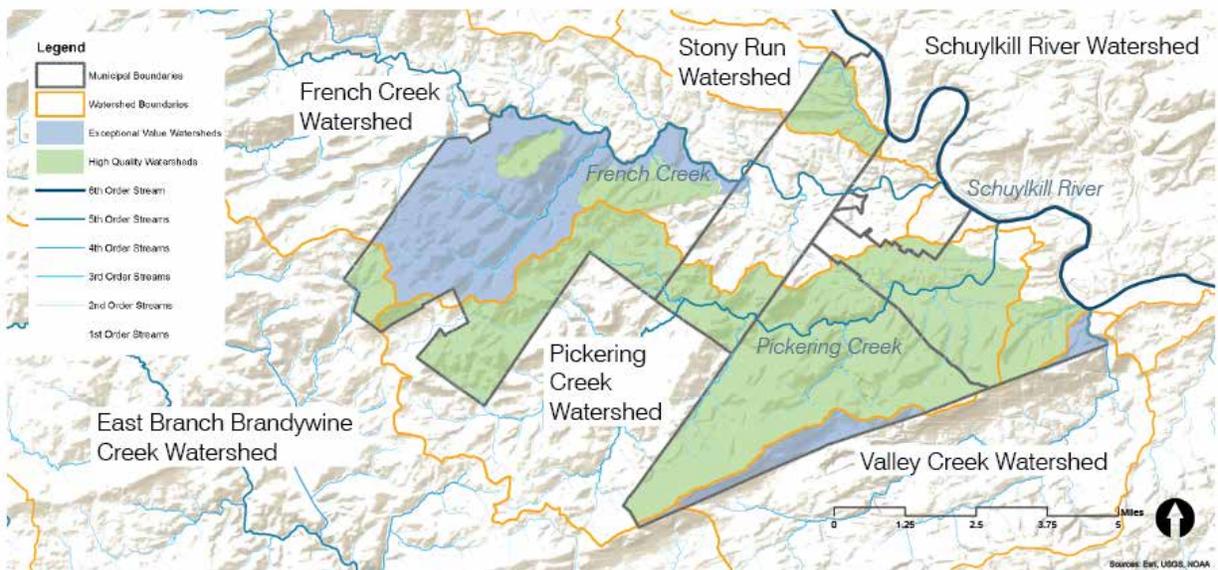


Fig. 4.2-3: Stream Orders and Watersheds within the PRPC Study Area

Water quality is another parameter by which streams are designated. The majority of the region falls within Special Protection watersheds designated by the state as either High Quality or Exceptional Value. The High Quality (HQ) designation protects surface waters “having quality which exceeds levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water by satisfying Water Quality Standards of the PA Code.” The Exceptional Value (EV) designation goes a step further, protecting waters which not only satisfy the quality standards of the PA Code 93.4b, but are “of exceptional recreational significance, of exceptional ecological significance, or [are] located within a protected zone e.g. State Park.” These designations are established to maintain present water quality by protecting from harmful effects associated with development and related stormwater runoff. The EV and HQ designations should be considered in planning for a regional approach to water management.



The waterways of the region are all associated with a particular watershed, or drainage basin. Watersheds are defined by ridgelines and the watercourses that drain the areas between them by way of surface flow and groundwater. Watersheds are classified by order and by water quality, so for example the upper end of the French Creek basin would be referred to as an Exceptional Value 5th order watershed, and each of its lower order tributaries would also be classified as Exceptional Value.

Wetlands

Wetlands² (see Map 3 - *Regulated Natural Resources*) are areas of water at or near the surface. They are most often found in proximity to waterways and are delineated by the type of vegetation and soils found there. They play an important role in groundwater recharge, while simultaneously providing habitat for particular plant and animal species. Wetlands are protected by local, state, and federal regulations enabled by the Clean Water Act of 1972.

Floodplains

Floodplains are areas in proximity to waterways that are formed by the movement of water channels, and are subject to flooding in significant rain events. Though rivers may appear to be static shapes, they in fact meander and drift over time, thereby creating flat areas of alluvial soil known as floodplains. These areas, when uncompromised by development, allow for the containment of flood events and thus help to limit damage to life and property posed by periodic flooding during storm events.

The Federal Emergency Management Agency (FEMA) requires municipalities to regulate development impacts in floodways to preserve their function and to prevent hazards to human life and property. In order for municipalities to participate in FEMA’s National Flood Insurance Program, they must delineate

² See 14 for the Commonwealth of Pennsylvania’s definition of wetlands.

100-year floodplains³ and strictly limit development within those areas. This includes promoting stormwater best management practices to promote groundwater infiltration and otherwise manage the amount of stormwater runoff reaching the floodplain.

Pennsylvania Scenic Rivers

Pennsylvania Scenic Rivers are rivers that are designated "scenic" according to the criteria of the Pennsylvania Scenic Rivers Act (P.L. 1277, Act No. 283 as amended by Act 110, May 7, 1982). The scenic rivers are managed by a variety of State agencies and local conservancies. For the purposes of the act, "river" is defined as "...a flowing body of water or estuary or a section, portion, or tributary thereof, including rivers, streams, creeks, runs, kills, rills, and small lakes."

According to the Act, Pennsylvania Scenic Rivers fall into one of five classifications, depending on the amount of development along the shore, access to the river, and diversion of flow:

Wild rivers are rivers or sections of rivers that are not impounded and are usually not accessible except by trail. Their watersheds and shorelines are essentially primitive and the waters unpolluted.

Scenic rivers are rivers or sections of rivers that are not impounded. Their shorelines or watersheds are largely primitive and undeveloped but they are accessible in places by roads.

Pastoral rivers are those that are not impounded except for historic or restored mill dams. There may be diversions or withdrawals to support agricultural activities, for example agricultural ponds. Their shorelines or watersheds may support a variety of farm or farm-related activities, but these activities may not interfere with the pastoral nature of the landscape.

Recreational rivers or sections of rivers are easily accessible, may have some development along their shorelines, and may have been impounded or diverted in the past.

Modified recreational rivers (or sections of rivers) are those in which the flow may be regulated by upstream control devices. Low dams are permitted as long as they do not increase the river beyond bankfull width. These rivers are designated for human activities which do not interfere with public use of the streams or enjoyment of their surroundings.

The Pennsylvania Scenic Rivers in the PRPC Region are the Schuylkill River and French Creek. These waterways are so designated for recreational as well as scenic significance: French Creek for its Exceptional Value status and fishing, and the Schuylkill River for boating, fishing, and as a PA State Water Trail. The Schuylkill River provides the setting for the regionally important Schuylkill River Trail, a multi-use



³ 100-year floodplains are areas with a 1% (or 1 in 100) annual chance of flooding.

trail that upon completion will extend from Philadelphia to Pottsville. West Vincent Township has zoning regulations to protect the scenic and environmental quality of French Creek.

SECTION 4.3 EXISTING MUNICIPAL ENVIRONMENTAL RESOURCE PROTECTION REGULATIONS

Each municipality within the Region prioritizes natural resource protection differently depending on natural resource characteristics of the community, historic development patterns, and community priorities. Regulations developed to protect natural resources can also vary greatly from one community to another. The following table summarizes existing natural resource regulations for each of the regional municipalities.

Natural Resource Protection Standards Summary					
	Charlestown Township	East Pikeland Township	Phoenixville Borough	Schuylkill Township	West Vincent Township
Floodplain	Y Structures Prohibited	Y Structures Prohibited	Y Limits development	Y Structures Prohibited except SWM	Y Structures Prohibited
Riparian Buffer	Y 100-feet	Y 100-feet (30'- Zone 1 70'- Zone 2)	Y 35'	Y 100' min	Y 150'+ (increases with steep slopes)
Steep Slopes	Y >25%: no new struct.	Y >25%: no new struct.	Y >25%: no new struct. w/o CU	Y 15-25% (20% max regraded) (>25%- no more than 10% regraded)	Y 15-25% (max impervious varies) (>25%- no buildings; max impervious varies)
Forests & Woodlands	Y Priority resource for open space	Y No more than 25% disturbed. Tree replacement	Y Limit removal to area needed for construction	Y Prioritized in Cluster Option	Y Clear-cutting prohibited on slopes >15% and w/in 100' of stream Tree replacement
Wetlands	Y 50' buffer	Y 50-200' buffer	Y 25-foot setback	Y 50' buffer (10% disturbance)	Y 100' buffer w/ 20% disturbance
Environmental Constraint Lot Area Net-Outs	Y Floodplain Steep Slopes Wetlands	Y Floodplain Steep Slopes Wetlands	Y Floodplain Wetlands	Y Floodplain Steep Slopes Wetlands	Y Floodplain Steep Slopes Wetlands

Natural Resource Protection Standards Summary (continued)					
	Charlestown Township	East Pikeland Township	Phoenixville Borough	Schuylkill Township	West Vincent Township
Open Space	Y Prioritizes Natural Resources	Y Natural Features Protection Chapter		Y Cluster Option requires 60% open space Natural Resources Overlay- protects range of resources	Y Greenway Lands required depending on Tier
Water	Y Flushing Mechanisms			Y 150' buffer for Outstanding Water Resources	Y Water Resource Overlay in recharge/ discharge areas
Solar Energy/ Alternative Energy	Y				Y

In general, existing resource protection standards are more lenient in Phoenixville than in the surrounding Townships. This is consistent with the higher development intensities in the Borough and historical land use and development practices that predated modern understanding of resources and their protection.

SECTION 4.4 ENVIRONMENTAL RESOURCE PROTECTION POLICY

The Region should adopt uniform policies for environmental protection that are responsive to the goals and objectives of the Comprehensive Plan, with measures appropriate to the importance of specific resources, to existing and future land use conditions, and to practical considerations that advance sustainability. Thus, policies would be most rigorous in cases where maximum resource protection is achievable, but where there are compromised existing conditions, the focus is to be on the degree of protection that can reasonably be implemented and that creates measurable improvement over the existing condition. In practical terms, this means that resource protection regulation and strategy within a pristine forest setting would take a different form than in a denuded brownfield undergoing remediation and redevelopment.

Steep Slopes

Steeply sloping land produces increased stormwater runoff and soil erosion potential, and also presents challenges to agriculture and development. Increased soil erosion and runoff can greatly impair surface water quality through diminished groundwater recharge, which is necessary to maintaining uniform stream base flows, and through direct deposition of soil and contaminants into streams. Agricultural practices must be modified on steep slopes to prevent severe erosion, and for the safety of farmers operating equipment. Development on steep slopes requires expensive interventions involving grading, retaining walls, and stormwater management, and can limit suitability for certain building types. The

steeper the slopes, the more severe the negative impacts of inappropriate use or management. Thus, it is important that steep slopes be maintained in effective natural vegetative cover where possible. Where this is not possible, disturbance should be minimized and appropriate mitigation practices utilized.

In keeping with these considerations, the PRPC municipalities should maintain zoning provisions that minimize disturbance of steep slope areas. As such, open space and conservation uses are most suitable, followed by limited types of agricultural or silvicultural practices. Development should be prohibited or very severely limited on steeply sloping lands. Restrictions should be most stringent on “prohibitive” or “very steep” slopes of over 25%. In addition, “precautionary” or “moderately steep” slopes of 15-25% should have restrictions on use and disturbance.

Over the land use history of certain tracts, development and earth moving practices have led to the creation of steep slopes where none had naturally existed previously. In such cases, municipalities could consider exemption or relief from steep slope regulations, provided sufficient stormwater management and erosion control practices are in place concurrent with any use or development.

Recommended guidelines for steep slope protection in the Region are as follows:

Prohibitive Slopes (25%+)

- Uses:** Conservation, Sustainable Forestry and Agriculture, Recreation
No buildings or cut/fill
Maximum impervious cover 5%, subject to Conditional Use
Maximum disturbance 5-15%, subject to Conditional Use
Exemption for artificial slopes

Precautionary Slopes (15%-25%)

- Uses:** Conservation, Sustainable Forestry and Agriculture, Recreation, Residential by Conditional Use
Buildings and structures associated with permitted uses by Conditional Use
Maximum impervious cover 10%
Maximum disturbance 15-30%, subject to Conditional Use
Exemption for artificial slopes

Floodplain and Riparian Areas

Floodplain areas and riparian corridors play a critical role in the water quality of streams and rivers, and improper development of these areas can threaten the environment, private property, and human life. Thus, protection of these areas is of prime importance.

Floodplains are those areas occupied by streams and rivers during storm events. For planning and land use purposes, floods are categorized in terms of their average frequency or more accurately, their likelihood of occurrence in a given year. The Federal Emergency Management Agency (FEMA) establishes national flood and flood insurance policy based on the flood event with a 1% chance of annual occurrence, commonly known as a 100-year flood. FEMA and the Pennsylvania Department of Community and Economic Development (DCED) have recently revised their standards and mandated

that all Pennsylvania municipalities adopt compliant regulations for existing structures and proposed development within the 100-year floodplain.

In addition to floodplains, it is important to protect riparian corridors with buffers. Riparian buffers are recognized by Pennsylvania Department of Conservation and Natural Resources (DCNR) and Pennsylvania Department of Environmental Protection (DEP), who define them essentially as naturally vegetated areas along waterways that act as filters and provide numerous other environmental benefits. These benefits include water quality protection, flood impact protection, erosion control, groundwater recharge, wildlife habitat, and water temperature moderation that is important to aquatic life. The most effective buffers are natural forest areas with structural and species abundance and diversity. However, managed woodlands and meadows can also provide significant buffer protection.

The following graphic represents specific empirically determined benefits provided by forested riparian buffers of various widths, measured from each stream bank. Buffer protection benefits are completely absent or negligible at widths below 100 feet in specific parameters, including removal of nutrients and certain pesticides, native macroinvertebrate⁴ and fish communities, and terrestrial habitat and migration corridors. The full array of benefits is not manifest until buffer width reaches 150 feet or more. It is for this reason that environmental researchers and many regulators advocate minimum riparian buffers of 150 feet, especially in Special Protection watersheds.



⁴ Macroinvertebrates are animals without backbones that can be seen without the help of a microscope. They include crayfish, freshwater mussels, and aquatic insects, and are indicators of water quality. Source: <https://stroudcenter.org/macros/key/>

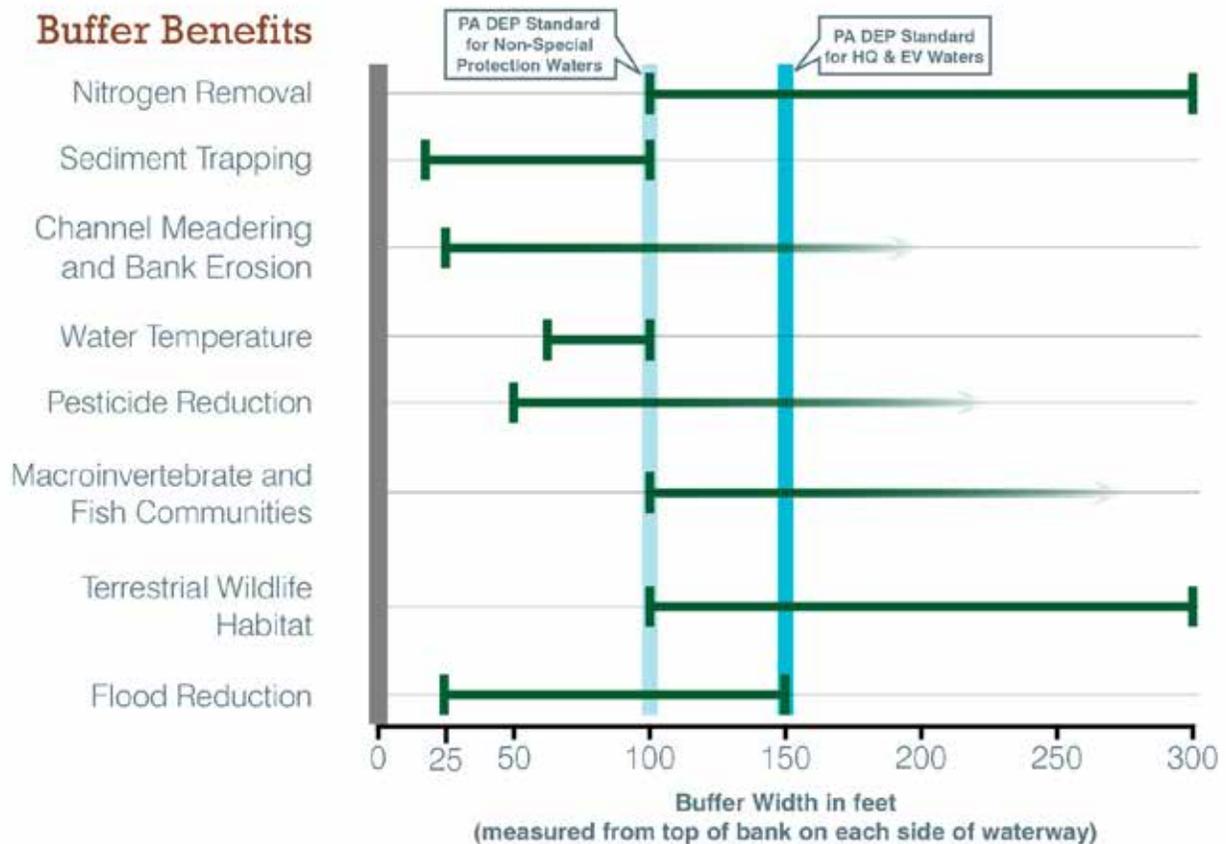


Fig. 4.4-1: Benefits of Riparian Buffers of varying widths.

Section 102.14 of the Pennsylvania Code establishes 150 foot wide buffers along Exceptional Value (EV) and High Quality (HQ) streams, and 100 foot wide buffers along other streams. However, these guidelines apply only to land disturbances of one acre or greater, and there are other exceptions and relief available to land developers. In addition, changes to the PA Clean Streams Law (PA Act 162) enacted in October 2014 effectively nullify much of the buffer protection requirement by allowing the following in lieu of riparian buffers:

- Alternative best management practices (BMPs) for disturbance within required buffers that are “substantially equivalent” to a riparian buffer in terms of water quality
- Required offsetting replacement buffer areas in Special Protection watersheds for land disturbance within 100 feet of EV and HQ designated streams

It is evident that current statewide regulations do not provide buffer protection consistent with standards that empirical evidence would justify. In light of the Special Protection streams that are prevalent in Northern Chester County and within the Region, municipalities should at minimum enact regulations consistent with maintaining their quality. In addition, the non-Special Protection streams in the Region also sustain relatively good health and biodiversity and should be protected with generous buffers. Exceptions could be considered within municipal regulations for specified agricultural uses that maintain effective year round vegetative cover, historic buildings, trails, and permitted road or driveway crossings. Within currently urbanized areas and brownfield redevelopment sites on non-Special

Protection streams, reduced buffer widths may be considered in conjunction with BMPs that improve water quality, reduce runoff, increase groundwater recharge, and promote habitat.

PRPC Member Municipalities should maintain minimum riparian buffers as follows:

- **Special Protection Streams** – 150 foot buffer. May consist of a 100 foot undisturbed forested inner buffer and a 50 foot outer buffer that allows certain management practices and very limited disturbance but no buildings or impervious cover.
- **Non-Special Protection Streams** - 100 foot buffer. May consist of a 50-75 foot undisturbed forested inner buffer and a 25-50 foot outer buffer that allows certain management practices and very limited disturbance but no buildings or impervious cover.
- **Non-Special Protection Streams in Brownfield/Urbanized Conditions** – 35-50 foot forested or managed buffer. Any proposed buffer of less than 100 feet width should be supported with site-wide BMPs.

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. Wetlands fulfill a number of critical ecological roles in providing habitat for species with specialized requirements, maintaining surface water quality, sustaining groundwater supplies and stream base flows, flood accommodation and absorption, and as the headwater source of first order tributary streams.



Wetlands inventory mapping is limited to that provided by the National Wetlands Inventory and the USGS. These sources identify only the largest and most prominent wetland areas. Smaller unmapped wetlands areas are no less environmentally significant than their mapped counterparts and are far more numerous. These unmapped wetland areas must be field identified and surveyed in order to assure protection.

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 airports), 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. Permit applicants must demonstrate that they have taken steps to avoid wetland impacts where practicable, minimized potential impacts to wetlands, and provided compensation for any remaining unavoidable impacts through activities to restore or create wetlands (Source: US Environmental Protection Agency, Wetland Regulatory Requirements).

Municipalities should take steps to assure wetland protection, especially in light of the Special Protection and other biologically significant watersheds throughout the Region. Since wetlands are most frequently associated with specific plant species (known as wetland indicators) and hydric soil types, municipal ordinances should require a wetland determination and survey for any development or land disturbance application when either of those conditions is present.

In addition, buffers of natural vegetation surrounding wetland areas can protect them from the harmful impacts of sediments, nutrients, and other contaminants. Although the protection of wetlands from human activities such as agriculture, silviculture, and urban development is obvious, research has shown that terrestrial areas surrounding wetlands are core habitats for many semi-aquatic species that depend on mesic ecotones⁵ to complete their life cycle (Source: Conservation Biology, October 2003). Thus, forested or managed natural wetland buffers are recommended as follows:

- **In Special Protection Watersheds** – 100 foot buffer. May consist of a 50 foot undisturbed forested inner buffer and a 50 foot outer buffer that allows certain management practices and very limited disturbance but no buildings or impervious cover.
- **In Non-Special Protection Watersheds** - 50 foot buffer. May consist of a 25 foot undisturbed forested inner buffer and a 25 foot outer buffer that allows certain management practices and very limited disturbance but no buildings or impervious cover.
- **In Non-Special Protection Watersheds in Brownfield/Urbanized Conditions** – 15-25 foot forested or managed buffer. Any proposed buffer of less than 50 feet width should be supported with site-wide BMPs.

Forests and Woodlands

Forest cover provides numerous and irreplaceable benefits in terms of water quality, wildlife habitat and migration corridors, erosion control, recreation, and economic value. In addition, they are recognized for their role in carbon sequestration, an important factor in mitigation of climate change. This is especially true of large areas of contiguous forest that support interior habitats that are essential to a number of specialized plant and animal species, including some categorized as endangered or threatened. Fragmentation of forest vegetation leaves small, isolated island communities that degrade wildlife habitat and ecosystem health.

Among the Region's critical woodland areas is the Hopewell Big Woods, a globally significant resource area that covers large parts of northern Chester and Berks Counties and much of West Vincent

⁵ Ecotones are areas influenced by the transition between one or more different ecosystems. Source: Thomas, Jack Ward; Maser, Chris; Rodiek, Jon E. 1979a. Edges. In: Thomas, Jack Ward, tech. ed. *Wildlife habitats in managed forests: the Blue Mountains of Oregon and Washington*. Agric. Handb. 553. Washington, DC: U.S. Department of Agriculture, Forest Service: 48-59. (found in https://www.fs.fed.us/rm/pubs/rmrs_p011/rmrs_p011_049_055.pdf)

Township. In addition, there are significant bands of contiguous woodland and forest throughout the Region that are associated with stream corridors, ridgelines, and steeply sloping areas. Even in urbanized settings, smaller forest and woodland areas play an important role in habitat, water quality, and microclimatic moderation, while contributing greatly to community aesthetics and human quality of life.

Forest fragmentation occurs when large, contiguous forest blocks are divided into smaller patches due to land clearing for non-forest use. Forest interiors create relatively stable conditions in terms of temperature, moisture, sunlight, and wind as compared with open and edge areas. These conditions favor highly specialized and interdependent species that cannot live in harsher and less consistent environments. Forest fragmentation for development and/or agricultural use severely threatens interior forest habitats by exposing more areas to variable edge conditions. For example, according to a 2013 report summarizing the resources of the Hopewell Big Woods, each mile of a 100-foot right-of-way disturbs approximately 12 acres and creates an additional 72 acres of new forest edge. Converting the interior forest environment into forest edge exposes that previously stable environment to increased light levels and soil disturbance; invasive plant species; and the effects of extreme weather. Invasive exotic species such as vines and climbing shrubs evolved to thrive in edge habitats. These plants strangle trees along forest edges, eventually killing them by cutting off the flow of nutrients and pulling them to the ground, particularly in winter when snow and ice accumulate on branches. Invasive plant species also outcompete native understory and herbaceous plants, reducing species diversity and limiting food resources available to native wildlife - many of which, particularly native pollinating insects, have adapted to depend solely on specific species of native vegetation. These detrimental edge effects are present within forests up to 300 feet from the actual edge.



The creation of new forest edge also threatens plant and animal species that depend on large tracts of intact, secluded forest interior to feed and raise their young. They are at increased risk from parasitism and predation, because many parasitic and nest predator species thrive in edge habitats. These predators, which include raccoons, feral cats, jays, and crows, are typically associated with human developments, and can gain access to interior forest habitats via linear right-of-ways such as roads and utility cuts.

Forest edges mimic the conditions found in early successional forest areas, which are typically considered to be areas of high diversity. However, this diversity is limited to the immediate local area. Due to the increased pressure on interior species that results from edge creation, diversity at a larger regional scale might actually decline because area-sensitive species would disappear from the larger landscape.

Plant and animal species that require large forest interior habitat are specialists. Many are already rare, threatened, or vulnerable, due to habitat degradation from previous encroaching human development.

According to the Cornell Lab of Ornithology, "Evidence from numerous studies indicates that the detrimental effects of an edge can extend from 150–300 feet (45–90 m) into the forest interior". Therefore, contiguous forests that include stands of forest at least 300 feet from the edge provide greater shelter opportunities for interior species. Certain species, such as bald eagles, great blue herons, and scarlet tanagers, require over 600 feet of forest buffer in order to successfully feed and raise young. Because the interior patches are larger in forests that are broad in both depth and width than in linear stands, the shape of forest habitat can be a crucial factor in protecting certain vulnerable species. In other words, in order for a forest to support interior habitat, it must be at least 6.5 acres in area, and with a minimum width of 600 feet in any direction.

In addition, smaller islands of forest and even individual trees impart ecological and cultural benefits. In an urban setting, individuals and groups of mature trees provide food and nesting habitat while providing microclimatic amelioration and air and water quality benefits. In less densely settled landscapes, hedgerows and small woodlots provide wind breaks, promote groundwater infiltration, decrease soil erosion, promote habitat, and can reduce energy demands and pollution. Individual specimen trees can provide important historical context and can serve as significant cultural icons in and of themselves. As long lived carbon sinks that can mitigate climate change impacts, trees should be cultivated and preserved wherever possible, whether in the form of urban forestry programs or in more traditional land stewardship and conservation efforts.

For these reasons, the Region should implement regulations that protect and enhance forest and woodland resources. These should focus on maximizing contiguous forested areas and in particular those with forest interior habitat in Special Protection watersheds, but also wooded areas of varying size in non-designated watersheds that provide other environmental, economic, and aesthetic benefits. Zoning and land development regulations should be considered that protect woodland and forest areas as follows:

- Establish provisions to qualify various wooded areas in terms of quality and ecological significance
- Limit allowable clearing of wooded areas, especially in areas of high significance
- Mitigate unavoidable woodland and forest disturbance with restoration planting areas
- Utilize open space and cluster zoning to maximize protection of wooded areas, and in particular contiguous forest
- Identify and protect specimen or heritage trees of exceptional ecological, cultural, or aesthetic value
- Prohibit to the extent possible introduction of invasive species
- Adopt timber harvesting regulations that include a re-establishment and management plan for species diversity, age stratification, and prevention of the establishment of invasive species

Invasive Species

Invasive species are generally non-native and have competitive advantages to the point where they destabilize and alter the ecosystem by pushing out native species on which the ecological web depends. Invasive species typically seed and reproduce rapidly and are often introduced into areas that have been disturbed by agriculture, development, or other human interventions. Invasive plant species are widespread throughout the region and thus are very difficult to control. They can and do cause significant environmental and economic damage.

Unfortunately, many invasive plant species are commercially available in the nursery trade and are installed by developers, public utilities, road departments, contractors, farmers, and property owners who unwittingly assist in their propagation. PRPC members can help to control the arrest the proliferation of invasive species through the following actions:

- Provide information at municipal offices and on websites informing people of the dangers posed by invasive plant species, methods of control, and beneficial native alternatives.
- Work with environmental groups and citizens to have invasive species eradication work days on public and private lands.
- Adopt ordinance provisions to prohibit introduction of known invasive species on land developments and other activities requiring municipal permits.

Critical Habitat Areas

The Nature Conservancy designated several areas of critical habitat in their 1994 inventory of natural areas in Chester County, which was prepared for the Chester County Planning Commission. The Conservancy chose these sites based on the quality of each site's habitat, the rarity of species or communities in each, and the threats to and management needs of each site's biodiversity. These areas were updated in 2015 by the Pennsylvania Natural Heritage Program (PNHP), a partnership of PA DCNR, State & Federal wildlife commissions, and the Western Pennsylvania Conservancy, to guide conservation work and land-use planning. The critical habitat areas were described for Chester County in the Chester County Natural Areas Inventory (CCNAI) and described as Core Habitats and Supporting Landscapes for plant and animal species and natural communities of concern.

Core Habitat – areas representing critical habitat that cannot absorb significant levels of activity without substantial negative impacts to elements of concern.

Supporting Landscape – areas directly connected to Core Habitat that maintain vital ecological processes and/or secondary habitat that may be able to withstand some lower level of activity without substantial negative impacts to elements of concern.

Full information for each area can be found in the PNHP's Natural Heritage Area (NHA) Factsheets. The PRPC Region in its entirety is classified in the PHNP as a Supporting Landscape to eight designated Core Habitats that support rare or threatened species. (See CCNAI MAP and Factsheets, Appendix C) The mapped CCNAI Core Habitats in the PRPC Region are:

<u>Core Habitat</u>	<u>Municipality</u>
Bacton Mine Ridge	Charlestown
Beaver Hill Road Woods	West Vincent
Birch Run Woods	West Vincent
Constant Spring Lane Meadow	Charlestown
Horse-Shoe Trail Wetlands	West Vincent
Kimberton Meadows	East Pikeland
Pickering Creek Tributaries	Charlestown
Schuylkill River – Port Providence	East Pikeland, Phoenixville, Schuylkill

There are additional critical habitats in the Region that are not as yet listed in the CCNAI. A notable example is the Pickering Reservoir in Schuylkill Township, which provides nesting habitat for Bald Eagles, among other species. Regional environmental groups and those with local knowledge should be consulted on the identification and protection of these undocumented habitat areas.

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

- Require appropriate buffers and other protections. Protect as open space those properties that contain sites identified in the CCNAI
- Utilize the PNHP Conservation Explorer tool to determine whether there are critical species impacts related to any municipal application
- Protect critical habitats through protection of topography and geology, soils, forest and vegetative cover, wetlands, floodplains, watersheds and streams on which they depend
- Establish a networked system of large contiguous areas of open space
- Establish a network of riparian corridors and greenways

Prime Agricultural Soils

Prime agricultural soil is a finite and invaluable resource that has helped to determine the character of much of the Regional landscape. Because these are also the most easily developed soils, exurban sprawl has led to a rapid and irreversible depletion of this resource.

Among the methods for farmland protection is the deduction of USDA Class 1 and 2 soils from tract area calculations for allowable development intensity, so that farmlands can be preserved as agricultural open space. However, this provision cannot be applied in municipalities that net out environmentally constrained lands such as steep slopes, wetlands, floodplain, and riparian buffers from lot area and density calculations.

Alternatively, prime agricultural land can be preserved through land use and zoning policy that restricts areas with an abundance of Class 1 and 2 soils to agricultural and very low density residential use. In addition, by requiring cluster or open space zoning in these areas, prime agricultural lands can be permanently preserved as open space.

Prime agricultural soils should be protected in the Region as follows:

- Support of agricultural and conservation easement programs
- Low intensity zoning in areas with prime agricultural soils
- Class 1 and class 2 soils as prime candidates for inclusion in open space associated with development

SECTION 4.5 IMPLEMENTATION STRATEGIES

The following policy recommendations will implement the goals and objectives of the Environmental Resources Plan:

ER-1 Evaluate municipal steep slope protections and revise for consistency with Regional policy.

Develop uniform Regional policy for protection of steep slopes with appropriate use and disturbance restrictions. Allow reasonable exemptions for artificially constructed pre-existing slopes and previously developed areas.

ER-2 Evaluate municipal floodplain protection ordinances to assure consistency with FEMA and DCED requirements.

ER-3 Evaluate municipal riparian buffer ordinances and revise for consistency with Regional policy.

Develop uniform Regional policy for riparian buffers along Special Protection streams and those without Special Protection status. Allow reasonable exemptions for certain uses and for urban and brownfield redevelopment, with appropriate mitigation for diminished width buffers.

ER-4 Evaluate municipal wetland buffer regulations and revise to meet minimums consistent with Regional policy.

Create buffer widths appropriate to watershed Special Protection status. Allow reasonable exemptions for certain uses and for urban and brownfield redevelopment, with appropriate mitigation for diminished width buffers.

ER-5 Establish Regionally compatible ordinances for forest and woodland resource protection.

Set disturbance limits on existing wooded lands and specimen or heritage trees consistent with environmental quality and resource value, with appropriate mitigation for clearing. Establish land development practices in zoning to maximize protection of valuable woodland resources as open space. Evaluate and revise municipal forestry ordinances to promote ecologically responsible harvesting and restoration practices.

Prioritize the protection of woodlands that extend beyond the property line and/or municipal boundary in an effort to preserve contiguous woodlands.

Prioritize preservation of woodlands dominated by native tree species and require replacement trees to be native species.

ER-6 Establish Regional zoning standards for protection of critical habitats.

Utilize Chester County Natural Areas Inventory as basis to identify and protect Core Habitat Areas. Require municipal applicants to verify potential impacts on Core Habitats and modify plans or mitigate impacts accordingly.

ER-7 Implement programs to prevent, eradicate, and control invasive species.

Utilize public information/awareness, direct community action, and regulatory strategies.

ER-8 Evaluate municipal lot and tract area net-out provisions to assure that lands with environmentally sensitive resources are not over-developed.

Adopt appropriate net-out provisions to promote protection of steep slopes, floodplain and riparian corridors, and wetlands.

ER-9 Coordinate municipal zoning along resource corridors to create open space greenways for environmental protection and recreation.

Create greenways that respond to environmental conditions and that do not terminate based on municipal boundaries where sensitive resource lands extend across them.

ER-10 Adopt zoning to promote preservation of lands with Prime Agricultural soils.

Utilize low intensity and agricultural use districts, open space zoning, and transfer/purchase of development rights to protect agricultural lands.

ER-11 Utilize Regional and municipal resources to promote conservation and agricultural land easements.

Create online and printed municipal and Regional information banks for landowners to learn about easement programs and their benefits. Host educational events and showcase model examples and programs.

CHAPTER 5 ENERGY CONSERVATION AND SUSTAINABILITY PLAN



Energy conservation is a necessary component of environmental sustainability. This Chapter focuses on methods of achieving greater efficiency and cleaner sources of energy generation for electricity, heating and transportation in order to reduce pollution, limit the depletion of and dependency on finite resources, and lessen the impacts of carbon-induced climate change.

SECTION 5.1 ENERGY CONSERVATION PLAN GOAL AND OBJECTIVES

Advance strategies and practices that reduce energy consumption and promote renewable and non-polluting energy sources.

This goal is to be advanced through the pursuit of the following specific objectives:

1. Increase utilization of renewable energy systems.
2. Develop regulatory and/or incentive-based standards for energy efficient buildings and construction.
3. Coordinate development with transportation systems, and in particular mass transportation.
4. Maximize energy efficiency of transportation systems.
5. Promote an efficient and flexible electric grid that includes local and regional clean power generation.

SECTION 5.2 RENEWABLE ENERGY SYSTEMS

There are a number of renewable energy systems that have practical application in the PRPC Region. These systems provide substantial benefits in terms of reduced demand on polluting and nonrenewable resources, while providing mid-term to long-term economic advantages to residences and businesses. If State and Federal incentive programs are re-funded and augmented, the use of renewable energy and all of its attendant benefits will be dramatically increased.

There are national and regional efforts underway to promote and increase the use of renewable energy. In 2017, Phoenixville became the first Chester County municipality to adopt a resolution to commit to 100% renewable electricity for municipal uses and facilities by 2035, and other County and PRPC municipalities have similar resolutions under consideration. Efforts like this provide models to be emulated in the private sector to enhance energy sustainability.

Solar Energy

Solar energy is derived from the sun's radiation and is classified as active or passive. Passive solar relies on building technologies that utilize thermal mass, orientation, light dispersal/absorption, and convection, and is discussed further in section 5.3. Active solar creates electricity or heats water. Because solar water heating applications are typically most practical at latitudes lower than 40 degrees, this section deals with solar electricity generation.

In the last two decades, photovoltaics (PV), also known as solar PV, has evolved from a pure niche market of small scale applications towards becoming a mainstream electricity source. It works through

solar cells that convert light directly into electricity using the photoelectric effect. With rapid advances in solar panel and battery storage technology, solar electricity generation is becoming increasingly affordable and practical at small to large scale, and is expected to be the world’s leading source of electricity production by 2050.

Fig. 5.2-1 demonstrates that available solar resource in the PRPC Region is significant, with solar potential of up to 4.4 kWh/square meter/day. In practice, current solar panels currently produce about 15 watts per square foot, or about 265 watts per typical 65 inch by 39 inch panel. According to Philadelphia Electric Company (PECO), average electrical demand is approximately 17 kWh per day. Thus, even small solar panel arrays can produce a significant amount of needed electricity.

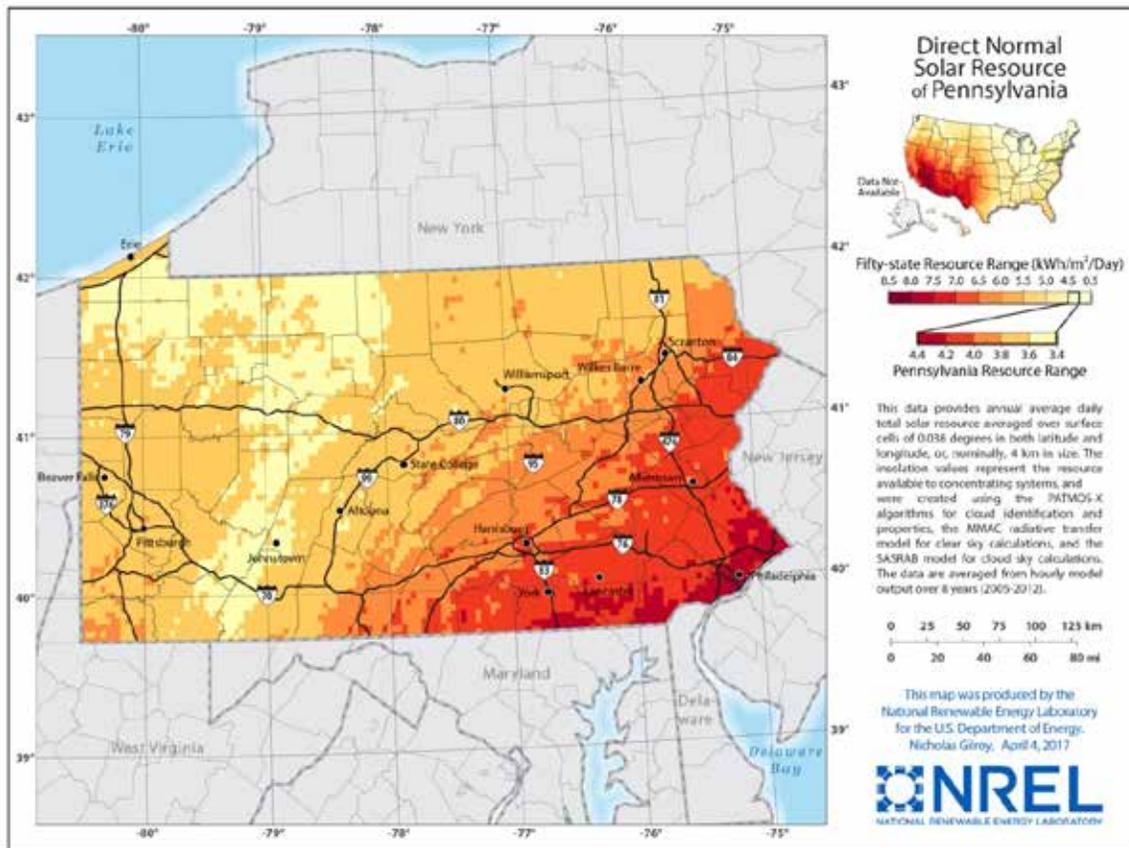


Fig. 5.2-1: Solar Energy Potential in Pennsylvania

Also contributing to increasing practicality of solar electrical systems is dramatically improving battery storage technology. Although current battery systems capable of sustaining typical residential demand over a period of days can cost significantly more than fossil fuel powered generator systems, their cost is expected to decrease rapidly as their technology and function improves.

Government incentives including tax credits and rebates can make solar PV systems more affordable to residences and businesses. Another possibility is leasing rather than owning a PV system through a power purchase agreement (PPA), which can eliminate the upfront cost for the user.

Community solar legislation would be beneficial in expanding the availability to residences and businesses that are incapable of having their own solar arrays. Thus far, (16) states have community solar policies in place, although Pennsylvania is not yet among them.

Ground Source Heat Pumps

Ground source heat pumps (GSHPs) are wells in the soil that greatly increase the efficiency of heating and cooling (HVAC) systems by providing an ambient heat source or sink with higher moisture content and more constant and moderate temperature than air sourced heat pumps. Since heating and cooling typically consumes up to 50% of residential energy demand, these systems can greatly save on cost and reduce environmental impacts over conventional fossil fuel or electrical systems. In fact, GSHPs are recognized as among the most efficient technologies for HVAC and water heating.

Installation costs for GSHP's are two or three times higher than for conventional systems, but this difference is returned in energy savings over a period of three to ten years, depending on comparisons with radiant electrical, oil, or natural gas. The working life of GSHP systems is estimated at 25 years for inside components and over 50 years for the ground source loops, so they are considerably more durable than conventional HVAC systems, which represents another source of savings in terms of cost and environmental impact. The return on investment period can be considerably shortened through Federal and State incentive programs.

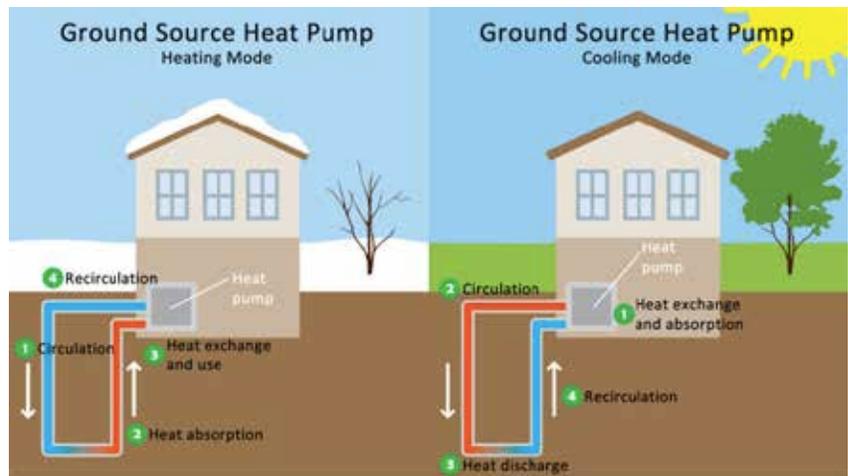


Fig. 5.2-2: Simplified diagrams showing how GSHPs work to both heat and cool a building (source: USEPA)

Wind Energy

Wind energy consists of turbines of various sizes and designs that power electrical generators. It is a significant source of electricity in many parts of the world and the United States. Southeastern Pennsylvania, including the PRPC Region is marginal for wind power production in comparison with other parts of the State, as illustrated in Fig. 5.2-2. Thus, this discussion focuses on site specific application of wind power, as opposed to large commercial wind farms.

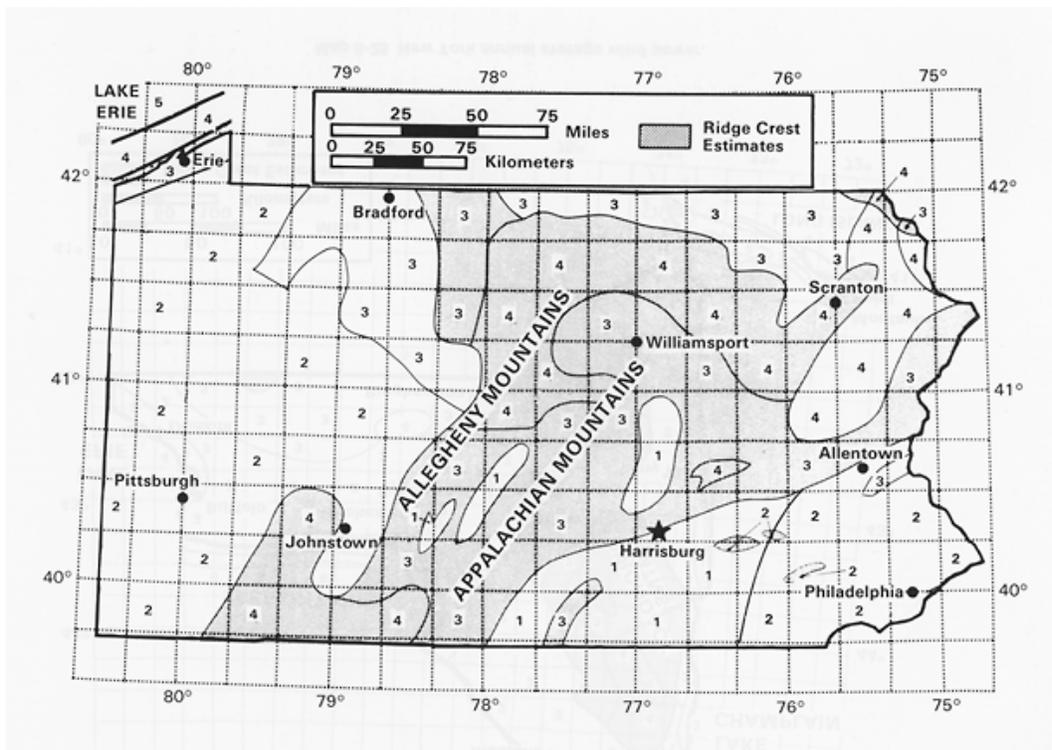


Fig. 5.2-3: Wind Energy Potential in Pennsylvania. Wind power classes 3 and 4 are suitable, class 2 is marginal, and class 1 is generally unsuitable.

Wind power has historically been used in agricultural settings in southeastern Pennsylvania, and advances in turbine and generator efficiency have enabled this source to continue in farm and residential applications. As with solar, improved battery storage technology and cost have increased the capacity to utilize wind power.

State and Federal wind energy tax credit programs for onsite wind power for residential and business application could be reinstated to incentivize it. Regardless, wind energy remains a technologically feasible supplemental power source for this region, if one is able to absorb a lengthy period of return on investment.

SECTION 5.3 ENERGY EFFICIENT CONSTRUCTION

Energy efficient building layout and construction has been part of traditional building practices worldwide since the beginnings of civilization. However, with the advent of industrial age technology that produced cheap and abundant energy and economic systems that conceal costs through externalization, practices changed to favor a consumer-based method of development. The 20th century way of development has needlessly consumed resources, and has resulted in throwaway buildings and landscapes that become blight when their design lives of a scant few decades is exhausted.

This section explores technologies that reduce the environmental impacts of building and development, while improving livability, durability, and sustainability.

Recent advances in architecture, site planning, and consumer product certification have been created to encourage building and development that is more energy efficient and environmentally friendly.

Modern techniques in building and energy efficiency can be applied to either new construction or retrofits, resulting in buildings that have zero net energy use or even that produce net positive energy.

LEED Certification

Leadership in Energy and Environmental Design (LEED) Green Building Rating System, developed in 1998 by the U.S. Green Building Council, provides a suite of standards for environmentally sustainable construction. It has since become a standard throughout the U.S. Practices that attain points on the LEED certification scale include such measures as:

- Siting to achieve passive or active solar benefit
- Thermal massing
- High performance insulation for walls, roofs, doors, and windows
- High efficiency HVAC and mechanical systems
- Renewable source energy
- Use of recycled and renewable building materials
- Recycling of construction waste and demolition materials

SITES Certification

SITES is a sustainability-focused framework developed in 2009 that encourages landscape architects, engineers, planners, architects and other designers toward practices that protect ecosystems and enhance the mosaic of benefits they provide, such as climate regulation, carbon storage and flood mitigation. SITES is the culmination of work by leading professionals in the fields of soil, water, vegetation, materials and human health. Administered by Green Business Certification Inc. (GBCI), SITES offers a comprehensive rating system designed to distinguish sustainable landscapes, measure their performance and elevate their value. SITES certification is for development projects with or without buildings—ranging from national parks to corporate campuses, streetscapes to homes, and more. (Source – Sustainable Sites Initiative, 2017) SITES is a points-based system that emphasizes performance objectives over specific practices. Typical measures consistent with SITES certification would include:

- Stormwater water quality and infiltration practices, such as rain gardens, meadows, level spreaders, riparian buffers, green roofs
- Habitat protection and enhancement
- Pervious paving surfaces
- Recycled, locally sourced, and sustainable building materials
- Coordination with mass and multi-modal transit
- Renewable energy
- Water conservation
- Soil management
- Pedestrian accessibility and interconnections
- Operations, maintenance, monitoring, and stewardship

Energy Star

Energy Star, created in 1992, is an international standard for energy efficient consumer products including computer products, kitchen appliances, buildings, and others. Energy Star certified products typically reduce energy by between 20 and 30 percent as compared to those that are non-certified.

SECTION 5.4 RECYCLING, REDEVELOPMENT, AND REDUCED RESOURCE USE

Recycling

Recycling requirements were established by PA Act 101, The Municipal Waste Planning Recycling and Waste Reduction Act adopted in 1988. Each municipality within the Region works to comply with these requirements in varying ways. Waste haulers are required to have recycling programs and collect recycling separate from waste in all municipalities. In the Borough of Phoenixville, the Borough collects comingled products weekly, which includes paper, glass, plastics, metal and aluminum cans.

Additionally, both Phoenixville Borough and East Pikeland Township have composting facilities. The Phoenixville composting facility is located on South 2nd Avenue. The Phoenixville composting facility accepts/collects yard debris from residents of Phoenixville Borough and also accepts yard debris from Schuylkill Township residents and approved contractors in the region. Residents of Phoenixville and Schuylkill can get mulch from the facility during established hours.



Fig. 5.4-1: East Pikeland Township composting facility processes yard waste into mulch for residents.

The East Pikeland composting facility was established in 1993 and it is located next to the Township building on Rapps Dam Road. Residents can drop off their yard waste and pick up mulch when needed.

While West Vincent and Charlestown Township do not currently have composting programs, opportunities to create such programs should be considered. Programs could start simply at a designated site maintained by the Township or at community garden areas. Another alternative could be to develop multi-municipal agreements similar to the arrangement between Phoenixville and Schuylkill Township with the other municipalities of the Region to allow residents of West Vincent and Charlestown Townships to use the existing facilities.

Opportunities to expand local recycling programs should be encouraged, such as composting food waste and offering yard waste composting in municipalities that do not have this option.

Redevelopment

In an effort to reduce energy use associated with the development of an undeveloped site, incentives should be provided to encourage redevelopment of vacant and underutilized parcels located near population centers.

Reduced Use of Resources

The United States population continues to use natural resources at a higher rate per capita than most other countries. Many opportunities exist to reduce the amount of resources used, but often a concerted effort to educate the population is required to help people change habits. Some examples of opportunities to reduce energy use include turning off lights in rooms when not being used, unplugging appliances and electronics when not in use, setting heating system slightly lower in the winter and wearing warmer clothes, washing clothes using cold water, insulating roofs and windows, and installing low-flow plumbing fixtures. Opportunities should be pursued to educate residents and businesses of the Region regarding ways to reduce energy and resource use.

SECTION 5.5 TRANSPORTATION SYSTEMS

Transportation accounts for nearly 30% of total energy use in the US, and can therefore contribute significantly toward energy conservation efforts. Transportation planning will receive further attention in Chapter 10.

Transportation systems significantly impact energy use in our region. Single-occupancy vehicles account for the vast majority of commuting vehicles and miles driven. As summarized in the Chester County Landscapes2 Comprehensive Plan, the percent of employed residents who drove alone, based on the American Community Survey from 2008-2012, was 84-90 percent in East Pikeland and Schuylkill Township, 79-83 percent in Phoenixville and Charlestown Township, and 71-78 percent in West Vincent Township. As technology and innovation continue to develop, creative alternatives for reducing the miles driven by the single-occupant driver become available. Because much of the Region is developed at low densities, and is encouraged to remain that way through land use policies, a wide range of alternatives needs to be available to residents. Mass transit that is feasible in the urbanized areas, may not be feasible in the rural areas where the population density does not support such services.

Within the Phoenixville Region there are organizations focused on transportation coordination between public sector transportation agencies and the Chester County business community. TMACC is a non-profit that was established in 1992 by the Pennsylvania Department of Transportation to serve as a liaison between public sector transportation agencies and the private sector on transportation issues affecting the Chester County business community. TMACC's focus is on Mobility Management and Sustainability through education, advocacy and special programs.

Another nonprofit doing work in the region advocating and promoting a viable transportation network for the region's economic vitality is the Greater Valley Forge Transportation Management Association (GVF). GVF is based in King of Prussia, but its mission is to achieve a desirable quality of life and a healthy, competitive economic environment by developing multi-faceted transportation strategies throughout the region.

Land Use Planning and Zoning Coordination

Local zoning and land development regulations provide opportunities to establish energy conservation standards and improved transportation systems for new development. Consideration of interconnections for both vehicles and pedestrians between existing and proposed development across municipal boundaries can be required in local ordinances to provide improved opportunities for people to make choices to reduce vehicle miles traveled and to choose to walk between businesses that are relatively nearby.

Mixed use development supports energy efficiency and a reduced impact on transportation systems by encouraging a mix of residential, commercial and office development in proximity to one another providing improved opportunities to walk or bike between uses. Coordinating zoning and requiring interconnections between mixed-use developments in adjacent municipalities supports such mixed-use areas.

Local ordinances can also be amended to require new development to provide bicycle storage and bicycle parking facilities near entrances to buildings, rather than remotely located on the property. Bicycle parking facilities should be covered, at a minimum, to protect bicycles from harsh weather. Pedestrian facilities interconnecting adjacent properties should link new development to existing development.

To help encourage carpool/ridesharing, local zoning codes can be amended to require new development to provide parking for this purpose.

Mass Transportation Planning and Improvements

Mass transportation includes existing fixed route transportation systems typically consisting of buses, trolleys, and trains/rail service. In the Phoenixville Region mass transportation is currently limited to bus service, and this service is limited to Phoenixville, Schuylkill Township, Charlestown Township and East Pikeland Township. Phoenixville is served by two SEPTA bus routes, Route 99, which provides regular transit service between Royersford and King of Prussia including stops in Audubon and Norristown. Route 39 also serves Phoenixville, Schuylkill Township, and East Pikeland Township with stops along Route 724 in East Pikeland and stops along Route 23 in all three municipalities. The portion of Charlestown Township associated with the Great Valley Corporate Center is served by bus 206, which connects the Great Valley Corporate Center with the Paoli Train Station and points in-between. West Vincent Township does not have SEPTA service available. SEPTA previously provided bus service between Phoenixville, the Great Valley Corporate Center and the Paoli Rail Station, but ridership was low and the service was cancelled in 2014.



Fig. 5.5-1: SEPTA bus stop in Chester County. Credit Chester County Planning Commission

Providing transit opportunities throughout the region remains challenging because much of the Region is rural in nature and does not lend itself to opportunities for high volumes of riders outside the more urbanized areas. While increased frequency and coverage could help increase ridership, the SEPTA routes tend to be circuitous between major destinations such as Norristown and King of Prussia resulting in long commutes that are often not practical for employees who have other alternatives. Opportunities for express buses during peak hours should be considered, particularly along major roads in the Region including Route 23, Route 29, and Route 724. Reestablishment of the SEPTA service

previously provided between Phoenixville, the Great Valley Corporate Center and the Paoli Rail Station should be considered and establishment of a bus route along Route 100 in West Vincent connecting Ludwigs Corner to the Exton train station should also be considered.

Due to limited funding for mass transit, the amenities associated with bus stops tend to be minimal, further reducing the appeal of choosing transit. Improved amenities such as protected shelters at bus stops, bicycle parking, WiFi on the buses, and more comfortable seating should be considered to increase ridership. Some amenities could be sponsored by the local municipality and/or businesses to make transit more appealing.

Rail Service

Phoenixville was served by commuter rail service until the 1980's when it was ended. Studies have been completed over the years to reestablish rail service between Phoenixville and Norristown, but adequate funding has not been allocated beyond conducting studies. The possibility of connecting Phoenixville with the Great Valley Corporate Center in Charlestown Township via rail was subsequently investigated, but again funding was not allocated and the project did not move forward. Reestablishment of rail service to the Phoenixville Region should be advocated to help improve energy conservation opportunities.

Other Publicly Funded Transportation

While not having a fixed daily route, Rover Community Transportation is a transportation service available for residents throughout Chester County needing to travel within Chester County. While the service is available to anyone in Chester County, the emphasis is on providing a transportation alternative for Chester County seniors and disabled residents. The Rover transportation service is subsidized for residents who are disabled, senior or who qualify for certain other government assistance programs. Residents who do not qualify for subsidies can use the service, but must pay the full rate which is dependent on the distance of the trip. Full price rates currently range from \$11.75 (0- 4.99 miles) to \$129.05 (41+ miles). To use Rover, a reservation must be made the prior day by 1 PM and routes may include picking up other passengers along the way to a destination. Given the high price for full-rate customers, Rover tends to be a better alternative for riders eligible for subsidies.

Because there is a fleet of vehicles associated with the Rover Community Transportation system already active in the Region, consideration should be given to potential partnerships between the Rover program and local employers to offer shuttle services between population and employment centers within the greater region.

Ride Sharing/Carpooling

Another opportunity for reducing energy use in the region is ridesharing or carpooling. Ridesharing or carpooling consists of two or more people with similar work schedules riding together to a similar area. Carpooling/ridesharing is typically done in a private vehicle and arrangements can vary from taking turns driving a private car, to compensating a driver for providing a ride. Challenges associated with carpooling/ridesharing including finding another person from your area with a similar commuting pattern and finding safe and secure meeting places from which to travel. Within the Region there are currently no park-and-ride parking lots to encourage ridesharing. Consideration should be given to identifying locations for park-and-ride lots in the Region to better improve opportunities for shared

rides. Ridesharing websites exist, but without a better understanding by the general public how such an arrangement could work for them, it is often difficult for people to be willing to try such an alternative.

Alternative/Multimodal Transportation

Multi-modal transportation refers to a transportation system that involves various modes (walking, cycling, automobile, public transit, etc.) and connections among modes. To encourage use of multimodal transportation alternatives, the points of transition from one mode to another should support an easy, safe transition. This could range from waiting areas protected from harsh weather to adequate lighting and protected seating for people having to wait to adequate parking for cars or bicycles. As technology advances and innovative, energy efficient ways to get from one point to another are developed, municipalities within the Region should continue to find ways to encourage and support alternative modes of transportation.

Telecommuting

Telecommuting is a work arrangement that allows an employee to conduct work during any part of regular paid hours at an approved alternative worksite, such as at home. As technology improves and telecommuting becomes much more feasible for a wider range of businesses, telecommuting from home is a simple alternative that maximizes energy efficiency by eliminating the need to travel for work on the telecommuting days.

Complete Streets

Complete streets is a concept focused on requiring improvements within the public right-of-way to be designed and operated to enable safe access and passage for all users, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities. Municipalities are often challenged by developers requesting relief from certain aspects of complete street requirements due to an anticipated lack of pedestrian, transit or bicycle use. Granting such requests essentially eliminates the possibility of these alternative modes becoming established in the future. Granting such relief should be avoided. Throughout the Region gaps can be seen in the infrastructure for pedestrians and bicycles resulting in unsafe conditions for those who have no alternative to walking and bicycling. These gaps also discourage others from walking or bicycling due to the lack of safe facilities. Retrofitting rights-of-ways later to accommodate such infrastructure tends to be challenging and a significant financial burden to the tax payers within a community. Complete streets provide residents and employees with choices of alternative forms of transportation and enhance the livability of the Region.

Plug-in and Alternative Fuels

Significant progress has been made with plug-in car technology in the past several years, but challenges continue regarding public charging stations. According to resources available on the internet there are two charging stations within the Phoenixville Region, one at the Borough of Phoenixville municipal building and one at Main Line Animal Rescue on Route 113. However, according to Phoenixville Borough representatives, the charging station at the Phoenixville municipal building was recently removed because the company servicing the unit went out of business. The Borough continues to search for sponsorship to replace the charging station and the possibility of expanding the charging stations to other spaces in the Borough parking lot along Bridge Street, which are also wired for charging stations. Without convenient and accessible charging stations, people with electric cars may be less

likely to travel to the Region. Municipalities within the Region should consider opportunities to provide such stations at municipal buildings and public parking lots and encourage local businesses to provide charging stations.

The Region has a significant and growing number of hybrid and electric cars, and this trend will accelerate as more people recognize their numerous advantages. Individuals can utilize a number of incentives to switch to hybrid and electric vehicles (EVs) and significantly diminish both operating costs and carbon emissions. By themselves, EVs cost less than half to operate than their gasoline powered equivalents. Coupled with onsite solar and/or electricity purchased from 100% renewable sources, an EV can operate essentially emissions free. PECO and the Pennsylvania Department of Environmental Protection each have substantial rebate programs applicable to new and used hybrid and EV purchases. In addition, there are programs to obtain electric vehicle supply equipment (EVSE, level 2 charger) for free or at reduced cost.



Fig. 5.5-2: Example of an Electric Vehicle

SECTION 5.6 ELECTRICITY GRID

The electricity grid system has traditionally been centralized. Centralized systems are typically dependent on a limited number of energy production facilities, utilizing energy sources such as natural gas, nuclear, or coal, which generates large quantities of electricity that is located a long distance from end-users resulting in transmission and distribution inefficiencies due to long distances required for distribution. Such systems are inefficient and vulnerable should the system be interrupted close to the source, resulting in the loss of power to a large area.

In an effort to reduce dependency on a centralized source of energy generation, distributed energy generation is playing a larger role in electricity distribution. A distributed energy system is one where there are multiple sources of energy production, both large and small. Sources of energy vary from wind turbines, solar panels, conventional fossil fuels and nuclear power plants. Transitioning to the distributed energy system provides opportunities for alternative sources of energy when one source becomes unavailable.

Support Modernized Grid

Within the Region the distributed energy system can be supported by encouraging new development to incorporate energy efficient technologies such as roof-mounted solar into development. Retrofitting existing buildings with solar also adds to the diversifications of the grid system.

SECTION 5.7 LOCAL INITIATIVES

There are a number of actions that can be taken on the local level to advance energy conservation. These include regulatory strategies, municipal programs, and model projects.

Local and Community Regulations

PRPC municipalities should review local development and building codes to create incentives and eliminate barriers to energy conservation. Incentives could consist of various types of density bonuses for low impact design. Ordinances could be crafted in ways that walk applicants through various components and processes of green building, with established details and methodologies to expedite design and approval.



Fig. 5.7-1: Solar PV Panels on a Residence

Further, in order to promote sustainability through resource protection and energy conservation, it is critical that ordinances and rules made by local authorities and community associations do not counter these objectives. Municipalities should

ensure that ordinance standards based on purely aesthetic or parochial concerns do not create unintended barriers to environmentally conscientious development, construction, or rehabilitation. In addition, where regulations are crafted with the intention of promoting the use of sustainable practices, permitting and cost hardships that would discourage those practices should not be invoked. Finally, community association covenants should be scrutinized to prevent the establishment of arbitrary and counterproductive prohibitions of sustainable practices.

SolSmart is a national designation program that provides cost free technical support to municipalities that want to help develop solar markets by streamlining requirements and through other measures. Communities that meet SolSmart's objective criteria for fostering solar energy development are designated Gold, Silver, or Bronze.

Municipal Programs

Municipalities should advocate energy conservation throughout the community. These efforts can take a number of forms:

- Local recycling and composting programs or participation in and expansion of existing regional programs
- Information gathering and dissemination through printed materials, public exhibits, and web content
- Implementation of sustainable practices at municipal facilities, such as LEED/SITES certification, stormwater/habitat projects, electric vehicle charging stations, and model projects using sustainable materials
- Use of alternative fuel and EV/hybrid vehicles
- Advocacy of multi-modal transportation
- Community fairs and events focused on energy and environmental sustainability
- Coordination with community and regional organizations dedicated to energy conservation

SECTION 5.8 IMPLEMENTATION STRATEGIES

The following policy recommendations will implement the goals and objectives of the Energy Conservation Plan:

EC-1 Assure that local ordinances promote use of renewable energy.

Develop provisions to advance renewable technologies with straightforward processes and permitting, and eliminate provisions in the codes that act as deterrents. Emphasis should be placed on promoting solar PV and GSHP development.

EC-2 Advocate use of energy efficient technologies in local building and development codes.

Preferred practices should be advanced through simplified permitting and/or fee structures that favor those practices. Eliminate code provisions that prohibit or discourage sustainable building practices.

EC-3 Establish guidelines for community associations to prevent arbitrary prohibitions of sustainable practices.

Examples are aesthetically motivated outright prohibitions on solar panels, outdoor clothes lines, landscaping restrictions, etc. that are commonly found in community association covenants.

EC-4 Create municipal resource centers for activities and information on energy conservation.

Include energy conservation strategies for residents in utility bills or other forms of communication from municipalities to residents. Also, maintain public resource files for grants and technical assistance for energy efficient building, renewable electricity, and EV and hybrid vehicles.

EC-5 Create or expand municipal and/or regional recycling programs.

Consider the development of food composting recycling programs within the region.

EC-6 Develop municipal projects to serve as models of energy efficient practices for the community.

Examples are sustainable building practices in municipal facilities, EV and high efficiency vehicles, multi-modal transportation and accessibility. Consider adoption of official resolutions to implement 100% renewably sourced electricity usage for municipal uses and facilities.

EC-7 Continue to work with regional transit advocates and SEPTA to promote rail service to Phoenixville with stops in the Phoenixville Region as appropriate.

EC-8 Improve opportunities within the Region for residents to utilize alternative modes of transportation.

Identify locations that can serve as park-and-ride facilities to better encourage carpooling and ride-sharing in the Region.

On municipal websites develop a list of resources for residents interested in ridesharing/carpooling.

Encourage SEPTA to provide incentives for those carpooling/ridesharing to rail stations by offering dedicated free or reduced parking for those carpooling.

Provide secure bicycle parking/storage at key multimodal locations to allow storage of bicycles while using another mode of transportation.

Have representatives of the Phoenixville Regional Planning Committee attend local meetings of community organizations such as Chambers of Commerce to promote opportunities for carpooling/ridesharing and other alternative transportation opportunities.

EC-9 Encourage improved mass transportation service to the Region where feasible.

Encourage SEPTA to develop express bus service to major destinations such as King of Prussia and Norristown during peak hours.

Work with SEPTA, other transportation organizations, municipal governments and local business organizations to promote available bus services, and newly proposed bus service, to residents and employees in the Region to improve ridership.

Encourage partnerships between SEPTA and large employers in the greater region to develop shuttles between population centers and major employers. Consider incorporation of the Rover vehicles as regular shuttle vehicles between key locations connecting population and employment centers.

EC-10 Provide electric vehicle charging stations at municipal buildings and parking lots, and encourage local businesses to provide charging stations.

EC-11 Advocate for statewide community solar legislation.

CHAPTER 6 HOUSING PLAN



The plan for housing helps to maintain and shape the type of community the Region will have. Housing policy influences who lives in the community in terms of ethnicity and economic characteristics. It also affects economic viability by prioritizing a workforce appropriate to local and regional centers of employment. It works in concert with the Land Use Plan to create vibrant settlements while protecting rural and natural areas. The Housing Plan is thus an essential part of establishing and sustaining a healthy and dynamic, Regional community of neighborhoods.

SECTION 6.1 HOUSING PLAN GOAL AND OBJECTIVES

Provide a range of housing opportunities in appropriate areas to meet the needs of all Phoenixville Area residents, regardless of household size, age and/or income.

This goal is to be advanced through the pursuit of the following specific objectives:

1. Manage new housing through a balanced pattern of development that preserves and enhances existing communities and the natural and scenic landscapes of the Region.
2. Encourage clustering of housing and village-style mixed-use development, and discourage sprawling development patterns that consume existing open space.
3. Provide a diversity of housing options for residents throughout the Region.
4. Maintain, preserve, and revitalize the Phoenixville Region's existing neighborhoods, particularly its older housing stock, and create new residential opportunities that make it a community of choice for homeowners and renters.
5. Support the revitalization of existing residential areas in older communities and neighborhoods through effective code enforcement and the preservation of the housing stock.
6. Ensure opportunities for affordable housing throughout the Phoenixville Region.
7. Identify and prioritize housing opportunities for seniors and families.
8. Encourage home ownership opportunities in areas of the Region where owner-occupancy rates are much lower than the majority of the Region.

SECTION 6.2 EXISTING HOUSING CHARACTERISTICS AND CURRENT TRENDS

The PRPC Region includes housing patterns in rural, suburban, and urban settings. Although the majority of housing units are single family detached, over 40% of the Region's dwellings are in attached or multifamily buildings – a percentage that will likely increase in accordance with post-recession trends. There is a good availability of rental housing for a diverse and transitional workforce, although the emphasis of new development on an upscale, rental market is having an impact on affordability and the proportion of single-family detached housing stock.

Current Housing Data

Housing Unit Types

Most of the housing across the Region is made up of single family detached units, although attached and multi-family units constitute a combined total of 43% of housing stock. Mobile homes comprise just 1% of the Region’s units, and most of these are contained within three developments in Schuylkill Township.

Phoenixville offers the greatest diversity in housing options, with a fairly even split between single family detached, single family attached, and multi-family units. As figure 6.2-2 shows, this coincides with the greatest rental availability in the Region. The Borough’s dense residential concentration presents a greater opportunity for mixed use development and transit options than elsewhere in the Region.

Outside of Phoenixville, East Pikeland and Charlestown Townships have the largest percentage of single family attached housing. In both municipalities, these residences are largely clustered in traditional neighborhood and carriage home developments along major transportation route corridors. The overwhelming majority of units in both Schuylkill and West Vincent Townships are single family detached. However, West Vincent and East Pikeland Townships each contain a significant portion of multi-family housing, which suggests increased renter opportunities in both municipalities.

The location of single family attached and multi-family units throughout the Region may help identify areas needing expanded transportation options, amenities and services, or mixed-use development opportunities.

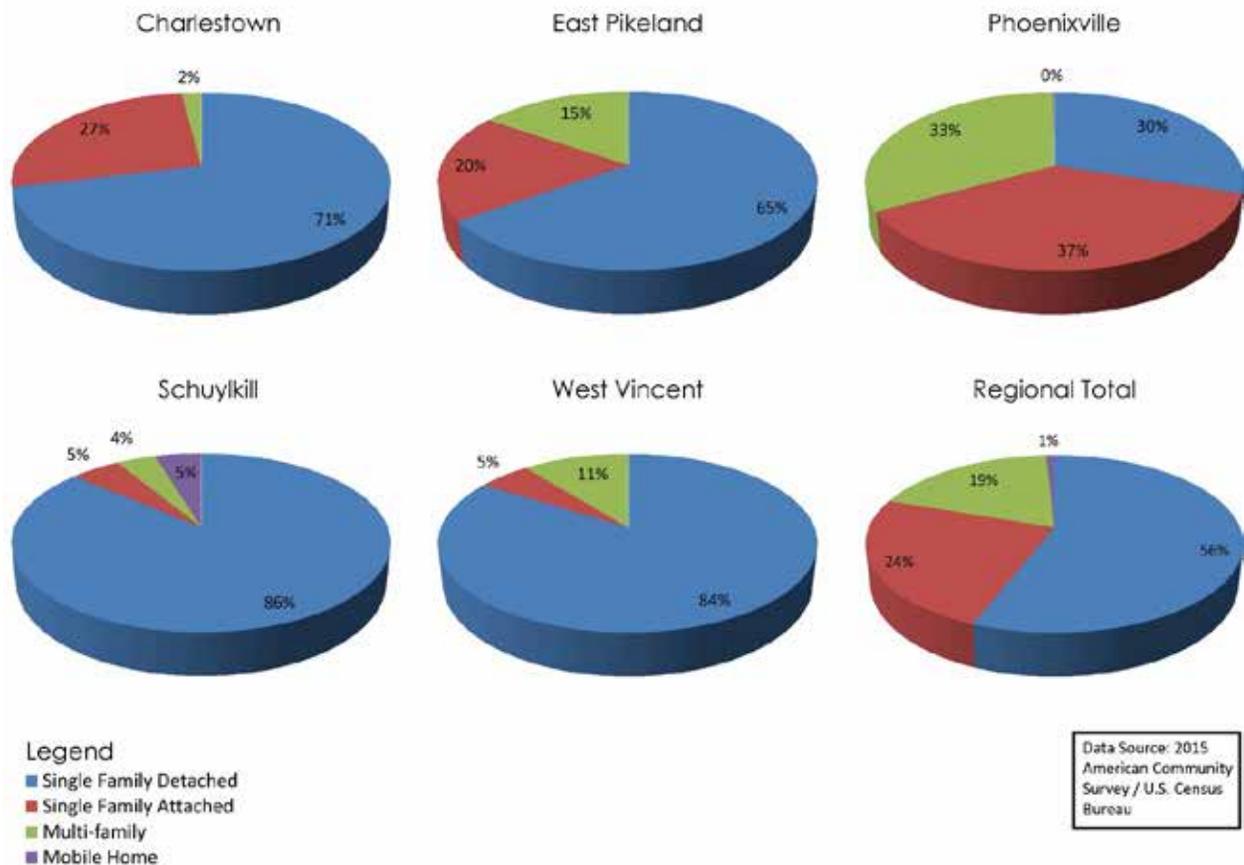


Fig. 6.2-1: Housing Type by Municipality, with Regional total

Housing Unit Occupancy and Tenure

Owner-occupied housing makes up the vast majority of units in each of the Region's municipalities with the conspicuous exception of Phoenixville Borough (figure 6.2-2). Here, renter-occupied housing is approaching an equal proportion with owner-occupied housing, particularly after the surge in construction of multi-family and single family attached units in 2016 (see Table 6.2-1 on page 6.10). Both West Vincent Township and East Pikeland Township also experienced a significant increase in renter-occupied housing between 2010 and 2016, which is consistent with the new apartment and townhouse construction that took place during this time. Although Charlestown and Schuylkill Townships did not see dramatic gains in the percentage of renters, they too have had a slight increase in this segment of the housing market.

With its combination of good schools, an abundant job market, and favorable tax rates, vacant housing has not been a significant problem in the Region. Throughout the Region, unit vacancy rates have remained for the most part stable and below the statewide rate of 6.5% (2010). While Phoenixville had a relatively high rate of vacancy in 2010 (6.1%), it remained below the statewide figure. Some of the Borough's vacant units could represent older housing stock in need of rehabilitation (see figure 6.2-3). East Pikeland and West Vincent's vacancy rates rose in 2010 to exceed that of the state (7.1% and 7.7%, respectively), although this is due to recent construction yet to be occupied; by 2016's estimates, vacancy fell to rates consistent with those of Charlestown and Schuylkill Townships.

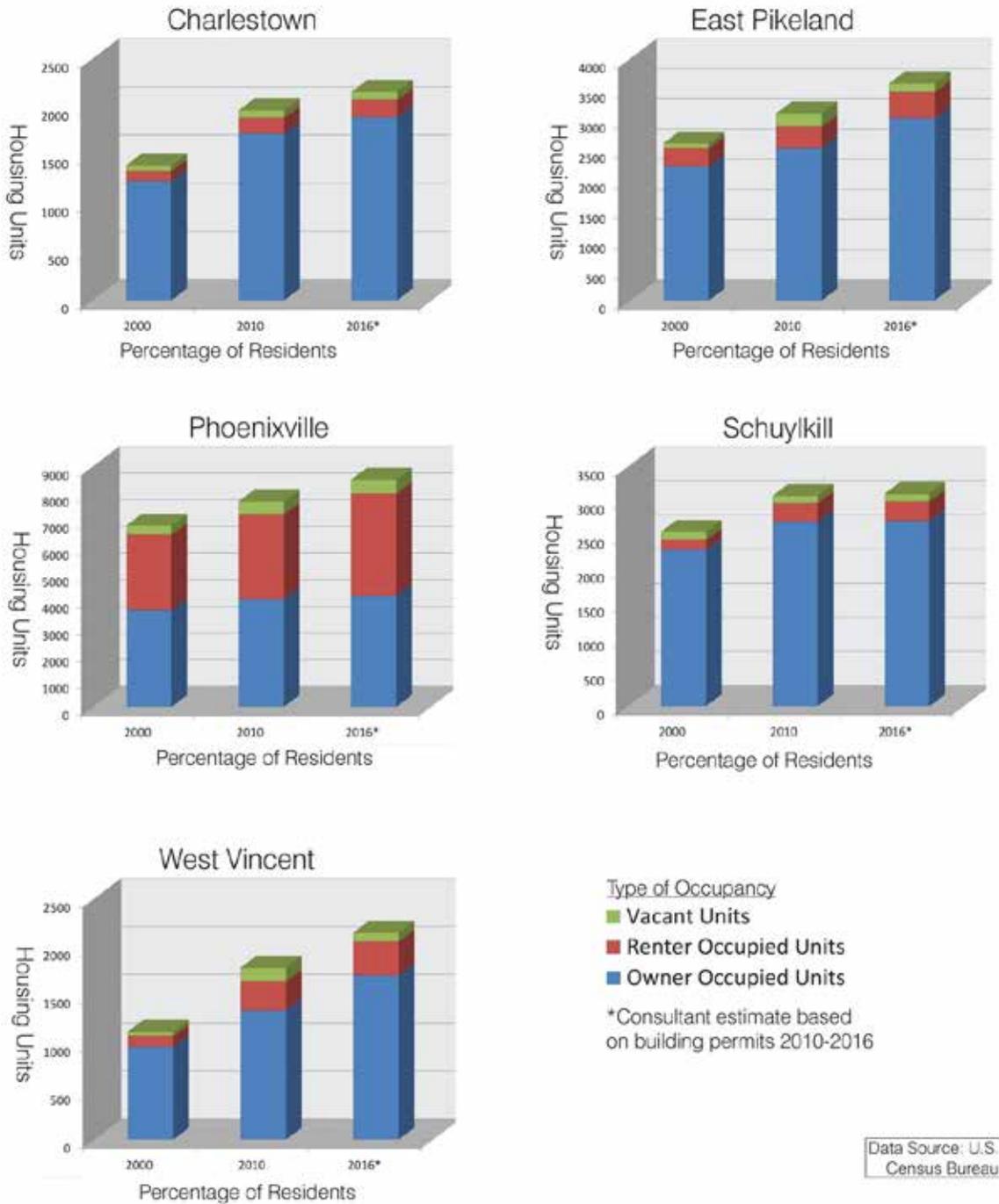


Fig. 6.2-2: Unit Occupancy and Tenure by Municipality

Housing Growth and Age of Units

Historically, the high quality of schools and robust regional economy have been consistent stimulators of residential growth in the Region. Dates of housing construction in the Region may correspond with periods of greater economic development. The majority of housing units built before 1970 are found in

Phoenixville, which accords with the Borough's long history of economic growth associated with the steel industry. A significant proportion of units were also constructed in East Pikeland and Schuylkill Townships before 1970 (36% and 40%, respectively).

The thirty years between 1970 and 2000 brought robust exurban growth to the Region: Charlestown, East Pikeland, and Schuylkill Townships each added over 40% of their current housing stock during this time, and over a quarter of the current units in West Vincent and Phoenixville were constructed in this time period as well. This period saw the trend of less densely placed, single family units contributing to sprawl throughout the Region.

The growth of housing construction continued in nearly all of the PRPC member municipalities between 2000 and 2015. This period of growth is particularly significant in West Vincent Township, which saw more units built during these 15 years than in the previous 60 years. A large number of units were also built in Charlestown Township following the year 2000 (643 units, or 34% of its housing stock). The growth in these townships to a large extent reflects the boom in the construction of multi-family and attached single family units that occurred following the Region's recovery from the Great Recession of 2007-2008. If we project the 2000-2015 building trends for each municipality out to 2030, Charlestown and West Vincent would each be on track to add over half of all of their housing units during this time (51% and 56%, respectively), followed by East Pikeland (35%), Schuylkill (31%), and Phoenixville (16%). This incredible, Region-wide growth could create strains on existing services, and lead to a demand for expanded amenities – the Region should plan so that this growth is directed in a sustainable manner.

The Region will also need to consider its aging housing stock. Phoenixville, East Pikeland, and Schuylkill have the greatest number of units approaching fifty years of age or older. Phoenixville in particular has the greatest concentration of older units, but these buildings present unique opportunities and challenges in each of the PRPC member municipalities. Farm houses, townhouses, and other old buildings contribute to the area's unique sense of place and historic character, and should be reused wherever possible as opportunities allow. However, plans for repurposing these buildings should balance historic significance with safety concerns and the maintenance needs pertinent to older structures.

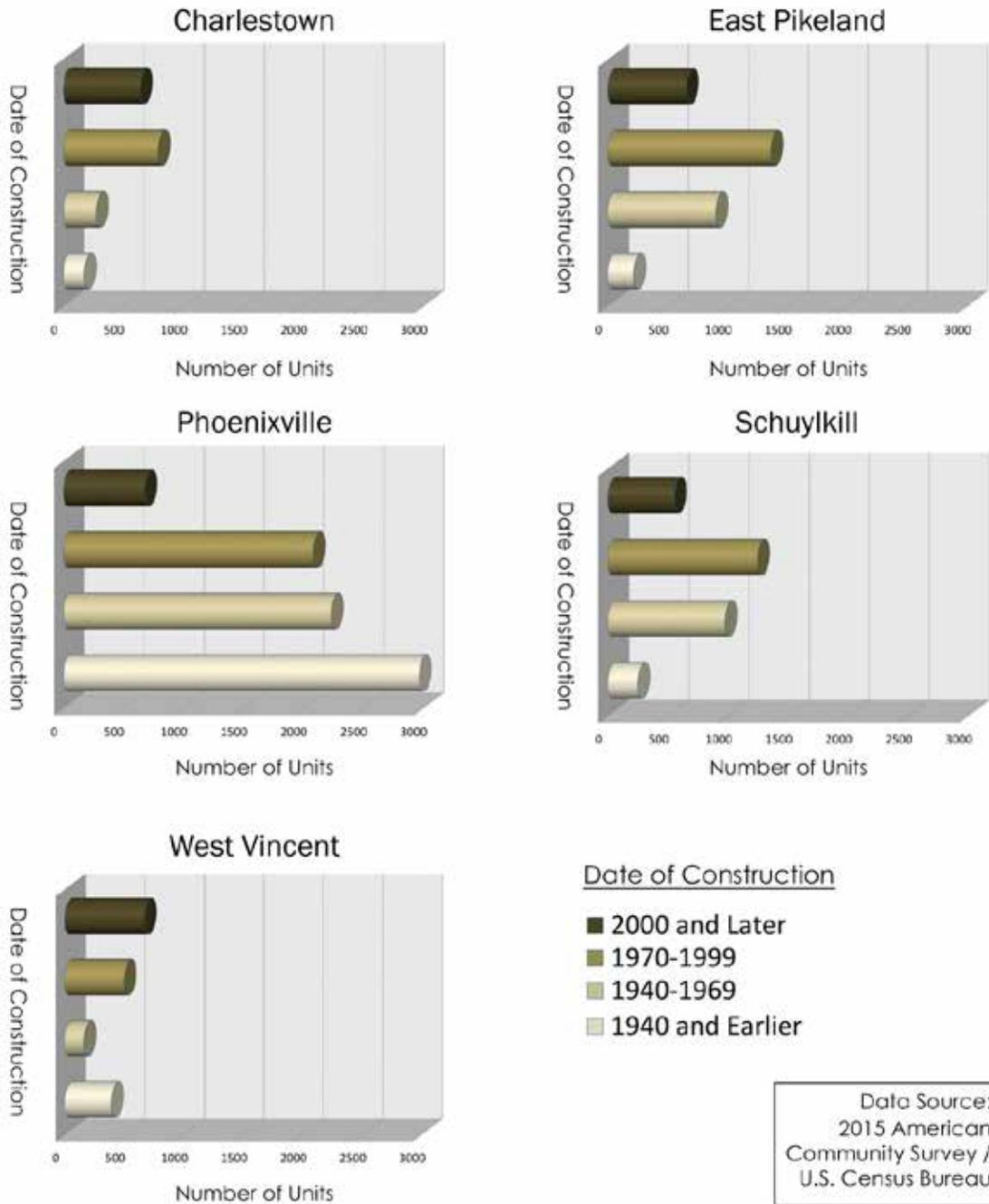


Fig. 6.2-3: Date of Housing Construction by Municipality

Changes in Occupancy

The Region’s population is a fairly dynamic one, which may be explained at least in part by the recent housing boom: as figure 6.2-4 shows, over half of all households occupied their current residence during or after 2000. The 2000-2010 decade saw the most significant fluctuation for Charlestown (52% of households occupied current residence), Schuylkill (44.6%), and West Vincent (41%) Townships in particular, followed by East Pikeland (34.9%) and Phoenixville (34.6%).

The years following 2010 brought significant change for East Pikeland, Phoenixville, and West Vincent’s occupants as well; in each of these municipalities, over a quarter of all housing units changed occupants at this time. This is likely due to the occupation of newly constructed residences, although change of occupants in rental properties may also help to explain these fluctuations.

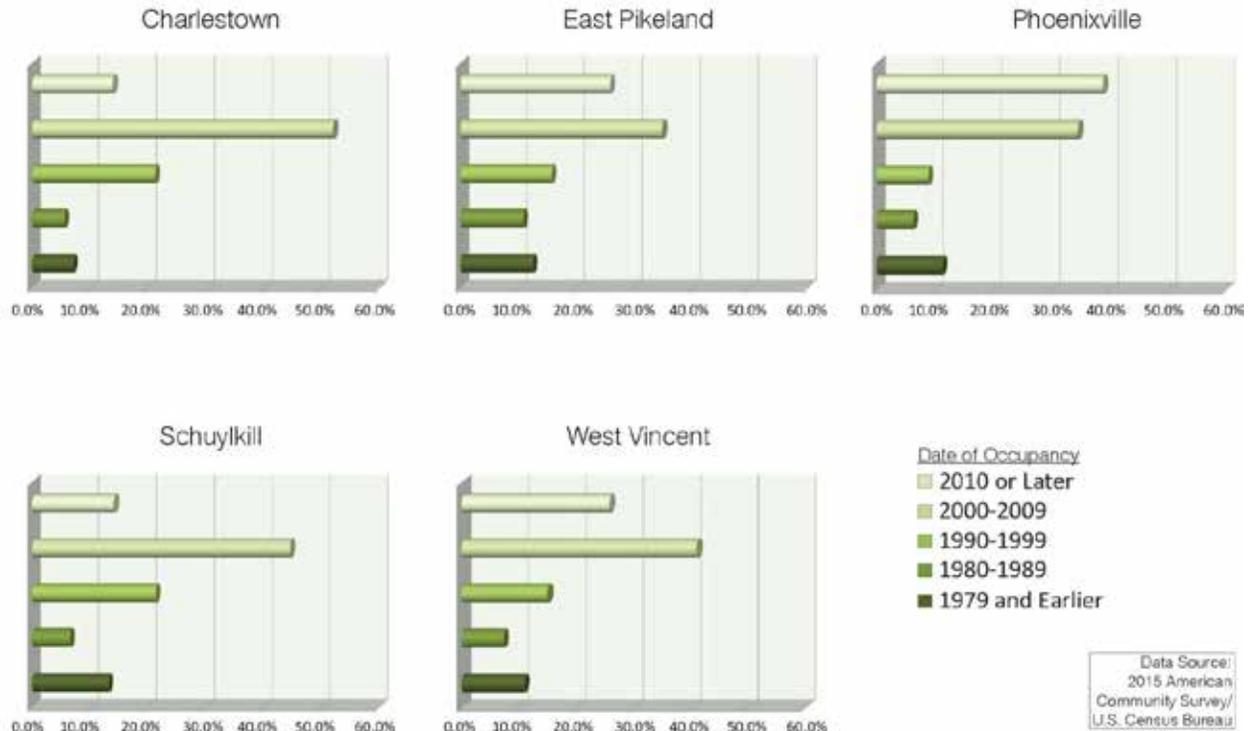


Fig. 6.2-4: Date of Occupancy by Current Household

Phoenixville appears to have the most dynamic population: it has seen the greatest number of residences changing occupants since 2000 in the Region (73.5% of units), and is the only municipality in the PRPC with more units changing hands in 2010 or later than in any other decade. This is consistent with a significant renter population, as is shown both in figure 6.2-2 and in charts in Chapter 2, Demographics; it may also be partly explained by the Borough’s recent economic revitalization. Larger proportions of the population in Charlestown, Schuylkill, and (to a lesser extent) East Pikeland and West Vincent townships have settled in their current households since at least 1999, indicating a greater percentage of stable, family-based households – this is also supported by figures in Chapter 2.

Occupants per Household

As with family composition numbers discussed in Chapter 2, the number of occupants per household gives some indication of patterns of residential density and may be used to help direct planning for transportation and general economic growth.

In Phoenixville and East Pikeland there are many 1- and 2-person households, which is indicative of a greater percentage of non-family households; this is consistent with the family household data presented in in Chapter 2. In the other municipalities, however, demographics data shows that the 2-

occupant households indicate a higher percentage of family members, couples without children or with grown children than non-family households.

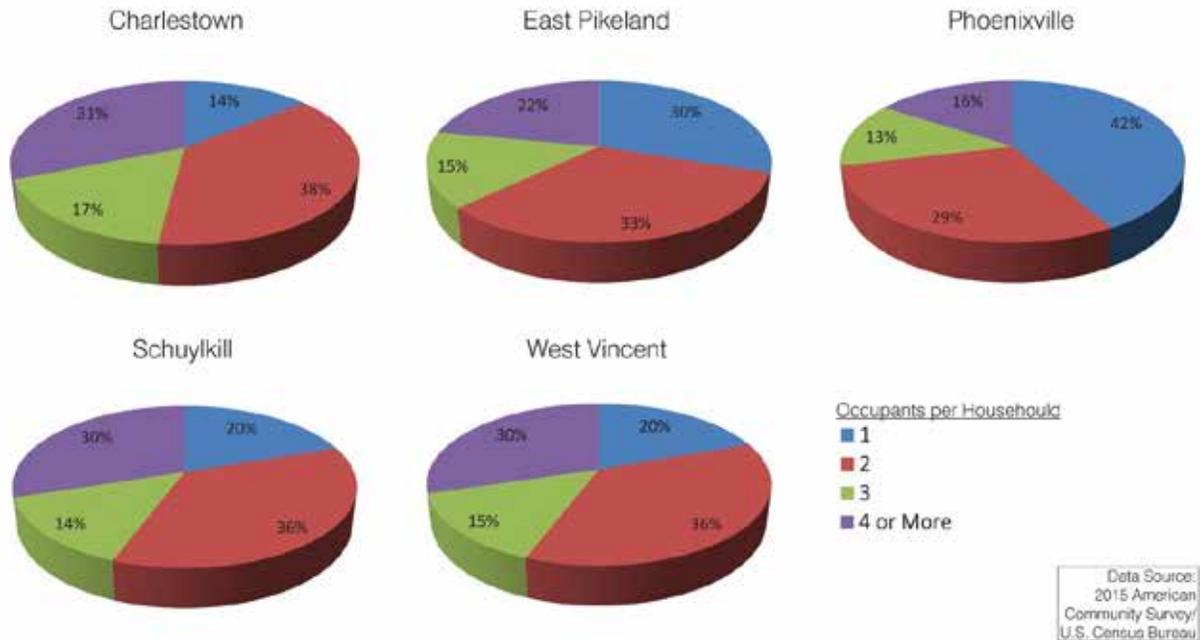


Fig. 6.2-5: Number of Occupants per Household by Municipality

Households with three or more occupants make up at least one third of all households throughout the Region, except in Phoenixville. When paired with family household data, this shows that traditional, nuclear families are a significant proportion of the population here. It is interesting to note, however, that these households make up less than 50% of households in every one of the PRPC member municipalities.

Household Income

Household incomes relative to renting vs. owning types occupancy help provide a picture of residents' ability to purchase homes and where rental markets should be concentrated.

In Schuylkill Township there is the smallest gap between the incomes of renters and owners (\$111,165 vs. \$129,975). Given that Schuylkill has a similar relative number of rental units (9.2% of units - see figure 6.2-2) as the other municipalities, this may correlate with a higher quality of rental accommodations (e.g. luxury apartments).

West Vincent has the largest gap in median household income between renters and owners (\$52,232 vs. \$155,417), and a relatively large rental market (16.5% of all units), which points to a large discrepancy in the quality of rental versus owned units. Phoenixville has a fairly narrow gap between renter and owner incomes (\$28,195), but a high number of rental units (45.1% of available housing), likely indicating less of a discrepancy in quality of accommodation between owned and rented units.

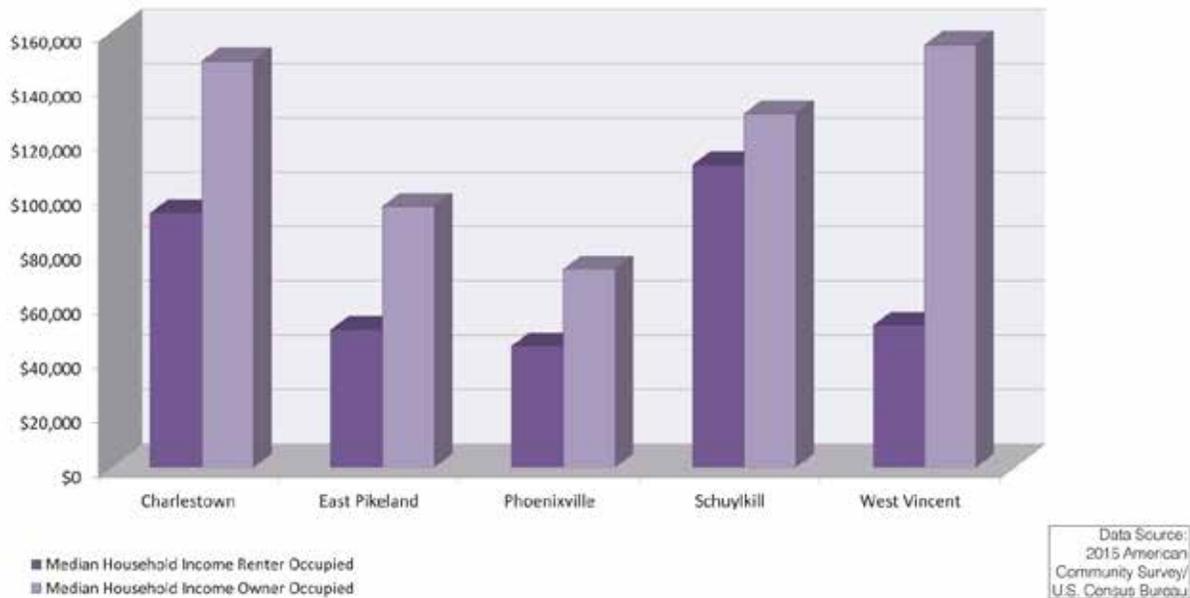


Fig. 6.2-6: Median Income of Renter-Occupied vs. Owner-Occupied Households by Municipality

Impact of the Great Recession

The Great Recession of 2007-2009 dramatically altered the nature of housing growth in the Region. Prior to that time, small to large developments of single family detached houses on suburban lots was the dominant paradigm, and tracts of agricultural and natural lands were transformed at an alarming rate. Very little development occurred during the Great Recession of 2007-2008. Then, as the economy recovered, development patterns shifted toward revitalizing areas of Phoenixville and toward higher density and mixed use communities in the surrounding Townships. Large lot subdivisions have for now at least given way to small lot, attached, and multifamily developments, and there has been a recent dramatic increase in the construction of rental apartments.

According to Chester County Planning Commission data, overall County-wide housing sales numbers and median prices by 2014 had recovered to approximately pre-recession levels, although numbers of new, non-apartment units are still significantly lower. In addition, construction of new owner occupied housing was slowed dramatically by the recession, but rental units are still being built in all of the Region’s municipalities at a significant rate.

Municipality/Year	Occupied Housing Units	Owner Occupied Units	% Owner Occupied	Renter Occupied Units	% Renter Occupied
Charlestown 2000	1340	1236	92.2%	104	7.8%
Charlestown 2010	1893	1728	91.3%	165	8.7%
Charlestown 2016*	2079	1898	91.3%	181	8.7%
East Pikeland 2000	2530	2221	87.8%	309	12.2%
East Pikeland 2010	2885	2530	87.7%	355	12.3%
East Pikeland 2016*	3457	3025	87.5%	432	12.5%
Phoenixville 2000	6460	3619	56.0%	2841	44.0%
Phoenixville 2010	7232	4041	55.9%	3191	44.1%
Phoenixville 2016*	8000	4156	52.0%	3844	48.1%
Schuylkill 2000	2436	2291	94.0%	145	6.0%
Schuylkill 2010	2977	2704	90.8%	273	9.2%
Schuylkill 2016*	3001	2715	90.5%	286	9.5%
West Vincent 2000	1077	965	89.6%	112	10.4%
West Vincent 2010	1646	1341	81.5%	305	18.5%
West Vincent 2016*	2057	1703	82.8%	354	17.2%

*Consultant’s estimate based on municipal building permit data 2010-2016

Table 6.2-1: Regional Changes in Housing Occupancy, 2000-2016

Significant New Developments and Trends

Ongoing Regional projects provide evidence that the post-recession change in development patterns persists. Developments include multifamily and mixed residential buildings, and some incorporate or are near supporting commercial uses. Phoenixville’s new housing consists almost entirely of apartments, and East Pikeland, Schuylkill, and West Vincent Townships also have significant new apartment projects pending or proposed. Attached housing consisting of twins, townhouses, or carriage homes is still a significant factor in Phoenixville and in Charlestown, Schuylkill, and West Vincent Townships. There are notable single family detached housing developments in Charlestown, East Pikeland, Schuylkill, and West Vincent Townships, but these are generally open space/cluster or



Fig. 6.2-7: Spring Oak in Charlestown Township is an example of Traditional Neighborhood Development (TND). The rise in developments with attached housing, TND/or cluster configurations, and integrated open space components is an emerging trend in the region.

Traditional Neighborhood Development configurations with compact development patterns as opposed to the large lot paradigm that was predominant before.

Project by Municipality	Apartments	Single Family Attached	Single Family Detached	Total Housing Units
Charlestown Township				
Devault Village	0	51	27	78
Pickering Crossing	0	76	0	76
Spring Oak	0	102	82	184
East Pikeland Township				
Kimberton Glen	0	0	332	332
Pikeland Glen	0	0	285	285
Westside	171	0	0	171
Phoenixville Borough				
Barkley Gardens	125	0	0	125
Eland Pointe Crossing	193	0	0	193
Filmore Village	0	29	0	29
Odessa*	240	0	0	240
SteelTown Village	0	48	0	48
Steel Works/500 block Bridge Street	336	0	0	336
Steel Site**	0	551	0	551
Various Infill Projects	12	14	6	32
Schuylkill Township				
Reeves	0	32	64	96
Meadows at Valley Forge	0	32	0	32
West Vincent Township				
Bryn Coed Farms	0	0	27	27
Eagle Farms II	0	105	93	198
The Promenade	30	110	0	140
The Ridings	0	0	65	65
Weatherstone Courtyards	0	113	72	185
Weatherstone Apartments	240	0	0	240
Totals	1347	1263	1053	3663

*Exclusive of senior living component – see Table 6.2-3 for senior living units

** Sketch plan

***SteelTown Village units are rentals

Table 6.2-2: Significant Approved and Pending Residential Projects (source: Municipal records as of December 2017)

It is noteworthy that the majority of new housing in Phoenixville is rental apartments, with attached units as the only other significant residential housing type constructed within the borough. The result

over time could be a shortage of housing stock for residents looking to move up as their disposable income increases and families grow. The potential result for Phoenixville could be the loss of residents with increased disposable income to other municipalities. Based on the pending residential developments in the other municipalities of the Phoenixville Region, opportunities for new single-family detached residential units are available.

Housing for senior citizens has also become a significant component of the Regional residential mix. In addition to older facilities such as Phoenixville Care and Rehabilitation Center, there are a number of new and proposed senior living facilities, including assisted living and continuing care retirement communities. This trend is expected to continue as older residents of the Region wish to remain within the community and close to family members. Existing and planned senior living facilities include the following:

<u>Facility Name</u>	<u>Municipality</u>	<u>Type</u>	<u>#Units/Beds</u>
Atria/Woodbridge	East Pikeland	Assisted Living	105
Coldstream Crossing	East Pikeland	Independent Living	146
Spring Mill	East Pikeland	Independent/Assisted Living	86
Phoenixville Care	Phoenixville	Skilled Nursing	138
Odessa (planned)	Phoenixville	Independent/Assisted Living	260

Table 6.2-3: Regional Senior Living Facilities

Regional Housing Demand Projections

Based on DVRPC projections as summarized in Chapter 2, the Phoenixville Region’s population is expected to grow by another 10,689 between 2015 and 2030. Region-wide, there were 2.4 residents per unit on average as of the 2010 US Census. This would translate into a 2030 demand for 4,455 new dwelling units, assuming that average persons per unit remains essentially as it is today. Of this projected demand, 3,663 dwellings are currently approved or pending as of 2016. Thus, to meet the DVRPC projected population growth, the Region would need to plan for an additional 792 dwellings by 2030.

There are a number of factors that could alter this projected scenario. As we have seen, the majority of housing units currently proposed are apartments, which typically have fewer occupants than single family dwellings. In addition, family and household sizes may continue to decrease as they have over recent decades. These factors could raise the number of new units required to accommodate the growing population. On the other hand, energy, economics, and popular preferences may accelerate the current trend toward people living in higher density urban areas, which could dampen Regional growth pressures. These considerations notwithstanding, there is more than sufficient developable land designated in the Future Land Use Plan (Chapter 3) to accommodate population growth within the next 10 to 15 years.

SECTION 6.3 SUSTAINABILITY

The Housing Plan aims to enhance Regional sustainability. This includes considerations of location and accessibility, density, construction methods, energy use and efficiency, and the strengthening rather than abandonment of existing communities.

Development and Redevelopment Focused on Existing Communities and Growth Areas

New housing should occur primarily as infill within existing urban areas and villages or in areas designated as growth centers. This allows for a focus on improvement of existing housing stock and adaptive re-use of historic buildings, which can be far less resource intensive than greenfield development and sprawl. Phoenixville has enjoyed a remarkable revitalization, and obviously remains an attractive location for new development and redevelopment. In addition, the villages of Birchrunville, Kimberton, Valley Forge, and Wilmer could be sites for limited development in context with the historic character unique to each. Finally, new mixed use growth areas at Devault, Ludwigs Corner, and the Route 23/724 corridor could accommodate significant amounts of well-planned housing coordinated with roads and other infrastructure. Each of these types of developments focused on existing settlements and growth areas takes development pressure off of rural and natural lands, which conserves valuable resources and prevents wasteful and energy intensive sprawl.

Historic adaptive re-use has long been part of the Regional development picture, with barns, mills, train stations, and other historic structures converted to serve contemporary residential, office, and commercial needs. More recently, Phoenixville has experienced conversion of underused and derelict industrial and warehouse buildings into luxury apartments. Adaptive reuse of these historic structures preserves critical elements of the unique Regional character and contributes to the aesthetic and desirability of living and working here.

Mixed Use Development and Multi-Modal Accessibility

Sustainability is advanced by providing people with transportation alternatives to personal cars. There are a number of ways that the Housing Plan can assist in this regard:

- Concentrate housing in walkable mixed use areas. This generally involves “smart growth” strategies that have residential, work, shopping, and leisure accommodations in close proximity to one another and linked by a comprehensive sidewalk system.
- Coordinate development and redevelopment housing with accessibility to public transportation. Provide bus stops with shelters in walkable proximity to residential communities.
- Coordinate housing development with multi-use paths for walking and bicycling. Where necessary, provide connections to the existing multi-use trail system, and participate in extending the system where possible.

Sustainable Building Practices

Construction materials and methodologies described in Chapter 5 – The Energy Conservation and Sustainability Plan should be incorporated to retrofit existing housing and to construct new housing. This will result in housing that is more affordable from an operational standpoint while having dramatically reduced environmental impact.

SECTION 6.4 HOUSING AFFORDABILITY

As the economy continues to recover from the recession, many residents of the Phoenixville Region struggle with housing affordability. Home values and rents continue to increase, and for many, income

is not keeping pace in some of the communities of the Region. The result is that more people must dedicate a higher percentage of income to housing, or leave the Region to find affordable housing elsewhere.

Affordable housing is typically defined in terms of median household income. A primary indicator used to determine affordability of housing is the measurement of the percentage of the population that is paying 30 percent or greater of their household income toward housing costs. As the percentage of the population spending 30 percent or more of their income on housing expenses increases over time, housing is considered to be less affordable.

According to the Pennsylvania Housing Availability and Affordability Report produced by the Pennsylvania Housing Finance Agency in 2012, housing trends in the marketplace include:

- A trend toward lower homeownership rates
- Data showing that more people are renting
- Indications that rents are increasing due to greater market demand, and
- Evidence of an increasing need to provide affordable housing options for the state’s residents – of particular importance for an aging population and for households in the Marcellus Shale Region.

In the Phoenixville Region housing trends generally appear to be following state and national trends. As noted previously, housing construction has shifted significantly to rental apartments and away from single-family detached units. While apartments are traditionally considered to be a more affordable housing alternative, many of the apartments recently constructed in the Region have been luxury apartments with rents well above average. This trend appears to be further driving up rents and reducing the overall affordability of housing.

Table 6.4-1 shows short-term trends relating to median rent and the percentage of households spending 30 percent or greater of income on rent in the Phoenixville Region. Over the course of the five years shown in Table 6.4-1, the number of rental households spending 30 percent or greater of income on rent increased in all regional municipalities except Schuylkill Township, with Phoenixville and East Pikeland showing significant increases. The rental data in Table 6.4-1 also shows median rents increasing slightly in Schuylkill and West Vincent Townships and substantial median rent increases in Phoenixville and East Pikeland. Median rent information was not available for Charlestown Township for 2010.

Municipality	Median Rent (monthly)		Percentage of Households with Gross Rent 30% or Greater of Income	
	2010	2015	2010 Rental Households	2015 Rental Households
Charlestown	n/a	\$1,618	14.8%	23.7%
East Pikeland	\$944	\$1,659	36.5%	53.1%
Phoenixville	\$940	\$1,053	31.2%	45.8%
Schuylkill	\$1,088	\$1,102	30.9%	22.8%
West Vincent	\$1,449	\$1,420	31.6%	42.4%

Table 6.4-1: Household Rental Summary, 2010 & 2015



Fig. 6.4-1: New apartment building in Phoenixville. The Borough's relatively dense built environment supports more apartment developments.

In addition to the proportions of households paying 30 percent or greater of income for housing expenses, another indicator of housing affordability is the proportion of owner-occupied units compared to renter-occupied units. Traditionally, a higher, steady rate of owner-occupied units reflects a relatively affordable housing market. However, studies are finding that younger adults are placing a lower priority on home ownership and prefer to rent, partially due to the flexibility it affords them.

Figure 6.2-1 indicates that owner occupancy continues to remain strong throughout the townships of the Region. Charlestown's owner occupancy rate remained virtually unchanged, while the other municipalities experienced a slight drop in favor of renter-occupied housing; West Vincent Township's percentage of owner-occupied units decreased the most, with a drop of 6.8% in owner occupancy from 2000 to 2016. Based on the approved and pending developments summarized in Table 6.2-2, more than 50 percent of the new residential units in the Region will be rental apartments. This will significantly influence the proportion of owner-occupied units in the Region, particularly in Phoenixville and East Pikeland where the majority of new apartments are proposed.

Table 6.4-2 does not indicate a consistent trend relating to owner-occupancy throughout the Region. Median household income for owner-occupied units increased in three of the regional municipalities, Charlestown, Schuylkill, and West Vincent Township, while Phoenixville and East Pikeland experienced reductions in household income for owner-occupied units. Regarding percentages of owner-occupied households paying 30 percent or greater of income for housing cost, results are also mixed. Phoenixville and Schuylkill Township saw increases in the percentage, and in both municipalities approximately one-third of households in owner-occupied units spend 30 percent or more of their income on housing. Meanwhile, East Pikeland and West Vincent both saw a reduction in the percentage of households spending 30 percent or more of their income on housing costs.

Municipality	Median Household Income for Owner-Occupied Units		Percentage of Households with Housing Cost 30% or Greater of Income	
	2010	2015	2010	2015
Charlestown	\$ 136,920	\$ 149,350	24.5%	25.5%
East Pikeland	\$ 99,606	\$ 95,934	34.0%	24.7%
Phoenixville	\$ 76,866	\$ 72,851	31.8%	34.8%
Schuylkill	\$ 126,522	\$ 129,975	22.2%	32.3%
West Vincent	\$ 129,453	\$ 155,417	36.6%	29.6%

Table 6.4-2: Household Owner-Occupancy Income & Housing Cost Summary, 2010 & 2015

Overall, more of the Region’s population is spending 30 percent or more of household income on housing, particularly residents in rental housing. As the Borough of Phoenixville continues to enjoy a resurgence of the downtown area, the neighborhoods within walking distance of the downtown become more desirable for housing revitalization, which drives up residential property values and rents, further reducing housing affordability in the borough. Housing in the townships of the Phoenixville Region remain dominated by owner-occupied residential units as illustrated in Fig. 6.2-2, although the owner-occupancy rate has decreased slightly since 2000. In the Borough of Phoenixville, the percentage of owner-occupancy has dropped to 52 percent, and this is anticipated to decrease further given the high number of apartments approved for development.

Existing Affordable Housing Developments & Funding

Within the Phoenixville Region there are three existing developments that provide public housing to tenants. Two of these developments are located within the Borough of Phoenixville and a third is located in Schuylkill Township, just outside Phoenixville. The first development in Phoenixville is King Terrace, which is a 50-unit public housing development for elderly and disabled tenants only. The second development, also within Phoenixville, is Fairview Village which has public housing and tax credit units. Fairview Village has 25 public housing and 11 income-restricted units available. The third development located in Schuylkill Township is the Liberty House, which is a 48-unit residential facility in that is a former military hospital that was renovated in 1996 to provide housing for the homeless. The property has one floor with transitional housing for the homeless and another floor with permanent housing.

Another publicly funded housing alternative is the Section 8 Housing Choice Voucher Program, which is a federally funded government program administered locally by public housing agencies to assist very low-income families, the elderly, and the disabled. The housing choice voucher program allows participants to choose any housing that meets the requirements of the program. In Chester County the Housing Authority of the County of Chester (HACC) administers the housing choice voucher program. According to the HACC website the Section 8 Housing Choice Voucher waiting list has been closed since October 2011 and there is no notice of when the waiting list will reopen.

In addition to government housing programs, there are local nonprofit organizations and churches that provide housing assistance to people in need. A variety of organizations provide housing assistance in the Phoenixville Region including the Phoenixville Area Community Services, the Community Coalition,

Orion and several churches. In addition to Liberty House, there are also shelters in Phoenixville that provide temporary housing for those with immediate housing needs.

Proposed Affordable Housing Developments

Table 6.2-2 provides a breakdown of significant approved and pending residential projects as of 2016. More than 50 percent of the proposed units in the Region are apartments, which traditionally tend to be more affordable than single-family attached or detached units. However, it is noted that recent developments have been luxury apartments with much higher rents, further contributing to the challenges of affordable housing.

Affordable Housing Initiatives

Within the Phoenixville Region affordable housing initiatives have been limited but, as housing affordability becomes a bigger issue throughout the Region, more initiatives to address the challenges are being seen. In 2017 the Borough of Phoenixville created an Affordable Housing Task Force (Task Force) to address rising rents and housing prices. The Task Force prepared a report with four key focus areas summarized as follows:

- **Finance-**
 - Mitigate financial risk for landlords to encourage them to provide affordable housing units
 - Develop a program to offer reduced interest rate loans to landlords to assist them with providing upgrades to rental units
 - Provide incentives for affordable housing developments
- **Properties/Landlords-**
 - Consider allowing mini/tiny houses or accessory dwellings as housing alternatives
 - Use borough owned properties for affordable housing
- **Policy-**
 - Adopt flexible area and bulk standards for development of affordable housing
 - Work with adjacent municipalities to develop an affordable housing plan.
- **Community Education-**
 - Establish coordinated mechanisms between local agencies, landlords, and residents regarding available resources
 - Establish an ownership education program to help renters become homeowners

The Task Force hopes to use this report as the basis for developing an implementation plan to address the key challenges associated with affordable housing.

As the Phoenixville Region continues to see housing become less affordable, residents who can no longer afford to live in the Region may move elsewhere. Regional affordable housing agencies will likely see more demand for limited financial assistance resources, and households may seek more shared housing scenarios, or downsizing to be able to stay in the Region. In an effort to address housing affordability on a regional basis, municipalities within the Region should consider the following:

- Participate in the development of a Regional Affordable Housing Plan.
- Consider amending ordinances to include the following, if not already allowed:
 - allow accessory dwellings in association with existing single-family dwellings,

- consider provisions for tiny houses,
- density bonuses for affordable housing units
- Flexible area and bulk standards for development that includes affordable housing units.
- Include links on municipal websites for organizations that provide housing assistance.

SECTION 6.5 IMPLEMENTATION STRATEGIES

The following policy recommendations will implement the goals and objectives of the Housing Plan:

H-1 Utilize zoning to concentrate residential development within and adjacent to existing developed areas or to designated growth areas.

Coordinate housing policy and regulation with the Future Land Use Plan in order to accommodate population growth while protecting open space.

H-2 Create zoning provisions that discourage exurban sprawl development and create vibrant areas with mixed unit types and sizes and supporting non-residential land uses.

Promote infill housing in developed areas, and walkable cluster/mixed use new developments with functional interconnected networks of open spaces and conservation areas. Coordinate development with trails and public transportation.

H-3 Coordinate municipal zoning so that the Region offers a full diversity of housing choices with an adequate supply of each unit type.

Assure that the Region offers housing choices accessible to a socioeconomically diverse and dynamic work force.

H-4 Create zoning and permitting incentives to facilitate infill development, rehabilitation, and adaptive reuse of industrial and commercial buildings as alternatives to Greenfield development.

Incentives could include density bonuses, relief from certain requirements, and procedural shortcuts to the normal permitting process in exchange for development that revitalizes derelict areas, restores and adaptively reuses historic structures, and promotes establishment of permanently protected open space.

H-5 Ensure that municipal zoning includes adequate provision for housing for the elderly and infirm.

Locate such housing in areas where neighborhood amenities are accessible by walking and to the disabled. This could include access to public transportation or private shuttle services.

H-6 Develop a Regional Affordable Housing Plan.

Utilize the report created by the Borough of Phoenixville's Affordable Housing Task Force as a basis for an implementation plan to address the Region's affordable housing challenges. Include zoning provisions and incentives for affordable housing units, as well as finance and community engagement strategies. Coordinate with the Future Land Use Plan.

H-7 Amend zoning provisions to incentivize creative solutions to regional housing affordability challenges.

Implement the recommendations in the Regional Housing Plan (strategy H-6) to promote development that creates diverse and accessible affordable housing options.

CHAPTER 7 ECONOMIC DEVELOPMENT PLAN



Given the dramatic historic and anticipated shifts that the PRPC Region has experienced in business and employment, planning is essential to revitalization of depressed areas and creating a durable and dynamic economy. The Regional economy that once depended heavily on manufacturing and agriculture now is more based on current technologies, business/professional services, and health care. Growing and potential business sectors rely on integration of uses, place-making, lifestyle pursuits, and adaptability to sudden and dramatic changes.

SECTION 7.1 ECONOMIC DEVELOPMENT PLAN GOAL AND OBJECTIVES

Support Phoenixville Borough as the economic center of the Region, while promoting economic development areas throughout the Region.

This goal is to be advanced through the pursuit of the following specific objectives:

1. Continue to support revitalization of Phoenixville’s downtown as the cultural, entertainment, and retail hub for residents of the Region.
2. Promote cultural tourism within the Region.
3. Encourage adaptive reuse of vacant and underutilized non-residential properties throughout the Region.
4. Utilize principles of place-making to promote vibrant mixed use and commercial areas.
5. Encourage shopping enclaves and commercial services in mixed-use village settings.
6. Encourage businesses to emphasize services and the shopping experience not available through the internet to support long-term success.
7. Promote the Phoenixville Region for employment center opportunities.
8. Advocate innovation in practices to sustain the viability of agriculture in the Region.
9. Provide a diversity of housing types to assure the availability of an adequate workforce for area employers.
10. Promote economically viable industrial uses where appropriate.

SECTION 7.2 REGIONAL ECONOMIC CONDITIONS

The PRPC Region is economically diverse and reflective of the relative affluence of Chester County. The population is overall highly educated and prepared for service in more lucrative businesses and professions of the modern workplace. In addition, there are of course a number of lower wage jobs on which the Region depends, and a sufficient local workforce for those jobs.

Income Characteristics

Despite the impacts of the 2007-2009 recession, the median household income in the four townships of the Region has remained above the median household income of Chester County, as summarized in the

following table. While Phoenixville has a lower median household income than the County at 65 percent of the County median household income, this proportion remains comparable to the ratio of the 2000 Census, which was also 65 percent.

2016 ACS Median Household Income Summary		
Municipality	Total Households	Median Household Income
Charlestown Township	1,838	\$ 133,594
East Pikeland Township	2,951	\$ 95,798
Phoenixville Borough	7,444	\$ 57,769
Schuylkill Township	2,961	\$ 126,182
West Vincent Township	1,722	\$ 132,381
Chester County	186,721	\$ 88,995

Table 7.2-1: Median Household Income (Source: American Community Survey/ACS 2016)

Employment Data

The overall unemployment rate for the Region in 2015 was estimated at 5.7 percent, which was slightly higher than the Pennsylvania unemployment rate of 5.4 percent in June of 2015 and the national unemployment rate of 5.5 percent in March of 2015. The following table provides the breakdown of employment status by gender.

Municipality	Total population		Employed		Unemployed		Not in labor force	
	Male	Female	Male	Female	Male	Female	Male	Female
Charlestown Township	2,043	2,163	70.9%	63.3%	4.6%	1.8%	24.5%	34.9%
East Pikeland Township	2,897	3,082	68.1%	65.9%	5.1%	3.9%	26.7%	30.2%
Phoenixville Borough	6,532	6,900	75.0%	67.0%	5.2%	5.1%	19.5%	27.9%
Schuylkill Township	3,255	3,299	67.2%	64.6%	3.7%	2.4%	29.1%	33.0%
West Vincent Township	1,971	1,789	75.7%	56.0%	1.7%	4.2%	22.6%	39.8%
Regional Total	16,698	17,233	71.9%	64.7%	4.4%	3.9%	23.6%	31.4%

Table 7.2-2: Regional Employment Status (Source: ACS 2016)

The following table provides the employment forecast for each of the municipalities of the Phoenixville Region from 2015-2045. The forecast estimates an additional 6,813 jobs in the Region during this time period.

2011-2015 ACS Employment Forecast										
Municipality	Emp 2010	2015 Estimate	2020 Estimate	2025 Estimate	2030 Estimate	2035 Estimate	2040 Estimate	2045 Estimate	Absolute Change 2015 - 2045	% Change 2015 - 2045
Charlestown Township	2,454	3,134	3,309	3,483	3,661	3,818	3,947	4,050	916	29.23%
East Pikeland Township	2,570	2,836	3,040	3,268	3,499	3,687	3,845	4,025	1,189	41.93%
Phoenixville Borough	6,781	6,835	7,419	8,119	8,823	9,378	9,835	10,456	3,621	52.98%
Schuylkill Township	3,837	4,530	4,706	4,840	4,977	5,124	5,197	5,247	717	15.83%
West Vincent Township	1,263	1,476	1,552	1,623	1,695	1,759	1,816	1,846	370	25.07%
Regional Total	16,905	18,811	20,026	21,333	22,655	23,766	24,640	25,624	6,813	36.22%

Table 7.2-3: Regional Employment Forecast through 2045 (Source: ACS 2016)

The following summary shows the occupational breakdown of each of the municipalities within the Region and the Regional totals. The top occupational categories include management, sales & office, education, computer/engineering/science occupations, food preparation, and health care.

2016 ACS Occupation Summary						
Occupation	Regional Total	Charlestown Township	East Pikeland Township	Phoenixville Borough	Schuylkill Township	West Vincent Township
Management, business financial	26.3%	32.6%	29.5%	19.6%	27.3%	36.5%
Sales and Office	22.7%	25.3%	22.8%	24.3%	23.3%	12.4%
Education, legal, community service, arts, and media occupations	12.2%	10.6%	11.1%	13.3%	12.3%	12.1%
Computer, engineering, and science occupations	9.6%	10.2%	8.5%	9.7%	9.2%	11.1%
Food preparations	5.5%	5.3%	3.2%	7.4%	5.2%	3.6%
Healthcare practitioner and technical occupations	5.3%	4.6%	5.3%	5.0%	7.1%	4.6%
Building & Grounds Cleaning/ Maintenance	3.0%	0.5%	2.4%	4.5%	2.1%	3.2%
Personal Care and service	2.8%	4.7%	2.5%	2.9%	3.3%	0.2%
Production	2.4%	1.1%	2.9%	3.1%	2.5%	0.7%
Construction and extraction	2.1%	0.9%	2.0%	1.6%	3.7%	3.0%
Installation, maintenance and repair	2.1%	1.2%	3.7%	2.4%	1.0%	1.0%
Transportation	1.8%	0.5%	2.5%	2.6%	0.7%	1.1%

Occupation (continued)	Regional Total	Charlestown Township	East Pikeland Township	Phoenixville Borough	Schuylkill Township	West Vincent Township
Protective service occupations	1.4%	1.0%	0.8%	1.9%	0.8%	2.4%
Farming, fishing, forestry	1.0%	0.7%	-	0.4%	0.7%	5.9%
Healthcare support occupations	1.0%	0.5%	0.9%	1.4%	0.7%	1.0%
Material moving	0.5%	0.2%	1.9%	-	0.3%	1.2%
Total	100%	100%	100%	100%	100%	100%

Table 7.2-4: Regional Occupation Summary (source: American Community Survey/ACS, 2016)

Education Characteristics

According to the 2011-2015 ACS Educational Attainment estimates, approximately 95 percent of the population 25 years and older has a high school diploma and 54 percent of the population has at least a bachelor's degree. This is slightly above the 2016 estimate for Chester County overall, which estimates 93 percent of the County population has a high school diploma and 50 percent has at least a bachelor's degree.

2011-2015 ACS Educational Attainment								
Municipality	Population ^a 25 years old	Less than 9th grade	9th-12th grade - No diploma	HS graduate (includes equivalency)	Some college, no degree	Associate's degree	Bachelor's degree	Graduate or professional degree
Charlestown Township	3,437	0.1%	0.7%	8.5%	8.4%	4.9%	39.2%	38.2%
East Pikeland Township	5,443	1.4%	2.8%	24.9%	11.3%	4.5%	36.2%	19.0%
Phoenixville Borough	11,911	2.8%	5.1%	32.5%	13.6%	6.4%	27.8%	11.8%
Schuylkill Township	5,639	0.7%	1.6%	18.8%	10.0%	6.8%	34.1%	28.0%
West Vincent Township	3,358	2.7%	3.6%	12.4%	14.4%	5.6%	36.6%	24.7%
Regional Total	29,788	1.8%	3.3%	23.5%	12.0%	5.9%	32.8%	20.7%

Table 7.2-5: Regional Educational Attainment (source: ACS 2016)

Industry and Occupational Characteristics

Data from the American Community Survey and Delaware Valley Regional Planning Commission (DVRPC) provide a generalized employment description of the area by sector and occupation. The largest employment categories in Chester and Montgomery Counties are as follows:

<u>Employment Sector</u>	<u>Share of Workforce</u>
Health/Social Services	15%
Manufacturing	12%

<u>Employment Sector (continued)</u>	<u>Share of Workforce</u>
Retail	11%
Educational Services	10%
Professional/Scientific/Technical	10%
Financial Services/Insurance	8%
Food Services	5%
Construction	5%

The Chester and Montgomery County data is reinforced by DVRPC’s September 2014 Regional Economic Cluster Analysis, wherein and Economic Cluster is defined as “a group of companies and institutions co-located in a specific geographic region and linked by interdependencies in providing a related group of products and/or services”. In the greater Philadelphia Region, there is a significant Economic Cluster in Life Sciences and Health Care, which are represented locally in the pharmaceutical industry, hospitals, medical offices, and related supporting professions, services, and manufacturers. Economic Clusters in business services and education also are among the most prominent employers in the greater Philadelphia area, and are well represented in the PRPC Region.

Commuting

A central consideration of regional economic development planning is commuting behavior and patterns. This describes the extent to which Phoenixville area residents also work within the Region, and if not, where the significant area centers of employment are. In addition, it gives a picture of the environmental impact of the Regional economy, and how that impact can be mitigated by effective transportation planning.

Region wide, approximately three quarters of working residents leave the PRPC region for employment. Of those employed within the Region, nearly two thirds commute from outside of the PRPC municipalities. Overall, 1.78 times as many leave the Region for employment as arrive from elsewhere to work within the Region. In this sense, the PRPC provides a significant work force to employers outside of the Region. Although the PRPC Region functions more as a bedroom community than as an employment center, to a lesser but still significant extent PRPC employers create jobs for those living outside of the community.

Commuting behavior and patterns are described in the following tables:

Commuting Trip Destination	Number of Trips from Charlestown	Percent of Total
Charlestown Township	372	14%
PRPC, outside Charlestown	184	7%
Chester County, outside PRPC	1041	40%
Delaware County	149	6%
Montgomery County	398	15%
Philadelphia	165	6%
Other	312	12%
Total	2621	

Table 7.2-6: Work Commuting from Charlestown Township (source: ACS 2013)

Commuting Trip Destination	Number of Trips from East Pikeland	Percent of Total
East Pikeland Township	444	12%
PRPC, outside East Pikeland	547	15%
Chester County, outside PRPC	1438	39%
Delaware County	87	2%
Montgomery County	830	23%
Philadelphia	103	3%
Other	212	6%
Total	3661	

Table 7.2-7: Work Commuting from East Pikeland Township (ACS 2013)

Commuting Trip Destination	Number of Trips from Phoenixville	Percent of Total
Phoenixville Borough	1616	17%
PRPC, outside Phoenixville	705	8%
Chester County, outside PRPC	3128	34%
Delaware County	317	3%
Montgomery County	2882	31%
Philadelphia	380	4%
Other	296	3%
Total	9324	

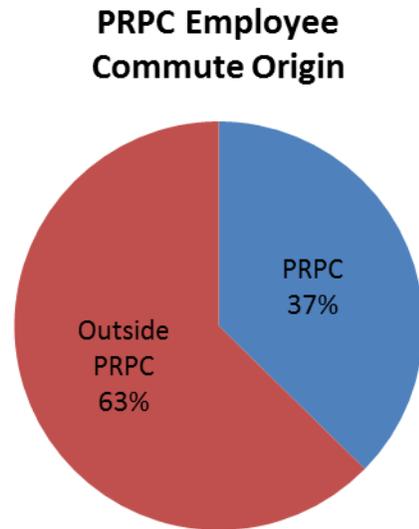
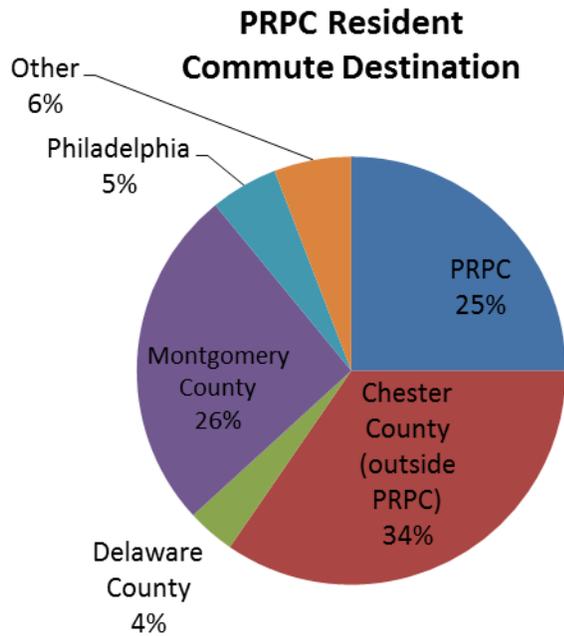
Table 7.2-8: Work Commuting from Phoenixville Borough (ACS 2013)

Commuting Trip Destination	Number of Trips from Schuylkill	Percent of Total
Schuylkill Township	606	15%
PRPC, outside Schuylkill	393	10%
Chester County, outside PRPC	1063	26%
Delaware County	136	3%
Montgomery County	1303	32%
Philadelphia	273	7%
Other	257	6%
Total	4031	

Table 7.2-9: Work Commuting from Schuylkill Township (ACS 2013)

Commuting Trip Destination	Number of Trips from West Vincent	Percent of Total
West Vincent Township	517	24%
PRPC, outside Schuylkill	75	3%
Chester County, outside PRPC	874	40%
Delaware County	101	5%
Montgomery County	233	11%
Philadelphia	192	9%
Other	195	9%
Total	2187	

Table 7.2-10: Work Commuting from West Vincent Township (ACS 2013)



Commute Trip Destination	Number of Trips from PRPC Region
PRPC	5,459
Chester County (outside PRPC)	7,544
Delaware County	790
Montgomery County	5,646
Philadelphia	1,113
Other	1,272
Total	21,824

Commute Trip Origin	Number of Trips to PRPC Region
PRPC	5,459
Outside PRPC	9,158
Total	14,617

Fig. 7.2-1: Work Commuting from PRPC Municipalities (source: ACS 2013)

Fig. 7.2-2: Work Commuting to PRPC Municipalities (Source: ACS 2013)

Commuting mode also is relevant to the discussion of economic development, and this topic will be explored in greater detail in Chapter 10. Overall, the Region is heavily car dependent, with nearly 85% of work trips in single passenger cars or car pools, and less than 3% relying on public transportation. However, over 8% of PRPC workers have home employment, and this figure could grow thanks to communication and information technology advances and evolving employer-workplace relationships.

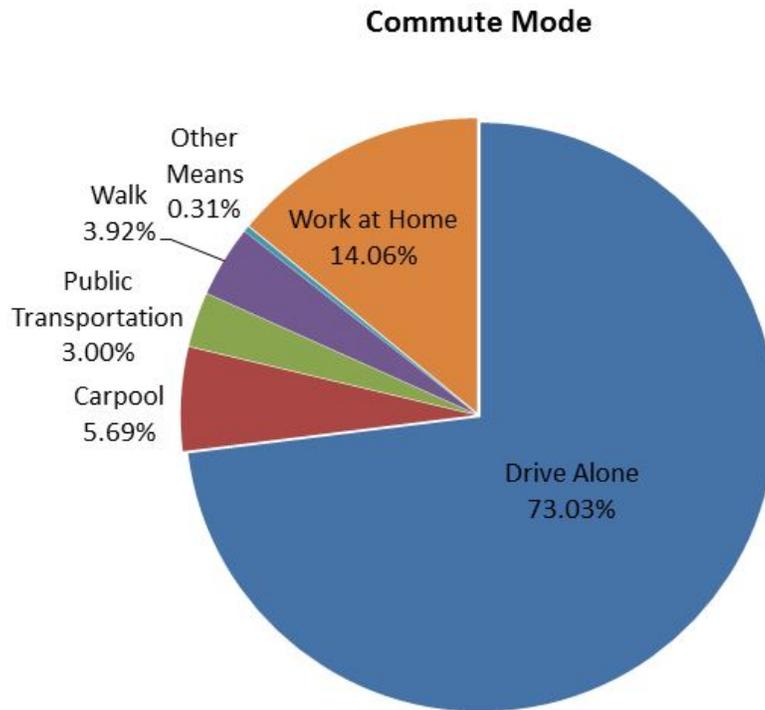


Fig. 7.2-3 Work Commuting Mode (Source: ACS 2016)

SECTION 7.3 CURRENT TRENDS IN ECONOMIC DEVELOPMENT

The early 21st century and the Great Recession of 2007-2009 have changed the Regional economic development picture drastically. Phoenixville has seen a remarkable resurgence following decades of decline with the loss of the steel industry, and is now the fashionable urban and economic hub of the Region built on dining, entertainment, services, and specialty retail. Commercial development in the PRPC Townships has changed as highway oriented business has fallen off, with some transitions from industrial and strip retail to mixed use and boutique centers, generally with a significant residential component. The Chester County Planning Commission (CCPC) has recognized these trends and authored the following series of reports including analysis and recommendations to promote revitalization of commercial/industrial brownfields and greyfields, as well as mixed use redevelopment for declining office parks:

Stimulating Community Revitalization Through Brownfields, CCPC 2017

Transforming Greyfields Into Dynamic Destinations, CCPC 2017

Reinventing Office Parks for the 21st Century, CCPC 2017

Commercial Development

Perhaps no sector of the economy has undergone a greater transformation than commercial use. With the exponential growth of on line business, traditional retail has declined in both downtown areas and

along highways, in many cases leaving vacant or underutilized buildings and a trend toward blight. In the broadest sense, traditional retail where people drive to commercial centers for their daily needs is no longer viable. In its place are diverse centers with a mixture of dining, specialized retail, entertainment, recreation, and personal/professional services focused on a holistic lifestyle experience. Some of the best examples also include a mix of residential types and high end office components interconnected with the broader community and environment with trails and natural greenways.

Phoenixville’s renaissance built on dining, culture, and specialty trade has proven to be a Regional success story. Similarly, the commercial centers of the Region’s townships now include greater emphasis on dining, specialty retail, and personal/professional services occupying space that decades ago would have been dedicated to consumer goods. Examples are gourmet and natural grocers, health and professional services, grooming services, and fitness clubs. Many of these occupy traditional strip retail centers, while others are located in mixed use commercial village settings, some with a residential component. In other locations, existing and approved commercial centers are being transformed to be mostly or wholly multifamily residential communities. It has been nearly two decades since the Region has seen an application for a traditional retail center or mall.



Industrial

The Phoenixville Region has seen a decline in traditional manufacturing-type industry for many decades, particularly with the closing of the Phoenix Iron & Steel Company in the early 1980s. The Chester County *Landscapes2 Comprehensive Policy Plan* acknowledges the economic base in Chester County as a whole has shifted from one dominated by manufacturing enterprises to a retail and service based economy. Additionally, technological advances have resulted in major changes to the industrial sector

with many light-industrial uses having little to no impact beyond what is typically associated with commercial or office uses.

The combination of less emphasis on traditional manufacturing and new technologies resulting in low-impact industrial creates an opportunity for certain light industrial-type uses to be integrated into mixed use developments or flexible developments that are open to a wider range of uses. While the current emphasis remains on commercial, retail and service uses within the Phoenixville Region, demand for space that can accommodate small-scale start-ups and business incubators of a variety of uses is growing. To accommodate these incubator/small business start-ups zoning flexibility could allow such uses to flourish in the Phoenixville Region.

An industrial base can help ensure diverse employment and economic growth opportunities within the Region. There continues to be a need in the Region for industrial uses that have higher-impacts such as heavy truck traffic. The Land Use Chapter addresses the need to preserve the remaining industrial areas for those industrial uses that may not be compatible with residential and other commercial uses. Providing continued support to these businesses is critical to retaining them in the Region and maintaining strong employment diversity. Preserving the industrial areas of the Region also provides opportunities for new and existing industrial businesses to grow and expand and stay within the Region.

Due to the expansion of online retail and other uses dependent on trucks and equipment, there is still significant demand for flex and warehouse space. Here, the critical issues are transportation access and locations that do not present use conflicts with residential, commercial, and high end office space. These facilities could bring life back to derelict and underutilized industrial sites.

Office

Office development has not historically been a significant component of the PRPC economy, as the demand has been met (or surpassed) by large employment centers beyond the Region, specifically in the Great Valley, Eagleview, and Pharmaceutical companies in Montgomery County. Throughout the Philadelphia suburbs and exurbs, the office market has been saturated for some time, and there are no new office parks with spec space being built. Instead, individual buildings or campuses are occasionally built for specific occupants. As in retail, the places in highest demand are those with walkability and an integration of residential, office, and commercial/lifestyle uses in a physically attractive environment either in an urban area or with natural areas and greenways.

Office use in the PRPC Region is largely comprised of health care and professional service practices in Phoenixville and around the Region. Common professional services include insurance, financial services, counseling, and law. The Phoenixville Hospital creates a locally significant Economic Cluster in health care, with medical offices, testing labs, and clinics located nearby.

As in retail, the successful office development relies on an integration of compatible residential and commercial/lifestyle uses within an attractive and walkable setting. For businesses to lure employees, it has become increasingly essential to offer them a setting that enhances their overall lifestyle. These ingredients can be found in successful urban environments and in suburban/exurban settings that offer good accessibility and a similar sense of a complete and fulfilling place.

A factor that may drastically alter the complexion of the office environment in the future is the self-driving vehicle. Automated buses and cars can drastically reduce the need for on-site parking, and combined with the decades-long trend to reduce office floor space per worker due to electronic records,

telecommuting, and flex scheduling, the need to design office environments around copious amounts of parking could be greatly diminished. The result can be greener yet denser office campuses in both urban and exurban settings, with a greater emphasis on a high quality pedestrian experience.

Health Care

Health care plays a significant economic role in the Phoenixville Region. Within the Borough of Phoenixville, the largest employer is Phoenixville Hospital with 775 employees as summarized on the Borough of Phoenixville's website, which identifies the top ten employers in the Region. Including Phoenixville Hospital, four of the top ten employers within Phoenixville are associated with health care. Combining this with an aging population and an increase in the development of age-restricted communities within the Region it appears that the health care industry will continue to grow into the foreseeable future.

In 2008 the Phoenixville Hospital expanded to include a three-level parking garage and tower expansion which included emergency room improvements, surgery expansion, diagnostic imaging/cath lab expansion, women's services expansion, and a new central mechanical plant. The expansion increased the number of beds from 143 to 153.

In 2013 the Cancer Center located on the Phoenixville Hospital campus underwent an expansion, further strengthening the role of the health care industry in the Region. Surrounding the Phoenixville Hospital campus are many small businesses related to health care. Given the strong presence of Phoenixville Hospital in the Region and the potential for growth and impact on the economy, strategies for growing this industry in a manner that blends with the community should be considered. The Borough could initiate a planning study in coordination with Phoenixville Hospital to look at the area surrounding the hospital for opportunities to support the growth of a healthcare district within the Borough. In addition to healthcare opportunities around the Phoenixville Hospital, the villages within the Region provide opportunities for small-scale health services being conveniently provided to communities.

Agriculture

Agriculture has maintained a key role in shaping the landscape of the Region, despite its decreasing economic importance in the last half century. Dairy and cattle operations that were once common have given way to horse farms, specialty crops and organic farming, and community supported agriculture (CSA). Along with this change, traditional agriculture supporting businesses including farm equipment and supply stores have left the Region.

According to Chester County's 2017 Local Farm Guide, the PRPC Region includes one CSA, two specialty farms with retail components, and the weekly in season Phoenixville Farmers Market. Numerous other CSAs and specialty farms surround the Region, making the area an Economic Cluster for these activities. In addition, horse farms are numerous in West Vincent and Charlestown Townships, and some facilities facilitate boarding, instruction, and trail rides. In addition, contract farmers from outside the Region actively lease lands for cash crop production including soybeans, corn, and small grain.

In 1981, Pennsylvania established law allowing the creation of municipal Agricultural Security Areas (ASAs), which entitles participating landowners to special consideration and protection. Specifically, it prevents local government from imposing nuisance regulations of farms that would prohibit normal agricultural operations. ASA designation, however, does not prevent government from regulating actions with a direct bearing on public health and safety. ASA parcels must be at least 10 acres in size

and collectively must encompass at least 250 acres with more than one owner. Land in adjacent municipalities can be a part of the same municipal ASA. Charlestown's ASA includes over 1,900 acres, and properties within East Pikeland are eligible for inclusion. West Vincent Township also has a substantial ASA of roughly the same acreage as Charlestown's.

By promoting policies that maintain large areas of contiguous arable lands, the Region can help to assure that agriculture remains viable into the future.

Culture and Lifestyle

After decades of suburban development lacking a sense of place, demand is shifting back to development that offers an experience beyond just driving from business to business, which is often referred to as place-making. This shift has fueled the revitalization of Phoenixville, which has a classic downtown form with buildings oriented to the street in a compact manner combined with wide sidewalks that encourage pedestrians to stroll up and down the streets. This shifting of priorities has also encouraged the appreciation of the uniqueness of existing historic villages. The ongoing revitalization of downtown Phoenixville and the villages contributes to the growing desirability of the Region.

As Phoenixville continues its revitalization it becomes more of a regional destination and the cultural center of the Region. The greater mix of retail, food and breweries combined with walkability, access to the Schuylkill River Trail, historic character, and entertainment resources creates a great opportunity for downtown Phoenixville to be a premier destination of the greater Philadelphia Region.

While the Phoenixville downtown continues to see redevelopment at a rapid pace, this has also given rise to certain challenges:

- Relatively high turnover in many smaller, older nonresidential spaces
- Low foot-traffic/customers on weekdays
- Increased competition from new large-scale development within a few miles of the Phoenixville downtown. Two noteworthy developments include Providence Town Center and the King of Prussia Town Center.
- Perceived parking inadequacy

In an effort to address the perceived parking problem, the Borough undertook a parking study titled Park Phoenixville to assess the existing conditions and development recommendations and strategies for the future. The study report was published in November of 2017 with a comprehensive range of short-term and long-term parking recommendations.

The Borough should continue to investigate solutions for parking adequacy, including the use of strategically located structured parking on the perimeter of downtown, possibly linked by shuttle service via taxi, Uber, trackless trolley, or bicycle/motorbike rickshaw service. This could solve the problem of parking adequacy and convenience, while simultaneously decreasing traffic on Bridge, Gay, and Main Streets, creating a more pedestrian friendly downtown.

To continue strengthening the downtown revitalization process, consideration should be given to conducting a study assessing the constraints and opportunities associated with the continued revitalization of the downtown. A document titled, *The 20 Ingredients of an Outstanding Downtown*

published by the Destination Development Association in 2017 provides a summary of key elements associated with successful downtowns. The following table outlines the 20 elements that are considered to contribute to the success of downtowns. Many of these elements are already an integral part of downtown Phoenixville, but this document could be used as a resource to determine downtown priorities moving forward. This document is also a useful tool for communities wanting to support the vibrancy of villages within the Region:

The 20 Ingredients of an Outstanding Downtown	
1. Have a plan	2. Develop gathering places
3. Define a strong brand and retail focus	4. Create gateway signage
5. Recruit a critical mass of like businesses	6. Develop wayfinding system
7. Have anchor tenants	8. Create a unique district gateway
9. Lease agreements with defined hours and days	10. Have retail signage rules and regulations
11. Encourage people living/staying downtown	12. Encourage sidewalk cafes and intimate surroundings
13. Investors who are patient with return on investment	14. Invest in retail beautification
15. Focus on one or two blocks to start	16. Provide activities and entertainment
17. Solve the parking dilemma	18. Give the downtown a name
19. Public washrooms	20. Focus marketing on activities, not buildings.

Emphasis should continue to focus on attracting a variety of businesses and addressing any infrastructure deficiencies, such as parking, that may be discouraging people from choosing downtown Phoenixville or the villages. Downtown Phoenixville and the villages each have unique collections of businesses and organizations that contribute to their economies. Each municipality should encourage the preservation of these villages and look at potential zoning amendments and other improvements that could enhance the vitality of these areas.

The following chart was prepared by Project for Public Spaces and it provides a useful breakdown of the four areas considered to make a great place. The key attributes are informed by intangible component characteristics whose positive influence can be ascertained through objective measurement. This chart can be beneficial for the municipalities of the Region looking for opportunities to support the villages and downtown areas.

WHAT MAKES A GREAT PLACE?

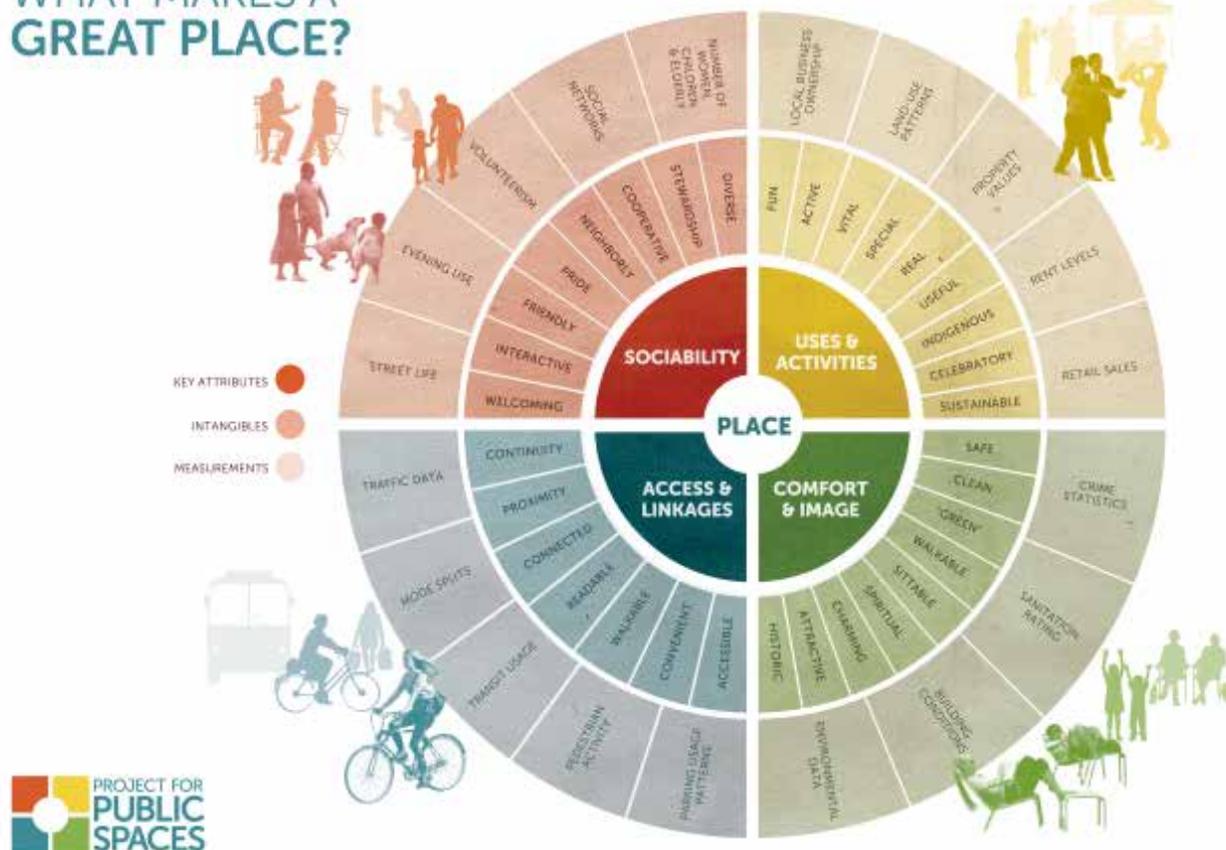


Fig. 7.3-1: Attributes of a Great Place (source: Project for Public Places)

SECTION 7.4 INFRASTRUCTURE

Infrastructure is a necessary component of successful development and redevelopment. This includes public sewer and water service, road improvements, streetscape aesthetic enhancements, pedestrian accessibility, and accommodation of mass transportation.

In order to obtain the intensity of use to make extensive redevelopment viable, public sewer and water service is necessary. Existing service areas and recommendations for improvements and extensions are addressed in Chapter 8. Sewer and water service areas should be extended to all commercial development and redevelopment areas, especially in areas where higher intensities of development are to be considered as catalysts to revitalization.

Coordinated road improvements should also be undertaken to facilitate economic revitalization and redevelopment. Specifically, Complete Streets should be created to combine pedestrian, bicycle, mass transit and automobile capacity within a context of landscaping and traffic calming measures. Sidewalks should be extended on both sides of streets in commercial areas, with well delineated crosswalks at

intersections and a safe and comfortable setback from the cartway wherever vehicle speeds are high. Bike lanes should also be provided within a paved shoulder area, with clear pavement markings and signage, especially at street intersections and busy driveway entrances. Pedestrian and vehicular ways should be fully integrated with Regional and municipal trail plans to facilitate access between commercial areas and the recreation system, to encourage commerce by recreational users. Vehicular left turning movements can be accommodated in appropriate areas in the center lane, and controlled with a landscaped median where such turns would be unsafe. Bus stops with weather shelters should be provided at areas convenient to concentrations of employments and commercial development at intervals conducive to foot traffic. By creating truly multi-modal safe streets, the Region can create more lively commercial environments and calmer traffic speeds while actually increasing the road capacity in terms of the various ways by which visitors would enter the area to conduct business.

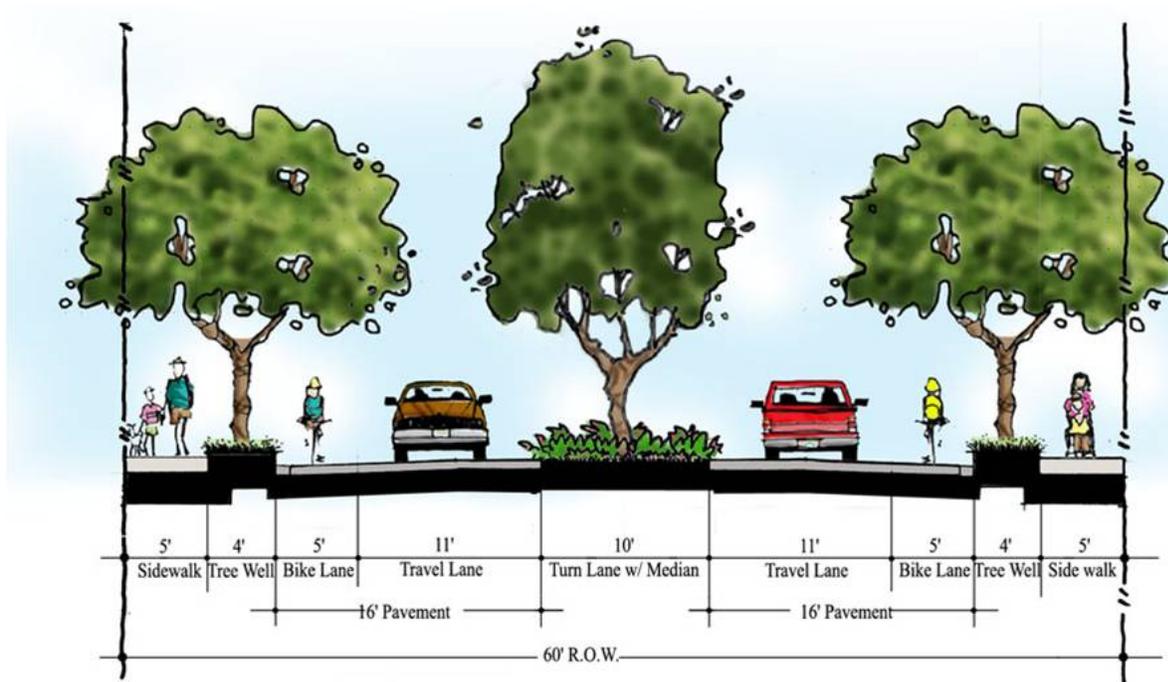


Fig. 7.4-1: Complete Street Diagram (source: Columbus, OH Blog Archives 2016)

Aesthetic standards for streetscape furnishings, including lights, signage, bus stops, bike racks, and curbing/sidewalk materials can be developed and placed into zoning or in land development ordinances as required design elements in commercial, residential, and mixed use economic growth areas. Streetscape elements should be used to create a defined visual character and richness of detail; to help in establishment of local identity and sense of arrival at a place worth visiting. Villages may benefit from unique design standards reflective of their historic ambiance. Consistent themes for signage within commercial and village areas could also reduce clutter and thereby improve the visual presence of individual businesses.

In situations where there is insufficient incentive for private funding, infrastructure improvements could be financed by developers in exchange for increased development intensity, or through tax increment financing (TIF) on the part of the municipalities.

SECTION 7.5 ECONOMIC DEVELOPMENT INCENTIVES AND FUNDING SUPPORT

There are a variety of funding, incentive, and support opportunities available. For municipalities that are willing to consider tax abatement programs for the revitalization of deteriorated areas, programs such as the Pennsylvania Local Economic Revitalization Tax Assistance (LERTA) and Tax Increment Financing (TIF) could be considered. There are limited funding opportunities such as the Redevelopment Assistance Capital Program (RACP) for large scale projects, such as a parking structure.

Local organizations such as the Chamber of Commerce and Phoenixville Area Business Association (PABA) provide networking and other support to new and existing businesses. The Chester County Economic Development Council (CCEDC) provides assistance with Small Business Administration and other loans, grants, attracting private and public investment, training, and industry partnerships.

Municipalities can also consider a variety of incentives such as density bonuses for certain amenities in villages and downtown, transfer of development rights, and reduced permit costs. Some programs are discussed in more detail as follows:

- **Local Economic Revitalization Tax Assistance Program (LERTA)** is a program intended for industrial, commercial, or business property owners who are contemplating repair, construction, or reconstruction of industrial, commercial, or other deteriorated business property. The portion of the assessment of a property attributable to new construction or improvements to deteriorated property as determined by the Assessment Agency is exempted from taxation each year for a given period of time. The Borough of Phoenixville established a LERTA Program in 2010 applied to properties in four designated areas of the Borough, but the program has served its intended purpose and is no longer open to applications. East Pikeland Township also has a LERTA district along the Route 23/724 corridor that has helped to spur redevelopment.
- **Neighborhood Improvement District (NID)** is an area designated by a municipality to have an additional assessment to pay for needed programs, services, and improvements within the NID. In addition, the municipality may advance funds to the management association of the NID and issues bonds, notes or guarantees to finance needed improvements in the NID. Improvements within the NID may include streetscape enhancements, sidewalks, parking, and other traditional improvements, as well as recreation and open space facilities, sewers, water lines, and the acquisition, rehabilitation, or demolition of blighted buildings or structures. Funds can also be used to provide group advertising, public relations programs, NID maintenance and security services, and free or reduced-fee parking for business customers.
- **Transferable Development Rights (TDR)** is the practice of developers buying building rights from lands to be conserved to increase allowable density on areas targeted for development. The practice works best when development rights can be purchased for far less than the value of the additional improvements thereby facilitated. Under typical TDR programs, the developer has to find and negotiate directly with the owner of the

conservation lands, which has resulted in low rates of participation in most areas that have tried this strategy.

To address this difficulty, East Pikeland enacted a Conservation Development Incentive (CDI) program whereby developers contribute dedicated fees to the Township's conservation fund in exchange for increased development rights within a designated revitalization/mixed use area. Under CDI, East Pikeland can "bank" TDR funds to use where and when open space planning and opportunity dictate, thus creating much more flexibility in the program. To date, East Pikeland's CDI incentives have not been employed by any developer.

West Vincent Township has a TDR program that includes density bonus provisions to encourage land preservation on conservation (sending area) tracts. According to the organization Smart Preservation, the Township has preserved approximately 400 acres of land through combinations of rights transfers and municipal purchases under its TDR program.

- **The Redevelopment Assistance Capital Program (RACP)** is a Commonwealth grant program administered by the Office of the Budget for the acquisition and construction of regional economic, cultural, civic, recreational, and historical improvement projects. RACP projects are authorized in the Redevelopment Assistance section of a Capital Budget Itemization Act, have a regional or multi-jurisdictional impact, and generate substantial increases or maintain current levels of employment, tax revenues, or other measures of economic activity. RACP projects are state-funded projects that cannot obtain primary funding under other state programs.
- **Business in Our Sites Grants/Loans (BOS)** is a Pennsylvania DCED program for speculative projects on properties planned or zoned for development. The funding covers all activities to make a project "shovel-ready", but is not available to projects that are primarily residential or recreational. Funding of up to \$4,000,000.00 or 40% of the combined grant/loan amount is available to municipalities, municipal authorities, redevelopment authorities, or industrial development agencies. Private developers are eligible for loans only.

SECTION 7.6 ECONOMIC DEVELOPMENT AND REVITALIZATION AREAS

Within the PRPC Region, there are a number of areas identified as suitable for economic development and revitalization. These are identified as Economic Redevelopment Areas (ERA) on Map 2, Future land Use:

- Charlestown, **Devault** – Remaining infill areas along Whitehorse and Morehall Roads, suitable for commercial and mixed uses. This formerly industrial zoned area has had significant recent residential growth, and is adjacent to extensive office, commercial, and apartment development in East Whiteland Township. It is also directly adjacent to the PA Turnpike slip ramp.
- East Pikeland, **Schuylkill Road Corridor** – Continued revitalization of blighted and underutilized properties, in concert with LERTA and recent zoning changes to promote redevelopment. This

area is served by SEPTA bus service and is adjacent to large residential projects under construction in the northern part of the Township.

- East Pikeland, **Cromby** – The idle Cromby electric generating facility is zoned industrial presents an opportunity for re-use as a light industrial area or other compatible uses. This area has rail access, but is outside of the Township’s sewer and water service areas.
- East Pikeland, **Kimberton Village** – Long subject to planning efforts to promote mixed uses and walkability, recent zoning changes in Kimberton and surrounding lands are intended to implement these policies with context appropriate design standards. Residential, limited commercial, office, and cultural uses are permitted.
- Phoenixville, **Bridge Street West** – This area contains various commercial and residential uses, and includes a number of vacant and underutilized former industrial buildings and sites. It is the logical extension of the Borough’s revitalization process.
- Phoenixville, **East Side Industrial** – This area hosts some industrial type uses and the Borough sewer plant, but also includes 15 +/- acres of vacant/underutilized land.
- Phoenixville, **Phoenixville Hospital** – Health care complex to facilitate possible expansion of Phoenixville Hospital, medical offices, labs, and other supporting businesses.
- West Vincent, **Ludwigs Corner** – Possible reuse and revitalization of commercial/light industrial landscape into an integrated residential/commercial office mixed use area with pedestrian access and trail connectivity.



SECTION 7.7 IMPLEMENTATION STRATEGIES

The following policy recommendations will implement the goals and objectives of the Economic Development Plan:

- ED-1** Adopt mixed use economic redevelopment zoning that focuses on integration of high end office, lifestyle/commercial, and residential uses and employs pedestrian integration and the principles of place-making.
- ED-2** Preserve the remaining industrially zoned areas for flex space and other industrial uses, with targeted growth initiatives in blighted and underutilized areas.
- ED-3** Assure that zoning regulations contain sufficient flexibility to encourage incubator/start-up businesses and that can accommodate changes in the economic and workforce environment.

- ED-4 Conduct a long-term assessment of the area immediately surrounding Phoenixville Hospital for development of a healthcare district.
- ED-5 Encourage satellite healthcare in the villages to allow basic healthcare services to be convenient for residents throughout the Region.
- ED-6 Support Regional Agriculture with favorable zoning, land preservation initiatives, and marketplaces for locally produced farm products.
- ED-7 Utilize signage, identity branding, streetscape features, pedestrian enhancements, and other elements of place-making to create successful downtown, village, and exurban redevelopment centers.
- ED-8 Promote cultural tourism as an element of place-making and a lifestyle-based economy.
- ED-9 Encourage businesses oriented towards experiences, families, and children as components of a diverse and inclusive lifestyle economy.

Experience based businesses offer events or environments beyond the exchange of money for commodities. Examples would be retail outlets with educational or artistic exhibits, specialized training, programmed activities, recreation, entertainment and/or dining in addition to or instead of items for purchase.
- ED-10 Coordinate sewer, water, roads, and public transportation infrastructure with development.
- ED-11 Connect developers with outside funding support for revitalization/redevelopment projects, and when necessary investigate zoning and local tax relief incentives.
- ED-12 Focus zoning efforts and other stimulus/incentives on identified economic redevelopment areas.
- ED-13 Promote the adaptive re-use of historic, commercial, and industrial spaces as viable contemporary uses.
- ED-14 Provide incentives to accommodate housing of different types and affordability suitable to a diverse and dynamic workforce.

CHAPTER 8 – COMMUNITY FACILITIES PLAN



Community facilities are the institutions and improvements that promote public health, safety, and welfare. These include systems for environmental protection, education, and emergency services, and can be operated by public and/or private entities. They must be thoughtfully coordinated with land uses, transportation systems, and environmental resources in order to function efficiently and equitably.

SECTION 8.1 COMMUNITY FACILITIES PLAN GOAL AND OBJECTIVES

Ensure that infrastructure and public services meet the needs of the community and are coordinated with land use, economic development, housing, and resource protection goals and policies.

This goal is to be advanced through the pursuit of the following specific objectives:

1. Provide efficient and environmentally sound sewer and water services that support Regional land use and development purposes.
2. Promote integrated stormwater management systems that protect surface and groundwater resources and provide for ongoing monitoring and maintenance.
3. Assure adequate facilities, equipment, and other resources for emergency service providers.
4. Recognize schools and libraries as essential community resources that can serve many public functions.
5. Provide necessary public services to special needs populations, including senior citizens, the physically disabled, and the economically disadvantaged.
6. Promote resilient and comprehensive electrical and communications systems consistent with public safety and community aesthetic character.

SECTION 8.2 SEWER AND WATER INFRASTRUCTURE

While on lot wells and septic systems are generally acceptable for low intensity development and land uses, public sewer and water infrastructure is essential to any concentrated or intensive development. Therefore, sewer and water service areas should be coordinated with future land use plans and zoning. By limiting public service areas to locations designated for more intensive development, such developments can be restricted from low intensity areas. In this way, sewer and water infrastructure can simultaneously promote economic redevelopment and conservation.

In order to maintain hydrologic balance and groundwater resources, it is important that areas that are served by public sewers also be connected to public water service. Otherwise, groundwater is withdrawn from onsite wells and transported by sewers for treatment and stream discharge far down gradient, so that the groundwater within the local watershed is depleted. This is the case in part of a number of the older developed neighborhoods in the Region, where there is public sewer, but no public water service. The PRPC should effect wastewater and water service plans that prohibit this condition for future land developments and correct any existing deficiencies.

Private on-lot septic and water systems are the norm in West Vincent and Charlestown Townships, and in less densely settled parts of Schuylkill and East Pikeland Townships. For on lot systems, periodic inspection and/or maintenance are required and are the responsibility of the property owner.

Municipalities should provide information to property owners and require that proper upkeep of in-ground septic systems to assure that failed systems do not result in environmental impairment and threats to public health. In addition, private wells should be periodically tested for contaminants so that remediation and/or water treatment can occur as appropriate. Chester County Health Department provides informational resources on septic system maintenance and well water testing that should provide the basis of municipal compliance programs.

Public or private community sewer and water services in the PRPC Region are described on Map 6 as follows:

Charlestown

Public sewer is provided by Valley Forge Sewer Authority. Areas served include three planned residential developments (PRDs), the University of Valley Forge and surrounding residential community, and the mixed use, industrial, and traditional neighborhood development (TND) areas in Devault and along Phoenixville Pike.

Aqua PA provides water service to the PRD and TND areas, as well as the mixed use and industrial areas along Phoenixville Pike and the University of Valley Forge. Service also extends to the Whitehorse development along Whitehorse Road, but not to the publicly sewerred Bevin's Orchard community.

East Pikeland

As of 2018, the central area of the Township, essentially between Coldstream Road and Route 23, is served by Valley Forge Sewer Authority. Service is being extended to the northeast of Route 23 for ongoing construction of significant residential development.

Public water in the area east of Kimberton is provided by the Phoenixville Water Department. Other areas of the Township are served by PA American of Royersford. As previously noted, many of the older developed areas in the Township have public sewer, but no public water.

Phoenixville

Phoenixville provides municipal public sewer service to the entire municipality. An exception is a handful of single family residences along Township Line Road, which will be tied into the sewer extension when facilitated by planned development.

Public water is provided to the entire Borough by the Phoenixville Water Department.

Schuylkill

Valley Forge Sewer Authority provides service to approximately half the land area of the Township, in the area surrounding Phoenixville, along PA Route 23 and Country Club Roads, and around the village of Valley Forge. The Phoenixville Area Middle School is served by the Phoenixville municipal sewer system.

All sewerred areas of the Township have public water. Most of the Township is served by Aqua PA, except for small areas south and west of Phoenixville, which are served by the Phoenixville Water Department. Some non-sewerred areas have public water, most notably residences on Valley Forge Mountain.

West Vincent

In West Vincent's denser developments, sewer service is generally provided by systems dedicated to the specific developments and owned and managed by the Bucks County Water and Sewer Authority. The exception is Eagle Farms, which is connected to the Upper Uwchlan Township Municipal Authority. Stonecroft, Stephens Green, Mathews Meadows, Weatherstone, and Stone Rise Apartments each have their own sewer systems. A part of the older Valley Dell development and houses along Kimberton Road are served by Valley Forge Sewer Authority.

Aqua PA Uwchlan provides public water to larger developments in the western part of the Township, including Weatherstone, Stone Rise, and Eagle Farms. Saint Stephens Green, Weatherhill, and Camp Hill have private community water service. The Kimberbrae development adjacent to East Pikeland is served by PA American Royersford.

Upper Uwchlan Township Municipal Authority

The Upper Uwchlan Township Municipal Authority (UUTMA) provides sewer service to the Ewing Tract residential development in western West Vincent Township. The allocation is set by inter-municipal agreement with PADEP, and there is no current mechanism to expand service to West Vincent Township.

Valley Forge Sewer Authority

The Valley Forge Sewer Authority (VFSA) provides sewer service to Charlestown, East Pikeland, West Vincent, and Schuylkill townships and each of these municipalities has no available further allocation beyond current commitments. However, two of the eight VFSA member municipalities outside of the PRPC Region have as much as two million gallons of excess capacity that could conceivably be reallocated by inter-municipal agreement. Without any such agreement, expansion of the VFSA service area in the Region would require increased plant capacity.

SECTION 8.3 SOLID WASTE DISPOSAL

In Phoenixville, solid waste disposal is managed by the Borough Sanitation Department, which provides receptacles for trash and recyclables and a regular weekly pickup schedule. The Borough also offers bulk and yard waste pickup and operates a composting site.

One of the challenges of waste management in the Borough is the presence of waste and recycling receptacles on the streetscape. The Phoenixville Area Business Association has expressed a concern with Phoenixville Borough trash totes that continuously line the fronts of many businesses due to lack of rear alley access with many properties. They have suggested shared dumpsters (screened from view) that would serve localized sections of the business blocks that do not have the ability to store totes in the rear of their properties.

In the PRPC Townships, solid waste and recycling is by private haulers contracted by property owners. In accordance with PA Code §272.411, all municipalities with population of 5,000 or greater must provide for separate recycling collection. Thus, Charlestown, East Pikeland, and Schuylkill Township all have mandatory recycling collection. West Vincent Township requires registered waste haulers to offer recycling collection as an option to property owners. East Pikeland also operates a yard waste composting facility, and Schuylkill Township participates in the one operated by Phoenixville.

Hazardous waste and electronics are collected on scheduled drop-off days operated by the Chester County Solid Waste Authority (CSWA). Electronics can also be dropped off for recycling free of charge Mondays through Saturdays at the CSWA landfill in Narvon, PA. Finally, there are private recycling facilities in the area that will accept various items for a fee.

SECTION 8.4 STORMWATER MANAGEMENT

All of the PRPC municipalities maintain Municipal Separate Storm Sewer Systems (MS4), wherein stormwater is managed to maintain water quality and promote infiltration, in addition to volume rate control. Except for West Vincent, which has a waiver from PADEP, each PRPC municipality maintains an MS4 program, which includes the following components:

- Public Education and Outreach – Municipalities inform residents and businesses of the benefits of effective stormwater management, how to maintain stormwater systems, and applicable regulations
- Public Involvement and Participation – Community activities to improve management of stormwater, reduce pollution of surface water, and repair impaired stormwater management systems (e.g. buffer planting programs, cleanups)
- Illicit Discharge Detection and Elimination – Monitoring, reporting, and enforcement
- Construction Site Runoff Control – Erosion & Sedimentation Control Plans and Permits
- Post Construction Stormwater Management – All Chester County municipalities have adopted the PA Act 167 model stormwater ordinance, which includes infiltration and water quality standards in addition to stormwater runoff volume control
- Pollution Prevention, Municipal Housekeeping, and Maintenance – Activities to assure municipally owned systems function in accordance with MS4 standards



Figure 8-1: Stormwater BMP example in Charlestown Township

Water quality and groundwater recharge are enhanced through a number of stormwater management strategies and practices, many of which are incorporated in the *Pennsylvania Stormwater Best Management Practices Manual (2006)*. This manual includes specific implementation strategies and methodologies, called Best Management Practices (BMPs), to

quantify runoff, infiltration, and water quality benefits, to be incorporated in municipal stormwater ordinances. Different surface and subsurface strategies are best applied given specific environmental and development preconditions, and in general include:

- Minimal disturbance of wooded/forested areas

- Minimal impervious cover
- Use of pervious pavements, green roofs, rain gardens, etc.
- Natural meadow cover in place of lawns
- Decentralized infiltration measures rather than concentrated basins and conveyances
- Green areas for infiltration and temporary containment dispersed throughout developed areas
- Natural plant communities in basins and as stream buffers

When stormwater management facilities are integrated with other design aspects in planning and land development, they can become positive attributes with multiple functions, including recreation, parking, accessibility, habitat enhancement, food/crop production, and aesthetics. They can also add to community resiliency through superior function in terms of flood control, groundwater infiltration, and water quality.

Municipalities can implement the following strategies to promote effective stormwater management:

- Zoning Ordinance Provisions with BMPs
- Subdivision and Land Development Ordinance Provisions
- Standalone Stormwater Management Ordinance
- Official Map to Designate Existing and Planned Stormwater Facilities
- Municipal or Multi-municipal Environmental Advisory Council
- Monitoring Programs
- Stormwater Facilities Mapped and Monitored on GIS Database
- Easements
- Restoration and Remediation Projects
- Collaboration with Environmental and Watershed Protection Organizations
- Community Educational Events, Printed and Web Informational Resources, and Landowner Outreach

SECTION 8.5 EMERGENCY SERVICES

Emergency services within the PRPC Region include hospitals, urgent care centers, police, fire, ambulance and dive and rescue. Four of the five municipalities have police departments in-house, and ambulance service in the region is provided by four different ambulance companies.

All municipalities are served by fire companies primarily composed of volunteer firefighters, and some of the fire companies have a limited number of career firefighters. For fire service, the PRPC Region is served by five different fire companies. These include Phoenixville Fire Department, Kimberton Fire Company, West End Fire Company, East Whiteland Fire Company, Ludwigs Corner Fire Company, and Valley Forge Volunteer Fire Company. Each of the fire companies within the Region depend on volunteers for the provision of emergency services and additional volunteers are always needed.

A detailed breakdown of emergency services by PRPC municipality is provided as follows.

Phoenixville Borough

Phoenixville Hospital is the one hospital located within the Phoenixville Region. The Phoenixville Hospital is located within the Borough of Phoenixville on Nutt Road between Main and Gay Streets and offers a wide range of health care services including, but not limited to, a 24-hour emergency room, cancer care, surgical services, maternity- with a newborn intensive care unit, and a range of rehabilitation services.

The Phoenixville Police Department has 30 full-time officers and 1.75 civilian employees serving the Borough and a fleet of 13 cars as reported in the 2016 annual report. The Phoenixville Police Department also includes bicycle patrol in the downtown area and a detective unit.

As reported on the Phoenixville Fire website, the Department is a multi-service department that provides fire and rescue services to Phoenixville Borough and surrounding communities. The Department is staffed by a combination of career and volunteer firefighters operating out of the Phoenix Hose, Hook & Ladder Co., No 1 on Church Street. Apparatus includes three pumper engines, a ladder truck, Ford F350 equipped with traffic control devices, EMS equipment and rescue equipment. Additionally, the Phoenixville Fire Department has an ambulance vehicle and staff that is subcontracted from outside parties.

In addition to the Phoenixville Fire Department, the Friendship Diving Rescue Unit is an all-volunteer Unit located on W. High Street in Phoenixville that provides specialized search, rescue and recovery services to police and fire departments in the Phoenixville Region and beyond. Services include underwater body recover of drowning victims, water rescue, ice rescue and underwater searches for evidence and items.

Schuylkill Township

The Schuylkill Township Police Department consists of 10 full time patrol officers and two part-time patrol officers that provide 24 hour service for the community. The Police Department is based out of the lower portion of the Township building at 111 Valley Park Road.

For fire service, Schuylkill Township is served by Valley Forge Volunteer Fire Company, which has its primary station in the Village of Valley Forge and a substation located on Pothouse Road. The Valley Forge Volunteer Fire Company is an all-volunteer fire company serving all of Schuylkill Township, with approximately 60 volunteers. Major apparatus includes three engines with pumping capabilities, a rescue truck with extraction capabilities, a tanker truck, four smaller utility vehicles with varying EMS and traffic control capabilities and an ATV with brush firefighting capabilities.

The West End Fire Company primarily serves as an EMS/ambulance provider for Schuylkill Township and as a back-up EMS provider for Phoenixville Borough.

East Pikeland Township

The East Pikeland Township Police Department consists of 10 police officers and two administrative staff. The department has officers assigned to the Chester County Drug Task Force, Accident Investigation Team, and the Regional SWAT Team.

Fire service for East Pikeland Township is primarily provided by Kimberton Fire Company with back-up service provided by the Liberty Fire Company located in Spring City, PA. The Kimberton Fire Company apparatus includes an engine, a rescue truck, tanker and tower truck which includes a 105-foot tower

ladder, all of which have pumping capabilities. The Company also has multiple utility and command vehicles, a mass casualty vehicle, an aftermath vehicle/pod (for keeping belongings not destroyed by a fire), a cargo trailer containing spill containment equipment, and two ATV vehicles for fires inaccessible by larger vehicles. Ambulance service is provided by the West End Fire Company.

Within the Region there is one urgent care center located on Schuylkill Road in East Pikeland Township. Urgent care centers offer a medical treatment alternative for non-life-threatening situations that need immediate medical attention. Urgent care centers have gained in popularity in recent years as an alternative to an emergency room visit due to lower cost and shorter wait times than an emergency room visit.

Charlestown Township

Police service in Charlestown Township is provided by the Pennsylvania State Police, Troop J, Embreville Barracks. Charlestown is part of Zone 18 and State patrol cars are available to respond to Charlestown citizens 24 hours a day. If there is an extreme emergency, the State Police can contact a closer police department to respond until they arrive on the scene. Response time is typically less than 15-20 minutes.

Fire and ambulance coverage in Charlestown Township is divided into two service areas. The northern portion of the Township is covered for fire service by the Kimberton Fire Company and ambulance service is provided by West End Fire Company. The southern portion of the Township is covered by East Whiteland Fire Company for both fire and ambulance.

West Vincent Township

West Vincent Township has its own police department with nine (9) police officers. Service is provided by the West Vincent Police Department from 6 AM to 2 AM, and coverage is provided by the Pennsylvania State Police from 2 AM to 6 AM.

In West Vincent Township fire service is provided by three fire companies. These include Kimberton Fire Company, Ludwigs Corner Fire Company (LCFC), and Ridge Fire Company. The LCFC is located at 1325 Pottstown Pike in West Vincent Township and apparatus includes two engines, a rescue truck, a tanker, a brush vehicle and a traffic vehicle. Ambulance service is provided by Uwchlan Ambulance.

SECTION 8.6 SCHOOLS

The Phoenixville Region is served by three public school districts and a wide range of private educational facilities. The Phoenixville Area School District (PASD) serves Phoenixville Borough, Schuylkill Township, and East Pikeland Township. The Owen J. Roberts School District serves West Vincent Township, and the Great Valley School District serves Charlestown Township. In addition to the three public school districts, the Region is home to a variety of other additional educational facilities including Renaissance Academy Charter School, Holy Family School, Technical College High School, University of Valley Forge, and two private kindergarten facilities. Just outside the Region are two additional educational facilities, the Montgomery School and the Waldorf School, both of which provide educational opportunities for residents of the Phoenixville Region.

School facilities within the Region have the opportunity to serve as community facilities during non-school hours. This could include use of meeting space for community meetings and keeping outdoor



facilities available for community use during non-school hours. Coordination should be encouraged between municipalities and school districts to maximize opportunities to utilize facilities when appropriate.

The schools within the Region continue to follow a traditional school schedule with a long summer break and also follow traditional bussing programs where students are picked up at combined bus stops in communities where safety allows, otherwise students are picked up from individual properties. Opportunities for alternative school schedules such as year-round school should be considered, if deemed to improve the educational system. Additionally, opportunities to encourage walking to schools and further combining of bus stops should be considered by improving pedestrian networks that would allow students to safely walk further to catch buses.

School districts and municipalities should continue to find opportunities to work together assessing neighborhood pedestrian circulation surrounding school campuses for opportunities to encourage student walking to school rather than bussing students for short distances. Opportunities for developing walking school bus programs should also be considered by each of the school districts. A walking school bus is a group of children walking to school with one or more adults. It can be an informal arrangement between families taking turns walking their children to school, or it can be a structured program with a set route with meeting points, a timetable and a regularly rotated schedule of trained volunteers. The walking school bus model could also be used for encouraging group bicycle commuting when facilities allow.

Each of the three public school districts and other educational facilities within the Region are discussed as follows.

Regional Public School Districts

Phoenixville Area School District

PASD includes the newly constructed Phoenixville Early Learning Center and Manavon Elementary School along with two additional existing elementary schools including Barkley and Schuylkill, one middle school and one high school. The school district student enrollment is approximately 3,906 students and is estimated to be growing at an average rate of 2 percent per year. With the newly constructed schools it is estimated that there is adequate capacity in the existing buildings to accommodate student population into the foreseeable future.

Owen J. Roberts School District

The Owen J. Roberts (OJR) School District, serving West Vincent Township, is composed of five elementary schools, one middle school and one high school. The student population of the entire school district is estimated at approximately 5,317 students as reported in the 2016-2017 Annual Report. In addition to serving West Vincent Township, the OJR school district serves six additional municipalities outside the Phoenixville Region. The West Vincent Elementary School is the only school of the OJR School District located in West Vincent Township, with an enrollment of 575 students in grades K-6.

In 2017 the OJR School District redistricted students from West Vincent Elementary to the French Creek Elementary School to accommodate the anticipated growth in the West Vincent attendance area. West Vincent Elementary hosts two Autistic Support classrooms for elementary children in the district. The school district anticipates the completion of the new East Coventry Elementary School building in the summer of 2018.

Great Valley School District

The third school district serving the Phoenixville Region is the Great Valley School District, which includes Charlestown Township. 2017-2018 school year enrollment is 4,145 students with 329 students at Charlestown Elementary School, which is the only school located in Charlestown Township.

The Charlestown Elementary School capacity is 378 students. With current enrollment at 329 students the school is at 87 percent of its capacity, which is lower than two of the three other elementary schools. The District is considering options such as architectural changes, establishment of a 5-6 grade center, and redistricting to address capacity issues in some of the elementary schools.

Other Educational Facilities & Alternatives

In addition to the public schools, the Phoenixville Region is home to a top-rated charter school, Renaissance Academy which provides education for kindergarten through 12th grade. The school has a new campus in the Borough of Phoenixville and serves approximately 1,000 students from the Region and beyond. Within the Borough is also Holy Family School which is a Catholic school providing primary education for pre-school through 8th grade.

Located in Schuylkill Township is the Technical College High School, which is operated by the Chester County Intermediate Unit (CCIU) on behalf of the 12 school districts of Chester County, Pennsylvania. This high school offers a range of technical area for students to focus on to help prepare them for careers in these various fields. Also located in Schuylkill Township is campus of the University of Valley Forge, which is a private Christian college with approximately 1,146 students.

For kindergarten there are also additional options within the Region including Charlestown Play School and the Valley Forge Kinder House Montessori School.

A growing education alternative is homeschooling, which is the education of children at home by a parent or tutor. Families that choose homeschooling may still take advantage of some resources available through the local school district such as sports and/or specialty classes.

SECTION 8.7 LIBRARIES

PRPC has two libraries operated by the Chester County Library System. These include the Henrietta Hankin Branch Library near Ludwigs Corner in West Vincent Township, and the Phoenixville Public Library at 2nd Avenue and Main Street. In addition, the Chester Springs Library is nearby in the village of Historic Yellow Springs. Libraries are invaluable resources that provide public access to information, facilities, and programs free of charge. They receive funding from County and local government sources, as well as grants and voluntary contributions. In addition, some businesses and institutions operate informal mini libraries that operate as honor system book exchanges.

The Phoenixville Public Library includes approximately 69,000 items, including books, videos, CDs, periodicals, special collections, etc. It also has computer resources, meeting rooms, tutoring facilities, and offers passport, tax, and document services. The Phoenixville Public Library also has seasonal and year-round programs for children, teens, and adults.



The Hankin Branch Library opened in 2003 and includes 93,600 items. The library also serves as a community center providing work space, meeting rooms, homework

and research help, and a wide variety of educational and cultural programs. The collection includes books, DVDs, audiobooks, magazines, eBooks, and eAudiobooks for early literacy, education, and the enrichment of residents. The Hankin library also provides programs for children, teens, and adults and includes computer facilities and a business center offering resources and workshops on small business, jobs and careers, and personal finance.

SECTION 8.8 SOCIAL SERVICES

There are several social service organizations in the PRPC Region that provide a range of assistance and resources to residents of the Region. Those organizations whose primary function is to provide social services are typically based in Phoenixville, likely due to the higher density of jobs and residences, and lower median income of Phoenixville residents. In addition to the primary organizations discussed in the following section, there are also many churches and other organizations that contribute to the social service community helping those in need. Many social service organizations that provide housing

assistance and other services were discussed in the Housing Chapter. The following is a non-exhaustive list of organizations that have a primary function of providing social services to those in need in the PRPC Region.

Municipalities within the Region can use their websites as a resource for people in need by including links and contact information for social services organizations available in the Region.

Regional Social Service Organizations

Phoenixville Community Health Foundation

The Phoenixville Community Health Foundation (Foundation) in Phoenixville was created in 2005 to help establish a health care safety net for low income people who are uninsured or under-insured. It helps eligible residents of the greater Phoenixville Area with access to a variety of health care needs including dental, vision, mammograms, emergency orthopedic, prescription assistance, and mammogram assistance. The Foundation also publishes a “Help Book” every three years, in both Spanish and English, to help increase access to services for adults and children in the greater Phoenixville region.

The Foundation has a program where clients are referred to local dentists and eye doctors for needed care. These dental and vision providers provide a discounted fee for their services and the Foundation reimburses the providers. The Foundation also assists clients in obtaining prescription medications from drug companies through the “Patient Assistance Programs.”

In 2006 the Foundation began a program called The Ride for Health Initiative which has helped people with transportation barriers to medical and social service appointments. Transportation Partners include the Pottstown Cab Company and the Transportation Management Association of Chester County.

The Foundation also provides assistance to military veterans and military families in an effort to advance the health and quality of life of military personnel and their families. The primary emphasis of this program is to assist veterans and military families with finding and gaining easy access to resources available through a website created dedicated to such services. The website can be found at www.militaryfamilyinfo.org.

Phoenixville Community Education Foundation

The Phoenixville Community Education Foundation (PCEF) is an organization in Phoenixville that secures and provides resources that enhance the overall educational experience within the Phoenixville Area School District, including learning initiatives, preparedness programs and out of the classroom activities. The PCEF provides funding for programs and projects not funded by the school district budget, such as after-school clubs and organizations, area pre-schools and community organizations providing educational enrichment programs.

Phoenixville Area Community Services

The Phoenixville Area Community Services (PACS) organization located in Phoenixville that was created in 1972 to offer support, aid and hope for residents in the Phoenixville community who need

information and direction as well as emergency aid. PACS helps connect people in need with appropriate resources, helps people achieve economic self-sufficiency, provides emergency support for basic needs including food, housing and utilities. Through an information and referral program, PACS is able to provide more comprehensive services to clients by providing support and follow-up for those clients seeking help by providing guidance on courses of action, intervening in crisis situations and acting as advocates to help assure clients get the help needed.

Orion Communities

Orion Communities is a social service organization located in Phoenixville that provides assistance in an effort to fill in the gaps of services provided by other agencies by providing the following services:

- Interim Case Management- assistance to people by identifying resources and developing a plan of action to move forward,
- Technology Resource Center- computer availability to allow people to prepare resumes, conduct housing and job searches, complete on-line job applications,
- Community Emergency Fund- make funds available for those in need of assistance with utilities, rent or food,
- Community Outreach- strives to make connections in the community, raise awareness, identify needs for services and collaboratively address systematic service gaps in the community.

Alianzas de Phoenixville

Alianzas de Phoenixville was founded by Anita Guzman in 2010, to address the needs of Phoenixville's Latino population and its potential to become an even greater contributor to the community's cultural and economic development. Alianzas was established to promote collaboration among Phoenixville community leaders and volunteers to equip and enhance the Latino/Hispanic Community with improved access to local resources, and build intercultural exchanges between the Latino/Hispanic population and the broader community.

Phoenixville YMCA

The Phoenixville YMCA is a nonprofit organization focused on strengthening communities through youth development, healthy living and social responsibility. The Phoenixville YMCA is located in Schuylkill Township and offers a wide range of programs for children and teens including swim lessons, sports, fitness, karate and day camps, as well as programs for adults and seniors, including personal training, a variety of group exercise classes, water aerobics and babysitting services. The YMCA offers discounted membership and fees for those who qualify.

Phoenixville Area Senior Center

The Phoenixville Area Senior Center is a multi-purpose center serving residents 60 years and older of the PRPC municipalities, plus East Vincent, Spring City, and West Pikeland. The Senior Center provides breakfast and lunch, exercise classes, art classes, computer classes, a Tech support group, tax preparation, trips, health screening, and social and recreational activities. It is located at 153 Church Street in Phoenixville.

SECTION 8.9 PIPELINES

The PRPC Region is crossed by eight different pipelines that transport natural gas and petroleum products. These are inventoried on Chester County's Pipeline Information Center (PIC), and are mapped by their alignments and a 100 foot "consultation zone" extending to each side of the center line. To prevent adverse impacts, development activities within the consultation zone should be discussed with the pipeline operator prior to initiation. In addition, municipalities can undertake measures to promote public safety in the vicinity of pipelines.

Chester County Planning Commission (CCPC) Pipeline Safety Policy

In 2014, CCPC produced recommended draft language pertaining to municipal rights and responsibilities as pertains to pipelines. In accordance with this recommendation, the PRPC recognizes the existence of a number of pipelines running through portions of the Region and acknowledges the potential for additional pipelines running concurrently with existing pipelines or in other areas. Such transmission pipelines are intended to meet the energy demands of the Atlantic seaboard but also pose tremendous risk for those communities potentially affected should a pipeline failure occur. Where emergencies such as failures do occur, varied threats to public health, safety and welfare can be significant, from direct impacts such as resident injury or death, severe property damage, debris management, contaminated soils and groundwater pollution to indirect impacts associated with cleanup (expanded access points, groundwater recovery and remediation facilities, expanded soil disturbance, etc.). As such, the municipalities of the Region should monitor existing and future pipeline activity and enact, where feasible, regulations complimentary to the Pennsylvania Oil and Gas Act, as amended, Pennsylvania case law, and the Federal Energy Regulatory Commission designed to protect the public health, safety and welfare and regulate land uses in conformance with the Pennsylvania Municipalities Planning Code, Act 247, as amended.

Among the needs to address are those surface land uses affiliated with transmission pipelines, appropriate access provisions for pipeline rights-of-way, and buffering and setback standards appropriate to reduce adverse impacts to residents of new development should a pipeline failure occur. In addition to buffers and setbacks, PRPC member municipalities should communicate with pipeline operators, particularly as related to new development proposals within proximity of transmission pipelines, and investigate measures to protect new land uses with high on-site populations. Regulations should also comply with other applicable policies of this plan, Chester County's Landscapes³, and applicable statewide planning goals designed to meet the needs of the citizens of the Commonwealth. PRPC municipalities should also coordinate their activities with those of the County and State when and if new pipelines are proposed and applications proceed through the permit review and construction phases.

Municipal Pipeline Ordinances

In recognition of municipal authority as regards aspects of environmental protection, the Pennsylvania Pipeline Safety Coalition (PSC) has developed a model municipal pipeline ordinance to complement applicable statewide regulations. Municipal authority over these matters was confirmed when in 2014, the PA Commonwealth Court ruled that any challenge to municipal pipeline ordinances must go before the municipal zoning board and not the PA Public Utility Commission. The PSC model ordinance includes a four prong municipal regulatory approach that addresses the following:

1. Surface land uses affiliated with pipelines (uses not otherwise permitted in most ordinances),
2. Street opening standards (regulation of street openings, installations and driveways),

3. Standards for new development in proximity to pipelines, and
4. Revisions to municipal comprehensive plans (providing the rational nexus between the comprehensive plan and code of ordinances).

Ordinances pertaining to surface land uses (e.g. pump stations) can contain requirements for use restrictions in certain zoning districts, setbacks, aesthetics, sound abatement, odors, lighting, parking, and landscaping. Setbacks should be based on safety standards consistent with a Potential Impact Radius (PIR) that is dependent on pipeline size and pressure.

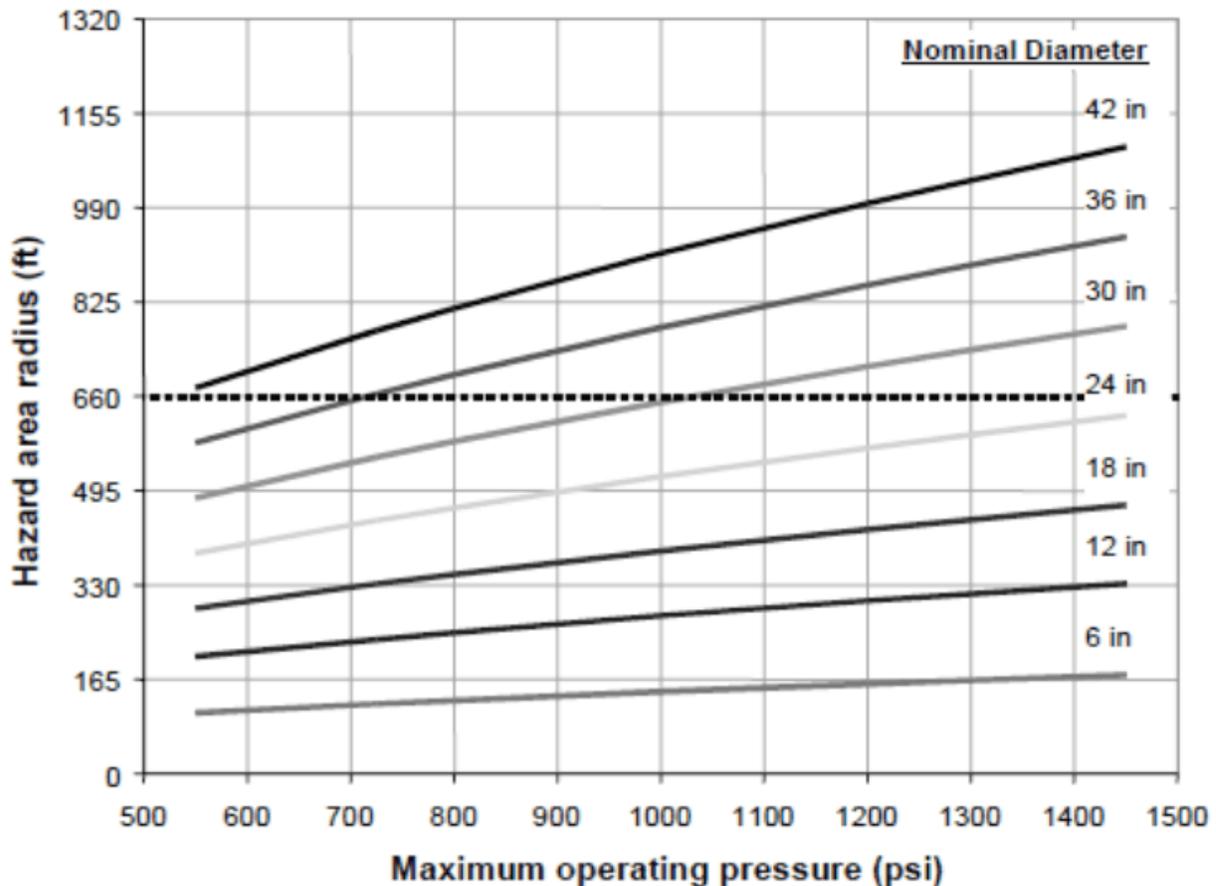


Fig. 8.9-1: Potential Impact Radius (Source: "A Model for Sizing High Consequence Areas Associated with Natural Gas Pipelines", Gas Research Institute and C-FER Technologies, 2000.)

New development standards can also utilize PIR standards to assure that new subdivisions and land developments maintain safe distances from pipelines and pipeline facilities. These standards can also include landscaping and aesthetic requirements. In addition, emergency mitigation measures such as evacuation procedures for high occupancy uses may be required.

Street opening requirements can include procedures to assure continuous operation of thoroughfares, as well as restrictions against trenching as opposed to tunneling/horizontal boring beneath roadways. In addition, the ordinance can prescribe backfill, repaving, and detour procedures related to pipeline road cuts.

SECTION 8.10 ELECTRIC AND COMMUNICATIONS UTILITIES

Advances in communications technology have dramatically altered the way people live and work, and with these advances an entirely new infrastructure has developed. Analog broadcast and cable networks have been replaced by digital fiber optics and wireless internet (Wi-Fi), and land line telephones have been largely replaced by cellular phones. The physical systems that support these technologies have accessibility, safety, and aesthetic implications that the Regions must take into account in policy and regulation.

High speed internet has become indispensable for business, education, domestic, and entertainment purposes. As the number of users and the volume/complexity of web content have increased, service providers have created higher capacity lines and improved wireless systems to keep up. It is reasonable to expect that there will be universal high speed internet service throughout the region in the not distant future. These technologies have physical manifestations including cables, antennae, and electronics that must be dispersed throughout the community.

Overhead Utilities

With increasingly extreme weather, it makes more sense to route electric and communications utilities underground and out of harm's way. Although new developments are required to place utilities underground, there is as yet no system to modernize existing above-ground systems. Thus, power and communications interruptions occur in the Region with a disturbing frequency, and vast sums of capital are expended clearing trees and patching the antiquated system until the inevitable next emergency. It is recommended that the Region work with utilities, state level regulators, and elected officials to devise the means to modernize and retrofit the electric and communications grid for greater resiliency.

Distributed Antenna Systems

With cellular communications, there has also been development and change in the physical infrastructure. In the region, the network of large cellular communications towers has been built out, but there are still pockets of poor or no service that providers will likely seek to fill. This and the increasing volume carried by wireless data networks has led to the emergence of so-called "mini cell towers", which are smaller, more targeted, and more numerous than the traditional cell tower, to form a Distributed Antenna System (DAS). Most often these are placed along public rights-of-way, and without local regulation, these can occur in undesirable locations, such as residential front yards.

The Telecommunications Act of 1996 states that local governments cannot "prohibit or have the effect of prohibiting wireless facilities," but also preserves local zoning authority over the "placement, construction, and modification of wireless facilities." Thus, PRPC municipalities have the ability to assure that installation of an effective wireless data/communications network does not have undue aesthetic or safety impact on the community. In order to do this, PRPC members should review current cellular communications ordinances and make changes as appropriate to:

- Apply to new wireless technologies, such as DAS networks
- Incorporate judicial and regulatory changes in federal and state law
- Include separate requirements for "tower-based" and "non-tower based" facilities
- Include separate requirements for wireless facilities inside and outside the ROWs
- Address co-location and other "second generation" facilities

- Protect residential neighborhoods
- Preserve the visual character of the community
- Establish or update zoning process for approval or denial of facility applications

SECTION 8.11 IMPLEMENTATION STRATEGIES

The following policy recommendations will implement the goals and objectives of the Community Facilities Plan:

CF-1 Coordinate municipal sewer and water service areas with the land use plan and economic development areas, and to address environmental resource protection needs.

Assure that sewer/water utilities do not extend into rural/conservation areas, and extend public water service to any area that is served by public sewers.

CF-2 Establish municipal policies for regular inspection and maintenance on private on-lot septic systems and wells.

CF-3 Advance municipal recycling and composting programs to serve the entire Region.

Consider forming a Regional yard waste composting program.

Consider developing a food waste recycling program within the Region.

CF-4 Improve Municipal Separate Storm Sewer Systems (MS4) with ordinances, monitoring, restoration/remediation, and community outreach/education.

Enact stormwater management regulations and programs at the municipal level to maximize protection of surface and groundwater resources.

CF-5 Utilize PRPC and member municipal resources to promote emergency services available in the Region, and encourage partnerships to achieve the maximum benefit of resources.

Encourage residents of the Region to consider volunteering with the local fire companies.

Promote community outreach programs and activities on the part of emergency service providers.

CF-6 Enhance the role of public and private schools and institutions as community assets.

Invite school district representatives to participate in the PRPC and municipal meetings and provide updates on special projects that could affect student population.

Foster interactions between public schools, private schools, and institutions such as the YMCA to share resources and programs for mutual benefit.

Encourage educational projects that address community needs.

Promote use of school facilities for community functions and encourage community use of

exterior school facilities during non-school hours.

Foster relationships between school districts and municipalities to conduct assessments of neighborhoods surrounding school campuses for pedestrian connections to encourage walking and encourage the development of walking bus and other unique programs to reduce the need for bussing and increase healthy alternatives.

CF-7 Enhance public knowledge and support of libraries as a vital community resource.

Utilize PRPC and member municipal resources to promote library services and facilities for use by the public.

Encourage enhanced municipal and public financial support of community libraries.

CF-8 Promote public accessibility to health care and healthy lifestyles in the Region.

Update municipal websites links and contact information for social services organizations available in the Region.

Provide information on social services to those in need of assistance, and advertise volunteer opportunities to those able to help.

Coordinate municipal efforts with health care providers such as Phoenixville Hospital, medical offices, and urgent care centers to promote awareness and healthy living.

CF-9 Adopt municipal pipeline ordinances consistent with the model ordinance by the Pipeline Safety Coalition.

Municipal regulations should cover use restrictions, setbacks, aesthetics, road and public way crossings, sound abatement, odors, lighting, parking, and landscaping.

CF-10 Promote universal high speed internet access throughout the Region with municipal standards for Distributed Antenna Systems.

Promote public safety and consistency with community aesthetics with locational criteria and design standards for the new generation of wireless communications facilities.

CF-11 Work with utilities, state level regulators, and elected officials to devise the means to modernize and retrofit the electric and communications grid for greater resiliency.

Include standards and policies to replace existing overhead utilities with more durable in-ground services.

CHAPTER 9 – PARKS, RECREATION, AND OPEN SPACE PLAN



Interconnected and accessible parks, open spaces, and recreational facilities support environmental protection, agricultural preservation, public health, and the high quality of life enjoyed by residents of the Region. This element of the Regional Comprehensive Plan strives to meet the recreational needs of a diverse community while advancing its environmental protection and community development objectives.

SECTION 9.1 PARKS, RECREATION, AND OPEN SPACE PLAN GOAL AND OBJECTIVES

Preserve and enhance park and recreational facilities in the Region to serve the diverse population, protect environmental resources, and encourage an interconnected network of park and recreational facilities.

This goal is to be advanced through the pursuit of the following specific objectives:

1. Promote a comprehensive, highly functional, and integrated network of Regional Open Spaces.
2. Coordinate regional recreation facilities and programs.
3. Develop the regional and local trail network, with a diversity of trail types utilizing a variety of surface materials.
4. Assure that the Regional recreation system accommodates a broad diversity of interests, ages, and abilities.

SECTION 9.2 PARK AND OPEN SPACE ASSETS

Regional park and open space assets include public parks, publicly owned open space, private preserves, and deed restricted private lands. Public parks in the Region are generally municipally owned, but also include part of Valley Forge National Historic Park, and the County owned Black Rock Sanctuary. Private preserves are owned by conservation organizations including Natural Lands and the French and Pickering Creeks Conservation Trust. Deed restricted private lands include open space owned by community or homeowners associations (HOAs), and private property subject to conservation or agricultural easement. Regional park and open space lands are described below:

Charlestown

Charlestown Township has two municipal parks, a large swath of public open space along the Pickering Creek, and numerous smaller open space and historic parcels scattered throughout the Township. In addition, Charlestown has worked closely with landowners in the last 20 years to secure conservation easements on private agricultural lands and natural areas. Private open space also includes community association owned lands in residential developments. The Township has a Park and Recreation Board that advises on and manages public open space. Prominent park and open space assets in Charlestown



include the following:

- **Charlestown Park** is a 44.5 acre community park with (7) sports fields, a basketball court, a volleyball court, horseshoe pitches, a stones course, natural areas, picnic and playground facilities, a paved 1.2 mile walking trail, parking, and two buildings utilized by youth sports organizations.
- **The Pickering Preserve** is a 100 acre band of open space extending along the Pickering Creek from Charlestown Road and including lands on the east side of State Road (PA Route 29). The site includes trails with informal trailhead parking and a historic dam ruin formerly used for recreation and ice harvesting.
- **Brightside Farm Park** is a 75.6 acre former dairy farm that includes community vegetable gardens, a historic farm complex, a parking lot, meadows, and a 1 mile paved walking trail. The Horse-Shoe Trail crosses through part of the site, and hay is harvested from some of the fields. There is also an approximately 3.5 acre cow pasture near the barn complex.

Charlestown Township actively engages owners of large tracts of land to enter into conservation easements, and has had remarkable success in this regard.

East Pikeland

East Pikeland Township has one municipal park, a public open space along the French Creek, public open space along the Pickering Creek in the southwestern end of the Township, and another significant public open space area extending north from Kimberton Village. Privately held open space is scattered across the Township, and is about evenly divided between eased community association lands and other conservation or agricultural easements. The Township has an Open Space Committee and a Park and Recreation Board to advise on and manage parks and open spaces. Prominent park and open space assets in East Pikeland are summarized as follows:

- **Kimberton Park** is a 16.4 acre municipal park with (5) baseball fields (three on grounds of Kimberton Fire Co.), (3) tennis courts, a street hockey rink, basketball court, picnic and playground facilities, a paved half mile walking trail, parking, and an amphitheater.
- A 100+ acre band of **Township open space** extends along the French Creek from Township Line Road west to Hares Hill Road. The site includes the 2.1 mile long French Creek Trail, the Municipal Complex, and the historic Revolutionary Continental Powder Works site.

Phoenixville

Within the Borough of Phoenixville a variety of park and open space facilities are available, with the majority of these properties owned and maintained by the Borough. In 2015 the Borough prepared a Comprehensive Park Plan outlining existing amenities and recommended improvements to municipally owned parks, which is summarized in the following table. The Kiwanis Children's Plaza is located downtown along the 200 block of Bridge Street within the Bank Street right-of-way. This space represents a partnership between the Borough and the Kiwanis, who provided funding for the improvements while the Borough maintains the space. The Kiwanis sponsor children's programs during the summer in this space.

The Borough also maintains a small recreational program where a variety of classes and family programs are offered to residents of the Borough and the Region. Classes are typically offered at the Civic Center located near downtown Phoenixville.

Borough of Phoenixville Park Amenities & Recommended Improvements				
Park	Location	Acreage	Existing Amenities	Recommended Improvements
Manavon Park Fisher Courts (Amanda Nicole DiGirolomo Memorial Playground installed 2017)	50 Tyson Street	1.53 ac	4 tennis courts, Basketball court, Handball court, Playground, Pavilion, 6 benches	Signage, Restroom, Bike rack
Reeves Park	401 Main Street	6.6 ac	Playground, Small Ball Field, Band Pavilion, 2 Gazebos, Historic Monuments, 15 benches	Signage, Lighting, Repairs, ADA playground, Bike rack, Art sculpture, Picnic tables
Morris Street Park	310 Morris Street	1.39 ac	Basketball Court w/bleacher, Pavilion, Swings, Tot lot/climber, Softball field, 3 benches	Signage, Repairs, Trees, Bike Rack
Lane Avenue Park	1220 Lane Avenue	2.9 ac	Swing set, Climber, 2 benches	Signage, Tot lot, Pavilion
Virginia Avenue Park	540 Virginia Avenue	1.1 ac	½ court basketball court	Signage, Picnic tables
Cascaden Park	1101 Paradise Street	1.6 ac	Swings and tot lot, 2 spring rockers, 8 benches; Basketball Court- w/2 lights and bleachers	Signage, Softball field- small, Picnic benches, Upgrades
Carey Street Playground	250 Carey Street	.28 ac	Small Playground, Swing set, 1 bench, 11 parking spaces	Signage, Benches or picnic table
Civic Center	123 Main Street	.35 ac	Gymnasium, Boxing ring Tot lot	Signage, Parking, Air conditioning, Cameras, Bathroom upgrades
Balder Park	126 Bridge Street	.1 ac	Bench, Stage	Fence removal, Tiered seating Bike rack, Art sculpture
Andre Thornton Park	55 N. Main Street	.72 ac	Courtyard, Tot lot, Slides 6 benches	Repairs, Bike rack, Pedestrian connection to C' Jons Park, Spray Park, Art Sculpture
C Jon Saunders Memorial Park	7 Richards Ln	.68 ac	Basketball court with two bleachers and 4 benches; Scoreboard	Signage, Repair, Parking, Pedestrian connection to Andre Thorpe
Joe Rowan Park	435 W. High Street	.68 ac	Tennis Court, Street Hockey Area, Tot lot, 6 benches	Signage, Repairs, Bike rack
Taylor Street Park	650 Taylor Street	1.2 ac	Basketball Court with 2 light poles, 1 bench	Tot lot, Fencing, Signage, Pavilion, Repairs
Veterans Memorial Park	100-132 High St	27.3	2 Softball Fields	Signage, Lights, Parking lot New backstop
Friendship Field	Fillmore St	7.4 ac	Softball Field bleachers; Multi-purpose Field	Signage, Field lights, Sidewalk to field
Reservoir/Dog Park Reservoir Park	601 Franklin Ave	18.4 ac	Playground, Swings, Pavilion, Picnic Area, Basketball court, Dog park	Signage, Mini disc golf course, Restrooms, Upgrades, Bike rack, Picnic benches

Since the development of the 2015 Comprehensive Park Plan municipal park improvements include the following:

- The Amanda Nicole DiGirolomo Memorial Playground was installed in 2017 at Manavon Park.

- Signage has been added to all the parks.
- New lights have been installed in Reeves Park.
- A tot lot has been added to Lane Avenue Park.
- Signage and cameras have been added to the Civic Center.
- A tot lot was added and fence repairs made to Taylor Street Park.

In addition to the parks and open space owned and maintained by the Borough, the following prominent park and open space assets exist within the Borough:

- **Black Rock Sanctuary** is a 119-acre site dedicated to wildlife habitat and public use. The site includes meadow and wetland areas, a boat launch on the Schuylkill River, a picnic area, and approximately 3.75 miles of trail including a 0.8 mile ADA accessible paved trail.
- A paved segment of the **Schuylkill River Trail** extends through the Borough along French Creek providing pedestrian linkages to the canal in Mont Clare and Spring City.
- A trail segment referred to as **Phase I of the Mont Clare Bridge** to Taylor Alley located along the north side of French Creek was recently constructed in association with the Riverworks apartment development. This trail is linked to the downtown via a pedestrian bridge over French Creek.
- **Private open space** maintained by seven (7) separate homeowner’s associations (HOA) totals approximately 94 acres and is summarized as follows:



Figure 9-1: Black Rock Sanctuary. Credit Chester County, PA

Borough of Phoenixville Summary of Homeowner’s Association Open Space	
French Creek Townhomes HOA	12.65 acres
Ledges HOA	22.1 acres
Heritage Square HOA	0.46 acres
Riverwalk HOA	19.7 acres
Riverside HOA	3.47 acres
Northridge HOA	6 acres
Westridge HOA	29.4 acres

Schuylkill

Schuylkill Township has three municipal open space properties that are available for passive recreational opportunities. While the Township does not maintain active recreational facilities, Township residents have access to other recreational facilities within the Township such as the Phoenixville YMCA, Valley Forge National Historic Park, and two public school campuses. Additionally, municipal parks within the Borough of Phoenixville are in relatively close proximity to many Schuylkill Township residents. The three open-space/park parcels owned by Schuylkill Township include:

- **Valley Park**, which is a 15.75 acre parcel located along Valley Park Road,

- **Schuylkill Township Park** which is 2.4 acres of passive open space surrounding the municipal building, and
- **Pickering Preserve** located along Route 29 adjacent to the Phoenixville YMCA property, which contains 25 acres preserved as a natural area.

Within the Township is 206 acres of Valley Forge Natural Historic Park. This National and Regional asset provides a variety of recreational opportunities as discussed later in this chapter.

Privately held open space maintained by homeowner’s associations can be found in six developments located throughout the Township. The combined total acreage of open space associated with homeowner’s associations is 175 acres with the distribution shown in the in the following table.

Schuylkill Township Homeowner’s Association Open Space	
Pickering Glen HOA	16 acres
Valley Park HOA	8.21 acres
Dogwood HOA	19 acres
Valley Forge Meadows HOA	51.40 acres
Fernleigh HOA	54.60 acres
Potters Pond HOA	25.90 acres

A third category of open space in Schuylkill Township is open space easements that are monitored by a land trust. In 2006 the Township residents passed an earned income tax increase of .25 percent to acquire open space easements. These funds have been used to purchase easements on multiple properties within the township. The Schuylkill Township Open Space Commission works to identify properties suitable for preservation and whose owners are willing to sell development rights. Approximately 113 acres have been preserved through open space easements, including the Phoenixville Country Club property.

Finally, within Schuylkill Township several educational campuses exist that provide recreational opportunities during non-school hours.

- **Phoenixville Early Learning Center/Manavon School** - this recently developed campus has a variety of playground equipment, a trail and athletic fields.
- **Schuylkill Elementary** has playgrounds and open fields
- The **Technical College High School Pickering Campus** makes its fields available for use by the Phoenixville Area Soccer Club.

West Vincent

West Vincent Township has one active municipal park and another one proposed as part of the conservation plan for Bryn Coed Farms. There are also significant areas of public open space in the vicinity of Ludwigs Corner. Privately held open space is scattered across the Township, consisting mostly of properties with conservation or agricultural easements. The Township has an Open Space Advisory Committee to work on identification and protection of priority open spaces. In addition, the Township has a park and recreation Commission that advises on equipping, maintaining, and operating recreation facilities. Prominent park and open space assets in West Vincent are summarized as follows:

- **Evans Park** is a 12.9 acre facility that includes sports fields, a pavilion, playground, basketball, parking, and an approximately ½ mile paved walking path.
- **Cooks Glen Park**, a 54 acre wooded piece along French Creek, has hiking and horseback trails, and is used for fishing.
- **School House Park** is a 2 acre wooded site on Flowing Springs Road in Birchrunville.
- **Wilson's Corner Park** is a 4 acre wooded park along French Creek and adjacent to French Creek Road. It is a favored destination for fishing.
- The most substantial Township open space achievement is the recent preservation of the 1,500 acre **Bryn Coed Farms** in conjunction with Natural Lands (formerly Natural Lands Trust). The conservation plan includes (39) large deed restricted conservation lots, a 520 acre Natural Lands Preserve, and a 72 acre future Township Park, with a 10.5 mile trail system connecting the park and preserve areas with some of the lots and to trailheads on the perimeter roads.
- The **Regional French Creek Trail** goes through West Vincent owned lands along the French Creek.

Regional Park and Recreation Assets that serve the PRPC Municipalities

In addition to local resources, the PRPC Region has nearby access to a number of federal, state, and county public parks providing a broad diversity of outdoor recreational and educational activities.

- **Valley Forge National Historic Park** is a 3,500 acre historic site of the 1777-78 encampment of the Continental Army. It attracts over 1.2 million visitors annually to learn about history, enjoy the 5 mile paved fitness loop, and hike or bike the 26 miles of trails. The site also has riparian access, meadows, and woods for horseback riding, canoeing/kayaking, picnicking, nature study, sledding, and cross country skiing.
- **Hopewell Furnace National Historic Site** encompasses nearly 850 acres in northern Chester County and includes historic structures and a working iron furnace that illustrate the technology and lifestyle of late 18th century America. Most of the site is wooded and includes trails that connect to the Horse-Shoe Trail and that trail network at French Creek State Park.
- **French Creek State Park** is a 7,526 acre wooded natural park with camping, fishing, hunting, Frisbee golf, boating, picnicking, swimming, and over 35 miles of trails for hikers, equestrians, mountain bikers, trail runners, and orienteering.
- **Marsh Creek State Park** is a 1,705 acre mostly wooded park that includes a 535 acre lake. The park includes a swimming pool, day use area for picnicking, etc., approximately 12 miles of trails, and boat docks. Popular activities include boating, fishing, hiking, hunting, ice sports, sailing, horseback riding, and mountain biking.
- **Warwick County Park** includes 535 mostly wooded acres and offers fishing, biking, hiking, picnicking, horseback riding, birding, a playground, outdoor games, Horse-Shoe Trail access, and



Figure 9-2: Valley Forge National Historic Park. Credit National Park Service

scenic views of the French Creek. The park has nearly 10 miles of trail for hiking, mountain biking, cross country skiing, and equestrian use.

- **Lock 60 at Schuylkill Canal Park** in Mont Clare/Port Providence is owned by Montgomery County and operated by The Schuylkill Canal Association. The site includes a towpath and other trails linking historic canal structures and facilitates hiking, running, rollerblading, canoeing/kayaking, fishing, biking, and nature study.



Figure 9-3: Lock 60 at Schuylkill Canal Park. Credit J Clear, Wikipedia

SECTION 9.3 NEEDS ASSESSMENT - ACTIVE RECREATION FACILITIES AND PROGRAMS

As described in the previous section, the PRPC Region has an abundant and diverse system of open spaces and recreational lands. Within the open spaces and parks, active recreation facilities and programs must meet the needs of the community in order to maintain public health and quality of life for all residents. Over time, numerous methods have been employed by the National Recreation and Park Association (NRPA), Delaware Valley Regional Planning Commission (DVRPC), and the Chester County Planning Commission (CCPC) to assist communities in assessing needs and planning for recreational facilities. In addition, the Federation of Northern Chester County Communities Parks, Recreation, and Open Space Plan (PROS) utilizes its own standards for open space and recreation planning. The Phoenixville Regional Comprehensive Plan provides aspects of all of these methodologies in assessing and planning for open space and recreational facilities. These methods are then viewed in light of input provided by municipal parks and open space officials and advisors to form a more complete picture of Regional needs and uses.

Most fundamental is the aspect of acreage devoted to parks and other open space. In accordance with the PROS methodology, parks should be provided at the rate of 10.5 acres per 1,000 residents, and parks and open space together should amount to 28 acres per 1,000 residents. Thus, Regional current and future demand is as follows:

Year	Population	Minimum Required Park Acreage	Minimum Required Park and OS Acreage
2010 (US Census)	42273	444	1184
2020 (DVRPC proj.)	46978	493	1315
2030 (DVRPC proj.)	54010	567	1512

Table 9.3-1: Regional Park and Open Space Land Requirements (source: Federation of Northern Chester County Municipalities PROS Plan)

Regional parks and open space provided exceed the existing and projected demand and consist of the following:

Description	Area in Acres
Public Park (National, County, and Municipal)	803
Public Land (Municipal)	661
Private Preserve (Owned by Conservation Organizations)	489
Private Open Space (HOA and Other Deed Restricted Lands)	4911
TOTAL PRPC OPEN SPACE AREA	6864

Table 9.3-2: PRPC Regional Open Space Assets

Park facilities are classified by size and service areas, and include Regional Parks, Community Parks, Neighborhood Parks, and Mini Parks:

- **Regional Parks** are large scale parks of 1,000 acres or more serving a broad geographic area. Because of their size and regional significance, such parks are usually owned and operated by federal or state governments. They provide a variety of active and passive outdoor recreation opportunities, particularly those requiring large land or water areas. Regional Parks emphasize heritage and/or resource protection and recreation opportunities beyond the scope of those typically provided at local parks, including camping, hiking, mountain biking, boating, hunting and fishing. Regional Parks serving the Region include Valley Forge National Historical Park, French Creek State Park, and Marsh Creek State Park.
- **Sub-Regional Parks** are 400 to 1,000 acres in size that provide functions similar to Regional Parks, with intended service areas of an approximately 7.5 mile radius. Warwick County Park and Exton Park are examples of sub-regional parks that serve the PRPC area.
- **Community Parks** are primarily for active recreation serving the needs of residents within a two to three mile radius. These parks usually have various sports facilities, paved walking trails, picnic and game areas, and they may have outdoor performance venues. Often, Community Parks have interpretive natural and/or historic preservation components. Community Parks are 20 to 400 acres in size. Charlestown Park is an example of a Community Park.
- **Neighborhood Parks** are one half acre to 20 acres in size and are intended to address the recreational needs within a 15 minute walk. Evans Park and Kimberton Park are examples of Neighborhood Parks.
- **Mini Parks** are smaller than one half acre with a service radius of a quarter mile. They are typically placed in urban settings are designed to meet the needs of a local community, with playgrounds, sitting areas, paths, gardens, fountains, small structures, interpretive features, etc. Children’s Plaza and Renaissance Park in Phoenixville are examples of Mini Parks.

The Chester County’s *Linking Landscapes* open space plan establishes a population based methodology for determining the need for acreages of different types of parks. Needs are also determined by whether a municipality is high density/urban (3,265 population/square mile), medium density (376-3264 pop/sq. mi.), or low density (<375 pop./sq. mi.). Based on DVRPC population projections for 2030, Regional park demand will be as follows:

Projected Regional Park Demand				
Municipality	2030 Population	Required Acreage		
		Mini Parks	Neighborhood Parks	Community Parks
Charlestown	7,217	0	25	32
East Pikeland	9,081	0	32	41
Phoenixville	22,481	5.5	56	67
Schuylkill	9,615	0	34	43
West Vincent	5,616	0	0	34
PRPC Region	54,010	5.5	147	217

Table 9.3-3: Projected Future Regional Park Demand Analysis

Population based methodologies for determining the need for recreational facilities (sports fields, playgrounds, picnic area, etc.) have been advanced by DVRPC (1977), Chester County Open Space and Recreation Survey (CCOSRS, 1982), and the National Recreation and Parks Association (NRPA, 1995). However, experience with non-urban communities has shown that actual demand for facilities is based on specific local circumstances and does not lend itself well to arithmetic calculations. In addition, the demographic multiplier methods are dated, as popular recreation habits have changed over time. Moreover, demographic factors such as age cohort size, ethnicity, and socioeconomic conditions can have significant influence on recreational preferences and facility demand. And, as we can see from the table below, different methodologies produce quite disparate results. For these reasons, statistical methods should be used only to generate a rough estimate of demand, with a more precise determination made by the municipal park and recreation departments or boards and the area sports/recreation organizations more directly attuned to local needs.

Projected future Regional demand for recreational facilities according to various population-based statistical methodologies is as follows:

Recreational Facility Type	Number of Facilities Required		
	NRPA (1995)	CCOSRS (1982)	DVRPC (1977)
Baseball/Softball Fields	10	27	18
Soccer/Football Fields	5	27	36
Hockey/Lacrosse Fields	3	-	36
Tennis Courts	27	27	54
Volleyball Courts	10	16	54
Basketball Courts	10	22	108
Picnic Areas	-	-	9
Play Apparatus	-	-	27
Swimming Pool	-	-	10

Table 9.3-4: Projected 2030 Recreational Facilities Demand per Demographic Multiplier Methodologies

Charlestown Township

Charlestown’s 225 plus acres of parks and public open space are more than adequate from an area perspective. According to the Township Park and Recreation Board Chairman, sports field use is currently near capacity, and there is a long term plan to provide more fields in the Township.

Youth athletic leagues are supported by the Phoenixville Area Soccer Club (PASC), and the Phoenixville Marian Youth Club (PMYC), which organizes football, flag football, lacrosse, field hockey, cheerleading, and basketball. Both of these organizations serve the entire PRPC Region.

Charlestown Park has undergone a substantial restoration of its picnic and playground area, and now includes a youth playground, a tot lot, swings, sand area, six pavilions of varying sizes with barbecue facilities and electricity, a bathroom and maintenance building, and new and refurbished parking areas with rain gardens. The pavilions can be reserved by groups for parties and special events. All of these facilities get regular moderate to heavy use by residents of Charlestown and surrounding communities.

East Pikeland

East Pikeland has over 120 acres of public recreation space, including Kimberton Park, open space and trails along French Creek, and sports fields at the former East Pikeland Elementary School (EPES).

Kimberton Park is the Township's primary recreational resource, with a roller hockey rink, a basketball court, two baseball/softball fields, three tennis courts, a youth playground, a tot lot, sand area, swings, a picnic pavilion, paved walking trail, bathrooms, and a gazebo. The pavilion can be reserved for private parties and other events. An amphitheater for theatrical and musical performance will be completed in 2018.

A recreation demand analysis was conducted as part of the Township's 2013 *Open Space and Economic Development Plan*. In accordance with Northern Federation PROS methodology cited in this Plan, East Pikeland has sufficient sports fields to meet Township needs, but only if one includes fields at the Kimberton Fire Company fairgrounds and the now closed EPES. Further, parks are not well distributed among all developed areas of the Township, so accessibility is less than optimal, and a need for additional recreation amenities for senior citizens was identified.

Youth athletics are supported by the Kimberton Youth Athletic League (KYAL), which operates t-ball, baseball, and softball leagues at a variety of skill levels. Because KYAL draws from a broad geographic area, as of 2013 there were 32 baseball teams and 14 softball teams vying for use of six fields. Thus, the need for two to five additional fields was determined by the Township's 2013 *Open Space and Economic Development Plan*.

Phoenixville

Phoenixville has more than 72 acres of municipally owned land dedicated to park and open space scattered throughout the Borough, which is in addition to the 119 acres associated with Black Rock Sanctuary. Additional recreational opportunities are also available at private facilities such as DeSanno Field, local schools, and along the trails along French Creek. When considering the overall acreage of municipal and County parks within the Borough of Phoenixville there appears to be adequate acreage to meet the demands for projected 2030 population. However, a more detailed analysis of facilities required to serve the population should be conducted as part of the upcoming update of the Phoenixville Comprehensive Plan relative to parks and the Civic Center planned by the Borough.

Given the traditionally urban form of Phoenixville, smaller parks have functioned as community and neighborhood parks. In particular, Reeves Park at just 6.6 acres, well below the 20 acres identified as the minimum for community parks, serves as the recreational center of the Borough. With its central location, variety of passive and active activity opportunities, and band pavilion, Reeves Park functionally

serves as the community park for the Borough. Plans are underway to install a new sidewalk in Reeves Park in 2018.

Neighborhood parks are distributed throughout Phoenixville offering localized recreational opportunities. These parks typically have small playgrounds for families with young children, benches and varying additional facilities. Neighborhood parks in Phoenixville are typically walkable to the surrounding community. As part of the update of the Phoenixville Comprehensive Plan for Parks, an assessment should be conducted to determine if there are areas of the Borough that are deficient in neighborhood parks and facilities.

As identified in the Borough of Phoenixville Park Amenities & Recommended Improvements table, signage was a priority in nearly all the Borough parks and has been installed since the preparation of the 2015 Park Plan. As the Phoenixville population increases and the demographics change, opportunities for additional park facilities within the existing parks should continue to be revisited.

During the community visioning process associated with the Regional Comprehensive Plan Update, participants revealed a desire for a park facility in downtown Phoenixville and the creation of additional trail linkages between downtown Phoenixville and other villages in the Region.

Schuylkill

With a combined area of 43.15 acres between three parcels owned by Schuylkill Township, the Township has fewer municipally-owned acres than called for by demand projections. However, Schuylkill Township's location adjacent to Phoenixville Borough with its variety of municipal parks, the Phoenixville YMCA, and Valley Forge National Historic Park provide substantial recreational and open space access for residents. Considering the relatively low density of the Township and the close proximity to recreational facilities, the Township appears to be adequately served.

In addition to the municipally owned parcels and Valley Forge National Historic Park, the higher density developments within the Township also have open space maintained by homeowner's associations. The YMCA maintains athletic fields for a variety of sports offered through their organization.

West Vincent

West Vincent's existing recreational attributes are Evans Park, three natural parks, and trails in the western end of the municipality and along French Creek. Evans Park includes a soccer field, a baseball field, a pavilion, playground, basketball, parking, bathrooms, and a paved walking path. Currently, the Township has a deficit of active recreation facilities. Using the methodology of the Federation of Northern Chester County Communities in their 2012 *Parks, Recreation, and Open Space Plan*, the Township currently needs one more baseball/softball field, and by 2030 will need an additional soccer field. Part of the Township's recreational demand is met by two soccer fields at the privately owned Ludwig's Corner Horse Show grounds.

Youth athletics for West Vincent Residents are supported by the Glenmoore-Eagle Youth Association (GEYA) for baseball, softball, and soccer, the Coventry Soccer Association, and Kimberton Youth Athletic League (KYAL) for baseball and softball.

Complementing the municipal park lands, the Ludwig's Corner Horse Show Grounds is a private facility with limited public accessibility for events.

With the preservation of Bryn Coed Farms, the Township has acquired 72 additional acres of park land along Saint Matthews Road that will include connections to an over ten mile trail system. Programming for this park could include new recreation facilities as needed.

SECTION 9.4 TRAILS



Trails are critical components of the recreational system that promote public health, intermodal accessibility, environmental awareness, and sustainability. Hikers, equestrians, bicyclists, and special needs people of all ages use trails for recreation, commuting, and to experience the natural and historic heritage of the Region. In addition, trails are essential in generating public support of open space preservation efforts, by giving citizens accessibility to the open space preservation that taxes and

municipal policies and plans enable. Public opinion surveys repeatedly demonstrate that trails are the most broadly popular of all open space and recreation assets.

The PRPC Region has a well-developed network of formal and informal trails. These include trails that extend through and beyond the Region, such as the Horse-Shoe Trail and the Schuylkill River Trail. The PRPC and its member municipalities have signed Official Resolutions in support of The Circuit, an ongoing project to construct a 750 mile system of multi-use trails throughout the Philadelphia metropolitan region, including the Schuylkill River Trail and the proposed Devault Rail Trail. In addition, Charlestown, East Pikeland, Schuylkill and West Vincent Townships each have trail plans and policies to protect and expand the network of public trails and informal unimproved trails. Phoenixville recently undertook completing the extension of the Schuylkill River Trail from Mont Clare to the Cromby trailhead in East Pikeland.

Significant Regional Trails with connections beyond the PRPC area are shown on Map 8 and include the following:

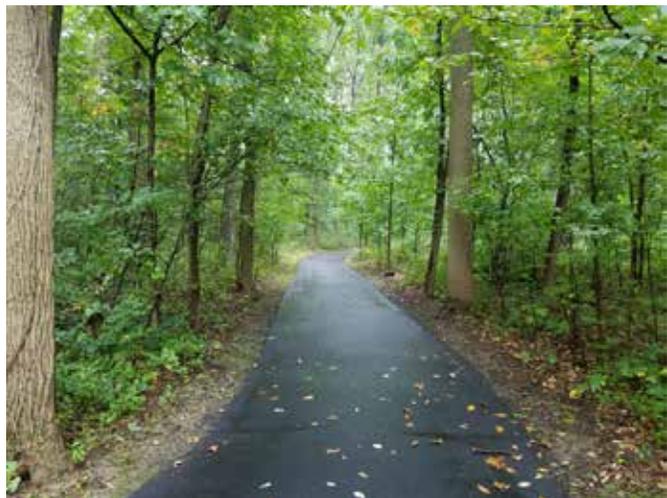
- **Brandywine Trail**, a proposed hiking and biking link from the Horse-Shoe trail and developments near Ludwigs Corner into Upper Uwchlan and eventually to the Struble Trail and Downingtown.
- **The Devault Line Trail** is a proposed multi-modal extension of The Circuit extending from the Schuylkill River Trail in Phoenixville/Mont Clare to Devault in Charlestown Township. From there, future connections through East Whiteland and Tredyffrin Townships will eventually link to the Chester Valley Trail, which now extends from King of Prussia to Exton. This trail was the subject of a 2015 Feasibility Study.

- **The French Creek Trail** is a generally unimproved surface trail that on completion will extend from Phoenixville and the Schuylkill River Trail northwest to Warwick County Park and the Horse-Shoe Trail. The French Creek Trail is part of the Sow Belly-French Creek Regional Recreation Corridor, as identified in Chester County's *Linking Landscapes* open space plan. French Creek Trail includes a quarter mile paved ADA accessible trail in the vicinity of the historic Continental Powder Works at Snyders Mill and the Rapps Dam covered bridge. The parts of the trail within East Pikeland and West Vincent Townships are largely complete, except for areas where access still needs to be acquired by the municipalities working with French and Pickering Creeks Conservation Trust. Trail access in Schuylkill Township and through Phoenixville is also yet to be obtained.
- **Horse-Shoe Trail** is a 140 mile hiking and equestrian trail extending from Valley Forge Park to the Appalachian Trail in Dauphin County. The Trail is unimproved and crosses over mostly private lands by agreement with the property owners. Within the PRPC Region, the Horse-Shoe Trail crosses Charlestown and West Vincent Townships, at times sharing an alignment with public roads. The Trail is managed and maintained by volunteer members of the Horse-Shoe Trail Club, who work with landowners and municipal officials to preserve and expand the extent to which it stays off road. The Horse-Shoe Regional Recreation Corridor is recognized by the *Linking Landscapes* plan.
- **The Schuylkill River Trail (SRT)** currently connects from South Philadelphia to Parker Ford north of Spring City, and is the Philadelphia metropolitan area's premier and most heavily used trail. Upon completion, it will extend 100 miles from Philadelphia northwest to Pottsville in Schuylkill County, with an extension from Parker Ford to Pottstown proposed in the next phase of construction. The SRT is paved from Philadelphia to Cromby, and Chester County intends to pave the remaining gravel sections in the future. Within Chester County, the SRT is part of the County Park system and is identified in *Linking Landscapes* as the Schuylkill Regional Recreation Corridor.

The PRPC municipalities have each pursued plans and initiatives to promote the development of trail networks.

Charlestown

Charlestown Township maintains a high priority trails map that shows existing and planned trails that are to be coordinated in plans for public and private eased open space plans and in development plans for private properties. In addition, the Park and Recreation Board promotes connections of trails on public open space with those on HOA and other eased/deed restricted lands. Significant local trails in Charlestown include:



- **Pickering Trail**, an unimproved trail extending over 1 mile from the historic Woolen Mill at Charlestown Road to the Ice Dam at Route 29.
- **McDevitt Trail**, an unimproved approximately half mile looped nature trail near the intersection of Bodine and valley Hill Road.
- **Thompson Trail**, an unimproved trail approximately 1.5 miles long extending from the Horse-Shoe Trail and Union Hill Road to Tinker Hill Road in Schuylkill Township.

East Pikeland

East Pikeland Township has a 2013 Municipal Trail Plan that is reinforced and supported by the 2013 Comprehensive Plan Supplement, the *Plan for Open Space and Economic Development*. These documents plan for a Township-wide system of primary corridors and loops that connect neighborhoods and community assets with regional trails and local trails in adjacent municipalities. Certain high priority trail corridors are to have improved surface to promote multi-modal trail use. Significant planned local trails include:

- **Cromby Trail**, a proposed improved trail connecting the Route 23 corridor and associated development with the Schuylkill River Trail.
- **Pickering Valley Railroad Trail**, a proposed improved trail connecting Kimberton and the French Creek Trail westward to the Bridge to Bridge trail in West Pikeland Township.

Phoenixville

Phoenixville undertook the layout and construction of the Schuylkill River Trail in 2015 within the Borough boundaries. In addition, the Phoenix Iron Canal and Trail Association has been working with the Borough, Norfolk-Southern Railroad, and landowners to establish a formal trail along the Schuylkill River and canal that would connect the Borough and the Schuylkill River Trail with Black Rock Sanctuary, and provide canoe/kayak accessibility to the Schuylkill River, a designated water trail.

Schuylkill

In 2017, Schuylkill Township adopted a Multi-Modal Map showing existing and proposed bicycle routes, trails, and sidewalks. A primary purpose of the plan is to promote the pedestrian interconnection of mostly existing neighborhoods to one another and with the Borough of Phoenixville. In addition, the Plan indicates a proposed **Schuylkill Freedom Trail** that will provide connection from Valley Forge National Historic Park through the Township to Phoenixville.

West Vincent

In 2014, West Vincent adopted a Multi-Modal Study showing existing and proposed bicycle and pedestrian routes connecting cultural destinations, open spaces, and neighborhoods. Significant proposed trails include:

- A proposed multi-use trail along Saint Matthews Road.
- Completion of the **French Creek Trail**, including a section through Cook's Glen Park.

- Improved surface trails around Ludwigs Corner and Weatherstone, including the Brandywine Trail.

SECTION 9.5 SENIORS AND SPECIAL NEEDS POPULATIONS

As the population ages and communities recognize the importance of having recreational amenities for special needs population, opportunities should be pursued to incorporate ADA accessible facilities into the park system including trails that are wheelchair accessible and well-maintained to avoid tripping hazards such as cracks in pavement.

With the growing senior/retired population in the Region and Nationally, consideration should be given to expanded programming at existing senior and recreation centers. Programs focused on the senior population offer social opportunities as well as a variety of recreational, wellness and fitness classes. Partnerships with other community facilities should be considered for senior programs such as municipal buildings, school facilities, libraries and churches to maximize the opportunities for senior activities throughout the Region. Programming and amenities should be tailored to current demand of the senior population, which is expected to shift over time.

In addition to expanding the programs and amenities for the senior population, amenities accessible to residents with other special needs should be considered. Installation of playground equipment that offers recreational opportunities for children who are physically disabled also enhances the use of the park spaces by a wider variety of residents. Efforts are currently underway to install an all-abilities playground at Reeves Park to provide additional recreational opportunities. Additional opportunities for installation of all abilities play equipment should be pursued throughout the Region in existing parks to maximize usage opportunities. Installing ADA ramps at intersections helps to make park more accessible for those with physical limitations.

SECTION 9.6 BIKE ROUTES

Bicycle accessibility is critical to multi-modal accessibility, and the PRPC Region is in a good position to maximize the benefits of this. Recreational bicycling is a popular activity in and beyond the Region, and many roads are well suited to this activity. In addition, The Circuit and local trail initiatives are expanding the network for accessibility beyond the road system. With development of supporting roadway facilities, the health and sustainability benefits of bicycle recreation and commuting can be greatly enhanced.



Figure 9-4: Example of an advanced/commuter bike route. Credit U.S. Air Force

In order to maximize safety and enjoyment, Map 9 indicates bike routes classified in terms of the comfort level of riders of different skill levels.

- **Bike Trails** are paved surfaces not shared with motor vehicles. As such, they are the safest of bike routes, conducive to novice cyclists and families with younger children. Bicyclists must observe basic rules of etiquette to safely navigate among walkers, inline skaters, and less

experienced cyclists. The Schuylkill River Trail is the Region’s most significant bike trail, and the proposed Devault Rail Line Trail will complement it.

- **Beginner Routes** are low traffic volume roads with flat or gently rolling terrain suitable for recreational riders of modest experience or skill.
- **Intermediate Routes** have low to moderate traffic volumes and speeds, and generally occupy more challenging terrain. Riders should have a reasonable level of fitness and be comfortable riding in intermittent traffic in order to enjoy these routes.
- **Advanced/Commuter Routes** include roads with moderate to high traffic volumes, and higher velocity traffic. Higher volume/velocity commuter routes have shoulders so that cyclists can coexist with cars and trucks. These routes require fitness and skill to be enjoyable.

Bicycle routes can be made safer through multi-modal street design. In many cases, existing roads can at minimal expense be made into safer bicycle routes through installation of signs and/or pavement markings. Specific strategies to create safe bicycle routes include:

- Complete Streets, which are designed with specific accommodations for pedestrians, bicyclists, motorists, and public/mass transportation, as well as traffic calming measures. These are covered in detail in Chapter 10.
- Where conditions permit, an existing paved shoulder can be designated as a bicycle lane.
- Bike route signage can consist of share the road signs, and/or could contain specific local or regional route information (e.g. PA Bicycle Route S signage).
- Bicycle “sharrow” markings are painted symbols on roadways that indicate that travel lanes are shared by motorists and cyclists.

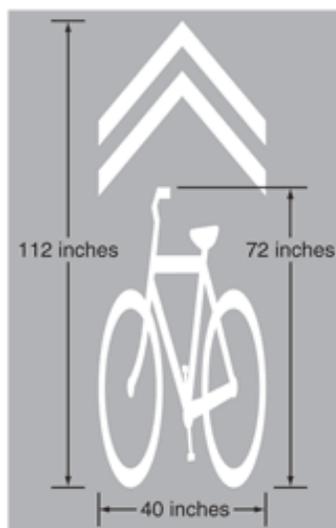


Fig. 9.6-1: Typical Sharrow Marking

SECTION 9.7 OPEN SPACE PLANNING

Regional and municipal open space planning should strive to achieve all objectives and maintain balance where multiple goals are in apparent conflict. This requires the setting of priorities in determining how open space objectives are to be met. For example, East Pikeland's Open Space Plan establishes organizing principles based on riparian greenway corridors, high quality mature forests, and agricultural lands that in turn define locations for trails. Charlestown and West Vincent have identified critical large properties upon which to focus efforts to secure conservation easements. Schuylkill Township and Phoenixville seek to connect existing and developing communities with trails linking important cultural destinations. Other priorities may include the need for recreational facilities or the identification of critical environmental or historical resources, including scenic vistas or viewsheds. Park, Recreation, and Open Space Plans adopted by Regional municipalities include the following:

- **Charlestown Township** has a 2012 Parks, Recreation, Open Space & Trails Plan, adopted as an addendum to the 2001 municipal Comprehensive Plan.
- **East Pikeland Township** has a 2013 Plan for Open Space and Economic Development, adopted as a supplement to the municipal Comprehensive Plan. In addition, the Township is a member of the Federation of Northern Chester County Communities, which has its own PROS Plan.
- **Phoenixville Borough** has a 2015 Comprehensive Parks Plan, plus master plans for a number of the municipal parks.
- **West Vincent Township** has a 1992 Open Space and Recreation Plan. In addition, the Township is a member of the Federation of Northern Chester County Communities, which has its own PROS Plan.

Open space and recreational facilities should be required in all new developments to accommodate the growing population. When new open space and recreational facilities are not feasible, require fees in lieu to expand existing park facilities.

Where the preservation objectives of environmental resource protection, open space planning, and recreation overlap, **Greenways** are an effective strategy. These are most logically oriented along streams and rivers where riparian buffers can provide corridors for habitat protection and trails, while improving water quality. Riparian greenways and trails exist along sections of the Schuylkill River, French Creek, and Pickering Creek, and should be extended to form contiguous trail and environmental protection corridors that extend across municipal and Regional boundaries.

Open space programming should include agricultural preservation. This includes facilitation of agricultural preservation grants and easements for productive lands. In addition, public and other open spaces could be used for agricultural and horticultural recreation programs, including CSAs and Community Gardens.

Planning should also include allocation of resources to assure that open space and recreational resources are monitored and maintained. Charlestown Township conducts biannual monitoring inspections of public and eased private open space and recreation resources to assure safety, to mitigate any environmental/management concerns, and to prevent illegal or hazardous/nuisance use of open space.

SECTION 9.8 IMPLEMENTATION STRATEGIES

The following policy recommendations will implement the goals and objectives of the Parks, Recreation, and Open Space Plan:

PRO-1 Evaluate local and regional resources in need of open space designation to promote their protection.

Critical resources to protect as open space may include environmentally sensitive areas, valuable habitats, agricultural lands, historic structures and landscapes, scenic or heritage viewsheds, desired trail connections and greenways, and farms.

PRO-2 Assess municipal needs and provisions for recreational facilities for everyone.

Assure adequacy of recreational resources for children, adults, senior citizens, and those with special needs.

Encourage senior programs at a variety of community facilities such as municipal buildings, school facilities, libraries and churches.

Encourage the inclusion of all-abilities playground equipment in existing parks to expand use opportunities.

PRO-3 Promote Regional cooperation of youth sports organizations and PRPC member municipalities to address local deficiencies.

This may include provision of facilities in one municipality where a different municipality has a deficit, or to address the regional need for facilities serving a smaller niche market. An example of the latter would be the stones course at Charlestown Township Park.

Encourage the use of existing open space areas associated with existing development such as churches and businesses for low-impact sports.

PRO-4 Implement Regional and Municipal Trail Plans.

Establish trail corridors through permanent open space or by easement, and construct a comprehensive network of multi-use and unimproved surface trails that connect neighborhoods, open spaces, cultural resources, and other trails within and beyond the Region.

Consider opportunities for improved pedestrian connections from surrounding neighborhoods to downtown Phoenixville and to surrounding villages in the Region.

PRO-5 Develop a Regional network of on road and trail bicycle routes.

Evaluate bike routes for safety and improve as necessary. Coordinate routes with cultural landmarks and destinations, The Circuit trail plan, and bicycle routes beyond the PRPC Region.

Identify bicycling and walking connections that link neighborhoods to nearby commercial centers to encourage bicycling and walking for shopping and other commercial trips.

Identify improved pedestrian access opportunities from Phoenixville Borough to the Phoenixville YMCA.

PRO-6 Monitor and maintain the condition of all public recreation and open space facilities and resources.

Compile regular reports on the safety and functionality of recreational facilities, and budget adequately for maintenance, repair, and replacement as appropriate. Monitor and report on open space resources, specifically for trail conditions, invasive species, erosion, illegal use, dumping, and hazards to human safety or health, and assure that necessary maintenance and restorative actions are taken.

PRO-7 Consider a municipal Official Map to identify critical open space resources for future acquisition or easement.

Official map designation should be utilized only when the municipality is certain in its desire to designate a property as open space, and should not be used as a provisional placeholder where no such certainty exists.

PRO-8 Obtain funding for open space through grants and conservation partnerships.

Work with State and County grant agencies, foundations, and conservation organizations for funding and technical support on open space initiatives. Include agricultural easements and grants, and encourage activities such as CSAs and community gardens that can provide funding streams and/or labor pools to maintain productive open space.

PRO-9 Assure that municipal ordinances provide for open space and recreation accommodation in all new developments.

Establish fee-in lieu provisions for developments that do not make such accommodation.

PRO-10 Ensure that park facilities adequately serve the population of the Region, particularly those areas with higher-densities of development.

Update the Phoenixville Comprehensive Plan relating to parks and the Civic Center. Include an assessment of walking distance of parks from neighborhoods and adequacy of park facilities.

Consider opportunities to develop a neighborhood or mini-park in the downtown area of Phoenixville. A possible location could be adjacent to the farmer's market.

PRO-11 Improve signage and mapping for trail connections.

As the trail system is expanded, develop a signage program that identifies points of entry and includes maps showing linkages.

CHAPTER 10 TRANSPORTATION PLAN



Land use, economic development, viable housing, recreation, and environmental resource protection are all dependent on a functional and efficient multi-modal transportation network. This element of the Regional Comprehensive Plan advances strategies to efficiently move goods and people, to maintain a high quality of life, and to promote environmental and energy sustainability, and is intended to supplement the *Phoenixville Region Multimodal Transportation Plan*.

SECTION 10.1 TRANSPORTATION PLAN GOAL AND OBJECTIVES

Encourage the expansion a variety of transportation opportunities in the region to reduce congestion and dependency on automobiles while improving interconnectedness.

This goal is to be advanced through the pursuit of the following specific objectives:

1. Prioritize roadway improvements that lessen congestion, direct pass-through traffic, and improve roadway safety in the region.
2. Identify scenic corridors of regional significance and develop regional policies and design standards for them.
3. Develop a regional bicycle and pedestrian connection plan to identify and prioritize missing alternative transportation linkages for interconnections of residential areas, villages and commercial and employment centers.
4. Work with SEPTA, Chester County and the Transportation Management Associations to develop additional affordable public transportation service within the Region.
5. Develop strategies to provide an adequate parking supply that will sustain revitalization efforts in downtown Phoenixville, villages and economic activity centers.
6. Promote and advocate for passenger rail service to the Region.

SECTION 10.2 PHOENIXVILLE REGION MULTIMODAL TRANSPORTATION PLAN

In response to projections for substantial population growth and development, the Chester County Planning Commission has prepared a *2018 Phoenixville Region Multimodal Plan* (PRMP) that identifies transportation goals, objectives, issues and priorities, and is incorporated by reference as part of the Transportation Element of this Regional Comprehensive Plan. The PRMP includes the five municipalities of the Phoenixville Region plus Upper Providence Township in Montgomery County and emphasizes the following:

- Safety;
- Access for all users;
- Regional connections;
- Mobility within the growth center of Phoenixville Borough;
- Planning policies and programs;
- Promotion of walking and biking; and
- Awareness.

The PRMP specifically addresses sidewalks, trails, bicycling, public transportation, and traffic volume/congestion through (26) specifically identified multi-modal projects, of which (13) are priority projects (identified in green below).

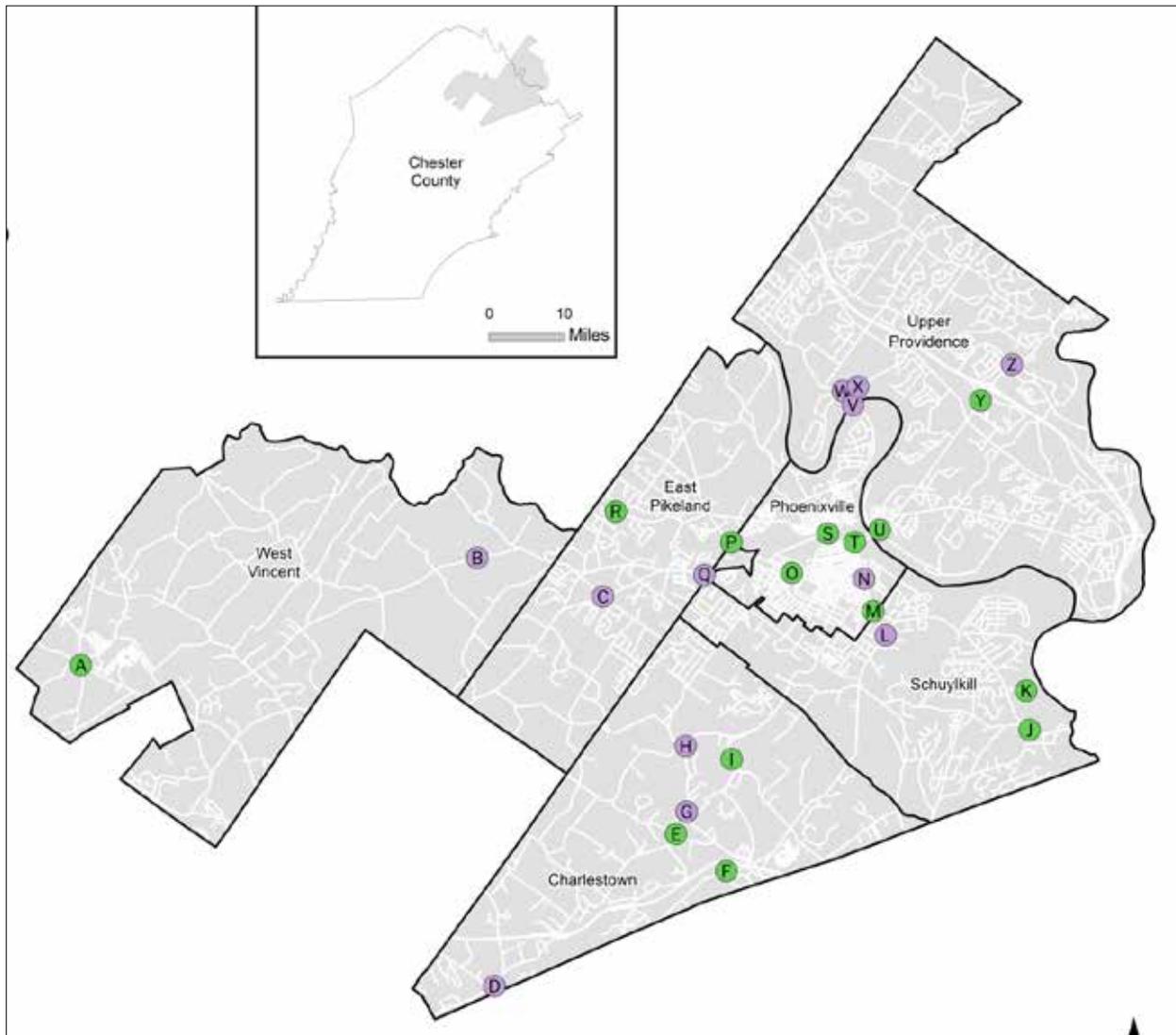


Fig. 10.2-1: PMRP Multimodal Projects (Map by Chester County Planning Commission/CCPC)

Specific Projects are as follows (**Priority Projects** in bold):

- A. **Ludwigs Corner Pedestrian Access**
- B. West Vincent Trail
- C. Pickering Valley Railroad Trail
- D. PA 401 and Valley Hill Road Intersection
- E. **Charlestown and Hollow Road Intersection**
- F. **Devault Rail Trail**
- G. Pickering Trail Parking
- H. Charlestown Road Multimodal Connection – Phoenixville to University of Valley Forge

- I. **PA 29 Narrow Bridge**
- J. **PA 23 and Valley Park Road Pedestrian Accommodation and Congestion**
- K. Schuylkill Freedom Trail
- L. Schuylkill Township Sidewalks
- M. **Starr Street/Nutt Road Turning Movements and Pedestrian Access**
- N. Starr Street Width/Speeding
- O. **Bridge Street/Nutt Road Intersection**
- P. **Township Line Road and PA 23 Intersection**
- Q. Pothouse Road Trail
- R. **French Creek Trail Connection through Schuylkill/Phoenixville**
- S. **Phoenixville Transit Access**
- T. **Starr Street and Bridge Street Intersection**
- U. **Mont Clare Intersection**
- V. PA 113 Black Rock Bridge Pedestrian Crossing
- W. Black Rock Road and Second Avenue Intersection
- X. Schuylkill East Trail
- Y. **Route 29 Trail Link**
- Z. Arcola Road and PA 29 Pedestrian Accommodation

In addition to these, the PRMP identifies establishment of a Transportation Center in Phoenixville as a mid-term goal, and the restoration of regional passenger rail service to Phoenixville as a long term goal.

The remainder of this Comprehensive Plan element strives to support the PRMP and address transportation matters not specifically addressed therein.

SECTION 10.3 ROAD IMPROVEMENTS

Within the Phoenixville Region there a limited number of major road improvement projects in the planning phases. In Phoenixville, the extension of Ashburn Road to Township Line Road is planned as an arterial road to offer an alternative to going through downtown Phoenixville.

The 2017 Transportation Improvement Program (TIP) maintained by DVRPC, identifies the following projects in the Phoenixville Region.

- Upgrades to three traffic signals in East Pikeland Township along Route 113.
- Multiple bridge rehabilitations.
- Improvements to the Mont Clare Bridge to convert the five-foot sidewalk to a 10-foot wide multi-use path.
- Phase I of the design and construction of French Creek Parkway. It will provide a roadway connection between Main St. and Taylor Alley in the Borough of Phoenixville, and include a new traffic signal, a new bridge over French Creek, and 0.4 miles of new collector roadway and sidewalk network.
- Route 100 Corridor safety improvements.

Complete Streets

As vehicular congestion continues to challenge many parts of the Region, opportunities to maximize other modes of transportation within the existing rights-of-way and improve efficiency come to the

forefront. The concept of ‘Complete Streets’ has been developed to guide a change of approach to developing rights-of-way. Rather than focusing primarily on the roadway for the movement of motor vehicles, the Complete Streets concept encourages communities to prioritize the full use of the right-of-way with improvements that enable safe access for all users, including pedestrian, bicycles, and transit users, in addition to motorists. Complete Streets emphasizes safe circulation for all users of all abilities. The Phoenixville Region Multimodal Plan identifies priority projects within the Region that, once completed, will help to implement the Complete Streets concept by improving key areas with significant transportation deficiencies.

Although Complete Streets are intended to fill multiple transportation purposes, context is of critical import in the actual design. A Complete Street in a low volume rural setting can look very different from one in a suburban or urban setting, while still addressing accessibility for pedestrians, bicyclists, people with disabilities, and public transit where available. A Complete Street in a highly developed area may have bike lanes, sidewalks, on-street parking, pull-offs for bus stops with shelters, and a vegetated median with stormwater management and water quality functions. In a country setting, a Complete Street may simply have “share the road” signs or markings, and in the suburbs a Complete Street may feature a multi-use path located outside the vehicle cartway. The common objective is enhanced multi-modal accessibility, but the design approaches to meet the objective are highly variable.

By municipalities adopting Complete Streets policies, it provides each community with more leverage when reviewing new development and encourages community representatives to think about improvements beyond the roadway. Given that much of the roadway system in the Region is developed, Complete Streets within the regional context needs to emphasize opportunities to improve existing segments of right-of-way that are lacking critically needed infrastructure.



Regional Policy for street layout, interconnections

Municipalities within the Phoenixville Region have made great strides emphasizing interconnections and Complete Streets in the last several years resulting in quality developments such as Weatherstone in West Vincent that emphasize interconnectedness and Complete Streets. Municipalities should regularly revisit ordinances to ensure that requirements associated with street layout and interconnectedness maximizes the Complete Street policy.

SECTION 10.4 SCENIC ROADWAY CORRIDORS

Outside of Phoenixville and the more heavily developed adjacent areas, the Region’s road network is largely comprised of country roads and two lane rural highways. The preservation of visual quality along these roads is essential to maintaining the rural aesthetic that is treasured by residents and visitors, and the Region is remarkable for its scenic heritage viewsheds and vistas. Therefore, this plan identifies scenic roads to be protected by effective use and design requirements.

Given the visual resources of the Region, one could conceivably describe nearly all of the roadways as scenic. However, designating all roads as scenic could lead to ordinance challenges that the rigorous design standards and restrictions are too broadly applied. Therefore, this Comprehensive Plan designates only those roads exhibiting the very best of the Region’s visual qualities as scenic, based on the following characteristics, alone or in combination:

- Agricultural landscapes
- Long or broad viewsheds
- Historical structures or landscapes
- Exceptional natural landscapes, such as mature forests, meadows, wetlands, ponds, and streams

Municipal design standards and restrictions would vary based on factors such as road functional classification, proximity of adjacent features to be preserved, pedestrian/bicycle/equestrian accessibility, topographic and other environmental conditions. Recommended design standards and restrictions for scenic roadways include the following:



- **Deep building and structure setbacks in rural areas** – New buildings and other structures in close proximity to scenic roads significantly detract from scenic quality through the destruction of trees and natural features, disruption of views, and the interjection of incongruent elements into the landscape. Keeping new buildings back from scenic roads is achievable through setbacks in the General Requirements of zoning ordinances, and through standards requiring swaths of open space along scenic roads.
- **Driveway restrictions along scenic roads** – Subdivisions with lots fronting on scenic roads can significantly deteriorate scenic quality (and public safety) with a proliferation of driveways. This can be avoided by requiring major subdivisions to provide access to lots from a secondary street off of the scenic road. For small subdivisions of just a few lots, common driveways could be used in place of streets.
- **Clearing restrictions** - Woods, hedgerows, and large trees are often essential to the visual quality of scenic roads. Restrictions on clearing within designated scenic viewsheds can assure that new development does not adversely alter the landscape character.

- **Billboard and illuminated sign prohibition** – Billboards and illuminated signs are completely incongruent with scenic road aesthetics and should be prohibited by municipal zoning codes.
- **Signage design requirements** – Municipalities should enforce enhanced restrictions on size and spacing of signs specific to scenic roads. Where there are few existing signs, municipalities could create a uniform design palette of size, color, font, text size, borders, etc. consistent with a consensus aesthetic standard for scenic roads.
- **Landscape requirements** – Scenic roadways should have landscaping requirements for new development based on preserving/enhancing scenic qualities, such as preserving long views, or providing screening where needed. For example, the normal street tree requirement could be altered or eliminated in cases where the viewshed quality requires that it be uninterrupted. Conversely, screening in excess of ordinary requirements may be necessary to prevent views of parking, buildings, etc. from introducing visual incongruity into the scenic landscape.
- **Cartway width** - Narrower road cartways than normal may be appropriate to historic settlements and the protection of critical landscape features. In conjunction with other traffic calming strategies, these can enhance safety while preserving scenic qualities.
- **Bike/pedestrian/equestrian access** – Scenic rural roadways often attract many users besides motor vehicles, which can create user conflicts and safety issues. Municipalities should determine where traffic volumes make enhanced paved shoulders appropriate. When used in conjunction with narrower vehicular travel lanes, this can be done without significantly increasing the apparent width of the roadway. Alternatively, multimodal trails can be provided separate from and parallel to the roadway where budget priorities allow
- **Underground utilities** – The Region should seek ways to upgrade pole mounted utilities along scenic roads to less obtrusive and more resilient underground trenches. This effort may require legislative support and funding partnerships.
- **Road Design Standards** – Land development ordinances often require substandard existing road frontages to be upgraded to current requirements, which can include increased widths, turning lanes, and vertical concrete curbs, all of which degrade the aesthetics of scenic roads. Scenic roads should have special provisions for narrower cartways, exemption from turn lane requirements, and flat or rolled curbs.
- **Lighting design** - Street lighting that is appropriate to an urbanized, suburban, or village areas can be grossly incongruent with scenic roadways. Lighting on scenic roads should only be utilized only when essential to public safety, and should be designed to be aesthetically compatible. Such design would include full shielding for dark sky and glare protection and color temperature ratings of 3000° K or lower.

SECTION 10.5 BICYCLE AND PEDESTRIAN ACCESSIBILITY

Bicycle and pedestrian accessibility are addressed in part in the trail components of the Open Space and Recreation element of the Comprehensive Plan (Chapter 9, Maps 7 and 8), as well as the County's

Multimodal Plan for the Phoenixville Region. The aim of these is to promote a comprehensive network of accessibility for non-motorized commuting and recreation.

This Transportation element focuses on gaps in sidewalks and multimodal access to streets and trails. Charlestown, East Pikeland, Schuylkill, and West Vincent Townships each have municipal plans for multi-modal accessibility, identifying areas where enhanced bicycle and pedestrian connectivity is desired. Regionally, the following areas and projects are priorities:

- **Villages** – Provide sidewalk and/or pedestrian path connections in the historic villages of **Kimberton, Valley Forge, and Wilmer.**

Traffic volumes are sufficiently low in **Birchrunville** that sidewalks are not necessary and may detract from the historic context. Traffic calming measures combined with signage to alert motorists of shared roadway with pedestrians should be implemented along Hollow Road.

In **Charlestown Village**, wide shoulders on Charlestown Road could be demarked as pedestrian ways. In addition, trailhead parking for the Pickering Trail could be accommodated on the shoulders of Charlestown Road, or possibly in a future lot at the historic Woolen Mill. Along Church Road and Pickering Dam Road, traffic calming measures combined with signage to alert motorists of shared roadway with pedestrians should be implemented.

- **Downtown Phoenixville** – Improve pedestrian and vehicular interactions.

At major intersections along Bridge Street automate the pedestrian walk signals so they automatically change with the traffic signal rather than manually being trigger by pedestrians. Pedestrian activated buttons sometime fail to activate signal and pedestrians cross without walk symbol.

Consider lighted signage at mid-block crossing to improve vehicular awareness of pedestrian crossing.

On the 100-block of Bridge Street consider a designated mid-block crossing and/or relocate the crosswalk at Church Avenue and Bridge Street to the west side of the intersection.



- **Mixed Use Areas** – Pedestrian connectivity is essential to successful mixed use and redevelopment areas. This may be provided in the context of complete streets as described in section 10.3, or with development of sidewalk infrastructure. In Phoenixville Borough, pedestrian ways and signage should be implemented to promote wayfinding and accessibility to parking areas serving downtown. Other planned walkable mixed use areas include Ludwigs Corner, Devault, and along highway corridors in East Pikeland and Schuylkill Townships.

- **Multi-modal Trails** – Continue with planning, design, and construction of the Regional Trail Plan as described in Chapter 9 and the Phoenixville Region Multimodal Transportation Plan to create a comprehensive Regional network. This network will complete and interconnect with The Circuit, the Philadelphia Region’s proposed 750-mile system of multi-use trails. The most vital multi-use trail links to be developed include:

Devault Line Rail Trail, which connects Phoenixville, Schuylkill, and Charlestown, with potential future connections to the Chester Valley Trail to the south and the Schuylkill River Trail and Schuylkill Canal Park to the north.

French Creek Trail, which requires links between the Schuylkill River Trail in Phoenixville, and through Schuylkill Township to the completed section in East Pikeland that includes the Continental Powder Works Revolutionary War historic site. In addition, future unimproved surface trail requires completion to extend from Hares Hill Road in East Pikeland and along the French Creek to Warwick County Park.

Cromby Trail, which will connect redevelopment areas and existing neighborhoods near Routes 23 and 724 with the Schuylkill River Trail.

Pickering Valley Trail, which would connect a walkable historic Kimberton village with the French Creek Trail, and extending westward to West Pikeland’s Bridge-to-Bridge Trail, and ultimately to the village of Byers in Upper Uwchlan Township. From there, existing trails connect to the County’s Struble Trail.

Schuylkill Freedom Trail, which will extend from Valley Forge National Historic Park and the Horse-Shoe Trail, through Schuylkill Township to Phoenixville, with connections to the French Creek trail, Devault Line Trail, and the Schuylkill River Trail.

Brandywine Trail, which will link Ludwigs Corner to the Horse-Shoe Trail to the east, and Upper Uwchlan trails leading to the Struble Trail to the west.

Schuylkill River Trail is the Region’s primary multimodal trail, which currently links the Region from Parker Ford to the Perkiomen Trail in Montgomery County, Valley Forge National Historic Park, and Philadelphia. Upon Completion, the trail will extend to Pottstown and beyond to Reading and Pottsville, and will include connections to the Chester Valley and other important trails in the Philadelphia metropolitan area. An improved dedicated crossing of the Route 29 bridge from Phoenixville to Mont Clare is scheduled for construction in 2018-2019. In order to accommodate broader and heavier use while reducing ongoing maintenance costs, it is recommended that gravel surfaces between Phoenixville and Parker Ford be paved in asphalt.

- **Bicycle Routes** – On-road bicycle routes should be designated with signs and/or sharrow markings as described in Chapter 9, section 9.6. If the Region elects to use signage, a uniform Regional design should be developed, which could include information on destinations and route difficulty (e.g. beginner, intermediate, advanced).

SECTION 10.6 PASS-THROUGH TRAFFIC

When residential streets become preferred routes for traffic passing through, there can be a negative impact on safety and quality of life in those neighborhoods. In order to address this, the Region should

plan which roads are to be preferred commuter routes and take appropriate approaches with respect to design, improvements, and maintenance of those roads so that they are the preferred routes for traffic passing through the area. At the same time, traffic calming measures in residential neighborhoods can discourage pass-through traffic and enhance safety on the streets and pedestrian ways of those communities.

Measures to promote use of planned commuter routes include:

- Capacity improvements of primary roads and intersections.
- Keeping up with maintenance schedules. Where roads are under State jurisdiction, work with PennDOT to assure that primary commuter roads receive high priority.
- Development of a robust multi-modal capacity to reduce single occupancy vehicle traffic.
- Promote ride sharing to reduce traffic volumes.

Measures to reduce or calm through traffic on residential streets include:

- On street parking where appropriate.
- Narrow pavement cartways.
- Curb “bulbouts” to constrict travel lanes.
- Stop signs at all intersections.
- One-way access.
- Rush hour through traffic prohibitions.
- Speed tables or speed humps.
- Reduced speed limits.
- Pavement changes to demark pedestrian crossings.
- Signal timing to delay through traffic.

SECTION 10.7 PARKING

Each municipality within the Phoenixville Region establishes parking standards differently. Each municipality, except for Phoenixville, establishes minimum parking space requirements by use, with varying allowances for reduction for shared parking or establishment of reserve parking areas. Phoenixville has established parking standards that require an analysis be submitted with each application for development to determine the amount of parking required.

Given the lack of alternative transportation available and the rural nature of much of the Region, it is understandable that many municipalities are hesitant to reduce the required parking for new development. However, it is recommended that each municipality revisit the effectiveness of existing standards and update parking requirements as appropriate. Municipalities should also consider providing incentives to developments that provide parking spaces for carpooling or ridesharing, or that make spaces available for public parking near villages and Phoenixville downtown. The following section provides a brief overview of the individual municipal parking requirements.

Schuylkill Township

Parking standards within the Schuylkill Township Zoning Ordinance utilize traditional parking standards, which require a parking space per designated square footage of buildings depending on the use. Three or more establishments on adjacent lots in any commercial district, but not in a shopping center, may

combine their off-street parking facilities and reduce parking by 10 percent, subject to an approval process. Schuylkill Township also has provisions for reducing parking as long as a reserve parking area remains available in the future.

East Pikeland

East Pikeland requires non-residential development to provide cross easements for vehicles and pedestrians when required by the Board of Supervisors to reduce the number of driveways and provide for efficient traffic circulation. The Township requires minimum off-street parking spaces based on spaces per 1,000 square feet of gross floor area, or dwelling type. The Township maintains shared parking provisions that allow for a reduction in parking spaces based on a shared parking analysis based upon Urban Land Institute standards for shared parking. The Township also includes an alternative where a parking reserve area can be established for up to 25 percent of the required parking, subject to certain conditions and approval by the Board of Supervisors.

Charlestown

Parking standards in Charlestown Township are based on a set number of spaces per 1,000 square feet of gross floor area depending on the use proposed. Regulations establish that the Board of Supervisors may require the interconnection of parking areas via access drives within and between adjacent parking areas. The Board of Supervisors may also reduce the number required parking spaces by not more than one-fourth of the total number of parking spaces required, but the site must still be able to accommodate the total amount of parking required, in case it is deemed necessary in the future.

West Vincent

West Vincent parking standards require one parking space for each employee working on the largest shift plus additional parking spaces to be provided based on the applicable formula for each use. A reduction in the number of off-street parking spaces may be authorized where an applicant can justify or demonstrate the reduction will still provide adequate facilities. In the case of mixed uses, a shared parking analysis can be provided, and the Township may authorize a reduction in the number of parking spaces.

Phoenixville

Parking requirements are determined by the submittal of an analysis, based on accepted methodologies, calculating the parking demand of the proposed land use. For mixed-use developments a shared parking analysis must be completed based on the peak hour of parking demand. In the Town Center Zoning District, parking is not required for buildings fronting Main Street, Gay Street, and Bridge Street east of Church Street, except that parking is required for changes to existing buildings. In 2010 the Borough implemented a parking meter program in the Borough-owned parking lots together with a parking permit program for residents and businesses in the downtown area and surrounding neighborhoods.



In response to ongoing perceived parking problems in the Borough, particularly in the area around downtown, a parking study was undertaken in 2017. The study was prepared by McMahon Associates, Inc. and was completed November 15, 2017. The study reviews the inventory of parking available and its utilization within the Borough of Phoenixville's commercial and residential areas. The study highlights the various parking management strategies Phoenixville has in place in its downtown (Chapter 5) to reduce parking demands and make use of available parking, identified below. McMahon Associates, Inc. made recommendations in the study to enhance the effectiveness of the current strategies, which appear after each strategy listed below.

- **2-hour time limits:** replace time limits with parking meters to promote turnover in commercial core.
- **User designations:** continue to provide sufficient handicap parking throughout the Borough's commercial and residential downtown area.
- **Wayfinding:** expand the wayfinding plan for the approach routes and provide more information to visitors after they park.
- **Shared parking:** expand partnerships for shared parking opportunities with private lot owners during mutually beneficial times.
- **Employee parking:** strategize with business owners to develop policies/pricing to incentivize employees to use permits and discourage use of on-street parking.

The following are eight strategies the parking study identifies as alternatives to private vehicle use that are effective for managing downtown parking for a community that has had significant commercial and residential growth, and will continue to do so, in the coming years.

- Provide bicycle parking
- Expand residential parking
- Alternative transportation incentives
- Walk/bike incentives
- Ride back-up programs
- Carpooling incentives
- Bus shelters
- Promote ride sharing/ride hailing services

The study identifies three key focus areas for long-term parking strategies to further address future parking demands. These are summarized as follows:

- **Future Land-Use Build-out and Zoning Analysis-** Recommends an evaluation be conducted of the potential build-out based on existing zoning and market demands to provide a greater level of clarity for future parking demands.
- **Additional Parking Capacity-** Recommends a feasibility study be conducted to identify locations for new parking areas, which may require structured parking.
- **Future Transportation Trends-** Consider transportation trends such as reduction of vehicle ownership that could reduce future parking demands.

The final chapter of the study, Chapter 6, details recommendations in actionable items by time horizon: short term (0-2 years), midterm (2-4 years), and ongoing and groups labeled: organizational, educational, regulatory, and future study/engineering for improving vehicle parking in the downtown commercial and residential areas. The approximately 35 recommendations include strategies to improve

Phoenixville’s current parking management plan, along with introduction of alternative parking options for the growing commercial and residential occupancy that is anticipated.

SECTION 10.8 PUBLIC TRANSPORTATION

In the Phoenixville Region public transportation is currently limited to SEPTA bus service, and this service is limited to Phoenixville, Schuylkill Township, Charlestown Township and East Pikeland Township. Phoenixville is served by two SEPTA bus routes, Route 99, which provides regular transit service between Royersford and King of Prussia including stops in Audubon and Norristown. Route 39 also serves Phoenixville, Schuylkill Township, and East Pikeland Township with stops along Route 724 in East Pikeland and stops along Route 23 in all three municipalities. The portion of Charlestown Township associated with the Great Valley Corporate Center is served by bus 206, which connects the Great Valley Corporate Center with the Paoli Train Station and points in-between. West Vincent Township does not have SEPTA service available. SEPTA previously provided bus service between Phoenixville, the Great Valley Corporate Center and the Paoli Rail Station, but ridership was low and the service was cancelled in 2014.

Providing transit opportunities throughout the Region remains challenging because much of the Region is rural in nature and does not lend itself to opportunities for high volumes of riders outside the more urbanized areas. While increased frequency and coverage could help increase ridership, the SEPTA routes tend to be circuitous between major destinations such as Norristown and King of Prussia resulting in long commutes that are often not practical for employees who have other alternatives. Opportunities for express buses during peak hours should be considered, particularly along major roads in the Region including Route 23, Route 29, and Route 724. Reestablishment of the SEPTA service previously provided between Phoenixville, the Great Valley Corporate Center and the Paoli Rail Station should be considered and establishment of a bus route along Route 100 in West Vincent connecting Ludwigs Corner to the Exton train station should also be considered.

Due to limited funding for public transit, the amenities associated with bus stops tend to be minimal, further reducing the appeal of choosing transit. Improved amenities such as protected shelters at bus stops, bicycle parking, WiFi on the buses, and more comfortable seating should be considered to increase ridership. Some amenities could be sponsored by the local municipality and/or businesses to make transit more appealing.

Public transportation accessibility is addressed in part in the County’s Multimodal Plan (Chapter 3). The aim of the plan is to enhance rider experience on SEPTA’s bus service in the Phoenixville Region, as well as other service hubs across the county.

The transportation ridership focuses on the design of bus stops and curbside amenities needed to improve the safety, circulation, and comfort of this region’s SEPTA riders. Phoenixville is a bus transit hub with more than 50 riders per day; therefore, a priority for enhancing bus ridership and experience. As a hub, the Multimodal plan identifies, at a minimum, the amenities required for the best ridership experience, which includes, signage, ADA platform access, real-time transit information, bike racks, shelters, system map, benches, and paved walkway connections.

Rail Service

Phoenixville was served by commuter rail service until the 1980's when it was ended. Studies have been completed over the years to reestablish rail service between Phoenixville and Norristown, but adequate funding has not been allocated beyond conducting studies. The possibility of connecting Phoenixville with the Great Valley Corporate Center in Charlestown Township via rail was subsequently investigated, but again funding was not allocated and the project did not move forward. Reestablishment of rail service to the Phoenixville Region should be advocated to help alleviate traffic congestion and to help assure the economic viability of the Region into the future.

Other Publicly Funded Transportation

While not having a fixed daily route, Rover Community Transportation provides transportation service for residents needing to travel within Chester County. While the service is available to anyone in Chester County, the emphasis is on providing a transportation alternative for Chester County seniors and disabled residents. The Rover transportation service is subsidized for residents who are disabled, senior citizens, or those who qualify for certain other government assistance programs. Residents who do not qualify for subsidies can use the service, but must pay the full rate which is dependent on the distance of the trip. Full price rates currently range from \$11.75 (0- 4.99 miles) to \$129.05 (41+ miles). To use Rover, a reservation must be made the prior day by 1 PM and routes may include picking up other passengers along the way to a destination. Given the high price for full-rate customers, Rover tends to be a better alternative for riders eligible for subsidies.

Because there is a fleet of vehicles associated with the Rover Community Transportation system already active in the Region, consideration should be given to potential partnerships between the Rover program and local employers to offer shuttle services between population and employment centers within the greater region.

Ride Sharing/Carpooling & Alternative Transportation

Ridesharing or carpooling consists of two or more people with similar work schedules riding together to a similar area. Carpooling/ridesharing is typically done in a private vehicle and arrangements can vary from taking turns driving a private car, to compensating a driver for providing a ride. Challenges associated with carpooling/ridesharing including finding another person from your area with a similar commuting pattern and finding safe and secure meeting places from which to travel. Within the Region there are currently no park-and-ride parking lots to encourage ridesharing. Consideration should be given to identifying locations for park-and-ride lots in the Region to better improve opportunities for shared rides. Ridesharing websites exist, but without a better understanding by the general public how such an arrangement could work for them, it is often difficult for people to be willing to try such an alternative.

As technology and innovation continue to advance, municipalities within the Region should support and encourage alternative transportation options. Companies such as Uber and Lyft that function as a taxi cab service operated by drivers in their private vehicles can reduce the need for parking because people can easily and affordably get to their destination without having to drive their own vehicle.

Car sharing can also become an option for people who do not need to commute for work. Private car rental options are beginning to appear, where people rent their car during times when they do not need access to it. As Phoenixville downtown and the villages continue to be successful, innovation will create other options for moving people without vehicles.

SECTION 10.9 TRENDS/FUTURE TRANSPORTATION NEEDS

Recent technologies are altering work and lifestyles, and transportation systems are changing as a result. The Energy Plan (Chapter 5) describes advances in electric vehicles (EVs), public transportation including passenger rail, ride sharing, non-motorized transportation, and telecommuting. All of these have tremendous potential to reduce single occupancy vehicle traffic on roadways, while minimizing reliance on finite and polluting oil reserves that are subject to wild price fluctuations and geopolitical instability. If the Region becomes a leading edge proponent and adopter of these nascent transportation technologies and practices, it will be well positioned for economic success and high quality of life into the future.

Electric vehicles (EVs) are increasingly popular as batteries improve and costs decrease. According to Bloomberg New Energy Finance, EV passenger car sales are expected to increase from 3% in 2020 to 25% in 2030, and to comprise over half of US new car sales by 2040. New models are coming onto the market at an increasing rate, including some for \$30,000 or less, and government and PECO rebates can reduce this cost even further. Still, even a higher purchase price for EVs can be more than offset by operating and maintenance costs that are approximately half that of petroleum fueled vehicles. EV range on a full charge is from 80 to 250 miles or more, which makes them increasingly practical alternatives for most drivers. A 2018 study by Volta Charging found that over 80% of Americans currently live within five miles of an EV charging station, and the network of charging stations (called EVSEs) will certainly become more robust, with commercial centers, workplaces, and municipalities providing them. Municipalities in the Region should promote EVs with charging stations at municipal buildings, parking facilities, and at downtown curbsides. In addition, parking ordinances could require the provision of EVSEs for new developments.

EVs are not confined to passenger vehicle applications. SEPTA intends to operate 90% of its bus fleet with hybrid-electric vehicles by 2021, and recently added 25 full electric buses to its fleet as part of a pilot program. Local, regional, and long haul electric trucks are also being developed, and Walmart and UPS have already made pre-orders for Tesla models due out in 2019. This is a critical development, since US trucking accounts for approximately 5% of vehicle traffic and nearly 25% of emissions.

Electric bikes and scooters are another alternative transportation mode that is gaining in popularity. These vehicles are especially useful for urbanized areas or those linked by multi-use trails or bike lanes on Complete Streets. These vehicles could be owner operated, rented, or operated through shared use programs.

One such deployment is dockless bike sharing, where shared bikes need not have a fixed home base or dock, but could be parked and accessed anywhere within a defined area and unlocked by a smart phone. This reduces the upfront costs of developing bike share programs dramatically. The Region should coordinate on areas and operational parameters to guide any private interests who may want to set up this service in the future.

The self-driving vehicle is another existing technology with the capacity to dramatically and favorably change transportation. Personal vehicles could return home after dropping off a work commuter, for use by another family member. Driverless cab services could alleviate the need for or use of personal vehicles, while reducing public risks posed by inattentive or impaired drivers. Electric self-driving buses could operate in tandem or series like a road-based train, bringing rail type passenger service without the heavy and expensive infrastructure. All of these together would greatly reduce the area

requirements for parking lots, resulting in greener and more sustainable residential, office, and commercial centers.

SECTION 10.10 IMPLEMENTATION STRATEGIES

The following policy recommendations will implement the goals and objectives of the Transportation Plan:

T-1 Undertake studies relating to the improvement of the regional transportation network.

Support the priorities and policies of the *Phoenixville Region Multimodal Transportation Plan*.

T-2 Coordinate regional transportation improvements with FHWA, PennDOT and DVRPC to better achieve common goals. Coordinate on a municipal and regional basis for funding opportunities.

Support the priorities and policies of the *Phoenixville Region Multimodal Transportation Plan*.

Utilize Municipal Act 209 Studies to identify necessary transportation improvements and secure developer funding.

T-3 Develop traffic calming plans in residential areas, villages and economic centers to discourage pass-through traffic, improve safety, and promote non-motorized travel.

Prioritize pedestrian, bicycle, and public transit safety through complete streets and design measures that slow traffic and create safe ways and crossing points for non-motorized access.

Ensure that proposed transportation improvements support the Complete Streets policy.

T-4 Improve missing pedestrian and bicycle access linkages.

Pursue funding on a Regional basis to identify critical connections, and design and construct necessary improvements. Require all new developments to include pedestrian accessibility, with bicycle provisions where appropriate, and include offsite and Regional connections.

In downtown Phoenixville consider automated pedestrian walk signals at major intersections along Bridge Street that automatically change with the traffic signal rather than manually being triggered by pedestrians. Pedestrian activated buttons sometime fail to activate signal and pedestrians cross without walk symbol.

Consider lighted signage at mid-block crossing to improve vehicular awareness of pedestrian crossing.

On the 100-block of Bridge Street consider a designated mid-block crossing and/or relocate the crosswalk at Church Avenue and Bridge Street to the west side of the intersection.

T-5 Adopt municipal ordinances to identify and protect scenic roadways.

These include setback and screening regulations, viewshed protection measures, and design standards for road surfaces, signage, and lighting.

T-6 Implement the Regional multi-modal trail plan.

Identify critical connections and secure funding for their design and construction. Implement improvements to existing trails where needed, and develop effective plans and programs for ongoing maintenance.

T-7 Develop a Regional network of on road bicycle routes.

Publish a regional bicycle route map on municipal web sites, and implement a signage and/or sharrow marking system.

T-8 Create a network of public electric vehicle charging stations (EVSEs).

Combine public installations with regulatory and incentive provisions for private properties and developments.

T-9 Encourage shared parking and parking flexibility for new developments and developments near villages and Phoenixville downtown.

Revisit the effectiveness of existing parking standards and update as appropriate.

Consider incentives for developments willing to provide parking spaces for carpooling or ridesharing, or make spaces available during non-business hours near villages and Phoenixville downtown.

Implement the recommendations of the Park Phoenixville study relating to parking in and near downtown Phoenixville.

T-10 Improve public transit service within the Region.

Encourage SEPTA to consider opportunities for express buses during peak hours, particularly along major roads in the Region

Encourage SEPTA to reestablish service between Phoenixville, the Great Valley Corporate Center and the Paoli Rail Station.

Encourage SEPTA to establish a bus route along Route 100 in West Vincent connecting Ludwigs Corner to the Exton train station.

Consider improved amenities such as protected shelters and bicycle parking at bus stops.

To increase ridership, encourage SEPTA to improve the bus riding experience by adding wifi on the buses and consider having more comfortable seating. Some amenities could be sponsored by the local municipality and/or businesses.

T-11 Advocate for reestablishment of rail service to the Phoenixville Region to help alleviate traffic congestion and promote long term economic vitality.

As a region, advocate for funding to be dedicated to the re-establishment of rail service to Phoenixville.

T-12 Support and encourage alternative forms of transportation.

Encourage public/private partnerships between Rover Community Transportation and major employers in the Region to offer shuttle services between population and employment centers.

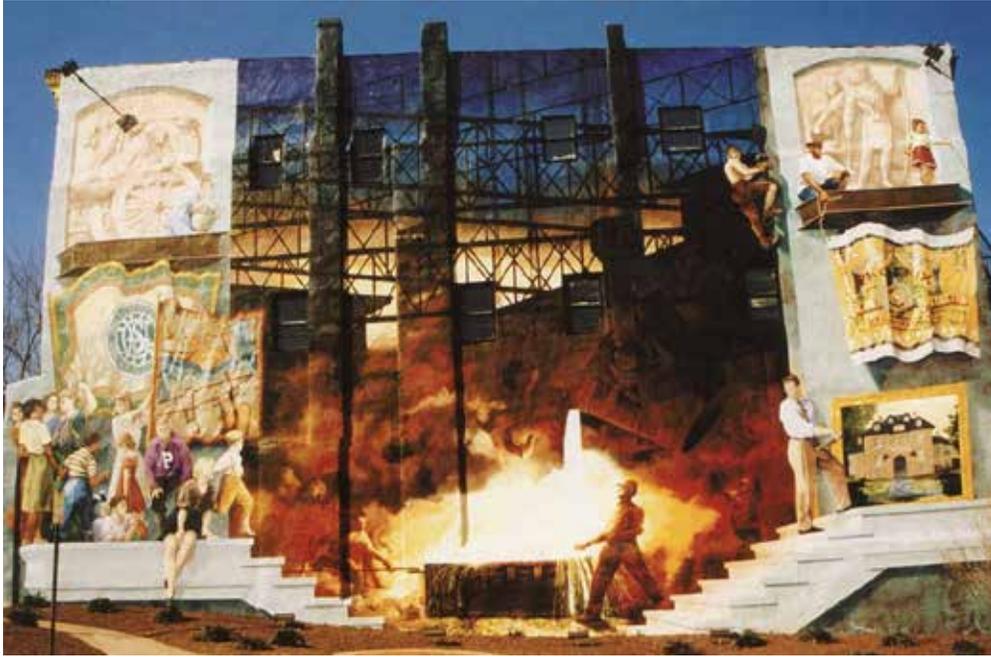
Encourage park-and-ride opportunities by designating potential areas for establishment of park-and-ride lots in the Region and support/facilitate the development of ridesharing websites.

Establish designated areas near downtown Phoenixville and possibly the villages for taxi cabs, Uber, bike sharing, and other ridesharing services to encourage designated pick-up and drop-off locations for alternative forms of transportation to the Region's commercial centers.

T-13 Support a regional policy emphasizing Complete Streets.

Ensure that new development and projects upgrading existing infrastructure include improvements that address all modes of transportation.

CHAPTER 11 CULTURAL RESOURCES PLAN



Cultural resources include those places, events, and activities that define the Phoenixville Region as distinct from others. Recognition and protection of these essential resources sustains the high quality of life of the Region, while creating opportunity for economic growth and development that strengthens rather than undermines those attributes.

SECTION 11.1 CULTURAL RESOURCES PLAN GOAL AND OBJECTIVES

Preserve and enhance the historic and cultural attributes that help define the Region's unique character.

This goal is to be advanced through the pursuit of the following specific objectives:

1. Promote the preservation of and appropriate adaptive re-use of historic sites and properties consistent with their historic and cultural significance.
2. Encourage flexibility in use and renovation standards to preserve historic resources that otherwise would be abandoned or demolished.
3. Promote context appropriate development and design standards for historic villages and neighborhoods.
4. Identify and preserve heritage landscapes.
5. Advance cultural richness through venues for studio and performing arts and civic/community events.
6. Promote cultural tourism by inventorying and advertising historic and cultural attributes that create a Regional identity and heritage.
7. Consider the creation of a regional cultural center.

SECTION 11.2 HISTORICAL RESOURCES

National Register Sites

The National Register of Historic Places is the Federal official list of historic places worthy of preservation. Authorized by the National Historic Preservation Act of 1966, the National Park Service's National Register of Historic Places is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect America's historic and archeological resources. To be considered eligible for National Historic Registry, the location or property must:

- Be old enough to be considered historic (generally at least 50 years old) and still retaining much of its original appearance; and
- Be associated with historically significant people, activities, events, or developments, be significant in terms of historic landscapes, architecture, or engineering, or have the potential to yield significant archaeological information.

Nomination for the Register is administered by the Pennsylvania Historical and Museum Commission (PHMC), and properties can be nominated by property owners, historical societies, preservation groups, government agencies, or others. However, individual properties cannot be listed over the owner's objection. Nominated properties that are not listed may be referred to the National Park Service for a Determination of Eligibility.

Inclusion on the National Register of Historic Places puts a property into a National database, establishes eligibility for preservation grants, allows for certain building and safety code flexibility, and includes certain tax benefits. The listing of a property in the National Register places no restrictions on what a non-federal owner may do with their property up to and including destruction, unless the property is involved in a project that receives Federal assistance, usually funding or licensing/permitting.

National Historic Districts (NHDs) and National Historic Landmarks (NHLs) are designations given to places listed in the National Register.

- **National Historic Districts (NHDs)** are geographically defined areas “possessing a significant concentration” of historically significant places. Their historical significance may be local, regional, or national.
- **National Historic Landmarks (NHLs)** may be districts, properties, or objects, and are given special recognition – on top of listing in the National Register – for their exceptional significance to the nation's history. NHLs are under the administration of the NPS's National Historic Landmarks Program. There are approximately 2,500 National Historic Landmarks; the Valley Forge NHL is one of the few under Federal ownership.

Sites on the National Register may also include buildings, properties, structures, or objects.

The Phoenixville Region includes seven (7) National Register Historic Districts, one (1) National Register Historic Landmark, and (22) National Historic Register Sites (see Map 10).

Historic Villages

The Region's historic villages include **Birchrunville, Charlestown, Kimberton, Valley Forge, and Wilmer**, and all but Wilmer are designated National Historic Districts. Each is characterized as a historical crossroads settlement growing around a local industry, business, and/or rail station with associated housing. The historic villages of the Region are small in scale with residential and commercial buildings located close to the street. All but Wilmer contain one or more National Historic Register or Register Eligible buildings. Section 3.5 in the Land Use Plan chapter describes appropriate standards for infill development, renovation, and other improvement of historic villages, including:

- Modest-scale buildings
- Design standards in keeping with historical context
- Limitations on non-residential uses
- Emphasis on pedestrian accessibility and traffic calming

Village character can be retained and enhanced through village specific zoning provisions, context sensitive public improvements, and roadway design to discourage high volume pass-through traffic. In addition, pedestrian and multi-modal trails should be routed to access villages, thus enhancing their role as community focal points and linking them to the regional trail system. Civic events or festivals centered on villages can showcase their unique character while strengthening local identity and sense of community.

Birchrunville is a crossroads settlement within the West Vincent Highlands Historic District at the intersections of Hollow Road, Flowing Springs Road, and School House Lane in West Vincent Township. It is anchored by a neighborhood post office, an upscale restaurant, and a bakery/café. The roads are very lightly traveled and carry nearly as much pedestrian, bicycle, and equestrian traffic as automobile traffic. From 1976 through 2006, Birchrunville had an informal Fourth of July parade featuring local residents on foot, bicycles, tractors, horses, and antique cars that celebrated the village's unique and quirky character.



Charlestown village lies at the edge of the Middle Pickering Rural Historic District and includes 21 contributing buildings, the most remarkable of which is the recently restored Charlestown Woolen Mill, built between 1861 and 1865. Charlestown is a crossroads settlement at the intersection of Charlestown, Church, and Pickering Dam Roads in an agricultural landscape and includes the former Town Hall and multiple other National Historic Register and eligible buildings. Much of the village is walkable, as Church Road and Pickering Dam Road are low volume roads, and although Charlestown Road is busy, it has wide paved shoulders. The Pickering Trail terminates at Charlestown Village, providing opportunity as a cultural destination and trailhead.



Kimberton village originally developed as a crossroads settlement around a mill, store, and inn and is still the physical and cultural nexus of East Pikeland Township. The Township's greatest concentration of historic resources that are still in use is in Kimberton, and the mixed use and visual character of the village are still largely intact. In the late 19th and early 20th century, a railroad connected Kimberton with other agricultural communities along the Pickering Creek, and with Phoenixville, where the Reading Railroad connected Reading and Philadelphia. Ongoing initiatives undertaken by the Township and civic groups strive to create a pedestrian friendly village by extending sidewalks along the length of Kimberton Road and implementing traffic calming and streetscape enhancements. The Township Trail

Plan builds on this ambition with proposed pedestrian and bike paths connecting all parts of the Township to Kimberton. The village is also incorporated in a National Register Historic District.



Valley Forge village grew around an iron forge near the confluence of Valley Creek and the Schuylkill River in the period prior to the American Revolution. The Forge and part of the village were burned by the British Army in 1777, prior to occupation by George Washington's Continental Army in the winter of 1777-78. Today the village consists

of residences and businesses at the gateway to Valley Forge National Historic Park. The village is included within the Valley Forge National Historic District and the Valley Forge National Historic Landmark, and parts of the village are on National Park Service lands. The proposed Schuylkill Freedom Trail would link the village of Valley Forge with Phoenixville and other Regional trails.

Wilmer is a small crossroads community at the intersection of Pothouse and Charlestown Roads in Schuylkill Township, developed in the early 20th century. Today it consists primarily of the original single family residences on narrow streets and alleys, and there is a church as well. The former Devault Line railroad passed directly adjacent to the village. If developed into a multi-use trail as proposed, Wilmer would serve as a logical trailhead and destination.

Certified Historic Districts and Landmarks

The Phoenixville Region includes seven (7) National Register Historic Districts (NHDs) and one (1) National Register Historic Landmark (NHL). The National Register of Historic Places defines a historic district as "a geographically definable area, urban or rural, possessing a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united by past events or aesthetically by plan or physical development. In addition, historic districts consist of contributing and non-contributing properties. Historic districts possess a concentration, linkage or continuity of the other four types of properties. Objects, structures, buildings and sites within a historic district are usually thematically linked by architectural style or designer, date of development, distinctive urban plan, and/or historic associations." Some historic districts are further designated as National Historic Landmarks, and termed National Historic Landmark Districts. National Historic Districts cannot be registered if the majority of affected owners object to the designation.

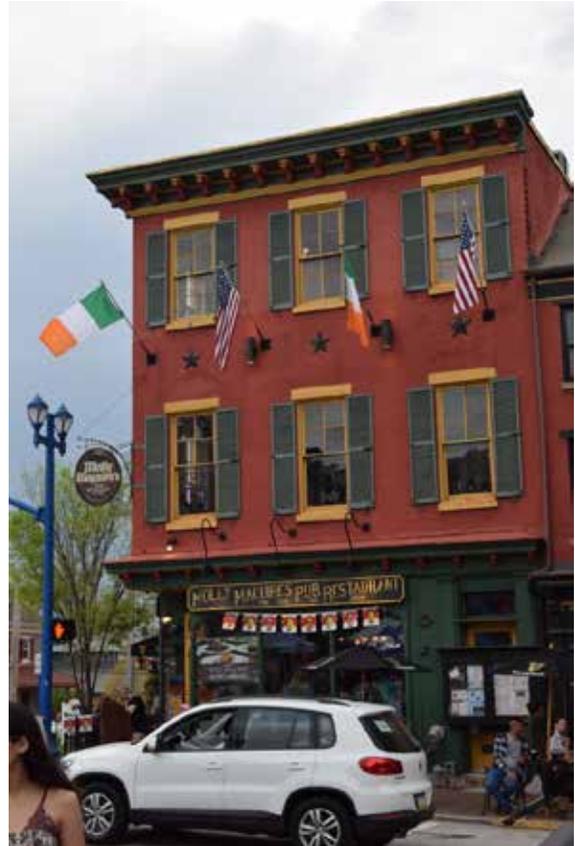
A contributing property within a historic district is a building, structure, object or site that reflects the significance of the district as a whole because of historic associations, historic architectural qualities, and/or archaeological features. Another key aspect of the contributing property is historic integrity. Significant alterations to a property can damage its physical connections with the past, and thus reduce its historic integrity.

The Regional National Historic Districts and National Historic Landmarks are as follows:

Birchrunville NHD encompasses the buildings and surrounding landscapes surrounding the village of Birchrunville. This district is included in West Vincent Township's Birchrunville Village zoning district.

Charlestown NHD is a collection of post-colonial residential, government, and commercial buildings comprising Charlestown Village that was once the business and civic center of Charlestown Township, including parts of the Pickering Creek and surrounding landscapes. The Township has included this NHD and additional surrounding lands as the Charlestown Historic District.

Kimberton NHD includes historic buildings from the 18th through early 20th century and associated landscapes that comprise Kimberton Village. East Pikeland Township has included this NHD and additional surrounding lands into three Kimberton zoning districts with density, design, and accessibility standards in keeping with the character of the historic village.



The **Middle Pickering Rural NHD** includes land and structures along the Pickering Creek in Charlestown, East Pikeland and West Pikeland Townships, and is comprised of farms, mills, churches, woodlands, swamps, and meadows. This NHD is characterized by long and scenic vistas over a picturesque rolling landscape.

Phoenixville NHD comprises areas of downtown Phoenixville developed between the 18th century and the steel boom extending to the mid-20th century. The area includes the commercial downtown area along Bridge Street, as well as much of the residential community in neighborhoods south of Bridge Street. The Borough has a local historic zoning district that includes the NHD and lands north of Bridge Street and French Creek that were occupied by Phoenix Steel and are now undergoing redevelopment. The Schuylkill River Trail extends through this NHD, making it an important trail head and destination.

Valley Forge NHD and NHL include National Park Service lands that make up Valley Forge National Historic Park, plus some adjacent private properties with residential and business uses. The 3,500 acre Park includes historic monuments and structures that commemorate the American Revolutionary War and serves as a destination and trailhead for the Schuylkill River Trail and Horse-Shoe Trail. It will also connect with the proposed Schuylkill Freedom Trail when constructed.

The **West Vincent Highlands NHD** includes (147) contributing buildings, seven (7) contributing sites, and six (6) contributing structures in the rural landscape of West Vincent Township. This NHD features farmhouses, barns, residences, mills and other outbuildings dating from the early to mid 19th century. The Horse-Shoe Trail passes through this landscape, as will the proposed Brandywine Trail when constructed.

HARB and Historic Commissions

In order to protect historic resources, municipalities can utilize Historic Architecture Review Boards (HARBs) and Historical Commissions. HARBs are given authority under zoning ordinances to advise on development and architectural standards within historic zoning districts. Historical Commissions can serve an advisory function in applications for building, land development, or demolition on properties with historic buildings and other resources.

Charlestown Township has a Charlestown Village Historic Zoning District and a combined HARB/Historical Commission. The HARB/Historical Commission maintains a survey of historic resources and advises the Board of Supervisors and other Township boards/commissions on the preservation of historic resources. As the HARB, they advise the Board of Supervisors on lands development, building, additions, or demolition in the Charlestown Village Historic Zoning District.

East Pikeland Township has historic resource protection standards incorporated within the zoning ordinance, as well as a combined Historic Commission and HARB. The Historic Commission/HARB serves to identify historic resources and advise on their protection, including review of ordinances that have bearing on historic resource protection. As a HARB, they advise the Board of Supervisors and Zoning Officer on building, development, and demolition in Certified Historic Districts, including Kimberton Village.

Phoenixville Borough has a HARB that advises on the protection of the architectural and cultural heritage of the Downtown Phoenixville NHD, specifically with regard to the outward appearance of buildings.

Schuylkill Township has a historic resources protection chapter in the zoning ordinance that covers development, expansion, demolition and rehabilitation of historic resources, as well as a Historic Commission. The Historic Commission advises on the protection of historic resources, including maintaining of lists, nominations for National Registry, and certification for new National Historic Districts.

West Vincent Township has a Historic Resources Overlay Zoning District and a Historic Resources Subcommittee that maintains the list of historic resources and advises on applications pertaining to them. In addition to designated historic resources and certified National Historic Districts, West Vincent recognizes an Underground Railroad Zone consisting of sites that were instrumental in securing the freedom of escaped slaves.

Regional Zoning Policy for Historic Resources and Districts

All of the Phoenixville Region's municipalities have policies, boards, and/or zoning to promote the preservation of historic resources, which are seen as vital elements of the culture and character of the area. Invariably, historic resource policy and regulation hinges on maintaining period specific aesthetic appearances of old buildings and other structures. In keeping with this purpose, design standards for rehabilitation, addition, or other alterations of historic resources should address the following:

- Form and massing of buildings
- Architectural style
- Fenestration
- Roof lines

- Surface treatments
- Entrances
- Site and/or neighborhood context

Often times, historical resource ordinances will incorporate incentives in order to offset the increased costs of maintaining buildings in an appropriate historical design vocabulary. This can include density/intensity incentives or flexibility to accommodate uses not typically allowed by zoning.

While architectural standards are important to the historical integrity of buildings, in cases other than museum exhibit monuments, a historic building must accommodate contemporary uses in order to maintain viability. Just as colonial era farmhouses were typically altered and enlarged throughout their history to meet the varying needs of different occupants over time, we must accommodate current realities in the modification or rehabilitation of historic buildings today. In addition, review and permitting processes should be such that undue costs and delays are not placed on those trying to sustain historic resources by improving their functionality and performance. Thus, local regulations and policies for preservation/adaptation of historic resources should include the following considerations in addition to the primary focus on a historically appropriate aesthetic:

- Listing of resources should be based on defined objective criteria in the historic resources protection ordinance.
- Prior to adding a site or structure to a list of historic resources, research and documentation should conclusively demonstrate its historic significance. The documentation should be shared with the property owner prior to listing.
- Where appropriate, historic resources should receive added flexibility in terms of use, density/intensity of use, bulk/area/setback, building codes, parking, etc.
- Historic resource requirements should not unduly increase the costs of routine maintenance projects (e.g. roofing, painting, window replacement).
- Review fees and permit processing time should be generally consistent with similar applications not involving historic resources.
- Ordinances should make reasonable allowances for additions and improvements typical of those customary to a building's current allowable use.
- Ordinances should not prohibit or unreasonably restrict improvements that decrease energy consumption or otherwise advance sustainability objectives.

Within historic districts and neighborhoods, local ordinances should establish guidelines for infill and new development that is consistent with the overall setting and does not degrade the neighborhood historic context. For new and infill construction, the same basic parameters of form, massing, surface treatment, fenestration, rooflines, and entrance quality that apply to historic buildings would pertain, but there can be different approaches to maintaining the desired aesthetic. In other words, new and infill construction can be widely different from its historical neighbors, so long as it is compatible. In order for new building to achieve compatibility with a historic district or neighborhood, the following guiding principles are useful:

- Ensure that historic buildings remain the central focus of the district.
- Discourage false historicism or conjectural history.
- Consider contemporary interpretations of traditional designs and details.

Today, many preservation authorities have shifted their focus to the differentiation of new and old construction as a means of preventing confusion in the public's perceptions of the historic building and its site. Thus, it is possible to have a range of compatibility of styles that retains the integrity of the historic neighborhood. Architect and author Steven W. Semes has identified four strategies for new building or addition in historic context:

1. Literal Replication

- Prioritizes compatibility & minimizes differentiation.
- Copies existing architecture.
- Often used to complete an intended but unrealized design.
- Deemed NOT APPROPRIATE by the National Park Service since it might confuse the public's perception of new construction as distinct from historic fabric.



Fig. 11.2-1: Example of literal replication (credit: Erin Hammerstedt, Preservation PA)

2. Invention within a Style

- Weighted in favor of compatibility over differentiation.
- Adds new elements in either the same or a closely related style, sustaining a sense of continuity in architectural language.



Fig. 11.2-2: Examples of invention within a style (credit: Erin Hammerstedt, Preservation PA)

3. Abstract Reference

- Weighted in favor of differentiation over compatibility.
- Makes reference to the historic setting while consciously avoiding literal resemblance or working in a historic style.
- Typically incorporates notably reduced, simplified or abstracted details suggestive of historic architecture.
- Appropriate scale, massing and materials.
- Requires skill and artistry in design and construction to be well-executed.



Fig. 11.2-3: The dark brown building at right is an example of abstract reference (credit: Erin Hammerstedt, Preservation PA)

4. Intentional Opposition

- Differentiation at the expense of

- compatibility.
- Can lead to the erosion of historic character of the district.



Fig. 11.2-4: The building at right above is an example of intentional opposition (credit: Erin Hammerstedt, Preservation PA)

Of the four approaches, context appropriateness is most easily attainable through **Invention within a Style** or **Abstract Reference**. Whatever approach is used, paying careful attention to the attributes that define the historic character of a neighborhood or setting establishes the framework for successful addition or new development.

SECTION 11.3 HERITAGE AREAS AND SCENIC RESOURCES

All Phoenixville Region municipalities but Charlestown are part of the **Schuylkill Highlands**, a designated area of special natural, historical, recreational, and economic importance that extends from Valley Forge to Reading PA. The Schuylkill Highlands is one of seven **Conservation Landscape Initiative (CLI)** regions in Pennsylvania and includes the majority of the Schuylkill River Watershed, the southeastern most section of the Pennsylvania Highlands and the Hopewell Big Woods - the largest remaining unbroken forest in southeastern Pennsylvania. The Schuylkill Highlands is the overlap of two landscapes identified for protection: the Highlands Region designated by the U.S. Congress; and the Schuylkill River watershed, which is the subject of resource protection planning by PA DCNR, PA DEP, and the Philadelphia Water Department. Its importance stems from the need for water quality protection, habitat conservation, and recreational significance in an area expected to absorb significant growth and development in the coming years.

The Schuylkill Highlands CLI integrates the goals, policies, and actions of partnering local, county, and state governments, land trusts, and nonprofits to protect this critical regional landscape and thereby enable a vibrant and sustainable economic future. The Schuylkill Highlands CLI supplies technical support as well as grants to advance the priorities of natural resource-based conservation and nature-based tourism, with actions guided by the following goals:

- **Create an Interconnected Regional Trail Network** to destinations and gateways to increase recreational opportunities and connect residents and visitors to the outdoors and regional heritage sites of the Schuylkill Highlands landscape.
- **Encourage Sustainable Development** that respects the cultural, historic, recreational, and natural resources of the Schuylkill Highlands.
- **Conserve, Protect, Restore, and Steward** land, waterways, greenways, and habitats.

The **Schuylkill River** and **French Creek** are PA designated Scenic Rivers according to criteria established by the Pennsylvania Scenic Rivers Act. According to the Act, Pennsylvania Scenic Rivers fall into one of five classifications, depending on the amount of development along the shore, access to the river, and diversion of flow:

- **Wild rivers** are rivers or sections of rivers that are not impounded and are usually not accessible except by trail. Their watersheds and shorelines are essentially primitive and the waters unpolluted.
- **Scenic rivers** are rivers or sections of rivers that are not impounded. Their shorelines or watersheds are largely primitive and undeveloped but they are accessible in places by roads.
- **Pastoral rivers** are those that are not impounded except for historic or restored mill dams. There may be diversions or withdrawals to support agricultural activities, for example agricultural ponds. Their shorelines or watersheds may support a variety of farm or farm-related activities, but these activities may not interfere with the pastoral nature of the landscape.
- **Recreational rivers** or sections of rivers are easily accessible, may have some development along their shorelines, and may have been impounded or diverted in the past.
- **Modified recreational rivers** (or sections of rivers) are those in which the flow may be regulated by upstream control devices. Low dams are permitted as long as they do not increase the river beyond bankfull width. These rivers are designated for human activities which do not interfere with public use of the streams or enjoyment of their surroundings.

Within the Phoenixville Region, the Schuylkill River is classified as Modified Recreational, and the French Creek is classified as Scenic.

At the local level, scenic resource protection is at the heart of many planning initiatives:

- Charlestown Township's 2001 *Comprehensive Plan* identified Special Heritage Landscape Protection zones to preserve the Township's signature rural landscape of rolling agricultural hills. The Township Open Space Commission advises on securing easements on properties to protect scenic and natural resources.
- East Pikeland's 2013 *Comprehensive Plan* addendum, *Plan for Open Space and Economic Development* incorporates the protection of scenic roads and landscapes as a basis for open space designation. The Township's Open Space Committee works with specific properties to advance this goal.
- East Pikeland also has a 2012 *Kimberton Area Heritage Action Plan* with detailed strategies that promote Kimberton as a heritage tourism destination to drive economic development. Objectives of the *Heritage Action Plan* include historic resource protection, promoting pedestrian accessibility, sustainability, and helping to create a shared sense of community.
- Phoenixville's 2011 *Comprehensive Plan* and resultant zoning ordinance emphasize the character of streetscapes in order to assure the compatibility of infill development with the scenic qualities of existing neighborhoods.
- Schuylkill Township's 2005 *Comprehensive Plan* addendum utilizes a construct based on density of development and design standards in order to create aesthetic character zones. The Township Open Space Commission works to protect scenically rich properties from development.
- West Vincent has an Open Space Advisory Board that recommends on protection of open space, including the vast scenic agricultural and natural landscapes of the Township. The Township's

involvement in the protection of Bryn Coed Farms represents an immensely significant achievement in this regard.

The scenic resources of the Phoenixville Region and beyond help to for the area's essential character and are worthy of protection. The Land Use, Natural Resources, and Open Space elements of this Comprehensive Plan all support preservation of the unique scenic quality of the Region. The PRPC Region should continue to aggressively pursue strategies and seek support on the local, regional, state, and federal levels to advance this goal.

SECTION 11.4 ARTS AND CULTURAL CENTERS

The Phoenixville Region is home to a variety of arts and cultural centers, which together contribute to a vibrant and unique community. The following information provides a brief overview of the major art and cultural resources within the Phoenixville Region.

Colonial Theater

The Colonial Theatre was built in 1903 as a Vaudeville House and was featured in the 1958 science fiction classic, *The Blob*. Over the years the theater experienced great success and great challenges, including the low-point when the theater closed in the mid-1990's for a short period of time until Phoenixville Area Economic Development Corporation (PAEDC) purchased the property and created the Association for the Colonial Theatre (ACT) in 1996, which began the long process of restoring the theater and reestablishing this building as a cultural centerpiece of the Region. The ACT has work diligently to restore, operate, and expand the theater since their inception. Following an impressive fundraising process, ACT purchased the adjacent vacant historic 1924 National Bank of Phoenixville building in 2011 and in 2017 ACT opened two additional theaters and an expanded lobby and concession stand in the former National Bank of Phoenixville building.

The Colonial's programming includes art and independent films seven nights a week, classic films, programs for young audiences, live concerts, and community events.

Kimberton Arts Alliance

The Kimberton Arts Alliance (KA2) was formed in 2010 as a nonprofit organization to promote the performing and visual arts in Kimberton by hosting professional and community arts events, developing venues for performing arts, and providing arts education. KA2 locally hosts approximately 15 events annually including:

- The Kimberton Summer Arts Series encompassing Theatre in the Park, the Kimberton Village Chamber Music Series (5-6 chamber and vocal music concerts),
- The Kimberton Community Block Party (which KA2 co-promotes with Kimberton Whole Foods); the Le Jazz Hot Super Club Vocal Jazz Series; and Home for the Holidays, a vocal concert featuring locally raised or resident performers.

The Schuylkill River Heritage Center

The Schuylkill River Heritage Center is an interpretive center located in the restored Phoenixville Foundry Building in the heart of Phoenixville. The Center includes an interpretive center exhibiting the history, artifacts and legacy of the Phoenix Iron and Steel Company, as well as resources that highlight

the Schuylkill River's resources from Pottsville to Philadelphia. The Center also provides information about places of interest to visit throughout the County and hosts several historical presentations per year that are free to the public.

Historical Society of the Phoenixville Area

The Historical Society of the Phoenixville Area was organized in 1977 from a Bicentennial planning group and acquired the former Central Lutheran Church at Main & Church Streets in Phoenixville in 1980. The Museum opened on November 1, 1980 and remains the home of the Society. The building houses the administrative offices, Museum, and social hall at the Church Street level with additional storage upstairs. The property is also host to the annual Strawberry Festival.

Community Arts Phoenixville (Formerly Phoenix Village Art Center)

The Community Arts Phoenixville (CAP) is an arts organization located in downtown Phoenixville that provides art classes, workshops, programs, events, and exhibitions. The facility is part of the organization Camphill Soltane, which has the mission of creating more choices and opportunities for young adults with special needs.

The Art Gallery at Franklin Commons

The Art Gallery at Franklin Commons offers a unique setting for the display of art throughout the common areas of Franklin Commons. The Art Gallery maintains rotating displays art work, independent artist shows, and group shows. The Art Gallery emphasizes art from local artists and provides an opportunity for the community to support local artists.

Forge Theatre

Forge Theatre is a local venue for high-quality, year-round live theatrical entertainment in the Phoenixville community. Located at 241 First Avenue in Phoenixville, Forge offers six productions a year with an ongoing mission to enrich and entertain the community through a unique theater experience.

Facetime Theatre

Facetime Theatre was established in 2009 emphasizing theater opportunities in the Phoenixville Region. The organization offers Summer Stage, youth summer camps, adult theatre, community events, as well as educational classes, workshops and vocal and instrumental lessons for children and adults.

Firebird Theater

Firebird Theatre is a non-profit organization dedicated to youth theater. Their mission is to help today's youth experience, enjoy, and perform in the theatre arts; develop lasting and creative friendships; and enrich and entertain the community.

Feet First Center for Contemporary & Classical Dance

Feet First Center for Contemporary & Classical Dance is a dance studio that has recently created the Footage Youth Dance Company that provides young dancers with the opportunity to experience a professional dance atmosphere. The Footage Youth Dance Company typically has three performances per year.

Kimberton Dance Academy

Kimberton Dance Academy (KDA) is a dance school in Phoenixville offering dance training for both children and adults.

SECTION 11.5 COMMUNITY EVENTS AND VENUES

A variety of recurring and one-time community events can be found throughout the Phoenixville Region. Major events and venues are summarized by municipality as follows.

East Pikeland

In East Pikeland, Kimberton Park serves as the host to many community events including movie nights, the spring Easter Egg Hunt, and the Kimberton Arts Alliance Theatre in the Park. Additionally, the Kimberton Fair takes place for six days every July at the Kimberton Fire Company Fairgrounds adjacent to Kimberton Park serving as the premiere community event and major fundraiser for the Kimberton Volunteer Fire Company.

The Kimberton Fairgrounds also serves as the location for a variety of privately sponsored events throughout the year, including dog and cat shows, a regional car show, and antiques shows.

Charlestown Township

The Charlestown Parks and Recreation Board hosts Charlestown Day, which is an annual community event held at the Charlestown Township Park typically in September. The free community event includes live music, food trucks, vendors, entertainment, and kids' activities.

West Vincent

West Vincent Township hosts an annual community day event in June at Evans Park, now referred to as *Festival in the Park*. The event is organized by an Ad Hoc committee of the Parks and Recreation Commission and in 2018 included a car show, goat race, pet parade, artist demonstrations, music, and food. West Vincent Township also hosts a summer in the park music series on the third Thursday of the month June through August, also in Evans Park.

One of the largest annual events in the Region, known as Ludwigs Corner Horse Show and Country Fair, occurs Labor Day weekend. In 2018, the Ludwigs Corner Horse Show and Country Fair has expanded to include a music festival known as Country Spirit USA Music Festival, which draws national Country music performers and as many as 15,000 spectators.

Ludwigs Corner Horse Show Grounds is a unique 33-acre community resource on the corner of Routes 100 and 401 in Glenmoore, PA dedicated primarily to horse events. The facility is privately owned and operated and the facility has a unique history.

Phoenixville

Over the past several years Phoenixville has become a focal point for a wide range of community events. Beginning in late spring and continuing into October it is not uncommon to find multiple outdoor events

in any given month. The following is a summary of long-standing events and festivals within the Borough.

- **Phoenixville Farmers Market-** The Phoenixville Farmers Market began in 2002 and is located under the Veterans Memorial Gay Street Bridge near the Foundry building. The main market season is from April through mid-November with hours from 9am to 1pm. Between Thanksgiving and Christmas the Farmers Market is open every Saturday, but with reduced hours from 10 am to noon. During the winter months the Farmers Market is open on the 2nd and 4th Saturdays from 10am to noon
- **First Fridays-** The Downtown Phoenixville street festival is held the first Friday of each month May through October. Community organizations and vendors set up booths along downtown streets, live musical acts are located throughout the downtown area, and children activities are scattered throughout the event area.
- **Dogwood Festival-** This annual event in May includes the Dogwood Parade, a carnival at Reeves Park, and a variety of other activities.
- **Food Truck Festival-** Twice a year this event is located along Bridge Street in Phoenixville featuring a wide range of food trucks from throughout the Greater Philadelphia Region. Local eating establishments have also used this event as an opportunity to showcase their food as well.
- **Summer Music Series-** Friday nights June through August in downtown Phoenixville featuring musical performers throughout the downtown area.
- **Strawberry Festival-** This early June event is hosted by the Historical Society as a fundraiser at the corner of Church and Main Streets. The event includes a flea market as well as a wide variety of strawberry treats.
- **Blues Festival-** A day-long event at Reeves Park in September featuring a variety of Blues performers.
- **Independence Day Celebration-** A fireworks display at Friendship Field in Phoenixville with funding provided by a variety of sources, including community donations.
- **Blobfest-** Annual festival in July to commemorate the 1958 cult horror classic, The Blob, that was filmed partially in Phoenixville, and the Colonial Theatre.
- **Pumpkin Fest-** An annual fall festival in October with a variety of activities and contests relating to pumpkins, including pumpkin races.
- **Halloween Parade-** An annual community parade that takes place just before Halloween. Children are given the opportunity to wear their costumes and be part of the parade.
- **Firebird Festival** is an annual community-initiated celebration of arts and culture that began in 2003. The event has taken place in a variety of locations throughout the Borough and in 2018 is anticipated to be relocated to yet another new location. In recent years the event has included craft and food vendors and features a parade of spectators walking from downtown to Friendship Field, where the event has taken place.
- **Christmas Parade-** In early December the Borough has a small parade along Bridge Street that culminates with Santa lighting the community Christmas tree.

Several buildings and parks within Phoenixville are available as venues for a variety of private and community events. Particularly noteworthy, is the Foundry Building in downtown Phoenixville that is owned by the Hankin Group and rented throughout the year for weddings and other private events. Additional venues include the Columbia Station, the Colonial Theatre, and Franklin Commons.

SECTION 11.6 CULTURAL TOURISM AND IDENTITY

With its unique wealth of historic, natural, recreational, and cultural attributes, the Phoenixville Region is well positioned to benefit economically from cultural or heritage tourism. The Schuylkill Highlands CLI devotes considerable effort to promoting the region's signature sites, places, and activities, including seasonal events and festivals. The PRPC municipalities should advance these efforts and promote similar local heritage activities to advance citizen support of preservation efforts while stimulating the regional economy. This includes support of Regional organizations and activities such as the Schuylkill River Heritage Center, the Chester County Town Tours and Village Walks, Phoenixville First Fridays, municipal community events, specialty farms and CSAs, bicycle tours, craft brew fests, car shows, street and community fairs, and the numerous cultural, dining and entertainment venues in and around the Region.

A Phoenixville Regional Cultural Center could be created to promote the arts, civics, and history of the Region, either as a physical structure or as an online virtual presence that educates and informs on events, venues, and cultural matters of Regional interest. It may be also effective to establish micro-localized identities (based on place names, unique attributes, etc.) within the Region to promote tourism, development, and especially redevelopment of revitalization areas.

SECTION 11.7 IMPLEMENTATION STRATEGIES

The following policy recommendations will implement the goals and objectives of the Cultural Resources Plan:

- CR-1 Create and sustain zoning provisions for historic villages and National Historic Districts that is responsive to the critical context of these areas.**
- CR-2 Assure that Historic Resource Protection Zoning maintains the contextual attributes of historic resources without subjecting property owners to unreasonable restrictions to use or inordinate expense.**
- CR-3 Support designation of natural, historic, scenic, and cultural heritage landscapes and adopt local regulations consistent with their protection.**
- CR-4 Advance cultural and heritage tourism by promoting places, events, and organizations that establish Regional and local identity.**
- CR-5 Develop a Phoenixville Regional Cultural Center to promote events, venues, and other matters of Regional interest.**
- CR-6 Support the growth of community arts and cultural centers when opportunities arise.**

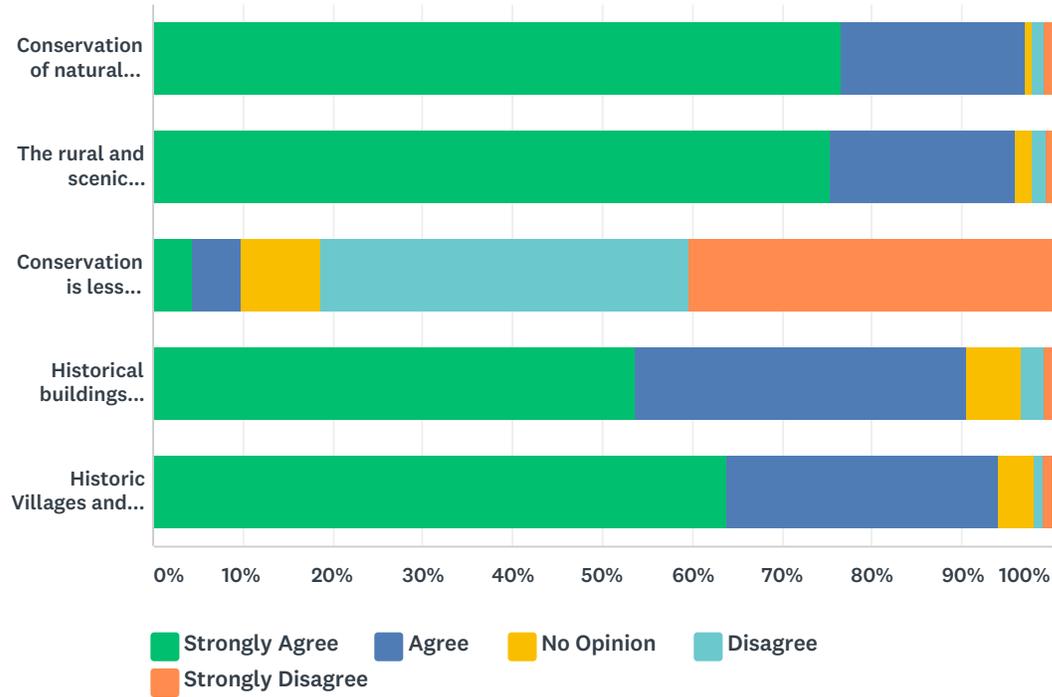
CHAPTER 12 IMPLEMENTATION PLAN

CHAPTER 13 CONSISTENCY STATEMENT

APPENDIX A: COMMUNITY VALUES SURVEY DATA

Q1 Natural/Historic Resources

Answered: 462 Skipped: 0



	STRONGLY AGREE (1)	AGREE (2)	NO OPINION (3)	DISAGREE (4)	STRONGLY DISAGREE (5)	TOTAL	WEIGHTED AVERAGE
Conservation of natural resources should be a regional priority.	76.41% 353	20.56% 95	0.87% 4	1.30% 6	0.87% 4	462	1.30
The rural and scenic character of our region should be preserved.	75.32% 348	20.56% 95	1.95% 9	1.52% 7	0.65% 3	462	1.32
Conservation is less important than allowing property owners to maximize use or development potential.	4.34% 20	5.42% 25	8.89% 41	41.00% 189	40.35% 186	461	4.08
Historical buildings should be preserved wherever possible.	53.70% 247	36.96% 170	5.87% 27	2.61% 12	0.87% 4	460	1.60
Historic Villages and sites are important to the identity of the Region.	63.91% 294	30.00% 138	4.13% 19	0.87% 4	1.09% 5	460	1.45

BASIC STATISTICS						
	MINIMUM	MAXIMUM	MEDIAN	MEAN	STANDARD DEVIATION	
Conservation of natural resources should be a regional priority.	1.00	5.00	1.00	1.30	0.64	
The rural and scenic character of our region should be preserved.	1.00	5.00	1.00	1.32	0.65	
Conservation is less important than allowing property owners to maximize use or development potential.	1.00	5.00	4.00	4.08	1.05	
Historical buildings should be preserved wherever possible.	1.00	5.00	1.00	1.60	0.79	

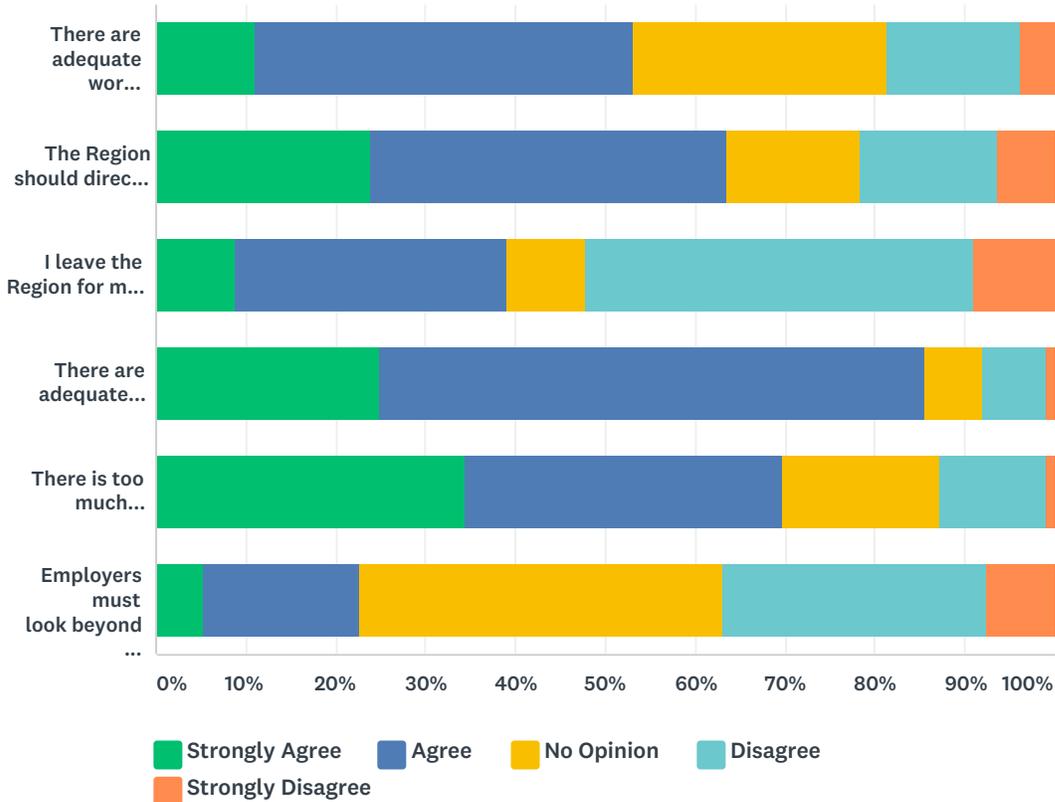
Phoenixville Regional Planning Committee

Historic Villages and sites are important to the identity of the Region.

1.00 5.00 1.00 1.45 0.72

Q2 Economic Development

Answered: 462 Skipped: 0



	STRONGLY AGREE (1)	AGREE (2)	NO OPINION (3)	DISAGREE (4)	STRONGLY DISAGREE (5)	TOTAL	WEIGHTED AVERAGE
There are adequate work opportunities for residents within the Region.	11.06% 51	41.87% 193	28.42% 131	14.75% 68	3.90% 18	461	2.48
The Region should direct new development to Phoenixville, established villages, and defined development corridors.	23.80% 109	39.74% 182	14.85% 68	15.28% 70	6.33% 29	458	2.17
I leave the Region for much of my shopping needs.	8.91% 41	30.00% 138	8.91% 41	43.04% 198	9.13% 42	460	3.05
There are adequate services within the Region. (e.g. doctor, auto care, etc.)	24.89% 114	60.70% 278	6.33% 29	6.99% 32	1.09% 5	458	1.74
There is too much residential development in the Region.	34.42% 158	35.29% 162	17.43% 80	11.76% 54	1.09% 5	459	1.75
Employers must look beyond the region for a qualified work force.	5.24% 24	17.47% 80	40.39% 185	29.26% 134	7.64% 35	458	3.11

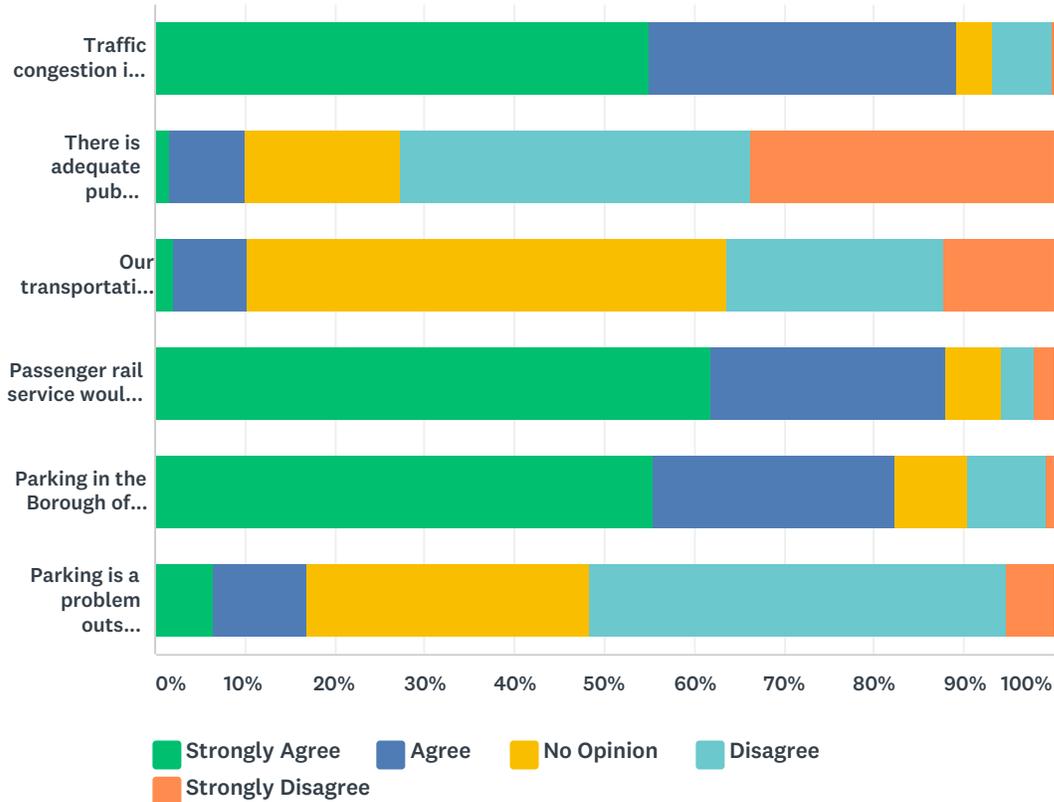
BASIC STATISTICS					
	MINIMUM	MAXIMUM	MEDIAN	MEAN	STANDARD DEVIATION
There are adequate work opportunities for residents within the Region.	1.00	5.00	2.00	2.59	1.00

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The Region should direct new development to Phoenixville, established villages, and defined development corridors.	1.00	5.00	2.00	2.41	1.18
I leave the Region for much of my shopping needs.	1.00	5.00	4.00	3.13	1.20
There are adequate services within the Region. (e.g. doctor, auto care, etc.)	1.00	5.00	2.00	1.99	0.83
There is too much residential development in the Region.	1.00	5.00	2.00	2.10	1.04
Employers must look beyond the region for a qualified work force.	1.00	5.00	3.00	3.17	0.98

Q3 Transportation

Answered: 458 Skipped: 4



	STRONGLY AGREE (1)	AGREE (2)	NO OPINION (3)	DISAGREE (4)	STRONGLY DISAGREE (5)	TOTAL	WEIGHTED AVERAGE
Traffic congestion is a problem in the Region.	55.07% 250	34.14% 155	3.96% 18	6.61% 30	0.22% 1	454	1.63
There is adequate public transportation serving the needs of the Region.	1.53% 7	8.53% 39	17.29% 79	38.95% 178	33.70% 154	457	3.95
Our transportation systems adequately serve senior citizens and the disabled.	1.97% 9	8.33% 38	53.29% 243	24.12% 110	12.28% 56	456	3.36
Passenger rail service would benefit the Region.	61.93% 283	26.04% 119	6.13% 28	3.72% 17	2.19% 10	457	1.58
Parking in the Borough of Phoenixville is a problem.	55.36% 253	26.91% 123	8.10% 37	8.75% 40	0.88% 4	457	1.73
Parking is a problem outside the Borough.	6.35% 29	10.50% 48	31.51% 144	46.39% 212	5.25% 24	457	3.34

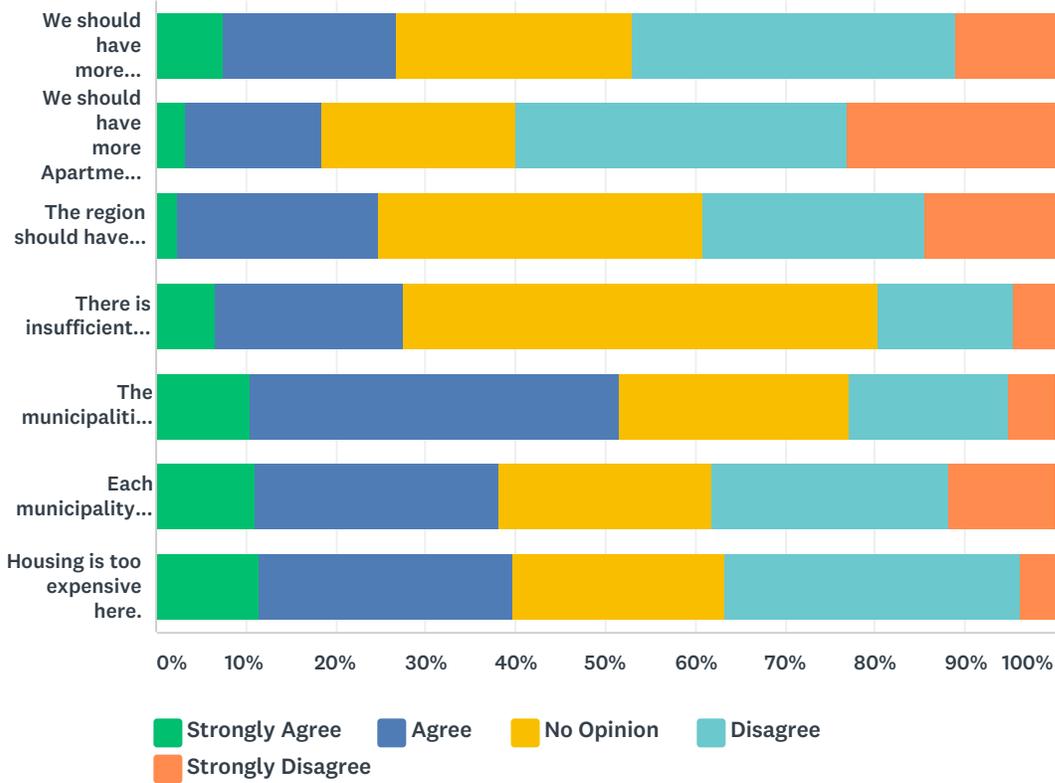
BASIC STATISTICS							
	MINIMUM	MAXIMUM	MEDIAN	MEAN	STANDARD DEVIATION		
Traffic congestion is a problem in the Region.	1.00	5.00	1.00	1.63	0.86		
There is adequate public transportation serving the needs of the Region.	1.00	5.00	4.00	3.95	0.99		

Phoenixville Regional Planning Committee

Our transportation systems adequately serve senior citizens and the disabled.	1.00	5.00	3.00	3.36	0.87
Passenger rail service would benefit the Region.	1.00	5.00	1.00	1.58	0.92
Parking in the Borough of Phoenixville is a problem.	1.00	5.00	1.00	1.73	0.99
Parking is a problem outside the Borough.	1.00	5.00	4.00	3.34	0.96

Q4 Housing

Answered: 460 Skipped: 2



	STRONGLY AGREE (1)	AGREE (2)	NO OPINION (3)	DISAGREE (4)	STRONGLY DISAGREE (5)	TOTAL	WEIGHTED AVERAGE
We should have more single-family detached housing in the Region.	7.46% 34	19.30% 88	26.32% 120	35.96% 164	10.96% 50	456	3.24
We should have more Apartment and Townhouse style housing.	3.28% 15	15.28% 70	21.40% 98	36.90% 169	23.14% 106	458	3.61
The region should have more rental housing opportunities.	2.41% 11	22.37% 102	35.96% 164	24.78% 113	14.47% 66	456	3.27
There is insufficient housing for senior citizens.	6.55% 30	20.96% 96	52.84% 242	15.07% 69	4.59% 21	458	2.90
The municipalities in the Region together provide an adequate variety of housing for all residents.	10.53% 48	41.01% 187	25.66% 117	17.54% 80	5.26% 24	456	2.66
Each municipality in the Region should accommodate every housing type.	11.14% 51	27.07% 124	23.58% 108	26.42% 121	11.79% 54	458	3.01
Housing is too expensive here.	11.40% 52	28.29% 129	23.46% 107	33.11% 151	3.73% 17	456	2.89

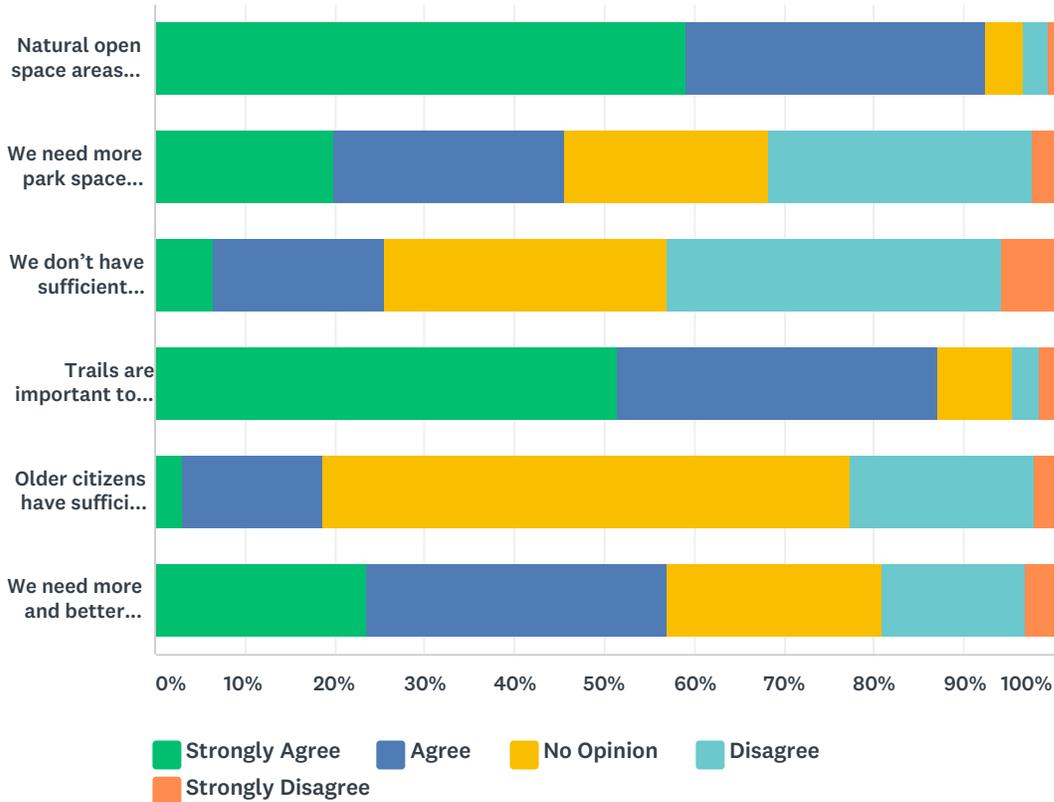
BASIC STATISTICS					
	MINIMUM	MAXIMUM	MEDIAN	MEAN	STANDARD DEVIATION
We should have more single-family detached housing in the Region.	1.00	5.00	3.00	3.24	1.11

Phoenixville Regional Planning Committee

We should have more Apartment and Townhouse style housing.	1.00	5.00	4.00	3.61	1.10
The region should have more rental housing opportunities.	1.00	5.00	3.00	3.27	1.04
There is insufficient housing for senior citizens.	1.00	5.00	3.00	2.90	0.89
The municipalities in the Region together provide an adequate variety of housing for all residents.	1.00	5.00	2.00	2.66	1.05
Each municipality in the Region should accommodate every housing type.	1.00	5.00	3.00	3.01	1.20
Housing is too expensive here.	1.00	5.00	3.00	2.89	1.10

Q5 Parks & Recreation

Answered: 461 Skipped: 1



	STRONGLY AGREE (1)	AGREE (2)	NO OPINION (3)	DISAGREE (4)	STRONGLY DISAGREE (5)	TOTAL	WEIGHTED AVERAGE
Natural open space areas should be publicly accessible.	59.13% 272	33.26% 153	4.13% 19	2.83% 13	0.65% 3	460	1.53
We need more park space convenient to my neighborhood.	19.83% 91	25.71% 118	22.66% 104	29.41% 135	2.40% 11	459	2.69
We don't have sufficient facilities for sport.	6.52% 30	18.91% 87	31.52% 145	37.17% 171	5.87% 27	460	3.17
Trails are important to me.	51.41% 237	35.79% 165	8.24% 38	3.04% 14	1.52% 7	461	1.67
Older citizens have sufficient recreational facilities and programs in our area.	3.05% 14	15.69% 72	58.61% 269	20.48% 94	2.18% 10	459	3.03
We need more and better accommodation for bicycling.	23.53% 108	33.55% 154	23.75% 109	15.90% 73	3.27% 15	459	2.42

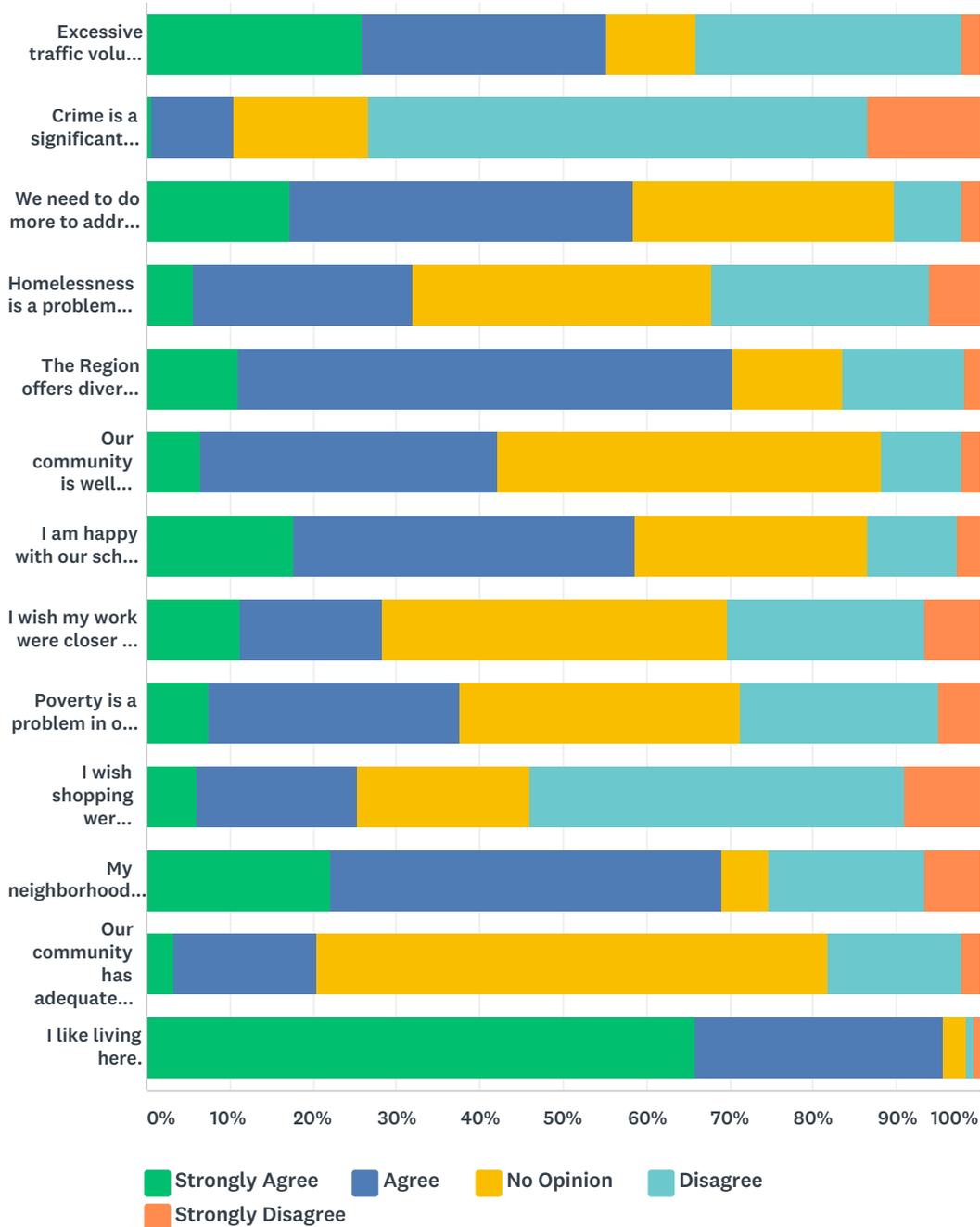
BASIC STATISTICS						
	MINIMUM	MAXIMUM	MEDIAN	MEAN	STANDARD DEVIATION	
Natural open space areas should be publicly accessible.	1.00	5.00	1.00	1.53	0.76	

Phoenixville Regional Planning Committee

We need more park space convenient to my neighborhood.	1.00	5.00	3.00	2.69	1.16
We don't have sufficient facilities for sport.	1.00	5.00	3.00	3.17	1.01
Trails are important to me.	1.00	5.00	1.00	1.67	0.87
Older citizens have sufficient recreational facilities and programs in our area.	1.00	5.00	3.00	3.03	0.75
We need more and better accommodation for bicycling.	1.00	5.00	2.00	2.42	1.11

Q6 Quality of Life

Answered: 462 Skipped: 0



	STRONGLY AGREE (1)	AGREE (2)	NO OPINION (3)	DISAGREE (4)	STRONGLY DISAGREE (5)	TOTAL	WEIGHTED AVERAGE
Excessive traffic volume detracts from neighborhood quality where I live.	25.97% 120	29.22% 135	10.61% 49	32.03% 148	2.16% 10	462	2.55
Crime is a significant problem in our community.	0.65% 3	9.74% 45	16.23% 75	59.96% 277	13.42% 62	462	3.76
We need to do more to address drug abuse in our community.	17.17% 79	41.30% 190	31.30% 144	8.04% 37	2.17% 10	460	2.37

Phoenixville Regional Planning Committee

Homelessness is a problem within our community.	5.65% 26	26.30% 121	35.87% 165	26.09% 120	6.09% 28	460	3.01
The Region offers diverse and adequate cultural and arts experiences	11.11% 51	59.26% 272	13.07% 60	14.81% 68	1.74% 8	459	2.37
Our community is well prepared for emergencies.	6.51% 30	35.57% 164	45.99% 212	9.76% 45	2.17% 10	461	2.66
I am happy with our school system.	17.57% 81	41.00% 189	27.98% 129	10.63% 49	2.82% 13	461	2.40
I wish my work were closer to where I live.	11.18% 51	17.11% 78	41.45% 189	23.68% 108	6.58% 30	456	2.97
Poverty is a problem in our region.	7.39% 34	30.22% 139	33.70% 155	23.70% 109	5.00% 23	460	2.89
I wish shopping were closer.	5.93% 27	19.34% 88	20.66% 94	45.05% 205	9.01% 41	455	3.32
My neighborhood is sufficiently walkable.	22.00% 101	47.06% 216	5.66% 26	18.74% 86	6.54% 30	459	2.41
Our community has adequate resources for seniors.	3.27% 15	17.21% 79	61.22% 281	16.12% 74	2.18% 10	459	2.97
I like living here.	65.79% 300	29.82% 136	2.85% 13	0.66% 3	0.88% 4	456	1.41

BASIC STATISTICS

	MINIMUM	MAXIMUM	MEDIAN	MEAN	STANDARD DEVIATION
Excessive traffic volume detracts from neighborhood quality where I live.	1.00	5.00	2.00	2.55	1.24
Crime is a significant problem in our community.	1.00	5.00	4.00	3.76	0.83
We need to do more to address drug abuse in our community.	1.00	5.00	2.00	2.37	0.93
Homelessness is a problem within our community.	1.00	5.00	3.00	3.01	1.00
The Region offers diverse and adequate cultural and arts experiences	1.00	5.00	2.00	2.37	0.93
Our community is well prepared for emergencies.	1.00	5.00	3.00	2.66	0.83
I am happy with our school system.	1.00	5.00	2.00	2.40	0.99
I wish my work were closer to where I live.	1.00	5.00	3.00	2.97	1.06
Poverty is a problem in our region.	1.00	5.00	3.00	2.89	1.01
I wish shopping were closer.	1.00	5.00	4.00	3.32	1.07
My neighborhood is sufficiently walkable.	1.00	5.00	2.00	2.41	1.20
Our community has adequate resources for seniors.	1.00	5.00	3.00	2.97	0.74
I like living here.	1.00	5.00	1.00	1.41	0.67

Q7 What should the Phoenixville Region's 3 top planning priorities be?

Answered: 365 Skipped: 97

ANSWER CHOICES	RESPONSES	
1.	100.00%	365
2.	96.44%	352
3.	85.75%	313

Q8 What further comments would clarify your answers to this survey?

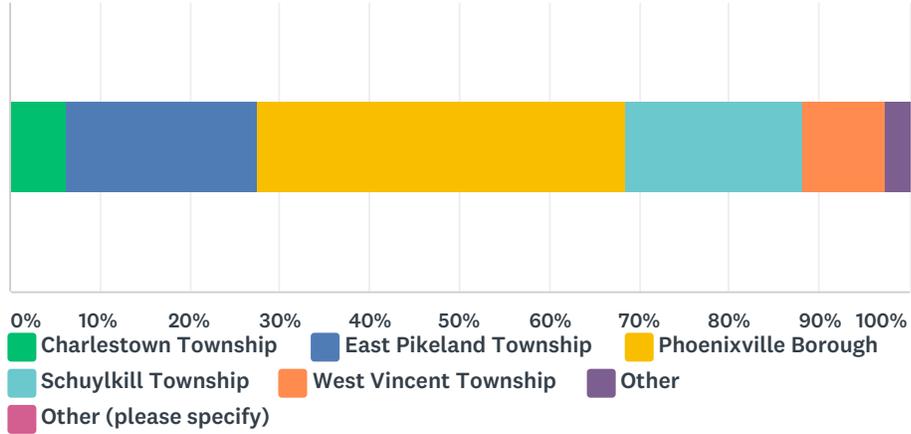
Answered: 163 Skipped: 299

Q9 What concerns has this survey failed to address?

Answered: 119 Skipped: 343

Q10 I live in:

Answered: 462 Skipped: 0

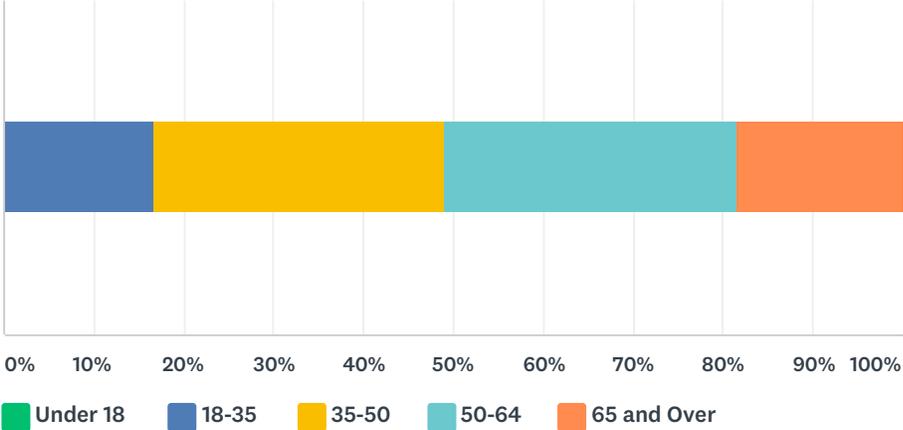


ANSWER CHOICES	RESPONSES	
Charlestown Township (1)	6.28%	29
East Pikeland Township (2)	21.21%	98
Phoenixville Borough (3)	40.91%	189
Schuylkill Township (4)	19.70%	91
West Vincent Township (5)	9.31%	43
Other (6)	2.60%	12
Other (please specify) (7)	0.00%	0
TOTAL		462

BASIC STATISTICS				
Minimum	Maximum	Median	Mean	Standard Deviation
1.00	6.00	3.00	3.12	1.12

Q11 My age is:

Answered: 462 Skipped: 0

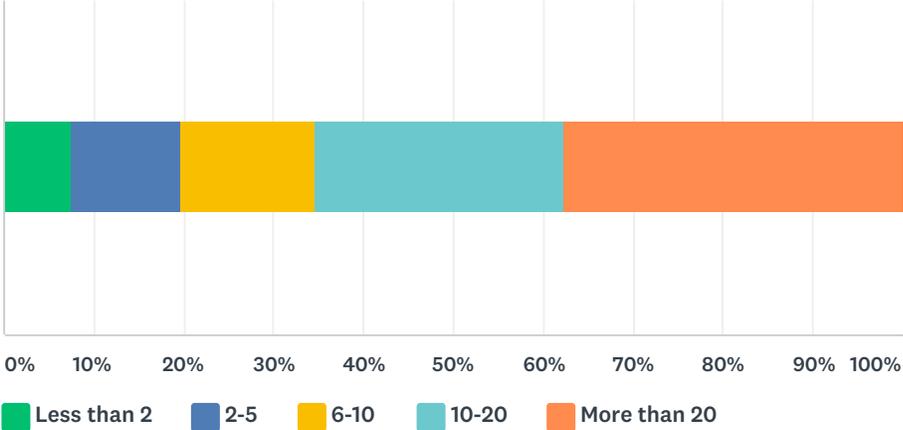


ANSWER CHOICES	RESPONSES	
Under 18 (1)	0.22%	1
18-35 (2)	16.45%	76
35-50 (3)	32.25%	149
50-64 (4)	32.68%	151
65 and Over (5)	18.40%	85
TOTAL		462

BASIC STATISTICS				
Minimum	Maximum	Median	Mean	Standard Deviation
1.00	5.00	4.00	3.53	0.98

Q12 Years I have lived in the Region:

Answered: 462 Skipped: 0



ANSWER CHOICES	RESPONSES	
Less than 2 (1)	7.36%	34
2-5 (2)	12.34%	57
6-10 (3)	14.94%	69
10-20 (4)	27.71%	128
More than 20 (5)	37.66%	174
TOTAL		462

BASIC STATISTICS				
Minimum	Maximum	Median	Mean	Standard Deviation
1.00	5.00	4.00	3.76	1.27

APPENDIX B: PUBLIC PARTICIPATION WORKSHOP NOTES

The legitimacy and success of policy depends on broad public and official support. In order to engage community members in identifying their priorities, goals, and objectives, and to solicit input on the content and policies of the Regional Comprehensive Plan Update, three (3) Public Participation Workshops will be held at key milestones in the planning process.

At the first workshop, citizen participants were actively engaged in the development of the Comprehensive Plan vision and goals, building on initial efforts undertaken by the PRPC and consultants. The second and third workshops will be structured to similarly engage attendees to elicit citizen critique and commentary on strategies devoted to addressing priority issues and plan elements in the final document.

Notes are taken at each workshop to document the public process:

PUBLIC PARTICIPATION WORKSHOP 1 – JUNE 22, 2017

VISION, GOALS, AND OBJECTIVES

Land Use

- The priorities of the 2008 Plan are vague, but still applicable- clarify who makes the decisions and involve the public
- New priorities to be considered include agricultural initiatives and small business promotion
- Traffic in the Region needs to be addressed before the congestion results in consequences
- A variety of small businesses should be encouraged in downtown Phoenixville.
- Downtown is limited as a tourist attraction due to the lack of business variety.
- Revitalization is not done; needs to continue
- Questioned the walkability of mixed use developments
- New priorities should include agricultural initiatives and small business promotion.
- Propose adding an objective to sustain and improve agriculture
- Small business promotion should include manufacturing to create a local economy
- Invest via CAFR funds
- In some areas we want to see jobs.
- Transportation congestion may lead to negative consequences relative to land uses.
- Stop regulations that are cost-prohibitive unnecessarily- not so much controlling bureaucracy, which stifles reality
- Improve accountability/transparency with taxpayer money
- Promote community gardens
- Need improved transportation infrastructure before more population growth
- Enhance retail and office space
- Zone for mixed-use villages
- Enhance places to work and retail

Environmental Resources

- Two key topics identified:

- Quality of water resources
- Reforestation
- Would like to see more extensive mapping of contamination and degradation sites
- Would like to see improved mapping of wetlands
- Buffering along streams are important- map these
- Consider expanding the minimum buffer/boundary requirements for natural resources
- Would like to see stronger stormwater controls resulting in no water degradation from new development

Housing

- Cost of housing- Look at average costs; how does housing cost compare to employment
- Consider zoning that allows for affordable housing
 - A task force has been started in Phoenixville. Consider how to connect this concept to the region
- 2008 Plan- The goal is very broad; look at a broader spectrum of housing
- Encourage increasing the style of the housing; clustering development
- Prioritize housing for families; senior housing for aging population

Economic Development

- Retail locations need to also provide services to get people willing to purchase locally rather than online
- Support adaptive reuse of large big-box properties where adequate parking exists (think outside the big box)
- Support creative/innovative industries (Tech Shop & Walnut Street in West Chester)
- Establish what resources should be available in a particular area and support the development of such uses (ex: B&B along the trail)
- Consider sport facilities on some of the underutilized/vacant (soon to be) properties
- Emphasize Art and Cultural Institutions in the Region
- Keep affordable/innovative housing near work.
- Use the trail networks to promote economic development
- Revitalize and provide tax incentives for redevelopment of abandoned properties

Community Facilities

- Implement pedestrian connections/linkages via sidewalks and walking paths
- Encourage incentives to increase the number of volunteer firefighters
- Maintain quality of delivery of emergency services including police, fire, and EMS services
- Explore regionalization to cover any underserved areas
- Improve efficiency
- Public water and sewer systems should be provided to underserved populations- proper capacity includes up to date infrastructure
- Continue to fund and support libraries as public institutions advancing quality of life in our communities
- Region should encourage 55 and older residential/community facilities
- Support a strong and engaged school system
- Consider community solar/renewable energy opportunities

Recreation Resources

- . West Vincent is beginning to prioritize trails- biking, pedestrian, horses- in the acquired open space
- . Concern that new development in Phoenixville is resulting in the loss of too much green space
- . Consider a trail connection from downtown to the Giant shopping center area utilizing the trail behind the shopping center area to allow a pedestrian connection avoiding Route 23
- . Expand park and play structures in the borough. In particular have a park with a kid focus in the downtown area and add playgrounds structures to parks for older kids
- . Provide parking and restrooms along trails
- . Have a mechanism in all regional municipalities to purchase open space
- . Consider cooperation between municipalities regarding athletic facilities
- . Park and Recreation committees should have regional/joint meetings a couple times per year
- . A cultural center is needed for the region
- . Utilize the PECO property in West Vincent for pedestrian connection
- . Use more natural materials for trails rather than paving them all- more trails could be developed

Transportation

- . 2008 Plan- all goals and objective are still relevant, but should be realized
- . Re-analyze current priorities to ensure they still provide what was originally intended
- . Top five issues to focus on-
 - o Funding
 - o Roads- relief of congestion-
 - § What is the status of the northern relief route?
 - § Consider alternatives for all major roads
 - o Parking in the borough
 - § Could there be a regional funding opportunity?
 - o Rail for commuting
 - o Trails- addition and adaptation to what we have
- . Light Rail
 - o Still a priority
 - o No support from SEPTA or local governments
 - o Not electrified
 - o Tried previously
 - o Rails do not belong to SEPTA; freight line
 - o Many road blocks
 - o Devault Line- tried to reactivate to Paoli
- . Consider bypass alternatives- space between 113 and Township Line Road to bypass borough?
 - o 724 through Valley Forge- utilize Paradise Street from Steel property to 113
- . Consider a parking garage in downtown Phoenixville
- . Bicycle and Ped Facilities-
 - o Look at other states
 - o Review trail and sidewalk designs; rework sidewalks
 - o Change regulations to allow bikes on sidewalks

Historic Resources

- Develop a phone application for a self-guided tour of historic resources in West Vincent that can be extended throughout the region.
- Ensure there is adequate parking for historic resources
- Educate homeowners on the history of their property- through deed research and surveys/inventories. This could help support historically sensitive renovations.
- Status of the Phoenixville Art Center- are grants available?
- Highlight the Forge Theater as a cultural resource
- It was noted that West Vincent is having a summer concert series
- First Fridays/Firebird Festival is great
- Pursue more grant funding
- Would like to see the Phoenixville Mural return.
- Promote the Schuylkill River Heritage Center

Quality of Life

- Recognize the change in demographics as a positive aspect of the region and celebrate the community.
- Increase diversity and advocate for minority populations
- Engage the Region and promote the many unique offerings of the region including, but not limited to:
 - Farmers Market
 - The Canal
 - The YMCA
 - The Health Foundation
 - Colonial Theater
 - First Fridays
 - Iron and steel tour
 - Reeves Park
 - Duck Race
- Negative aspects of the Region include:
 - Lack of public transportation
 - We don't know each other
 - Housing cost
- Ways to reduce the impact of the negative associations/perceptions of the Region:
 - Have block parties
 - Reach out to other demographic groups
 - Engage everybody
 - Have a digital record of the meetings

Other Comments:

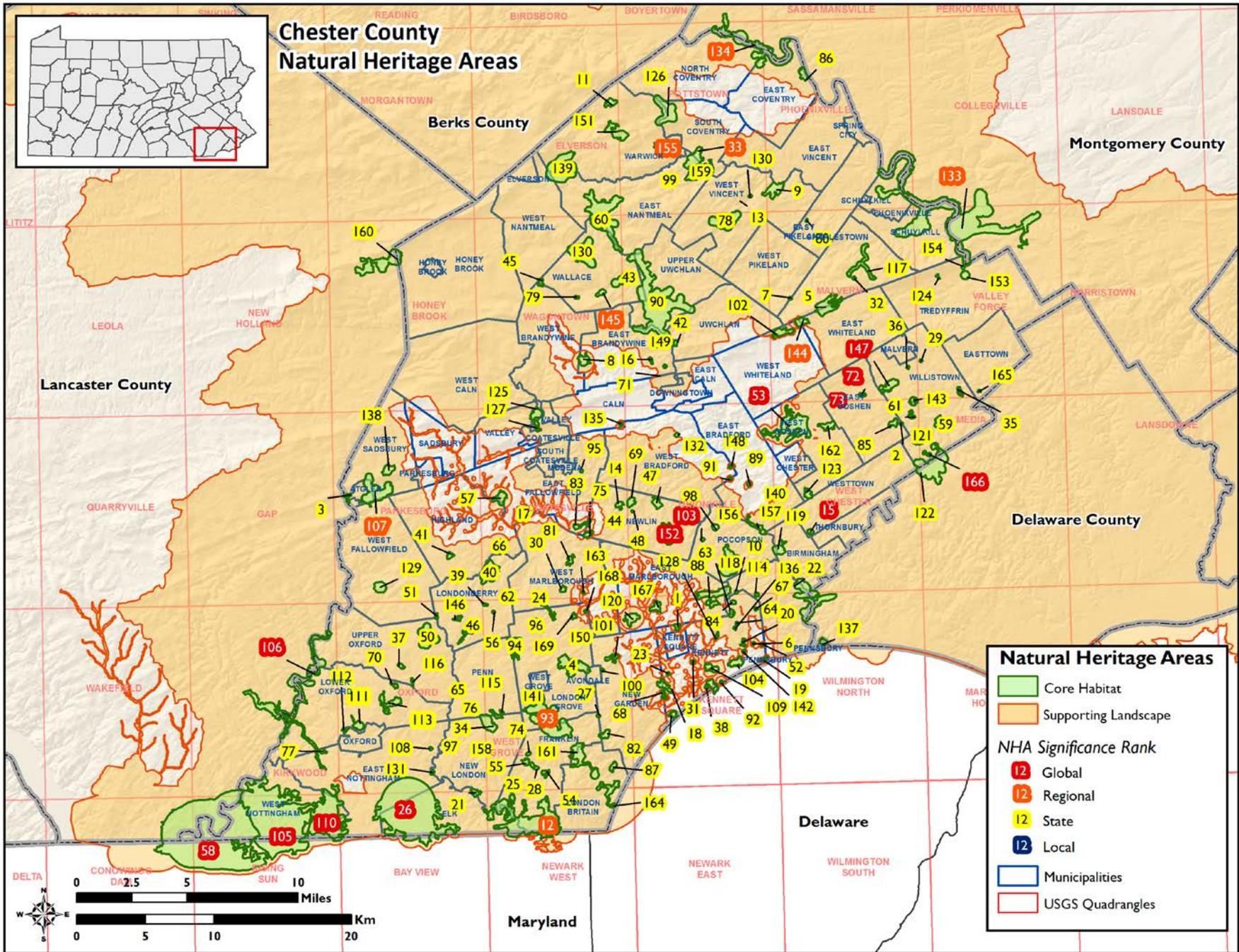
- Reach out to community groups in the Region to help promote the survey.
- Financially help farmers to support agriculture
- Agriculture can be detrimental to water quality. Apply best practices for agriculture.
- Try to get West Pikeland and East Vincent back on the Regional Planning Committee

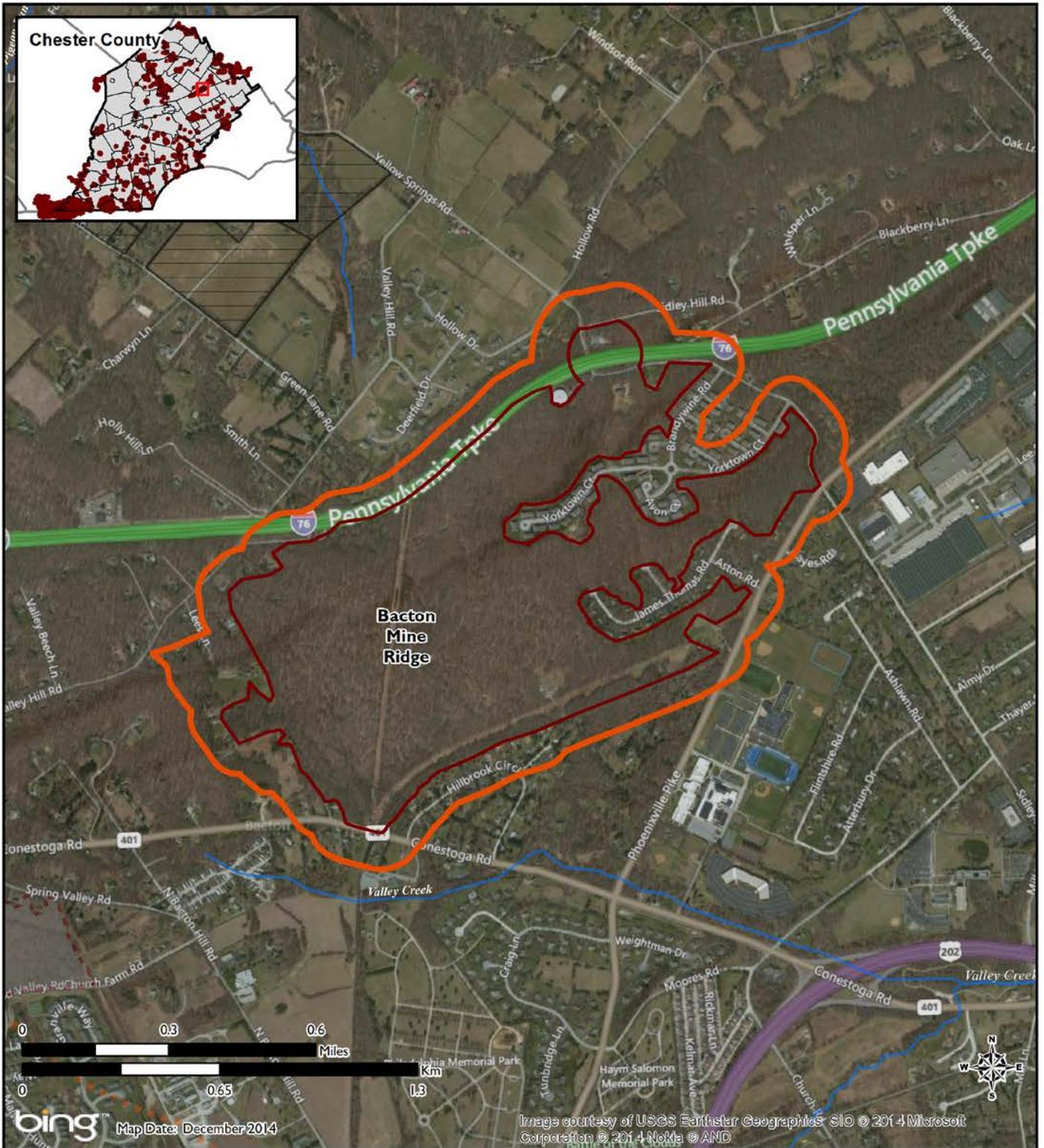
PRPC Comprehensive Plan – Draft narrative 8-2-2018

*PUBLIC PARTICIPATION WORKSHOP 2 – AUGUST 29, 2018
DRAFT POLICY ELEMENTS*

*PUBLIC PARTICIPATION WORKSHOP 3 – MARCH 27, 2019
PRELIMINARY DRAFT REGIONAL COMPREHENSIVE PLAN*

***APPENDIX C: NATURAL HERITAGE AREAS WITHIN PHOENIXVILLE
REGION***





Bacton Mine Ridge Natural Heritage Area

Forested wetlands and disturbed uplands support populations of five plant species of concern.

Significance Rank:
STATE



Pennsylvania Natural Heritage Areas

- Core Habitat
- Supporting Landscape
- Other Core Habitat
- Other Supporting Landscape
- Conservation Lands

Bacton Mine Ridge NHA

PNHP Significance Rank: *State*

Site Description

Bacton Mine Ridge NHA is a forested slope located south of the Pennsylvania Turnpike. Most portions of this NHA not adjacent to the Pennsylvania Turnpike border housing developments. A series of seeps run through the forested area and provide habitat for several plant species of concern – **netted chainfern**, **possum-haw**, **serviceberry**, and **shining panic-grass**. The forested area is more than 300 acres, although a pipeline cuts through the NHA. The roadside habitat at this site also provides habitat for **Elliot's beardgrass**, a plant species of concern.

Species or natural communities of concern that can be found in this NHA include the following:

Species or Natural Community Name	PNHP Rank ¹		PA Legal Status ¹	Last Seen	Quality ²
	Global	State			
Serviceberry (<i>Amelanchier canadensis</i>) 	G5	S1	N (PE)	9/5/1997	CD
Elliot's Beardgrass (<i>Andropogon gyrans</i>) 	G5	S3	N (PR)	2/4/2001	C
Shining Panic-grass (<i>Dichanthelium lucidum</i>) 	GNR	S1	TU (PE)	8/17/1993	CD
Possum-haw (<i>Viburnum nudum</i>) 	G5	S1	PE (PE)	7/2/1993	BC
Netted Chainfern (<i>Woodwardia areolata</i>) 	G5	S2	N (PT)	5/22/1993	CD

¹See the PNHP website (<http://www.naturalheritage.state.pa.us/RankStatusDef.aspx>) for an explanation of PNHP ranks and legal status. A legal status in parentheses is a status change recommended by the Pennsylvania Biological Survey.

²See NatureServe website (<http://www.natureserve.org/explorer/eorankguide.htm>) for an explanation of quality ranks.

Serviceberry ranges from Eastern Canada south along the Atlantic Coast and parts of the Gulf Coast. Most documented populations in Pennsylvania are located in several southeastern counties. This is a shrub species found in swamps and wet thickets.

Elliot's beardgrass is at the northern edge of its range in Pennsylvania and has only been documented in a few southeastern counties. It spans from New Jersey to Illinois, south from Texas to Florida. This species needs open, early successional habitat in order to persist.

Shining panic-grass is found along the coastal plain in open or shaded sphagnum wetlands. In Pennsylvania, this species has been documented in the southeastern and south central portions of the state.

In Pennsylvania, possum-haw is found in a few southeastern counties. This species lives in swamps, wet thickets, and other types of wetlands. Possum-haw is found in few locations in the state and has been classified as endangered in Pennsylvania.

Netted chainfern is a wetland species that is found scattered throughout Pennsylvania. Its entire range spans from Nova Scotia south to Florida and west to Texas. It is more common in the southern portion of its range.

Threats and Stresses

The area surrounding this NHA has been heavily disturbed by roads and housing developments. A pipeline right-of-way fragments the forested habitat at this site. Management along the right-of-way, such as herbicide spraying, may impact the native species in adjacent areas.

Specific threats and stresses to the elements present at this site include the following:

- Changes in the currently hydrology could significantly the habitat for the plant species of concern by making conditions either too wet or too dry to be able to persist at this site.
- Herbicides sprayed on the pipeline right-of-way and along roads may cause direct mortality to the species of concern and other native species. Fertilizers from surrounding lawns may also wash into the NHA and degrade habitat conditions.
- Logging will further fragment the existing forest and alter the conditions of the habitat needed by the species of concern.
- Invasive species are present in this site and may displace native vegetation, including species of concern.
- Over-browsing by white-tailed deer impacts all of the native vegetation and structure of the habitat.

Conservation Recommendations

Maintain the existing conditions and limit activities within and adjacent to the NHA that may disturb the habitat. Minimize herbicide spraying and other disturbances that may negatively impact the quality of the wetland habitat.

The following steps are recommended to ensure the persistence of these species at this site:

- Maintain the existing hydrology. Any activities that occur in surrounding areas should be conducted with a consideration for the impact to the flow of water into the nearby wetlands.
- Protect the existing forested areas from logging and disturbance along the forest edge. Maintaining as many intact habitats as possible, given the location within a residential area, will help to preserve habitat for as many species as possible.
- Limit herbicide use to situations where it is necessary, such as to control invasive species.
- Attempt to control the introduction and spread of invasive species. Remove invasives when possible, especially species that have not yet established a stronghold, which will be easier and more effective than targeting established populations. Further disturbance within this habitat will create additional opening for the establishment and spread of invasive species.
- Monitor deer density and maintain it at a level that is able to be supported by the landscape.

Location

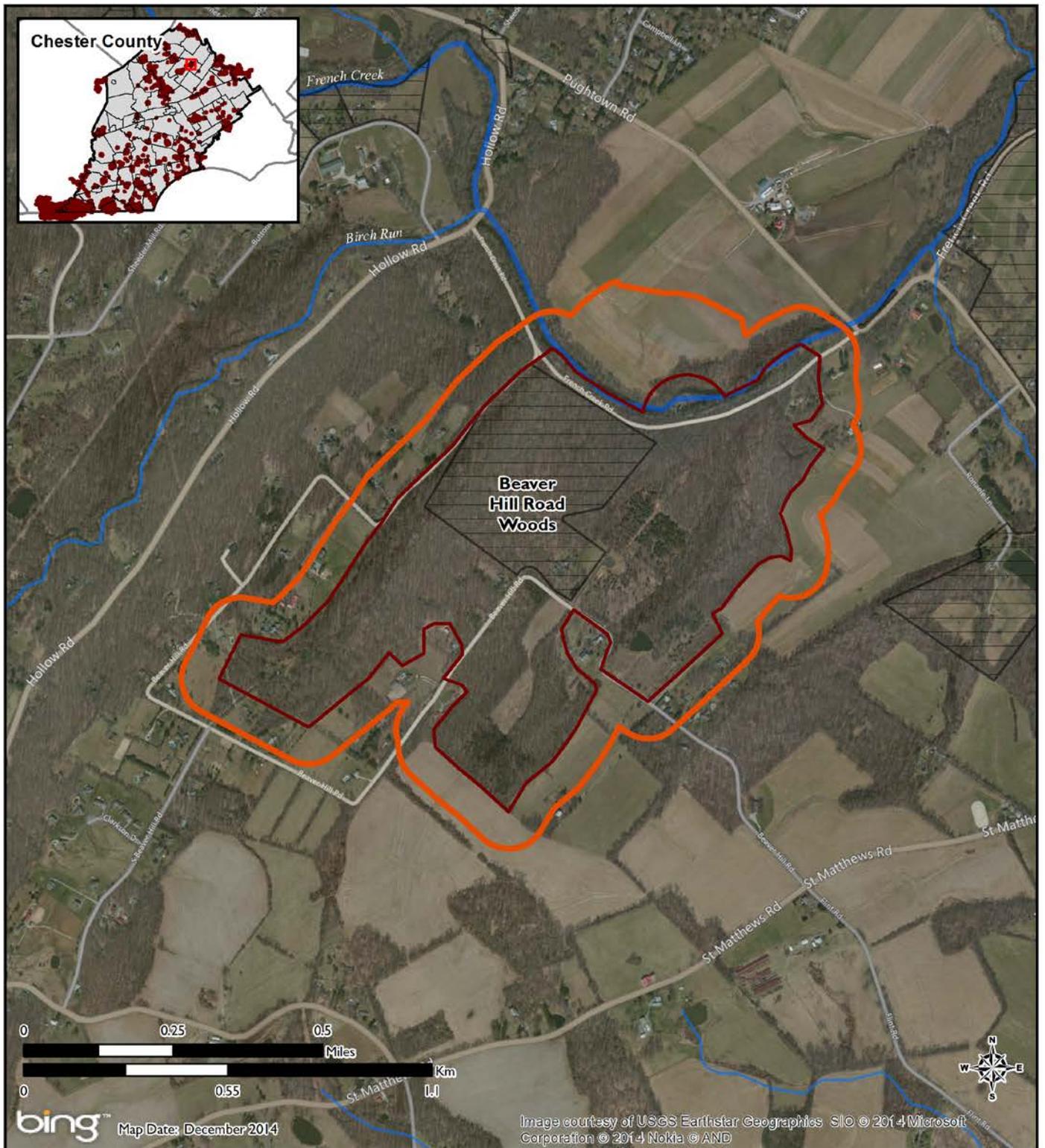
Municipalities: *East Whiteland Township, Charlestown Township*

USGS quads: *Malvern*

Previous CNHI reference: *Bacton Mine Ridge, Charlestown Oaks Seeps*

Associated NHAs: *None*

Overlapping Protected Lands: *None*



Beaver Hill Road Woods Natural Heritage Area

Forest habitat supports a population of spring coralroot, a critically imperiled plant species in Pennsylvania, and a population of a sensitive species of concern.

Significance Rank:
STATE



**Pennsylvania
Natural Heritage Areas**

-  Core Habitat
-  Supporting Landscape
-  Other Supporting Landscape
-  Conservation Lands

Beaver Hill Road Woods NHA

PNHP Significance Rank: *State*

Site Description

Beaver Hill Road Woods NHA is a wooded area dominated by tulip poplar and silver maple near Wilsons Corner. This NHA is more than 200 acres in size, including a few residences. The surrounding area has been fragmented by agriculture and residential development. The steep bank south of French Creek and two tributaries are included in this NHA, which provides habitat for **spring coral root**, a plant species of concern. Beaver Hill Road Woods NHA also supports a **sensitive species of concern**, not named at the request of the jurisdictional agency overseeing its protection.

Species or natural communities of concern that can be found in this NHA include the following:

Species or Natural Community Name	PNHP Rank ¹		PA Legal Status ¹	Last Seen	Quality ²
	Global	State			
Spring Coral-root (<i>Corallorhiza wisteriana</i>)	G5	SI	TU (PE)	5/22/1999	BC
Sensitive species of concern A ³	---	---	---	5/6/2009	B

¹See the PNHP website (<http://www.naturalheritage.state.pa.us/RankStatusDef.aspx>) for an explanation of PNHP ranks and legal status. A legal status in parentheses is a status change recommended by the Pennsylvania Biological Survey.

²See NatureServe website (<http://www.natureserve.org/explorer/eorankguide.htm>) for an explanation of quality ranks.

³This species is not named by request of the jurisdictional agency responsible for its protection.

Spring coral-root has been documented from Pennsylvania west to Oregon and south to Arizona and Florida. It is found through much of the United States, but is at the northern edge of its range in Pennsylvania and has been found in several southern counties. This orchid is saprophytic, meaning that it gets its nutrients from organic material instead of photosynthesis. Spring coral root may not flower every year, and flowers only last a short time, making surveys for this species difficult.

Threats and Stresses

Disturbances to the forest, such as logging and development, may eliminate the existing habitat. Invasive species would also likely colonize any newly disturbed areas.

Specific threats and stresses to the elements present at this site include the following:

- Logging may disturb the small amount of remaining habitat, as well as cause changes in hydrology and allow for the introduction of additional invasive species.
- Invasive species are present in this site and may displace native vegetation and alter the habitat required by the species of concern.
- Over-browsing by white-tailed deer impacts all of the native vegetation and structure of the habitat.

Conservation Recommendations

All of Beaver Hill Road Woods NHA is privately owned, with a portion protected by a conservation easement. The steep hillsides along the streams should limit development opportunities. Avoid logging any additional areas and maintain a forested buffer along the streams to protect the water quality and minimize erosion.

The following steps are recommended to ensure the persistence of these species at this site:

- Protect the existing forested areas from logging and disturbance along the forest edge. Maintaining as many intact habitats as possible, given the location within a residential area, will help to preserve habitat for as many species as possible.
- Attempt to control the introduction and spread of invasive species. Remove invasives when possible, especially species that have not yet established a stronghold, which will be easier and more effective than targeting established populations. Further disturbance within this habitat will create additional opening for the establishment and spread of invasive species.
- Monitor deer density and maintain it at a level that is able to be supported by the landscape.

Location

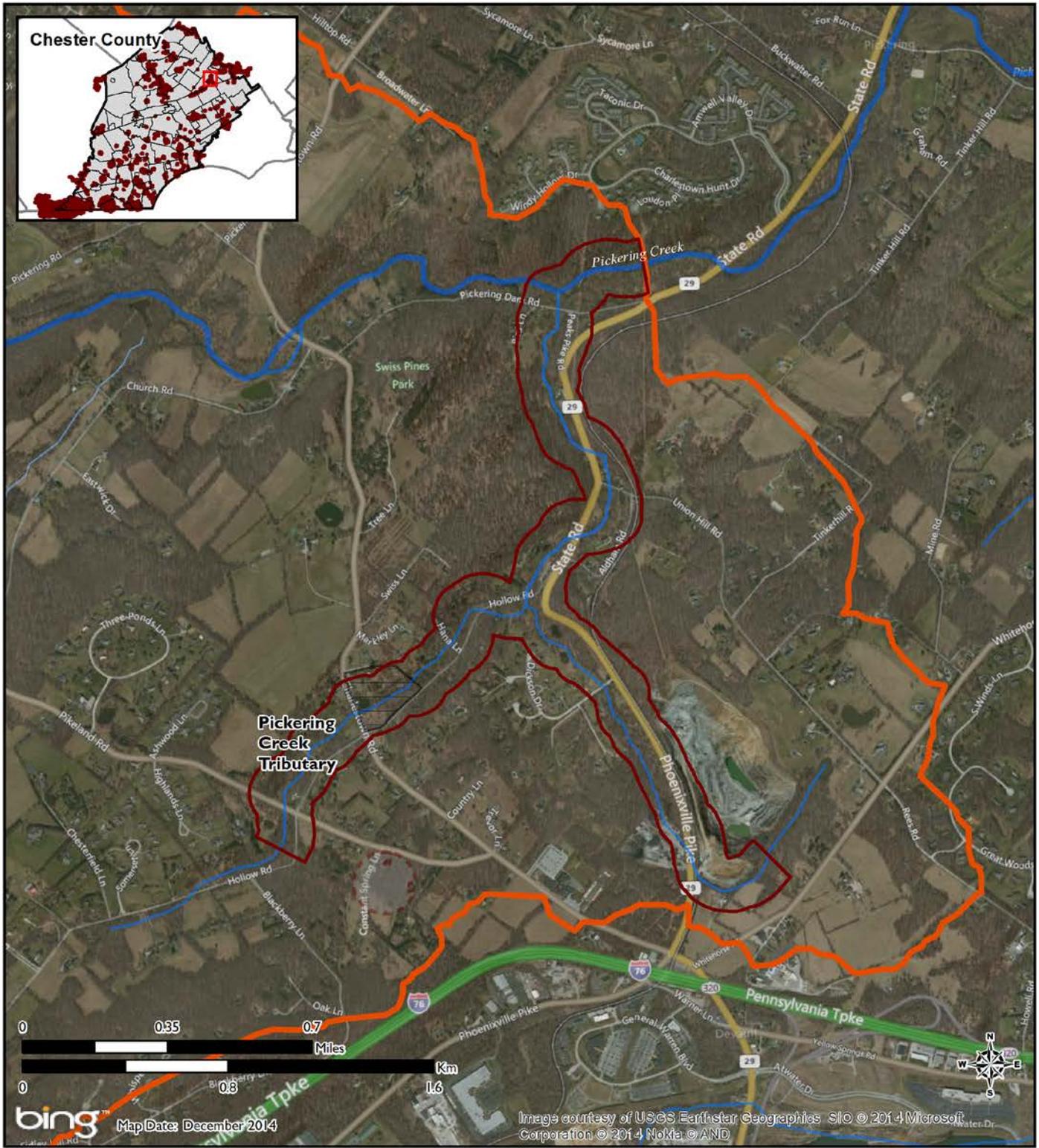
Municipalities: *West Vincent Township, East Vincent Township*

USGS quads: *Phoenixville, Pottstown*

Previous CNHI reference: *French Creek-East-Chester Co*

Associated NHAs: *None*

Overlapping Protected Lands: *French and Pickering Creeks Conservation Trust Conservation Easement*



Pickering Creek Tributary Natural Heritage Area

Aquatic and riparian habitat supports a sensitive species of concern.

Significance Rank:
STATE



Pennsylvania Natural Heritage Areas

-  Core Habitat
-  Supporting Landscape
-  Other Core Habitat
-  Other Supporting Landscape
-  Conservation Lands

Pickering Creek Tributary NHA

PNHP Significance Rank: *State*

Site Description

Pickering Creek Tributary NHA is located along Route 29 north of the Pennsylvania Turnpike. Two tributaries come together at Aldham before entering into Pickering Creek. The riparian habitat within the NHA is primarily wooded, but the surrounding area has been fragmented by agriculture and residential development. A quarry is also found along the southeastern edge of this site. This site supports a population of a **sensitive species of concern**, not named at the request of the jurisdictional agency overseeing its protection.

Species or natural communities of concern that can be found in this NHA include the following:

Species or Natural Community Name	PNHP Rank ¹		PA Legal Status ¹	Last Seen	Quality ²
	Global	State			
Sensitive species of concern A ³	S	--	--	8/1/2007	E

¹See the PNHP website (<http://www.naturalheritage.state.pa.us/RankStatusDef.aspx>) for an explanation of PNHP ranks and legal status. A legal status in parentheses is a status change recommended by the Pennsylvania Biological Survey.

²See NatureServe website (<http://www.natureserve.org/explorer/eorankguide.htm>) for an explanation of quality ranks.

³This species is not named by request of the jurisdictional agency responsible for its protection.

Threats and Stresses

Degradation of water quality and loss of natural habitat are critical threats to this site. Runoff from surrounding residential and industrial areas, roads, and agricultural fields can have a significant impact on the quality of the streams and surrounding wetlands.

Specific threats and stresses to the elements present at this site include the following:

- Degradation of water quality or quantity can have a negative impact on the habitat supporting the species of concern found at this location. The storm water runoff from roadways, suburban development and agriculture should be considered a potential source of significant contamination. Runoff from these sources have significantly higher levels of sediment, nutrients, pesticides, herbicides and other pollutants than runoff filtered through a natural habitat.
- Fragmentation of the riparian vegetation due to development or infrastructure activities can result in habitat loss and degradation of the site.
- Exotic invasive plant species threaten to compete with and displace native species.
- Over-browsing by white-tailed deer is a serious threat to the overall plant diversity and forest regeneration.

Conservation Recommendations

This site will be best protected by maintaining the integrity of vegetative buffers and assuring a consistent hydrologic regime to protect streams and wetlands.

The following steps are recommended to ensure the persistence of these species at this site:

- Avoid disrupting the hydrology of the site by draining or filling the wetlands, or disturbing the surface or groundwater hydrology.

- Protect remaining portions of the forested riparian zone and repair others that have been degraded, by encouraging the growth of native vegetation. A width of at least 100 meters is ideal, but any increase will help to improve the water quality.
- Avoid fragmenting the existing wooded areas with additional buildings or infrastructure. The primary conservation concern for this habitat should be to focus on safeguarding the quality and expanse of the natural landscape. While providing the primary habitat for the population of species of concern, the natural landscape also helps to protect water quality of the streams that drain through this NHA.
- Control invasive species of plants to prevent native species from being crowded out by introduced species.
- Reduce the deer density in the area. Uncommon species of native plants are particularly susceptible to deer herbivory.

Location

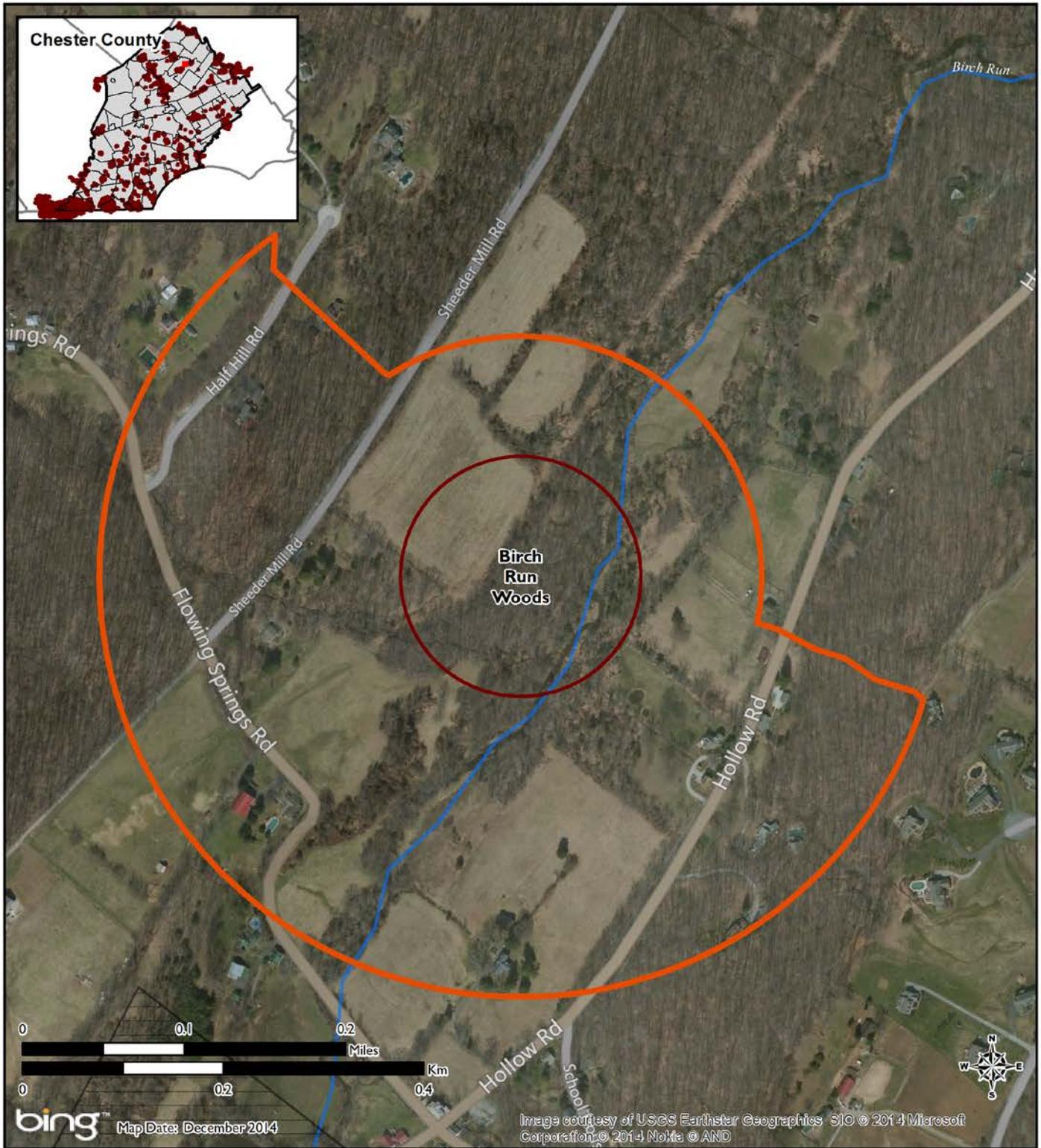
Municipalities: *Charlestown Township*

USGS quads: *Malvern*

Previous CNHI reference: *Pickering Creek*

Associated NHAs: *None*

Overlapping Protected Lands: *None*



Birch Run Woods Natural Heritage Area

Disturbed upland forest supports a population of wild kidney bean, a plant species of concern.

Significance Rank:
STATE



**Pennsylvania
Natural Heritage Areas**

-  Core Habitat
-  Supporting Landscape
-  Other Supporting Landscape
-  Conservation Lands

Birch Run Woods NHA

PNHP Significance Rank: *State*

Site Description

This NHA is located along a forested hillside above Birch Run. A power line right-of-way cuts through the NHA along the edge of the forested habitat. Agricultural fields make up the northern end of the NHA and surrounding habitat. The disturbed forest along the right-of-way is dominated by a number of invasive shrub species, including multiflora rose, Oriental bittersweet, and Japanese honeysuckle. This habitat also supports a small population of **wild kidney bean**, a plant species of concern.

Species or natural communities of concern that can be found in this NHA include the following:

Species or Natural Community Name	PNHP Rank ¹		PA Legal Status ¹	Last Seen	Quality ²
	Global	State			
Wild Kidney Bean (<i>Phaseolus polystachios</i>) 	G5	SIS2	N (PE)	10/7/2001	C
Sensitive species of concern A ³	S	---	---	6/2/2000	E
Sensitive species of concern B ³	S	---	---	6/2/2000	E

¹See the PNHP website (<http://www.naturalheritage.state.pa.us/RankStatusDef.aspx>) for an explanation of PNHP ranks and legal status. A legal status in parentheses is a status change recommended by the Pennsylvania Biological Survey.

²See NatureServe website (<http://www.natureserve.org/explorer/eorankguide.htm>) for an explanation of quality ranks.

³This species is not named by request of the jurisdictional agency responsible for its protection.

Wild kidney bean is distributed across most of the eastern United States. Its range stretches from New York west to Michigan and south to Florida and Texas. In Pennsylvania it has a scattered distribution, with the majority of occurrences in the southeastern counties. Wild kidney bean can be found in a variety of habitats, including open woods, thickets, banks, and slopes.

Threats and Stresses

A large number of invasive species occupy this habitat and may continue to spread and change the overall species composition. Maintenance along the right-of-way may disturb natural habitats with mowing or herbicide spraying. Excessive deer browse may hamper the growth of native species.

Specific threats and stresses to the elements present at this site include the following:

- Invasive species are present in many areas of this site and may displace native vegetation, including species of concern.
- Herbicide and fertilizer used along right-of-ways, roads, and fields may wash into the forested area and degrade the habitat or cause direct mortality.
- Succession of the shrubby habitat may shade the area too much for the wild kidney bean to persist.
- Over-browsing by white-tailed deer impacts all of the native vegetation and structure of the habitat.

Conservation Recommendations

Attempt to remove invasive species, while taking care to not open large gaps that may cause an increase in other invasive species. Minimize disturbance along the right-of-way and other portions of the NHA that will fragment the existing habitat.

The following steps are recommended to ensure the persistence of these species at this site:

- Attempt to control the introduction and spread of invasive species. Remove invasives when possible, especially species that have not yet established a stronghold, which will be easier and more effective than targeting established populations.
- Limit the application of chemicals within the NHA and surrounding areas in order to protect the quality of the habitat.
- Periodically cut woody vegetation to maintain the current habitat conditions. Time maintenance with consideration to limit disturbance of wild kidney bean.
- Monitor deer density and maintain it at a level that is able to be supported by the landscape.

Location

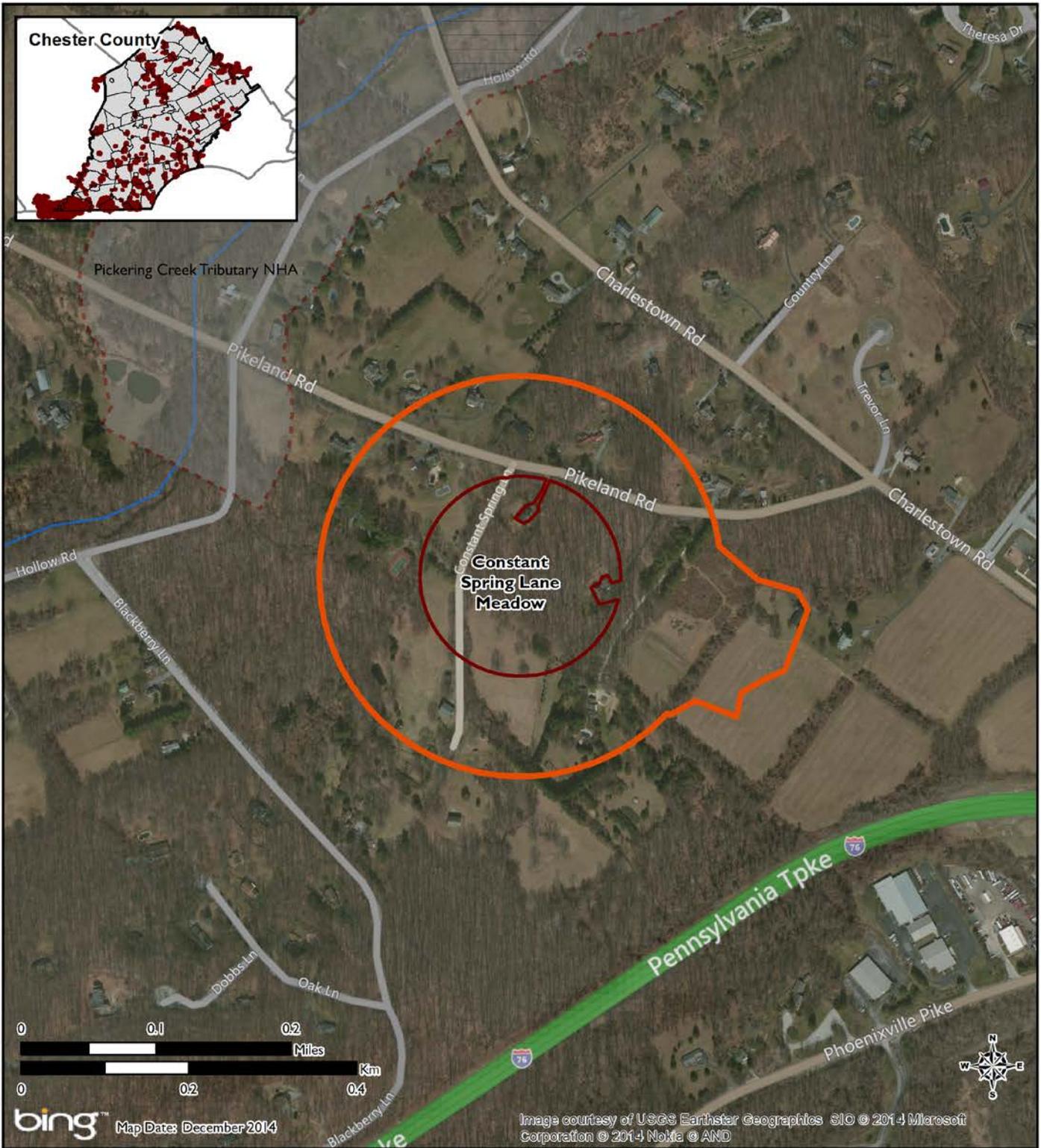
Municipalities: *West Vincent Township*

USGS quads: *Pottstown*

Previous CNHI reference: *None*

Associated NHAs: *None*

Overlapping Protected Lands: *None*



Constant Spring Lane Meadow Natural Heritage Area

This site provides habitat for Elliott's beardgrass, a vulnerable plant species in Pennsylvania.

Significance Rank:
STATE



Pennsylvania Natural Heritage Areas

- Core Habitat
- Supporting Landscape
- Other Core Habitat
- Other Supporting Landscape
- Conservation Lands

Constant Spring Lane Meadow NHA

PNHP Significance Rank: *State*

Site Description

Constant Spring Lane Meadow NHA is a site with a combination of meadow and forested habitats just north of the Pennsylvania Turnpike near Devault. The meadow is mowed every year, which maintains the early successional habitat. This habitat supports a population of **Elliot's beardgrass**, a plant species of concern.

Species or natural communities of concern that can be found in this NHA include the following:

Species or Natural Community Name	PNHP Rank ¹		PA Legal Status ¹	Last Seen	Quality ²
	Global	State			
Elliott's Beardgrass (<i>Andropogon gyrans</i>) 	G5	S3	N (PR)	10/13/2007	C

¹See the PNHP website (<http://www.naturalheritage.state.pa.us/RankStatusDef.aspx>) for an explanation of PNHP ranks and legal status. A legal status in parentheses is a status change recommended by the Pennsylvania Biological Survey.

²See NatureServe website (<http://www.natureserve.org/explorer/eorankguide.htm>) for an explanation of quality ranks.

Elliott's beardgrass is at the northern edge of its range in Pennsylvania and has only been documented in a few southeastern counties. It spans from New Jersey to Illinois, south from Texas to Florida. This species needs open, early successional habitat in order to persist.

Threats and Stresses

Lack of disturbance will allow succession of woody species to eliminate the open habitat. Invasive species are present, and mowing will also help to slow their spread throughout the NHA and adjacent habitat. Development can eliminate the small patches of habitat that remain in this area.

Specific threats and stresses to the elements present at this site include the following:

- Succession that is not controlled by mowing or other methods of disturbance will likely cause the habitat to become unsuitable for the species of concern to be able to persist at this site.
- Invasive species are present in many areas of this site and may displace native vegetation, including species of concern.
- Further development of the habitat currently occupied by Elliot's beardgrass will likely eliminate it from this area.
- Over-browsing by white-tailed deer impacts all of the native vegetation and structure of the habitat.
- Herbicide use along the road may cause direct mortality to the species of concern.

Conservation Recommendations

Maintain the existing habitat conditions by limiting disturbance in the forested area and using periodic maintenance to preserve open habitat conditions. Avoid further fragmentation of the remaining habitat with additional housing developments or other infrastructure.

The following steps are recommended to ensure the persistence of these species at this site:

- Maintain the grassy habitat openings for Elliot's beardgrass and other early successional species. Perform periodic maintenance, such as mowing, to prevent woody species from becoming established. The needs of this species should be considered when planning the timing and frequency of maintenance.
- Attempt to control the introduction and spread of invasive species. Remove invasives when possible, especially species that have not yet established a stronghold, which will be easier and more effective than targeting established populations.
- Avoid building additional houses or infrastructure in the area where Elliot's beardgrass is known to occur.
- Monitor deer density and maintain it at a level that is able to be supported by the landscape.
- Limit herbicide use to situations where it is necessary, such as to control invasive species.

Location

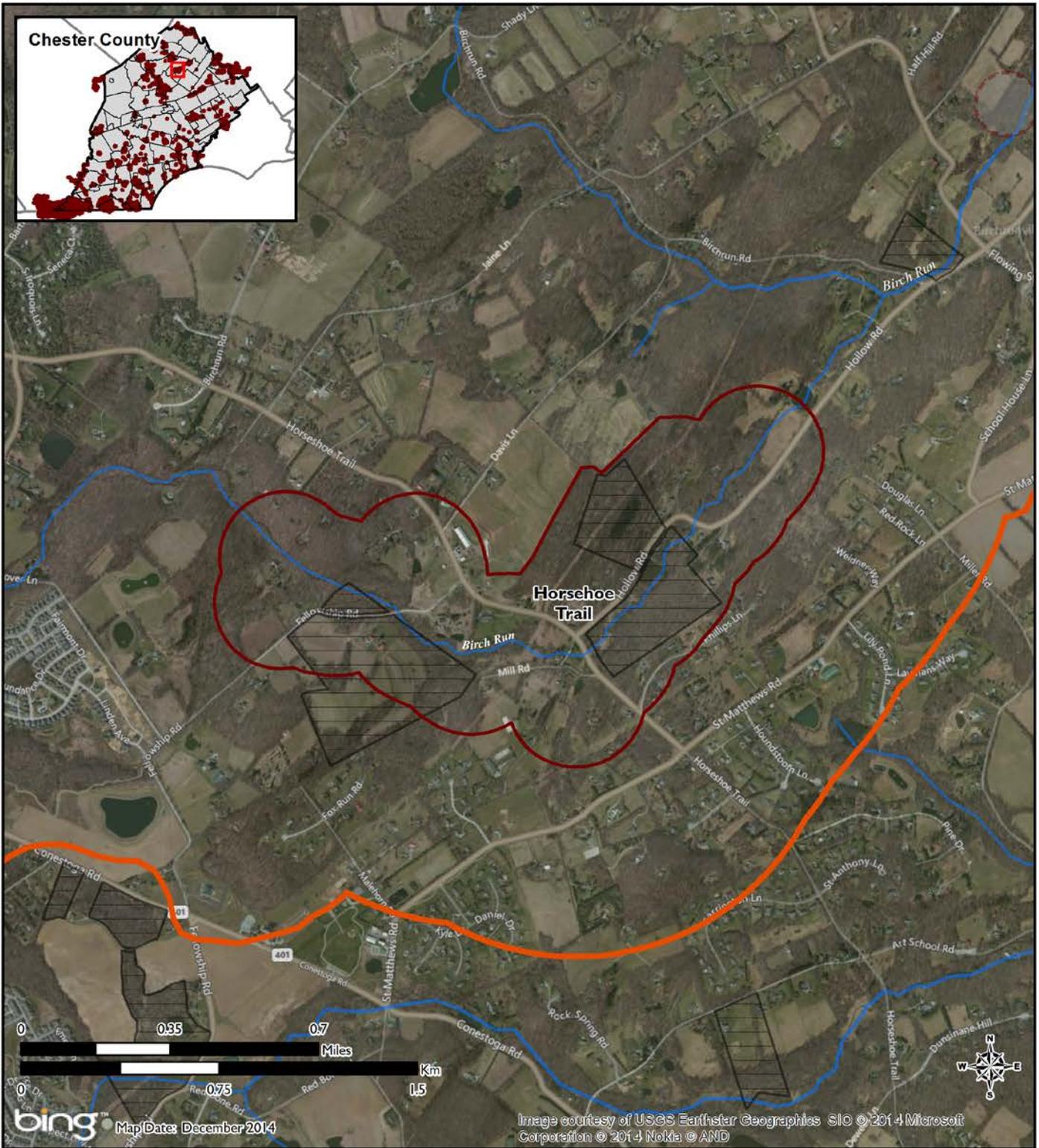
Municipalities: *Charlestown Township*

USGS quads: *Malvern*

Previous CNHI reference: *None*

Associated NHAs: *None*

Overlapping Protected Lands: *None*



Horseshoe Trail Natural Heritage Area

Wetlands at this site support a population of a sensitive species of concern.

Significance Rank:
STATE



**Pennsylvania
Natural Heritage Areas**

- Core Habitat
- Supporting Landscape
- Other Core Habitat
- Other Supporting Landscape
- Conservation Lands

Horseshoe Trail NHA

PNHP Significance Rank: *State*

Site Description

The Horseshoe Trail NHA encompasses a mostly forested landscape surrounding Birch Run. Residential housing is spread intermittently throughout the NHA, which is bordered by active agricultural operations. Birch Run and the adjacent forested landscape found within Horseshoe Trail NHA provide suitable habitat for a **sensitive species of concern** that is not named at the request of the jurisdictional agency overseeing its protection.

Species or natural communities of concern that can be found in this NHA include the following:

Species or Natural Community Name	PNHP Rank ¹		PA Legal Status ¹	Last Seen	Quality ²
	Global	State			
Sensitive species of concern A ³	S	---	---	4/16/2007	E

¹See the PNHP website (<http://www.naturalheritage.state.pa.us/RankStatusDef.aspx>) for an explanation of PNHP ranks and legal status. A legal status in parentheses is a status change recommended by the Pennsylvania Biological Survey.

²See NatureServe website (<http://www.natureserve.org/explorer/eorankguide.htm>) for an explanation of quality ranks.

³This species is not named by request of the jurisdictional agency responsible for its protection.

Threats and Stresses

The riparian zone and adjacent forest within this NHA are surrounded by active agricultural fields and encroaching residential development.

Specific threats and stresses to the elements present at this site include the following:

- Degradation of water quality or quantity can have a negative impact on the habitat supporting the species of concern found at this location. The storm water runoff from roadways, suburban development and agriculture should be considered a potential source of significant contamination. Runoff from these sources has significantly higher levels of sediment, nutrients, pesticides, herbicides, and other pollutants than runoff filtered through a natural habitat.
- Fragmentation due to development or infrastructure activities can result in habitat loss and degradation of the site.
- Exotic invasive plant species threaten to compete with and displace native species.
- Over-browsing by white-tailed deer is a serious threat to the overall plant diversity and forest regeneration. An overabundance of deer can create the effect of park-like forests in which the native plant understory and vertical stratification are greatly reduced.

Conservation Recommendations

This site will be best protected by maintaining the integrity of vegetative buffers along Birch Run and assuring a consistent hydrologic regime.

The following steps are recommended to ensure the persistence of these species at this site:

- Protect the riparian zone and repair others that have been degraded by encouraging the growth of native vegetation. Careful determination is needed to avoid planting trees in floodplains that should remain as open canopied herbaceous wetland habitats. These habitats should be

maintained in their current open condition, with tree plantings to occur uphill of areas containing hydric soils.

- Avoid fragmenting the existing forests and wetlands with additional buildings or infrastructure. The primary conservation concern for this habitat should be to focus on safeguarding the quality and expanse of the natural landscape. While providing the primary habitat for the populations of species of concern, the natural landscape also helps to protect water quality of the streams that drain through this NHA.
- Control invasive species of plants to prevent native species from being crowded out by introduced species. Target pioneer populations of invasive plants for immediate and continued removal. It is much easier and more effective to keep a place invasive-free than to try and repair a heavily infested habitat. Invasive species management should be coordinated by individuals familiar with the native species as well as the invasive species present. Continual invasive species monitoring and control will be necessary.
- Reduce the deer density in the area. Uncommon species of native plants are particularly susceptible to deer herbivory.

Location

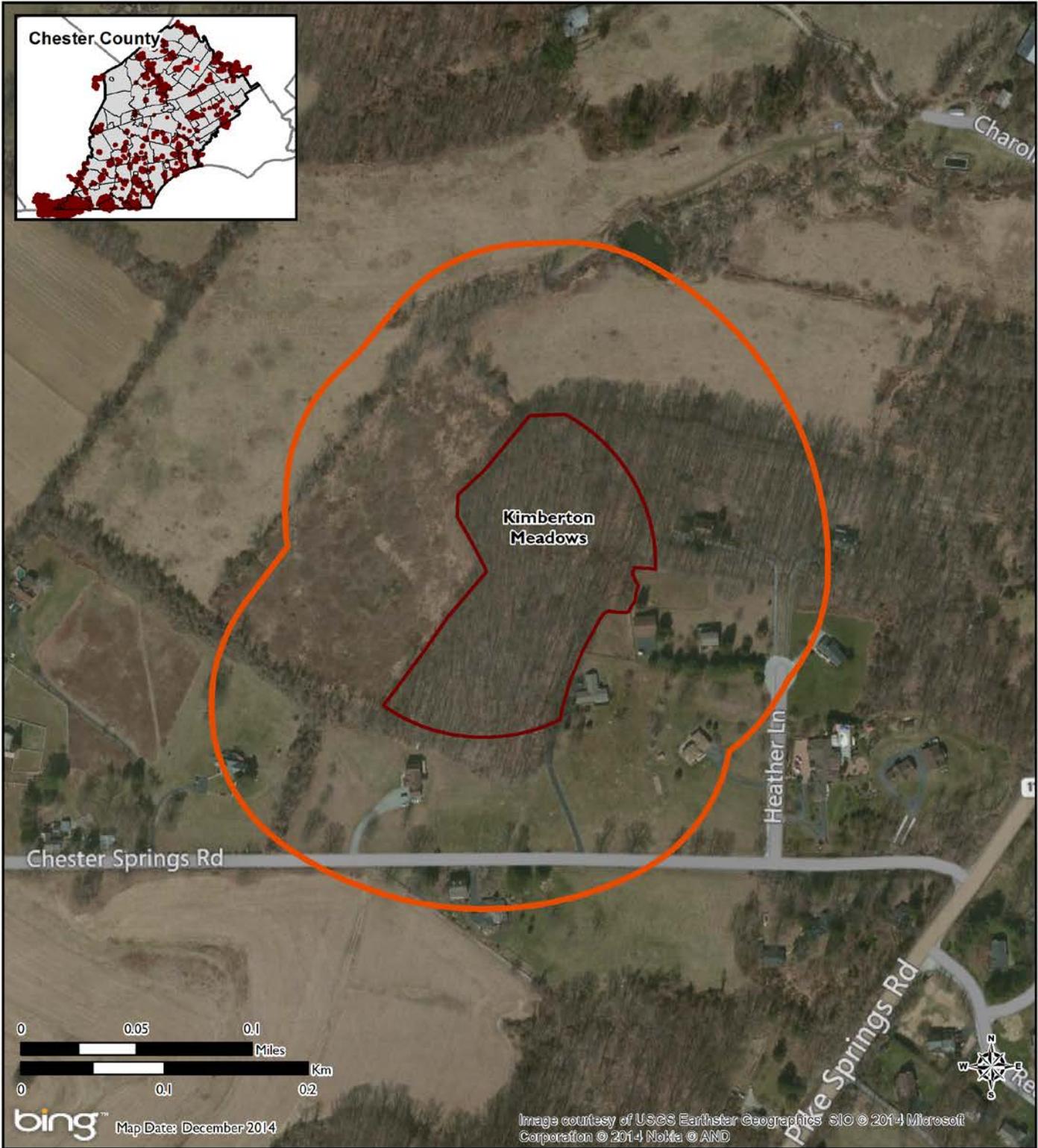
Municipalities: *West Vincent Township*

USGS quads: *Pottstown, Downingtown*

Previous CNHI reference: *None*

Associated NHAs: *None*

Overlapping Protected Lands: *French And Pickering Creek Trust Property, Agricultural Easement*



Kimberton Meadows Natural Heritage Area

This site provides habitat for a sensitive species of concern.

Significance Rank:
STATE



Pennsylvania Natural Heritage Areas	
	Core Habitat
	Supporting Landscape
	Other Supporting Landscape

Kimberton Meadows NHA

PNHP Significance Rank: *State*

Site Description

Kimberton Meadows is a small woodlot near Hallman. The landscape is a mix of agricultural fields and residential developments. This NHA is located in an area that is predominately agricultural. This small woodlot is less than 20 acres in size and is dominated by oaks. The wooded area within this NHA provides habitat for a **sensitive species of concern**, not named at the request of the jurisdictional agency overseeing its protection.

Species or natural communities of concern that can be found in this NHA include the following:

Species or Natural Community Name	PNHP Rank ¹		PA Legal Status ¹	Last Seen	Quality ²
	Global	State			
Sensitive species of concern A ³	S	---	---	11/7/2002	C

¹See the PNHP website (<http://www.naturalheritage.state.pa.us/RankStatusDef.aspx>) for an explanation of PNHP ranks and legal status. A legal status in parentheses is a status change recommended by the Pennsylvania Biological Survey.

²See NatureServe website (<http://www.natureserve.org/explorer/eorankguide.htm>) for an explanation of quality ranks.

³This species is not named by request of the jurisdictional agency responsible for its protection.

Threats and Stresses

Invasive species are common throughout the wooded habitat and may outcompete some native species. Herbicides and fertilizers used on nearby fields may wash into the wooded area and degrade the habitat quality. High density of white-tailed deer may also threaten native species by heavily browsing certain species.

Specific threats and stresses to the elements present at this site include the following:

- Invasive species are common in many areas of this site and may displace native vegetation, including species of concern.
- Logging, development, or other major activities will further fragment the existing woods and alter the conditions of the habitat needed by the species of concern. Disturbances will also open areas that can be easily colonized by invasive species.
- Over-browsing by white-tailed deer and livestock impacts all of the native vegetation and structure of the habitat.
- Herbicides and fertilizers used in lawns, fields, and along roads may wash into the wooded area and degrade the habitat conditions.

Conservation Recommendations

Avoid fragmenting the existing wooded area with logging or infrastructure. Attempt to control invasive species with mechanical removal, using herbicides only if necessary.

The following steps are recommended to ensure the persistence of these species at this site:

- Attempt to control the introduction and spread of invasive species. Remove invasives when possible, especially species that have not yet established a stronghold, which will be easier and more effective than targeting established populations.

- Protect the existing wooded areas from logging and other large scale disturbance. Keep the woods as intact as possible to protect the habitat and species within it.
- Monitor deer density and maintain it at a level that is able to be supported by the landscape. Continue to keep livestock from entering the wooded habitat.
- Limit herbicide use to situations where it is necessary, such as to control invasive species.

Location

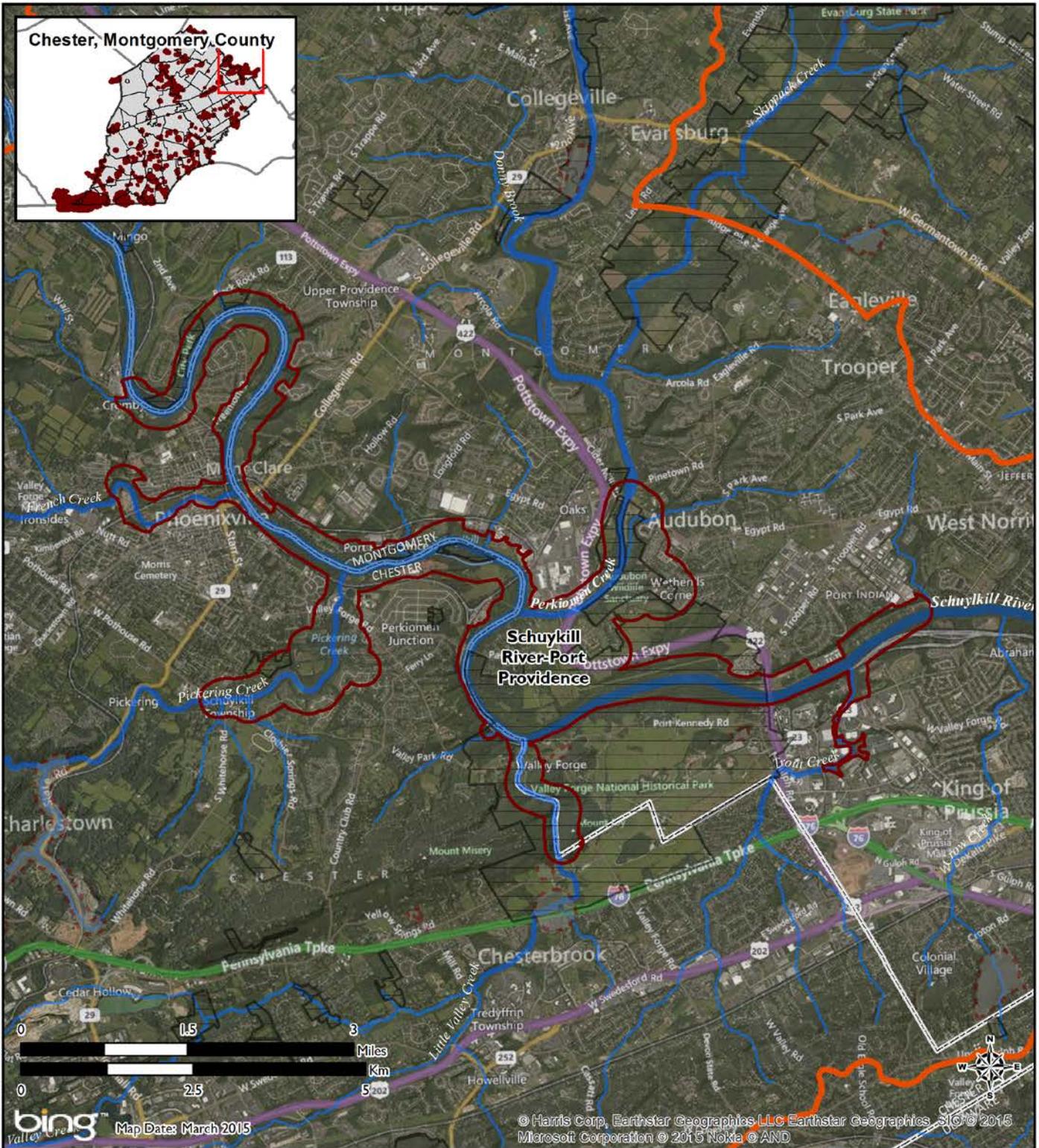
Municipalities: *East Pikeland Township*

USGS quads: *Malvern*

Previous CNHI reference: *None*

Associated NHAs: *None*

Overlapping Protected Lands: *None*



Schuylkill River-Port Providence Natural Heritage Area

Diverse habitats at this site support several species of concern, including a number of sensitive species.

Significance Rank:
REGIONAL



**Pennsylvania
Natural Heritage Areas**

-  Core Habitat
-  Supporting Landscape
-  Other Core Habitat
-  Other Supporting Landscape
-  Conservation Lands

Schuylkill River – Port Providence NHA

PNHP Significance Rank: *State*

Site Description

The Schuylkill River – Port Providence NHA has been delineated around a stretch of the river from Pheonixville downstream through Valley Forge National Historic Park. This area has been highly developed, with a narrow strip of riparian forest remaining along the floodplain. Channels and man-made wetlands are found in some areas in this NHA.

Species or natural communities of concern that can be found in this NHA include the following:

Species or Natural Community Name		PNHP Rank ¹		PA Legal Status ¹	Last Seen	Quality ²
		Global	State			
Northern Myotis (<i>Myotis septentrionalis</i>)		G4	S1	N (CR)	8/4/2005	E
Spreading Rockcress (<i>Arabis patens</i>)		G3	S2	N (PT)	5/11/1993	CD
Wild Kidney Bean (<i>Phaseolus polystachios</i>)		G5	S1S2	N (PE)	10/6/1994	E
Tooth-cup (<i>Rotala ramosior</i>)		G5	S3	PR (PR)	10/11/2006	B
Sensitive species of concern A ³	S	---	---	---	2013	E
Sensitive species of concern B ³	S	---	---	---	6/15/2011	C
Sensitive species of concern C ³	S	---	---	---	3/31/2010	E
Sensitive species of concern D ³	S	---	---	---	7/23/1993	BC

¹See the PNHP website (<http://www.naturalheritage.state.pa.us/RankStatusDef.aspx>) for an explanation of PNHP ranks and legal status. A legal status in parentheses is a status change recommended by the Pennsylvania Biological Survey.

²See NatureServe website (<http://www.natureserve.org/explorer/eorankguide.htm>) for an explanation of quality ranks.

³This species is not named by request of the jurisdictional agency responsible for its protection.

Threats and Stresses

Specific threats and stresses to the elements present at this site include:

- Degradation of riparian zones within this NHA threatens the integrity of water quality in the Schuylkill River and its adjacent wetlands. The stormwater runoff from roadways and development should be considered a potential source of significant contamination. Runoff from these sources has significantly higher levels of pollutants than runoff filtered through a natural habitat.
- Natural succession from open, wet meadows to shrub and tree dominated habitats can eliminate suitable open canopied habitats supporting species of concern.
- Forest fragmentation due to development or infrastructure activities could result in habitat loss and degradation of the site.
- Exotic invasive plant species threaten to compete with and displace native species.
- Over browsing by white-tailed deer is a serious threat to the overall understory plant diversity. An overabundance of deer can create the effect of park-like forests in which the native plant understory and vertical stratification are greatly reduced.

Conservation Recommendations

The following steps are recommended to ensure the persistence of these species at this site:

- Avoid disrupting the hydrology of the site by draining or filling the wetlands as well as disturbing the surface or groundwater hydrology.
- Maintain open, wet meadow habitats by periodic removal of woody species of plants. This action will temporarily help set back succession to a closed canopy habitat and preserve the open, wet meadow habitat conditions preferred by species of concern.
- Protect the riparian zone and repair others that have been degraded by encouraging the growth of native vegetation. Careful determination is needed to avoid planting trees in floodplains that should remain as open canopied herbaceous wetland habitats. These habitats should be maintained in their current open condition, with tree plantings to occur uphill of areas containing hydric soils.
- Avoid fragmenting the existing forests and wetlands with additional buildings or infrastructure. The primary conservation concern for this habitat should be to focus on safeguarding the quality and expanse of the natural landscape. While providing the primary habitat for the populations of species of concern, the natural landscape also helps to protect water quality of the streams that drain through this NHA.
- Control invasive species of plants to prevent native species from being crowded out by introduced species. Invasive species removal efforts should focus on reducing the prevalence of woody species such as Norway maple, Japanese barberry, common privet, bush honeysuckles, Japanese honeysuckle, multiflora rose, autumn olive and winged euonymus. Target pioneer populations of invasive plants for immediate and continued removal. It is much easier and more effective to keep a place invasive-free than to try and repair a heavily infested habitat. Invasive species management should be coordinated by individuals familiar with the native species as well as the invasive species present. Continual invasive species monitoring and control will be necessary.
- Reduce the deer density in the area. Uncommon species of native plants are particularly susceptible to deer herbivory.

Location

Municipalities: *Schuylkill Township, West Norriton Township, Phoenixville Borough, Upper Merion Township, Tredyffrin Township, East Pikeland Township, Upper Providence Township*
 USGS quads: *Collegetown, Phoenixville, Valley Forge, Malvern*
 Previous CNHI reference: *Black Rock Tunnel, Valley Forge NHP - SP547*
 Associated NHAs: *None*
 Overlapping Protected Lands: *Audubon Wildlife Sanctuary*