

# *Open Space, Natural Features, and Cultural Resources Plan* Shaping Our Future

A Comprehensive Plan for Montgomery County



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Natural Features, and  
Cultural Resources Plan*  
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# Introduction

## Introduction

Open space - natural areas - farmland - scenic views - historic properties - these important resources are essential elements of the county's high quality of life; yet, as the county is developed, these landscapes and heritage resources are lost.

Open space and cultural resources provide recreational opportunities, improve the environment, and add to everyone's enjoyment of every day life. In addition, these resources have a strong economic impact, both directly through tourism and farming and indirectly by making the county a more attractive place for knowledge workers and businesses.

This plan, *Open Space, Natural Features, and Cultural Resources Plan - Shaping Our Future: A Comprehensive Plan for Montgomery County*, is intended to guide open space decisions to the year 2025. In particular, this plan lists high priority areas that should be preserved to establish an interconnected open space system that benefits everyone.

The county has had many open space successes. Over the past few decades, several large parks have been established, such as Norristown Farm Park, Evansburg State Park, and Green Lane Park. In addition, the county and local municipalities have developed new playing fields, courts, playgrounds, and trails, such as Parkside Place in Upper Gwynedd, Manderach Playground in Limerick, or the Perkiomen Trail. And much farmland has been preserved, providing fresh local produce for county residents.

Unfortunately, too much open space and farmland has been lost to sprawling development, with large lot homes and low intensity offices spread across the landscape. Historic buildings and sites that once provided critical landmarks and focal points for the county's towns and roadsides have been razed for strip commercial uses.

To address these issues and to create a connected open space network, this *Open Space, Natural Features, and Cultural Resources Plan* proposes, in a series of chapters, to:

- Protect vulnerable natural features,
- Link and preserve important open space areas,
- Expand county and municipal trails,
- Keep farming viable, and
- Preserve important historic buildings and views.

### ***Open Space, Natural Features, and Cultural Resources Vision***

*In 2025, the county will have:*

- *Interconnected open space and greenways*
- *Preserved natural, historic, and agricultural resources*

The last chapter of this plan shows how all the open space, natural features, and cultural resources described throughout the plan are interrelated as an open space system. When one resource is adversely affected, all the other resources are also impacted.

Overall, this *Open Space, Natural Features, and Cultural Resources Plan*, if fully implemented, will help permanently preserve more open space, natural areas, farmland, scenic views, and historic properties throughout Montgomery County.

This preservation has many economic benefits. Preservation of open space, parks, natural areas, and farmland:

- Lowers property taxes,
- Reduces infrastructure installation and maintenance costs,
- Increases property values,
- Attracts businesses through a stronger quality of life,
- Helps revitalize urban neighborhoods,
- Increases tourism,
- Provides farm employment and income,
- Reduces the cost of flooding,
- Reduces the cost of air pollution,
- Reduces the cost of treating water, and
- Helps reduce health costs by providing recreation opportunities.

# Chapter 1

## Goals and Actions

This chapter lists specific goals that will help connect open space and greenways while preserving natural, historic, and agricultural resources. Each goal is followed by a list of actions that will help achieve the goal.

Open space protection involves many players other than the county and state, including local governments, developers, farmers, other landowners, and conservation and environmental organizations. All of these groups must be an active part of any open space solution.

The goals listed below are taken from *Vision Plan – Shaping Our Future: A Comprehensive Plan for Montgomery County*. The numbering of the eight goals below corresponds to the numbering in this *Vision Plan*.

### **Goal 11.**

#### **Preserve Large Interconnected Areas of Significant Open Space**

This overarching open-space goal will be achieved through a variety of actions working in unison, including the following:

- Purchasing land and development rights for perpetual preservation.
- Encouraging the donation of land and development rights.
- Adopting zoning regulations, including cluster zoning, transfer of development rights, and resource protection ordinances.
- Reducing the demand for development in open areas by limiting sewer and water extensions, directing transportation improvements to designated growth areas, directing development to growth areas, and refraining from rezoning these open areas to higher intensity uses.
- Improving cooperation among all the various people and organizations involved in open space preservation, including federal, state, county, and municipal government, conservation organizations, farmers, property owners, and developers.
- Creating open space plans, comprehensive plans,

*County residents and businesses benefit from open space every day.*

*People enjoy open space through the windshield of their car as they pass a beautiful field or cross a bridge over a glistening stream.*

*Others find spiritual solace and refreshment in the natural world.*

*Families go to parks to have picnics, play sports, or take the children fishing for the first time.*

*Open space provides vital natural habitat for wild animals.*

*Preserved farmland and historic landscapes remind us of our heritage.*

*Open space improves the quality of life of everyone, which helps the county attract employers and skilled workers.*



Open space in the county is constantly under development pressure.

**Protecting wetlands will help:**

- Purify water.
- Retain stormwater runoff.
- Limit erosion.
- Reduce flood flows.
- Provide food and shelter for a wide array of animals and plants.
- Facilitate groundwater recharge.
- Maintain the base flows of area streams.

**Protecting stream corridors and floodplains will help:**

- Leave room for floodwaters.
- Minimize erosion.
- Protect water quality.
- Provide animal habitat.
- Provide recreation opportunities.

**Protecting steep slopes will help:**

- Reduce erosion and runoff.
- Reduce public expenditures for flood control, water cleanup, and stormwater management.
- Protect areas with unique plants and wildlife.

**Protecting woodlands will help:**

- Provide habitat for many animal and plant species.
- Control erosion.
- Clean the air.
- Protect privacy.
- Provide windbreaks.
- Cool the air in the summer.
- Reduce the impact of rainfall.
- Muffle noise.
- Absorb odors.
- Improve property values.
- Improve the appearance of an area.

and other plans that show the larger pattern of open space that should be preserved.

- Encouraging owners of corporate campuses, large industrial properties, golf courses, camps, schools, and other temporarily open land to consider permanent preservation of this land.

**Goal 12.****Protect and Manage Wetlands, Streams, Steep Slopes, Woodlands, and Natural Habitats**

This goal will be achieved through careful planning of future development. The following specific actions will help fulfill this goal:

- Showing wetlands on plans, with development set back from the edge of these wetlands.
- Prohibiting development within floodplains, except for the development of elevated and flood-proofed buildings on brownfield sites in redevelopment areas encouraging economic revitalization.
- Adopting riparian corridor ordinances that require setbacks from streams and preservation of riparian woodlands.
- Encouraging the enactment of steep slope preservation ordinances.
- Adopting landscaping ordinances that encourage the preservation of existing trees and replacement of trees that are destroyed during the land development process.
- Considering the exclusion of environmentally sensitive land from the portion of tracts that can be developed or counted towards lot area.
- Properly enforcing erosion and sedimentation control measures.
- Encouraging and promoting conservation easements on environmentally-sensitive land.
- Moving portions of development that will disturb the land away from environmentally sensitive land, through techniques such as clustering, flexible lotting, and transfer of development rights.

**Goal 13.**

Create a Greenway System Along Rivers, Creeks, and Other Sensitive Natural and Historic Features

This goal will be achieved through the following actions:

- Using floodplain, riparian corridor, wetland, steep slope, and woodland preservation ordinances to keep greenways in their natural state.
- Adopting cluster zoning, flexible zoning, or transfer of development rights to move development away from important greenways.
- Purchasing land or development rights along critical greenways.
- Connecting open space on abutting tracts of land along greenways.
- Encouraging public access.
- Enhancing existing riparian corridor woodlands.

**Goal 14.**

Develop a County-Wide Network of Interconnected Trails

This goal will be achieved through the following actions:

- Building county trails along major corridors.
- Encouraging local municipalities to create their own smaller-scale trail networks that connect to the county system.
- Interconnecting trail systems within abutting municipalities and counties.
- Working with state, regional, and federal entities to connect their trails with the county-wide system.
- Using state and federal transportation funds to build trails, in addition to other funding sources.
- Building trails parallel to any new highways that are built.
- Providing trail connections from new developments to county and local trails.
- Connecting off-road trails with local sidewalks and on-road bicycle lanes.
- Requiring new public facilities, such as bridges and train stations, to include trails.
- Working cooperatively with many individuals and

***Interconnected greenways protect sensitive natural areas and provide corridors for wildlife and people on trails.***



Greenways connect natural areas and the people who use them.

***Trails not only provide a highly-popular recreation resource but also meet the transportation needs of many county residents, especially for local trips.***

***Other benefits of trails include the improved health of trail users and the potential economic impact of the trail,***

***especially in attracting new economy businesses that often gravitate to high-quality-of-life places.***



Trails in the county are becoming more and more popular.

***Active recreation facilities provide places for people to enjoy themselves while exercising and improving their health.***

***These facilities also provide a focal point for the neighborhood and help create a sense of community.***



Parks meet a diverse range of recreational needs, from hiking to baseball, from fishing to tennis.

groups to create trails, including farmers, other property owners, businesses, and institutions.

**Goal 15.**

**Provide Park Facilities to Meet the Public's Recreation Needs**

With more organized sports activities and an increasing population, the demand for active recreation facilities, particularly ballfields, will continue to grow. These facilities should be placed as close to population centers as possible, preferably within growth areas, with convenient road access and proper setbacks from sensitive natural land.

This goal will be achieved through the following actions:

- Adopting zoning that requires open space and requires a portion of this open space to be usable for playing fields and courts.
- Creating ordinances that require the dedication of open space or the payment of a fee in lieu of such open space.
- Encouraging developers to build recreation facilities within their developments or giving a bonus for the construction of these facilities.
- Purchasing land in growth areas for future use as a park.
- Encouraging schools to allow the general public to use their facilities and playing fields.
- Allowing private recreation facilities in appropriate locations in designated growth areas.
- Providing sidewalk and trail access to recreation facilities and parks.
- Recognizing and encouraging the diverse and wide variety of recreational activities that exist, ranging from bird watching to baseball, from skateboarding to golf.

**Goal 16.**

**Preserve Farmland and Farming**

Although most preserved farms will be in the county's rural resource areas, some may also end up in designated growth areas. Preserved farms within designated growth areas can provide local produce, flowers, pumpkins, and other products directly to

their many neighbors.

Farmland will be permanently preserved through the following actions:

- Encouraging farmers to sell their development rights (agricultural easements) to the county, state, or local municipality.
- Adopting zoning provisions that create large tracts of preserved land, such as cluster zoning, transfer of development rights, and true agricultural zoning.

Active farming can be preserved through the following actions:

- Encouraging farmers to join agricultural security areas, which provide some protection from nuisance ordinances and eminent domain takings.
- Encouraging farmers to take advantage of the Act 319 program, which reduces real estate taxes.
- Allowing farmers markets.
- Allowing legitimate roadside stands for farms.
- Encouraging farm related businesses to remain in the county.
- Preserving farms in large blocks and clusters.
- Helping farmers explore alternative products and approaches, such as produce, flowers, and Christmas trees.
- Amending zoning ordinances in rural resource areas that unnecessarily limit farm operations through large setbacks, limited uses, or other provisions.
- Encouraging the state to enact tax reform that will reduce the real estate tax burden on farmers.
- Recognizing the changing nature of agriculture.

### **Goal 17.**

#### **Protect Scenic Roads, Vistas, and Viewsheds**

This goal will be achieved through the following actions:

- Permitting clustering that can move homes away from roads or behind ridgelines and woodlands.
- Using transfer of development rights ordinances

***Preserving farms and farming provides jobs, diversifies the economy, provides local food to area residents, protects environmentally sensitive land, and***

***preserves a key component of the county's cultural landscape.***



Farming is still a viable industry in Montgomery County.

***The county has many beautiful roads and vistas. Too often, unfortunately, these areas are slowly destroyed as development encroaches.***

***Saving scenic areas and views provides beautiful areas that can be appreciated by all county residents, improves property values, and helps maintain the county's high quality of life.***



Scenic views and roads are an important aspect of the county's open space system.

***Once a historic building or landscape is gone, it is gone forever.***

***Preserving these buildings and landscapes will help protect the county's heritage.***

to transfer development from areas with scenic views or roads.

- Enacting scenic corridor ordinances that control the type, intensity, and character of new development.
- Encouraging donations of land, development rights, and scenic easements to local municipalities or land conservation groups.
- Encouraging tree protection, buffering between incompatible uses, and street trees.
- Constructing narrower streets and adding street improvements that have a rural character.
- Creating an inventory of scenic views and roads and using this inventory whenever plans are created or developments reviewed.
- Adopting ordinances to protect the character of villages and hamlets in rural areas.
- Encouraging owners of corporate campuses, large industrial properties, golf courses, camps, schools, and other temporarily open land to permanently preserve views and rural character.

## **Goal 18.**

### **Protect Historic Resources and Cultural Landscapes**

This goal will be achieved through the following actions:

- Adopting village commercial ordinances that either require preservation of buildings for more intense uses or give significant bonuses for preserving these buildings.
- Enacting historic preservation ordinances that:
  - allow additional uses to go into historic buildings.
  - delay the demolition of historic buildings so alternative preservation options can be explored.
- Planning for historic resources during the subdivision and land development process.
- Encouraging adaptive reuse of historic buildings.
- Creating historic districts with strong regulations and an architectural review board.
- Using cluster zoning, transfer of development

rights, agricultural zoning, and farmland preservation to preserve cultural landscapes.

- Purchasing important historic structures.
- Using façade grant and loan programs to improve façades in Main Street areas.
- Creating an inventory of historic buildings and structures.
- Encouraging federal and state governments to expand the tax benefits of preserving historic properties.
- Improving cooperation among all the various people and organizations involved in historic preservation, including federal, state, county, and municipal government, nonprofits, businesses, property owners, and developers.



Historic buildings, like Mill Grove, give the county its distinctive feel.



# Chapter 2

## Natural Features

The natural features of the county provide the base upon which various activities take place. Important natural features are essential to the health and vitality of the county. Natural features are the source of a multitude of benefits touching all aspects of daily life. These benefits range from the basic enjoyment of clean air and pure water, diverse and healthy plant and animal life, scenic vistas, educational opportunities, and areas for recreation. Natural features such as minerals and prime agricultural soils are essential for our local economy, contributing to mining and farming. In order to formulate strategies to preserve unique or sensitive natural features, the natural systems which created those resources must be understood.

This chapter is broken down into two sections:

- A description of the important land and water resources within the county.
- Proposed controls and measures to ensure the protection of these resources in accordance with the Pennsylvania Constitution Article I, Section 27:

*The people have a right to clean air, pure water, and to the preservation of natural, scenic, historic, and aesthetic values of the environment. Pennsylvania's public natural resources are the common property of all people including generations yet to come.*

This chapter provides a description of the important terrestrial (land based) and aquatic (water based) resources within the county and proposes various measures that can be taken to better protect these resources.

### Existing Conditions

Montgomery County's natural landscapes are the result of the interplay of the region's geology, climate, hydrology, topography, soils, vegetation, and wildlife. Over the past centuries, every acre of the county has been subject to the realities of daily life, a pursuit of progress, and the forces of nature. Farming, timbering, and a variety of construction activities have altered our natural landscape. Despite this reality, significant natural resources and healthy ecosystems remain.

Important natural features are essential to the



Significant natural areas are found throughout the county.

***“After you have exhausted what there is in business, politics, conviviality, and so on—have found that none of these finally satisfy, or permanently wear—what remains? Nature remains.”***

Walt Whitman

*Norway maple (Acer platanoides) is an exotic non-native tree from Eurasia that has invaded many of the deciduous hardwood forests of Montgomery County. The Norway maple has been a popular landscaping choice since it was first introduced in America in the mid-1700s. It is a hardy tree that grows well in various urban settings and is able to tolerate pollution, poor soil, heat and drought. Yet outside of areas where it was planted, it dramatically changes the ecology of the forests where it lowers the richness and diversity of understory plant species. Both the thick shade of the Norway maple and the tenacity of its root network make it difficult for other plants to coexist with it.*



The deer herd in Valley Forge National Historical Park has grown dramatically over the past twenty years and has destroyed much of the understory vegetation in the park.

health and vitality of the county. Human use of our land has altered the natural resources of the county. The impact of development throughout the region and across the United States has also left its mark on the natural landscape through changes in air quality, climate, water supply, water quality, and biodiversity. Even global forces that influence climate change and dispersion of nonnative plant and animal species have altered the natural environment in Montgomery County. As previously stated, this section will describe the important land and water resources within the county, establish pertinent facts and information related to each resource, and propose controls and measures to ensure the protection of these measures.

These changes to our natural world, in turn, affect land use and daily life. Forests will still grow on untended land, but will support a different combination of plants and animals than Pennsylvania originally hosted. The more wholly a natural system is preserved, the greater the possibility of environmental benefits.

Environmental and natural resource preservation can promote biodiversity, sustainable soil use, water quality, and recreation opportunities by protecting important or sensitive natural system components. If the natural system is overly fragmented or abused, it will not work to sustain human health, improve air and water quality, provide food and medicine sources, and provide habitat for plants and animals. Environmental and natural resource protection measures include controls on the type, location, design, and intensity of development, as well as the preservation of land.

Species overpopulation is one example of an imbalance in the natural system created by long-term land use patterns that have an impact on human quality of life. Deer are native to Pennsylvania, and their numbers were originally controlled by natural predators and limited habitat. By establishing extensive forest-to-field edge habitat (the preferred habitat of deer) and eliminating large predators, humans have created a landscape that favors deer population growth. Deer overpopulation has resulted in frequent car accidents, the spread of diseased deer ticks, as well as ravaged crops, gardens, and woodlands.

In the past, the county planning commission has prepared the *Natural Environment Plan* (1971), *Resource Protection Plan* (1976), and the

*Open Space Plan* (1996) which relied upon secondary sources of information about natural areas including the delineation of floodplains, prime agricultural soils, steep slopes, woodlands, and scenic vistas. The *Natural Areas Inventory* (1995), described later in this chapter, was developed through extensive field investigation to define and prioritize areas within the county that provide unique habitat for a variety of animals and plants. The information from these past plans and studies has been used in developing this chapter.

## Geology

The foundation of the natural resources in the county is provided by the unique characteristics of the bedrock. In combination with the local climate, geological characteristics of the rock, both physical and chemical, influence hydrologic and terrestrial features such as local soils, wetlands, surface and ground water, vegetation, and topography. Subsequently, their characteristics may impact woodlands and wildlife. In order to understand the county's natural resources one must understand its geology.

The border between two major geologic areas crosses the county along a northeast-southwest line extending from Willow Grove in Upper Moreland Township to King of Prussia in Upper Merion Township, with the Triassic Lowlands falling to the north and the Piedmont Uplands to the south. The Piedmont Uplands are comprised of older metamorphic and igneous rock (granite and schist), although there is a band of carbonate rock that stretches east from Chester County to Abington Township. Wissahickon Schist/Granitic Gneiss/Hornblende Gneiss, Chickies Quartzite, and Ledger Dolomite/Elbrook/Conestoga Limestone are the formations found in the Piedmont Uplands. The younger rocks that characterize the Triassic Lowlands are primarily red shales and sandstones, with intrusions of diabase. Four formations: the Stockton Sandstone/Conglomerate/Shale, Lockatong Argillite/Shale, Brunswick Shale/Sandstone, and diabase, make up the Triassic Lowlands. The Triassic rocks are exposed in northeast-trending belts which broadly undulate and are faulted in various locations. The major geologic formations are shown in Figure 1.

### Piedmont Uplands

1. **Wissahickon Schist, Granitic Gneiss, and Hornblende Gneiss** - The schists are softer rock and are highly weathered near the



Much of the county's bedrock is made of different layers of sandstone and shale.



surface. The granite and hornblende are harder and more resistant to weathering. The water-bearing properties of both rocks are variable, but generally moderate. Granitic gneiss is highly resistant to weathering. Slopes formed by granitic gneiss are relatively steep though stable. Joints in the rocks, through which groundwater flows, are moderately abundant, making groundwater yields variable, though generally moderate (usually less than 20 gal/min). Wissahickon Schist is no longer quarried in the county; granitic gneiss found in this area is a good source of riprap and building rock.

2. **Chickies Quartzite and Quartz Schist** - Quartzite is a metamorphic rock, formed when sandstone is exposed to extreme heat and pressure. It is a hard, dense rock that weathers slowly and forms prominent, narrow hills and ridges seen along the Pennsylvania Turnpike in the eastern portion of the county. Mounts Misery and Joy found in Valley Forge Park are comprised of quartzite. Low yields of groundwater are obtained within this formation. Quartzite can be a good source of riprap and road building material.
3. **Ledger Dolomite, Elbrook, and Conestoga Limestone** – These form a limestone valley that extends eastward from Lancaster County through Chester County, tapering off within Abington Township. The soils formed from this parent material are fertile, and the groundwater yields are good when wells are located within fractured rock. The limestone and dolomite formations yield good trap rock and calcium rich rock which has been quarried for various industrial and construction uses. Sinkholes can form in the limestone formation when water dissolves portions of the rock resulting in underground cavities. In the last three decades, several sinkholes opened in Upper Merion Township in the vicinity of US Route 202. Care must be taken in the development of buildings and the management of stormwater in these locations.

#### Triassic Lowlands

4. **Stockton Sandstone, Conglomerate, and Shale** - The Stockton formation is primarily



This limestone quarry operated for over 80 years.

coarse sandstone, which tends to form ridges resistant to weathering. The groundwater resources in this formation are the best of any formation found in the county. This rock is a good source of brick, floor tile, and sintered aggregate material.

5. **Lockatong Argillite and Shale** - This is part of a larger band, several miles wide, which runs from the Mont Clare area to the Montgomery/Horsham Township border. Resistant to weathering, these rocks form the prominent ridge that runs through central Montgomery County. Generally, the Lockatong formation exhibits low groundwater yields.
6. **Brunswick Shale and Sandstone** - The Brunswick formation underlies most of the northwestern half of the county, except where several diabase intrusions are found. Brunswick shale and sandstone are characterized by reddish brown shale, mudstone, and siltstone. The topography of the formation is characterized by rolling hills. Groundwater yields are highly variable. The rocks are generally fine-grained and allow little primary porosity. Secondary openings, such as joints and fractures, are the key to adequate groundwater flow. This rock is a good to fair source of construction aggregate and fill material.
7. **Diabase** - Also referred to as “black granite,” diabase is an igneous rock. It was formed when molten rock was extruded into large cracks in the surrounding Brunswick geologic formation. The intrusions of diabase, called sills and dikes, are generally narrow (less than half a mile wide and in some cases only several feet in width). The intrusions are very resistant to erosion, weathering, water infiltration, and groundwater movement. The formation is notorious for low well yields and is very difficult to excavate. Limited groundwater is typically obtained from fractures in the weathered zone at the top of the bedrock. Groundwater levels in diabase show a strong seasonal influence and are greatly affected by droughts. Areas of diabase are often steeply sloped and wooded, with numerous surface rocks and large boulders. Most of the county underlain by diabase is wooded since the rock formation has been inhospitable to farming

and development. Diabase is a good source of road material and fill.

8. **Hornfels** - Adjacent to the diabase intrusives, the shales of the Brunswick formation have been altered by contact metamorphism into dark, hard hornfels. The width of the hornfels zones differs greatly from place to place and varies from 40 feet to more than a mile. As would be expected, the groundwater reserves are small. Hornfels make good trap rock due to their hardness.

Also, bedrock has been an important economic resource which has been mined and quarried in the county for centuries. At one time, local building rock quarries were established in nearly every geologic formation. In particular, a large number of quarries existed along the limestone and dolomite formation that parallels the turnpike along an east-west axis. High-grade calcium aggregate from these quarries was used by the steel industry and for building construction. Other limestone from these quarries was crushed and used as concrete aggregate, roadway base, or railroad aggregate. At present, there are only two active limestone quarries. The other limestone quarries are used for other purposes or have been filled and redeveloped. Other trap rock quarries are located in Montgomery, East Norriton, Lower Pottsgrove, Lower Salford, and Marlborough Townships. Figure 2 lists all operating quarries and Figure 3 lists former quarries that have been reclaimed. Historically, copper and lead were mined along the Perkiomen Creek. The largest underground copper mine in the county was located near Audubon. Unsuccessful oil exploration was conducted in the county in the mid 1980s throughout portions of New Hanover Township.

## **Climate**

The climate of Montgomery County is characterized by warm, humid summers and moderately cold winters. The average temperature is 57 F with monthly average temperatures ranging from 32 to 77 F. The climate of the county allows its residents to enjoy a variety of outdoor activities including hiking, fishing, camping, and skiing. Average yearly rainfall is approximately 42 inches. Due to fluctuating rates of precipitation and changes to the natural topogra-

Figure 2  
**QUARRIES IN MONTGOMERY COUNTY 2000**

Permit #	Municipality	Quarry Name	Type	Company	Tonnage	Geology	Employees
46980801	L. Providence Twp.	Burdo Bros. Quarry	Surface Mine	Burdo Bros. Quarry	1,425	Sandstone	1
8073SM5	E. Norriton Twp.	Gill Quarries East Norriton Quarry	Surface Mine	Gill Quarries Inc.	431,235	Other Metamorphic	15
5477SM1	Plymouth Twp.	Glasgow Ivy Rock Quarry	Surface Mine	Glasgow Inc.	619,308	Other Sedimentary	16
8073SM2	U. Merion Twp.	Glasgow Inc. McCoy Quarry	Surface Mine	Glasgow Inc.	1,989,500	Limestone	50
8074SM1	Montgomery Twp.	Glasgow Spring House Quarry	Surface Mine	Glasgow Inc.	586,025	Argillite	14
8073SM1	Marlborough Twp.	Highway Materials Perkiomenville Quarry	Surface Mine	Highway Materials Inc.	885,999	Clay	20
8074SM2	Whitemarsh Twp.	Highway Materials Plymouth Mtg. Quarry	Surface Mine	Highway Materials Inc.	1,619,409	Other Sedimentary	27
8074SM3	L. Salford Twp.	M & M Stone Harleysville Quarry	Surface Mine	M & M Stone Co.	144,543	Argillite	5
SM 51-1	Cheltenham Twp.	Marcolina Bros. Inc. Pit	Surface Mine	Marcolina Bros. Inc.	1,830	Sandstone	2
8073SM4	L. Pottsgrove Twp.	Reading Materials Sanatoga Quarry	Surface Mine	Reading Materials Inc.	472,590	Other Metamorphic	10
Montgomery County Total					6,751,864	--	160

Figure 3  
**RECLAIMED QUARRIES IN MONTGOMERY COUNTY**

Municipality	Quarry Name	Reuse	Reclaimer	Location	Geology	Reuse Material
U. Merion Twp. Bridgeport Bor.	National Gypsum Quarry #1 and #2	Sanitary Landfill	Montgomery County	River Road	Limestone	Municipal Waste
U. Merion Twp.	McCoy Quarry	Water Reservoir	Philadelphia Suburban Water Company	Route 202 & Saulin Boulevard	Limestone	Water
U. Merion Twp.	Crater Resources	Office Park	O'Neill Properties	Renaissance Boulevard	Limestone/ Marble	
Plymouth Twp.	Veteran's Quarry	Coal Ash Disposal	Domino Salvage	Conshohocken Rd.	Limestone	Coal Ash
Whitemarsh Twp.	Corson Quarry #1	Office Development Proposed	Highway Materials	Stenton Avenue	Limestone	Demolition Waste
W. Norriton Twp.	Brick Yard	Forrest Ave. Apartments		Forrest Avenue	Clay	
Whitemarsh Twp.	Potts Quarry	Sherry Lakes Apartments		Butler Pike	Limestone/ Marble	Water
Whitemarsh Twp.	Hitner Marble	Miles Park		Germantown Pike	Marble	Incinerator & Coal Ash
Plymouth Twp.	Danella Bros.	Equipment Storage Yard	Dannella Brothers	Conshohocken Rd.	Sandstone	Clean Fill
Pottstown Bor.	Robinson Clay Pits	Pottstown Plaza Shopping Center	Anderson Group	Route 100 & Shoemaker Road	Clay	Clean Fill
Plymouth Twp.	Lavino Brick	Metroplex Shopping Center	Goldenberg Group	Chemical Road	Limestone	Clean Fill
Plymouth Twp.		Plymouth Commons Office Complex		Germantown Pike	Limestone	
L. Moreland Twp.	Mignatti Quarry	Demolition Waste Landfill	Mignatti Brothers	Terwood & Welsh Roads	Schist	

phy caused by development, Montgomery County has experienced some floods and droughts over the past fifty years.

## Hydrology

Water is a valuable resource and is essential for life. It is consumed by plants, animals, and people. It is also essential for a vibrant economy and recreation facilities. The streams and rivers throughout the county provide natural habitat for a variety of aquatic life. Natural water bodies are also used as a water supply and for the assimilation of treated wastewater.

The most visible components of the county's hydrology are the numerous rivers, streams, and creeks that drain the landscape within watersheds. The major waterways include the Schuylkill River, the Perkiomen Creek, the Skippack Creek, the Neshaminy Creeks, the Pennypack Creek, the Wissahickon Creek, and the Tookany Creek. Among all these, only the Skippack Creek's watershed is located entirely within the county. Major watersheds are depicted in Figure 4.

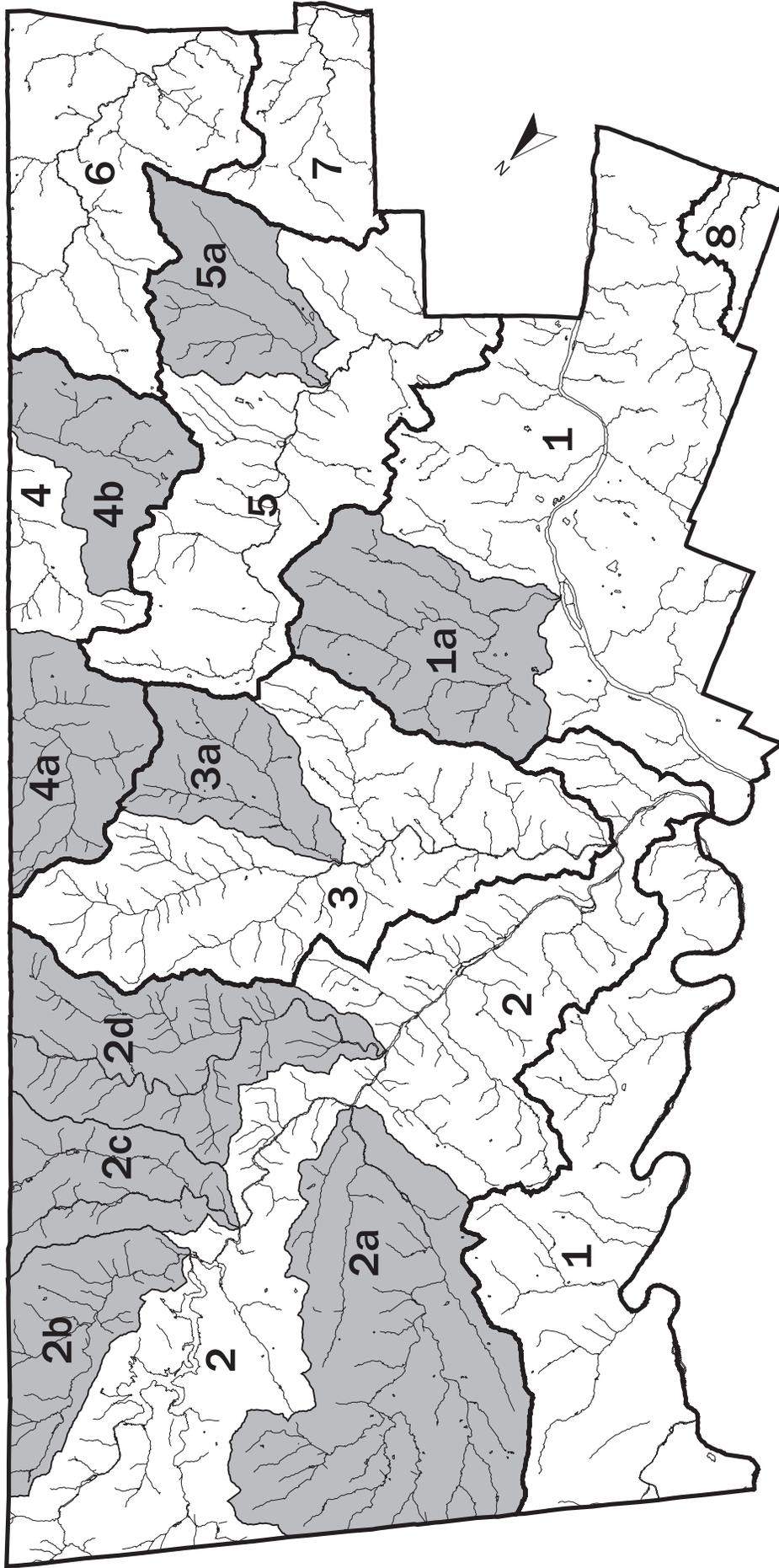
Most water in county streams originates as surface runoff and groundwater. Typically surface runoff accounts for high-water and flooding conditions during and soon after a rainfall event. Sustained flow, often referred to as bed flow, comes from groundwater supplies. Effluent from sewage treatment plants and other water diversions also contribute to stream flow and tend to reduce the variation between high and low flow periods. Nearly 50 million gallons per day of water is diverted from the Delaware River by PECO Energy through the East Branch of the Perkiomen Creek for use at the Limerick Nuclear Power Station. An additional diversion from the Delaware River supplies the North Penn area with public water. Figure 5 provides a schematic of the Delaware River diversion.

Streams in the county are dynamic systems that react to climate, watershed land use characteristics, and geology. A stream is constantly seeking equilibrium with local conditions by changing its course, depth, and width. In effect, streams are always changing in order to remain the same. Many changes to the shape of the stream and its banks occur during small rainstorm events. During these high flow periods, the force of water erodes the stream bank and moves loads of sediment and rocks.



Skippack Creek is a popular fishing spot in Montgomery County.

Figure 4  
WATERSHEDS

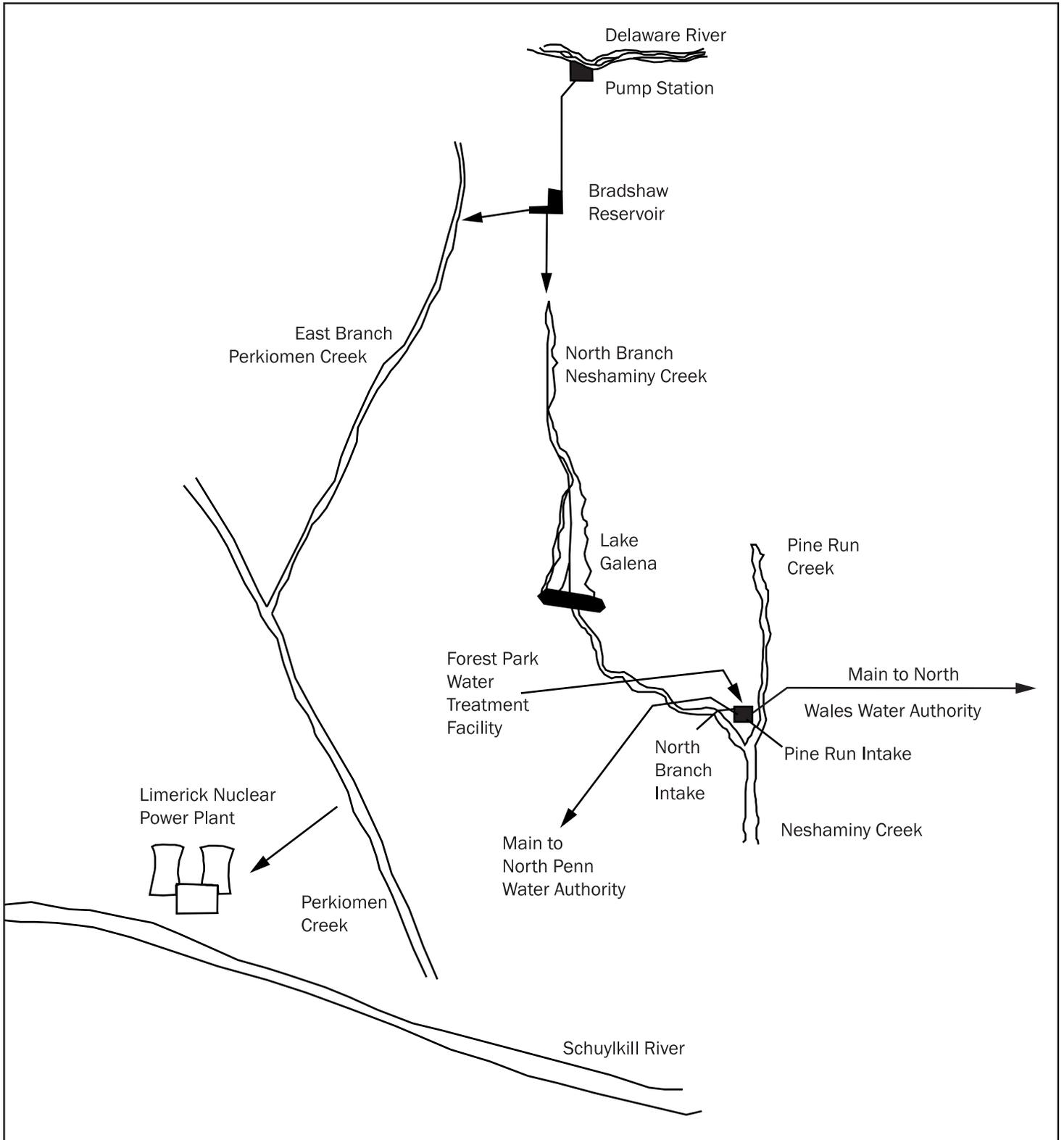


Major Basin
  Subbasin

- |  |  |   |
|--|--|---|
| <ul style="list-style-type: none"> <li>1. Schuylkill River Basin</li> <li>1a. Stony Creek Subbasin</li> <li>2. Perkiomen Creek Basin</li> <li>2a. Swamp Creek Subbasin</li> <li>2b. Macoby Creek Subbasin</li> <li>2c. Unami Creek Subbasin</li> </ul> | <ul style="list-style-type: none"> <li>2d. East Branch Subbasin</li> <li>3. Skipack Creek Basin</li> <li>3a. Towamencin Creek Subbasin</li> <li>4. Neshaminy Creek Basin</li> <li>4a. West Branch Subbasin</li> <li>4b. Park Creek Subbasin</li> </ul> | <ul style="list-style-type: none"> <li>5. Wissahickon Creek Basin</li> <li>5a. Sandy Run Creek Subbasin</li> <li>6. Pennypack Creek Basin</li> <li>7. Tookany Creek Basin</li> <li>8. Indian Creek Basin</li> </ul> |
|--|--|---|

Source: Montgomery County Planning Commission.

Figure 5  
 POINT PLEASANT - DELAWARE RIVER DIVERSION



The Delaware River Diversion is a system of pipes, pumps, and reservoirs that transmit water from the Delaware River in Bucks County to Montgomery County.



Green Lane Reservoir was built in 1958 to provide additional water supplies to the Philadelphia area.

In addition to its creeks, the county contains natural and man-made lakes and ponds. The largest of these are the Green Lane Reservoir (814 acres), Deep Creek Lake (38 acres), and Knight Lake (25 acres), which are all located in the northwestern corner of the county. These lakes provide scenic, recreation, and wildlife habitat benefits. The Green Lane Reservoir, which is owned by the Philadelphia Suburban Water Company, provides supplemental water released into the Perkiomen Creek that allows the company to withdraw the water further downstream.

Groundwater behaves much like surface water, flowing under the influence of gravity, only much slower. Groundwater is tapped as a source of drinking water and for industrial purposes throughout the county. Replenishment of groundwater occurs slowly as rainwater seeps through the soil and enters cracks in the underlying bedrock. Soil, vegetation, topography, and land use are all factors that influence the recharge of groundwater. Soils have different structures which allows percolation of water at varying rates. Vegetation is important in that it slows runoff and retains precipitation where it falls, allowing it to soak into the soil rather than run off the surface. At the same time, during the growing season, vegetation intercepts much of the water in soil for transpiration. Impervious surfaces, such as roads, parking lots, and buildings, prevent infiltration of precipitation and reduce the amount of groundwater that replenishes streams during dry weather. Excessive impervious surface also creates flooding hazards because stormwater is concentrated. Topography influences the rate of surface water runoff. The greater the velocity of water runoff, the smaller the amount of water that is likely to percolate into the ground.

Water quality standards are established for each stream in the county based, in part, on aquatic life habitat, human health requirements, and recreation use. Threshold chemical and biological characteristics and other stream conditions are required to be maintained for each water quality standard. The state has an ongoing process to assess water quality throughout the Commonwealth and identify “impaired” streams that do not meet water quality standards.

Streams are designated in one of six categories. Streams designated WWF - Warm Water Fishery - possess a level of quality that supports fish species,

flora, and fauna such as bass that are indigenous to a warm-water habitat. The streams designated CWF - Cold Water Fishery - support fish species, flora, and fauna such as trout that are indigenous to a cold-water habitat.

Other streams are designated TSF - Trout Stocking Fishery. These are higher-quality streams. They can support stocked trout, other fish species, and additional flora and fauna that are indigenous to cold-water habitat for a limited period of time. Migratory Fish (MF) streams are protected for the passage and propagation of fish that ascend to flowing waters to complete their life cycle. The Schuylkill River is a migratory fish stream. Streams designated as special protection waters with an EV (Exceptional Value) or an HQ (High Quality) designation are of the best quality. The EV designation is given to a stream or watershed that constitutes an outstanding national, state, regional, or local resource. This includes waters of national, state, or county parks or forests; waters used as a source of unfiltered potable water supply; waters of wildlife refuges or state game lands; waters characterized by the fish commission as “Wilderness Trout Streams;” and other waters of substantial recreation or ecological significance.

The county has one exceptional value stream: Valley Creek, located in Upper Merion Township within Valley Forge National Historical Park. A second waterway, Unami Creek, was recently redesignated as a High Quality Stream for coldwater fish.

## Wetlands

Wetlands are identified by the presence of hydric soils, surface water, and wetland vegetation. The National Wetlands Inventory (NWI), prepared by the U.S. Department of the Interior, Fish and Wildlife Service, generally identifies wetlands one acre in size and larger within Montgomery County. Figure 6 shows the location of these designated wetlands. More detailed wetland delineations based upon hydrology, soils, and plants have been performed on various areas of the county. Typical county wetlands are riverine or pallustrine due to their association with adjoining streams and rivers. These types of wetlands are important since they can filter out impurities in stormwater flowing into streams. The wetlands also provide flood storage and offer unique habitat for unique and endangered species such as the bog turtle (*Clemmys muhlenbergii*).



Bethayres Swamp in Lower Moreland is one of the county's largest wetlands.

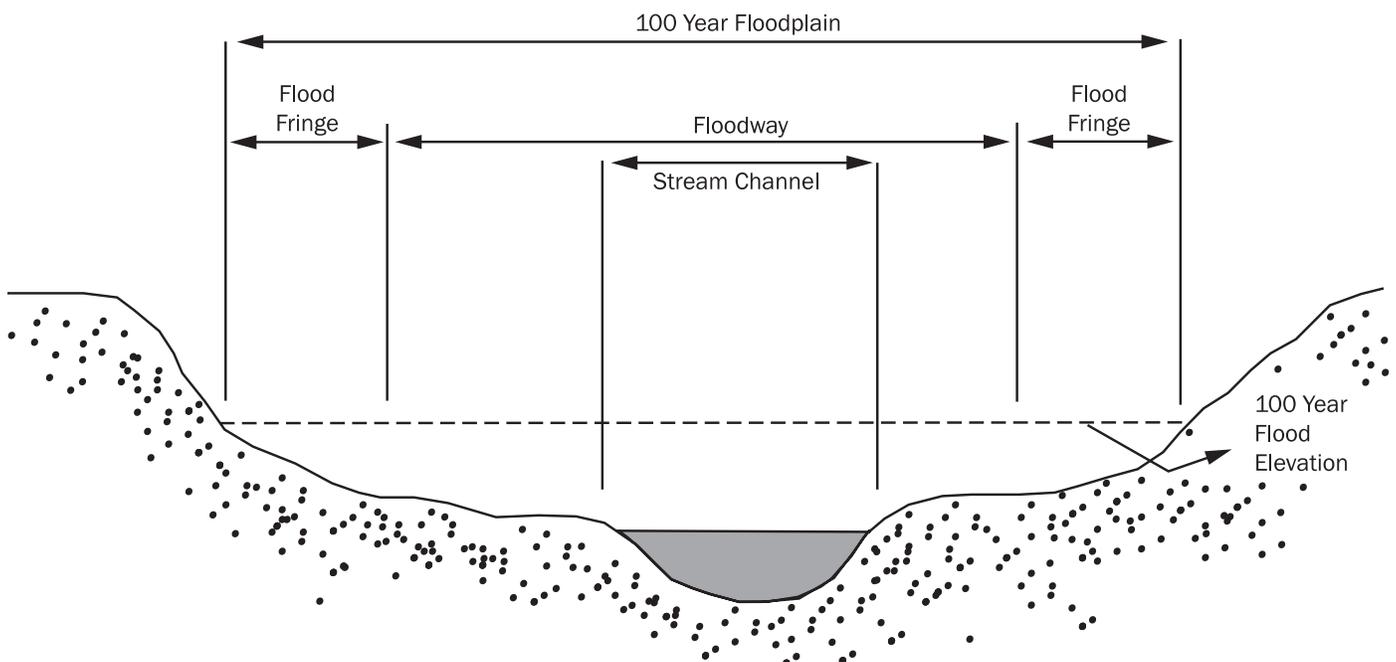


### Floodplains

Floodplain maps (Figure 7), last published in 1996 by the Federal Emergency Management Agency (FEMA), delineate floodways, 100-year floodplains, and 500-year floodplains. These maps are based upon engineering studies performed over the past several decades. In some cases, the characteristics of the watershed have changed to the extent that the floodplain maps no longer depict the entirety of the floodplain. This has become evident recently as residents in the eastern portion of the county have been flooded out several times even though their property lies outside of the designated 100-year floodplain.

The 100-year floodplain in the county comprises 21,486 acres, and is inundated with water at a minimum of one time during a 100-year period. Even during a much smaller rainstorm, a significant amount of the 100-year floodplain is still affected. The floodway is the portion of the 100-year flood plain that adjoins the river or stream and carries the bulk of the floodwaters. Protection of the floodway is critical since changes to it could reduce the carrying capacity of a stream, increasing the height and destructive ability of floodwater. The remainder

FLOODPLAIN CROSS-SECTION





of the 100-year floodplain, referred to as the flood fringe, is generally inundated with still or slower moving water and largely provides a flood storage role. Development or alteration of these parts of the floodplain will not increase flood water levels upstream, though increased flood impacts could occur downstream if the development of the flood fringe is significant. Preservation of stream corridors in a natural state is essential to flood protection efforts. Preserved floodplains also offer opportunities for trails and other forms of recreation.

### Steep Slopes

Steep slopes create dramatic landscapes that define community character and limit development. Steep slopes, which are often easily eroded, are environmentally sensitive areas. They can be a danger to public health and safety if they are not protected. Generally, as slope increases, the depth of topsoil and the ability of the soil to support structures and vegetation decrease. This means susceptibility to erosion and mass movement of soil may be greater than on nearby less-sloping areas. Erosion potential is greater when vegetation is removed, often resulting in sedimentation in adjoining watercourses. Steep slope environments often support unique plants and wildlife that are part of the region's biodiversity.

Concentrations of steep slope areas (12 percent or greater) are shown in Figure 8. The concentrations of these steep slopes are most often associated with particular geologic formations such as the diabase intrusions in the western portion of the county; the Locketong Argillite, especially in Upper and Lower Providence Townships; and the Wissahickon Schist in Lower Merion Township.

### Soils

Soils are a natural assortment of organic materials and mineral fragments. Soil covers the earth and supports plant life. The composition of soils changes slowly over time from weathering of rock and activity of soil organisms. As a consequence, soils differ in their color, mineral characteristics, fertility, texture, erodibility, and depth to bedrock and groundwater. Soil scientists have classified soils found in Montgomery County into several groups called soil series. Soils listed within the same series will display similar subsurface characteristics. However, the

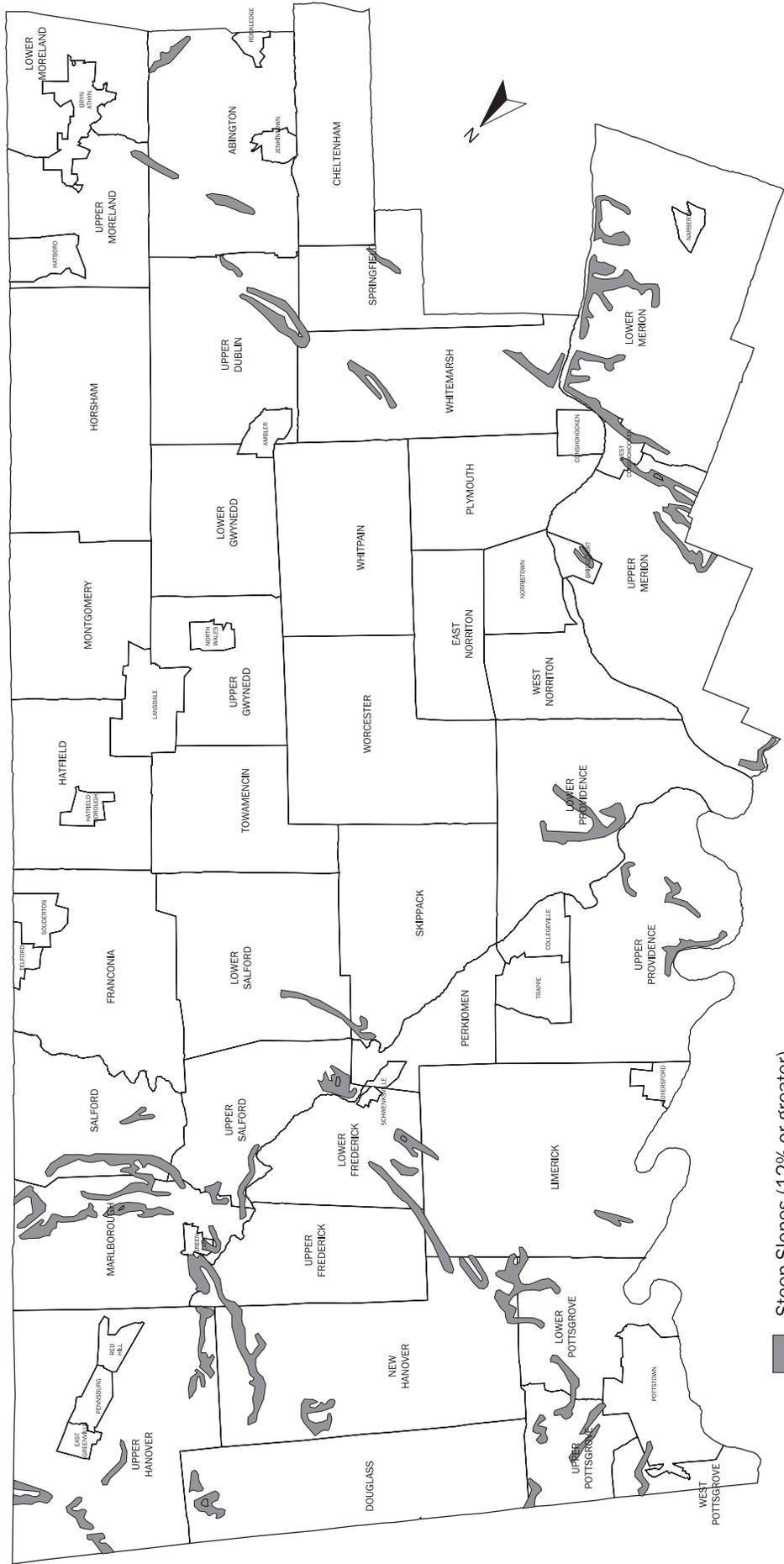


Steep slopes, which are often easily eroded, are environmentally sensitive areas.



Successful farming depends upon the quality of local soil.

Figure 8  
STEEP SLOPES



Steep Slopes (12% or greater)

Source: Montgomery County, The Natural Environment, 1971.

surface characteristics of soils within a particular series can vary in slope, degree of erosion, size of stones, and other easily recognizable features. In addition to these soil-mapping units, soils can be divided into prime and important agricultural soils, hydric soils, and alluvial soils.

### Prime and Important Agricultural Soils

The agricultural potential of soil is determined by measuring fertility, depth to bedrock and groundwater, texture, erodibility, and slope. Based on these characteristics, soils are classified as prime farmland, farmland of statewide importance, and other land. Prime farmland includes deep, well-drained, and moderately sloped soils that can support high yields of crops with little management. Farmland of statewide importance includes soils that support cultivation but require careful crop management. The remaining soils are more suitable for pastures and woodlands. The major areas of prime agricultural soils are in the Skippack Creek Watershed, especially Worcester Township. Ironically, some of the best agricultural soils in the county are within the heavily developed areas along the Pennsylvania Turnpike. Conversely, the western part of the county where most of the farms are located has a limited amount of prime agricultural soils. The extent of high quality agricultural soils in Montgomery County is further discussed in the farmland preservation chapter (Chapter 5).

### Hydric Soils

Hydric soils are periodically wet soils, in an undrained condition, that often support the growth of wetland vegetation. Since only some hydric soils are found in undrained conditions, not all hydric soils support wetland vegetation. Hydric soils that have been drained for agricultural use are one example of this. Soils with major hydric components are a conservative indicator of wetlands. Other soils have hydric components in limited settings, such as depressions, bottomlands, swales, drainage ways, and alluvial soils. Hydric soils and soils with shallow depth to bedrock are depicted in Figure 9.

### Alluvial Soils

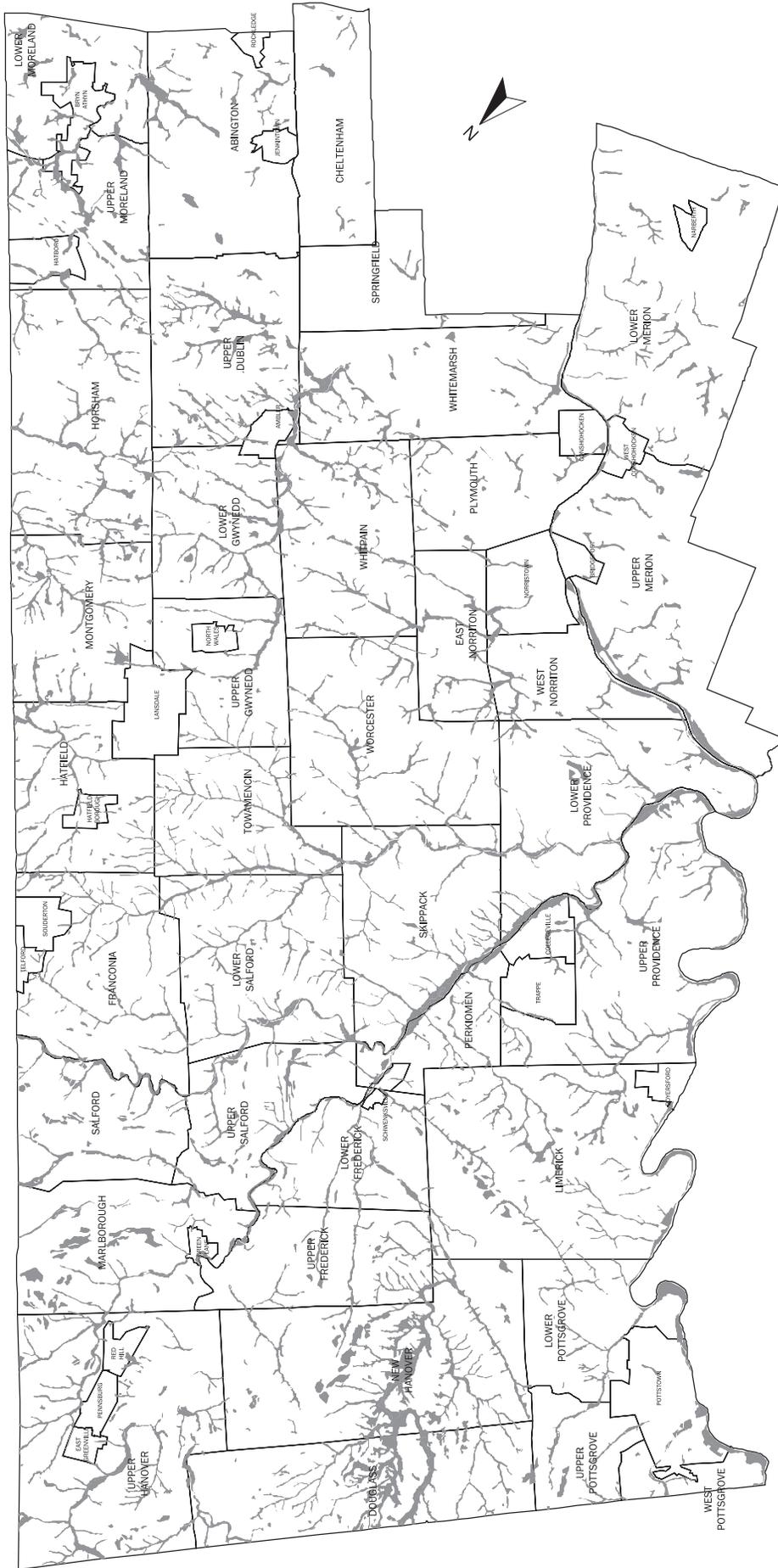
Alluvial soils are frequently, but not always, located within a floodplain. These soils have been deposited by flowing water and are not stable as a result of their texture and composition. The pres-

***“The greatest domestic problem facing our country is saving our soil and water. Our soil belongs also to unborn generations.”***

Sam Rayburn



Figure 10  
ALLUVIAL SOILS



ence of alluvial soils is only one indicator of a floodplain. Changes in the tributary drainage or slope of the adjacent stream may create a floodplain that is either larger or smaller than the area of alluvial soils. An important aspect of alluvial soils is that they often form aquifer recharge areas. The major concentrations of alluvial soils are shown in Figure 10.

Due to the amount of development in the county, there are many areas where the original soils have been altered or removed, creating “madeland” soils. It is impossible to make determinations about the qualities and characteristics of these soils since they represent a mixture of other soils and are generally compacted during the construction process.



The importance of woodlands cannot be overstated. They prevent erosion, provide habitat, improve the air, absorb odors, muffle noise, and add great beauty to the landscape.

### Woodlands

Three hundred years ago, Montgomery County was a dense forest of hardwoods. Oaks were the dominant species. However, chestnut, hickory, ash, red maple, and dogwoods were also present. Several hundred years of clearing and cultivation and recent rapid development have reduced woodlands to only 20 percent of the county (62,970 acres in 2000). This represents a significant drop from 70,960 acres in 1995. The loss of woodlands was caused by development occurring in the more heavily forested areas in the western portion of the county. Figure 11 depicts the forestry cover in the county based upon aerial photographs taken in 2000.

Also, the composition of these remaining woodlands is changing due to the impact of nonnative trees and the extent of the forests. The principal types of woodlands in the county today are:

**Red Oak** – A sizable portion of the large remaining woodlands in the county are oak forests. Northern red oak is predominant, but black, scarlet, and chestnut oak, and beech trees are also found in these larger forested areas of the county. These woodlands are found in hilly areas of the county throughout Lower and Upper Merion, Huntingdon Valley, Spring Mountain, Stone Hill, and along the diabase ridge areas in the western portion of the county. In the early 1980s, many oak forests in the county were attacked by gypsy moths. The Montgomery County Health Department coordinates the county’s gypsy moth management efforts.



***A functional definition of woodlands which incorporates both forestry management principles and landscape planning is as follows: Woodlands comprise either one or more acres of forested land where the largest trees measure at least six inches diameter at breast height (dbh) or 4.5 feet from the ground; or a grouping of trees forming a canopy where 10 or more trees measure at least 10 inches dbh.***

**Ash/Maple/Elm** – Smaller woodlands, particularly along stream valleys and the Schuylkill River, contain different species of ash, maple, and elm. Local mixtures vary and include minor species such as the slippery elm, yellow birch, black gum, sycamore, and poplar.

**Eastern Red Cedar** – Emerging woodlands on old farm fields and other transitional properties contain rapidly growing trees such as red cedar, red maple, and aspen. In many of the emerging woodlands in the county, nonnative trees such as the Norway maple will dominate the landscape. This can be seen throughout much of the forest cover in the Evansburg State Park.

There are small areas of the county with coniferous tree stands including hemlock found on northern facing slopes near Sunrise Mill and Green Lane Reservoir.

Woodlands and hedgerows serve many purposes, both functional and aesthetic. Woodlands prevent erosion, provide habitat for wildlife, provide buffers for creeks, and offer recreation opportunities for residents. Hedgerows and wooded corridors also prevent erosion and provide cover for wildlife movement, shelter, and migration. The species of tree found within woodlands depends on soil, moisture conditions, slope, surrounding vegetation, and orientation. For instance, as a result of the short period of solar exposure, soils on north-facing slopes tend to be cooler and moister than on south-facing slopes. Trees growing on north slopes tend to be softwoods (evergreens such as pines and hemlocks), while south slopes tend to have hardwoods (deciduous trees such as oak and beech). Different species of trees attract different types of wildlife. In general, the more diverse the vegetation, the more animal species it can support.

The distribution of woodlands in Montgomery County occurs in three different patterns. Small, widely scattered woodlands can be found east of the Pennsylvania Turnpike, often associated with alluvial soils or steep slopes. Long, linear woodlands along streams and on alluvial soils are typical in the central part of the county. Large forested areas, comprising thousands of acres in size, are found on diabase ridges in the western and northern areas of the county.

Approximately 35 percent of the county's

woodlands are located on productive soils that justify expenditures for forest management programs. The remaining woodlands are on soils that provide a good-to-poor site for commercial woodlands. Woodlands are probably still the best use for these poorer soils because these soils also have a low value for cropland and agriculture.

Large forested areas are scarce in the built-up portions of the county. In the eastern portion of the county, substantial woodlands occur in and around Fort Washington State Park, in Bryn Athyn Borough, and along the Mill Creek in Lower Merion Township. Extensive woodlands are located in the western part of the county, including the woodlands in Evansburg State Park, those surrounding Green Lane Reservoir, a stretch of woodlands running from Upper Pottsgrove to Lower Frederick, and a large second-growth forest in Marlborough, Salford, and Upper Salford Townships along the Unami and Ridge Valley Creeks. The latter example is unique: it is part of the largest contiguous forest in southeastern Pennsylvania and is within the Highlands Region. The Highlands Region stretches from Pennsylvania through Western Connecticut.

There is a limited amount of hardwood forestry activity in the county. It is estimated that the value of standing timber in the county is \$31.72 million (PA State Univ.) with an annual harvest value of \$1.72 million. Most harvesting in the county is conducted by small companies that sell logs to hardwood mills or to homeowners for firewood.

Trees provide many benefits including slowing and capturing stormwater, removing air pollutants, providing shade, creating habitat, buffering noise and visual blight, and providing natural beauty. It is estimated that the trees in Southeastern Pennsylvania provide over \$5.9 billion in stormwater management benefits and \$167 million in air pollution reduction benefits.

## Wildlife

Wildlife found in the county is typical of species in similar parts of Pennsylvania. Of note, however, are several species of animal and numerous species of plants. These species were identified in the 1995 *Natural Areas Inventory*. Five animal species and 29 plant species were listed as species of special concern or part of an exemplary natural community.

Mammals common to the county include raccoon, opossum, mink, red fox, white-tailed deer, red

***“When we hear the sound of crickets in the sod, the world is not so much with us.”***

Henry David Thoreau

and grey squirrels, flying squirrels, chipmunk, woodchuck, muskrat, beaver, and striped skunk. Smaller mammals, such as mice, voles, and shrews, abound. Several species of bats are also common. Along with day-feeding birds, nocturnal bats help keep the insect population in check.

Less showy, but no less important, are the turtles and reptiles. The snapping turtle, musk turtle, painted turtle, and bog turtle (an endangered species) are aquatic turtles. The eastern box turtle is also found in the county. Snakes, such as the eastern garter, black rat, northern ring-necked, northern brown, and northern water snake, are nonvenomous species that are fairly common. The northern copperhead, a venomous snake, is sometimes encountered on trails and in rocky areas within the county.

Amphibians, such as frogs, toads, and salamanders, are a vital link in the food web. The American toad, pickerel frog, green frog, bullfrog, and spring peeper not only are food for larger animals, but also have wildlife value for children and adults. For many people, the chorus of peepers and bullfrogs is an integral part of summer. Children also enjoy hunting for northern red-backed salamanders under logs and northern two-lined salamanders under rocks at the water's edge.

Many people, from the casual bird watcher to the serious naturalist, enjoy the county's diverse bird population. Almost everyone is familiar with species of waterfowl such as mallards and the ubiquitous Canada goose. Other species, such as the common merganser and wood duck, can be seen at various times of the year. Vultures and hawks are often spotted circling in the summer sky. Black vultures (*Coragyps atratus*) are commonly seen circling above the Perkiomen near Spring Mountain. Golden and bald eagles have been spotted while migrating through the area. The Atlantic flyway, a significant bird migration route from Canada to the south, passes through Montgomery County. The Green Lane Reservoir is an important stop over in that flyway. The forest around the reservoir has been the nesting grounds for bald eagles.

Songbirds are valued by many for their song and plumage. These birds benefit from the variety of habitats that can be protected through good site planning and open space acquisition. Some, like the eastern meadowlark, purple martin, and red-winged blackbird, prefer open fields and meadows. These



Twelve species of snakes are common in Montgomery County.



The Atlantic flyway passes through Montgomery County.

and other birds, like the eastern bluebird, benefit from open fields which are mowed late in the season to prevent woody plants from becoming established.

Woodlands are important habitat for more unusual species, such as the ovenbird, blue-gray gnatcatcher, wood thrush, and screech owl. The more familiar red-eyed vireo, black capped chickadee, and gray catbirds also need woodlands to survive.

Screech owls, bluebirds, chickadees, purple martins, and tree swallows will nest in artificial nest boxes if built to the proper dimensions. This provides educational and recreational opportunities to residents, nature clubs, and schools, if the necessary habitat is also provided and preserved.

In addition to the species of plants and animals found in the county, particular associations and habitats should be noted, as they support wildlife and are important from an open space planning perspective.

Wetlands, which in addition to aquatic and amphibious animals contain different species of grasses, sedges, and wild flowers, are important habitat. They provide nesting sites for waterfowl as well as resting spots for migratory species. Most aquatic and amphibious life starts in wetland areas, which act as nurseries, protecting the eggs and young from predators. Lowland and upland species find food in wetlands or feed on species that breed in wetlands and move to land as they mature. Seasonally flooded ponds surrounded by meadows and woodlands encourage butterflies and certain species of birds. These areas are favorites of bird watchers and hikers due to the diversity of plant and animal species.

Woodland trees can be divided into canopy (top-layer trees) and understory trees and shrubs. The woodland canopy includes aspen, oak, sugar maple, hop hornbeam, red maple, ash, beech, hickory, sugar maple, and tulip poplar. Understory species include flowering dogwood, sassafras, paw paw, hemlock, spicebush, viburnum, mountain laurel, sedges, and important wildflowers such as jack in the pulpit, trillium, and may apple. In many areas of the county, understory plants have been reduced in number and species over the past several years due to invasive nonnative plants and deer browsing. These plants are important in that they provide cover and food and attract insects on which birds feed.

Different species have different woodland



The large meadow at Valley Forge National Historical Park is mowed twice a year to support a diverse habitat for song birds and other species.

habitat requirements. Songbirds, which migrate to warmer climates in winter, typically require many acres of undisturbed canopy trees for nesting sites. Other birds nest along the edges of woodlands, preferring open fields near their nest. Animals, such as fox, weasel, and raccoon, hunt along the edge of woodlands. When woodlands are broken up for roads or houses, the edge area increases. Predators now have access to species that were living in what was the interior of the woodland, and the eradication of interior woodland species can result.

Open fields or meadows near the woodlands support grassland birds such as meadowlarks, thrushes, and sparrows. The plants, which form the foundation of the food web, support numerous insects and small mammals such as mice, voles, and moles. These in turn support fox, raccoon, pheasant, and many species of predatory birds.

Areas of steep slopes, cliffs, or bluffs often harbor interesting or unusual species. Local conditions, such as soil, moisture, and sunlight, are different from the surrounding area. This microclimate may support different species. Wildlife that lives in steep slopes areas is somewhat protected from the impacts of development, because of the difficulty of developing steep slopes. Wild phlox, wild pink, and huckleberry have been found in steep slope areas of the county.

Wildlife has four needs: food, cover, water, and space in which to live and reproduce. These four components are collectively termed “habitat.” Wildlife habitats can be divided into types: aquatic, wetland, lowland, meadow, and woodland. People tend to associate species with specific habitats. In reality, a species needs a diversity of habitats to survive. For example, many raptors nest in wooded areas, yet hunt in meadows and stream valleys for food. To survive, wildlife must have access to the various types of habitat it requires. Development and associated roads and utility lines tend to fragment habitat, often separating nesting sites from food or water sources. An open space system that provides links between woodlands, meadows, and streams will encourage greater diversity of wildlife species by providing various contiguous habitats. A park or wooded open space area consisting of mature deciduous trees with a ground cover of closely cropped grass has little value for wildlife. The area will have a much greater wildlife value if it is managed to encour-

age a mix of deciduous and evergreen species of differing ages and multiple layers of vegetation, along with infrequently mowed grass areas.

### Natural Areas Inventory

The Nature Conservancy, under contract with the county, compiled the *Natural Areas Inventory* in 1995. The scientists that assembled the inventory employed a systematic search for lands in the county that contain the best and most unique natural habitats. Lands placed in the inventory were ranked by their overall natural value. The county, private land trusts and conservancies, and local municipalities have used the inventory to prioritize open space property acquisitions. It has also been an essential element in local land use planning efforts. The Pennsylvania Department of Environmental Protection (DEP) uses the information within the inventory during their review of various environmental permits.

Local municipalities and the public assisted the county and The Nature Conservancy as the inventory was developed through the following phases:

**Site Identification-** Aerial photographs were closely examined to identify natural areas with minimal disturbance and evidence of natural characteristics. Existing maps, studies, and plans also were scrutinized to aid in the identification of unique natural areas. Potential natural areas were also suggested by local environmental organizations and individuals and through the Pennsylvania Natural Diversity Inventory (PNDI).

**Aerial Survey-** All potential natural areas were further reviewed from aircraft to eliminate land that was already disturbed and to prioritize fieldwork.

**Field Work-** A team of scientists visited the potential natural areas chosen from the aerial survey. Detailed information was collected on the species, natural communities, and other significant features to determine the health of the natural area and the extent of the land area that should be preserved to protect the unique habitat.

**Prioritization and Documentation of Natural Areas-** County scorecards and survey forms were compiled to characterize each area's important natural features and to establish preservation priorities. Criteria were

***“Perhaps the biggest problem is that we take the outdoors for granted; we assume it will always be there, not recognizing that its maintenance depends on each of us.”***

The Report of the President's Commission - Americans Outdoors

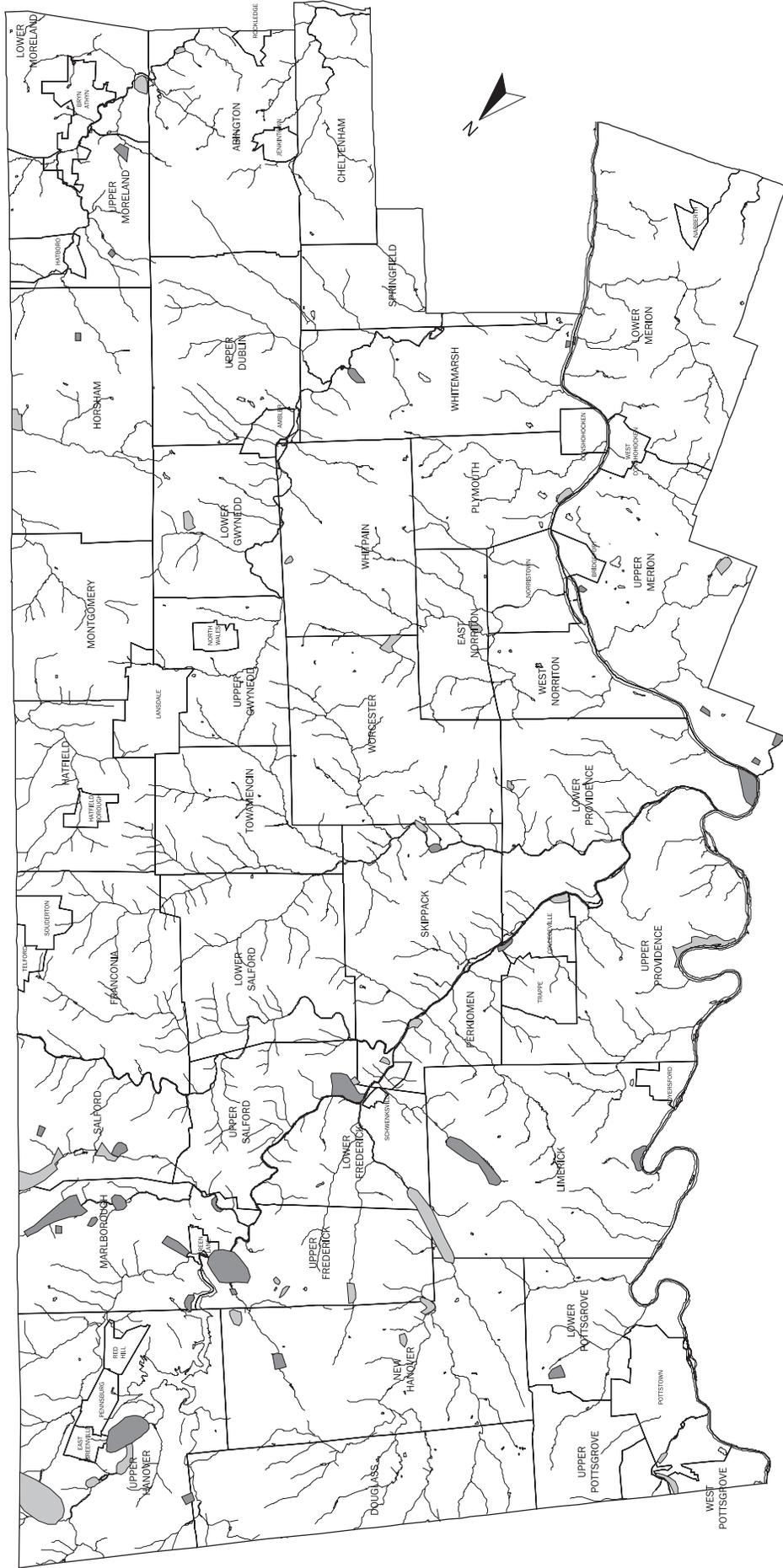


White's Mill is an important natural site that was recently purchased by Salford Township.



Spring Mountain, located in Upper Salford Township, contains unique plants and important bird nesting sites.

Figure 12  
NATURAL AREAS INVENTORY SITES



- NAI Sites of Statewide Significance
- NAI Sites of Local Significance

Source: Nature Conservancy.

used to rank each natural area according to its wildness, potential for future survival or recovery, animal and plant species, and any threats. Each natural area was described and mapped. (See Figure 12.)

The Appendix lists the sites identified in the Natural Areas Inventory. Sites of statewide significance for the protection of biological diversity in Montgomery County from most important to least important are listed, and sites of local significance in Montgomery County (based on size, diversity of wildlife and plants, water quality protection, and recreation potential) are listed.

### Summary of NAI Findings

The Nature Conservancy completed the *Natural Areas Inventory* in October 1995. As part of the inventory, 28 sites of statewide significance were identified for the protection of biological diversity. Thirty sites were identified as locally significant based upon the size and diversity of wildlife and plant life, water quality protection, and recreation potential.

The inventory prioritizes the following eight sites as the most critical in Montgomery County for maintaining biological diversity in the future:

**Spring Mountain Woods** (*Upper Salford Township*) - This diabase hill is one of the top two sites in the county for protection of biodiversity. The site contains a mature woodland that supports a large moist forest community with a diverse assemblage of tree and wildflower species. The county acquired this property as open space in 2000. The Spring Mountain Ski Area is still operated on adjoining land preserved by Upper Salford Township.

**Green Lane Marsh and New Goshenhoppen Meadows** (*Upper Hanover Township*) - Part of this site contains significant wetlands and is home to bog turtles. The site lies within lands owned by the county and Philadelphia Suburban Water Company and is restricted to fly-fishing only. The adjoining meadow provides unique grassland habitat for various birds and butterflies.

**Niantic Northeast Woods** (*Upper Hanover and Douglass Townships*) - This deep moist woods supports a rare wildflower species and a diverse herb layer of flowers.



Wetlands are identified by the presence of hydric soils, surface water, and wetland vegetation.



Fulshaw Craeg, located along the Ridge Valley Creek in Upper Salford Township, has been the focus for preservation efforts by the Natural Lands Trust.

**Frazier's Bog** (*Upper Moreland Township*) - Frazier's Bog contains bog-like habitat that historically has contained several plant species of concern.

**Knight Road Site** (*Upper Hanover and Marlborough Townships*) - A small number of plants of a Pennsylvania endangered species were found growing on a rocky ledge of the Green Lane Reservoir. Other associates found at this site include Pennsylvania sedge, wild phlox, and asters. This area is protected within the Green Lane Park.

**Ridge Valley - Fulshaw Craeg** (*Salford Township*) - Plant species of special concern, including the fringed gentian, grow in meadows with big bluestem, Indian grass, marsh fern, joe pye weed, dogbane, New Jersey tea, and other flowers at this site. The site includes the Ridge Valley Creek, which courses its way through large diabase boulders in this craggy valley. The Natural Lands Trust has purchased portions of this site as open space.

**Linfield Bluffs** (*Limerick Township*) - An endangered plant grows along these dry, wooded, steep slopes that overlook the Schuylkill River. The site also includes a beech and red oak woodland along one of the ravines and plants of local interest such as wild phlox, wild pink, and huckleberry. A portion of this site is preserved as open space owned by a local homeowners association.

**Deep Creek Marsh** (*New Hanover Township*) - The marsh includes a good quality sedge population with associated species of meadow grass, sensitive fern, aster, and others.

### Summary

The natural system components can be discussed separately, but of course, they are interrelated and part of one larger system. Examples of key natural resources often will be found together: steep slopes occur along waterways where the water has eroded softer rock, and significant woodlands often occur on alluvial soils or steep slope areas where farming was less productive and trees were allowed to mature.

While the relationships between the natural system components occur throughout the county, the interconnections are most apparent within a stream

corridor. The condition of a stream corridor is important for minimizing erosion and water pollution, protecting water quality (temperature and velocity), and providing animal habitat and recreation opportunities. The floodplain portion of the corridor stores and conveys floodwater during large storm events. Development within the floodplain reduces the carrying capacity of the floodplain and increases the height and destructive power of floodwater.

The type of soil within the corridor will influence the vegetative cover, which in turn affects the quality and quantity of surface and groundwater, wildlife diversity, rates of erosion, and the scenic and recreation quality of the landscape. A well-vegetated corridor will enhance water quality by slowing runoff, allowing pollutant-laden sediment to settle out, shading the stream, and providing wildlife habitat. People also benefit from stream corridors, since they provide opportunities for trails and other recreation.

Wetlands within stream corridors also serve one or more beneficial functions. Almost all wetlands provide habitat for birds, amphibians, and fish. These, in turn, support other wildlife. Wetlands help to mitigate flooding by holding back floodwater and slowing stream velocity. They also help remove nutrients that can cause algae blooms and other pollution problems. Finally, wetlands located in depressions encourage infiltration of stormwater, contributing to groundwater recharge.

### **Protection of Important Natural Resource Areas**

Important natural resource areas are places with natural features that alone require extra protection measures or places with a number of interrelated natural resources. Also, the concept of important natural resources is dependent upon the type of resource and the various activities that are being proposed for the property. For example, the extent of a floodplain is a critical consideration in the location of a house though other facilities such as a road may be located in it.

The individual natural resources described above should be considered in making determinations about future land use development, considering the intensity, design, and location of new development. Areas with a significant amount of natural resources should also be considered as a factor in determining priorities for the purchase of open space. Assessing



The impact on natural resources caused by poorly planned development can be severe.

### **SmartConservation**

*Often, it is difficult to judge the most important natural areas to preserve when there are competing alternatives. To help with this problem, the Natural Lands Trust has developed SmartConservation, a web based computer tool that uses a variety of criteria to evaluate a site's ecological assets, conservation potential, and development threat. The results of this science-based analysis are displayed on easy-to-use computer maps. The SmartConservation analysis can be accessed at [www.smartconservation.org](http://www.smartconservation.org).*

the convergence of different types of aquatic and terrestrial resources delineates these areas with multiple natural resources. This convergence is both causal, as in the case of diabase geology and steep slopes, and functional, as in the case of floodplains and creeks.

So that the convergence of the natural system components can be identified and examined, we conducted an overlay analysis using a computer-mapping program. To accomplish this, all of the individual natural features were placed onto a computer base map.

The purpose of the overlay analysis is to generally identify not only those areas containing natural system components but areas of the county that contain a convergence of those components. The exact properties to be preserved will be determined based upon other factors that take into account ownership, existing land uses, and future open space needs.

### **Composite Analysis**

In order to understand how the natural system interrelates, the various components were organized into two broad groups. The individual components were separated based on their relationship to water (hydrology) and the landscape (terrestrial). All of the resources discussed in this chapter fit into one of the two categories. This makes it possible to show how the different types of resources interrelate and where they converge.

The hydrologic feature composite contains the concentrations of alluvial soils, USGS floodprone areas, wetlands greater than one acre, and concentrations of soils that have a seasonal high water table and shallow depth to bedrock. An analysis of these hydrologic features generally highlight the vulnerability of the stream valleys and the wetter soils, mostly located within the Brunswick Formation.

The terrestrial features composite consists of the critical geologic formations (diabase and limestone), stands of woodlands greater than twenty-five acres, and concentrations of steep slopes (slopes greater than 12%). This composite shows the extensive amounts of woodlands that remain in the western portion of the county, as well as the localized concentrations found in the eastern portion of the county. The composite also underscores the relationship between steep slopes and the critical geologic formations: the majority of the steep slopes are located within the diabase region, and on the outside

edge of the limestone valley that parallels the Pennsylvania Turnpike.

### Natural Areas of Significance

When all of the significant natural features are combined (shown in Figure 13) the extent of both the hydrologic and terrestrial resources within the county can be identified. In addition, the map identifies the convergence areas of the two composite analyses: the parts of the county that contain both hydrologic and terrestrial resources. This, however, does not imply that these areas are the only places that the natural system components converge. Each of the individual composite maps contains a convergence of similar system components. Therefore, the convergence areas will contain at least one hydrologic resource and at least one terrestrial resource, but could contain an overlap of as many as six individual resources.

The map depicting the natural areas of significance also contains the Natural Areas Inventory (NAI) sites, which were identified by The Nature Conservancy. All but one of the NAI sites are located within areas of either hydrologic or terrestrial significance, and many overlap with the convergence of the two.

It can be readily seen that the most extensive amounts of vulnerable resources (both hydrologic and terrestrial) are located within the portion of the county that is west of the Perkiomen Creek and around the Unami and Ridge Valley Creeks. This is due to the large amount of woodlands, diabase geology, steep slopes (all of which are highly related), and sensitive soils (alluvial and wet). These areas provide many opportunities for preservation since a high proportion of the land remains undeveloped. This availability of land is related to the natural system constraints, and the demand for development. The demand for development, while increasing, has historically not been high enough to overcome the natural system constraints; these areas typically require central water and/or sewer.

Conversely, the eastern portion of the county does not have as many vulnerable resources as the west. But critical opportunities still exist for the preservation of large corridors of open space since the majority of the vulnerable resources are associated with the stream valleys. These sensitive natural features, which were avoided during the initial growth of the county, are now susceptible to infill development. Fortunately many municipalities and



Mill Hill, the highest location in Montgomery County, was purchased by a group of municipalities using county open space grant funds.

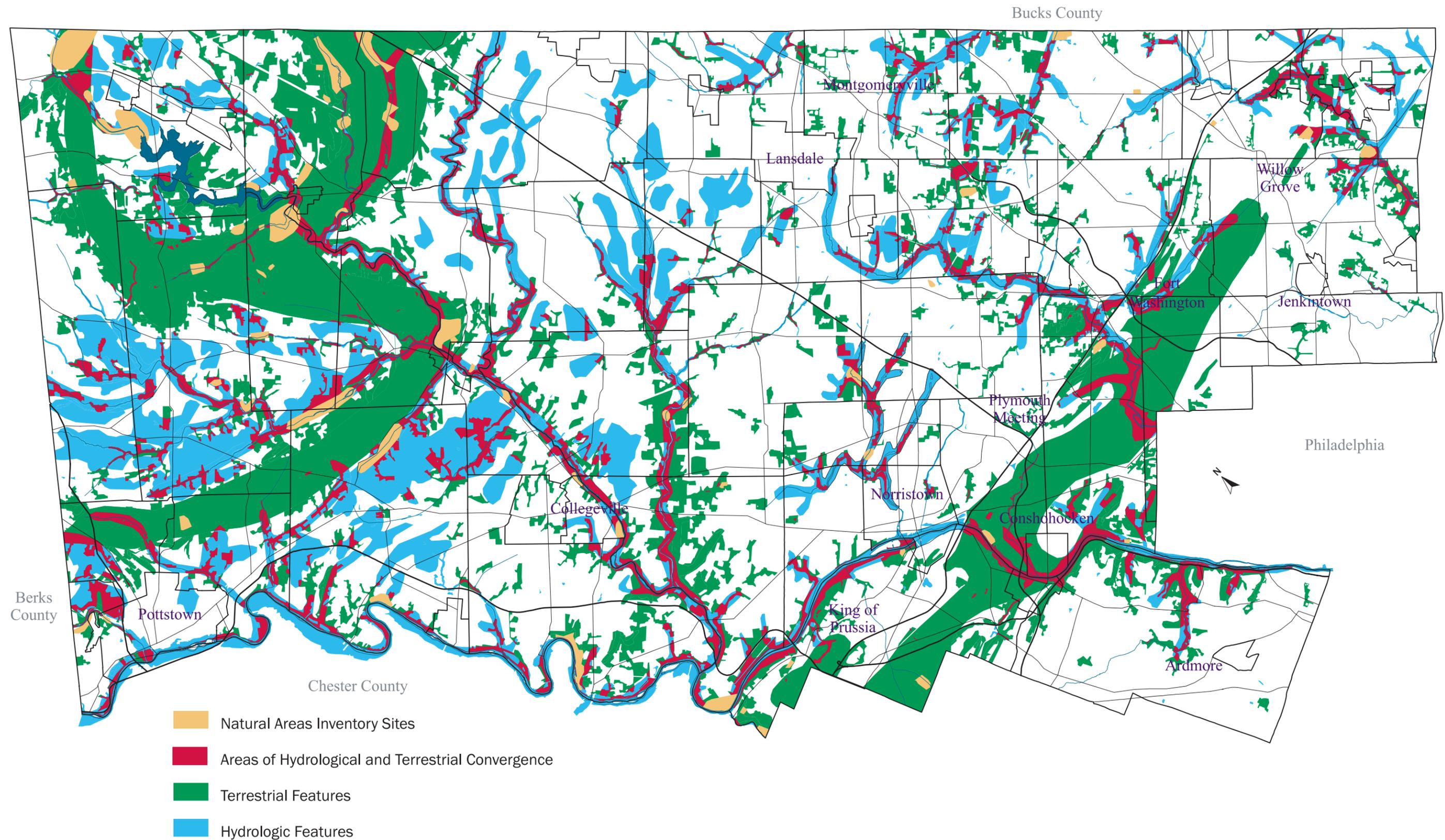


Raytharn Farm is part of the 600-acre open space reserve managed by the Pennypack Ecological Restoration Trust.

private preservation groups have preserved a significant portion of the vulnerable stream valleys in the eastern portion of the county. For example, much of the natural areas located along the Mill Creek in Lower Merion Township are preserved within a township park. Also, the Wissahickon Valley Watershed Association and the Pennypack Ecological Restoration Trust have preserved many acres of land within their watersheds. The combination of existing development, infill development, and past preservation efforts will make the remaining vulnerable lands more difficult and expensive to obtain. However, it is these same factors which make the land that much more necessary to preserve.

Finally, the locations of the NAI sites are predominately in the western portion of the county. This is related to the diabase geology and the soils associated with that formation, as well as the unique stream valleys. The several sites in the eastern portion of the county are located within the limestone valley and along stream corridors. The NAI sites, depending on their ranking, not only contain plant and animal species of concern, but many of the other important natural system components to be preserved. Therefore, the preservation of these areas will not only maintain the natural system components, but will contribute to the biodiversity of the region.

Figure 13  
SIGNIFICANT NATURAL AREAS



Source: Montgomery County Planning Commission, Delaware Valley Regional Planning Commission, and the Nature Conservancy, 1995.



## Natural Resource Land Acquisition

The preservation of the county's significant natural areas may be one of the single most important issues for maintaining our quality of life. The preservation of natural areas not only helps to maintain our health and safety by protecting the county's water supply, wildlife habitat, damage from flooding, or loss of soil, but also provides people with a place to recreate and relax. It is this quality of life that attracts and maintains a solid workforce, which in turn is a major location factor for a new or relocating business.

## Natural Features Preservation Plan

The second half of this chapter is the plan for future action. Essentially three types of natural resources protection strategies exist—the preservation of land through some form of public acquisition or deed restriction, land use controls which limit activities that can occur on or near important natural features, and land stewardship techniques to safely manage important resources. To maximize the protection of the significant natural areas the following activities should be undertaken:

### Acquisition

#### County Preservation

The most fundamental option for the county to preserve the natural areas of significance involves fee-simple acquisition or easement purchase. The decision to purchase a property in fee, or to purchase a conservation easement, will be made during the implementation of the plan based on a number of considerations. In either case, however, preservation by the county should ensure public access to the natural areas, where appropriate.

To best meet the natural areas preservation goals, the county should focus on the statewide and local sites given a high priority within the NAI. These sites not only include many of the natural system convergence areas, but also contain sensitive biodiversity elements that may be particularly vulnerable. Complete preservation of these sites is necessary to preserve their intrinsic value. In addition, these areas, and their unique habitats, may serve as the center piece of larger natural area preservation efforts.

Following preservation of the high ranking NAI sites, the county should preserve the large natural areas of significance that remain. These sites could

***“To waste, to destroy our natural resources, to skin and exhaust the land instead of using it so as to increase its usefulness, will result in undermining in the days of our children the very prosperity which we ought by right to hand down to them amplified and developed.”***

Theodore Roosevelt  
*Message to Congress, 1907*

be areas of convergence, areas on one of the two composites, or unique individual features within one of the composite areas. Preservation of these areas by the county clearly meets the goals of the plan and will protect the county's quality of life and biodiversity.

Finally, preservation of these lands by the county can be done in conjunction with many other county programs. Many of the NAI sites and natural system convergence areas are located adjacent to county parks and could be purchased as part of park expansion projects. In addition, many of the convergence areas and natural system components in general are within the county's stream valleys and could be preserved as part of a countywide greenway system.

### Municipal Acquisitions

Municipalities can acquire and protect important natural resources in various ways. Grant funding from the county, state, and federal governments can be utilized to purchase natural areas for use as parkland and open space. Many of these programs give a high priority to lands that contain unique natural resources. Under the Montgomery County Green Fields/ Green Towns Program, municipalities can purchase conservation easements to protect land from development. Some municipalities have raised funds through a dedicated tax or capital bond issue to do this. Municipalities are also encouraged to acquire open space and parkland through dedication by developers in accordance with various open space preservation requirements established within their zoning codes.

### Private Preservation Groups

Several private non-profits that specialize in open space preservation such as the Montgomery County Lands Trust, Pennypack Ecological Restoration Trust, Natural Lands Trust, and the Wissahickon Valley Watershed Association operate in Montgomery County. These organizations are eligible for county and state funds to preserve important natural resource property through fee simple purchase or conservation easements. Also, due to their non-profit status, many land trusts and conservancies have been successful in acquiring land through donations or bargain sales. They are also able to leverage private foundation grant money to fund open space acquisitions.



The Wissahickon Valley Watershed Association has successfully established the Green Ribbon Preserve along the Wissahickon Creek from North Wales to Philadelphia.

## Land Use Controls

The Pennsylvania Municipalities Planning Code (MPC) states in Section 603 (g) (2) that zoning ordinances shall provide for protection of natural and historic features and resources. Further, in Section 604 (1) the MPC specifically authorizes municipalities to develop zoning ordinances to, among other things, protect the natural scenic and historic values in the environment and the preservation of forests, wetlands, aquifers, and floodplains.

**Section 604. Zoning Purposes.** *The provisions of zoning ordinances shall be designed: (1) To promote, protect and facilitate any or all of the following: the public health, safety, morals, and the general welfare; coordinated and practical community development and proper density of population; emergency management preparedness and operations, airports, and national defense facilities, the provisions of adequate light and air, access to incident solar energy, police protection, vehicle parking and loading space, transportation, water, sewerage, schools, recreational facilities, public grounds, the provision of a safe, reliable and adequate water supply for domestic, commercial, agricultural or industrial use, and other public requirements; as well as **preservation of the natural, scenic and historic values in the environment and preservation of forests, wetlands, aquifers and floodplains.***

There are a number of effective land use controls that can be utilized by Montgomery County municipalities to preserve natural system components. These can include resource specific ordinances for the protection of wetlands, steep slopes, vegetation, riparian corridors, and floodplains. Municipalities can also adopt performance-zoning provisions that require the preservation of natural resources when calculating a property's base density. Ordinances that permit the clustering of residential developments for the purpose of natural feature protection are also effective strategies. Other methods to protect natural system components include transfer of development rights and conservation subdivision design.

**Wetlands Management:** State and federal laws regulate wetlands. These laws focus solely upon disturbance to wetlands caused by earthmoving activities. The removal of wetland vegetation and the development of areas directly adjoining wetlands are not typically addressed in state and federal permits. Wetland transition area restrictions in a defined area around the delineated wetland further protect a wetland's function and long-term viability. A municipality can restrict development within a 25-foot area

**Horsham Township Wetlands Ordinance:**  
Horsham Township established a wetland transition area in their zoning ordinance. The transition area is at least 25 feet and may be extended based upon the presence of hydric soils, steep slopes, and certain types of vegetation. Buildings are prohibited in the transition area, though streets, utilities, and normal yard maintenance are allowed. The township also requires deed restrictions for properties with wetlands to ensure that they continue to be maintained as wetland areas.

surrounding a wetland area or measure the building setback line from the edge of the wetland. This will create a buffer area that may be used for various activities that will not impact the wetland. Also, municipalities can ensure that wetland areas remain viable by requiring stormwater management and drainage improvements to address the hydrologic needs of wetland areas. In other words, the grading and stormwater design should not take water away from wetlands so they dry up.

In addition, stormwater control facilities should not be built on or in wetlands.

**Floodplain Management:** Under Pennsylvania Act 166 of 1978, all municipalities must adopt regulations that, at a minimum, comply with the requirements of the act and appropriate state regulations to gain eligibility to participate in the Federal Flood Insurance Program. Generally, the minimum regulations prohibit the construction of new development that would be damaged during a 100-year type flood as defined by maps and studies published by the Federal Emergency Management Agency (FEMA). In meeting this requirement, municipal ordinances still can allow development within the floodplain that is either elevated or flood proofed. Many municipalities prohibit buildings in the floodplain. Also, roads, parking lots, and other physical improvements are typically allowed in floodplains under the minimum state requirements. In addition to protecting the 100-year floodplain, municipalities could restrict development activities on alluvial soils. Alluvial soils may indicate flooding and drainage areas that should be preserved.

Municipalities can, however, adopt floodplain measures that exceed the state and federal minimum requirements. Additional setbacks for development could be established from the 100-year floodplain line which would address the fact that many older floodplain maps established by FEMA are no longer valid. Typically in the past few years, storms at intensities below a 100-year storm have flooded properties outside of the delineated 100-year floodplain. Neither the National Flood Insurance Program nor Act 166 prevent a municipality from enacting and administering stronger local regulations.

**Vegetation Management:** The protection of important vegetation that naturally occurs on a



Homes in Port Indian, built along the Schuylkill River, have flooded frequently.



Floodplain ordinances can protect floodplains and reduce the loss of lives and property damage. These condos, built prior to floodplain regulations, have been flooded so many times, they are now deserted.

property can be required through local regulation. The MPC, however, does not allow municipalities to prohibit forestry activities. The difference between forestry and activities regulated through vegetation management ordinances is based upon the purpose for which trees are being removed. Under forestry, which is defined in the MPC, trees are removed in accordance with appropriate silviculture practice for the purpose of managing a forest as a resource. The removal and clearing of vegetation for some type of subdivision or development is not forestry because the purpose of tree removal is not the management of a forest. Vegetation management controls seek to limit the amount and type of vegetation that can be removed in order to protect forest cover, unique habitat, and natural vistas.

**Steep Slope Protection:** A steep slope protection ordinance regulates development on areas of steep slopes. The definition of steep slopes varies among municipalities, with 12% typically the minimum gradient classified as steep. Steep slope ordinances promote the public health, safety and welfare of a community by reducing the loss of vegetative ground cover; limiting soil erosion and the resultant destruction of the land; preventing siltation of streams; managing stormwater runoff caused by grading of slope areas; maintaining and protecting the ecological integrity and habitat value of steeply sloped areas; and allowing the continuing replenishment of groundwater resources and the maintenance of springs. Steep slope ordinances can prohibit certain types of development in steep sloped areas, reduce the density of development on steep slopes, or require various engineering design features within steep slope areas.

**Riparian Buffers and Stream Corridor Protection:** Municipalities can employ various strategies to protect and enhance vegetated riparian buffers. This is generally achieved through zoning ordinance requirements establishing setbacks from stream banks, floodplains, and wetland areas and by limiting the use and intensity of activities within the corridor. Typical riparian

### **Lower Merion Natural Features Conservation**

**Ordinance-** Lower Merion Township has established a comprehensive ordinance that addresses the protection of natural features, including woodlands and vegetation. The ordinance requires rigorous documentation of woodland and vegetation features. In accordance with the ordinance, every wooded lot shall not be disturbed in such a manner that the number of viable trees having caliper of six inches or greater on the lot prior to development shall not be reduced by more than 25%. Disturbance of vegetation other than woodlands is also addressed in the ordinance. In addition, the ordinance also requires measures to be taken during site development to protect vegetation from mechanical injury and grading change.



Riparian buffers, consisting of trees, rocks, and vegetation, are found along creeks and rivers, and help protect water quality.

buffer widths range from 25 to 300 feet, depending on the community's goals or the quality and importance of the stream corridor. The county planning commission maintains a model riparian buffer ordinance which includes a summary of the ecological functions of a riparian buffer and establishes a set of fundamental principles for the design and use of a riparian corridor.

**Sinkhole Ordinance:** Municipalities with limestone geology may experience problems with sinkholes, which can damage buildings, roads, parking areas, utilities, and stormwater control facilities. To lessen the potential negative impact of future sinkholes, local communities may want to require subdivisions and land developments to properly identify sinkhole prone areas and to set back buildings and other improvements from these areas. The Lehigh Valley Planning Commission has a model sinkhole ordinance that can be added to municipal subdivision and land development ordinances to address this issue.

**Conservation Subdivision Design:** The conservation subdivision design process requires the consideration of resources on a site as the primary step in the development process. Resources are identified through a site analysis. The placement of buildings and infrastructure is performed in a manner that causes the least amount of disturbance to the critical resources mapped on a site. The last consideration is the creation of the lot lines. This tool, when combined with other resource protection tools, will foster the protection of an interconnected network of open space within a municipality. The statewide "Growing Greener" program developed by the Natural Lands Trust has established a methodology for performing conservation subdivisions in a four step process.

Conservation design, which goes by a number of different terms, is a type of zoning that protects sensitive natural features on a site and at the same time, gives developers more flexibility regarding housing types and densities on the areas of a site that are more appropriate for development. Conservation design also often requires a minimum level of open space preservation.

***Upper Salford Conservation Subdivision Design Process:***  
*In 2001, Upper Salford Township adopted new zoning and subdivision ordinances that establish a conservation subdivision design process. The Natural Lands Trust and county planning commission jointly prepared the ordinances.*

In order to maximize the preservation of natural areas through land use controls, the county, state, various nonprofit organizations, and municipalities should provide education of municipal officials, model ordinances, and technical assistance to municipalities. While these land use control techniques will preserve the natural features, public access and use of open land is not normally required. However, the environmental benefits and visual impact of these lands will be retained.

**Cluster Development:** A cluster development ordinance enables developers to shift density of development within a tract of land in return for preserving open space on other portions of the tract. Municipalities have successfully implemented cluster development ordinances requiring the preservation of at least 50% of a given tract as open space. Not only do these ordinances allow for preservation of unique natural resources, but cluster ordinances can also provide design flexibility that results in the reduction of infrastructure costs.

*Beechwood is a single-family cluster development located in Lower Salford Township which received a land development award from the Montgomery County Planning Commission. The cluster design creates central green space and preserves other natural features in large open space areas. Over 60% of the site is preserved as open space. In addition to open space, Beechwood is designed with a logical road system that reinforces neighborhoods and pedestrian amenities.*

*Land Preservation District - Montgomery County Planning Commission created the*

*Land Preservation District (LPD) as an*

*alternative to standard residential*

*large acre lot developments.*

*The LPD is designed*

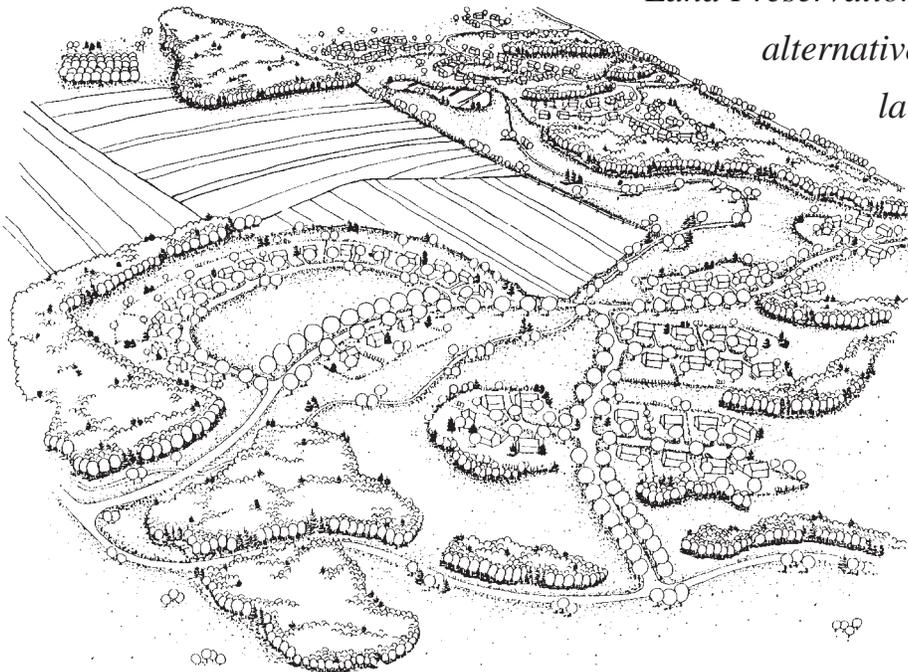
*to create attractive*

*neighborhoods*

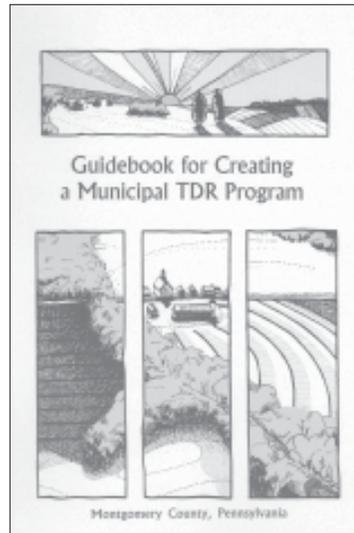
*with 75% of the*

*property preserved*

*as open space.*



The LPD can address community open space goals and provide desirable neighborhoods for new residents. Homes are clustered while significant open space is preserved.



A guidebook and model ordinance describing TDRs was prepared by the planning commission.

### **Transfer of Development Rights (TDR)**

**Ordinance:** TDRs allow municipalities to preserve rural and natural features while protecting property rights and allowing some growth. A TDR program takes development that would normally occur in rural areas (sending areas) and transfers it to other parts of a municipality with suitable infrastructure where growth is more acceptable (receiving areas). Under the Pennsylvania Municipalities Planning Code, TDRs could be employed at the municipal or regional (multimunicipal level). The Montgomery County Planning Commission has developed a model ordinance for TDRs.

*Marlborough Township's zoning ordinance employs a total developable area calculation in order to determine the amount of development suitable for a particular site. The factors in the calculation include soil depth to bedrock and seasonal high water table, diabase geology, water bodies, water courses, floodplain, wetlands, and steep slopes.*

**Groff's Mill Park-** Streambank restoration work was done along the East Branch of the Perkiomen at Groff's Mill Park in Lower Salford by a number of organizations, led by the Perkiomen Watershed Conservancy. The project involved nearly 400 feet of streambank restoration work installed by volunteers. The goal of the project was to demonstrate the suitability of various natural streambank methods.

### **Land Resource Capacity Based Zoning**

**(Net-Out of Resources):** Performance based zoning that addresses the land resource capacity is a zoning technique that deducts environmentally constrained lands from development density calculations. Netting-out is intended to protect and preserve environmentally constrained areas by reducing or eliminating the credit given for these lands toward the amount of development permitted on a given site. It sets the density of development based upon the landscape.

### **Stewardship**

**Streambank Stabilization:** Physical reconstruction of streambanks and the restoration of stream corridors is often required when streams become unstable due to increased stormwater, excessive sedimentation, bridge installation, and/or debris in the stream channel. The county planning commission has successfully worked with the parks department, conservation district, municipalities, and other nonprofit organizations to restabilize the banks of several streams in the county. Other nonprofit groups and municipalities have undertaken stabilization projects funded with state grants to address local concerns. These projects are important not only to repair damage along a stream, but also to serve as an educational demonstration project.

**Woodland Restoration or Creation of**

**Meadows:** Natural landscapes, such as woodlands, wetlands, hedgerows, and meadows, can be created on a site where they do not exist. This process is called naturalizing or habitat enhancement. The naturalizing process requires an initial planting and maintenance period followed by reduced maintenance as natural processes take over. Areas suitable for naturalizing include disturbed sites such as old farm fields; environmentally sensitive areas such as steep slopes or floodplains; and unused lawn areas, where it is desirable to keep maintenance costs low.

Naturalized landscapes can be beneficial in several ways. They help reduce the overall maintenance costs associated with open space and improve the visual and biological diversity of a site. Naturalized landscapes serve as scenic amenities, create privacy for homes, provide habitat for plants and animals, provide passive open space, and minimize views of new development from existing roads. Methods of creating and maintaining woodlands and meadows are discussed in *Open Space as a Resource in the Land Preservation District*, a publication prepared by the Montgomery County Planning Commission.

**Conclusion**

Montgomery County still has a significant amount of important natural resources that should be protected as the county is developed in the future. These resources can be protected by actions taken by government as well as private businesses and landowners as described above. Conservation of natural resources is not the antithesis of development and prosperity. But rather, the conservation of the unique natural resource elements of the county is the key to maintaining the unique character of the county and the foundation of the quality of life upon which local residents and businesses depend.

***Individual property owners should protect any natural features on their land and should try to expand natural vegetation.***



# Chapter 3

## Open Space

Over the last decade, Montgomery County's open space efforts and land preservation strategies have focused on the creation of an open space system for future generations to enjoy. The county's "open space system" approach uses different open space components as building blocks for a network of interrelated lands and trails. These components include protected natural areas, greenways, county parks and historic sites, trail corridors, preserved farmland, and cultural and historic landscapes. Scenic views and vistas are a common element of all of the open space components. This system of county open space is part of a network that includes existing and future regional open space initiatives, federal and state open space lands, and lands protected by local municipalities and private organizations.

Montgomery County has already accumulated many of these building blocks, and a growing open space network has begun to take shape due to the combined efforts of the county, federal, state, and local governments, strong partnerships with conservation organizations, and many energetic and determined citizen advocates. The first part of this chapter describes the existing open space resources within Montgomery County and available throughout the immediate region. This open space includes permanently preserved land (publicly accessible parkland, natural areas, and greenways) and permanently preserved private open space. Trails, farmland, and historic/cultural resources are covered in detail in subsequent chapters.

The second part of this chapter describes the strategies, actions, and collaborations that form the plan for completing the open space system. These plan recommendations address the protection of natural areas, open space focus areas, expansion of existing county parks and historic sites, and the establishment of greenways.

### ***Existing Open Space Resources in Montgomery County***

Permanently preserved open space resources described in the following sections include federal, state, county, and municipal properties, as well as privately protected lands. A variety of lands that are temporarily preserved are also described.



Montgomery County has a growing open space network.



Approximately 34,000 acres of land are permanently preserved, equalling 11% of the total land in the county.

### Preserved Open Space Throughout the County

As of 2003, acreage preserved for open space in Montgomery County totaled nearly 34,000 acres, or 11% percent of the total land in the county. These permanently protected lands are comprised primarily of publicly accessible park and historic sites, held under federal, state, county, and municipal ownership. Additional protected land, which may provide limited or no public access, includes preserved farmland, natural areas, properties under conservation easements, and some parcels protected under homeowners' association, institutional, or private ownership.

Public/private preservation partnerships are increasingly important to the establishment of a self-sustaining open space legacy for future generations. The permanently protected Stone Hill Preservation Area in Lower Frederick and Limerick Townships is a recent example of the effectiveness of cooperative preservation efforts. Beginning in 1997 with the bequest of a 70-acre natural area to Valley Forge Audubon Society, this preservation area has grown to more than 250 acres through the collaboration of the two townships, the county, three conservation organizations, and a variety of citizen advocates. In combination with the adjoining State Game Lands, the protected land area of Stone Hill now totals more than 600 acres.

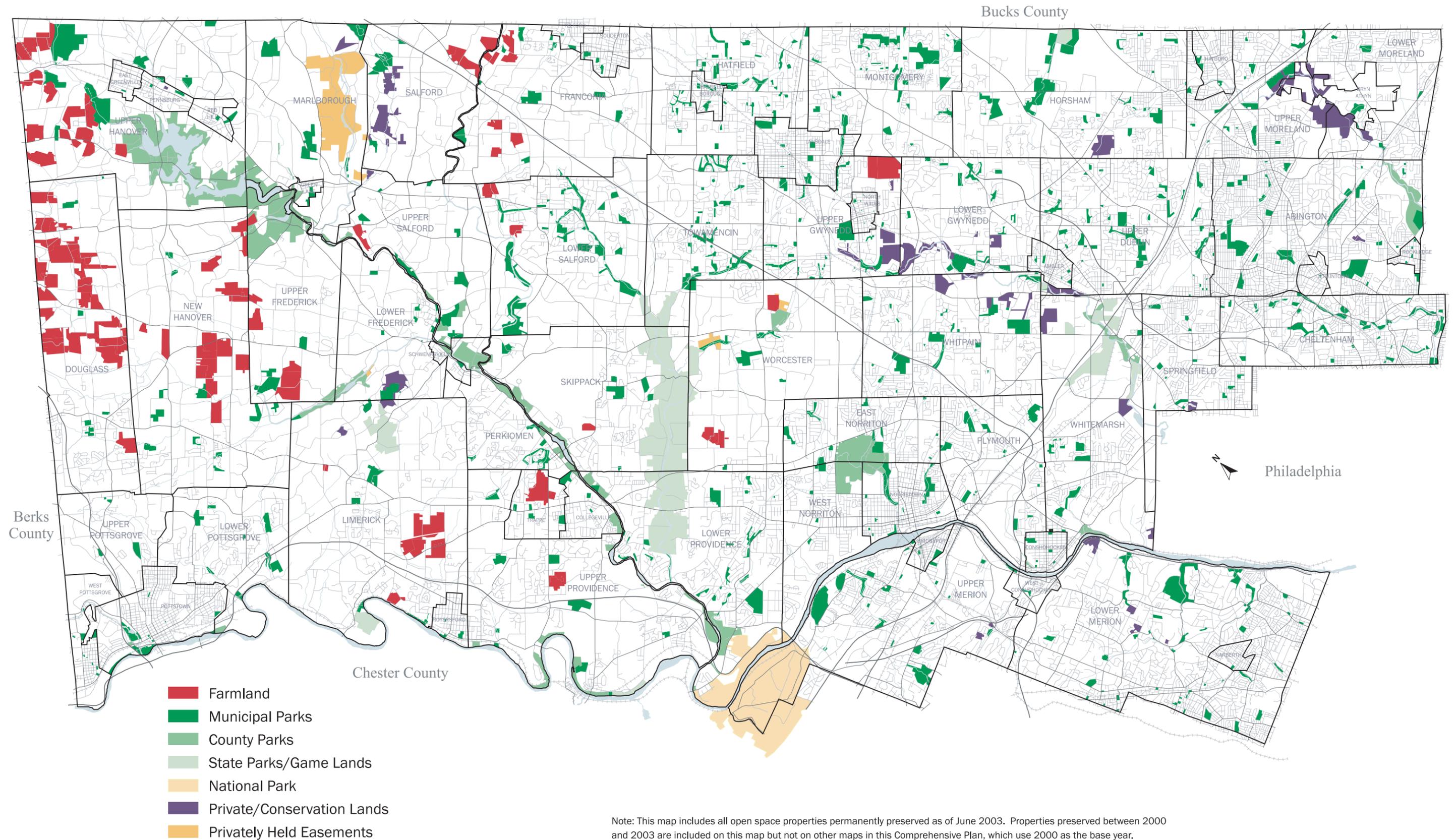
Preserved open space in the county ranges in size from the 3,466-acre Valley Forge National Historical Park to borough pocket parks of less than an acre.

Preserved greenways also contribute a surprisingly large amount of acreage to the open space system. These greenways are linear parks that by nature offer very broad public access and benefit. The Wissahickon Green Ribbon, the Pennypack Wilderness Greenway, and the trail and greenway areas along the Schuylkill River and Perkiomen Creek provide recreational opportunities while protecting more than a thousand acres of streamside forest and sensitive floodplain.

Figure 14 shows the location of permanently preserved open space in Montgomery County.

Type of Open Space	Acreage
Municipal Parks	11,031
County Parks	5,770
State Parks	4,475
Federal Parks	1,964
Private Conservation Land	4,435
Agricultural Easements	6,182
<b>Total (As of 2003)</b>	<b>33,857</b>

Figure 14  
MONTGOMERY COUNTY PRESERVED OPEN SPACE



Note: This map includes all open space properties permanently preserved as of June 2003. Properties preserved between 2000 and 2003 are included on this map but not on other maps in this Comprehensive Plan, which use 2000 as the base year.



## Existing Publicly Accessible Open Space Sites Federal and State Ownership

**Valley Forge National Historical Park** (total of 3,466 acres, with 1,964 situated in Montgomery County) is administered by the National Park Service (NPS) as one of more than 340 sites across the nation that protect the natural beauty and cultural heritage of America. Valley Forge National Historical Park is the site of the Continental Army's 1777-78 winter encampment. The location was established as a state park in 1893 and then transferred to the federal government in 1976 as part of the nation's bicentennial celebration. In addition to historic buildings and interpretive exhibits, the park provides bicycle and walking paths, horse trails, and opportunities for fishing, boating, picnicking, and sightseeing. It has major significance to the county's open space system for natural resource protection, passive recreation, and heritage tourism. The park is also a major feature of the Schuylkill Greenway and the junction of several regional trails. The proposed revolutionary war museum to be located within the park will dramatically increase the number of park users. The National Park Service constantly has to balance various urban recreation park users with heritage preservation interests.



Valley Forge National Historical Park is a nationally-significant open space site in Montgomery County.

**Evansburg State Park** (3,349 acres), along with the Fort Washington State Park, is administered by the Pennsylvania Bureau of State Parks, which is responsible for the natural, scenic, and recreational areas that comprise the Commonwealth's 116 parks. Evansburg State Park follows the Skippack Creek Valley, encompassing much of the headwaters areas in Towamencin and Lower Salford Townships, portions of Worcester and Skippack Townships, and a section of Lower Providence Township that extends almost to the Skippack's confluence with the Perkiomen Creek. Thirty-seven historic structures, including residences, farmsteads, a mill and bridge, and the National Register Evansburg Historic District, are contained within the park. Evansburg Park was originally conceived as a park that would surround a large lake to be built along the Skippack Creek. As a result of detailed environmental analyses, the



Evansburg State Park contains natural, scenic, historic, and recreational areas.

development of the lake has been indefinitely postponed. The park's predominantly wooded landscape provides recreational activities including fishing, hunting, nature study and environmental education, and trails for equestrians and hikers. The park also contains a public golf course, an American Youth Hostel, and a central playground area. The park contains significant scenic and natural resources and is also an important location for regional trail and greenway connections.

**Fort Washington State Park** (484 acres) in Whitemarsh Township encompasses woodland and a stream valley, with scenic views across a historic landscape that includes Fort Hill and Militia Hill, a ridgeline occupied in 1777 by Washington's troops on their way to Valley Forge. The park is formed by four separate use areas that are interconnected by undeveloped parcels of county parkland. The Wissahickon Creek flows through the park and is part of an almost completed "Green Ribbon" that links the Wissahickon's headwaters, the Whitemarsh Valley, and the Valley Green area of Fairmount Park. The park is an important trailhead for the future regional multiuse Wissahickon Trail and currently is popular for hiking, dog walking, picnicking, and informal field games. A yearly hawk watch and bird count takes place from a platform overlooking the creek corridor.

**Graeme Park** in Horsham Township (41.72 acres) is one of four state-owned historic sites that are maintained in Montgomery County by the Pennsylvania Historical and Museum Commission (PHMC). The other three sites are described below. PHMC provides exhibits and tours of historic structures and landscapes throughout the state. Many of these sites also offer special workshops, seminars, and living-history programs, and in the case of the Montgomery County sites, invite visitors to attend musical performances and seasonal events. Each of these historic sites tells "an American story" that includes not only the buildings but also the surrounding landscape. Gardens, fields, and woodlands extend the visitor's scenic and educational experience. Built by Governor William Keith in 1721-22, Graeme Park is the only remaining colonial governor's residence in the Commonwealth. The site, and the adjacent historic Penrose/Strawbridge Property, protects a regionally historic

landscape for heritage tourism and natural resource preservation.

**The Highlands** (43.3 acres), in Whitemarsh Township, is the 1801 country estate of Anthony Morris. The house is a Georgian manor house whose grounds exemplify 19th and 20th century landscape architecture. The site is a regionally important historic landscape that protects scenic views, rural character, and field and meadow habitat.

**Hope Lodge** (38.8 acres), also located in Whitemarsh, was built in 1743. This historic site interprets life during two periods, the colonial era of the first owner and the Colonial Revival period of the last private owners. The site is important not only for heritage tourism and the preservation of surrounding fields and meadows, but also as a point of interest along the future Wissahickon Trail.

**Mather Mill** (3.3 acres) is a restored gristmill located directly on the Wissahickon Creek one block from Hope Lodge. The site is used for meetings, displays, and special programs and, as with Hope Lodge, is an important interest point along the Wissahickon Greenway.

**State Game Lands:** The Pennsylvania Game Commission owns two properties in Montgomery County, both located in Limerick Township. Each site is open to the public for small game hunting, with hiking permitted in accordance with safety regulations.

**Gamelands #234** lies along the Schuylkill River in the Linfield area and gives access to the deteriorating Vincent Dam. This 155-acre property contains a combination of crop fields, meadows, and hedgerows ideally suited for small game hunting. Access to this site is from Pennhurst Road.

**The former Eastern State Game Farm** is located in northern Limerick Township at the edge of the Stone Hill Preservation Area. In addition to crop fields and meadows, this 350-acre property includes large areas of woodland that connect to natural areas under municipal and private conservation organization owner-

ship. Access points are located along Ryanford Road, State Game Farm Road, and Pheasant Road. The property that was formerly used to raise pheasants is now being converted into gamelands for hunting.

### Montgomery County Open Space

Montgomery County owns or manages more than 5,000 acres of permanently preserved open space. Most of this acreage is associated with county parks and historic sites, with additional land located along the Schuylkill River Greenway. A number of additional properties are held either in fee simple or by trail/conservation easement as part of the county trail system. Montgomery County's open space properties are detailed later in this chapter under the Open Space Plan section.

### Municipal Open Space

More than 11,000 acres of parkland are currently under municipal ownership, making municipal open space the largest segment of preserved land in the county. Each of the 62 townships and boroughs in the county owns at least several parcels of parkland, and some municipalities maintain extensive park systems. Most municipal parkland is owned in fee although a few municipalities have purchased conservation easements to protect large properties. A complete list of municipal open space properties, including those properties purchased with grants from Montgomery County's Open Space Program, is contained in the Appendix.

Montgomery County's Open Space Program, during the period from 1993 to 2002, was a catalyst for the preservation of more than 2,800 acres of municipal public parkland. Under this program, each municipality prepared a comprehensive open space plan that assessed its existing resources and established short and long-term preservation objectives. The completion of its open space plan enabled the municipality to access available county funds for acquisition of properties justified by the open space plan strategies. Sixty of the county's 62 municipalities collectively completed 152 open space acquisition projects using county grant funds. All properties acquired through this program are subject to a deed restriction, held by Montgomery County, that permanently limits use of the site to open space and appropriate recreational activities.

Other parcels of municipal open space have been acquired through state grants, funds from



High School Park in Cheltenham Township was purchased with Montgomery County Open Space Program funds.

previous county programs, donations, and dedication through land development projects. These properties may or may not be deed restricted depending upon the funding source and circumstances of acquisition. As a general rule, however, each type of municipally owned open space is considered to be permanent open space and, except for a few exceptions, is accessible to the general public.

Municipal open space is used for a variety of activities, with active recreation generally being associated with intensive park improvement, and passive recreation requiring little or no park development. The primary park uses in many municipalities are athletic fields, hardscape surface sports, and playgrounds. Recently developed parks support walking trails. Parks in boroughs are more intensely developed and often function as a plaza in a downtown setting.

Recently, the popularity of youth sports teams has created an ever-increasing expectation of publicly provided playing fields and park improvements. The increase in youth sports is a result of the rise in the county's youth population and the expansion of girls' sports opportunities. The popularity of walking trails is due in part to their ability to provide recreation and exercise while having a relatively gentle impact on sensitive open space areas.

Increases in population and intensity of development can be catalysts for municipal open space funding initiatives. A number of municipalities use a portion of their tax millage to support parks and recreation programs. A few municipalities, such as Franconia and Skippack Townships, have held referendums establishing a dedicated tax for the acquisition of additional open space. Various municipalities have requirements for open space dedication as a condition of the approval of various types of land development projects.

### **Privately Owned Preserved Land in Montgomery County**

Many acres of permanently preserved land in the county are owned by homeowners' associations, private conservation organizations, individual landowners who have granted conservation easements to those private organizations, and farmers who have sold their development rights to the state and county. Additional land is permanently or partially protected because of deed restrictions that limit the decisions of trustees or foundations responsible for the property.



The Armentrout property, containing 37.4 acres, was preserved by Whitpain Township in 1997.

### Preserved Farmland

In 2001, Montgomery County celebrated the preservation of 5,000 acres of preserved farmland within the county's borders, and since that time, additional acreage has been added to the county's inventory of preserved agricultural land. This land does not afford direct public access but provides a variety of public benefits in the form of scenic views, maintenance of rural character, protection of natural resources, and creation of continuous wildlife habitat corridors. Specific information about the farmland preservation is provided in Chapter 5.

### Privately-Preserved Open Space

#### **Homeowners' Association Properties:**

Homeowners' association property has generally been created by a land development project, and if not dedicated at that time to the municipality, the resulting land is usually reserved for use by the owners of properties within the development. While some of this property may be in the form of detention basins, utility easements, or required landscape buffer areas, this type of property also often contains valuable woodlands, stream corridors, and areas of steep slopes. These parcels of open space are important for natural resource protection and as linkages within wildlife habitat corridors, and they may afford future trail connection opportunities with the cooperation of the homeowners' association.

**Conservation Lands:** Land conservation organizations are nonprofit institutions that hold open space as part of their primary mission to protect and conserve open land and natural resources. These organizations protect land in a variety of ways: by outright acquisition and ownership of special properties, by temporary acquisition of land to place conservation easements before conveying the property to another owner, or by holding conservation easements on properties whose owners wish to retain the land while restricting future development potential. In addition, conservation organizations often co-hold easements, where one organization is the property owner and the other organization assumes monitoring and enforcement duties for the easement.

A number of private conservation organizations own land or hold conservation easements on properties in Montgomery County. These organizations

acquire land or easements in a variety of ways, often receiving the property or easement as a full or partial donation for which the donor receives charitable donation tax benefits. Because conservation organizations are often able to establish a relationship of trust and confidence with property owners who are not comfortable working with governmental agencies, these nonprofit groups may also purchase land or easements at less than appraised value, working flexibly with the property owner over an extended period of time to achieve estate planning goals.

Conservation organizations often rely on grants from government programs or foundations such as the William Penn Foundation. Montgomery County's Private Organization Challenge Grant Program has provided grants to a number of conservation organizations for the purchase of 382 acres and conservation easements on about 1,500 acres. Several of these county grants have been matched by grants from Pennsylvania's Keystone Grant Program.

Land held by conservation organizations in Montgomery County is protected because of its significance as a natural resource area and is kept in its natural state, with property management strategies designed to minimize invasive plant growth and encourage the regeneration of native landscapes. Properties under the direct ownership of the conservation organization are generally available for appropriate public access as long as sensitive natural features are respected. Public access is required to those properties purchased with county open space program funds. Properties held under conservation easements are generally not open for public access, although properties on which county open space funds have been used for easement purchase must provide public use in the form of appropriately located walking paths or other public access features.

Properties that are owned or conserved by land trust and conservation organizations are widely distributed across the county. These organizations include:

- Brandywine Conservancy
- Conservancy of Montgomery County
- Heritage Conservancy
- Lower Merion Conservancy
- Montgomery County Lands Trust
- Natural Lands Trust



Raythorn Farm, containing 160 acres, was preserved by the Pennypacker Ecological Restoration Trust working with three municipalities.



Over 45,000 acres of farmland in the county is preferentially assessed under Act 319.

- Pennypack Ecological Restoration Trust
- Perkiomen Watershed Conservancy
- Riverbend Environmental Education Center
- Schuylkill Center for Environmental Education
- Valley Forge Audubon Society
- Wissahickon Valley Watershed Association

A full list of these properties is included in the Appendix.

### Unprotected Open Space in Montgomery County

A great deal of undeveloped land that contributes to the county's overall open space landscape lacks the protection of any permanent preservation strategy. These properties appear to be part of the open space network, containing natural features, high quality agricultural soils, and open areas that if lost to development, would interrupt the natural and cultural systems. Many parcels of land in Montgomery County also have some degree of temporary protection due to restrictions in their deeds or the wishes of their current owners. These properties generally are used as schools, religious institutions, camps, golf courses or private recreation associations. Some of these properties are subject to preferential tax assessment programs that provide tax incentives to keep land undeveloped. Under the Clean and Green Act (Act 319) and the Open Space Covenant Act (Act 515) certain agriculture and open space properties may be assessed at a lower rate for property tax purposes. Nevertheless, these properties are vulnerable to eventual development, and strategies for their appropriate permanent preservation need to be considered.

**Properties under Governmental Ownership:** Several large properties in Montgomery County are under federal, state, or county ownership but are not permanently preserved or formally used for open space. These properties include the federally owned Willow Grove Naval Air Station (1,100 acres), Graterford Prison (1,730 acres) owned by Pennsylvania Department of Corrections, and several Montgomery County properties used for prisons or emergency services uses (approximately 200 acres). Each of these sites contains important scenic and natural features and could also provide a variety of public open space uses if their status changes due to governmental priorities.

**Quasi-public Properties:** Another group of properties that currently provides scenic, habitat,

and some informal recreational benefits includes public utility sites, transmission corridors and utility rights-of-way, airports, dams, stormwater control facilities, and excess parcels owned by railroads and power companies. Collectively, these properties encompass a surprisingly sizable acreage, and the buffer areas and natural feature corridors on these sites add considerably to the open lands and scenic character of the county. Utility rights-of-way, especially transmission corridors, are a particularly important opportunity to connect open space sites of all types. Although the location of these areas may be a deterrent to further development, they are often regarded by the owners as excess land and thus subject to disturbance or change of use.

**Public and Private Institutional Properties:**

A variety of public school districts, private religious and educational institutions, camping organizations, recreation associations, and private foundations own or control land in Montgomery County. These properties may or may not be available for public use, depending upon the objectives and regulations of the organization. School properties are typically used by athletic organizations, and institutional grounds may be popular walking areas. Cemeteries are often historic features as well, whose tombs and grave markers are a source of architectural interest and information about people and events important to the community and region. A list of major institutional and private recreational properties is contained in the Appendix.

**Golf Courses:** At least 58 golf courses and country clubs dot the landscape in Montgomery County, providing more than 7,000 acres of mostly undeveloped land for recreation. Access to these properties is generally limited to members, although several golf courses are open to the public. Golf course properties generally include wooded areas, stream corridors, and other water features, and are home to a variety of birds and other wildlife. While many golf courses are subject to preferential tax assessment covenants, only a few golf courses are permanently preserved.

**Corporate Properties:** Containing many hundreds of acres of open land, corporate properties often include woodlands and stream corridors, and many of these sites are managed as well with meadow and field areas. Although not public land, corporate lands may serve as natural habitat areas, and local trail networks may pass alongside or even link into employee walking trails maintained on



General Washington Golf Club is owned by Lower Providence Township and is permanently protected as open space.

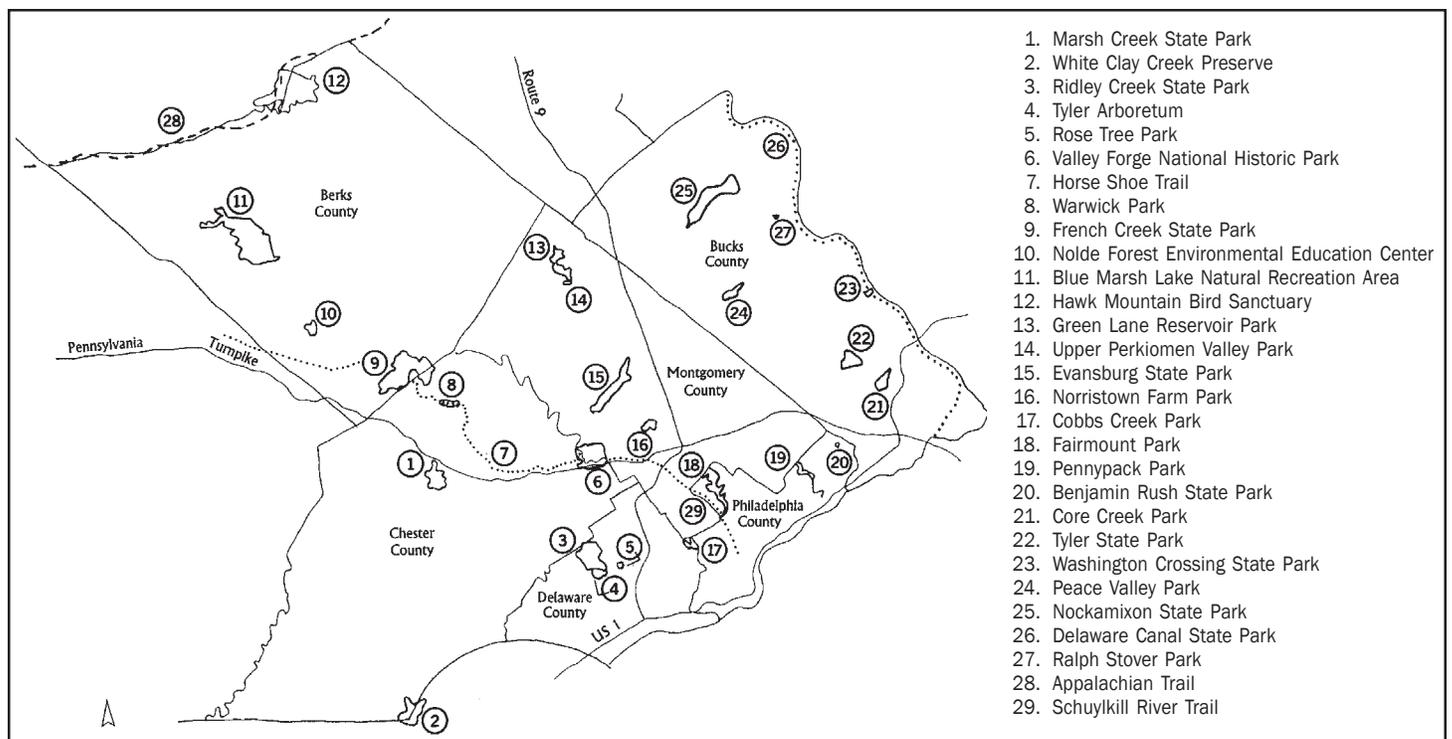
these properties. The continuation of many of these undeveloped areas for employee and community amenities and as part of the regional landscape is an extremely important aspect of Montgomery County’s quality of life.

### Existing Open Space in Surrounding Counties

Montgomery County is at the center of South-eastern Pennsylvania, a region rich in recreational, historic, scenic, and natural resources. The City of Philadelphia and five suburban counties—Berks, Bucks, Chester, Delaware, and Lehigh—adjoin Montgomery County’s borders. Each of these neighboring areas contains many parks, historic sites, and unique landscapes that extend county residents’ options for open space use and enjoyment. These adjoining counties also provide a great variety of trail and greenway linkages that forge a regional network of connections among people, communities, and natural resource corridors.

Open lands, natural resources, and stream valleys don’t stop at county borders, nor do the people that use and enjoy the various open space resources throughout the region. Watersheds and greenways follow natural landforms and cross municipal boundaries. Preserving these natural corridors protects intact ecosystems, promotes regional biodiversity, and provides a wealth of opportunities for traditional recreation, heritage tourism, and environmental education. A complete description

Figure 15  
SIGNIFICANT REGIONAL OPEN SPACE



of the resources of surrounding counties and the larger regional, state, and federal open spaces in Southeastern Pennsylvania is included in the Appendix.

### Open Space is a Regional Resource

Large, regionally significant parks, such as Fairmount Park in Philadelphia and French Creek State Park and Blue Marsh Reservoir in Berks County, are popular open space destinations for Montgomery County residents as well as visitors from elsewhere in Southeastern Pennsylvania. Similarly, trail and park user surveys show that many people using the Schuylkill River and Perkiomen Trails in Montgomery County are not county residents and that a significant percentage of visitors to Montgomery County's parks are from other counties. Recreation surveys in general show that people are much more mobile than they were even several decades ago. An ever-expanding network of trails and greenways makes open space, natural resource areas, and historic/cultural sites easily accessible to people throughout the region.

### Economic Benefits of Open Space

Too often, open space is viewed as a luxury that communities buy, if they can. In reality, open space is both an important community amenity and an economic asset. Open space, parks, farmland, and natural areas help a community's economic standing and bottom line. Some of the important economic benefits of open space are briefly described below. Please note that many of the facts, figures, and quotes listed below are taken from The Trust for Public Land publication *The Economic Benefits of Parks and Open Space*.

**Over time, preserved open space can hold down property taxes.** Studies and publications done by national organizations such as the Trust for Public Land, the Conservation Fund, and American Farmland trust demonstrate that property taxes generally are lower in areas where open space and farmland are permanently preserved. For example, a study of Massachusetts towns found that, over the long term, towns with the most permanently preserved land had, on average, the lowest property tax rates. In southeastern Pennsylvania, Penn State University's study on fiscal impacts of various land uses found that the costs of community services for farmland and open space were less than that for residential, commercial, or industrial land uses. Locally, a study done by the Montgomery County Lands Trust, titled *Saving Land Saves Money*, found that preserving land was more cost effective for a commu-

nity than allowing that land to be developed residentially, primarily due to the cost of educating public school students generated from the development.

**Preserved open space can reduce the costs of infrastructure installation and maintenance.** Land that is not developed does not need roads, sewer lines, water lines, and other utility lines and therefore does not generate costs associated with their installation and maintenance.

**Open space increases property values.** Many studies around the country, including some done in Boulder, Colorado, Salem, Oregon, Oakland, California, Dayton, Ohio, and Front Royal, Virginia, have shown that properties next to permanently preserved open space are worth more than other comparable properties.

**Open space improves quality of life, which attract employers.** Many cities, like Chattanooga, Providence, and Portland, have improved their quality of life with open space, which in turn has helped attract new employers. Many high-tech and other knowledge industries need educated workers, who often seek a high quality of life. An Intel spokesman, for example, noted that “Companies that can locate anywhere they want will go where they can attract good people in good places.”

**Good parks help revitalize communities.** Many cities and towns have used parks to help their revitalization efforts. Nationally, Boston, New York, Santa Fe, Burlington, Cleveland, Washington D. C., Atlanta, and other cities have used good parks and open space to revitalize neighborhoods, encouraging reinvestment and new development. Boston’s Post Office Square Park, for example, has created a prime location for businesses in Boston’s financial district. Locally, new parks and open space in Pottstown, Jenkintown, and Lansdale have helped spur development. In Pottstown, for example, a developer is rehabilitating and reorienting a vacant office building that overlooks the borough’s new Transit Plaza park.

**Open space increases tourism.** Many tourists visit places and spend money in these places because of the unique natural features and open space amenities found in these locations. According to the Outdoor Recreation Coalition of America, approximately \$40 billion of income was generated in 1996 by outdoor recreation. In Montgomery County, the Valley Forge National Historical Park is a national draw for tourists and their dollars.

**Scenic and heritage resources attract private investment in outdoor recreation services.** A recent study by the Schuylkill River National and State Heritage Area concluded that a strong market



Parks and open space help the economy. Transit Plaza park in Pottstown has helped the borough attract new private investment.

exists for new recreational businesses near scenic and heritage areas. These businesses create new jobs and strengthen local communities.

**Preserved farms provide jobs and support the local economy.** In Montgomery County in 2002, approximately \$35 million worth of farm products were produced by the county's farms. The county's food processing businesses add substantially to this figure.

**Preserved open space in floodplains reduces the cost of flooding.** Flooding is incredibly expensive, inflicting \$4.3 billion of property damage each year, according to a 1997 U.S. Army Corp of Engineers study. On the other hand, when natural areas and open space flood, there is little property damage. Some communities, including Abington in Montgomery County, have begun buying properties in the floodplain to turn these areas back into natural floodplain and open space.

**Trees reduce damage caused by air pollution.** Air pollution causes property and health damage. In Atlanta, Georgia, it was estimated in 1997 that the value on air quality of the city's trees was worth \$15 million a year.

**Open space protects the quality of drinking water.** It can be very expensive to treat water for human consumption and this cost increases as development occurs. One study estimated that New York City would have to spend \$6 billion to \$8 billion to build a new water filtration plant if upstate watersheds were developed.

**Open space reduces health costs by providing recreation opportunities.** Open space and trails provide recreational opportunities for residents to exercise, helping improve human health and thereby reduce medical expenses.

## Open Space Preservation Plan

The open space preservation plan recommendations in this chapter address natural resources preservation opportunities, open space focus areas, greenways, the expansion of existing county parks and historic sites, and municipal open space. The plan recommends the preservation of these areas as a countywide system of open space that would complement other local, state, federal, and surrounding county open space preservation efforts.

### Natural Areas

Natural areas are as important a part of the county's open space system as parks, trails, and greenways. These natural areas are often very scenic, undisturbed landscapes that offer visitors the oppor-



Natural and historic areas attract tourists and their dollars.



The county has many special natural areas and landscapes, such as Spring Mountain.



A Natural Areas Inventory has been conducted for Montgomery County.

tunity to experience unspoiled streams, woodlands, and rock formations that in developed areas are likely to have been altered or entirely eliminated. Natural areas often contain landmarks sacred to Native American values, remnants of old spring houses, bridges, and farmsteads, and old quarries that may have provided building stone for homes of the early settlers. Specific recommendations are made about preserving distinct natural areas identified in Chapter 2. Also, larger natural resource areas referred to as open space focus areas are described in this section.

These special landscape qualities have traditionally been the inspiration for parks, trails and greenways, and environmental education centers. It is important that the public has the opportunity to enjoy and learn from these undisturbed areas because those who understand the natural landscape are likely to give it their respect and support. However, as public interest in visiting these special places grows, these sensitive areas must be carefully managed since unrestricted public access may jeopardize the very features that have attracted attention in the first place.

Special natural areas may be located within existing county parks and historic sites, for example Green Lane Park or Sunrise Mill Historic Site, or they may be individual county owned sites, such as Spring Mountain. Other natural areas may be incorporated in municipal open space, as in Salford Township's White's Mill, or preserved and protected by private conservation organizations, such as Natural Lands Trust's Fulshaw Craig Preserve or the Musser Scout Camps held under conservation easement by Natural Lands Trust and Montgomery County Lands Trust. Many important or as yet unidentified natural areas are located and unprotected on private property. An overall goal of completing the open space system should be to preserve or permanently protect each of the significant natural areas throughout the county.

### Prioritizing Natural Areas Preservation

Awareness of natural resources and their relationship to quality of life has become intertwined with almost every aspect of open space preservation. It is increasingly common for governmental and private groups to be involved in the protection of various portions of the same project. This partnership approach is very effective in ensuring that recreation, environmental education, and conservation play appropriate roles in the areas where natural resources need to be protected.

The *Significant Natural Areas Map*, shown in

Figure 13 and derived from the county's composite mapping, is an excellent guide for targeting preservation activities, making management decisions for county parkland, evaluating development proposals and local ordinances, and ensuring that natural systems are not fragmented. The list of sites given in *A Natural Areas Inventory for Montgomery County, Pennsylvania* is a specific and already prioritized natural resource preservation recipe for the county and its municipal and private conservation partners. In general, these two resources should be considered a starting point for preservation and protection of natural areas in Montgomery County. The final ownership of the property or area and the appropriate technique for its preservation should be based upon the following guidelines:

- The county should prepare or update resource management plans for any Natural Areas Inventory (NAI) sites already under its ownership.
- Significant natural areas that adjoin existing county open space or are physically related to county park land should be acquired by the county, as should surrounding lands that would buffer these sites in order to ensure that they remain intact and protected.
- Sites that are part of municipal open space should be similarly protected, and the county should encourage the municipality to manage and expand those sites in a natural resource-based manner.
- Any NAI sites that are threatened by development should be considered an immediate priority for appropriate protection by a private conservation organization with cooperation from the municipality and county.
- The status of all privately owned NAI sites should be reviewed on an ongoing basis, by the county, municipalities, and conservation organizations, to identify preservation opportunities and to provide property owners with technical assistance about natural resource management strategies.
- Each municipality should be aware of NAI sites within its boundaries and ensure that these sensitive areas are protected if included on development proposals.

#### A Broader View of Natural Areas

The *Natural Areas Inventory* for Montgomery County should be updated and expanded to include areas that were not fully explored in the current



Streams are a critical element of the county's natural system.

version. During this update, special emphasis should be given to incorporating specific NAI sites into the open space system by creating connected corridors of natural resources. Although sites that contain special species or unusually unique habitat should continue to be afforded special preservation, the expanded *Natural Areas Inventory* should recognize that protection of all of the county's significant natural resource systems will be necessary to ensure the integrity of those special sites.

Municipal open space plans, which identify local vulnerable natural, scenic, and historic resources, and then analyze and prioritize those resources that are unprotected, should be kept up-to-date to reflect changes that have resulted from development or open space acquisition activities.

Regional plans and studies have recently identified large areas where connected natural systems are key to maintaining a healthy environment and a high quality of life. These studies include a regional look at high priority natural resource areas sponsored by the Greenspace Alliance, the *Schuylkill Watershed Plan* prepared by the Academy of Natural Sciences, and the Highlands Coalition's focus on the intact forest canopy that extends from New York and New Jersey, covering a large portion of the western part of Montgomery County. These regional plans give the opportunity to understand our natural areas in the context of the much larger natural systems of which they are a part.

### Wise Use of Natural Areas

Since it is impossible to replace natural areas once they have been damaged or destroyed, protection must include more than permanent preservation of the land. The carrying capacity (how much activity the area can accommodate), must be considered carefully when programming public uses or planning improvements. Portions of some sites may be set aside to be viewed rather than entered, and educational activities that promote stewardship and a "leave no trace" ethic may mitigate the otherwise damaging effects of public access.

### Municipal Natural Areas

Municipal open space plans prepared in the 1990s identified important local natural areas. These plans will be updated under the Green Fields/ Green Towns program to identify new open space opportunities. Municipalities are



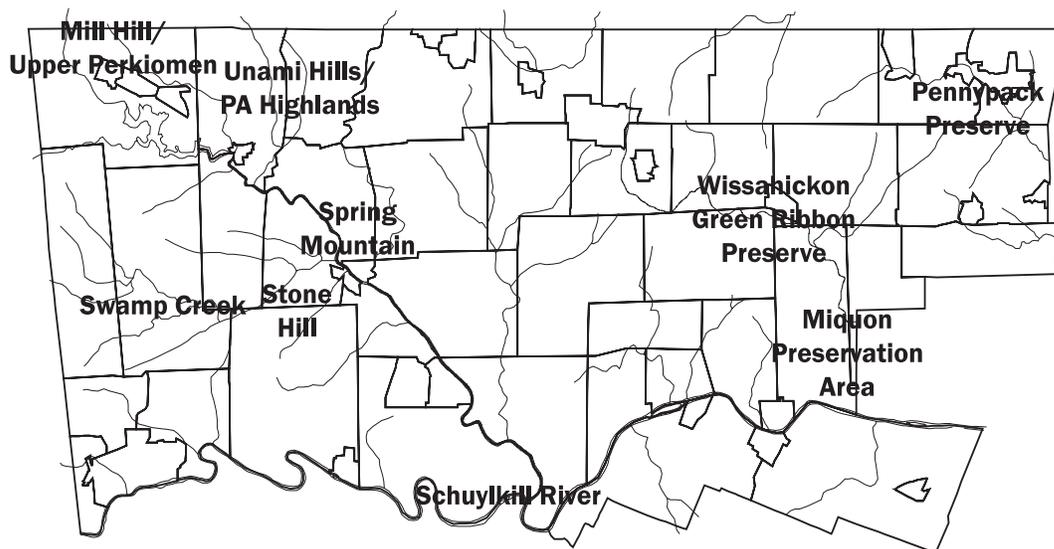
Sensitive design is important when providing public access within natural areas.

encouraged to create connected natural resource systems that would include greenways, preserved natural areas, and locations for nature study and environmental education.

### Open Space Focus Areas

Due to significant identified natural resources, concentrations of preserved land, and ongoing efforts by local and regional conservation organizations, a number of focus areas have emerged as high priority for continued conservation and preservation. These areas may overlap with county and municipal open space, private conservation lands, greenways, and in some cases regional trails. Due to their concentrated natural resources, these areas are the “focus” of public / private preservation partnerships that cooperate to balance public access and enjoyment with the protection of sensitive natural systems. Figure 16 shows the general location and name of these focus areas.

Figure 16  
FOCUS AREAS IN MONTGOMERY COUNTY



#### Mill Hill / Upper Perkiomen

Mill Hill’s prominent ridgeline contains the highest point in Montgomery County and extends into Lehigh County as well. Significant property has been preserved along the wooded ridge, and many acres of adjoining farmland have also been protected. The confluence of the Hosensack Creek with the main stem of the Perkiomen creates special opportunities to link Mill Hill with Montgomery County’s Green Lane Park, eventually yielding a connected preservation area of many thousands of acres.

#### Miquon Preservation Area

The Miquon area is a largely undeveloped section of Whitemarsh Township near the border of Philadelphia. It includes a series of scenic ravines that have been partially protected through the efforts



Mill Hill is the highest point in Montgomery County.

of the Miquon Area Preservation Society and Montgomery County Lands Trust. At the foot of the ravines are the Schuylkill River Trail and the Schuylkill River. The Miquon area adjoins the Schuylkill Center for Environmental Education which includes 500 acres in Philadelphia and Montgomery Counties.

### **Pennypack Preserve**

This “wilderness” area in Abington, Lower and Upper Moreland Townships, and Bryn Athyn Borough is a large area of predominantly preserved land that includes some of the most scenic landscapes in eastern Montgomery County. The area incorporates the county’s Lorimer Park and several municipal parks and extends into Philadelphia, where the Pennypack Greenway continues to the Delaware River. Pennypack Ecological Restoration Trust is the primary steward for this focus area.

### **Schuylkill River**

The Schuylkill River, which extends for 42 miles within Montgomery County, is one of the county’s richest natural resources. The Schuylkill River once was a working river, which led to significant development along it. As such, it is not within a natural corridor but does contain significant recreation, heritage, and natural resources along its banks. The rebirth and further protection of the river is linked with efforts to revitalize the communities along it. For these reasons, the Schuylkill River Corridor is a major focus area for Montgomery County.

### **Spring Mountain**

Spring Mountain is a prominent feature of the Perkiomen Valley with the Perkiomen Trail, areas of spectacular views, sensitive diabase landscapes, and actively used winter sports facilities. It encompasses a complex blend of preservation opportunities and connections to municipal open space, parkland around the county’s Pennypacker Mills, and historic and scenic views and vistas. The *Spring Mountain Area Conservation Plan*, prepared by Natural Lands Trust, gives guidelines for protecting this area and integrating it into the Perkiomen Greenway. Various partners, including the county, each of the surrounding municipalities, the Perkiomen Watershed Conservancy, Montgomery County Lands Trust, and Natural Lands Trust have been active in preservation efforts in the Spring Mountain area.

### Stone Hill

A Stone Hill Cooperative Agreement includes Lower Frederick and Limerick Townships, Valley Forge Audubon Society, Natural Lands Trust, and the county as partners in a focus area of preserved diabase woodlands. This unusually scenic area includes many acres of preserved lands that adjoin state gamelands, and there are a number of additional undeveloped private properties that would make connections to the Swamp Creek and Spring Mountain focus areas.

### Swamp Creek

The county's Sunrise Mill Historic Site is the anchor for a growing focus on creating a preserved greenway along the Swamp Creek. Lower Frederick Township, in cooperation with Montgomery County Lands Trust and the Perkiomen Valley School District, has concentrated on preserving land from Sunrise Mill downstream to the confluence of Swamp Creek and Perkiomen Creek. Camp Arthureeta, adjoining Sunrise Mill, is the subject of current open space preservation efforts. Upstream from Sunrise Mill, various preservation opportunities link to large nodes of preserved land in Upper Frederick and New Hanover Townships. With continuing expansion of the nearby Stone Hill Preservation Area, connections to Stone Hill and a large area of state gamelands will also become a reality.

### Unami Hills/PA Highlands

The Unami Hills, including the Unami Valley and the Ridge Valley, are consistently identified as one of the county's most significant focus areas. This large area of diabase geology and intact forest canopy extends into Bucks and Lehigh Counties and is also a part of the Pennsylvania Highlands that includes Spring Mountain, Stone Hill, and portions of Berks and Chester Counties as well. The Highlands project brings together a number of regional governmental and conservation partners, as well as Montgomery County and its local agencies and organizations.

### Wissahickon Green Ribbon Preserve

This focus area extends along the Wissahickon Creek corridor and its major tributaries and includes Fort Washington State Park and the county's Wissahickon Valley Park. A large portion of this focus area has been preserved through the efforts of



Stone Hill is a diabase woodland area.



The Unami Hills area is part of the northeast United States Highlands area.

the Wissahickon Valley Watershed Association, which has accumulated protected lands from North Wales to the county's border with Philadelphia at Fairmount Park. Current efforts are underway to protect significant portions of the Erdenheim Farm property along the Wissahickon Creek in Whitmarsh Township.

### Greenways

#### Creating Connections

Connections are the key to creating an open space system. Greenways between parks, natural areas, historic landscapes, and undeveloped nodes create a richer, more diverse habitat for nature and people than can be found at individual open space sites. Trail linkages facilitate both recreation and transportation and can be the spine of wildlife corridors as well as scenic routes between population centers and points of interest. Greenways often include a trail component but not always. In Montgomery County, greenways generally share some space with a trail or path, but sensitive natural features within the greenway may need to be carefully balanced with the type and intensity of trail use. Because Montgomery County's primary trail network is intended to accommodate multiple recreation activities and alternative transportation uses wherever possible, specific trail opportunities and recommendations have been covered in a separate chapter.

A greenway is a concept that has been enthusiastically accepted and implemented in a variety of forms throughout the country. Broadly described, a greenway is a linear corridor that connects and protects or enhances natural, scenic, or cultural features that have been identified as interesting, unique, or special in some way. A greenway may sometimes be set aside solely for the purposes of preserving open space and conserving natural features and may not always contain a trail or permit public access. Other greenways may contain a variety of public access opportunities and may expand at various locations to accommodate recreation areas, points of historic interest, and even areas of intense development. A key concept of understanding greenways is that the location and degree of public access must be appropriate for the natural environment contained in the greenway.

*Pennsylvania Greenways: An Action Plan for Creating Connections* was completed by the Pennsylvania Department of Conservation and Natural



The Schuylkill River Greenway connects towns along the river.

Resources (DCNR) in 2001. This statewide greenway plan looks carefully at the function and characteristics of a greenway. Included in DCNR's greenway definition is the statement that "Greenways differ in their location and function, but overall, a greenway will protect natural, cultural, and scenic resources, provide recreational benefits, enhance natural beauty and quality of life in neighborhoods and communities, and stimulate economic development opportunities." Montgomery County's Schuylkill River Greenway is a living example of this greenway definition, and the county shares with the Commonwealth a belief that individual greenways may be as diverse and as unique as the people and landscapes they serve.

The opportunities and recommendations identified for the greenway component of this *Open Space Plan* are compatible with the principles and recommendations of Pennsylvania's greenway plan. The state has used its greenway document as a platform for a program designed to promote greenway planning at a county level. DCNR's County Greenways and Open Space Network Planning Program encourages local greenway planning as a step toward implementing the statewide greenway plan. This program provides funding and technical assistance and recommends that "working in cooperation with their municipalities, a county's development of a Greenways and Open Space Network Plan should be integral to county comprehensive planning and implementation efforts linking the establishment of greenway corridors in a county to land use management, recreation, open space protection, and community revitalization goals." This state plan has been thoroughly reviewed to ensure that the county's greenway planning goals and objectives are consistent with those of the statewide greenway plan.

Greenways in Montgomery County can significantly enhance our quality of life. Among the many benefits that greenways provide include the ability to connect people, neighborhoods, and communities to each other and to natural areas.

**Effect on Quality of Life:** Greenways enhance a sense of local and regional identity; add positively to property values, economic development, community stability, and revitalization; and reduce traffic congestion by providing transportation alternatives.

**Environmental Protection:** Greenways yield



Greenways can provide trail corridors.



Riders on the Perkiomen Trail pass a variety of landscapes.

environmental benefits by protecting vital natural resources, scenic beauty, and groundwater, and by providing mechanisms to manage storm water runoff, soil erosion, and the effects of flooding.

**Habitat Preservation:** Greenways provide connected habitat corridors for wildlife, conserve ecosystems, and promote biodiversity.

**Recreation and Wellness:** Greenways provide recreation opportunities for intense exercise, quiet reflection, and family outings, and are a key component of strategies to enhance health and maintain wellness at all ages.

**Social Benefits:** Greenways are also a sociable gathering spot to meet friends and neighbors, undertake community projects, and teach children that nature and the environment are not only important but also fun.

Because of the extensive development throughout the county, the public's intense interest in recreation and community connections, and the relative scarcity of available open space land, it is assumed that some form of public access will be a part of each greenway. The location and character of natural features must be carefully evaluated to make sure that the public access is appropriately sited and respectful of sensitive natural resources.

In sensitive natural preservation areas where limited access is desired, public access may be limited to narrow footpaths or boardwalks and overlooks. In other greenway locations, the landscape may be suitable for multi-use recreational trails that also serve as corridors for bicycle commuters. The stewardship of conservation organizations and the assistance of local greenway advocates are an essential ingredient in the responsible use of natural resource areas within greenways.

Information about the county's natural resources is summarized in Chapter 2 of this plan. A detailed description of natural area sites identified by the Nature Conservancy can be found in *A Natural Areas Inventory for Montgomery County, Pennsylvania* prepared in 1995.

Montgomery County's 1996 Open Space Plan, *Creating an Open Space Legacy*, compares greenways to a necklace of green beads in which the string is as important as the gems that it connects. The state views its ultimate greenway network as a series of "hubs" and "spokes," a concept very similar to the county's green necklace. For Montgomery

County, the hubs of the greenway network are well represented by the components of our open space system—natural areas, parkland, preserved farmland, and historic resources—and by the equally important components of our social system—our neighborhoods, schools, villages, communities, and growth centers. The spokes of the county’s network are the greenways, trails, community walkways, nature paths, and on-road bicycle facilities that are evolving throughout the county.

Montgomery County’s most significant greenway opportunities occur along creeks and rivers, rail corridors, and utility lines. All of these corridors need additional planning, preservation, and stewardship to protect the remaining open land from development and to maximize connective opportunities. Many land preservation opportunities remain within the county’s greenway corridors.

To facilitate greenway preservation and planning, the county will identify and prioritize lands needed to create a greenway. Then the county will work with local municipalities, developers, conservation organizations, the state, property owners, and others to preserve a particular greenway. Although county efforts will be focused on the four primary greenways – Schuylkill River, Wissahickon Creek, Pennypack Creek, and Perkiomen Creek– the county will also help in the preservation of secondary greenways in response to the preservation efforts of others. In addition, the county began a new 150 million dollar open space program in 2003 that will help fund the planning and preservation of the county’s greenways. As part of this program, local municipalities must prepare open space plans that examine greenways and other open space linkages.

### Greenway Corridors

While Montgomery County’s greenways are most likely to evolve along the Schuylkill River, the major streams and their tributaries, and the rail and utility corridors that crisscross the county, other greenways can also be created by assembling a new corridor to connect open space, population areas, and other points of interest.

**Stream Corridors:** There are several major watersheds in Montgomery County and 688 miles of streams draining 482 square miles. Because of the prolific pattern of tributary streams in the county, stream corridors are a premier greenway opportunity. Land lying next to streams is less likely to be developed. The primary constraint is that low-lying lands have the potential to flood during high-water periods,



Greenways are like a necklace of green beads, where the string is as important as the gems it connects.



Railroad lines and utility corridors can be greenways.

causing property damage and a threat to public health and safety. Other constraints are imposed by wetlands, steep slopes, and rock outcrops. Government regulations protect some of these sensitive areas.

The county's composite analysis of natural features (see Figure 13) reveals many sensitive natural features grouped together in areas of the county that are undeveloped and retain natural characteristics such as low-lying lands, steeply sloped hills and ravines, and blocks of land with mature woodlands. A striking, but not surprising, pattern emerges. The greatest frequency of overlap among features occurs within and along the county's stream valleys.

A greenway along a stream will protect the stream banks from erosion and safeguard water quality. The basic benefits of preserving stream corridors are widely accepted: streams carry and dissipate floodwaters, promote water quality by filtering sediment and nonpoint pollution, foster groundwater infiltration and aquifer recharge, reduce erosion, and preserve wildlife habitat.

**Railroad and Utility Corridors:** Like streams and rivers, a rail corridor can be the spine of a greenway. Montgomery County contains an extensive network of active passenger and freight lines as well as inactive rail lines, either formally abandoned or no longer in service. A railroad does not need to be inactive or abandoned to have potential for use as a greenway or trail.

Utility corridors are uniquely suited to serve as publicly accessible greenways because they are generally free from development and pass through varied landscapes as they crisscross the county. Unlike rail lines, utility corridors do not need gentle grades, which means trail development can be more difficult in specific locations.

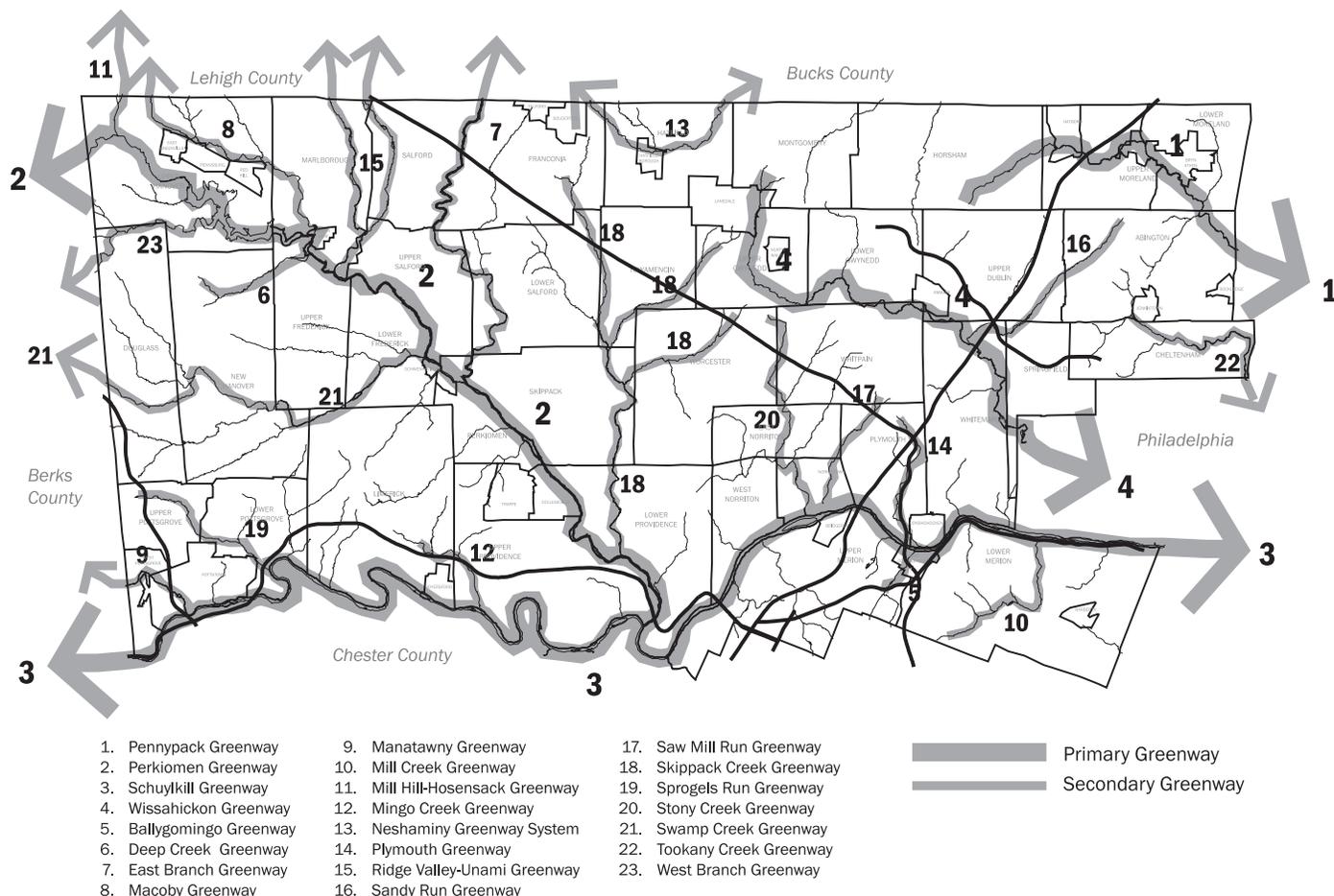
**Opportunities for Theme Greenways:** Many successful greenways throughout the country are based upon corridors of scenic, historical, and cultural amenities. In Montgomery County, most of these amenity corridors will coincide with primary greenways along natural resource or railroad and utility corridors. However, a rich opportunity exists for designating special greenway themes that will resonate with the particular interests of various groups of residents and visitors. One of many possible themes is associated with the agricultural landscape, where nodes of scenic farmland may be connected via road corridors as well as a combination of regional and local greenways, trails, and pathways. Another type of theme-oriented greenway is the proposed Route 113

Heritage Corridor, which is based upon the farming, historic settlement, and village nodes that appeared along Route 113, one of Montgomery County’s earliest roads. Theme-oriented greenways can be both local and regional in nature and will most likely continue to evolve as the county’s primary greenways provide more connections.

### Greenway Preservation in Montgomery County

The existing open space in Montgomery County includes lands that have been preserved to protect greenways. Montgomery County’s greenway network is intended to be a connected system of preserved natural, recreational, historic, and agricultural nodes that provides residents and visitors enjoyment and appropriate access to natural and scenic resources while protecting these resources for future generations. As shown in Figure 17, four primary greenways and a variety of secondary greenways make up the county’s greenway system. Almost all of these greenways involve ongoing preservation projects associated with waterways in the county.

Figure 17  
MONTGOMERY COUNTY PROPOSED GREENWAY NETWORK



Primary greenways are connected corridors that provide regional public benefit and incorporate federal, state, and/or county parks and historic sites as well as opportunities for future linkages to other counties. Secondary greenways, similar to creek tributaries, will connect to the primary greenways and, with more local benefit, are likely to be championed and implemented at the municipal or community level. These greenways, and opportunities for completing and enhancing them, are described in the following section.

### Primary Greenways

**The Schuylkill River Greenway** (*124 miles of total length, with 42 miles in Montgomery County*).

Beginning with the preservation of Valley Forge National Historical Park more than a century ago, various parcels of riverfront land have been preserved as parks by federal, state, county, and local governments. Valley Forge Park occupies both sides of the river for nearly three miles in Upper Merion and Lower Providence Townships. Two county parks, the 154-acre Upper Schuylkill Valley Park in Upper Providence Township, and the 38-acre Spring Mill Park in Whitemarsh Township preserve portions of the riverfront. Lower Pottsgrove, Limerick, Norristown, Upper Merion and Lower Merion Townships and the Boroughs of Bridgeport, Royersford, and Pottstown have municipal parkland along the river. Upper Providence Township works cooperatively with the Schuylkill Canal Association on recreation land in the Mont Clare / Port Providence area. While these properties provide very scenic vignettes of the Schuylkill River, they are disconnected locations, and until relatively recently, many areas of the river remained unprotected and unnoticed by most county residents.

Several important initiatives have been instrumental in promoting the Schuylkill River as the primary greenway for Montgomery County. The Schuylkill River Greenway Association, a nonprofit organization, was founded in 1974 to foster the creation of a greenway on the Schuylkill River extending from its source to its mouth, to ensure the preservation and prudent management of the resources of the river and its banks for scenic and recreation potential. Designated a State Heritage Park in 1995, the Schuylkill Heritage Corridor promotes the industrial legacy of the Schuylkill River Valley in Schuylkill, Berks, Chester, and Montgomery Counties and the City of Philadelphia. In 2002, this organization moved its headquarters to Pottstown



Workers enjoy lunch in West Conshohocken along the Schuylkill River.

where it is both a regional force and a local advocate for greenway planning and development.

In 1978, the Schuylkill River was designated as the first river in the Pennsylvania Scenic Rivers System, and the regional greenway approach was further strengthened by the river corridor's 1995 designation as a State Heritage Park and the formation in 2000 of the Schuylkill River Valley National Heritage Area. In the 1990s, the completion of the Schuylkill River Trail from the Philadelphia border to Valley Forge created a linear county park that provided the first continuous linkage along the river in Montgomery County. This trail has since been extended to Oaks and is planned to run, alternating between the Montgomery and Chester County sides of the river, all the way to the Berks County border. In addition, the Pennsylvania Department of Conservation and Natural Resources has identified the Schuylkill River as a major corridor on the statewide corridor map.

While Montgomery County's 1996 *Open Space Plan* identifies the Schuylkill as a primary greenway, it was not until 1999 that the county's Voyage of Rediscovery kicked off an intensive focus on creating a continuous, multifaceted greenway along the entire 42-mile section of the river between Philadelphia and Berks County. Since that time, a *Schuylkill River Greenway Stewardship Study* has assessed opportunities within the greenway area. The entire river corridor is regarded as a regional greenway partnership involving governments at all levels, public and private organizations, landowners, community revitalization advocates, and economic development interests. The Schuylkill River Greenway Association prepared the *National Heritage Area Master Plan* in 2002.

**Wissahickon Creek Greenway** (*18 miles of total length, with 13 miles in Montgomery County*).

Efforts to preserve land along the Wissahickon Creek began nearly a century ago when the City of Philadelphia established the Fairmount Park Commission which protected lands from the confluence at the Schuylkill River to Fort Washington and Militia Hill. The Commission was also concerned with protecting water resources upstream and until 1957 held ownership of the land now maintained as Fort Washington State Park. Efforts to protect the creek valley within Montgomery County began in 1957 when the Wissahickon Valley Watershed Association (WVWA) was formed. This nonprofit conservation group has been instrumental in promoting wise management of Wissahickon watershed resources and in assembling a nearly continuous mosaic of protected lands from the stream's



The Wissahickon Creek Greenway extends into Philadelphia and Fairmount Park.

headwaters to its junction with Philadelphia. The Wissahickon Green Ribbon Preserve contains many miles of connected informal hiking trails, some of which extend along tributaries to the creek.

In combination with state, county, and other conservation lands, WVWA has been successful in protecting the majority of the Wissahickon's floodplain within Montgomery County. At the Philadelphia border, the creek flows through Fairmount Park property almost all the way to its confluence with the Schuylkill. Several utility properties, a lengthy section through a private golf course, and various small residential areas remain to be secured for permanent conservation. WVWA's efforts have recently focused on providing landowners and residents with watershed information and land management strategies to soften the effects of dense suburban development adjoining the stream corridor. A Rivers Conservation Plan, recently prepared by Montgomery County, Fairmount Park, and WVWA, has identified areas of concern, potential threats to the watershed's resources, and policies and actions to conserve, restore, and enhance the watershed.

**Pennypack Creek Greenway** (*16 miles of total length, with 10 miles in Montgomery County*).

Protection of the area adjoining the Pennypack Creek, similar to the Wissahickon Creek, began with the establishment of the Fairmount Park System. Philadelphia was first to set aside some of the creek valley as open space, extending to the border between the city and Abington Township. Montgomery County's first park, Lorimer Park in Abington Township, is part of this Pennypack Creek Greenway.

The Pennypack Watershed Association was formed in 1970 to preserve and enhance the environmental quality of the Pennypack watershed. A major objective of the nonprofit organization, which has been renamed the Pennypack Ecological Restoration Trust, involves the creation of an expansive conservation area in the Huntingdon Valley section of Montgomery County. The trust has assembled more than 700 acres of protected land in Upper and Lower Moreland Townships and Bryn Athyn Borough with a variety of publicly accessible trails throughout this area.

Associated with the Pennypack Creek is an effort led by the Newtown Greenway Coalition to convert an inactive rail line, running from Bucks County to the Philadelphia border, to a recreational trail. This rail corridor parallels the creek for much of its course in Montgomery County, and the county has also identified this rail alignment as an appropriate open



The Pennypack Creek Greenway is one of four primary greenways in the county.

space corridor for recreation, conservation, and transportation purposes. SEPTA, the owner of the corridor, is currently assessing options for either restoring rail service or signing off on its use as a regional rail trail. A Rivers Conservation Plan, currently being spearheaded by the Philadelphia Water Department, will look carefully at resource conservation opportunities above the Huntingdon Valley area, where a variety of uses and extensive fragmentation of the landscape make assembling a continuous greenway more difficult.

Implementing the upper end of the greenway will require a cooperative partnership among Upper Moreland and Horsham Townships, Hatboro Borough, private landowners, and developers. Pennypack Ecological Restoration Trust will be a primary environmental consultant, advising the greenway creators on strategies to keep the natural systems intact. The county's role in creating this portion of the greenway should be as facilitator of on-going dialogue among greenway partners and as keeper of the "big picture." Because of the complex interplay of greenway opportunities in this area, attention must be focused on regional goals and how the various properties and local connections can fit together.

**Perkiomen Creek Greenway** (*32 miles of total length, with 26 miles in Montgomery County*).

The Perkiomen Valley Watershed Association, now the Perkiomen Watershed Conservancy, was founded in 1964 to address the degradation of the Perkiomen Creek and its tributaries. This organization continues to promote the environmental health of the watershed and encourages action to improve environmental quality. The Perkiomen and its tributaries form a drainage basin for a great deal of the county, and the main stem of the creek passes through 12 municipalities between the Berks County border and the Schuylkill River. The Perkiomen corridor contains some of the most scenic landscape in the county as well as three major county parks and two popular county historic sites.

In 1978 the county purchased from the Reading Company a 16.4-mile inactive rail section between Colledgeville and Pennsburg Boroughs in order to develop a regional rail trail along the Perkiomen Creek. To this end, the county has accumulated various parcels of appropriate open space, resolved issues of ownership and right-of-way, and completed an almost continuous multi-use trail between Betzwood at the Schuylkill River and Green Lane Park, 20 miles upstream. This trail creates a spine



Horseback riders spend quality time on the Perkiomen Trail.

for an extensive preservation and heritage corridor where many important natural resource parcels remain to be preserved. The Perkiomen Trail Coalition, a grassroots citizen advocacy group, has been working since 1988 to bring trail support from the hiking, biking, and equestrian communities. The Perkiomen Watershed Conservancy has also been a valuable trail advocate and will be an especially valuable partner in continuing to protect natural resources in the greenway corridor.

The Perkiomen Watershed Conservancy and Natural Lands Trust are currently preparing a *Lower Perkiomen Creek Watershed Conservation Plan*. An *Upper Perkiomen Creek Watershed Conservation Plan* has been completed under the cooperation of the Upper Perkiomen Watershed Coalition, Pennsylvania Environmental Council, and Natural Lands Trust. These plans will provide valuable information about natural resources in the greenway corridor and will make recommendations that will be helpful in prioritizing properties for acquisition and preservation.

***Local Municipalities should work with each other, the county, and non-profits to create effective greenway plans.***

#### Secondary Greenways

As a result of Montgomery County's Open Space Program and greenway and trail planning initiatives, a number of secondary, or "tributary," greenway initiatives have begun to take shape. These greenways are associated with creeks that are tributaries to the primary greenways described above. Many of these greenways include state or county-owned sites and have been the subject of municipal or conservation land preservation efforts supported by the county. All of these greenways have been the subject of advocacy, stewardship, or interest from at least several governmental, stewardship, or community organizations or from landowners in the greenway corridor. Almost all relate to more than one municipality in the county, and many extend across county borders. The greenway descriptions given below describe the potential partners and opportunities associated with each greenway. Individual greenway implementation and management plans should be created for these greenways through cooperative efforts with local partners such as elected officials, civic organizations, school districts, businesses, and neighborhood groups. For each, the county may be able to play a role as technical advisor, while projects identified in these greenway plans should be given consideration for county open space funding.

**Balligomingo/Gulph Creek Greenway** (1.5 miles of total length in Montgomery County).

The Balligomingo Creek is a high priority opportunity for West Conshohocken Borough to create a greenway and trail along a scenic steeply sloped creek corridor that enters the Schuylkill River just below the Plymouth Dam. The creek begins in Upper Merion Township as Gulph Creek, and a shared greenway project would connect the Gulph Mills area of Upper Merion and Radnor Townships with West Conshohocken Borough's community park and riverfront. West Conshohocken Borough has expressed interest in beginning a feasibility study for a pedestrian loop trail that would utilize this creek corridor. The study should be expanded to explore the entire Balligomingo corridor in both municipalities.

**Deep Creek Greenway** (3.5 miles of total length in Montgomery County).

The Deep Creek Greenway is an opportunity to create a corridor that includes several Natural Areas Inventory sites, preserved township open space, and portions of the county's Green Lane Park above Deep Creek Lake. This greenway corridor involves Upper Frederick and New Hanover Townships and extends through an area of extremely scenic woodland and narrow rural roads.

**East Branch Greenway** (20 miles of total length, with 10 miles in Montgomery County).

Lower Salford Township's success in accumulating parcels along the East Branch of the Perkiomen, combined with strong interest in the East Branch as a critical water resource, has stimulated interest in connecting county land at Pennypacker Mills up the East Branch into Bucks County. Several key connector parcels near the confluence should be preserved as soon as possible, and the context of the entire greenway should be explored in order to develop a master preservation plan. This greenway includes Skippack, Lower Salford, Upper Salford, Salford, and Franconia Townships and extends up into the heart of Bucks County. An associated Indian Creek Greenway is a local priority for Lower Salford and Franconia Townships.

**Macoby Creek Greenway** (8.5 miles of total length, with 8 miles in Montgomery County).

The Macoby Creek's potential as a greenway has been recognized in local municipal open space plans. The creek connects to the Perkiomen Creek at Green Lane Park, and the greenway includes Upper Hanover and Marlborough Townships and the Boroughs of East Greenville, Pennsburg, Red Hill, and Green Lane.



The East Branch of the Perkiomen Creek extends from Schwenksville into Bucks County.

**Manatawny Greenway** (*11 miles of total length, with 2.5 miles in Montgomery County*).

A concept for a regional park along the Manatawny Creek in Pottstown and the potential availability of a little-used rail spur that follows the creek into Berks County has raised support for a Manatawny Greenway that would intersect the Schuylkill River at Pottstown's Riverfront Park. Although a good deal of land is preserved along the Manatawny, this project is still in its infancy, requiring support not only from Montgomery and Berks Counties but also from West Pottsgrove Township. A *Manatawny Watershed Conservation Management Plan* was prepared by the Berks County Conservancy and approved by the state in 2002.

**Mill Creek Greenway** (*5.5 miles of total length in Montgomery County*).

The Mill Creek Greenway, near the confluence of the creek with the Schuylkill River, is an area of scenic ravines and historic remnants that has been the preservation focus of Lower Merion Township and the Lower Merion Conservancy. At the same time, Villanova University, at the creek's headwaters in Delaware County, works to demonstrate best management practices for sensitive riparian areas. The potential exists to create a greenway rich in natural, cultural, and educational resources. A collaborative effort between the township and the university should explore opportunities for creating a connected greenway system along Mill Creek.

**Mill Hill/Hosensack Greenway** (*5.5 miles of total length, with 1 mile in Montgomery County*).

Above Green Lane Park, the preservation of the 238-acre Mill Hill Preserve and the Hosensack Creek corridor has spurred interest in completing a greenway connection along the Perkiomen between the park and the Mill Hill ridge top. This Mill Hill Greenway would facilitate connections into Berks and Lehigh Counties.

**Mingo Creek Greenway** (*4 miles of total length in Montgomery County*).

The Mingo Creek flows through Limerick and Upper Providence Townships, entering the Schuylkill River a short distance below Royersford Borough. A local stewardship organization, Friends of Mingo Creek, provides support and volunteer assistance for riparian protection in this area. This stream corridor is under considerable pressure from suburban development, and it would take careful long-term planning to realize a greenway between the creek's headwaters and the Schuylkill River. However, the preparation



The Colebrook spur rail line next to the Manatawny Creek could be converted into a trail.

of a cooperative greenway master plan and its implementation over time would result in a special opportunity to create a model local greenway.

**Neshaminy Greenway System** (*40 miles of total length, with 5 miles in Montgomery County*).

The Neshaminy Watershed includes a relatively small portion of Montgomery County, extending from Bucks County into the North Penn area. Montgomery, Hatfield, and Horsham Townships have emphasized preservation where possible along several branches of the Neshaminy Creek. Connecting these nodes of municipal open space could create a continuous natural resource corridor in a portion of the county that is otherwise heavily developed. Creating a Neshaminy Greenway in this area will involve the cooperative planning efforts of the three municipalities and should include coordination from neighboring Bucks County municipalities. The *Upper and Middle Neshaminy Creek Watershed Rivers Conservation Plan* was prepared by the Delaware Riverkeeper Network and approved by the state in 2003.

**Plymouth Creek Greenway** (*4 miles of total length in Montgomery County*).

The Plymouth Creek is an urban stream corridor that flows through the heavily developed municipalities of Plymouth Township and Conshohocken Borough. Creating a greenway along this creek would require a shared vision and cooperative efforts of many public and private agencies and organizations. Both municipalities note the stream corridor's importance in their open space plans, and Montgomery County's proposed Cross County Trail will follow this corridor from the Schuylkill River Trail. A Plymouth Creek Greenway will create greenway connections and amenities where few other such opportunities exist.

**Ridge Valley and Unami Greenways** (*15 miles of total length of Unami Creek, with 6 miles in Montgomery County*).

The Ridge Valley and Unami Creeks form greenway corridors that are located within the broad preservation area referred to as the Unami Hills. In the Unami Greenway, a very large natural area has been created through conservation easements co-held by Natural Lands Trust and Montgomery County Lands Trust. Marlborough Township also owns parkland along this greenway. The Unami's intersection with the Perkiomen Creek creates an opportunity for a continuous greenway corridor between the Perkiomen and the Quakertown area of Bucks County. Although the Ridge Valley Creek does not



White's Mill pond is in the Ridge Valley and Unami Greenways.

flow directly into the Perkiomen, it is the subject of extensive preservation efforts by Natural Lands Trust and Salford Township. The Ridge Valley Greenway also extends a considerable distance into Bucks County. Because of the special qualities of the streams and their surrounding natural landscapes, these associated greenways should focus around scenic views, preserved natural resources, and low impact recreational paths.

**Sandy Run Greenway** *(6.5 miles of total length in Montgomery County).*

The Wissahickon's major tributary in Montgomery County, the Sandy Run, is the subject of a recent Rivers Conservation Plan, and an ongoing effort by the Sandy Run Coalition to work with the county on a greenway of preserved lands and appropriate trails between the creek's headwaters in Abington Township and its confluence with the Wissahickon near Fort Washington State Park. The greenway also extends through portions of Upper Dublin and Springfield Townships. This project has the support of Wissahickon Valley Watershed Association, the county, and four municipalities that share its corridor. There is already a great deal of preserved land along this greenway, and additional parcels are likely to be acquired through state rivers conservation funds. The Sandy Run Creek Watershed Conservation Plan was approved in 2004.

**Saw Mill Run Greenway** *(4 miles of total length in Montgomery County).*

The Saw Mill Creek corridor is another opportunity for creating a greenway in an urban area with few other options for linking natural resources. The Saw Mill Run extends from its headwaters in Whitpain Township through Plymouth Township, across a corner of East Norriton Township, and then through Norristown Borough where it enters the Schuylkill River. Plymouth Township and Norristown Borough each have significant areas of preserved land along this creek. Creating a continuous Saw Mill Run greenway may require diverting pathways to nearby sidewalks in locations where extensive development has already taken place.

**Skippack Creek Greenway** *(14 miles for the main stem in Montgomery County).*

The Skippack Creek and its tributaries, the Zacharias and Towamencin Creeks, create a greenway of considerable preserved land. The bulk

of the land along the Skippack Creek and its west branch has been protected as a greenway by the state and Lower Salford Township. Evansburg State Park preserves the entire distance of the main branch of the creek where it passes through Skippack and Lower Providence Townships, with the exception of a short segment upstream from the Skippack's confluence with the Perkiomen Creek. This section is protected on one side as municipal parkland by Lower Providence Township. The 1985 draft master plan for Evansburg State Park recommends the development of a multiuse trail for pedestrians, bicyclists, and equestrians through almost the entire length of the park. This trail would link together picnicking areas and activity areas in the park and would connect to the Perkiomen Creek Greenway and Trail near Arcola.

The Zacharias Greenway in Worcester Township contains a variety of township-owned parcels, as well as permanently conserved private properties and the county's Peter Wentz Farmstead Historic Site. Towamencin Township has been actively working on creating a Towamencin Greenway and has preserved the majority of the creek corridor through the township. Because the headwaters in Upper Gwynedd Township are located in an area of rapid development, greenway strategy is likely to focus on sound land management and riparian protection.

**Sprogels Run Greenway** (*5 miles of total length in Montgomery County*).

Both Upper and Lower Pottsgrove Townships have expressed interest in creating a Sprogels Run Greenway that would connect nodes of parkland and tributary stream corridors with the Schuylkill River and Greenway. Each township has preserved land along this corridor, and Upper Pottsgrove is preparing a Sprogels Run master plan to indicate additional acquisition and natural resource preservation priorities. This plan will involve extensive coordination with Lower Pottsgrove. Sprogels Run is addressed in the *Manatawny Watershed Conservation Management Plan*, which was prepared by the Berks County Conservancy and approved by the state in 2002.

**Stony Creek Greenway** (*8 miles of total length in Montgomery County*).

This greenway has the potential to link portions of Worcester, Whitpain, and East Norriton Townships with the Schuylkill Greenway at Norristown. The county's Norristown Farm Park and Norristown's Elmwood Park and Zoo and

Riverfront Park are significant preserved areas along this greenway. In the townships, the future discontinuation or augmentation of rail service on the Stony Creek Rail Line will determine whether this greenway includes regional rail trail activities or becomes primarily a corridor for riparian protection. Within Norristown, the Stony Creek Greenway has the potential to become an urban greenway that provides scenic enjoyment and fishing and walking opportunities. Stony Creek Anglers, a local stewardship organization, provides a great deal of volunteer support for the creek and its associated greenway.

**Swamp Creek Greenway** (*16 miles of total length, with 12 miles in Montgomery County*).

Interest in the Swamp Creek Greenway, branching off the Perkiomen at Spring Mountain, has recently been sparked by conservation successes in the Stone Hill Preservation Area and by efforts to preserve the Camp Arthureeta, which adjoin the county's Sunrise Mill Historic Site. Preservation in this area has strong support from Lower Frederick Township, Montgomery County Lands Trust, and a strong contingent of local citizen advocates.

This greenway has the potential to become one of the most extensive in the county. Above Sunrise Mill, the creek flows through Limerick, Upper Frederick, New Hanover, and Douglass Townships, and then into Berks County. Areas of preserved open space belonging to Limerick, Upper Frederick, Lower Frederick and New Hanover Townships, as well as lands owned by the Goschenhoppin Historians and the Girl Scouts, create a considerable corridor of open land. Douglass Township has the opportunity to extend this corridor as it updates its land use regulations. Valley Forge Audubon Society and Montgomery County Lands Trust have been instrumental in supporting preservation along the greenway in the Sunrise Mill area, and a preservation master plan project has been proposed for that section of the greenway. Perkiomen Watershed Conservancy has been active in promoting stewardship in the Douglass and New Hanover Township area.

**Tookany Creek Greenway** (*12 miles of total length, with 7 miles in Montgomery County*).

This scenic creek corridor in Cheltenham Township already contains many parcels of preserved land. Cheltenham has emphasized the creation of a greenway and trail along the creek and during the county's first round of open space funding acquired



The Swamp Creek Greenway includes Sunrise Mill.

High School Park, a major area along this greenway. As the creek approaches the Philadelphia border, it flows through two country clubs, and once it enters Philadelphia, it becomes the Tacony Creek. Cheltenham Township prepared a *Tookany Creek Rivers Conservation Plan*, which was approved by the state in 2004. The conservation focus by the township and city provides exciting regional greenway opportunities.

**West Branch Perkiomen Greenway** (*11 miles of total length, with 4 miles in Montgomery County*).

The West Branch of the Perkiomen is a scenic corridor of rural land that extends between Green Lane Reservoir generally along the boundary between Upper Hanover and Douglass Townships to the Berks County border. Both of these municipalities identify the West Branch as an important natural resource preservation corridor. A continuous greenway would provide a spine that would link additional natural areas as they are able to be preserved.

### Roles and Responsibilities for Greenway Creation

Greenways are by nature a blend of various opportunities, constituencies, resources, and points of interest. This multi-faceted characteristic of greenways means that no one entity can be responsible for the creation of a greenway. In Montgomery County, each greenway will require the combined efforts of many cooperators. The county will likely play a larger role in the implementation of the primary greenways and those secondary greenways that have a direct relationship to county parks and historic sites.

Municipalities should take an active role in the creation of greenways because they have the ability to assemble portions of the greenway through the development process as well as to purchase parcels as open space nodes. Municipalities can also be the local eyes and ears of the growing greenway, monitoring the status of property ownership and facilitating communication between the property owner and the county or conservation organization. Conservation organizations should focus on conserving the natural resources within the greenway, taking the lead in preserving properties where conservation rather than public use is the primary objective.

### Public Access in the Greenway

In each of the greenways described above, appropriate public access should play an integral part. Determining the location of that public access

involves several main considerations. Public use in the greenway should provide a comfortable and safe experience for the greenway visitor, allowing enjoyment of the natural, scenic, or historic features for which the greenway was created. At the same time, public use should respect surrounding privacy and the sensitive landscape characteristics that contribute to the natural system. Finally, public access should make meaningful connections to neighborhoods, communities, and facilities outside the greenway so that the greenway becomes part of the countywide open space network.

### Expansion of County Parks and Historic Sites

Montgomery County's eight parks and five historic sites are the anchor points for the county's open space system. An additional site, Spring Mountain, although not maintained with park improvements, is a significant undeveloped natural area and is thus included in this section. Greenways, which include a mixture of county, municipal, and privately owned open space, and individual natural areas that may or may not be under county ownership, are discussed earlier in this chapter. County trails, which are a unique type of county park, are separately covered in the next chapter.

The following overview considers both the county's parks and historic sites as part of the county park system because each type of landscape is used by visitors for park-type purposes. In developing enhancement strategies for each location, the site's existing function and its relationship to the larger trail and greenway network and regional open space system have been evaluated.

Montgomery County's parks and historic sites encompass more than 5,000 acres of natural and improved land. Each park site is associated with a major stream or river corridor (or a reservoir in the case of Green Lane Park) and includes large areas of fields, meadows, and woods, as well as trails, interpretive facilities, and other park amenities. Each historic site is centered around a theme relating to interpretation of a life style of a particular period in history so that the visitor can experience the historic context as well as the historic building. With the exception of Pottsgrove Manor, a small historic site closely surrounded by urban development, the county's historic sites include natural landscapes and appropriate amenities that are used for passive recreational enjoyment. All of the parks and historic sites are directly adjoining, or near to, an existing or planned county trail/greenway.



The county's open space system includes eight parks . . .



. . . and five historic sites.

This combined system of parks and historic sites plays a major role in the quality of life in Montgomery County. The traditional role of parks as independent oases for recreation and relaxation has expanded to meet the changing recreation preferences of the growing population. The county parks have become important elements in a large network of open space, where the connections are as important as the destinations. As land is lost to a sprawling development pattern, county parks are taking on a new importance because of the natural resources and undeveloped spaces they provide. These open areas provide living laboratories for environmental education programs, sites for nature study, and opportunities for interpretation of both the natural and cultural landscape.

Montgomery County's parks and historic sites are significant open spaces whose natural features are vital to the health of the region's environment. These large woodland, meadow, and stream corridor areas improve air quality, filter pollutants from groundwater supplies, mitigate storm water runoff problems, and provide habitat for birds and other animals.

As the character of Montgomery County continues to change from rural to urban/suburban, it is critical that Montgomery County's parklands be buffered from the pressures of increasing population and development. At the heart of long-range plans for managing or expanding the county's park system must be effective techniques for protecting the health and integrity of existing park areas. The county is currently developing a strategic plan for the overall management of the county park system. Individual park master plans should be regularly reviewed and updated to ensure that the park's mission and management policies balance the public's open space and recreational needs with the protection of sustainable natural systems. These plans should also address land maintenance strategies that protect natural resources.

Areas of private open land adjoining each park are of prime importance in protecting its viewshed, balanced ecosystem, and unique site character. These adjoining sites can help to reduce or absorb the pressure of increasing activity within the park. They may also contain and preserve additional important natural features of ecological, scenic, or watershed significance. For each park and historic site, high priority should be given to preservation of abutting parcels that buffer, complete, or continue



Festivals draw crowds to Green Lane Park.

***In 2004, the county began a master plan process for all the county parks, trails, and historic sites. These master plans, along with an overall strategic plan, will examine the administration of the county's open space system.***

the park landscape. Priority should also be given to non-abutting properties that preserve special scenic, natural, or historic features integral to the park experience, or that create or complete connections to other significant areas of open space.

### The Role of Montgomery County's Parklands

The county has traditionally protected park areas that are of countywide significance and benefit, with emphasis on natural and scenic landscapes that provide visitors the opportunity to enjoy a special or unique place with low impact on its sensitive natural characteristics. Open areas are maintained for informal athletic activities, and facilities for organized sports are generally not provided. Existing and future county parklands will continue to emphasize natural resource protection, scenic enjoyment, environmental education, and passive (low impact) rather than active (organized) recreation. Passive recreational activities include walking, hiking, horseback riding, bird watching, nature study, picnicking, nonmotorized boating, bicycling, fishing, and similar pursuits whose quality of experience is enhanced by the park's surroundings. County parks will also continue to offer sightseeing opportunities, enjoyment of historic landscapes, community programs, and events tied to the site's unique character. Trails along and through these park sites will be designed to accommodate large numbers of recreational users in a way that buffers the park's sensitive natural context. Intensive recreational activities requiring formal athletic fields or structures are generally not appropriate for the county's park system.

### Expansion, Enhancement, or Connection of Individual County Parks and Historic Sites

The following evaluation of each park and historic site identifies opportunities that will enhance the site's objectives and further the mission of the county park system. In general, any property that adjoins or potentially buffers a park site is considered important and should be evaluated for its acquisition or preservation potential whenever it becomes available or appears to be threatened by development or uses that would impact the park. In addition, specific properties that are considered essential to completing the park's landscape or protecting its natural systems or scenic context should be identified, prioritized for appropriate action, and earmarked for the most effective protection strategy.

Protection does not necessarily mean fee simple acquisition by the county. Other successful land protection mechanisms may include acquisition by a municipality or conservation organization, protection through permanent conservation easement, and site sensitive

development that conserves and protects significant natural and scenic features. For each park or historic site, priority opportunities are indicated and keyed to explanations on individual site maps. In most cases, these numbers refer to a general area rather than to a single or specific property.

**Audubon Wildlife Sanctuary/Mill Grove**

*Location:* Pawlings Road in Lower Providence Township.

*Acreage:* 198 acres.

*Description:* This was the first home in America of famed artist/naturalist John James Audubon. Trails for hiking and bird watching meander through fields and woodlands that surround the historic house, barn, and exhibit areas. The site is located along the banks of the Perkiomen Creek directly across from Lower Perkiomen Valley Park. The primary mission of this historic site has been to provide interpretive programs that display nature study from a historical perspective. The site's trails are intended to provide a quiet experience of woodland and wildlife. High priority should be given to the preservation of the site's natural character.

The county has just begun a partnership with the National Audubon Society, which will lease the historic buildings and 67 acres of the surrounding property in order to establish an art gallery and museum. The house and accessory buildings will be fully restored, and Mill Grove will become a flagship for the society's network of 80 Audubon centers throughout the country.

*Opportunities:* The Perkiomen Creek (1) creates a natural buffer from the more active Lower Perkiomen Valley Park (2). The Perkiomen Trail (3), which crosses the creek a short distance from the site, now provides a direct link between Valley Forge National Historical Park (4), the Schuylkill River Trail (5), and Lower Perkiomen Valley Park. A 1.5 mile loop trail (6), called the Audubon Loop and planned between Mill Grove and the Perkiomen Trail, will make the historic site accessible as a regional natural resource and heritage tourism amenity, as well as giving county residents the option of a traditional park area and an historic experience within a short distance of each other.

A large area of privately owned undeveloped land is located between Mill Grove and Valley Forge National Historical Park lands (7). Preservation of these properties would buffer and enhance both the county and national park properties, facilitate the secondary trail system, protect a very large intact scenic landscape, and create a focal area for heritage tourism and recreation. The National Park Service is currently preparing a long-range master plan for Valley Forge National Historical

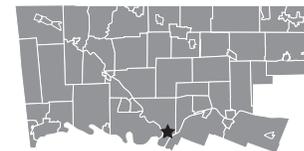
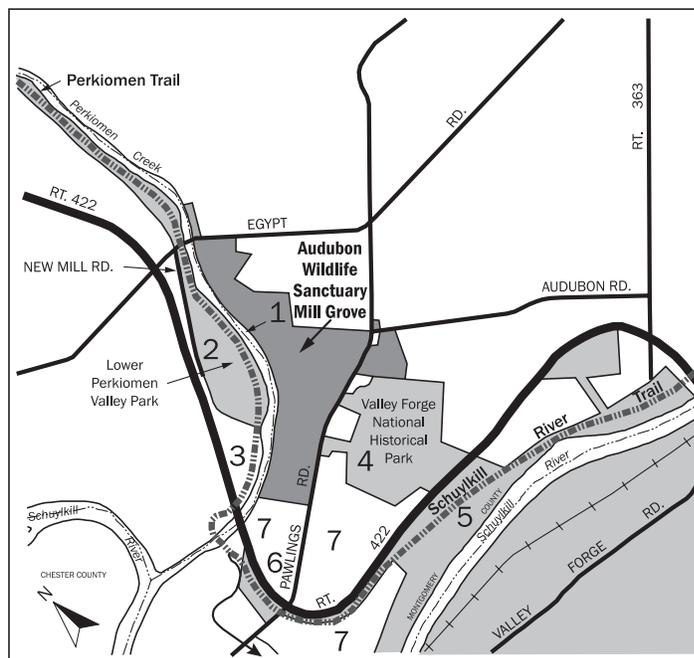


Figure 18  
AUDUBON WILDLIFE SANCTUARY/MILL GROVE



(See text for explanation of numbers 1-7)

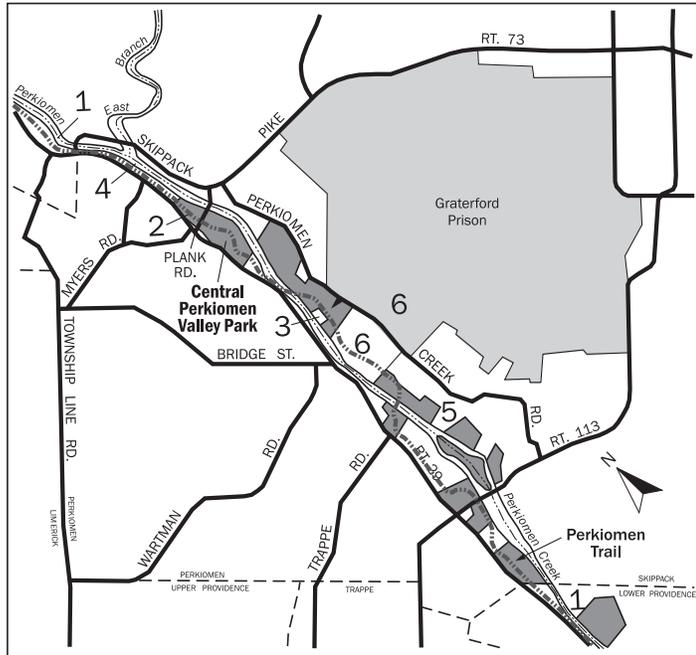


John James Audubon lived at Mill Grove.



Figure 19

**CENTRAL PERKIOMEN VALLEY PARK (CPVP)**



(See text for explanation of numbers 1-6)

Park. This is an excellent opportunity to coordinate park expansion strategies on a local and regional basis.

**Central Perkiomen Valley Park (CPVP)**

*Location:* Route 29 in Perkiomen, Skippack, Upper Salford, and Lower Providence Townships and Collegeville Borough.

*Acreage:* 506 acres.

*Description:* CPVP is a linear series of activity areas along the Perkiomen Creek (1). These locations are now continuously linked by the Perkiomen Trail, which runs through the park areas. Many traditional park facilities at CPVP, including pavilion and fishing areas, are accessible to persons with disabilities. A historic mill building overlooking the creek at Plank Road is available for group meetings and private events. Additional facilities include soccer fields, picnic groves, woodland walking paths, and creek access for fishing. Camp Rainbow, a county-owned camp in Upper Salford Township for underprivileged children, is located on CPVP land.

*Opportunities:* The Perkiomen Trail (2) now makes CPVP accessible to residents from around the region and links the park areas together and to many other natural, recreational, and heritage destination points. While this increased activity puts pressure on the park's resources, it also creates many options for sharing facilities, programming, and management strategies with other sites. Since expansions and enhancements to CPVP will also buffer the trail and protect the quality of the trail experience, it is important to capitalize on opportunities to create local connections, expand scenic views and creek access, and protect additional lands in the park / trail corridor. Any properties that adjoin existing CPVP properties and are considered essential to the future needs of the Perkiomen Greenway and Trail should be considered of prime importance.

Opportunities include filling in gaps in county parkland along Hollywood Drive (3), extending preserved land along the east side of the Perkiomen Creek between Plank Road and the Route 73 Bridge (4), acquiring several privately owned properties along Perkiomen Creek Road (5), and working with Graterford Prison to ensure that any excess lands along the creek are permanently preserved for open space (6). Camp Rainbow in Upper Salford Township lies between the Perkiomen Creek and Clemmers Mill Road. Several properties flanking the entrance drive off Clemmers Mill Road are important for comfortable access to the camp and should be considered for preservation if they become available. Opportunities that are located between the Camp Rainbow and the Route 73 Bridge will be included in the section about Spring Mountain.



This historic house at Central Perkiomen Valley Park is available for private events.

**Green Lane Park (GLP)**

*Location:* Route 29, adjacent to Green Lane Borough, Upper Hanover, Marlborough, and Upper Frederick Townships.

- Acreage:*Total acreage ..... 2342 acres
- Fee Title Lands ..... 1101 acres
- \*Water Surface Use Easement 805 acres
- \*Land Easement ..... 436 acres
- (\* Under lease/easement agreement with Philadelphia Suburban Water Company)

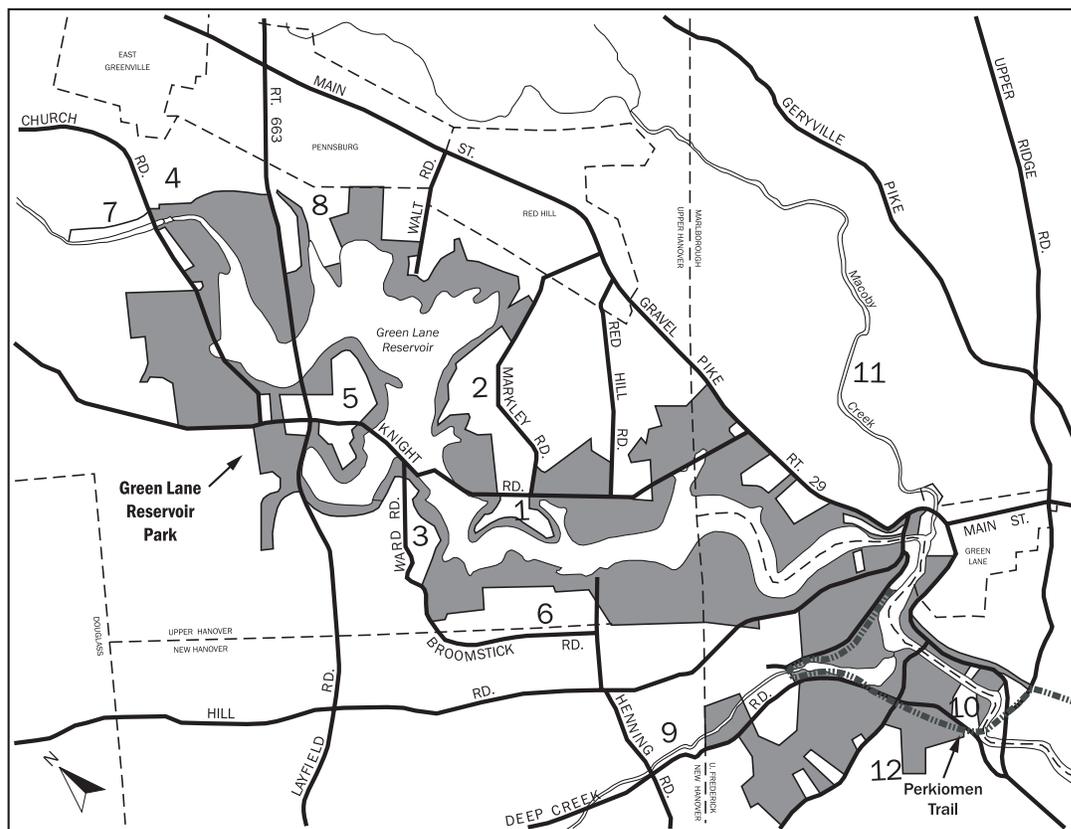
*Description:* Green Lane Park’s mission is to promote the protection of open space, with enjoyment and wise use of the park’s natural resources. The park is

a combination of lands formerly administered as two separate county parks—Green Lane Reservoir Park and Upper Perkiomen Valley Park. The multiuse park is centered around three major water features—Green Lane Reservoir (a very large system of bays and coves), Knight Lake, and Deep Creek Lake. The Perkiomen Creek enters the reservoir at the upper end, forms a narrow neck at the lower end that connects to the other two lakes, and continues downstream from the bottom of Knight Lake.

Each of the water areas is used for fishing, boating, and ice-skating. Surrounding woodlands, fields, and wetlands provide opportunities for camping, nature study, riding horses, hiking, cross-country skiing, picnicking, and playing softball. Green Lane Park is the terminus of the Perkiomen Trail, which will connect with the park trail system at the lower end of the park. Green Lane Nature Center is located within the park, north of the Borough of Green Lane.



Figure 20  
**GREEN LANE PARK (GLP)**



(See text for explanation of numbers 1-12)



Boating and fishing are popular activities at Green Lane Park.

*Opportunities:* Although the overall park is large enough to accommodate a variety of activities, private properties that adjoin the park are critical for a variety of reasons including preservation of scenic and natural resource buffers and protection of water quality in streams and lands that drain into the lakes. In the reservoir area, some private properties around the reservoir are located close to the water's edge, leaving only small strips of land for park use along the lake. Because of the undulating nature of the reservoir, properties that extend into or overlook the water are especially visible from many directions. In this section of the park, a primary open space strategy should be to secure the permanent preservation of private properties whose development could interrupt the scenic views surrounding the reservoir. The role of each property in maintaining the integrity of the park's character should be evaluated, with emphasis on filling gaps and expanding the currently narrow buffer areas around the water.

In the park areas around Knight and Deep Creek Lakes, where recreational activity and surrounding development tend to be more intense, the extensive areas of preserved woodland create a more protected scenic landscape but also play a critical role in water quality within the lakes. Adjoining or nearby properties that will buffer the lakes against the impact of development should be considered high priorities for permanent preservation, with emphasis focused on the role of properties that would offer protection to Deep Creek and Macoby Creek as they flow toward the lake and main-stem creek areas.

Specific high priority areas for additional preservation include a peninsula near the Knight Road Bridge (1), lands along Markley Road (2), properties off Ward Road with rear boundaries very close to the water's edge (3), farmland along Layfield Road, and land on Knilkher Road near the fly-fishing area (4). Additional properties of interest are located on Knight Road off Route 663, at the end of View Road (5), and private woodlands at the end of Swinging Bridge Road and along Broomstick Road (6). Land along the Perkiomen in the fly-fishing area (7) is extremely important to the integrity of the stream corridor as well as the implementation of the main-stem greenway described in Upper Hanover Township's *Open Space Plan*. This area includes vacant land owned by the Goshenhoppen Church. Property along the reser-

voir used by the sewage treatment plant (8) is also key to maintaining continuous open space along the water, and its permanent preservation should be confirmed. Finally, land that contributes to the scenic value of roads, such as Hill Road and Broomstick Road, which lead into or border the park, should be considered for preservation.

In particular, properties along Deep Creek Road (9) between Henning Road and the park boundary and in the Matus Road area should be evaluated for opportunities to permanently preserve a greenway along Deep Creek. Additional private properties along the Perkiomen Creek (10) in the area bounded by the park, Route 29, Perkiomenville Road, and Deep Creek Road should also be evaluated for their ability to protect the Perkiomen Creek corridor. Finally, the health of the Macoby Creek (11) as it crosses Route 29 near Route 63 is vital in contributing to the health of Knight Lake. Any opportunities to enhance a greenway in this area should be considered high priority.

As with each county park, land holdings should be assessed as they become available to determine if they are important for protection of either the natural resources or the viewshed within the park. Additionally, Snyder Road (12), as it crosses Becker Road and continues into the park toward the lake area, is an extremely scenic approach to the park. The south side of the road, which is primarily private property, should be considered high priority for preservation of its wooded edge.

**Lorimer Park**

*Location:* Moredon Road near Huntingdon Pike, Abington Township.

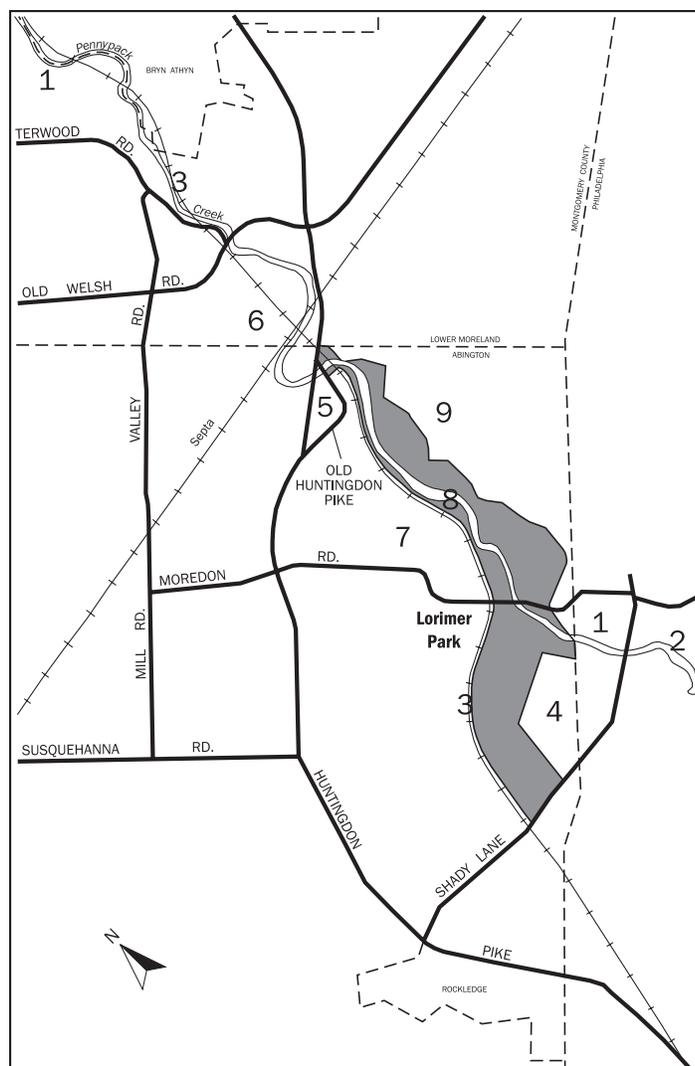
*Acreage:* 213 acres.

*Description:* Lorimer Park has six miles of hiking trails and bridle paths traversing woodlands and meadows, with cross-country skiing and sledding in winter. A large picnic grove overlooking the Pennypack Creek provides access for fishing and is a popular group photo location. A proposed trail along an abandoned rail corridor will eventually connect Lorimer Park with the Pennypack Wilderness Area to the north.

*Opportunities:* Lorimer Park is an oasis of scenic wooded open space in the eastern end of the county. Because of the general density of development in that area, the park is unique in size as well



Figure 21  
LORIMER PARK



(See text for explanation of numbers 1-9)

as in the scenic and ecological quality of its rocky outcrops and picturesque creek corridor. The park is a major contributor to the integrity of the Pennypack Creek Corridor ecosystem (1). The park's proximity to Philadelphia and to Fairmount Park's Pennypack area makes it an important open space connection from Bryn Athyn to the Delaware River (2).

Future pressures from surrounding development make it vital that Lorimer Park remain ecologically intact. Increased park use has made parking a priority. Additional parking areas have been expanded into healthy woodlands. The park's location along the proposed Pennypack Trail (3) will increase the demand for parking and bring additional trail and picnic area users into the park. Although a good deal of the park's perimeter has been developed for residential housing units, there are several contiguous properties which could relieve the pressure on the park's core open space. Conversely, if developed, these sites would increase the activity in an already-overtaxed natural area.

Fox Chase Farm (4), part of the Fairmount Park system, buffers Lorimer Park on the Philadelphia side and creates a gateway to the Pennypack Trail and Greenway extending all the way to the Delaware River. Shared planning and programming between these two parks will enhance the scenic, ecological, and educational values of both open space nodes. The relationship between Lorimer Park and Pennypack Trust's large area of natural lands on the north end of the park is not as direct. Several other sites in this area should be considered for preservation. There is a bridge of great scenic value over the Pennypack Creek at the end of Old Huntingdon Pike (5), close to the rail corridor. Preserving this site would secure an important connection between the park and the rail-trail and would close a gap in the Pennypack Greenway. This site is also near the Bethayres Swamp (6), identified as a significant natural area, and could link the park to this natural area.

An equally important site is the property owned by the Sisters of the Holy Redeemer (7). This open land is critical to maintaining the integrity of the stream corridor and could add valuable open space and parking opportunities. This land may be under development pressure and should be considered a first priority for open space preservation.

The status of the portion of Lorimer Park used



Lorimer Park has scenic outcroppings and a footbridge crossing Pennypack Creek.

as a Boy Scout camp (8) should be clearly defined to ensure the continued pristine quality of the creek and woodland. The several wooded private perimeter properties (9) that extend into the park should be preserved. The deer population in Lorimer Park has reached a critical level, which is threatening the long-term stability of the woodland. Any additional development along the park perimeter will intensify the woodland damage. This should be a major consideration when evaluating properties surrounding Lorimer Park.

**Lower Perkiomen Valley Park (LPVP)**

*Location:* Mill Road off Egypt Road near the Oaks Interchange of Route 422 in Upper Providence Township.

*Acreage:* 98 acres (LPVP is also responsible for the maintenance of Spring Mill Park, the Schuylkill River Trail, and a portion of the Perkiomen Trail).

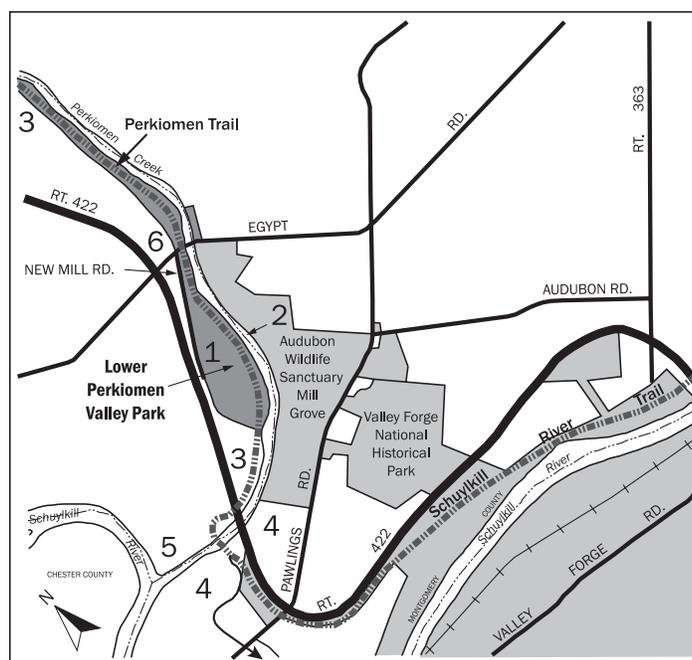
*Description:* LPVP has large picnic groves along the Perkiomen Creek, pavilions, playgrounds, a bandstand, and over 20 acres of open fields for informal athletic activities. The park is on the opposite side of the Perkiomen Creek from the 187-acre Audubon Wildlife Sanctuary. The Perkiomen Trail connects this park with Central Perkiomen Valley Park to the north and with the Schuylkill River Trail and Valley Forge Park to the south.

Lower Perkiomen Valley Park is dedicated to providing traditional park activities such as picnicking, children’s play, softball, and band concerts. Intense use puts considerable pressure on the park’s natural resources. Although it sits directly across the Perkiomen Creek (1) from the undeveloped land of Audubon Wildlife Sanctuary (2), the park has no direct connection to the sanctuary land. Egypt Road, Route 422, and the creek keep the park self-contained, with few opportunities for preserving adjoining open land.

*Opportunities:* With the implementation of the Perkiomen Trail (3), Lower Perkiomen Valley Park has become a hub for park and trail users. The proposed extension of the Schuylkill River Trail from Oaks to Mont Clare will make this park even more of a regional hub. Private properties, including lands owned by adjoining industrial / commercial centers, that would facilitate buffering of the Perkiomen Trail and the impacts of additional



Figure 22  
LOWER PERKIOMEN VALLEY PARK (LPVP)



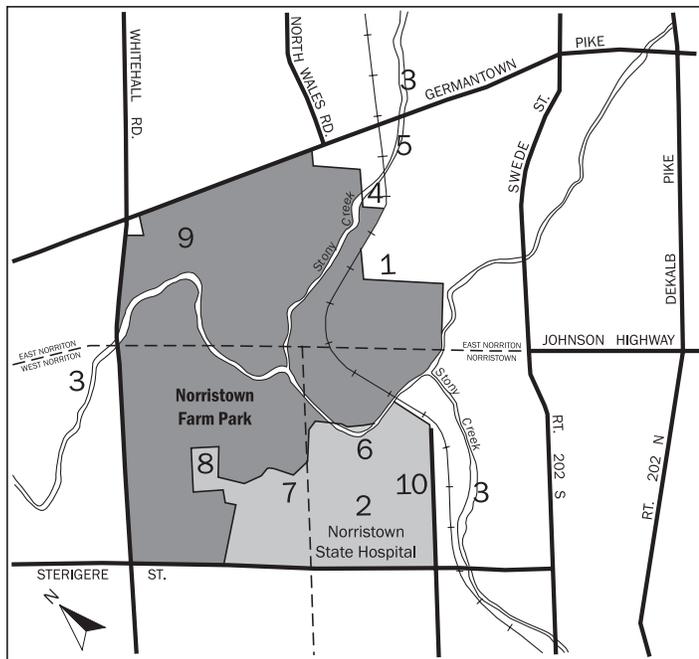
(See text for explanation of numbers 1-6)



Lower Perkiomen Valley Park contains open fields for a variety of game opportunities.



Figure 23  
NORRISTOWN FARM PARK



(See text for explanation of numbers 1-10)

visitors to the park, should be considered of primary importance for preservation. A connector trail linking the park and Audubon Wildlife Sanctuary should be implemented in a way that protects the unique character of each site and preserves the sensitive creek corridor. Land across the creek, currently owned by St. Gabriel's Hall (4), property below the trail bridge between Oaks and the creek's confluence (5), and land along the creek above Egypt Road (6) should be given high priority for possible expansion of the park.

### Norristown Farm Park

*Location:* West Germantown Pike and Whitehall Road, East Norriton and West Norriton Townships and Norristown Borough.

*Acreeage:* 690 acres. The county leases this site from the Commonwealth of Pennsylvania. The state and county both contribute funding for park improvement, maintenance, operation, and administration.

*Description:* The park contains 100 acres of woodland, 450 acres of farm fields leased for agriculture, a large dairy barn with associated buildings, a separate hay barn, and six houses. Two branches of the Stony Creek converge at the site. A visitors center, a long paved loop trail with trailheads located at the park headquarters and along Whitehall Road across from Norristown Area High School, picnicking pavilions, nature study paths, and a trout nursery maintained by Stony Creek Anglers are some of the recreational opportunities provided at the park. Fishing ponds and wetlands are interspersed among agricultural fields that provide a demonstration of farming techniques in an urbanized area.

*Opportunities:* Norristown Farm Park provides a large reservoir of open space in one of the most populated areas of the county. It is unique not only for its size but also as a snapshot of the rural farming landscape common in the earlier part of the century. It must carefully integrate the development of traditional park activities into this agricultural landscape that has been enjoyed by local community residents. A stewardship organization, the Farm Park Preservation Association, has begun to sponsor events, raise funds and awareness of the park's significance, and generally advocate for permanent protection of the landscape in its current form. This volunteer

support is an excellent model for future friends organizations at other county parks. Because this property is still under the ownership of the Commonwealth, its permanent preservation is not necessarily guaranteed. This causes significant challenges in long term planning and funding of park improvements. The status of the property and its potential ownership and preservation must be clarified. The state may want to dedicate this park to Montgomery County.

The park encompasses sufficient area to accommodate the public use areas proposed in the park master plan without undue pressure on its natural resources. Busy public roads border the park on two sides. Some parcels of land along the East Norriton park boundaries (1) should be added to the park when available. Any changes to the status and use of Norristown State Hospital (2) will create both additional open space opportunities and potential threats to the park's landscape. The county should participate in ongoing discussions and decisions about any future use of the hospital property.

The lands along the Stony Creek (3) are of primary importance and are part of a potential greenway beginning in Norristown Borough and extending through East Norriton Township into Worcester and Whitpain Townships. Protection of the stream corridor is important for water quality and flood control. Lands that are essential to the integrity of this stream corridor include a 4.5-acre piece of stream corridor (4) at the north-east corner of the park, a 38.5-acre property (5) at the east side of the farm park, and a linear area along the creek (6), which is part of the Norristown State Hospital grounds. Each of these properties is vital to the health of the stream corridor and should become permanently preserved as part of Norristown Farm Park.

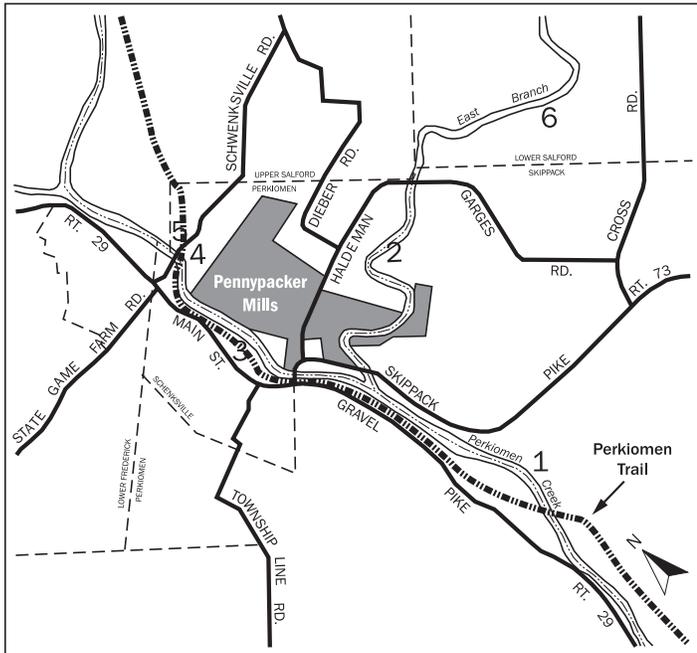
Additional perimeter parcels important to the park include a 16.5-acre farmstead site (7) on the grounds of the state hospital and a 3.7-acre beech woodland (8) adjoining the defunct state hospital reservoir. The reservoir should be evaluated along with the woodland for future consideration. Four out-parcels along Whitehall Road and Germantown Pike (9), which are owned by the Pennsylvania Department of Public Welfare, are historically part of the farm landscape and should be incorporated back into the farm park. The Norristown Farm Park Trail (10) uses local sheets to connect the farm park with the Schuylkill River Trail.



Norristown Farm Park includes long vistas across an agricultural landscape.



Figure 24  
PENNYPACKER MILLS



(See text for explanation of numbers 1-6)

### Pennypacker Mills

*Location:* Haldeman Road in Perkiomen Township.

*Acreage:* 142 acres.

*Description:* Pennypacker Mills was the home of Pennsylvania Governor Samuel W. Pennypacker in the early 1900s. The historic mansion is preserved as a turn-of-the-century country gentleman's estate. In addition to tours of the historic house, interpretive events take place on the grounds throughout the year. Although the primary mission of Pennypacker Mills is to provide historical interpretive programs, the mansion is surrounded by open land, which includes traditional estate grounds, meadows, and woodland.

*Opportunities:* The site's location is unique because it adjoins two major creek corridors, the Perkiomen (1) and the East Branch of the Perkiomen (2). Each of these creek corridors plays a major role in the health of the entire watershed, with the confluence of the two being exceptionally scenic as well. Evaluation of future needs should focus on preserving the integrity of the creek corridors as well as on preservation of the intact historic landscape.

The site's location is also important in relation to the Perkiomen Trail, which makes Pennypacker Mills an important node in a regional recreation / heritage tourism corridor. Lands along the creek in Schwenksville Borough (3) are now preserved through implementation of the trail, which crosses the creek at Park Avenue and continues past the Spring Mountain Preservation Area. This context makes it important to create a continuous greenway of preserved lands on both sides of the creek between Pennypacker Mills and Spring Mountain. Acquisition of the floodplain portion of an adjoining vacant site (4) and a wooded triangle formed by the relocation of Park Avenue (5) would complete this greenway corridor to the Spring Mountain area. The development of a greenway along the East Branch would provide an important link to the extensive Lower Salford Township open space system (6). The role of each adjoining property in facilitating these links should be reviewed thoroughly.



Pennypacker Mills, the home of Governor Samuel W. Pennypacker, is part of a 142-acre estate preserved by the county.

### Peter Wentz Farmstead

*Location:* Schultz Road in Worcester Township.

*Acreage:* 93 acres.

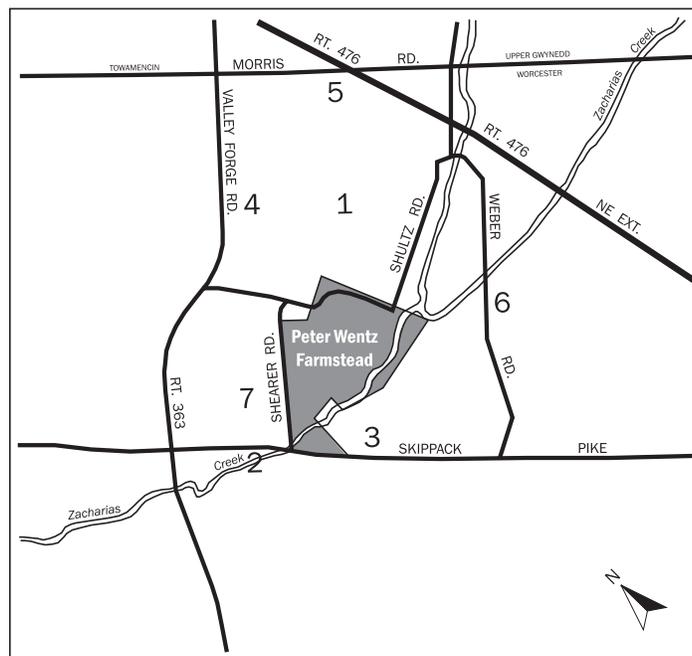
*Description:* The farmhouse was General Washington's headquarters before and after the Battle of Germantown in 1777. The eighteenth-century farmstead has been restored to its pre-Revolutionary War landscape and is a popular destination for school groups and heritage tours.

*Opportunities:* The historic farm buildings at Peter Wentz Farmstead are surrounded by parkland maintained as meadows and farm fields. This vista is extended by several large properties (1) that are preserved and maintained as farm landscapes. Preserved land and additional properties that are currently undeveloped keep the context of this site largely undisturbed, and the quality of the visitors' experience is enhanced by the opportunity to enjoy a generally intact historical landscape. As residential development in this area increases, the quality of the Peter Wentz Farmstead lands will become increasingly unique. Development of properties within the park's viewshed could have a clearly adverse impact on the site.

Properties that adjoin the site's boundaries, especially along the Zacharias Creek Greenway (2) proposed by Worcester Township, are high priority for preservation because they create a gateway to the historic site. Similarly, properties that may not directly adjoin but are within the large block of predominately undeveloped lands formed by Skippack Pike (3), and Valley Forge (4), Morris (5), and Weber Roads (6) contribute to a potentially vast agricultural preservation area and the viewshed of the property. All significant parcels within this preservation block should be a priority for some form of permanent protection. In addition to considering any adjoining land that would protect the sensitive creek corridor, the above-mentioned properties should be prioritized for their potential to connect the historic site to the PECO transmission right-of-way (7), which bisects the farmed area. This link would provide access to the regional greenway system.



Figure 25  
PETER WENTZ FARMSTEAD



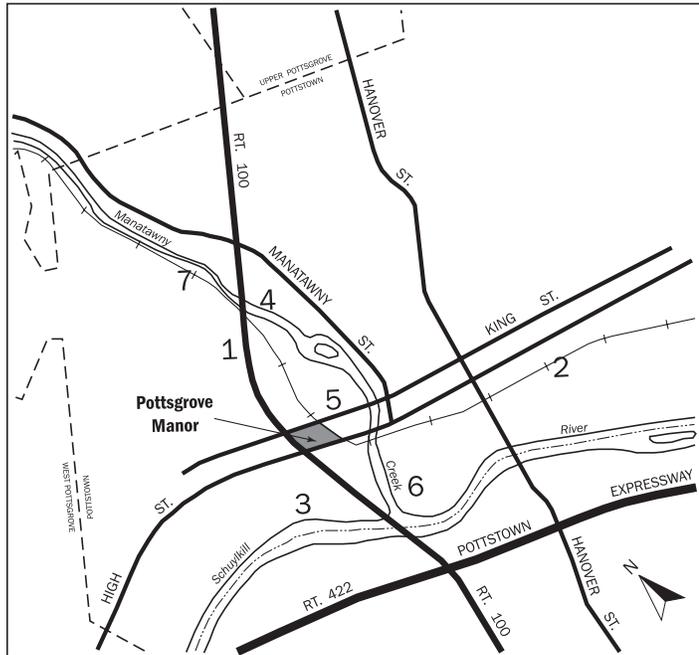
(See text for explanation of numbers 1-7)



Peter Wentz Farmstead, George Washington's headquarters after the Battle of Germantown, includes 93 acres.



Figure 26  
POTTSGROVE MANOR



(See text for explanation of numbers 1-7)

### Pottsgrove Manor

*Location:* West King Street in Pottstown Borough.

*Acreage:* 2 acres.

*Description:* Wealthy ironmaster John Potts, founder of Pottstown Borough, built this Georgian manor house in 1752. It is the only county historic site that does not include significant open space. Pottsgrove Manor’s programs focus on interpretive activities. The grounds function as a small urban park. The site is constrained by Route 100 (1) and the rail corridor (2), which separate it from land along the Schuylkill River (3).

*Opportunities:* Although additional land is not required to support the historic programs, a future connection to the river area would link the historic site to the regional greenway system. The site’s proximity to the Manatawny Creek (4) provides an important opportunity to make this connection. Creating a greenway or roadway link to Pottstown’s proposed Manatawny Creek trail would provide access to Pottstown’s Memorial (5) and River Parks (6) and to the riverfront. First consideration should be given to the preservation of any lands that would extend this open space corridor. Pottstown Borough

has further developed this concept in the John Potts Park Plan. The Colebrookdale Spur (7), if abandoned as a rail line, would make an excellent trail corridor. Currently the rail spur is privately operated for limited freight service to the Boyertown area.

As with other historic sites, the integrity of the site’s open space character is of primary importance. Consideration should be given to any opportunities to buffer the site from surrounding development, heavy traffic areas, and commercial activity.



Pottsgrove Manor is located near the Schuylkill River in Pottstown.

## Spring Mill Park

*Location:* Station Avenue and Hector Street in Whitemarsh Township.

*Acreage:* 38 acres.

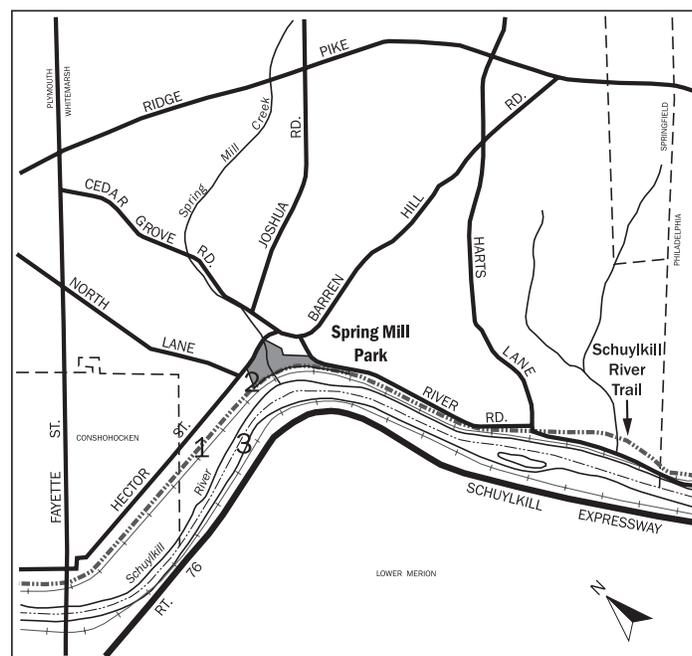
*Description:* This park is an undeveloped area of wooded floodplain along the edge of the Schuylkill River. The park contains remnants of an 18th century gristmill and mill race. The Schuylkill River Trail (1) crosses through the park, and trailhead parking is shared with commuter parking for the nearby SEPTA train station (2).

*Opportunities:* The lack of a clear long-term vision for the Spring Mill Park long has been one of the reasons that it has remained undeveloped. Now with significant redevelopment nearby in Whitemarsh Township and Conshohocken Borough, the site is important as a park facility and access point to the river. A previous master plan for the park proposed picnicking areas, canoe access, and walking trails to be implemented in cooperation with Whitemarsh Township. In light of the focus on creating a continuous greenway along the Schuylkill (3), Spring Mill Park becomes an important opportunity for river access related to the trail and greenway. At the same time, this riverfront acreage is one of the only areas of publicly owned undeveloped land along that section of the river. An updated master plan should explore and clarify a balance of public access and riverfront protection.

Land acquisition opportunities center around adjoining properties that will buffer the sensitive floodplain area and wetlands from the commuter parking areas, enhance the park's connection to the Schuylkill River Trail, and buffer the serene rural character of this landscape from views of modern development. Excess parcels owned by PECO or the railroad, and adjoining properties that are vacant or may be cleaned up from a former industrial use may be specific open space opportunities for expanding this park.



Figure 27  
SPRING MILL PARK



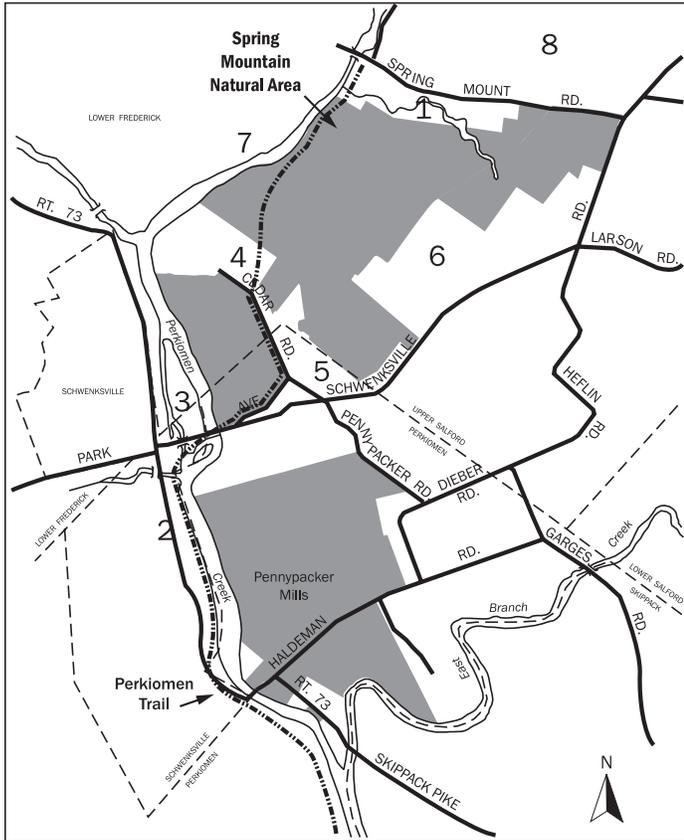
(See text for explanation of numbers 1-3)



Spring Mill Park in Whitemarsh Township is primarily undeveloped.



Figure 28  
SPRING MOUNTAIN NATURAL AREA



(See text for explanation of numbers 1-8)

### Spring Mountain Natural Area

*Location:* Schwenksville / Spring Mount Roads and Perkiomen Creek, Upper Salford Township.

*Acreage:* 80 acres adjoining municipal open space and Central Perkiomen Park.

*Description:* The county’s undeveloped natural lands, in combination with adjoining parcels owned by Upper Salford Township and a commercial ski area (1), form the heart of an extremely important conservation area known as Spring Mountain. Identified as one of two Montgomery County sites most critical for protection of biodiversity, Spring Mountain is a steeply sloped diabase woodland and a particularly scenic landscape. Informal footpaths meander through boulder-strewn hillsides, while the north side of the “mountain” is an actively used winter sports area. The Perkiomen Trail (2) follows the Perkiomen Creek (3) along the base of Spring Mountain and connects to parking areas near the ski slopes.

*Opportunities:* A recently completed Spring Mountain Area Conservation Study identifies a broad conservation area that is associated with Spring Mountain. On the mountain itself, several areas of private property (4) (5) (6) are important for permanent protection and should be preserved through acquisition or conservation easement.

Additional areas across the Perkiomen Creek (7) and on the other side of Spring Mount Road (8) should also be carefully considered for their role in protecting scenic views, buffering stream corridors, and creating linkages to Pennypacker Mills, Upper Salford’s Community Park, and other county open space.



There are many long vistas from Spring Mountain.

### Sunrise Mill Historic Site

*Location:* Swamp Creek and Neiffer Roads, at the intersection of Limerick, Upper Frederick, and Lower Frederick Townships.

*Acreage:* 158 acres.

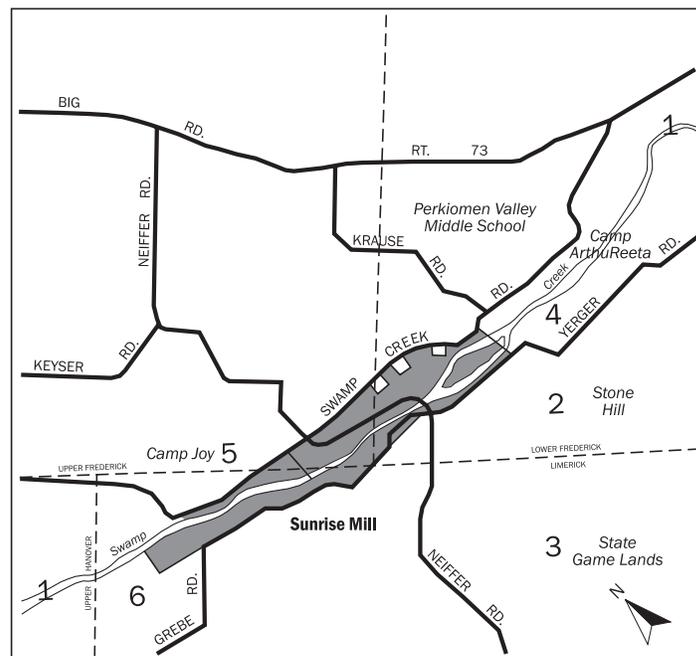
*Description:* Sunrise Mill is on the National Register of Historic Places. The historic site includes a federal-period gristmill, remnants of an adjacent sawmill, a farmhouse (circa 1830-1840), and a cantilevered Swiss bank barn built in 1795. The farmhouse and barn are sited close to the mill and Swamp Creek, just above the floodplain. These three buildings, the recently rebuilt mill dam, the mill pond, and an 1840s stone-arched bridge are the historic core of the site. This core area is buffered on all sides by forested parkland that forms an extremely scenic landscape. Although not yet improved for formal park use, Sunrise Mill's trails are used for hiking and fishing.

*Opportunities:* Sunrise Mill is unique for the pristine character of its natural and historic landscape. The site is buffered by considerable preserved woodland. The entire wooded site is the heart of a much larger regional natural area and is in fact a node along an actively promoted Swamp Creek Greenway (1). Recent open space acquisition projects by Limerick and Lower Frederick Townships, Valley Forge Audubon Society, Montgomery County Lands Trust, and the Perkiomen Valley School District have completed portions of a potentially extensive regional preservation area that incorporates the Swamp Creek Greenway, Stone Hill (2), and the former Eastern State Game Farm (3). This historic site will thus fill a role as a regional park as well as a heritage tourism destination. Any adjoining properties that will expand this area of parkland should be considered high priority because of their ecological value and their ability to buffer natural and historic resources. The recent rediscovery of several historic gravesites on adjoining property point out the rich revolutionary war heritage of this area.

Maximum success in this regional preservation area will be achieved through cooperative open space partnerships. The townships, as part of development projects, may acquire portions of some properties, and may purchase new open space as well. In other cases, local conservation advocates will be able to foster property donations and use of conservation easements. Properties that directly adjoin Sunrise Mill, such as Camp Arthureeta just downstream (4), Camp Joy (5) and other wooded properties upstream (6), are important buffers for Sunrise Mill. The county should cooperate with property owners and local municipal and stewardship organizations to develop strategies that will ensure permanent preservation of these lands.



Figure 29  
SUNRISE MILL HISTORIC SITE



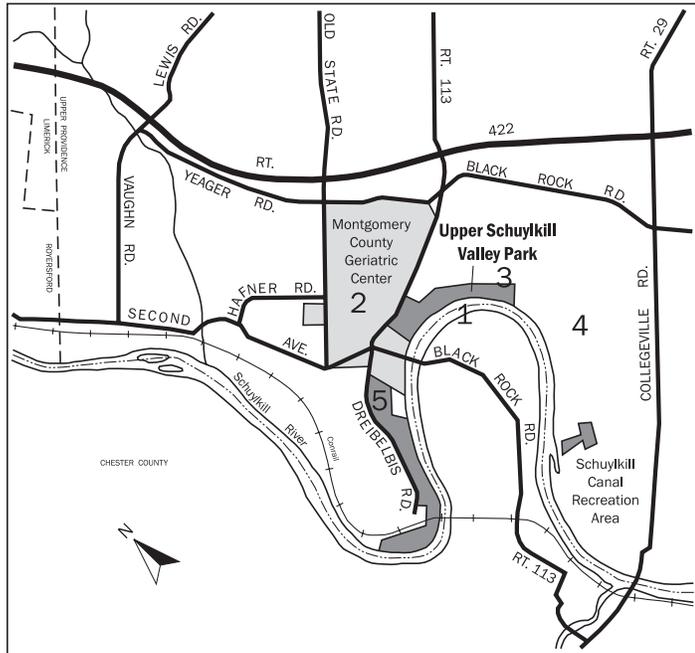
(See text for explanation of numbers 1-6)



Sunrise Mill is listed on the National Register of Historic Places.



Figure 30  
UPPER SCHUYLKILL VALLEY PARK (USVP)



(See text for explanation of numbers 1-5)

### Upper Schuylkill Valley Park (USVP)

*Location:* Route 113 in Upper Providence Township.

*Acreage:* 154 acres.

*Description:* This park is located on the north bank of the Schuylkill River and provides access to the river for fishing and non-motorized boating. Several small barn buildings and enclosures house farm animals and a small zoo that showcases wildlife native to Pennsylvania. A picnic grove is located along the riverbank.

*Opportunities:* An existing master plan for this park focuses on three objectives: protection and enhancement of the park's significant natural resources through promotion of environmental stewardship, preservation of land necessary for park activities, and implementation of a continuous trail network centered around the park. The recent emphasis on the Schuylkill Greenway makes the park a regional hub for river recreation, environmental education, and interpretation of the agricultural heritage of the county's river corridor. For this reason, the master plan should be updated to address the additional opportunities presented by this greenway relationship.

Upper Schuylkill Valley Park's most significant natural feature and scenic resource is the Schuylkill River (1). The park's location along the riverbank provides both visual and physical access to the river. Motorized boats in the Black Rock Dam Pool have caused considerable erosion of the riverbank. Boats access the river from the Pennsylvania Fish Commission's boat launch across the river from the Upper Schuylkill Valley Park. A riparian restoration project currently underway along the river will protect and enhance the natural and scenic qualities of the park's waterfront. The county should work with Chester County and the Fish Commission to manage use of the river and to develop additional protection and restoration strategies for the riverbank.

Upper Schuylkill Valley Park is bordered and buffered from surrounding development by farmlands belonging to the Montgomery County Geriatric Center (2). Loss of any of these lands would impact the park's scenic views and unique agricultural character. All of the property associated with the

Geriatric Center extends the park's open space and should be permanently preserved and maintained as an



Upper Schuylkill Valley Park offers a mile of riverfront access.

example of farming practices in an otherwise suburban area.

The proposed Schuylkill East Trail, synonymous at this location with the Schuylkillloop Trail, will pass through the park and will be a spine for local connections to Upper Providence Township’s community park, the Schuylkill Canal Recreation Area at Mont Clare, and adjoining neighborhoods and corporate campuses. This more regional focus provides an opportunity to adaptively reuse an uninhabited farmstead (3) located at the lower end of the park as an interpretive facility and visitor center. A future project called Schuylkillloop Gateway will create a river hub that is accessible to visitors of all ages and interests.

Because this section of the river includes scenic ravines and bluffs, any opportunities to protect views, buffer natural resources, or enhance the Greenway in this area should be considered high priority for acquisition and protection, especially the riverfront portions of the former Malickson and Rivercrest properties, both now under development (4). In addition, properties that could fill gaps between county-owned parcels farther west along Dreibelbis Road (5) should be considered of primary importance.

**Wissahickon Valley Park**

*Location:* Skippack and Bethlehem Pikes in Whitemarsh Township.

*Acreage:* 143 acres.

*Description:* This parkland, along with the adjoining Fort Washington State Park (1), is an important link in the Wissahickon Green Ribbon Preserve. The Wissahickon Valley Parklands are mainly in the floodplains of the Wissahickon (2) and Sandy Run Creeks (3). These woodland and fields areas buffer the streambanks and form greenways that continue up to the headwaters of each creek. They also create a scenic backdrop for the more actively used state park areas.

*Opportunities:* With the convergence of the proposed Wissahickon and Cross County Trails, the combined county and state parklands will become a major hub for trail-related recreation. Facilities at Fort Washington State Park are already being upgraded in anticipation of a future dramatic increase in park visitors. This increase in use will also put pressure on the natural areas of both county and state land. The county should collaborate with the state and with local conservation organizations to prepare strategies for protection of the sensitive landscape areas.

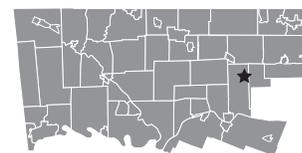
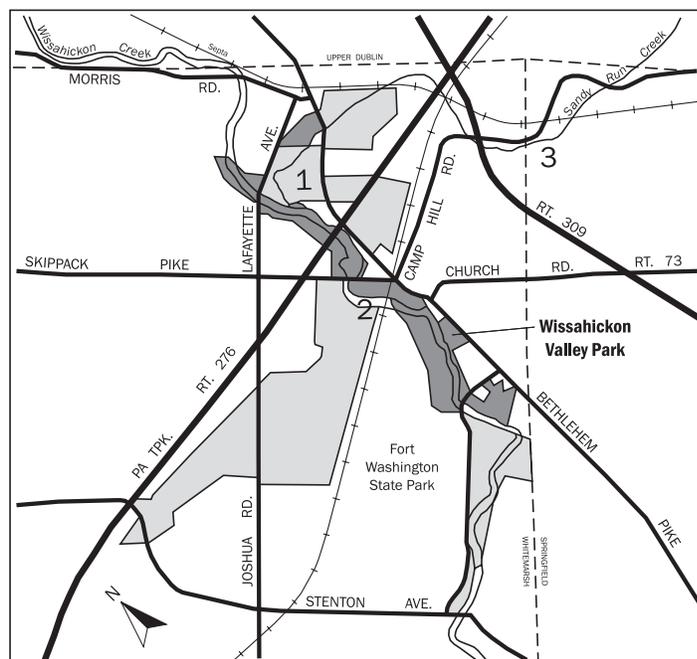


Figure 31  
WISSAHICKON VALLEY PARK



(See text for explanation of numbers 1-3)



Wissahickon Valley Park is an important link in the Wissahickon Green Ribbon Preserve.

Preservation of the Sandy Run Creek corridor, as a major tributary to the Wissahickon Creek, is critical to water quality and ecological sustainability in the Wissahickon corridor. Lands along the Sandy Run, as it continues through Whitemarsh into Springfield and Upper Dublin Townships, should be considered first priority for permanent open space preservation. The *Sandy Run Rivers Conservation Plan* contains a review of each property's preservation opportunities.

### **Municipal Parks**

The county supports efforts to develop local parks and recreation facilities. Funding is available to each municipality in the county for the development of a municipal open space plan that identifies local preservation and recreation priorities. Municipal park and open space lands should serve local needs as identified through this planning process. Organized athletic activities create a significant demand for recreation space which is often provided for by municipalities. There has been an increasing demand for locations where facilities, such as improved playing fields, equipment and refreshment buildings, restrooms, and spectator seating, can be provided. Over the last several decades, youth team sports, such as Little League and competitive soccer, and adult athletic activities, such as league softball and basketball, have become an integral part of many residents' way of life. Although the percentage of school-age children in Montgomery County's population has declined from 1970 and is in fact projected to continue to decline toward 2025, expectations for fitness programs for all ages—both male and female—and scheduled team activities for even the youngest children will maintain pressure on community parklands and existing athletic fields. Each municipality needs to determine the local need for these facilities and to develop a balance between its improved parkland and undeveloped open space.

Municipalities and private nonprofit organizations should partner as much as possible in planning, programming, and providing facilities for organized recreational activities. This partnership approach means coordinating community athletic programs with the generally extensive facilities

provided on school district properties. Programs and team schedules should also be coordinated on a regional or at least municipality-wide basis to ensure that existing facilities are fully and efficiently utilized. Decisions about new facilities should be carefully evaluated on a cost-benefit basis only after the need for such facilities has been clearly justified. New facilities should be located as close to population centers as possible in order to provide maximum access and minimize driving distances and parking requirements. Reuse of underutilized or abandoned sites near developed areas should also be considered where environmental concerns or redevelopment priorities are not a factor.

Finally, each municipality should review its process and priorities for requiring open space as part of each new development. Many residential projects bring additional demand for athletic facilities, and even commercial or corporate development can indirectly increase the need for parks and fields by spurring residential growth in surrounding areas. Playing fields or other community recreational facilities that are created through the development process should be sited considerately to respect the privacy of nearby lot owners and should be constructed as soon as development begins to avoid confusion or opposition at a later time.

Any improvement of open space properties for organized recreational facilities should protect and conserve natural features on the site and should have no adverse impact on the natural systems of which they are a part. Recreational facilities should provide internal walking paths and pedestrian and bicycle connections to surrounding neighborhoods, shopping areas, other parks, and regional trails so that all residents have the option of pedestrian rather than vehicular travel.

All 62 of the county's municipalities have completed open space plans as part of the 1993 Montgomery County Open Space Program. These plans, along with updates now being completed as part of the new Montgomery County Green Fields/Green Towns Program, should be used to guide municipal open space preservation efforts.



Local municipalities will provide most active recreation facilities in the county.



# Chapter 4

## Trails and Pathways

In recent years, trails have taken on a new significance in local and regional recreation, park use, and open space preservation. This expanded role, with the broad public benefits that the trails provide, is reflected in the many references to trails throughout the country as “linear parks.” This chapter recognizes trails as a special and multifaceted form of open space. The function of trails as a form of transportation is also recognized here and in the *Transportation Plan* element. The first section explains the function of trails in the regional and local open space network. The second part discusses the specific elements of Montgomery County’s trail system and outlines the actions necessary to fully implement each trail segment.

### **Existing Conditions**

#### **Introducing Trails for the 21<sup>st</sup> Century**

In addition to the recreational activities commonly associated with trails, trails offer considerable transportation, health, conservation, community revitalization, and economic development advantages. Throughout the region, especially in highly developed areas, trails present a critical opportunity to connect people, places, landmarks, neighborhoods, and civic and cultural amenities. The county’s existing and proposed trails form the spine of a regional dual-purpose network of greenways and alternative transportation corridors. At the same time, these countywide trail corridors extend and connect local path systems, bring regional events and resources within reach of all residents, and provide the opportunity for enjoyment of diverse landscapes, natural features, and scenic vistas.

#### **Trails as a Form of County Park**

The results of many studies across the nation indicate that the recreational preferences of Americans are changing. Families that once planned a day at the park now have busy, unpredictable schedules that require conveniently located, interesting opportunities to exercise, keep fit, and enjoy the outdoors at a moment’s notice. At the same time, large open parcels suitable for new public parks are becoming scarce and expensive to acquire, especially in heavily populated areas where traffic congestion and development pressure often make getting to the park frustrating and time consuming. Trails are an



Trails are the most heavily used county “park.”

efficient and cost-effective alternative for bringing the benefits of the park to the people.

In Montgomery County, the trail network serves many of the same recreational, conservation, and scenic functions of the traditional county parks, while providing convenient public access, enhancing and connecting the resources of existing parkland, and requiring minimal acquisition of costly additional property. Opportunities for regional and local trail partnerships and for leveraging funds from federal and state sources offer the ability to stretch public funds while gaining maximum public benefit.

The Schuylkill River and Perkiomen Trails already welcome and accommodate hundreds of thousands of visitors each year, making these connected trails the most heavily used “park” in the county. As additional portions of the trail network are implemented, some by the county and others through local governmental or private initiatives, the comprehensive trail system will become an exceptional county park experience for all county residents and for visitors from the entire region. Not only will this new county “park” be accessible to everyone in the county, but it could also add as much as 500 acres of permanently preserved open space.

### **The Unique Character of Trails**

Trails are pathways for people. Although trails and greenways are often combined as a concept, a trail is a unique and distinctive feature in the open space landscape. Unlike greenways, which may or may not include formal public access, trails are purposefully created and maintained for human activity.

No matter what the type, location, length, or use, all trails share several common characteristics that tend to set them apart from other types of parkland. Trails are amazingly versatile and meant to be used in motion. These special qualities combine to make trails extremely interesting and able to provide a wide range of experiences for the trail user. As a result, trails of all types offer an unusually large return in public benefit for a relatively small public investment of money and land area.

The versatility of trails results from the variety of activities they can accommodate, the flexibility with which the trail can be used, and the number of choices that they offer the trail visitor. At any one time, people of all ages may be sharing the trail, some riding, running, or hiking long distances, while others may be strolling with dogs, small children, or

physically challenged companions. This flexibility gives each visitor almost endless choices for using the trail in many different ways. The flexibility, variety, and convenience of trails, when coupled with the ability to use trails as alternative transportation corridors and community linkages, also explain why most trails tend to be actively utilized as soon as they are opened.

### Trail Benefits

Trails provide many types of public benefits. In heavily populated areas such as Montgomery County, these benefits touch almost everyone in some way. One of the goals of this plan is to develop a countywide network of interconnected trails that enable all residents of the county to enjoy a variety of benefits through easy access to the trail system.

### Recreation

Active forms of exercise, such as running, walking, biking, in-line skating, and horseback riding come readily to mind as recreation typically found along trails. Increasingly, however, trail recreation is also understood to include slower-paced activities such as sight-seeing, bird watching, nature study, photography, or simply taking a walk. Other types of recreation, such as fishing, canoeing, and kayaking, may be accessible only from the trail. Depending upon the surface, topography, and access, trail recreation can be available to a broad range of users including young children, residents with disabilities, and older adults. Children learning to ride a bike, babies seeing the sights from strollers, and patients recovering from hospital visits enjoy trails as much as the distance runner or the fitness walker. A major bonus of trail recreation is that it provides a safe environment for activities that might otherwise take place on busy roads.

### Transportation

As discussed in the *Transportation Plan*, trails can be transportation routes as well as recreational corridors. Off-road multiuse trails, which may also include linkages to sidewalks and on-road bike lanes, give county residents the option of bicycling or walking to work, school, and shopping areas. Although a relatively small number of residents routinely select these alternative transportation opportunities, even the less than one percent of the workday trips taken by



Trails are used for a wide variety of recreational activities.



The health benefits of walking and biking are often overlooked, but are an important aspect of trail planning.



Trails can connect to downtown and historic sites to support heritage tourism. The Pennypacker Mills site is shown here.

bicycle translates to fewer cars on congested roads, cleaner air, savings of scarce fuel resources, and a potentially fitter population.

### Health and Wellness

Trails provide an enjoyable and convenient way of getting exercise that encourages people to become more active. This increased activity leads naturally to increased fitness and is the basis for reduction in the incidence of many of our most common serious illnesses. Alarming, obesity among American adults increased 106% between 1980 and 2000. Information available from The Trails and Greenways Clearinghouse points out that “lack of time or access to convenient outlets for healthy transportation and recreation opportunities are reasons commonly cited by all populations as barriers to regular exercise.” Walking, fitness, and related forms of recreation have widespread support from health care providers, employers, and community organizations throughout the country. This support has resulted in the creation of trails on school and corporate campuses, local and regional parks, and in neighborhoods, new developments, and revitalized urban areas.

### Conservation and Environmental Stewardship

Trails foster conservation and protection of the environment in several ways. The greenway corridors along which trails are created often parallel natural features that are conserved in acquiring the property for the trail itself. The end result may be a corridor of conserved land that gives continuous connections to otherwise isolated areas of habitat and open space. Trails give the public an opportunity to enjoy these preservation areas in a way that guides public access to appropriate locations. These controlled access opportunities make the public aware of the special qualities of open space, encourage a stewardship ethic, and promote support for additional conservation.

### Community Revitalization and Economic Development

Studies provided by organizations such as the National Park Service indicate that trails can provide significant economic benefits for the communities to which they connect. Heritage tourism, jobs created by construction and maintenance of the trail, and new or expanded businesses that provide trail-related services all result

in economic growth at the community level and in the region. Recreational amenities and linkages to a wide variety of destinations attract new business investment, maintain and enhance property values, and tend to revitalize older and urban areas by connecting people with a diversity of entertainment and community resources. Developers regularly market new properties as especially desirable because of proximity to trails, and many real estate firms find trails a desirable advantage when listing properties for resale. High-tech companies often seek out local amenities, like trails, that will appeal to younger, more-active employees.



Trails improve our quality of life.

### Community Quality of Life

Trails are important community amenities that enhance the quality of life enjoyed by residents. Overall quality of life for everyone is greater when people work, go to school, and play in livable communities where residents are connected to each other and to their recreational, cultural, educational, commercial, and governmental resources. Trails create connections and public areas that provide a safe environment for people to meet each other, enjoy community events, and keep in contact with their neighbors.

#### **A Montgomery County Case Study: The Perkiomen Trail**

Montgomery County's Perkiomen Trail exemplifies all of the public benefits described above. This trail, fully completed in 2003, is the culmination of years of planning and construction. From its connection with the Schuylkill River Trail at Oaks near the Schuylkill River, the trail parallels the Perkiomen Creek, passing through nine municipalities before terminating 20 miles upstream at the county's Green Lane Park. The trail corridor, which includes portions of the former Perkiomen Railroad, contains steep wooded slopes, sensitive floodplains, and some of the most scenic landscape in the county.

As a recreational opportunity, the trail is highly regarded throughout the region, attracting numerous residents and visitors who use the trail for fitness and exercise, family outings, nature study, environmental education, and the chance to enjoy the surprisingly unspoiled landscape. On warm summer weekends, the trail is filled with equestrians, bikers, joggers, hikers, and strollers of all ages and interests. Numerous access points give trail users the choice of traveling long distances or making quick trips as time permits. The trail has direct linkages to three county parks, two historic sites, and several towns with restaurants and stores. The success of the trail is evident in all of the people that enjoy it. The trail has also enhanced nearby property values, fostered the conservation of additional land, improved health and fitness, and stimulated successful community revitalization.



### **Trail Plan**

Montgomery County's system of major multiuse trails are part of a network that includes long-distance multi-state trails, regional trails that cross county lines, and systems of pedestrian trails within federal, state, and county parks. This system also includes municipal trails and pathways and the many local footpaths and nature trails that may be formally maintained by volunteer groups or that have evolved informally over time on various types of private undeveloped property. This comprehensive trail system cannot be implemented by just one entity. In order to create a fully connected trail network, many governmental, conservation, and volunteer organizations will need to take responsibility for implementing pieces of the system.

### **Responsibilities of Trail Partners**

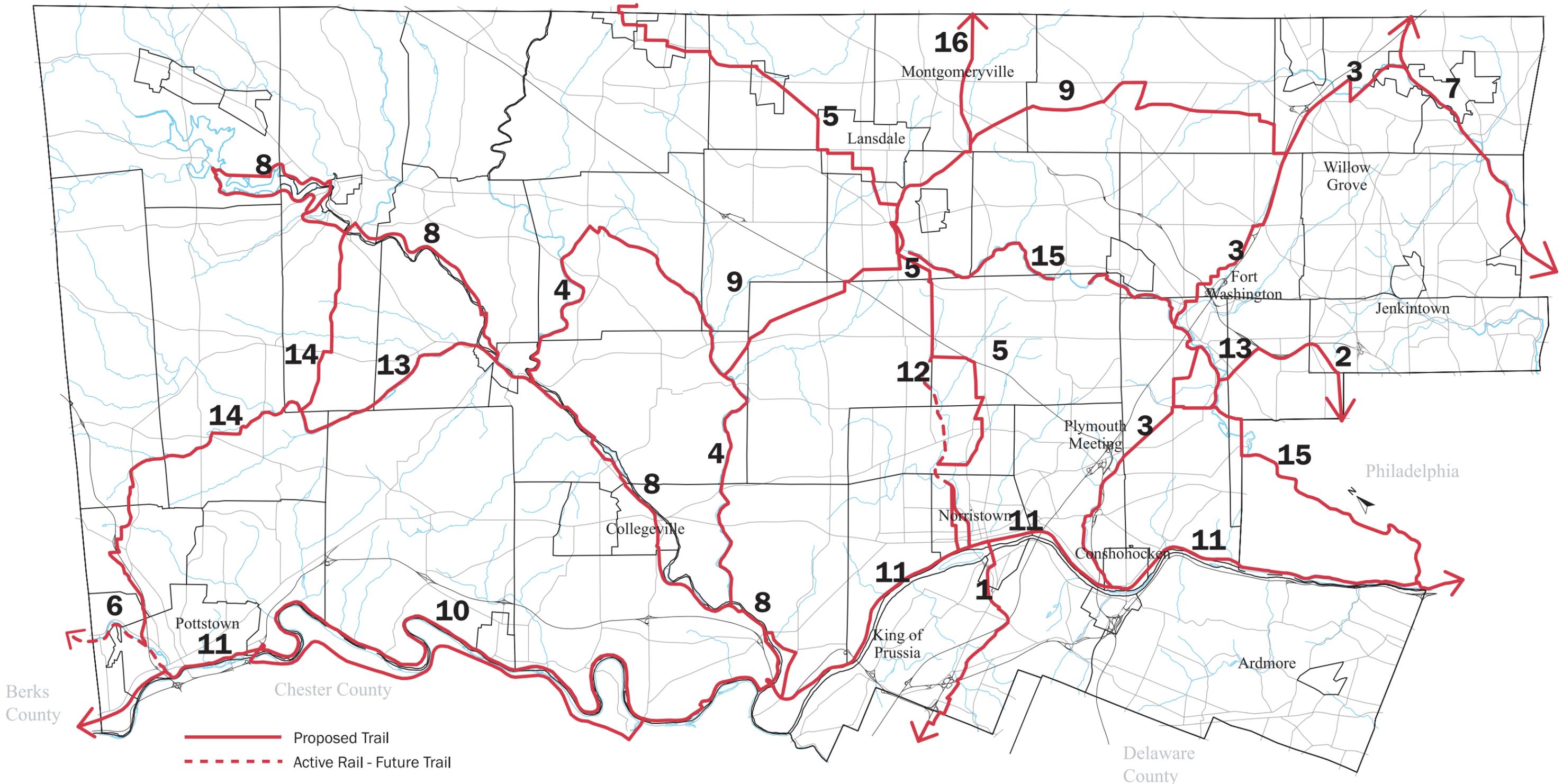
Realizing that development of the trail system will require a partnership at the local and regional level, Montgomery County is proposing a network of primary trails that create a framework to which all areas of the county can eventually connect via local trails and pathways. This county trail network is supported and promoted by the county and where appropriate, as with the Schuylkill River and Perkiomen Trails, the county has already taken the lead in constructing specific trail sections. In other cases, as with the Liberty Bell Trail, the county will partner with other organizations to complete a trail section, and in some cases, as with Horsham Township's section of the Power Line Trail or the Evansburg Trail through Evansburg State Park, primary trail sections may be entirely implemented by other governmental entities. The county trail network is an integral part of the larger regional trail system. Just as local neighborhood and municipal paths should connect to the county's primary trail framework, so should the county trail system link to trails in adjacent counties and the region.

### **The County Trail Network**

The county's trail network is comprised of sixteen interconnected trail segments. In general, these trail segments are those proposed in the 1996 *Open Space Plan*. In a few cases, the name of a trail has been changed, and several additional trails have been added to the network. The Perkiomen Trail, between Oaks and Green Lane, and the Schuylkill River Trail, between the Philadelphia border and the trail's intersection with the Perkiomen Trail at Oaks, have been completed and are currently actively used. Other trails, such as the Liberty Bell, Cross County, and Chester Valley Trails,

Figure 32  
PROPOSED PRIMARY TRAIL NETWORK

Bucks County



— Proposed Trail  
- - - Active Rail - Future Trail

- |                         |                       |                            |                       |
|-------------------------|-----------------------|----------------------------|-----------------------|
| 1. Chester Valley Trail | 5. Liberty Bell Trail | 9. Power Line Trail        | 13. Sunrise Trail     |
| 2. Cresheim Trail       | 6. Manatawny Trail    | 10. Schuylkill East Trail  | 14. West County Trail |
| 3. Cross County Trail   | 7. Pennypack Trail    | 11. Schuylkill River Trail | 15. Wissahickon Trail |
| 4. Evansburg Trail      | 8. Perkiomen Trail    | 12. Stony Creek Trail      | 16. 202 Trail         |

Berks  
County

Chester County

Delaware  
County

Philadelphia



are in the design and engineering phase, with specific trail alignments currently being defined. In early 2004, the county announced its intent to develop 29 miles of trails within the network. The remaining trail segments are indicated conceptually in this plan. Detailed alignments for each trail will be developed through separate feasibility and design studies.

There are some universal principles that have been applied to defining the primary trail network. These principles assure that county residents will be well served by trails that link key destinations countywide and that people will be able to travel as a pedestrian or bicyclist throughout the county. Efforts by the townships and boroughs to establish local trail linkages and to implement appropriate roadway improvements will enhance the county trail network's ability to serve as a viable transportation system. The county trail network should:

- Be interconnected and serve all geographic areas of the county;
- Connect regionally important open spaces, parks, and historic sites;
- Be linked to major residential centers for easy travel from homes to trails;
- Be located along areas of natural and scenic beauty, such as greenway corridors;
- Use existing rights-of-way along utility and railroad corridors or other swaths of existing open land;
- Use street rights-of-way where separate trails are not possible; and,
- Serve transportation needs by linking major employment centers and mass transit services.

Specific trail segments will be designed for the intended use of the trail and the physical constraints of the location. Multiuse trails will generally be 8 to 12 feet wide, with 2-foot shoulders on each side, although wider or narrower widths and additional adjacent lands as buffers may be required in specific locations. These multiuse trails must be designed to accommodate a wide range of users, including bicyclists, walkers, and in some cases equestrian users. For high-volume multiuse trails, the county may eventually provide amenities, such as drinking fountains, information kiosks, and benches. For other types of trails, such as foot paths, a narrower width will be used.

### **Utility and Railroad Corridors**

Utility and railroad corridors in Montgomery County form an existing network that can also be used for trails. Rail lines are by nature flat and frequently follow the



Railroad and utility corridors can often be used for trails.

same rivers and streams that are desirable for trails and greenways. When railroad rights-of-way are no longer needed for rail purposes, their gentle grades and long corridors of continuously connected parcels are ideally suited for adaptive reuse as rail trails. In urban areas, these abandoned rail corridors are often one of the few undeveloped corridors available for trail development.

Since the 1970s, Montgomery County has been working to convert unused railroad corridors into linear parks, with the Schuylkill River Trail and Perkiomen Trail primarily following the beds of the former Pennsylvania Railroad and Perkiomen Railroad. Many additional opportunities for establishment of rail trails can be found along unused rail alignments such as SEPTA's Newtown Line or underutilized corridors such as the Stony Creek corridor between North Penn and Norristown or the Colebrookdale Spur extending from Pottstown across the county line to Boyertown in Berks County. In some cases, where widths are adequate, trails and active railroads can share a right-of-way, provided fencing and other safeguards are installed.

Utility corridors, particularly electric transmission and gas lines, are also an extremely important potential trail resource. Horsham Township has already completed a 2 ½ mile section of the Power Line Trail underneath PECO's high tension lines. This broad corridor includes field and woodland areas, wetlands, and streams as well as the multiuse trail. Because utility corridors crisscross the entire county, the opportunities for connections are numerous. However, the topography varies from steep and rocky to level open fields, and ownership switches randomly between fee-simple to easement along most corridors. Although these variable site conditions and ownership issues complicate the implementation of long-distance trails, utility corridors are extremely useful for sections of the county trail network and as key connectors in municipal and local trail systems.

Good design and open communication are essential where trails are proposed to share a corridor with active utility use. Issues of liability, property damage, unimpeded access for maintenance and repair, and responsibility for policing the corridor are common concerns that must be addressed in order to complete a successful trail project.

### **County Trail Segments**

The following sections describe each segment of the county trail network and the actions and partnerships that are recommended as necessary for implementing, enhancing, or managing it. The public agencies that are consistent partners in most of the trail projects are described by the following acronyms: PENNDOT (Pennsylvania Department of Transportation), PADCNR (Pennsylvania Department of Conser-

vation and Natural Resources), and PADEP (Pennsylvania Department of Environmental Protection). Montgomery County expects to take the lead in developing many of these trails.

### **Chester Valley Trail**

This trail is an extension of an approximately 15-mile rail trail that will extend from the Exton/Downingtown area of Chester County to King of Prussia. The Chester Valley Trail extension will continue through Upper Merion Township and Bridgeport Borough before crossing the Schuylkill River to intersect the Schuylkill River Trail at Norristown. This trail is important because of the regional connections it creates. A small portion of this trail, including a bridge over the Schuylkill Expressway (I-76), was recently completed. By 2008, 5.5 miles of this extension trail are expected to be completed in Montgomery County.

#### **Points of Interest**

King of Prussia Mall and corporate centers; future redevelopment areas of Norristown and Bridgeport riverfronts.

#### **Connections**

Schuylkill River Trail.

#### **Major Public/Private Partnerships**

Chester County, Upper Merion Township and Norristown and Bridgeport Boroughs, redevelopment interests along riverfront, PENNDOT, PADCNR, and PADEP.

#### **Significant Design Issues**

Road and bridge crossings, linkages to Schuylkill River Trail, new commercial, residential, and office development.

#### **Preferred Trail Surface and Width Standards**

Macadam pavement with a 10-12 foot trail width.



### **Cresheim Trail**

The proposed 3.5-mile trail will run north-south between the Cresheim Valley Park area of Philadelphia's Fairmount Park and Route 309 in Springfield Township, Montgomery County, before turning westward and linking with the Wissahickon Trail in Whitmarsh Township.

#### **Points of Interest**

Municipal parklands, Fairmount Park, Cresheim Creek Preserve, Laverock section of Cheltenham Township,

#### **Connections**

Cresheim Valley and the Wissahickon Green Ribbon Trails in Philadelphia.

#### **Major Public/Private Partnerships**

Cheltenham Township, Springfield Township, Philadelphia, adjacent landowners, PECO/Exelon, PENNDOT, PADCNR, and PADEP, and the Chestnut Hill Civic Association and the Friends of the Wissahickon,

#### **Significant Design Issues**

Crossings of Stenton and Germantown Avenues, connection to Philadelphia's Cresheim Valley Trail, trail/roadway integration at Route 309.



### **Preferred Trail Surface and Width Standards**

Macadam or hard cinder pavement with a 10-12 foot trail width.

### **Cross County Trail**

The 17.5-mile Cross County Trail will stretch from Norristown through Fort Washington and Willow Grove into Bucks County, linking densely populated areas of Montgomery County. The trail will use the Schuylkill River Trail from Conshohocken to Norristown and will connect to the Wissahickon Trail near Fort Washington and the Power Line Trail and Pennypack Trail near Willow Grove. When the Cross County and Chester Valley Trails are completed, people will be able to travel from the Willow Grove area all the way to Downingtown in Chester County.

The trail will utilize railroad and utility corridors, roadways, and county and state lands. It will provide alternative transportation access to shopping and transit services at Plymouth Meeting and Willow Grove and the downtown area of Conshohocken.

A cross county trail feasibility study has been completed and a mile section of the trail in Plymouth Township was constructed as part of the development of two large retail-shopping complexes. By 2008, an 8 mile portion of the trail, called the Lower Cross County Trail, will be constructed and will connect the Schuylkill River Trail to Bethlehem Pike in Fort Washington. In addition, a one-mile connection will connect the Lower Cross County Trail to the Lower Wissahickon Green Ribbon Trail along Stenton Avenue.



### **Points of Interest**

Fort Washington State Park, Wissahickon Valley County Park, Wissahickon Green Ribbon Preserve, Hope Lodge, Pennypack Wilderness Preserve, Conshohocken and Bryn Athyn Boroughs, SEPTA train stations at Conshohocken, Norristown, Fort Washington, and Willow Grove.

### **Connections**

Schuylkill River Trail, Wissahickon Trail, Power Line Trail, Pennypack Trail, state and county park trail systems, Chester Valley Trail via the Schuylkill River Trail.

### **Major Public/Private Partnerships**

Plymouth, Whitemarsh, Upper Dublin, Upper Moreland, and Lower Moreland Townships, and Conshohocken Borough, PA Bureau of State Parks, Wissahickon Valley Watershed Association, Pennypack Ecological Restoration Trust, adjacent landowners, Norfolk Southern Railroad, PECO/Exelon, Sun Pipeline Company, PENNDOT, PADCNR, and PADEP.

### **Significant Design Issues**

Trail connections to Schuylkill River, Wissahickon, and Pennypack Trails, route selection in Route 73 /Bethlehem Pike area and Willow Grove/Upper Moreland area, separation of trail and railroad uses.

### **Preferred Trail Surface and Width Standards**

Macadam pavement with a 10-12 foot trail width.

### **Evansburg Trail**

The proposed 17-mile trail will use existing trails within Evansburg State Park and proposed trails of the Lower Salford Township trail system. Additional preservation of land along the Skippack Creek and the East Branch of the Perkiomen will allow walking path connections. Linkages with local roads will allow bicy-

clists to bypass sections of the trail where environmentally sensitive areas and topography permit only walking and hiking. The trail will be situated on state park and township lands as well as along private easements and local roads.

### Points of Interest

Pennypacker Mills Historic Site, Lower Salford Township parks and trail system, Evansburg State Park facilities, Skippack Village, scenic landscapes of the Skippack Creek and East Branch Creek corridors.

### Connections

Perkiomen and Power Line Trails, other Evansburg State Park trails, Lower Salford Township trail system.

### Major Public/Private Partnerships

Skippack, Lower Salford, Towamencin, and Lower Providence Townships, PA Bureau of State Parks, Perkiomen Watershed Conservancy, adjacent landowners, PENNDOT, PADCNR, and PADEP.

### Significant Design Issues

Trail construction within stream valleys, bridges over East Branch Perkiomen Creek, steep topography along East Branch, determination of walking/bike path locations, share the road issues.

### Preferred Trail Surface and Width Standards

Hard cinder pavement with an 8-10 foot trail width.



## Liberty Bell Trail

The 17-mile Liberty Bell Trail will be an interpretation of the historic Liberty Bell Trolley route that once linked Philadelphia with Allentown. The trail will alternate on and off-road as appropriate, passing through 16 municipalities between downtown Norristown and Quakertown in Bucks County. In the boroughs, trail signs will coordinate sharing of local roads. In less developed areas, the trail will utilize the old trolley corridor, now owned by PECO/Exelon. Currently the trail feasibility study is being developed by the two counties, municipalities, and the Regional Improvement Consortium.

### Points of Interest

Norristown Farm Park, Wissahickon Green Ribbon Preserve, Norristown, Lansdale, Hatfield, Souderton, and Telford Boroughs, municipal parkland, Montgomery County Community College.

### Connections

Power Line, Wissahickon, and Schuylkill River Trails, Norristown Farm Park trail network.

### Major Public/Private Partnerships

Franconia, Hatfield, Upper Gwynedd, Whitpain, and East Norriton Townships, Telford, Souderton, Hatfield, Lansdale, and Norristown Boroughs, Bucks County and its municipalities, PECO/Exelon, adjacent landowners, PENNDOT, PADCNR, and PADEP.

### Significant Design Issues

Roadway crossings, route selection and signage along borough streets, buffering of adjacent properties and railroad corridor, spur trail to Norristown Farm Park.



### **Preferred Trail Surface and Width Standards**

Macadam or hard cinder pavement with a 10-12 foot trail width, with exceptions through boroughs, village areas, and areas where on road facilities and sidewalks must be used.

### **Manatawny Trail**

This proposed trail will follow the Manatawny Creek corridor and the underutilized Colebrookdale Spur between Pottstown and Berks County. This scenic corridor begins at the Schuylkill River and extends through Pottstown Borough, West Pottsgrove Township, and several Berks County municipalities on its way to Boyertown. The trail is a major feature of the proposed John Potts Regional Park and will be a major linkage to the Schuylkill River Greenway and the Schuylkill River Trail.



### **Points of Interest**

Schuylkill River Greenway, Pottstown Riverfront and Memorial Parks, the county's Pottsgrove Manor historic site, Montgomery County Community College—Pottstown Campus, Pottstown Borough historic and shopping districts, various historic and scenic amenities in Berks County.

### **Connections**

Schuylkill River Trail, Thun Trail via Schuylkill River Trail, Schuylkill River Water Trail.

### **Major Public/Private Partnerships**

Pottstown Borough, West Pottsgrove Township, Berks County and various Berks County municipalities, Schuylkill River Greenway Association, Berks County Conservancy, Preservation Pottstown, PECO/Exelon and Norfolk Southern Railroad, adjacent landowners, PENNDOT, PADCNR, and PADEP.

### **Significant Design Issues**

Industrial usage and ownership of the rail spur, integration of trail and vehicular traffic in the High to King Streets area, road crossings and connection to the Schuylkill River Trail, buffering of Pottsgrove Manor historic site.

### **Preferred Trail Surface and Width Standards**

Hard cinder pavement with an 8-10 foot trail width.

### **Pennypack Trail**

The proposed 6.5-mile trail will be a connector between Bucks County, the Cross County Trail, and the Pennypack Park section of Philadelphia's Fairmount Park System. The trail will utilize the Montgomery County portion of SEPTA's former Newtown-Fox Chase commuter rail line and may eventually extend in Bucks County to the Borough of Newtown. The Pennypack Trail will be a major linkage between Montgomery County's Lorimer Park and Pennypack Ecological Restoration Trust's extensive conservation lands in Huntingdon Valley known as the Pennypack Wilderness Preserve, following the scenic Pennypack Creek valley for most of its route. Philadelphia currently maintains a bike and pedestrian trail along the Pennypack Creek all the way from the county line to the Delaware River.

### **Points of Interest**

Pennypack Ecological Restoration Trust, Lorimer Park, Philadelphia's Pennypack Park, Fox Chase Farm, Bryn Athyn Cathedral and mansions, Pennypack Creek scenery and amenities.

**Connections**

Cross County Trail, Fairmount Park trail system, Pennypack Ecological Restoration Trust trail system, Lorimer Park trail system.

**Major Public/Private Partnerships**

Upper Moreland and Abington Townships, Bryn Athyn and Rockledge Boroughs, Bucks County Commissioners and municipalities, Pennypack Ecological Restoration Trust, Lord's New Church, City of Philadelphia, adjacent landowners, SEPTA, PENNDOT, PADCNR, and PADEP.

**Significant Design Issues**

Rail with trail in narrow creek valley, road crossings, bridges across Pennypack Creek.

**Preferred Trail Surface and Width Standards**

Macadam or hard cinder pavement with a 10-12 foot trail width.

**Perkiomen Trail**

Completed in 2003, the 22.5-mile Perkiomen Trail is a rail-trail that follows the Perkiomen Creek from Oaks in Upper Providence Township to the Green Lane Park area in Upper Hanover Township. The trail traverses both rural and suburban parts of the county and contains sections of asphalt or mixed gravel surface for bicycling, walking, hiking, and equestrian use. The trail follows the scenic Perkiomen Creek for most of its distance, passing through population centers at Collegeville, Schwenksville, and Green Lane Boroughs. The trail also runs through the villages of Rahns, Graterford, Spring Mount, and Salford. From the county's Green Lane Park, a connection will be made to the Boroughs of Red Hill, Pennsburg, and East Greenville and to Berks County via the Green Lane Park trails.

The Perkiomen Trail is especially important for the county because it links three regional county parks, two county historic sites, and the county-owned natural area at Spring Mountain. The trail also connects with Valley Forge National Historical Park via the Schuylkill River Trail. The trail thus forms an ideal transportation network from the heart of Montgomery County to Philadelphia and may in the future extend alternative transportation options into Berks County as well.

Although the Perkiomen Trail was substantially completed in 2003, additional improvements and enhancements to the trail will continue over the next few years. These improvements include approximately one and a half miles of additional trail length that will connect the trail to Green Lane Borough and the Green Lane Park Nature Center, the rehabilitation of a stone arch bridge in Perkiomenville, trail connections built by municipalities, lighting and landscaping amenities in Schwenksville Borough, and other additional amenities along the trail, such as information kiosks.

**Points of Interest**

Green Lane, Central Perkiomen, and Lower Perkiomen Valley County Parks, Pennypacker Mills and Audubon/Mill Grove County historic sites, Valley Forge National Historical Park, Collegeville, Schwenksville, and Green Lane Boroughs, Spring Mountain natural area and winter sports center, various municipal parks, Perkiomen Creek scenery and amenities.

**Connections**

Sunrise, West County, and Schuylkill River Trails, Evansburg Trail (twice to form a loop), Audubon access trail, Green Lane and Central Perkiomen Valley Park trail systems.



**Major Public/Private Partnerships**

Upper Hanover, Marlborough, Upper Frederick, Upper Salford, Lower Frederick, Perkiomen, and Upper Providence Townships, Green Lane, Schwenksville, and Collegeville Boroughs, Perkiomen Trail Coalition, Perkiomen Watershed Conservancy, adjacent landowners, PECO/Exelon, PENNDOT, PADCNR, and PADEP.

**Significant Design Issues**

Buffers to adjacent residential properties, bridges, shared roadway use and roadway crossings, connections to Schuylkill River Trail and Green Lane Park.

**Preferred Trail Surface and Width Standards**

Macadam or hard cinder pavement with a 10-12 foot trail width.

**Power Line Trail**

The proposed 17-mile Power Line Trail shares a PECO/Exelon transmission corridor in Horsham Township and will run between the Evansburg Trail and the Cross County Trail. Horsham Township has an agreement with PECO for use of the corridor and has already installed a multiuse trail section of about 2.5-miles, with plans to complete the trail across the remainder of the township. In cooperation with the additional municipalities, this trail will eventually extend westward through Montgomery and Upper Gwynedd Townships and eastward to the Pennypack and Cross County Trails in Upper Moreland Township, utilizing the utility corridor rights-of-way and local roads as necessary.



**Points of Interest**

Municipal parks, Wissahickon Green Ribbon Preserve, College Settlement Farm and local historic sites, Montgomery Mall, North Wales Borough, Roth Living Farm Museum of Delaware Valley College.

**Connections**

Evansburg, Liberty Bell, Cross County, and Wissahickon Trails, Route 202 Trail, municipal trail systems.

**Major Public/Private Partnerships**

Upper Gwynedd, Montgomery, Horsham, and Upper Moreland Townships, PECO/Exelon, adjacent landowners, SEPTA, PENNDOT, PADCNR, and PADEP.

**Significant Design Issues**

Cross County Trail connection, road crossings at PA Turnpike, Routes 202 and 309, Sumneytown Pike, railroad crossings, and connections to Delaware Valley College's Roth Farm.

**Preferred Trail Surface and Width Standards**

Macadam or hard cinder pavement with a 10-12 foot trail width.

**Schuylkill East Trail**

The proposed Schuylkill East Trail will be the less developed, unpaved pedestrian trail along the Montgomery County riverfront between Mont Clare and Pottstown. Bicycle traffic will follow the main stem trail along the Chester County side of the river. In addition to major connections to the Schuylkill River Trail at

Phoenixville and Pottstown, additional linkages are proposed at Royersford and Sanatoga.

The trail will utilize county and municipal parkland, a state owned silt basin, state game lands, state canal properties, sewer authority property, easements on some private properties, and occasional local roads. Informal trails are already in place along the canal towpath and follow a good deal of the riverfront. These ad hoc trails are generally very close to the river's edge and provide access for fishing, birdwatching, and canoeing, as well as extremely scenic views.

### **Points of Interest**

Upper Schuylkill Valley Park, Schuylkill Canal Recreation Area, Chester County Black Rock Preserve, Schuylkillloop area of Schuylkill Greenway, Limerick Township Linfield Landing Park, Royersford Borough Main Street area, Schuylkill River scenery and amenities.

### **Connections**

Schuylkill River Trail, Schuylkill Trail connections, Upper Schuylkill River Park trails.

### **Major Public/Private Partnerships**

Lower Pottsgrove, Limerick, and Upper Providence Townships, Royersford Borough, Schuylkill River Greenway Association, PA Game Commission and Fish and Boat Commission, Schuylkill Canal Association, PECO/Exelon and other utility companies, Norfolk Southern Railroad, Oxychem and other adjacent landowners, PENNDOT, PADCNR, and PADEP. (Bureau of abandoned mines).

### **Significant Design Issues**

Trail implementation in steep topography and floodplain, narrow areas between the trail line and the river, route selection through borough area, coordination with active rail line, security concerns for adjacent corporations and Limerick Generating Station, and local linkages to neighborhoods and new developments.

### **Preferred Trail Surface and Width Standards**

Hard cinder pavement with an 8-10 foot trail width.

## **Schuylkill River Trail**

In 1995, Montgomery County completed the development of the Schuylkill River Trail from Philadelphia to Valley Forge, which passes through Lower Providence, West Norriton, Plymouth, and Whitemarsh Townships, and Norristown and Conshohocken Boroughs. In 2002, an extension was added from Betzwood in Valley Forge National Historical Park to Oaks in Upper Providence Township, where it connects to the Perkiomen Trail. In January 1994, the Schuylkill River Trail was designated a National Recreational Trail and has since received the Outdoor America award for being one of the nation's first 500 rail-trails.

The trail will eventually follow the Schuylkill River all the way from its headwaters in Schuylkill County to its confluence with the Delaware River in Philadelphia. A total of 22.5 miles of the trail passes through Montgomery County. At Mont Clare, the main stem of the trail will cross the river to Phoenixville, following the Chester County side until recrossing the river at Pottstown, where it will extend upriver into Berks County. In much of Berks County the Schuylkill Trail, called the Thun Trail, has been developed by the Schuylkill River Greenway Association. A parallel trail, the Schuylkill East Trail, will follow the Montgomery County side of the river between Mont Clare and Pottstown.



The Schuylkill River Trail is the main spine of the Schuylkill Heritage Corridor, and it is now a primary feature of the Schuylkill River Valley National Heritage Area. The trail's accessibility to urban and suburban communities makes it an invaluable transportation and recreation resource. It will also connect other larger trails such as Mont Clare the Horseshoe and Appalachian trails.

By 2008, seven additional miles of trail should be completed. These additions include 4 miles of trail from Oaks to Mont Clare, 1.5 miles of trail from Keystone Boulevard in Pottstown to the Berks County line, and 1.5 miles to the Norristown Farm Park, and 2 miles of Trail Loop through The Audubon Center at Mill Grove in Lower Providence.



### **Points of Interest**

Pottsgrove Manor and Audubon/Mill Grove county historic sites, Upper Schuylkill Valley, Lower Perkiomen Valley, and Spring Mill County Parks, Valley Forge National Historical Park, future Center for the American Revolution, Schuylkill River Water Trail, Schuylkill Canal Recreation Area, Chester County parkland, Phoenixville Borough revitalization area, Schuylkill River scenery and amenities, existing SEPTA transit services and future Schuylkill Valley Metro stations.

### **Connections**

Schuylkill East, Perkiomen, Liberty Bell, Cross County, Chester Valley, Stony Creek, and Manatawny Trails, Valley Forge Park trail system.

### **Major Public/Private Partnerships**

West Pottsgrove, Lower Pottsgrove, Upper Providence, and Lower Providence Townships, Pottstown Borough, Chester County Commissioners, Parks Department, and municipalities, City of Philadelphia, Berks County Commissioners and municipalities, National Park Service, Schuylkill River Greenway Association, Norfolk Southern Railroad, PECO/Exelon, Bicycle Coalition of the Delaware Valley, adjacent landowners, PENNDOT, PADCNR, and PADEP.

### **Significant Design Issues**

River crossings, coordination with active rail use by Norfolk Southern, route selection in Oaks and Pottstown areas, retrofit and rehabilitation of older sections, development of trail side amenities and parking.

### **Preferred Trail Surface and Width Standards**

Macadam pavement with a 10-12 foot trail width.

### **Stony Creek Trail**

The Stony Creek Trail would connect the current trail system in the Norristown Farm Park with the Schuylkill River Trail and the Liberty Bell Trail. It would utilize sidewalks along Haws Avenue in Norristown and would follow the Stony Creek and Stony Creek rail line north of the Farm Park.

### **Points of Interest**

Norristown Farm Park, Elmwood Park, Crawford Park, and Norristown Riverfront Park, future amenities on Barbadoes Island.

### **Connections**

Liberty Bell Trail, Schuylkill River Trail, Norristown Farm Park Trail system, municipal trail networks.

**Major Public/Private Partnerships**

Whitpain, Worcester, and East Norriton Townships, Norristown Borough, Norristown State Hospital, Elmwood Park Zoo, Crawford Park trustees, Stony Creek Anglers Association.

**Significant Design Issues**

Part of this trail corridor is currently an active freight line. Possibilities are being explored for the restoration of passenger service between Norristown and Quakertown along this rail line. Specific design issues must be evaluated if and when the right-of-way becomes available for trail use.

**Preferred Trail Surface and Width Standards**

Macadam or hard cinder pavement with a 10-12 foot trail width.



**Sunrise Trail**

The proposed 5-mile Sunrise Trail (also known as the Swamp Creek Greenway Trail) will run along the scenic rural Swamp Creek valley between the county’s Sunrise Mill Historic Site and the Perkiomen Trail at the confluence of the Swamp and Perkiomen Creeks. The trail will utilize county and municipal lands, easements on private and school district properties, and local rural road segments where necessary. Because of steep topography and sensitive floodplains along this corridor, the Sunrise Trail will primarily be a pedestrian trail, with mountain biking as appropriate. The trail will be the beginning of a potentially longer linkage to the western part of the county that will incorporate the West County Trail and additional local trail segments. This trail will also make connections to a system of nature footpaths located in the nearby Stone Hill Preservation Area.

**Points of Interest**

Sunrise Mill historic site, Meng Wildlife Sanctuary, Henry Antes House, Perkiomen Valley Middle School facilities, scenic amenities along Swamp and Perkiomen Creek corridors, Schwenksville Borough, and Zieglerville area.

**Connections**

Perkiomen Trail, Sunrise Mill trail system.

**Major Public/Private Partnerships**

New Hanover, Upper Frederick, Lower Frederick, and Limerick Townships, Schwenksville Borough, Girl Scouts Philadelphia Council, Camp ArthuReeta, Montgomery County Lands Trust, adjacent landowners, PENNDOT, PADCNR, and PADEP.



**Significant Design Issues**

Construction in creek valley, Perkiomen Trail connection, creek and road crossings, link to new school district facilities.

**Preferred Trail Surface and Width Standards**

Macadam or hard cinder pavement with a 10-12 foot trail width.

**West County Trail**

This trail of approximately 14 miles will combine road bike lanes with some off-road corridors between Pottstown Borough and the Green Lane area. The trail will connect the Schuylkill River Trail with the

Perkiomen Trail, and its alignment will be selected to take advantage of greenways, creek valleys, adjacent roadways, and utility corridors wherever possible, as well as to make connections to the Sunrise Trail near the County's Sunrise Mill historic site.



### **Points of Interest**

Green Lane Park, Sunrise Mill and Pottsgrove Manor historic sites, municipal parkland, Pottstown and Green Lane Boroughs.

### **Connections**

Schuylkill River, Sunrise, and Perkiomen Trails, trail systems at Sunrise Mill and Green Lane Park.

### **Major Public/Private Partnerships**

West Pottsgrove, Upper Pottsgrove, New Hanover, and Upper Frederick Townships, Pottstown Borough, railroad and utility companies including PECO/Exelon, Sun Pipe Line, Mobil Pipe Line, and Columbia Gas Transmission, adjacent landowners, PENNDOT, PADCNr, and PADEP.

### **Significant Design Issues**

Schuylkill River Trail connection, Manatawny Creek crossing, route selection for all portions of trail, adjacent landowner concerns, trail/railroad separation.

### **Preferred Trail Surface and Width Standards**

Macadam or hard cinder pavement with a 10-12 foot trail width.

## Wissahickon Trail

The Wissahickon Trail, also known as the Green Ribbon Preserve Trail, will run from the Liberty Bell Trail in the North Penn area to Philadelphia's Forbidden Drive Trail in the Fairmount Park System. The trail is currently an existing walking path that stretches along the Wissahickon Creek from Stenton Avenue in Whitmarsh Township to a point near Lansdale Borough.

The Wissahickon Trail will be developed for multiuse between Forbidden Drive and Fort Washington State Park, where it will intersect with the Cross County Trail. Beyond Fort Washington, the trail will remain a walking path in order to protect the environmentally sensitive nature of the Wissahickon Valley. This portion of the creek valley passes through a serene landscape, with few road crossings, that has been substantially preserved through the efforts of the Wissahickon Valley Watershed Association. Additional acquisitions and easements will be necessary to fully implement the multiuse and walking path portions of the trail. A demonstration section, along Northwestern Avenue in Springfield Township, is being designed and implemented with funding from a PADCNr grant.

By 2008, the five-mile stretch of the Lower Wissahickon Green Ribbon Trail, which will connect Fort Washington Park to Fairmount Park's Forbidden Drive, should be constructed.

### **Points of Interest**

Fort Washington State Park, Wissahickon Valley County Park, Wissahickon Valley Watershed headquarters and Green Ribbon Preserve, Fairmount Park's Valley Green section, educational amenities including Morris Arboretum, Chestnut Hill College, Mount St. Joseph Academy, Carson Valley School, and Germantown Academy, Hope Lodge and The Highlands state historic sites, scenic undeveloped areas including various golf courses and the historic Erdenheim Farm, main street shopping areas in Ambler, Flourtown, and Erdenheim.

**Connections**

Liberty Bell and Cross County Trails, Forbidden Drive in Fairmount Park, local trail connections to Flourtown and Erdenheim, Fort Washington State Park trail system, Sandy Run Greenway and future trails.

**Major Public/Private Partnerships**

Montgomery, Upper Gwynedd, Lower Gwynedd, Whitpain, Upper Dublin, Whitemarsh, and Springfield Townships, Lansdale and Ambler Boroughs, City of Philadelphia and Fairmount Park Commission, Wissahickon Valley Watershed Association, Morris Arboretum, Erdenheim Farms, adjacent landowners, PENNDOT, PADCNR, and PADEP.



**Significant Design Issues**

Route selection in golf course, Morris Arboretum, and Erdenheim Farm areas, stream crossings, road crossings at Germantown Avenue, Northwestern Avenue, Stenton Avenue, and Skippack Pike, trail construction in sensitive creek corridor areas, connections to Cross County Trail and local municipal trail linkages.

**Preferred Trail Surface and Width Standards**

Macadam or hard cinder pavement with an 8-12 foot trail width.

**202 Trail**

The 202 Trail will be established during the reconstruction of US Route 202 between the Montgomery Township area of Montgomery County and the Doylestown area of Bucks County. This trail will be a fully off-road shared-use facility that will parallel the newly constructed expressway. Trail connections have been designed to provide access to population centers, schools, and park locations along the trail route. When completed, this trail will connect central Bucks County with Philadelphia, Chester, and Berks Counties via Montgomery County’s Power Line, Liberty Bell, and Wissahickon Trails.

**Points of Interest**

Roth Living Farm Museum of Delaware Valley College, Montgomery Mall, municipal parks, shopping, museum, and historic amenities of the Doylestown area.

**Connections**

Power Line Trail, Montgomery Township and various Bucks County municipal trail systems.

**Major Public/Private Partnerships**

Montgomery, Upper Gwynedd, and Lower Gwynedd Townships in Montgomery County, New Britain and Doylestown Townships and Doylestown Borough in Bucks County, Delaware Valley College, Montgomery Mall, PECO/Exelon, adjacent landowners, PENNDOT, PADCNR, and PADEP.



**Significant Design Issues**

Connection to Power Line Trail, connection to local trail systems.

**Preferred Trail Surface and Width Standards**

Macadam pavement with a 10-12 foot trail width.



Municipal trails should connect with the county trail network.

***Lower Salford’s long-term trail planning efforts have been a model for the creation of trail systems elsewhere in the county. The Lower Salford Community Trail System illustrates many of the positive benefits that interconnected paths can bring to a community. Residents can walk, jog, skate, or bike on nearly 8 miles of continuous trails that link housing developments, parks, schools, and recreational facilities with the town center of Harleysville. Township management and police administration proudly cite the role of their municipal trail system in making Lower Salford a “livable community.”***

## **Municipal Trails**

The county’s trail network provides a framework for pedestrian and bicycle traffic throughout the county. Unfortunately, residents will not be able to fully access and utilize the county network unless numerous and convenient connections are provided at the local level. To do this, municipalities must develop trails and pathways that link residential areas, downtowns, schools, and other institutions with regional trails.

Local trails can be developed by municipalities using a variety of public and private funding sources. Also, trails and pathways can be installed as a condition of private land development approval. Trails and pathways can interconnect to existing sidewalks and on-road bike trails. The design and layout of a trail should reflect the needs of its potential users, local environmental conditions, surrounding land uses, and available land for trail use. It is important for municipalities to carefully work with property owners affected by the trail and other concerned residents in the trail planning process. When trails are proposed near municipal boundaries, cooperation should be sought with those affected municipalities.

Many paths are meant for scenic enjoyment, nature study, and quiet contemplation as opposed to recreation and community linkages. These paths are an important component of local parks as well as regional and county facilities because they provide each person the opportunity to experience woodlands, stream corridors, and natural habitats at a personal level. School and corporate campuses, golf courses, and even industrial sites are good places for this type of trail, especially since existing grounds management personnel can easily maintain and monitor their condition.

Local municipal paths should be designed to connect population centers, employment areas, retail cores, and other attractions to the county and regional trail system. Through their open space plans, many townships and boroughs are currently examining how to connect municipal trails with the county system. Lower Merion, for example, is considering the feasibility of connecting local township trails to the Schuylkill River Trail, which is on the opposite side of the Schuylkill River.

### **Trail Use and Maintenance**

Trails are almost universally enjoyed and appreciated by the people who use them, and it is rare that trails end up creating the problems that are often anticipated by communities and landowners apprehensive about new trail projects. Studies throughout the country indicate that once a trail has been established, its strongest supporters may be the very residents who once opposed its creation. Nevertheless, responsible and courteous use of trails by the people who use them makes the trails a positive



Paths often link environmentally-sensitive areas.



The Valley Forge National Historical Park trail.



# Chapter 5

## Farm Preservation

Farm preservation has increasingly become a priority for Montgomery County as the rapid pace of development continues. This has sparked numerous efforts to help preserve the county's remaining farms over the past two decades. The Commonwealth of Pennsylvania enacted wide-ranging farmland protection legislation in the 1980s to help spur local efforts. The county commissioners began the countywide effort to preserve farmland in 1990 with the creation of the Montgomery County Agricultural Land Preservation Board.

Farms and farming provide many benefits to the county, including jobs, economic diversity, fresh food, open views, and historic continuity.

The status of farming in Montgomery County and the work being done to protect it is covered in this chapter.

### **Existing Conditions**

Farms are threatened by development in the county, since they often consist of mostly flat and well-drained land that is desired by developers. Also, many farmers find that they make more money from selling their land than from farming. Because of this, farmland and farming in the county have shrunk significantly over the past half century. This section describes the changes that have occurred in farming and its status today.

### **Prime Agricultural Land**

One important factor that has not changed but does strongly impact farming is soils. Soils in Pennsylvania are classified based upon their economic value for feed crop production. All soils found in the commonwealth fall into one of three categories: Prime, Statewide Importance, or Other.

Prime agricultural soils are those most suitable for crop production. These soils are well-drained, sustain an adequate moisture supply, do not tend to flood or erode excessively, can maintain an optimal soil temperature in the growing season, have a pH favorable to crop growth, and generally do not contain large rock fragments. Prime agricultural soils in Montgomery County are displayed in Figure 33.

One guideline to prioritizing farmland suitable for agricultural preservation would be to favor



County farmland is under development pressure.



farms containing a large portion of prime farmland soils. These soils generally produce the highest-value crops, which will help sustain agriculture in the county. After all, once agricultural soils are lost to development, they are usually lost forever. Thus, farms with these types of soils should be a high priority for preservation.

However, soils not falling into the prime soils classification may still have an economic advantage in some agricultural enterprises, such as the grazing of livestock on sloping lands, or growing fruit crops in more acidic soils.

### Existing Farms

The definition of what precisely constitutes a “farm” is difficult to pin down. There seem to be as many definitions of farms as there are organizations that collect data on them. In part, this is due to the changing nature of farming. At one time, most farmers lived with their families on the land where they farmed. Increasingly, however, many farmers operate on more than one property, which means they are tenants on someone else’s land. There are many people who own farms but do not farm the land themselves. Does a 10-acre parcel count as a farm only if it grows a certain crop? In recent times, it does. Plus, in 1997, the USDA definition of farms expanded to include those farms that produce certain nontraditional products, such as Christmas trees.

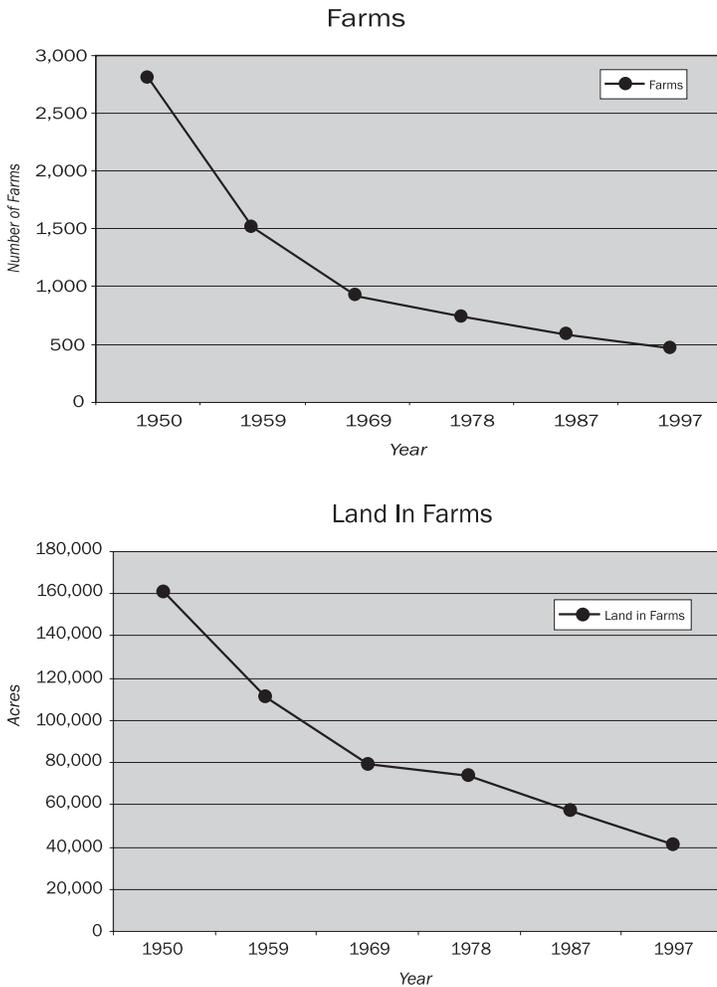
With such changes in the nature of farming, it can be confusing to figure out what a farm is. What is undeniable, however, is that Montgomery County has lost a tremendous amount of its farming in the past five decades. There are numerous reasons for this decline, including the rapid influx of new development, higher operating costs, volatile markets, and the lack of desire of younger generations to continue farming.

The numbers are stunning. In 1950, the county had a total of 2,802 farms, totaling nearly 161,000 acres, more than half the county’s total area. By 1997, the total number of farms in the county had shrunk to 462 farms, totaling just 41,552 acres, according to the US Census of Agriculture. In a period of less than fifty years, this represents a decline of 84% in farms and 74% in acres (see Figure 34). Not surprisingly, this is due in large part to the rapid suburbanization and influx of new residents, homes, and businesses that has characterized the county since the end of World War II. The



Since 1950, the number of farms in the county has declined 84% while the farm acreage has declined 74%.

Figure 34  
**FARMS AND LAND IN FARMS, 1950 - 1997**



Source: US Census of Agriculture.

(Please note: The definition of what constitutes a “farm” has changed over time. The most recent definition of a farm (and the one used in this section) is any agricultural operation that produces and sells at least \$1,000 of agricultural products per year, or otherwise would sell that amount per year. Prior to the 1974 Census of Agriculture, the definition was a mix of product sales and the size of the operation. The definition of what constitutes a “farm” can vary depending on the methodology, the source, and the date that the data was collected.)

decline was the greatest when the population in the county grew the most.

The decline in farming can also be attributed to economic and technological changes in agriculture itself. Operating a farm is a difficult undertaking under ideal circumstances. Unstable weather, high production costs, low commodity prices, and taxes affect farmers’ individual decisions on whether or not to continue farming. When combined with creeping urban growth, it can become economically difficult for many to maintain the agricultural life-style.

The dynamics of farm ownership have also changed. Many farmers used to own and operate their own farms. However, in recent decades, many people who still own farms do not perform agricultural work themselves. Tenant farmers do the agricultural production. Others may not live on the farm but also lease their property to local farmers. The number of full-time operators declined from 966 in 1959 to just 262 in 1997. The number of part-time operators has also dropped dramatically, from 411 in 1959 to 147 in 1997. The only type of farm operator that has remained relatively stable over time were tenant farmers. There were 112 tenant farmers in 1959 and 106 in 1997.

### Farm Acreage in Montgomery County

Due to the wide-ranging definitions of “farm” and the methods of data collection, it is difficult to determine the exact amount of farm acres that have been lost over time. Land uses and buildings change, and thus can be difficult to categorize. And even when farmland can be identified, it is virtually impossible to determine from aerial photographs if the land is owned or rented, or what crops if any are harvested. The Delaware Valley Regional Planning Commission (DVRPC) has developed land use databases from its aerial photography that attempt to track land use changes over time in its nine county region. Between 1970 and 1990, the DVRPC region, which includes Philadelphia and 8 nearby counties, is estimated to have lost 137,600 acres of farmland.

The DVRPC estimates that Montgomery County had 118,643 acres of agricultural land in 1970. By 1990, the amount of agricultural land had dwindled to 77,804 acres. This represents a 34% drop in acres in just 20 years. Not surprisingly, many of the communities which lost the most agricultural land area were the county’s fastest-growing, including Montgomery, Horsham, Towamencin, Whitpain, Upper Providence, Limerick, and Lower Salford.

By this estimation, Montgomery Township alone lost 2,515 acres of agricultural land in that twenty-year period, and many of the others in the top category each lost at least 1,500 acres.

The 2000 Existing Land Use Map shown in the Land Use Plan is based on this past DVRPC aerial analysis. It shows that the county had approximately 63,800 acres of farmland and vacant land, which would be a loss of 18% between 1990 and 2000. Figure 35 shows this estimated farmland. (This result differs markedly from the *1997 Agricultural Census* total of 41,552 acres. This disparity is primarily due to the analysis including vacant land and due to aerial analysis capturing more details, including small farm parcels, semi-farmed areas like pastureland, and farmed land on non-farms, such as utility corridors, parks, and large institutions.)

### Farmland Preservation

The preservation of existing farms in Montgomery County is of paramount importance to ensure the long-term cultural, economic, and environmental well being of the county. Through state, county, and municipal efforts, there were 91 preserved farms in Montgomery County totaling 6,182 acres as of 2003 (see Figure 36). The total cost for preserving these farms was \$39,521,377, which translates into \$6,393 per acre on average.

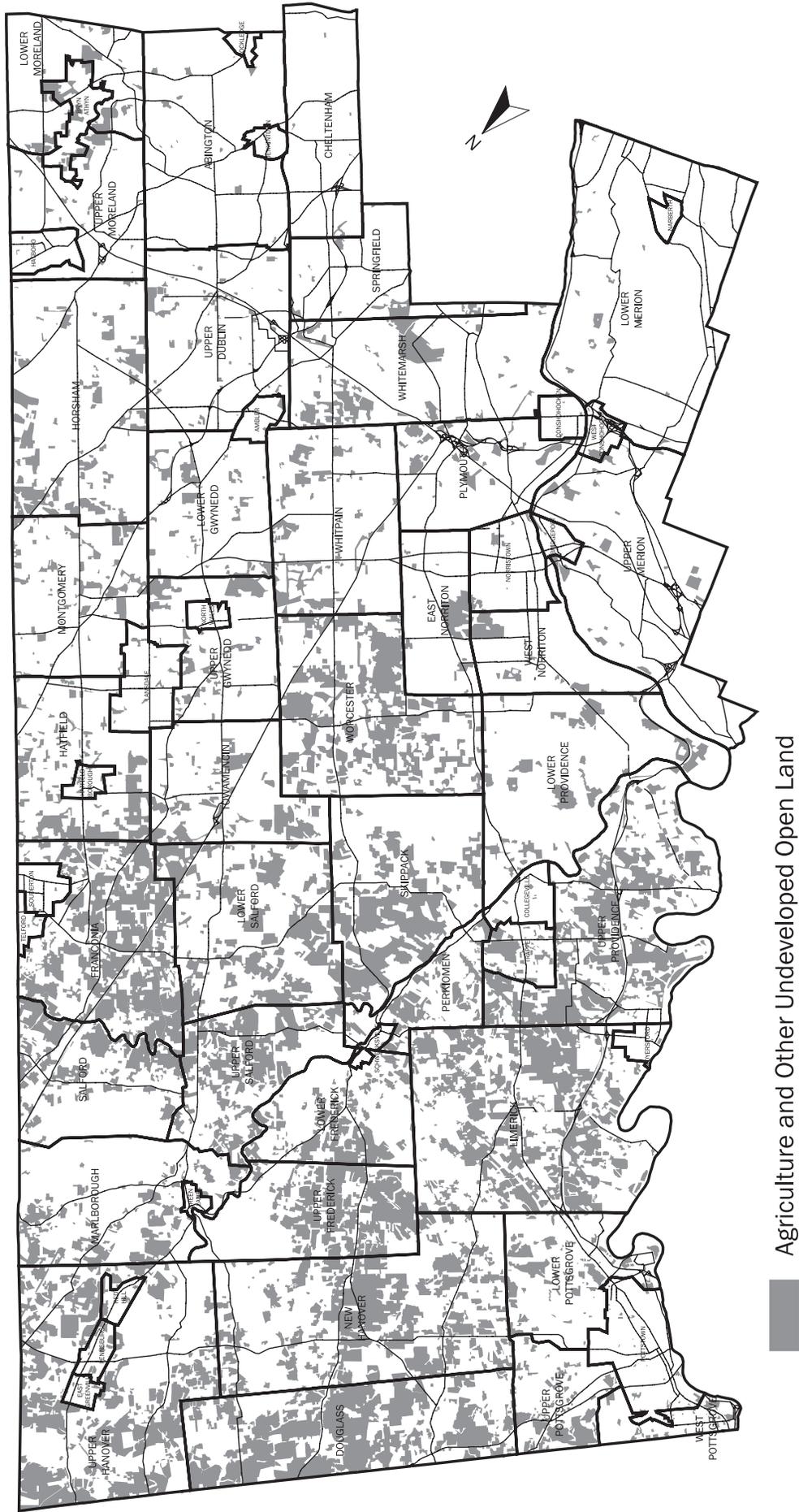
These farms have been preserved through the county farmland preservation program, which uses state, county, and some municipal money to preserve farms. Landowners who participate in this voluntary program accept a conservation easement on their property that prohibits development and non-farming activities in exchange for a payment. However, these landowners continue to own the farmland. This conservation easement does not provide public access to the farmland. In some cases, before development rights are sold and the conservation easement is recorded, a farmer may choose to allow public access in limited locations, such as through an access easement along a stream corridor for a trail segment.

Preserved farms include operations that produce fruits, vegetables, livestock products, and horticultural products within our county for the benefit of all. There are several interesting examples of crops and livestock produced on preserved farms, including Christmas trees, apples, and horses. One farm grows apples and processes them into apple cider that is sold on the spot. Another raises buffalo and sells the meat as a low-fat, lower cholesterol alternative to hamburger.



In 2001, the county celebrated the permanent preservation of over 5,000 acres of farmland.

Figure 35  
AGRICULTURAL LAND



Source: Montgomery County 2000 Existing Land Use.



These farmers are doing the county a valuable service by preserving Montgomery County's agricultural heritage and scenic landscapes for the benefit of future generations. Farmers of preserved farms are also boosting the county's quality of life by promoting tourism and helping maintain the county's agricultural tradition. In addition, preserved farms are good for the environment, since they protect wildlife habitat and enable groundwater recharge.

Farmers who wish to have their farms preserved through the county program must be in an Agricultural Security Area (ASA), which is described in detail in the following section.

### **Farm Programs**

In addition to the county's farmland preservation program, other efforts exist to help farmers protect their farms. Some examples are listed below.

#### **US Department of Agriculture, Natural Resources Conservation Service**

The U.S. Department of Agriculture's Natural Resource Conservation Service's (NRCS), formerly the Soil Conservation Service (SCS), primary role is to give technical assistance to reduce soil erosion and water quality impairment. It also has a number of programs that help farmers preserve their land and the natural resources on their land. The NRCS administers the USDA's Farmland Protection Program, which works with existing farmland preservation programs at the federal level by providing matching funds. It is designed to augment, not replace, local government attempts to preserve farmland. Farmers seeking entry into this program have to meet requirements similar to those of the county farmland preservation program. The NRCS program is the result of the Farmland Protection Policy Act of 1981, which sought to gauge the impact of federal policies on productive agricultural land in an effort to preserve it.

Besides preservation, the NRCS has other voluntary programs to help farmers continue farming in a sustainable manner, including watershed protection, grazing land conservation, nutrient and pest management, soil and water conservation, and erosion control. All farms preserved through the county program are required to have and to implement a current NRCS Soil Conservation Plan.

#### **USDA Farm Service Agency**

Stabilizing farm income, helping farmers con-

serve land and water resources, providing credit to new or disadvantaged farmers and ranchers, and helping farm operations recover from the effects of disaster are the missions of the U.S. Department of Agriculture's Farm Service Agency (FSA), formerly the Agricultural Stabilization and Conservation Service (ASCS). This federal office, operated at the local level, is available to help farmers with the financial assistance provided by the federal government under its Farm Bill. FSA programs encourage environmental stewardship and protect our county's agricultural and natural resources.

### Penn State Cooperative Extension

Penn State is the land-grant university in Pennsylvania. Its mission is to provide research-based information to the community, particularly in the areas of agriculture and consumer living. Cooperative Extension has always been and continues to be closely linked with the agricultural community of Montgomery County. For example, the regional marketing specialist has helped to create and promote farmers' markets. The 4-H program provides farm and nonfarm youths with hands-on experience in farm animal and crops projects. The agronomy department sponsors meetings and farm visits to update farmers on current technology for crop production. In addition, the office has specialists in horticulture, and fruits and vegetables available to the farming community, as well as foresters and environmental experts. Cooperative Extension is an excellent resource for virtually any county citizen, especially farmers.

### PA Department of Agriculture: Agricultural Security Areas

Agricultural Security Areas (ASAs) are the first step towards permanent preservation of farmland. They represent the state's primary tool for strengthening and protecting agriculture. Created by Act 43 of 1981, ASAs are completely voluntary. Working together, farmers establish areas where agriculture is a primary economic activity. By joining an ASA, farmers are eligible for special consideration from state and local government, receive protection from nuisance challenges, receive limited protections from eminent domain takings, and are eligible to participate in county farmland preservation programs. As of the end of 2002, there were 12 ASAs with farms in 22 municipalities in Montgomery County (see Figure 37).



Agricultural Security Areas are voluntary programs that provide protection from takings and nuisance ordinances, while making land eligible for the county's farmland preservation program.

Figure 37

**AGRICULTURAL SECURITY AREAS - 2002**  
 Montgomery County, Pennsylvania

Municipality	Acreage	Farms
Douglass, Upper Pottsgrove	3,352	52
Franconia	2,273	46
Horsham	599	12
Limerick, Trappe	1,522	21
Lower Salford, Skippack, Towamencin	1,663	40
New Hanover, Lower Pottsgrove	1,756	32
Salford	1,309	37
Upper Frederick, Lower Frederick	1,455	32
Upper Hanover, Marlborough	2,384	31
Upper Providence, Perkiomen	1,171	22
Upper Salford	880	23
Worcester, Upper Gwynedd, West Norriton	1,473	34
<b>Totals</b>	<b>19,837</b>	<b>382</b>

Source: Pennsylvania Department of Agriculture.

In order to create an ASA, a petition must be initiated at the local (township/borough) level and must include farms with a combined acreage of at least 250 acres. These farms do not need to be contiguous.

Once initiated, the ASA is effective for a period of seven years, during which additional farms can be added. The ASA can then be renewed after the seven-year review. The ASA is not a land use regulation, however, and farmers are not exempt from local and state laws governing the use of their land. Being part of an ASA only confers eligibility for future conservation easements and other protections. Enrolling in an ASA does not guarantee that the farms within it will be permanently preserved; however, it does mean that farmers who wish to do so can apply for preservation. Farmers are also advised that belonging to an ASA is a prerequisite to join the county farmland preservation program.

#### Pennsylvania's Right to Farm Law (Act 133 of 1982)

The Commonwealth of Pennsylvania has, like many other states, enacted legislation that protects the rights of farmers to conduct their business without interference when sound farming practices are used. This law is designed to protect farmers from frivolous nuisance ordinances adopted at the urging of new homeowners not used to living in a rural area.

## Pennsylvania General Statutes, Act 319 (Clean and Green Act)

The Pennsylvania General Assembly enacted Act 319 in 1974. This is a voluntary program that allows qualified farm property owners to temporarily receive preferential tax assessment for their land. Joining the program does not guarantee that farmland would be permanently preserved, but it does provide an incentive to keep the land free from development. Properties taxed under Act 319 must be at least 10 acres in size, devoted to agricultural or woodland use, and have been used for agricultural or forestry purposes for the previous three years. The one exception to the 10-acre rule is if the property in question generated at least \$2,000 in gross agricultural sales. In Montgomery County, this program is administered by the Montgomery County Board of Assessment.

***Act 319 (Clean and Green Act) provides preferential tax assessment for the temporary preservation of land.***

## Pennsylvania Bureau of Farmland Preservation

The Bureau of Farmland Preservation exists within the Pennsylvania Department of Agriculture. It represents the state's effort to preserve farmland throughout the Commonwealth. Since its establishment, the Bureau has helped to protect 2,073 farms totaling 247,157 acres across the state by the end of 2002. In addition to administering the ASA program, the bureau is also responsible for assisting farmland preservation through the Land Trust Grant Program, which can reimburse land trusts that preserve farmland themselves.

## The Farm Economy Pennsylvania

The Commonwealth of Pennsylvania remains one of the most important agricultural states in the nation. Agriculture is the largest industry in Pennsylvania, when the full economic impact of both farming and food processing is taken into account. The counties with the highest value of agricultural sales are clustered in the south-central to southeast portion of the state. Lancaster County is the state leader in agricultural output, followed by Chester, Berks, York, and Adams Counties. Erie County also has a substantial vineyard economy

According to the Pennsylvania Department of Agriculture, dairying (specifically milk) is the



Dairying is the most valuable agricultural product in Pennsylvania.



Field and forage crops, like corn, soybeans, and hay, are the most valuable agricultural products in Montgomery County.



County farms produce a range of other farm products, including dairy products, nursery stock, bedding plants, meat, vegetables, and fruit.

Figure 38  
2001 CROP SUMMARY  
MONTGOMERY COUNTY, PENNSYLVANIA

Crop	Acres	Value
Field & Forage Crops*	28,300	\$6,260,000
Vegetable Crops**	1,133	\$1,659,000
Fruit***	-	\$92,000

Source: Pennsylvania Agricultural Statistics Service, 2001-2002.

\* Includes winter wheat, oats, barley, soybeans, corn for grain, corn for silage, alfalfa dry hay, and all other hay.

\*\* Includes fresh market sweet corn, tomatoes, strawberries, canteloupe, bell peppers, and pumpkins.

\*\*\* Includes apples, peaches, tart cherries, sweet cherries, pears, and grapes.

principal moneymaker of all of the agricultural commodities produced in Pennsylvania, with sales of \$1.7 billion in 2000. Milk alone accounted for 40% of all cash receipts in 1997. Another 30% was derived from poultry and eggs along with meat animals.

### Montgomery County

In 2001, field and forage crops were the most valuable agricultural products produced in Montgomery County, with a total value of \$6.2 million (Figure 38). These include items such as corn, soybeans, hay, winter wheat, oats, and barley.

Livestock is another important component of the county's agricultural landscape. In 2001, Montgomery County had 24,650 head of livestock with a total value of \$9.3 million. Milk was the most dominant product from livestock. Montgomery County farms produced 43.4 million pounds of milk in 2000.

The farm economy is much more than just farms. The economics of farming also include numerous agri-businesses that help to support or are supported by farming and contribute to the prosperity of the local economy. These include, but are not limited to, food processing industries, equipment dealers, and various wholesalers. These businesses have a significant economic impact, for Montgomery County and for the state and nation as a whole.

According to the 2000 *County Business Patterns*, there were 94 food manufacturing establishments, accounting for 7,446 jobs in the county with a payroll of over \$260 million (see Figure 39). The meat-processing plants, found mostly in the North Penn and Indian Valley areas, employ a majority of these workers. These firms include such well-known brands as Hatfield Quality Meats, Pilgrim's Pride, Leidy's, and Smithfield. Overall, meat processing accounted for 4,347 jobs in 2000. Other food-related industries with a notable presence in the county include bakeries (1,383 jobs in 2000), dairy product manufacturing (705 jobs in 2000), sugar & confectionary product manufacturing (389 jobs in 2000), and fruit and vegetable preserving and manufacturing (381 jobs in 2000). One small but well-known family food processing business is Baumanns in Douglass Township, which makes apple butter, apple cider, and other fruit preserves.

Figure 39

*FARMING RELATED INDUSTRIES IN MONTGOMERY COUNTY*

Industry	Number of Employees	Payroll	Number of Firms
Sugar & Confectionery Product Manufacturing	389	\$12,510,000	9
Fruit & Vegetable Preserving & Specialty Food Manufacturing	381	\$14,192,000	4
Dairy Prod. Manufacturing	705	\$32,806,000	11
Animal Slaughtering & Processing	4,347	\$144,492,000	15
Bakeries	1,383	\$45,359,000	47
Other	241	\$11,737,000	8
<b>Food Manufacturing (Total)</b>	<b>7,446</b>	<b>\$261,096,000</b>	<b>94</b>

Source: 2000 County Business Patterns.

## **Farm Preservation Plan**

Although farming has declined in the county over the past half century, it can remain a viable part of the county's future, adding to the county's diverse economy and high quality of life.

Significant portions of Montgomery County, particularly areas in the center and north of the county, should remain rural in character, with as much active farming in these areas as possible. Figure 40, which is taken from the Growth and Preservation Plan, shows those portions of the county proposed as rural resource areas. Farming should be the primary activity taking place in these areas while new residential and commercial development should be directed towards designated growth areas. Nevertheless, some limited residential development at densities of one home per acre or less may occur in these rural resource areas.

There are two key aspects to keeping farming in the county: preserving farmland and supporting active farming. Each of these is described below.

### **Farmland Preservation**

Farmland can be preserved through the outright purchase of land or development rights on the property or it can potentially be preserved through zoning.

### **Preserving farms and farming:**

- *Provides jobs,*
- *Diversifies the economy,*
- *Provides local food to residents,*
- *Protects environmentally-sensitive land,*
- *Preserves a key component of the county's cultural landscape, and*
- *Improves the quality of life of county residents.*



## Purchase of Farmland or Development Rights

The goal of this plan is to preserve at least 150 additional farms and 12,000 acres in the county over the next twenty years through the county farmland preservation program, leading to a total of approximately 225 preserved farms and 17,000 acres by 2025. The bulk of the money for these preservation efforts should come from the state. However, the county, local municipalities, conservation organizations, and private citizens should participate in this program by providing funding and support.

One goal of the farmland program is to preserve blocks of farmland to ensure the survival of various related farm activities. A group of preserved farms will allow flexibility in leasing farmland, providing custom equipment services, selling, storing, and harvesting crops, and maintaining a core community built around farming. Even when blocks of farms cannot be preserved, isolated farms can thrive by taking advantage of their surrounding residential development with direct marketing and other innovative operations.

Local municipalities should consider creating their own farmland preservation programs that involve the purchase of farms or development rights. There are few, if any barriers preventing municipalities from purchasing agricultural easements for farmland themselves. In some cases, it may even be desirable to do so, such as when state and county money is scarce or if preserving a remaining working farm is a long-standing municipal goal.

Although purchasing development rights costs money in the short run, this cost can be recouped relatively quickly because of lower demand for schools and other government services that new residential development often demands. Many communities in the region have decided the cost is worth it. For example, Solebury Township in Bucks County has approved three referendums authorizing township officials to borrow \$26 million to preserve 4,000 acres of farms. East Vincent Township in Chester County has also approved \$2.5 million recently for the same purpose.

In 2001, two Montgomery County municipalities held voter referendums in their townships to ask residents if they would be willing to pay extra for the preservation of open space, including farmland. Both passed by a wide margin. The two municipalities are Franconia and Skipack, each of which will



When possible, blocks of adjacent farms should be preserved, such as this farm in Douglass Township.



Local townships have started to help permanently preserve their farms.

fund preservation through an earned income tax increase of 0.25%. Shortly after passage of these referendums, Franconia committed a total of \$311,433 toward the preservation of two of its highest priority farms, with the prospect of preserving other farms in the near future.

Township participation in the farmland preservation process is an excellent way for local government to leverage a greater value with a minimal contribution. Contributions from the municipalities can easily be matched with county and/or commonwealth funding for farm preservation.

The state should amend the laws governing the farmland preservation program by making it easier to preserve small farms, which are more common in Montgomery County than other portions of the state.

Farmers and landowners should participate in the farmland preservation program and consider selling their development rights to the county, state or local government. They should also participate in other voluntary conservation efforts, including joining an ASA and entering the Act 319 program.

### Farmland Preservation Through Zoning

There are numerous ways that municipalities can use their statutory powers to help preserve farmland within their communities. Here are some of the most popular.

#### **Effective Agricultural Zoning**

One positive action that municipalities can take to preserve farming in their communities is to adopt an agricultural zoning provision in their local zoning ordinance. Typically, agricultural zoning requires uses and lot sizes that are compatible with farming. Development might be limited to one home per 10 or 20 acres, with the home allowed on a smaller lot and the remainder of the land deed restricted against development.

Upper Gwynedd Township is an example of a municipality that has adopted such a provision. Its Agricultural Preservation District was adopted in 1999. The provision is designed to preserve existing farms whose agricultural soils are classified as high quality within the township. Another purpose is to provide local protection to farmers against incompatible uses.

Agricultural zoning should be flexible and reflect the diversity and volatile nature of

farming. It also makes the most sense for municipalities that still have a relatively large number of active farms.

### **Cluster Zoning**

One positive method that communities can take to preserve farmland is to allow cluster zoning, often known as a Land Preservation District (LPD). It represents a way that fast-growing municipalities can allow reasonable residential development in rural areas where agriculture is a prime activity without destroying rural character. Due to the nature of farming and the sensitive nature of residential development, it is important to consider which types of production would be most suited to residential neighborhoods.

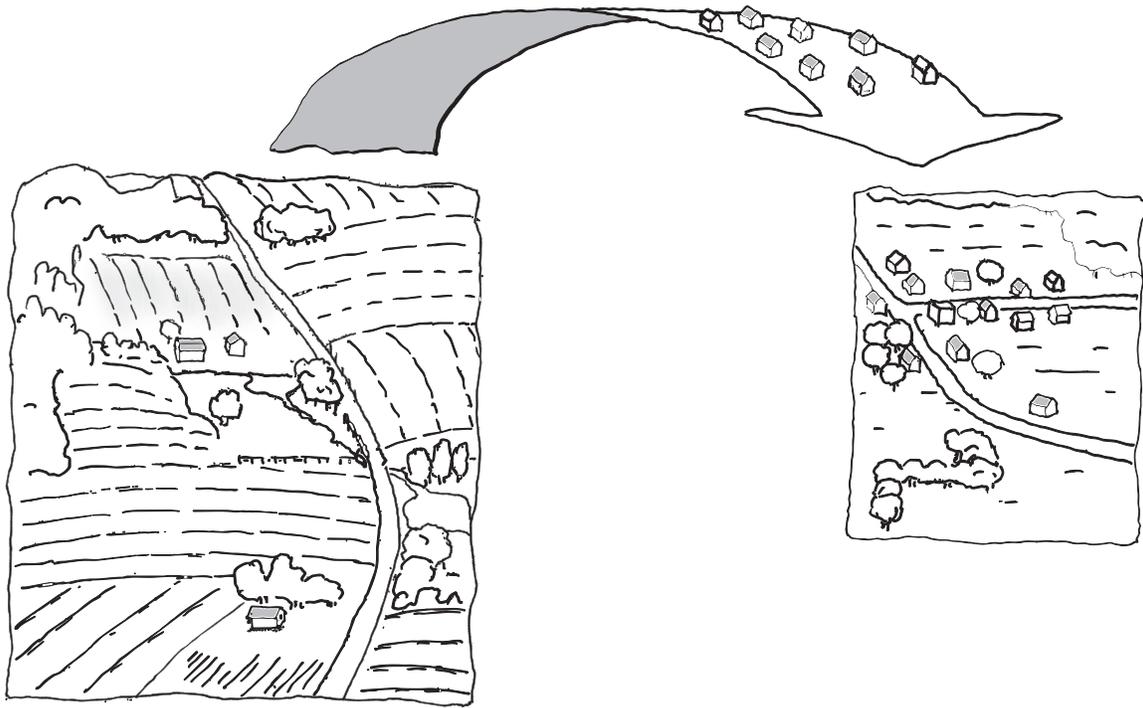
The LPD works by reducing the lot size allowed for development and saving the rest of the lot for open space. For instance, on a 100-acre lot in a cluster zoning district, 50 units might be allowed on 50 quarter-acre lots (with roads, occupying 20 to 25 acres). The remaining 75 to 80 acres would be permanently preserved as open space, possibly for agriculture, thus ensuring its continuity in the rural landscape. A number of cluster developments around the region have incorporated agriculture into their open space, including an orchard in Chester County, field crops in Bucks County, and a nursery in Bucks County.

The LPD can be used for any type of rural landscape, but it is important for municipalities to ensure that the resource they want to protect is protected. For farmland, this means that fields suitable for farming on a particular site are off limits to development. New homes would have to be shifted elsewhere on the site.

The Montgomery County Planning Commission has a number of publications that relate to cluster zoning and the LPD concept. The MCPC has produced *Land Preservation: Old Challenge, New Ideas*, which is a basic introduction to the subject, as well as *Open Space as a Resource in the Land Preservation District*. Both discuss the LPD and cluster zoning in greater detail. The *Land Preservation District: Model Zoning Provisions* provide specific language on how to implement an LPD.

**Transfer of Development Rights (TDR)**

Transfer of development rights (TDR) can be an effective tool for preserving valuable farmland. A TDR simply allows someone to transfer the right to develop a property in one area to a property in another area. Thus, a TDR could be used to transfer the development capacity of a farm to a more developed area. In order to be successful, communities must first identify which areas they would like to protect and which areas would be acceptable for development. Then, the area taking the development (receiving area) must be identified and rezoned with a TDR ordinance for these areas to receive the development.



*Transfer of development rights ordinances can shift development from farmland to logical growth areas.*

It is important to consider how much and what types of development would be constructed in both areas so that proper densities can be accommodated. Receiving areas must be large enough to handle the growth directed to it from the area being preserved (sending area).

TDRs have been used successfully in Bucks, Chester, and Lancaster Counties.

Ideally, municipalities wishing to use a TDR for agricultural purposes would have a

number of working farms located closely together, including ASA farms. Citizens and officials must be willing to support the TDR concept and accept higher growth in one area as a necessary byproduct of conserving farms. For more information, the Montgomery County Planning Commission has two publications that discuss TDRs in more detail: *Save Your Rural Landscape by Using TDRs* is an introductory guide, while *Guidebook for Creating a Municipal TDR Program* includes detailed model ordinance provisions.

### Support of Active Agriculture

Besides the issue of preserving farmland, the county is also quite concerned with supporting farming itself. It is not acceptable to preserve farmland without supporting agriculture and its related industries. Some of the more effective methods of supporting active agriculture are included in this section.

#### Compatibility of Land Use Regulations with Farms

One basic method of helping farming survive is to stay out of the way of farmers to the greatest extent possible. In Montgomery County, farmers often run into two crucial issues with government. The first is rapid increases in the value of their land, which can help with loans but hurts with property taxes. The second is encroaching development, which often leads to complaints from residents and new regulations from local government.

Farmers can take two steps to ameliorate the impact of these two trends. For tax relief, they should join the Act 319 program, which gives farmers favorable tax assessments. To reduce the potential impact of nuisance ordinances, they should join an Agricultural Security Area and attend township meetings to become familiar with the issues of other citizens.

As part of the tax solution, the state should examine alternatives to the real estate tax, which penalizes those who are land-rich but cash-poor, like many farmers.

Local governments should make their land use regulations compatible with existing agricultural operations. Often unknowingly, local communities can adversely affect farms with limitations on things like signs, burning, fence location, and building location. A number of possible steps for reducing

***Municipal regulations should not hinder normal agricultural operations.***

the impact of local regulations are listed below.

- Agricultural uses should be permitted in all zoning districts where these uses now exist so farmers do not have to go to the zoning hearing board for improvements on the property.
- In rural resource areas and existing preserved farmland, as identified in the Growth and Preservation Plan, land uses that are less compatible with farming should be limited.
- Cluster zoning or other zoning that requires landscaped buffers next to active farmland for new residential development should be considered.
- Municipal regulations that define or prohibit public nuisances should exclude from this definition agricultural activities conducted in accordance with normal agricultural operations, so long as the activity does not have a direct adverse effect on the public health and safety.
- Local codes should allow farm stands that sell agricultural products produced by the farmer. In some cases, local communities may want to allow a limited amount of goods that are not produced on the farm to be sold from the farm stand.
- Zoning could be written to easily allow expansion of non-conforming farm buildings, such as a barn next to the road, without the need for the farmer to go to the zoning hearing board.
- Large setbacks for barns or other farm buildings should be used sparingly. Sometimes, these regulations can force buildings into the middle of fields that should be planted.
- To give farmers more choices with their land, local regulations can allow alternative uses for farm buildings, such as bed and breakfast establishments, storage, repair shops, contractor's yards, craft stores, offices, and other limited farm-based uses.

#### Other Methods of Supporting Farming

Farming in southeastern Pennsylvania is slowly evolving as farming practices change and suburban development moves closer. In response to these trends, farmers will have to change farming practices and capitalize on new opportunities, such as direct marketing of their produce.

Businesses, consumers, and government can support and promote farming as a viable and desirable activity in the county. Some methods of providing this support include:

### **Continued Technical Assistance**

Technical assistance to farmers should continue to be provided by the Penn State Cooperative Extension Service, Montgomery County Conservation District, Farm Service Agency, and Natural Resources Conservation Service. Programs and organizations that promote farming, including the Montgomery County 4-H Program, the PA State Grange, and the Pennsylvania Farm Bureau, should be encouraged to continue to meet the needs of county farmers.

Technical support can also help farmers adjust to new markets and trends, such as organic farming, entertainment-oriented farming, pick-your-own operations, and niche products like specialized food for area restaurants.

Outreach efforts should be initiated to make new suburban residents aware of farmers' needs. This will minimize conflicts between suburban and agricultural neighbors.

Farmers, municipal officials, developers, residents, and others need to communicate their needs and concerns with each other. Local conferences and seminars can help facilitate this communication process.

### **Community Supported Agriculture**

Consumers can support farming by buying shares of farm output directly from farms through "Community Supported Agriculture" or CSA. The first CSA farm in Montgomery County recently began in Horsham Township as the Pennypack Farm CSA.

Wrightstown Township in Bucks County has not only preserved farms, but is now concurrently trying to save farming within its borders. The township has begun a CSA program where residents pay an annual fee to farmers who till on township-owned farmland. In exchange, residents get a share of whatever is produced on the land. The program helps communities maintain a connection to agriculture while allowing farmers to keep farming.

### **Farmers Markets**

Farmers markets are perhaps the most significant way that ordinary citizens can support



Farmers need to adjust to new markets and trends, such as organic farming, entertainment-oriented farming, pick-your-own operations, and niche products.



Farmers markets provide a direct connection between consumers and food producers.



Concerted efforts must be made to preserve the county's beautiful and solid farming community.

local agriculture. Local citizens get the benefit of buying fresh products directly from the people who produce them. Farmers can avoid bureaucracy and directly earn a profit themselves.

Montgomery County has a number of farmers markets, including new ones in Glenside, Norristown, Skippack, and Telford and older markets in Ardmore, Flourtown, Gilbertsville, and Pottstown.

### **Purchase of Local Products**

County businesses, including its many food processors, and consumers can support farms by buying locally-produced farm goods. Restaurants should note locally-produced items on their menus.

To support these efforts, the state or other organizations should create a program that will provide start-up funds and technical assistance for farmers markets, community supported agriculture, and other similar programs.

### **Conclusion**

It's clear that agriculture faces a difficult future in Montgomery County, even with dedicated efforts to save it. Development pressures and economic forces may prove too much for many farmers to maintain their farms in a viable manner. Nonetheless, the county is committed to preserve as many of its remaining farms as possible and to work closely with farmers, developers, and government officials at all levels to make sure that farms can survive and thrive for years to come, providing jobs, local food products, and a higher quality of life for all.

# Chapter 6

## Historic Preservation

Montgomery County is blessed with a wide range of beautiful and important historic buildings, landscapes, structures, and towns. Despite this abundance, or perhaps because of it, historic preservation no longer holds the important role that it once did, and the county has witnessed a whole slew of building demolitions.

Preservation of historic buildings and places helps preserve the county's heritage, providing a link to those who have come before us. In the county's towns, historic buildings and districts provide a unique setting for retailers, restaurateurs, and entertainers. The recent revival of Ambler or Manayunk and on-going appeal of Skippack Village demonstrates the power of these walkable, attractive historic areas. In rural places, historic buildings and landscapes, including barns and other outbuildings, provide a unique and beautiful landscape that adds to the county's high quality of life, making it easier to recruit high tech businesses and entrepreneurs.

Many communities believe there is little they can do to preserve historic buildings. However, this is not the case, and there are a wide range of tools communities can use to preserve their unique heritage. This chapter of the *Open Space, Natural Features, and Cultural Resources Plan* describes the county's current historic setting and outlines actions communities and others can take to preserve this important heritage.

### **Existing Conditions**

The following section will explain the existing conditions and provide a background of the historic preservation efforts that have occurred and are occurring in Montgomery County. In addition, information will be provided that explains various concepts and issues associated with the preservation of historic resources.

This section describes historic surveys in the county, some of the historic properties in the county, and existing programs and tools for preserving historic resources.

### **Historic Resource Surveys and Inventories**

The backbone of historic preservation planning is a thorough and complete survey of historic resources, from which an inventory of significant historic resources can be created. The selected



Montgomery County is fortunate to have many wonderful historic resources, such as the Henry Antes house in Upper Frederick.



Historic resource surveys have been done in many communities, such as Ambler, Cheltenham, Lower Merion, and Whitpain.

inventory then becomes the official list of historic resources that can be protected from unnecessary demolition, insensitive alteration, and nearby development that could adversely affect the historic resource. A comprehensive survey of historic resources can be used to find previously unknown or overlooked historic resources within a community. In order for a historic resource survey to be considered comprehensive, the Pennsylvania Historical and Museum Commission recommends surveying all buildings 50 years old or older. The 50 year old or older benchmark is the age at which a resource becomes potentially eligible for listing in the National Register of Historic Places. Under certain circumstances, a resource less than 50 years old can be considered for listing to the National Register of Historic Places.

Information collected as part of a historic resource survey includes a thorough physical description of the resource and a description of its historical significance. The types of materials that currently exist on the resource, its size and shape, the year the resource was built, its architectural style, its current and historical use, and its association with important persons, ethnic groups, events, architects, engineers, or builders are among the types of data collected in a historic resource survey. The Pennsylvania Historical and Museum Commission provides Pennsylvania Historical Resource Survey forms and instructions for conducting historic resource surveys.

### Historic Resource Surveys in Montgomery County

In Montgomery County, several historic resource surveys have been conducted in the past. In 1975, the Montgomery County Planning Commission published the *Inventory of Historic and Cultural Resources*. This document contains an inventory of historic resources considered to be significant at that time. In order to create the inventory, the Planning Commission made extensive contacts with local historical societies and received recommendations concerning which resources to include in the publication. However, a comprehensive survey that included documentation of all buildings 50 years old or older was not completed as part of the project. In 1986, Montgomery County hired a historic preservation consulting firm, the Clio Group, to conduct a survey of historic resources in the county. The survey also was not comprehensive in that only

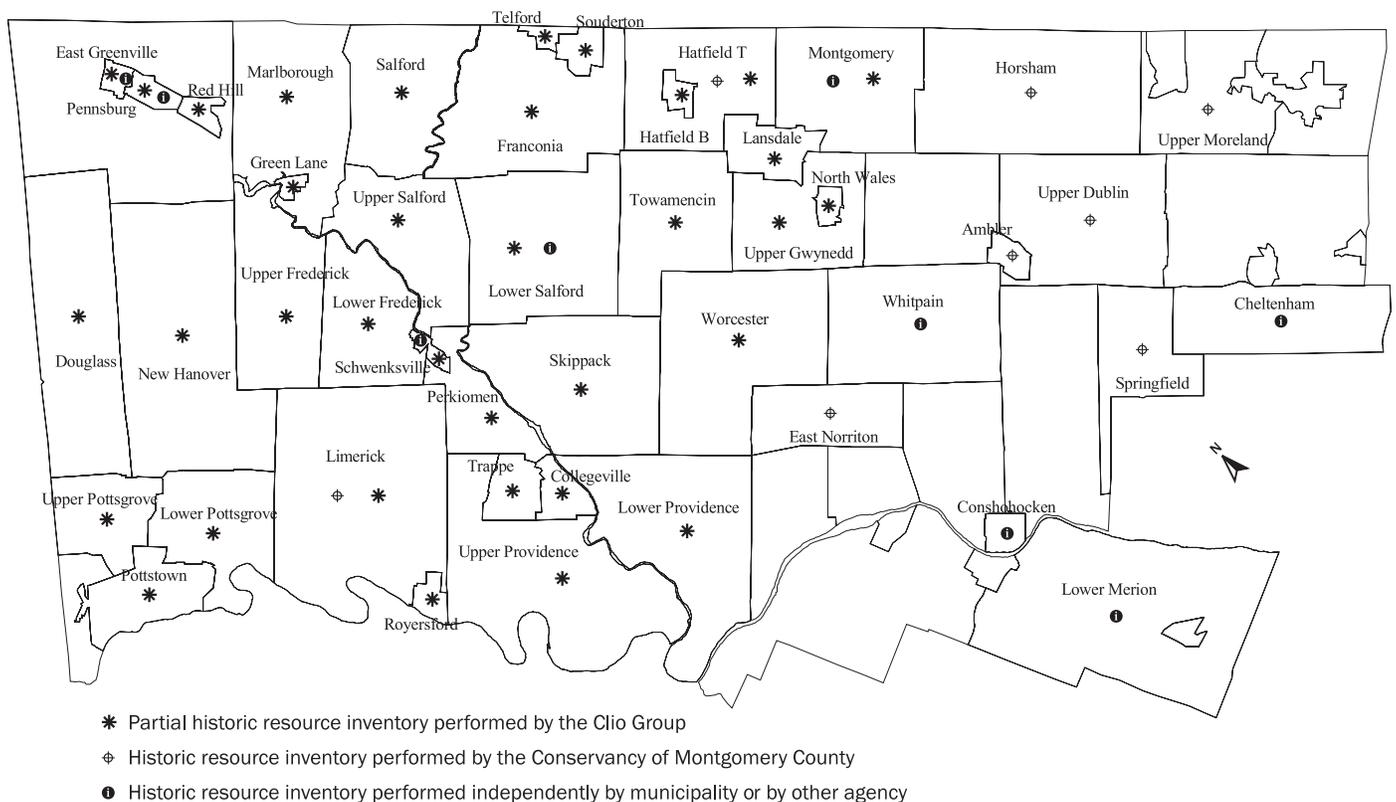
selected resources were surveyed and the entire county was not surveyed. The Clio Group conducted surveys in Collegeville, Franconia, Hatfield Borough and Hatfield Township, Lansdale, Upper Providence, Lower Salford, Montgomery Township, North Wales, Perkiomen, Pottstown, Skippack, Souderton, Telford, Towamencin, Trappe, Upper Gwynedd, Upper Providence, and Worcester. Additional survey work was started but not completed in other municipalities.

The Conservancy of Montgomery County, a nonprofit preservation organization, is currently in the process of preparing municipal historic surveys. At the present time, they have either completed historic resource surveys or are in the process of completing the surveys in the following communities: Ambler, East Norriton, Hatfield Township, Horsham, Limerick, Springfield, Upper Dublin, and Upper Moreland.

Recently, several municipalities or local historic societies in Montgomery County have conducted historic resource surveys, including Lower Merion, Pennsburg, East Greenville, Cheltenham and Whitpain.

The location of these various inventories is shown in Figure 41.

Figure 41  
HISTORIC RESOURCE INVENTORIES





The county has 11 National Historic Landmarks, including Grey Towers in Cheltenham.

### National Historic Landmarks and the National Register of Historic Places

#### National Historic Landmarks

The Historic Sites Act of 1935 allowed for the designation of historic resources to have status as National Historic Landmarks. National Historic Landmarks are historic resources that have a high degree of historic integrity and are significant to the nation and its history. The Secretary of the Interior, working with the National Park Service, is responsible for designating and maintaining the list of National Historic Landmarks. There are 11 National Historic Landmarks in Montgomery County, as shown in Figure 42. All National Historic Landmarks are listed on the National Register of Historic Places.

Figure 42  
*NATIONAL HISTORIC LANDMARKS IN MONTGOMERY COUNTY*

Historic Name	Location
Valley Forge National Historical Park	Upper Merion Township
Graeme Park (Keith House)	Horsham Township
Merion Cricket Club	Lower Merion Township
Woodmont	Lower Merion Township
M. Carey Thomas Library	Lower Merion Township
Mill Grove	Lower Providence Township
Augustus Lutheran Church	Trappe Borough
Washington's Headquarters	Upper Merion Township
Merion Friends Meeting	Lower Merion Township
Henry Antes House	Upper Frederick Township
Grey Towers	Cheltenham Township



The Keith House in Graeme Park is another National Historic Landmark in the county.

#### The National Register of Historic Places

The National Register of Historic Places was established by the National Historic Preservation Act of 1966 and is the official federal list of important historic resources. All National Historic Landmarks are listed on the National Register of Historic Places; however, resources on the National Register do not have to be nationally significant. They can be listed to the National Register for being significant to the state or to the local community.

Historic resources that can be listed on the National Register of Historic Places include buildings, structures, objects, sites, and districts. Examples of buildings include houses, barns, privies,

springhouses and train stations. Structures are things like gazebos, bridges, carousels, and canal locks. Objects are items such as statues, fountains, or monuments. Sites include archaeological sites, parks, battlefields, scenic views, cemeteries, landscapes, or farm fields. Districts are collections of any combination of buildings, structures, objects or sites that are connected by plan or development and together are historically significant. Historic districts can include downtown commercial areas, villages, transportation systems, or rural areas.

In order to be listed on the National Register of Historic Places a historic resource should generally be at least 50 years old or older, retain historic integrity, and be significant to the nation, state, or locality. Historic resources less than 50 years old can be considered for the National Register if they are determined to be highly significant.

For historic districts to qualify for the National Register of Historic Places, at least 75% of the historic resources within the district must be contributing. In order to be a contributing resource it must have been present at the time that the district achieved its historic significance and it must retain historic integrity.

Retention of historic integrity is important in determining if a historic resource is listed to the National Register of Historic Places. Historic integrity is defined in the National Historic Preservation Act as the survival of physical characteristics of the historic resource in terms of its location, setting, materials, design, workmanship, feeling, and association. In other words, historic integrity is retained if a resource looks similar to how it looked when it was first built or when it achieved historic significance. All seven aspects of integrity do not have to be retained. For example, over time some of a building's materials may have deteriorated and been replaced, a small addition may have been added, or development may have occurred near it, none of which completely destroys the building's historic integrity.

Historic significance is determined by meeting one or more of the four criteria for listing a resource to the National Register of Historic Places. Historic resources should meet one or more of the following criteria:

- A. associated with historic events that have made a significant contribution to the broad patterns of our history, or

***The National Register of Historic Places includes many of the county's best historic buildings; however, many of the county's fine historic landmarks and buildings are not on the register.***



Buildings, such as the Wall House in Cheltenham, must retain their historic integrity to get on the National Register.

- B. associated with the lives of important persons significant to our past, or
- C. embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction, or
- D. have yielded, or may be likely to yield, information important in history or prehistory.

### National Register Nomination Process

Anyone can nominate a resource to the National Register of Historic Places. The nomination process usually begins by filling out a Pennsylvania Historic Resources Survey form and submitting it to the Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation. The Bureau for Historic Preservation staff will review the form and preliminarily determine if the resource is eligible for the National Register, or not. If the Bureau determines the resource to be potentially eligible, then a National Register nomination form will have to be submitted to the Bureau for staff review and evaluation, and is typically returned to the author for revisions. Once the National Register nomination is revised and is as complete as possible, the Historic Preservation Board of the Bureau for Historic Preservation will vote at a regular meeting to either forward the nomination to the National Park Service or return it to the author for additional research or documentation. If the board votes to forward the nomination to the National Park Service, the National Park Service will review it, and usually the resource is listed to the National Register without any further revisions to the nomination. The National Register nomination process can take several years to complete.

Owners of historic resources are given the opportunity to object to their property being listed on the National Register. If owners object to the property being listed, the National Park Service can still formally determine the historic resource eligible for the National Register. Also, if a majority of property owners in a nominated historic district object to the listing, the district cannot be listed to the National Register. Elected officials governing a historic resource are given notice that the property will be placed on the National Register of Historic Places.

### Historic Contexts

Historic contexts are broad patterns of history within which historic resources are surveyed, evaluated and inventoried.

The National Park Service has a list of general broad themes, or areas of significance for National Register nominations that can be a basis for developing historic contexts to evaluate and identify historic resources. These are listed in Figure 43.

Figure 43  
POSSIBLE HISTORIC CONTEXTS

Agriculture	Industry Invention
Archaeology	Landscape Architecture
Architecture	Law
Art	Literature
Commerce	Maritime History
Communications	Military
Community Planning	Performing Arts
Conservation	Philosophy
Economics	Politics/Government
Education	Religion
Engineering	Science
Entertainment	Social History
Ethnic Heritage	Suburbia
Exploration/Settlement	Transportation
Health/Medicine	Others



Historic resources can fit many contexts, such as the transportation system, as illustrated by the Perkiomen Bridge in Collegeville.

Typically, historic contexts consist of a theme, a time period, and a geographic area. By using the above list of general themes, combined with a time period, it is possible to construct historic contexts for Montgomery County. For example, one possible historic context could be transportation in 19th century Montgomery County. Historic resources associated with this historic context can be directly or indirectly related to the context. For example, within transportation development in 19th century Montgomery County, one could directly identify bridges, roads, canals, lock tender's houses, and rail stations. Indirectly related to this context could be the houses for workers who constructed a canal, villages and towns that developed as a result of a railroad, a factory where iron bridges were made, or quarries where stone was extracted to build a railroad bridge.

It is possible for a historic resource to be categorized in more than one historic context. For example, the house of a prominent railroad executive could fall into a transportation related context and if the house was designed by a significant local architect, can also be classified in a context for architecture.

### Historic Resources in Montgomery County

Many types of historic resources exist in Montgomery County. The following will summarize some of the types of historic resources that do exist and explain the reasons for their significance and importance.

#### Archaeological Sites

Many archaeological sites have been found and will continue to be found in Montgomery County. Humans have occupied Pennsylvania and Montgomery County from approximately 10,000 B.C. until the present day. Archaeological sites are divided into two broad categories: prehistoric or historic. Generally speaking prehistoric archaeological sites are those bearing artifacts older than 1550 A.D. Historic archaeological sites are those dating from 1550 A.D. to the present.

To protect archaeological sites, their specific locations are not made available to the public. The Pennsylvania Historical and Museum Commission maintains maps and information about known archaeological sites and areas where there is a high likelihood for archaeological artifacts.

#### Architects and Artists

Many prominent architects and artists have worked in Montgomery County. A few of these are listed below, along with their buildings, to give a flavor of the depth and breadth of fine work done in the county:

- Frank Lloyd Wright designed Beth Sholom synagogue in Cheltenham Township and the Suntop Homes in Lower Merion.
- Frank Furness working with Allen Evans designed many train stations for the Philadelphia and Reading Railroad Company including the Norristown Station, as well as the Norristown Main Street Station and the Conshohocken Station both now demolished. Furness also designed the Merion Cricket Club in Lower Merion Township, which is listed on the National Register of Historic Places.



Many well-known architects, including Frank Lloyd Wright, have done work in Montgomery County.

- Horace Trumbauer designed Grey Towers, a National Historic Landmark on the campus of Arcadia University.
- Louis Kahn, a modernist architect, designed Erdman Hall, a dormitory on the campus of Bryn Mawr College. Kahn also designed the Weiss residence in East Norriton Township, as well as the Korman, Honickman, and Roche houses in Whitmarsh, along with other residences around Montgomery County.
- Walter Cope and John Stewardson designed the M.Carey Thomas Library at Bryn Mawr College, a National Historic Landmark, buildings at West Laurel Hill Cemetery, the Toland House in Whitmarsh Township, and other buildings around the county.
- Wilson Eyre designed the Van Rensselaer residence on Pennsylvania Avenue in Upper Dublin Township.
- Napoleon LeBrun, Schermerhorn and Reinhold, and Rankin and Kellog all played a part in the design of the Montgomery County Courthouse. Napoleon LeBrun also designed the former county prison across from the courthouse.
- The well-known landscape architect—Frederick Law Olmsted along with his son John C. Olmsted—designed the campus at Bryn Mawr College.
- Robert Venturi designed several buildings in Montgomery County.



Erdman Hall on Bryn Mawr College's campus, was designed by world-reknowned architect Louis Kahn.

Important artists have also done work in Montgomery County. A few of these, along with their work, are listed below:

- Henry Mercer designed tiles that can be found on store fronts in Lansdale and at other locations in the county.
- Samuel Yellin, a master blacksmith and metal worker, made the gates on the Washington Memorial Chapel in Valley Forge. He also did works for Bryn Mawr College and for various residences in Lower Merion Township.
- Paul Mays painted the WPA murals in the Norristown Post Office.
- Louis Comfort Tiffany made stained glass windows, a glass mosaic, and bronze gilding for St. George Coptic Orthodox Church on Dekalb Street in Norristown.



WPA mural in the Norristown Post Office.



*Greek Revival*



*Queen Anne Style*



*Period Revival*

The county's architecture covers a wide range of styles going from the seventeenth to the twenty-first centuries, as illustrated by a few examples from Souderton and Telford.

## Architecture

The architectural history of Montgomery County reflects its social and cultural history. The geographic position of Montgomery County adjacent to Philadelphia, a major port of entry, meant that early settlers arrived here from Europe, bringing building traditions from their native cultures. The houses and buildings constructed during this time period are often referred to as folk style or sometimes as vernacular architecture, meaning that it was not yet influenced by classical architecture and was the everyday architecture of the common people.

As the nation and county began to take shape, more classically influenced styles of architecture began to emerge. Architecture of the emerging nation included Georgian and Federal styles. Classical, Greek, Roman, and Early Gothic Revival styles followed as the county and nation expanded and grew during the first half of the 19th century.

The Industrial Revolution and the increased use of machines resulted in the ability to create a greater variety of shapes out of wood. As a result more stylistic forms of architecture including those of the Victorian Era began to emerge in Montgomery County and were spread by the railroads. Victorian Era architecture includes Italianate, Queen Anne, and Stick Styles.

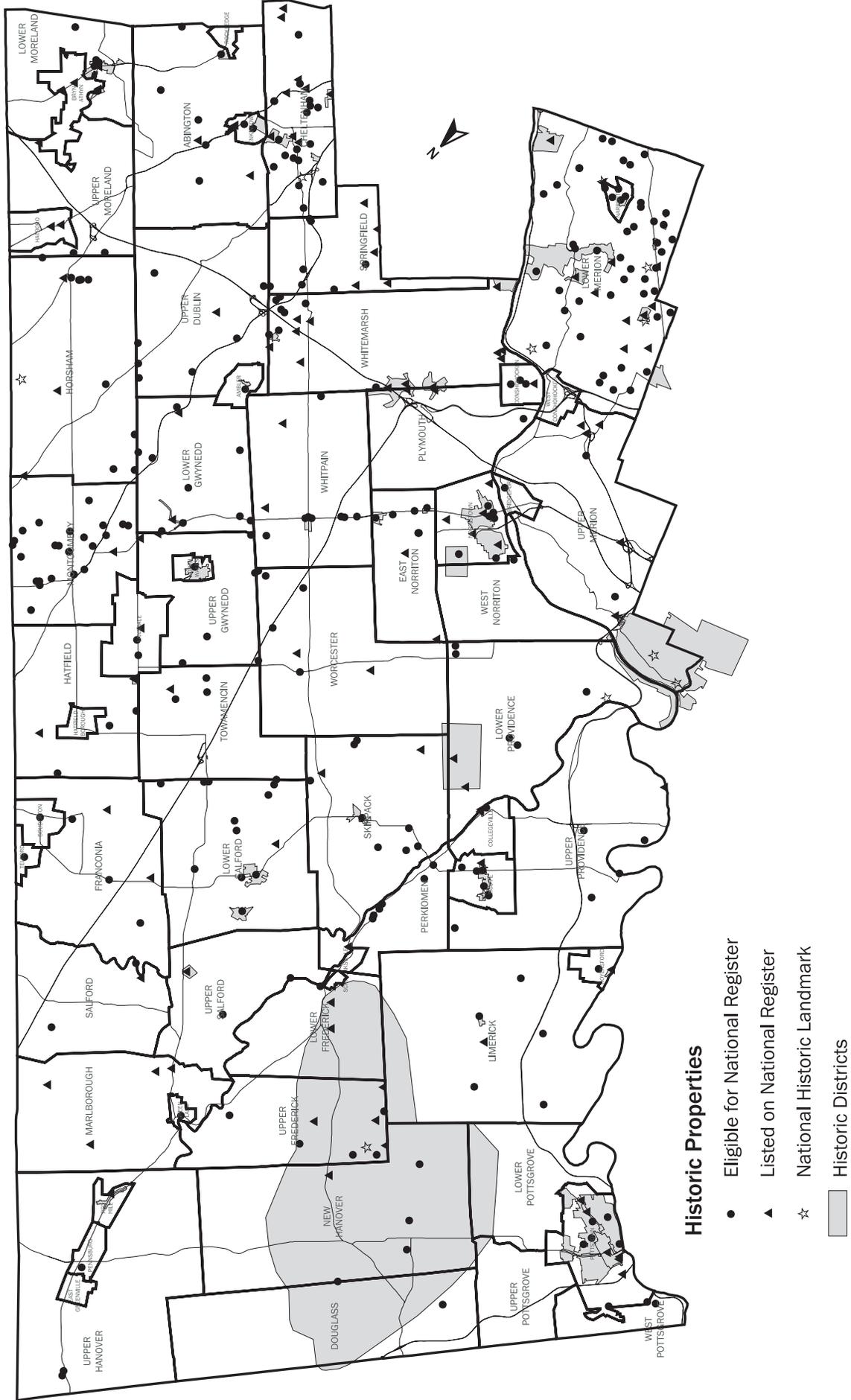
Streetcars and interurban trolleys ushered in eclectic and modern mass produced housing. Bungalow and Craftsman architecture along with Tudor Revival and Colonial Revival architecture was introduced and flourished. J.C. Penney, Sears, and other mass retailers sold houses by mail in these styles in large quantities through their catalogs.

The use of new materials and technology, particularly the use of metal and glass, resulted in modern styles of architecture including Art Deco, Art Moderne, International Style, Ranch Style, Split Levels, and other forms of contemporary architecture.

## National Register Listed and Eligible Resources

The Pennsylvania Historical and Museum Commission maintains and publishes a list of historic resources in Pennsylvania that are listed on the National Register of Historic Places, or that have been determined to be potentially eligible for the National Register. Figure 44 shows the location of these properties and districts in Montgomery County. Other important historic properties exist in the county but have not been listed on the National

Figure 44  
HISTORIC PROPERTIES - NATIONAL REGISTER



Source: 2002 Pennsylvania Historical and Museum Commission data.



The county owns five National Register listed properties, including Sunrise Mill in Upper Frederick.

Register simply because no one had requested that they be listed.

Highlights of some of the resources contained on the list of National Register Listed and Eligible properties include the five historic resources that are owned by Montgomery County:

- Mill Grove - Built in 1762 and home of John James Audubon, the well known naturalist. The property is a National Historic Landmark.
- Peter Wentz Farmstead - Built in 1744 and an excellent example of German folk architecture. The building also served as headquarters for George Washington in the Autumn of 1777.
- Pottsgrove Manor - Home of John Potts, iron worker, and founder of Pottstown, built in 1752. Is also a good example of Georgian architecture.
- Sunrise Mill - An important early industrial building that supplied flour and lumber to the local area. It was built in 1767.
- Pennypacker Mills - Built in 1901 as the home of Pennsylvania Governor Samuel W. Pennypacker.

The buildings, historic districts, structures and sites listed or eligible for the National Register are shown in Figure 44. A few of these sites are listed below, along with the reason for their inclusion, to illustrate the surprising range of resources in Montgomery County and how fortunate the county is to have such a diverse historic landscape.



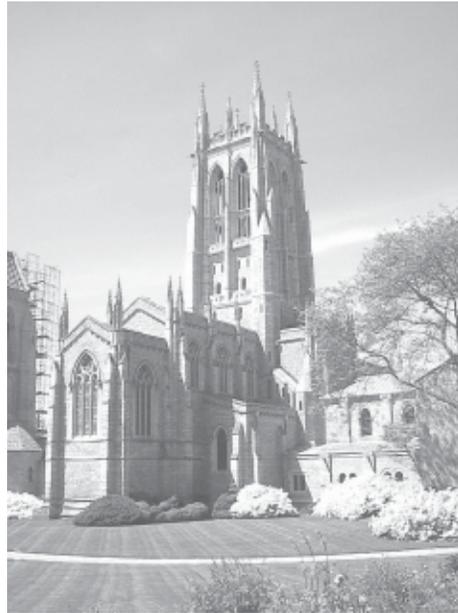
Trappe Village is a National Register district.

- Trappe Village Historic District - Trappe Borough - Significant for its association with the Perkiomen and Reading Turnpike and the Muhlenberg family.
- Perkiomen Bridge - Collegeville Borough - Significant for engineering.
- Montgomery Cemetery - West Norriton Township - Significant for landscape architecture and prominent interments.
- Bauern Freund Print Shop - Marlborough Township - Significant for printing German language newspaper.
- Evans-Mumbower Mill - Upper Gwynedd Township - Significant for industry.
- Henry Antes House - Upper Frederick Township - Significant for religion, education, and agriculture.

- Hollywood Historic District - Abington Township - Significant for architecture.
- Lock #60 and Lock Keepers House, and Schuylkill Navigation Canal Oaks Reach Section - Upper Providence Township - Significant for transportation.
- Lansdale Railroad Station - Lansdale Borough - Significant for architecture and transportation.
- Lee Tire and Rubber Company - Whitmarsh Township - Significant for industry.
- Barley Sheaf Inn - East Norriton Township - Significant as location where Montgomery County court first held.
- Spring Lake Farm - Upper Dublin Township - Significant for agriculture and education.
- English Village Historic District - Lower Merion Township - Significant for architecture.
- Keswick Theatre - Abington Township - Significant for architecture, commerce, recreation and culture.
- Normandy Farm - Whitpain Township - Significant for architecture and agriculture.
- Bridgeport National Bank - Bridgeport Borough - Significant for commerce.
- Schuylkill Valley Traction Company Powerhouse - Colledgeville Borough - Significant for transportation and industry.
- Carson College for Orphan Girls - Springfield Township - Significant for education, commerce and social history.

A variety of scenic and natural resources also exist in Montgomery County that have historic or cultural significance. Scenic and natural resources can have historic and cultural significance depending on man's interaction with the resource. Examples of these resources include:

- Hanging Rock - Upper Merion Township - Significant for conservation.
- Falkners Swamp Rural Historic District - Douglass, Upper Frederick and New Hanover Townships - Significant for agriculture.
- Curtis Arboretum - Cheltenham Township - Significant for architecture, landscape architecture, entertainment and recreation.



The Bryn Athyn cathedral is an example of a National Register building.



Man-made landscapes, like Curtis Arboretum in Cheltenham, can also have historic significance.



Tookany Parkway is an example of an aesthetically unique scenic road.

***“A new and substantial effort must be made to landscape highways and provide places of relaxation and recreation wherever our roads run.”***

Lyndon B. Johnson

Scenic views, scenic roads, greenways, heritage corridors, and cultural landscapes can also be historically significant. For example, the Schuylkill River Valley which forms Montgomery County’s western border was recently designated a National Heritage Area. This is recognition of the role the river played in the historical development of the region.

### **Scenic Roads**

A scenic road provides a visually pleasant experience for drivers, bicyclists, pedestrians, and other travelers. A road can have two types of scenic value: the immediate physical characteristics of the road and its right-of-way and the views of natural and cultural resources from the roadway. The roadway, its right-of-way, and all land visible from the road make up the “scenic road corridor.” In addition to visual enjoyment, a scenic road corridor can offer other pleasant experiences such as scents, sounds, seasonal attractions, road surfaces, motion, and landscape history. Scenic roads give travelers access to “visually occupy” and enjoy diverse landscapes and open space.

The federal government recognized the importance of scenic roads in the United States by mandating the National Scenic Byways Program as part of ISTEA. The program officially started in October 1994. State or local governments and any other organized group can nominate roads for designation as “All American Roads,” “National Scenic Byways,” or state or federal agency scenic byways. Designated roads become eligible for funding for improvements, enhancements, and protective measures. The initial nomination and designation process was completed in 1996. However, additional funding may be available in the future.

Pennsylvania does not have a state scenic byways program, and no roads have been designated at the state level. However, PENNDOT has been working with Scenic America (a national interest group that lobbies for the protection of scenic resources) to develop a model scenic byways program for the state. Scenic America has been testing criteria and a process for designating state roads and will propose the state initiate a funding program.

Scenic roads contribute to the quality of life of Montgomery County residents. The visual beauty, charm, and history of the county’s landscapes enrich

daily life. The county's attractive landscape is a key reason why many people and businesses choose to locate here. Every locality has unique features that are appreciated by residents and visitors. Scenic roads are a highly valuable resource and should be protected. If the scenic qualities of these roads were lost, it would have noticeable adverse effects on the county as a whole.

The Chester County *Scenic Roads Handbook* notes, "The scenic road image is fragile and easily altered by threats ranging from land development to road maintenance to litter." Seemingly minor changes to a road and its corridor can have major effects on the perception of the road. One eyesore can ruin the overall impression made by a long stretch of road. The impact of future land developments and alterations to scenic roads should be carefully planned, and their scenic qualities should be protected.

### Evaluating Scenic Roads

Whether or not a road should be considered scenic may seem subjective. However, there is actually a strong consensus regarding the terms "scenic" and "nonscenic." Most people consider agricultural landscapes, water bodies, watercourses, country villages, and long views to be scenic. Other areas, such as commercial strips, are almost universally considered nonscenic.

It is possible to identify certain scenic qualities of roads and landscapes that determine a road's visual quality: trees, water, a winding course. Many attempts have been made to list all scenic qualities of a road so they can be inventoried and the overall scenic value of different roads compared. The Chester County *Scenic Roads Handbook* recommends analyzing the following scenic qualities to determine a road's scenic value:

**Viewshed Boundary:** How far can one see from the road?

**General Landscape Unit:** What kinds of landscapes does the road traverse? Are they mixed, or does one type predominate over long stretches (urban, suburban, rural, open areas, natural areas)?

**Physical Roadside Features:** Are there visually interesting natural or built features (autumn colors, old cemeteries, bridges)? Are there focal points which influence the entire road impression (positive or negative)? Does the roadway itself have interesting pavement, construction, topography, or



Most people consider farms, rivers, ponds, historic homes, and villages to be scenic. Skippack Village is shown here.

other features that touch and direct the motion of a vehicle (bumps, descents)? Are there points which act as an entry or an exit?

**Abstract Character Quality:** How does one react to the road? Is there a certain sense of place? Which of these feelings are evoked: anticipation, surprise, undulation, confinement, openness, tension?

**Area Setting:** What other influences in the vicinity enhance or degrade a scenic road experience? Does the road provide access to a point of interest? What are the traffic conditions like? What types of land use patterns are present in the viewshed? What are the projected and probable future uses?

As this inventory of road qualities shows, evaluating and preserving a scenic road involves comprehensive planning that considers all aspects of the current and future characteristics of the road, its right-of-way, and its viewshed.

### Recommended County Scenic Roads

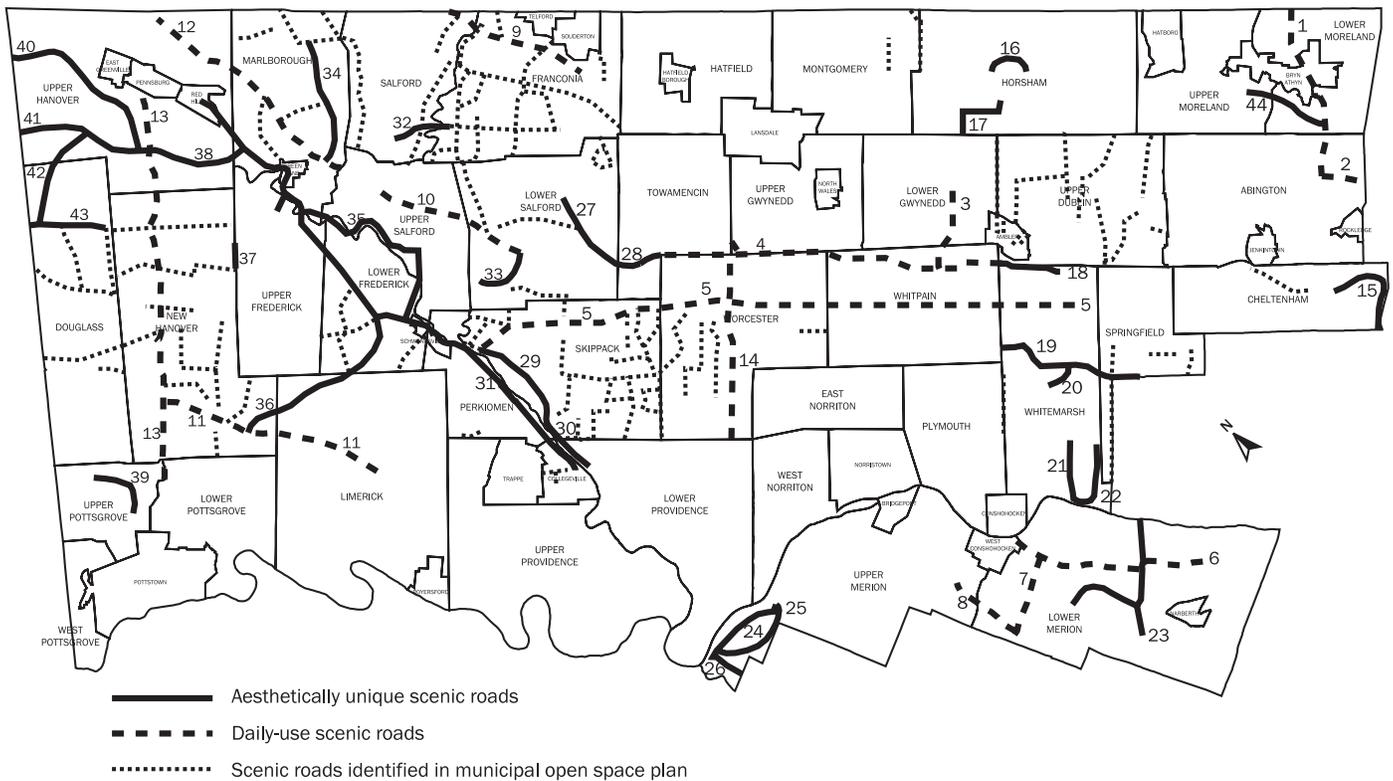
Some roads have scenic qualities that are beneficial to the entire county. These might be roads of the highest scenic quality or scenic roads which are components of common commuter routes. The method described below was used to analyze both of these scenic road types (Aesthetically Unique and Daily Use) and to determine which roads should be recommended for designation. These roads are shown in Figure 45.

The *Montgomery County Resource Protection Plan* (1976) identified a network of “roads and highways traversing natural amenities areas.” These roads represented county level scenic roads at that time. For this plan, the scenic roads analysis was limited to roads identified in this plan. It would be desirable to analyze other county roads that may also qualify for recommendation.

An inventory form was developed to catalog the scenic value of these roads. This form provides a standardized written record of the positive and negative qualities of all roads being considered. The inventory was completed for all roads identified in the resource protection plan.

The merits of these roads were then weighed using an evaluation guideline. Once the scenic qualities of all the roads had been judged, the roads were divided into three levels of scenic quality. The top third were recommended as county level scenic roads.

Figure 45  
SCENIC ROADS



Source: *Creating an Open Space Legacy*, Montgomery County, 1996, and municipal open space plans.

**Daily Use**

- |                           |  |
|---------------------------|--|
| 1 Huntingdon Pike         | 8 Montgomery Avenue                    |
| 2 Moreton Road            | 9 Cowpath Road                         |
| 3 Penllyn Pike            | 10 Old Skippack and Salfordville Roads |
| 4 Morris Road             | 11 Swamp Pike                          |
| 5 Skippack Pike           | 12 Geryville Pike                      |
| 6 Conshohocken State Road | 13 Layfield Road                       |
| 7 Spring Mill Road        | 14 Valley Forge Road                   |

**Aesthetically Unique**

- |  |  |
|--|--|
| 15 Tookany Creek Parkway                       | 30 River and Creek Roads   |
| 16 Davis Grove Road                            | 31 Route 29  |
| 17 McKean Road                                 | 32 Morwood and Camp Roads  |
| 18 Morris Road                                 | 33 Bergey's Mill Road  |
| 19 Stenton Avenue                              | 34 Swamp Creek Road  |
| 20 Flouertown Road                             | 35 Hendricks, Salford Station, Kratz, Clemmer's Mill and Spring Mountain Roads |
| 21 Harts Lane                                  | 36 Faust, Grebe, Yerger, and Gerloff Roads                                     |
| 22 Manor Road                                  | 37 Snyder Road   |
| 23 Old Gulph, Mill Creek, and Williamson Roads | 38 Knight Road   |
| 24 Valley Forge Road                           | 39 Snyder and Yarnal Roads   |
| 25 North Gulph Road and Outer Line Drive       | 40 Route 29, Water Street and Church Road                                      |
| 26 Valley Creek Road                           | 41 Philadelphia and Kutztown Road and Knight Road                              |
| 27 Stover, Quarry, and Bridge Roads            | 42 Miller Road   |
| 28 Kriebel Road                                | 43 Niantic Road  |
| 29 Perkiomen Creek Road                        | 44 Terwood Road  |



Conshohocken State Road, in Lower Merion Township, is an example of a daily-use road.

In addition, all roads were classified either as Daily Use or Aesthetically Unique. All of the roads classified as Daily Use roads were either major collectors, minor arterials, or principal arterials, which means their use is not restricted to the local level. Aesthetically Unique roads were chosen by their exceptional scenic qualities. They include roads of almost all functional classes. Limited access highways were not evaluated for scenic road classification in this plan. However, the county recognizes the importance of maintaining the scenic qualities of these roads.

### Designating and Protecting Scenic Roads in Montgomery County

The county and municipalities should prepare a more detailed inventory of any scenic roads they want to protect. This inventory would record the exact location of the scenic qualities within a scenic corridor. It would promote public awareness of existing scenic resources and encourage landowners to recognize their role in community appearance. Attractive areas to be preserved and areas that need to be enhanced would be identified.

Once scenic resources are identified, municipal land use planning and open space planning processes can work to protect them. Some tools and guidelines for preserving scenic roads are described below. More detailed descriptions can be found in Scenic America's case study, *Scenic Resource Protection Techniques and Tools*. The county planning commission can provide technical assistance to municipalities.

The aesthetically unique and daily use roads mapped in Figure 45 are recommended for designation as county scenic roads. Roads should be designated only if protective measures are taken to maintain their scenic qualities. Municipally-important scenic roads identified in local open space plans are also shown in Figure 45.

Voluntary multimunicipal efforts will be required to coordinate the protection of these roads and to qualify them for designation.

Roads classified as Aesthetically Unique traverse landscapes that are rare in the county or in one section of the county. These roads have been identified for preservation. Any negative changes to their scenic qualities should be prevented. The Daily

Use scenic roads do not display the same unique pristine qualities, and they do not require the same level of protection. However, when changes are made, very high design standards should be set to ensure these roads continue to contribute positively to the quality of life in the county.

### Tools and Guidelines for Protecting Scenic Roads

The scenic qualities of a road will only remain intact if alterations to the corridor maintain or enhance the existing positive characteristics. Tools for protecting scenic corridors aim to accomplish three goals: permanently preserve desirable existing conditions, enhance marginally scenic areas, and sensitively integrate new development into the corridor.

A variety of tools are available to protect scenic roads and to guide development along scenic corridors. Some apply only to the road and its right-of-way, and some apply to the adjacent land or corridor. Because every scenic road has its own intrinsic qualities, different sets of tools may be appropriate. A specific strategy and action plan should be developed for the protection of each scenic road. This strategy should include a tailored set of design standards for the road and its corridor. In some cases, the same design standards may be appropriate for all scenic roads in one municipality. When one road traverses several municipalities, the protection strategies should be coordinated.

### Scenic Roadway Protection

Tools for protecting roadway character focus either on preserving or enhancing the physical nature. Most often, the roadway's scenic qualities can be preserved with a local scenic roads ordinance, which specifies how the roadway should be maintained, improved, or altered. In general, road modifications and improvements should be made only when absolutely necessary. Widening shoulders, removing embankments, increasing turning radii, and straightening roads lead to a loss of scenic quality. Bridges, trees, and scenic characteristics of the road or its right-of-way should be preserved or, if necessary, relocated or duplicated. Scenic bridges can be especially important. In addition to being scenic objects, bridges provide views from angles that would otherwise not be seen. Design standards and maintenance guidelines are used to protect scenic roadways. Standards can be enforced using



Skippack Pike is a scenic road that runs through the heart of Montgomery County.

local controls and regulations. Some sample guidelines for road enhancement follow.

The width of road pavement of scenic roads and of roads feeding into them should be specified. Edges of scenic roads should be defined with distinct lines and physical barriers dividing the road from other paved areas. In general, the road surface and all barriers or traffic islands should be kept neat and well-maintained. Only materials that are compatible with the nature of the road and its surroundings should be used.

Signs along scenic roads should be in good condition, and unnecessary signs should be removed or consolidated on fewer poles. Design standards for materials, colors, size, and location of advertising may be appropriate on some roads. The visual impact of guardrails should be considered; more attractive materials, such as timber or weathered steel, should be required on some roads. Any other structures along scenic roads, such as drainage structures, bridges, or retaining walls, should blend in as much as possible with their surroundings and should not obstruct views. Lighting should be kept to a minimum. Any lighting features should enhance the aesthetic quality of the road.

Existing vegetation along the roadside must be well managed to create and maintain views from the road. Topping of trees, use of defoliant sprays, and other management techniques that result in unattractive roadside conditions should be prohibited. New plantings should be designed with their mature size in mind to prevent conflicts between large trees and overhead wires.

Finally, entry and exit points along roads should be emphasized with positive design features to prevent the blur of repetitive and nondistinctive commercial strips and to heighten a traveler's awareness when entering new communities or situations. In some cases, it may be appropriate to build and maintain roadside viewing areas to improve access to certain views or to draw attention to historic locations or markers.

### Scenic Corridor Protection

Tools for protecting the scenic corridor are designed to preserve the character of the landscape that the road traverses and to protect specific views visible from the road. The central goal is to control the nature of new development within the scenic road viewshed so it does not have a negative impact on the scenic qualities of the road. There are many

tools for managing and protecting scenic corridors including general planning and land use controls.

Comprehensive plans should always consider scenic roads when creating strategies for the overall development of communities. Inappropriate uses along these roads should be discouraged, and traffic problems should be alleviated when possible. Whenever possible, scenic roads should be associated with recommended agricultural districts, historic districts, open space, and conservation areas.

In situations where future development should be prevented, land acquisition or land transfer controls, such as purchase or transfer of development rights, are most effective. Other types of land use controls can be used to preserve scenic qualities. These include conservation easements, scenic easements, zoning ordinances with overlay zoning, and special zoning districts. Municipalities should consider the impact of high-density residential, commercial, or industrial/office development zoning districts on scenic roads.

Specific scenic qualities also can be protected using ordinances. Tree protection ordinances can ensure that a parallel row of trees creating a “green tunnel” along a road are preserved. View preservation ordinances can specify the location, height, and nature of buildings allowed within a significant viewshed. When land is being developed, other types of controls can influence the nature of the development and set design standards. These include subdivision regulations which require cluster development and design reviews which carefully analyze a development’s impact on scenic road viewsheds.

Scenic resources that will be affected by development should be identified to assist the design review process. Site analyses performed prior to land development should include an inventory of the site’s scenic resources. The roadway viewshed should always be mapped on site plans, and the majority of new development should be outside of the viewshed or in less critical areas. Important sight lines to the scenic resources should be indicated and should remain open in site designs. The Chester County handbook suggests open areas can be used for open space, recreation, sewage disposal, farmland, drainage, grass-covered overflow parking, or private yards with restrictions for placement of trees, shrubs, and structures. Any existing screening that could be preserved or intensified and would partially conceal the new development should be identified. Characteristic features of the site, such

as existing architecture, construction materials, dominant colors, and native vegetation, should be noted so they can be incorporated into the design guidelines.

By actively applying these tools and guidelines for scenic road preservation, a cherished resource can be preserved, helping maintain a high quality of life in Montgomery County for future generations.

### Heritage Tourism

Heritage tourism means different things to different people. For some, it can mean visiting historical sites, such as Valley Forge National Historical Park or Independence Hall. For others, simply visiting an older neighborhood with Victorian architecture may count as heritage tourism. And for many others, it involves visiting museums or other cultural attractions that evoke the past, such as the Peter Wentz Farmstead or a working Amish farm.

Heritage tourism can be quite beneficial for local communities. It helps promote community character and pride and also helps strengthen local economies. A travel industry trade group estimates that heritage tourists spend more time and more money during their visits than do the average tourist. According to a study on the Schuylkill River Heritage Area, there are approximately 636,000 heritage tourists in Montgomery County each year, with the vast majority visiting in the summer and fall. Over 70% of these visitors come from outside the region, and they spend over \$37 million per year on food, drink, retail goods, lodging, recreation, entertainment, and transportation. This clearly has an impact on the county.

Recognizing the economic impact of historic tourism, local counties have worked together and with the state to support the Greater Philadelphia Tourism Marketing Corporation. This nonprofit agency is dedicated to building the region's economy and positive image through tourism and destination marketing. It works in cooperation with the Valley Forge Convention and Visitors Bureau in Montgomery County. The development of the 100 million dollar Center for the American Revolution in Valley Forge National Historical Park will greatly enhance heritage tourism in the county.

Valley Forge National Historical Park is the premier heritage tourist site in the county. Other sites, such as the Audubon Wildlife Sanctuary and its planned new museum and visitors center, can capitalize on the draw of Valley Forge National Historical Park.



Valley Forge National Historical Park is the premier heritage tourism site in the county.

Another regional heritage tourism effort is the Schuylkill National Heritage Area, designated by the National Park Service in 2000 and managed by the Schuylkill River Greenway Association. The Area is an attempt to coordinate among various government agencies and local municipalities along the entire length of the Schuylkill to promote and preserve the unique historical, cultural and natural resources of the Schuylkill River.

### Protecting Historic Resources

There are a variety of existing federal, state, and local regulations and resources that can be used to protect historic resources, as well as private and nonprofit resources. These are summarized below.

#### Federal Regulations

The owner of a historic resource listed on, or eligible for, the National Register of Historic Places can demolish or alter their property in any way, at any time. The listing, or the determination of eligibility, of a property to the National Register provides absolutely no protection from private development.

Section 106 of the National Historic Preservation Act does protect historic resources that are listed or eligible for the National Register of Historic Places by requiring that federal agencies take into consideration the effects of their undertakings on historic properties. Federal undertakings include federally funded, federally assisted, or federally licensed projects. Specific examples of federal undertakings include, but are not limited to, highway, road, and bridge improvements, communication tower construction, airport improvements, housing projects, projects requiring a federal wetlands permit, construction of banks and post offices, as well as mining, utility and forestry projects that require federal permits.

The Section 106 process includes coordination with the Pennsylvania Historical and Museum Commission, the federal agency involved in the project, the Advisory Council for Historic Preservation, and other interested parties including the public. Generally, the Section 106 process includes a survey of all potential historic resources in the Area of Potential Effect (APE). The survey reveals existing National Register listed and eligible resources, as well as historic resources 50 years old or older that have not been previously surveyed, but have the potential to be listed on the National Register.

***The listing, or the determination of eligibility, of a property to the National Register provides absolutely no protection from private development.***



The Highlands in Whitemarsh is listed on the National Register.

Through consultation and negotiation with the parties involved in the Section 106 process, a determination is made as to whether or not there are historic resources in the Area of Potential Effect that will be adversely affected by the project. Adverse effects include demolishing or moving a historic resource, alteration of the resource that is not consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties, introduction of visual or audible elements that could destroy historic integrity, or transfer of federally owned historic properties out of federal ownership without appropriate covenants. If historic resources will be adversely affected by the federal project, a Memorandum of Agreement is produced outlining the mitigation measures that the federal agency will take to reduce the adverse effect.

Another federal law that protects historic resources from federally funded projects is the National Environmental Policy Act. The National Environmental Policy Act regulates federal projects that could have a significant impact on the human environment. The human environment includes cultural and historic resources as well as the natural environment. In order to streamline the environmental review process, the federal government has recently allowed the substitution of the requirements of Section 106 regulations with the regulations of the National Environmental Policy Act.

Section 4(f) of the U.S. Transportation Act, the Archaeological and Historic Preservation Act, the Archaeological Resources Protection Act, and the Native American Graves Protection and Repatriation Act also require assessment of historic resources threatened by federal actions or on federal land.

### State Historic Preservation Regulations

Pennsylvania has a law similar to the National Historic Preservation Act known as the Pennsylvania History Code. It protects historic and prehistoric archaeological artifacts and other historic resources from the impact of Commonwealth funded, licensed, or assisted projects. In addition, the law also protects archaeological resources and other historic resources on land owned by the Commonwealth.

In general, the protection of historic resources in Pennsylvania is supported by Article 1, Section 27 of the Pennsylvania Constitution, which states that: "The people have a right to clean air, pure water, and to the preservation of the natural, scenic, historic, and esthetic values of the environ-

ment.” This amendment to the Pennsylvania Constitution makes it possible for residents of the Commonwealth to hold government officials responsible for protecting historic resources, and other environmental features, from the negative impacts of publicly funded projects.

**Local Historic Preservation Ordinances**

Municipalities in Pennsylvania have two legal approaches to protect historic resources: using the Pennsylvania Historic District Act and/or the Pennsylvania Municipalities Planning Code. These options are described below.

**Pennsylvania Historic District Act**

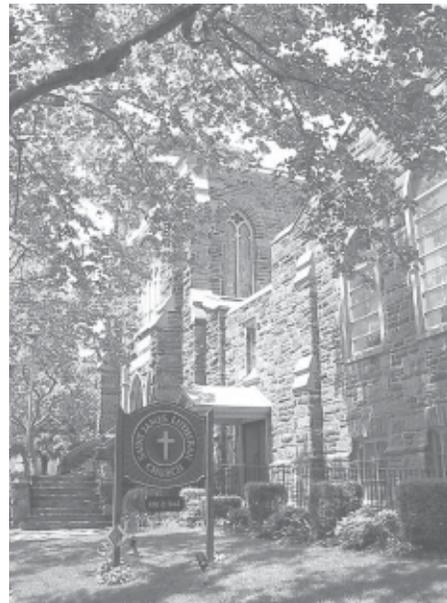
The Pennsylvania Historic District Act, passed in 1961 (Act 167), allows municipalities to create a historic district subject to certification by the Pennsylvania Historical and Museum Commission. A Historical Architectural Review Board (HARB) oversees the certified historic district. The Historical Architectural Review Board examines all proposed changes to any building in the historic district and makes a recommendation to the governing body to approve or not approve a Certificate of Appropriateness for the alterations.

Several municipalities in Montgomery County have adopted historic district ordinances using the Historic District Act. North Wales adopted a historic district ordinance in 2000. Cheltenham has two historic districts (Wyncote and LaMott Historic

Districts) overseen by two Historic Architectural Review Boards. Plymouth and Whitmarsh Townships have a combined Historic Architectural Review Board that protects the Plymouth Meeting Historic District. In addition, Lower Merion Township, Lower Moreland Township and Pottstown have Historical Architectural Review Boards. These communities are shown in Figure 46.

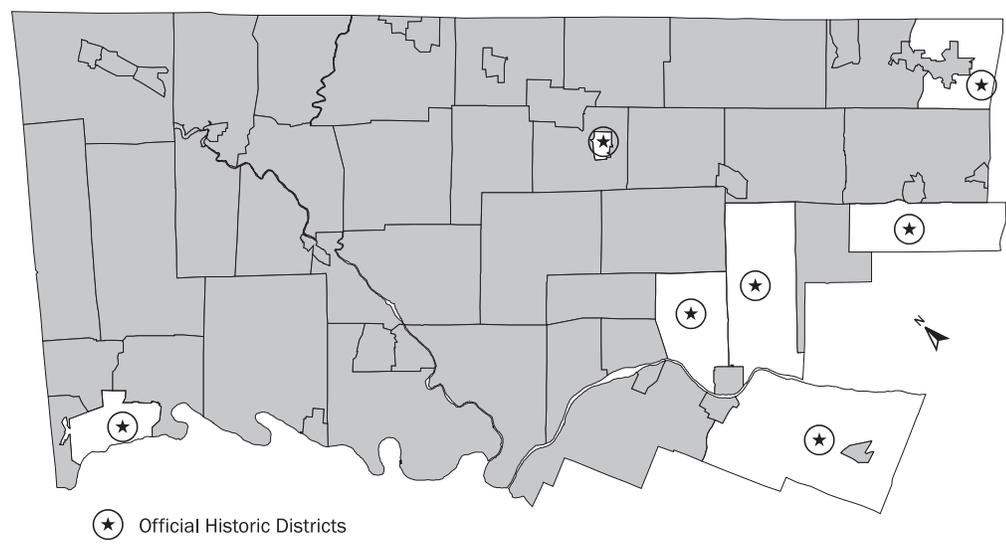
The Historic District Act has also been used to create conservation districts for older boroughs

**Contrary to popular opinion, historic districts do not need to control paint color. In Montgomery County, none of the districts do.**



Several municipalities have historic districts, including Pottstown.

**Figure 46**  
*COMMUNITIES WITH HISTORIC DISTRICTS & REVIEW BOARDS*



and cities in Pennsylvania. One difference between a historic district and a conservation district is that a Historical Architectural Review Board does not oversee the district, rather a conservation commission or similarly named entity reviews changes to buildings. In addition, the conservation commission reviews only major changes to buildings and does not scrutinize all changes to all buildings in the district.

### **Pennsylvania Municipalities Planning Code**

Historic preservation ordinances can also be adopted based on sections 603, 604, and 605 of the Pennsylvania Municipalities Planning Code of 1968 (Act 247). These sections give municipalities the power to use zoning to protect historic resources. Zoning ordinances can protect historic districts, scattered individual historic properties, or both.

Scattered individual historic properties are often protected through an overlay zone. These overlay ordinances protect properties on a historic resource inventory, which is the official list of historic resources adopted and approved by the governing body. The properties on the historic resources inventory form a separate zoning district that overlays all other zoning districts in the municipality. A historical commission or other review body typically oversees the resources. The ordinance can protect against demolition, insensitive alterations, demolition by neglect, destruction of archaeological sites, and can control new construction adjacent to historic resources.

Historic preservation overlay ordinances often offer incentives for preservation. For example, construction projects involving historic buildings may get relief from bulk, area, and setback requirements of the underlying zoning district. In addition, these districts may permit uses not normally allowed in the underlying zoning district, such as bed and breakfasts, offices, or community centers.

Lower Merion Township has an exemplary ordinance using the historic preservation overlay zone concept. It adopted a historic preservation overlay zoning ordinance in 2000 that protects about 900 individual historic properties. The ordinance won a Pennsylvania Planning Association Outstanding Planning Award in 2002.



Lower Merion has an exemplary historic preservation overlay ordinance, that protects historic structures such as Merion Cricket Club.

Many other communities in the county are considering this type of overlay ordinance, including Ambler, Horsham, Lower Gwynedd, Pennsburg, Springfield, Towamencin, Trappe, Upper Dublin, and Upper Moreland.

Royersford Borough has a unique adaptive reuse ordinance that allows apartments, offices, and other uses in historic industrial or institutional buildings that are scattered around the borough.

Some communities amend specific zoning districts to protect historic resources. For example, Montgomery Township created a historic preservation cluster ordinance that allows smaller residential lots in exchange for the preservation of a historic house. In its ECPOD District, the township has a bonus for preserving historic buildings.

Concentrated historic properties are frequently protected through village commercial or downtown borough zoning. This type of zoning preserves the historic quality of villages and towns by limiting the types of commercial uses that are permitted, by giving use or dimensional bonuses for the preservation of historic buildings, or by using architectural and design standards to require compatible development. For example, Trappe Borough's village commercial district only allows more intense uses in existing historic buildings, while also requiring compatible design of building additions. Lower Salford Township protects the villages of Harleysville, Mainland, Vernfield, and Lederach with village commercial ordinances that provide bonuses for preserving historic buildings.

Communities can also consider conservation district ordinances, which are designed to get compatible development in a historic area by matching the characteristics of the existing buildings. Currently, Pottstown Borough has a conservation district ordinance that will require development to have features that match the neighborhood, including similar building setbacks, similar amounts of window to wall area, and similar building orientation and massing.

Figure 47 shows communities that have zoning with some type of historic preservation element.

The Pennsylvania Municipalities Planning Code also contains provisions for traditional neighborhood development (Article VII-A).



Royersford's adaptive reuse ordinance has allowed the conversion of an old mill building to apartments.

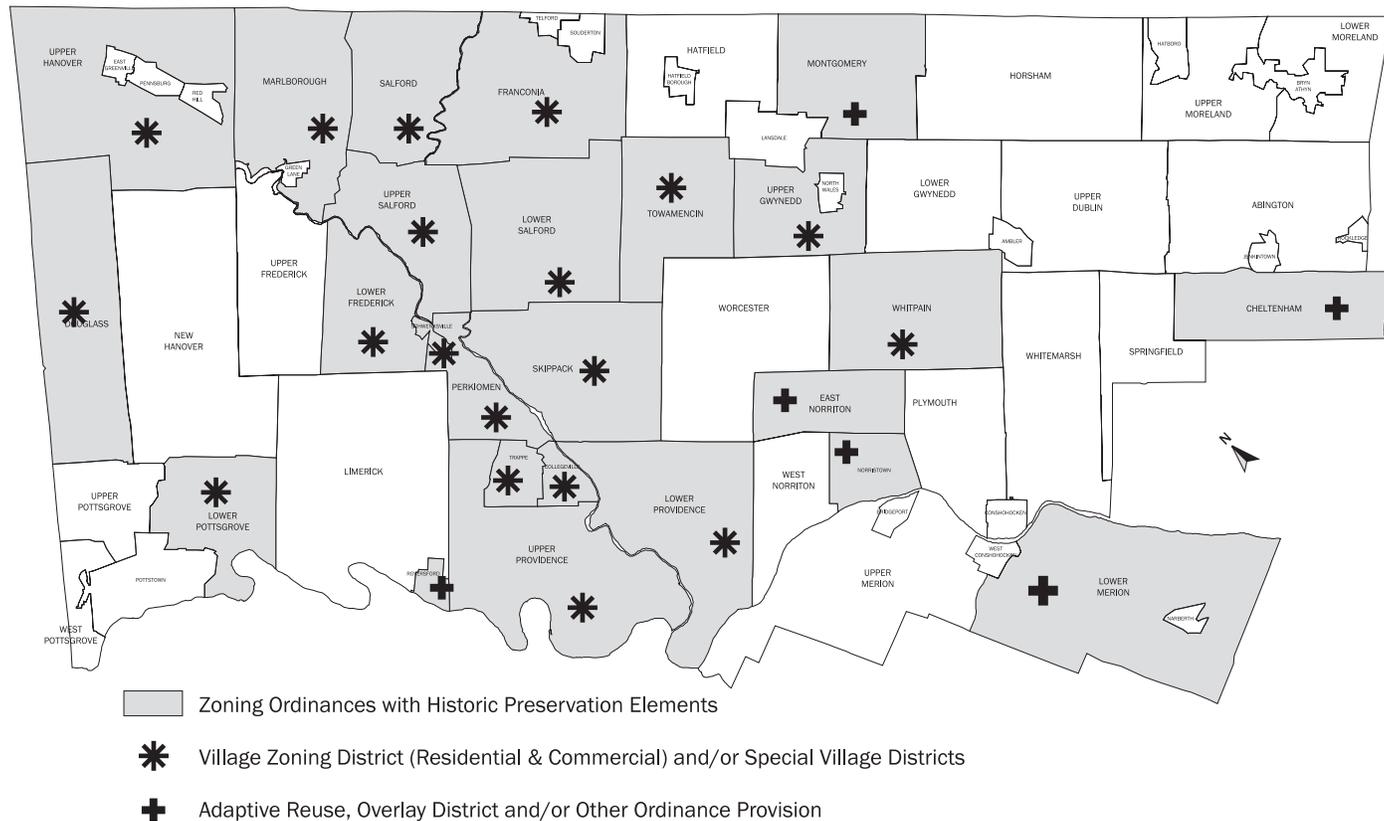


Trappe's village commercial district encourages the reuse of buildings, such as these homes converted to offices.



Pottstown has conservation zoning that requires new development to mimic existing development.

Figure 47  
**ZONING ORDINANCES WITH HISTORIC PRESERVATION ELEMENTS**



Traditional neighborhood development, like that found in the Kentlands in Maryland, fits naturally with older communities.

These provisions embrace the concept of New Urbanism. New Urbanism promotes the design qualities and characteristics of older communities. New Urbanism is usually associated with new development; however the traditional neighborhood development provisions in the Pennsylvania Municipalities Planning Code can be applied to existing historic communities. Historic communities usually contain many amenities that are lacking in modern development: public squares and parks, downtown shopping areas, public transit, pedestrian and human scale, mixed uses, architectural diversity, and a sense of place and community. A zoning ordinance can be written using the traditional neighborhood development provisions in the Pennsylvania Municipalities Planning Code to protect and promote the positive qualities of an existing historic neighborhood.

The ordinance can refer to a manual of written and graphic design standards to be applied to new construction and alterations that

occur in the historic neighborhood. Traditional neighborhood zoning can be applied either as an overlay to existing historic development or as a stand-alone zoning district.

### Acquisition and Easements

Besides the use of regulations and laws, historic resources can also be protected through fee simple acquisition or façade easements.

Fee simple acquisition is the outright purchase or other means of acquisition of a historic building by a historical society, preservation organization, or local government. Montgomery County has protected five historic resources through fee simple acquisition: Peter Wentz Farmstead, Mill Grove, Pennypacker Mills, Pottsgrove Manor, and Sunrise Mill.

Many local municipalities have also acquired buildings. Cheltenham, for example, has purchased the Wall House, one of the oldest buildings in the county, while Lower Merion has purchased Appleford and Conshohocken has purchased the Mary Wood house.

A façade easement is the purchase of the façade of a historic building for purposes of ensuring its appropriate restoration and preservation. The owner retains all other rights and privileges of the property. A historical society, preservation organization, or local government acquires the easement. Ideally, an endowment is presented to the organization receiving the easement to help to fund the restoration of the building.

Owners who donate historic buildings and façade easements to nonprofit organizations can take a tax deduction for the donation.

### Funding for Historic Preservation

#### Federal Tax Incentives

One of the more successful programs for funding historic preservation projects is the Federal Historic Preservation Tax Incentives Program. The program provides a tax credit of 20 percent of the cost for rehabilitation of income producing historic buildings. The rehabilitation must be equal to or greater than the value of the building, the building has to be listed on the National Register of Historic Places or certified historic by the National Park Service and the Internal Revenue Service. In addition, the rehabilitation work must be certified by the National Park Service and the Internal Revenue Service as being in compliance with the Secretary of the Interior's Standards for Rehabilitation.



Façade easements can prevent historic preservation travesties.

Since its inception in 1976, the federal tax incentive program has resulted in the rehabilitation of more than 27,000 historic buildings and over 18 billion dollars have been spent on rehabilitation projects nationwide.

An affordable housing tax credit of approximately 4% of the rehabilitation costs can be added to the 20% tax credit if the project includes creation of rental housing for families with low to moderate incomes.

In addition, there is also a 10 percent federal tax credit for the rehabilitation of nonresidential buildings built prior to 1936. This tax credit is for buildings not listed on the National Register of Historic Places. The rehabilitation work has some structural limitations, but does not have to comply with the Secretary of the Interior's Standards for Rehabilitation.

The federal government also allows an income tax deduction for donation of historic properties and historic façade easements to nonprofit organizations.

### Potential State Tax Incentives

Many states have programs that mirror the federal rehabilitation tax credit. Pennsylvania currently does not have a historic rehabilitation tax credit program or any form of historic preservation tax incentive. In 2000, the Pennsylvania Legislature considered, but did not pass, a law that would have provided incentives for residential historic preservation. The incentives in the legislation included exemption from the state real estate transfer tax, exemption from state capital gains tax, a 20% income tax credit for costs of rehabilitation, and exemption from state sales and use tax for restoration, preservation, or rehabilitation costs. In addition, the legislation would have permitted municipalities to give owners of historic homes waivers of fees for building permits, zoning variance fees, and special exception fees. Municipalities could have also delayed property tax reassessment for two years after completion of restoration work. In 2001, the Pennsylvania Legislature also considered, but did not pass, legislation allowing owners to apply for grants for restoration of historic houses.

Historic preservation tax incentives encourage private investment, employ workers in the building and trades industries, increase property values, develop potential for heritage tourism, create a sense of place, revitalize older areas, and preserve historic properties for future generations.

## Grants for Historic Preservation

Many funding sources for historic preservation projects exist. Grants or low interest loans for historic preservation come from two sources. Funds are available from the government and private sources, such as nonprofit organizations or foundations.

### **Save America's Treasures Grant**

The National Endowment for the Arts and the National Park Service administer the Save America's Treasures grant. The grant can be used for a variety of purposes. The subject of the funding must be determined to have national significance, meaning it must be a National Historic Landmark or determined eligible for National Historic Landmark designation. The minimum grant is \$250,000 and the maximum is \$2,000,000. The grants require a 50/50 match of funds or services.

### **Transportation Enhancement Funds**

Transportation enhancement funds were established by the Intermodal Surface Transportation Enhancement Act (ISTEA) and renewed as the Transportation Enhancement Act for the 21st Century (TEA-21). The funds are provided on a cash reimbursement basis and can be used by a nonprofit organization or by a government. A variety of surface transportation projects are eligible to receive the funds. Projects can include highway beautification projects, streetscape improvements, bike or pedestrian trails, restoration of a historic transportation building or structure, or establishment of a transportation museum. Information about the fund is available from the Pennsylvania Department of Transportation (PENNDOT).

For example, restoration of Lock 60 of the Schuylkill Navigation Canal received transportation enhancement money.

### **Keystone Historic Preservation Grant**

The Keystone Historic Preservation Grant, administered by the Pennsylvania Historical and Museum Commission, is one of the most frequently used sources of funding for historic restoration and preservation work. The grant is available for National Register listed or eligible resources in Pennsylvania. It requires a 50/50



Restoration of part of the Schuylkill Navigation Canal, in Upper Providence Township, has been funded with transportation enhancement money.

cash match. Grants range from \$5,000 to \$100,000. The property must be owned by a nonprofit (501C(3)) corporation or by a local government and be open to the public on a regular basis. All work performed using the funds must comply with the Secretary of the Interior's Standards for Rehabilitation.

The Pennsylvania Historical and Museum Commission also has a variety of other programs that provide funding for conducting historic resource surveys, developing educational and interpretive programs, preparing National Register nominations, hiring consultants, receiving technical assistance, hiring and training staff, and preparing historic preservation plans.

### **Private Foundations**

The National Trust for Historic Preservation provides a variety of grant and loan programs for historic preservation purposes. Preservation Pennsylvania, a private, nonprofit organization, also provides low interest loans and grants for preservation of historic resources.

Regionally, the William Penn Foundation and the Pew Charitable Trust, both located in Philadelphia, have made grants in various areas of historic preservation. The Arcadia Foundation, based in Norristown, has given funds for various historic preservation projects.

Corporate foundations should also be considered when pursuing funds for preservation projects. The Getty Foundation and the Andrew W. Mellon Foundation are among the best known corporate grant makers; each has provided funds for various historic preservation projects.

In addition, local prominent businesses may make donations for small-scale historic preservation projects. Often a local business contributed to the historical development of a community and may want to make a financial gift to protect historic resources. New businesses, including large chains, may also want to establish a rapport with a locality by making a donation or grant.

### ***Historic Preservation Plan***

One of the defining characteristics of southeastern Pennsylvania, including Montgomery County, is its heritage, beginning with local Indian tribes and

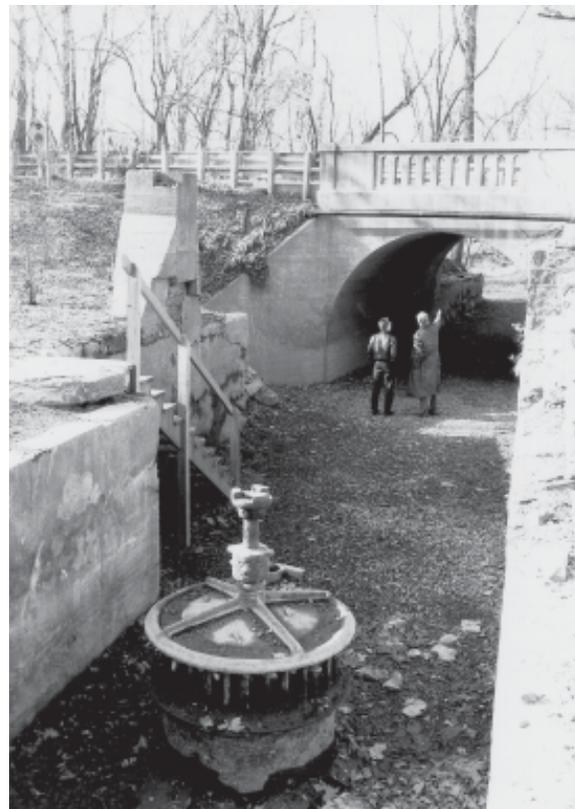
continuing with the colonial era, the American Revolution, the Industrial Revolution, and modern times. Occasionally, local communities take this precious historic resource for granted and important buildings are lost. Fortunately, more can be done to protect our important heritage, as described below.

- The federal government should increase the amount of the Federal Historic Preservation Tax Incentives Program.
- The federal government should amend Section 106 of the National Historic Preservation Act to make historic preservation review both faster and more effective. In particular, PENNDOT should work more closely with the Federal Highway Administration and the Pennsylvania Historical and Museum Commission to reduce the adverse effect of highway projects on historic resources.
- The Pennsylvania State legislature should pass an enabling law that allows tax abatements for owners of historic resources and that creates a rehabilitation tax credit program for residential and commercial historic properties.
- Pennsylvania should amend its statewide building code to include more lenient standards for the rehabilitation of existing buildings, which is an option in the national Uniform Construction Code.
- The state and federal governments should expand grants and loans for historic preservation.
- The state should provide funding for preservation of historic landscapes along scenic roads, while also installing improvements along these roads that match the character of the landscape.

Montgomery County can expand its role as a facilitator of historic preservation efforts encouraging public/private partnerships to promote preservation, giving awards for historic preservation, supporting historic resource surveys, drafting model historic preservation ordinances, and promoting heritage tourism.

To really work effectively, heritage tourism must be conducted at a regional level, taking advantage of Independence Hall and other sites in Philadelphia, as well as Valley Forge National Historical Park and the Schuylkill River Heritage Corridor. The county

***Federal and state governments should increase tax incentives for historic preservation.***



Montgomery County will continue to improve its historic sites, such as the Mill Race and Red Fox Mill works at Pennypacker Mills.

and local municipalities should participate in this wider effort, while local communities should:

- Promote walking tours of downtown areas, historic sites, and neighborhoods with distinctive architecture while also sponsoring special community heritage events,
- Work with community groups and the private sector to develop and support accommodations, restaurants, and parking that are needed and demanded by tourists, and
- Consider improving amenities important to tourists, such as traffic calming, human-scale architecture, and walkable streets.

Local municipalities can have a great impact on historic preservation, although many communities balk at having strict historic controls. Nevertheless, strict control through a full historic district with a HARB is, by far, the most effective means of preserving a historic area. Contrary to popular wisdom, these districts do not need to control paint color and other minor changes to properties; instead, they are intended to maintain an overall historic character.

- When not creating a full historic district with a HARB, local communities should adopt other types of ordinances to protect their historic resources, including historic resource overlay ordinances and village commercial ordinances. In addition, historic preservation and scenic view protection should be incorporated into other zoning districts, as appropriate.
- Local municipalities that do not have a historic resources survey should conduct a survey or support efforts by others to conduct a survey.
- Because historic resources can be lost through fires and neglect, local communities must enforce building, fire, and safety codes in older buildings, while also respecting the unique characteristics of these buildings. Owners of vacant buildings should be required to stabilize these buildings to preclude further deterioration.
- Communities should use a wide range of tools to preserve scenic roads and views, including cluster zoning, setbacks, buffers, TDR zoning, and village zoning. In addition, subdivision ordinance standards for roads, curbs, guardrails, bridges, and other features should be amended



Historic resources can be found in unexpected places, like West Laurel Hill cemetery, in Lower Merion Township.



Local municipalities can adopt village zoning, as seen here in Skippack, historic districts, and other tools to protect historic resources.

to match the road characteristics that already exist along these scenic roads.

- To a certain extent, historic preservation is a mindset. Communities that are interested in preserving their important heritage should consistently fold this goal into their land development review process, constantly looking for ways to preserve important buildings, views, and places.

Developers and anyone else changing their properties should integrate historic resources into the development plans through adaptive reuse and other means. This process will increase the development's value while simultaneously helping the development fit into the overall community.

With all of these efforts, Montgomery County can save its unique heritage while improving the quality of life of all citizens.



The Riverpark office development in Whitemarsh is an example of how private landowners and developers can have a tremendous positive impact on historic preservation.



The newly-renovated Beechwood Mansion on the Shipley School Campus in Lower Merion Township.



# Chapter 7

## Pulling It All Together - The Open Space System

Natural features, parks, trails, farmland, scenic roads, and historic structures are all part of the open space and cultural systems in the county. These important features are critical to the county's quality of life and have been described in detail in previous chapters. This chapter summarizes the recommendations from these previous chapters and illustrates the interrelationship of the various open space and cultural resources. In addition, this chapter briefly discusses the connections between open space and other elements of this comprehensive plan, and then concludes with a summary of implementation approaches.

### **The Open Space System**

All of the individual open space and cultural resources discussed previously in this plan comprise the open space system. A few of the major features from these chapters are shown in Figure 48, the composite open space system. This composite map was then used to create the proposed open space and rural resource areas in the Growth and Preservation Map in the *Vision Plan*. These proposed open space and rural resource areas are shown in Figure 49. Overall, the goal is to permanently preserve 35,000 acres of open space and rural resource areas by 2025.

Preserving these areas and other important cultural and natural features will be challenging. Each chapter in this plan lists methods to accomplish this preservation; a few of these methods are listed below.

- Natural features can be preserved in a variety of ways, including purchase of the land, purchase of easements over the natural features, or zoning. Various zoning techniques include steep slope, woodland, wetland, riparian corridor, and floodplain preservation ordinances, as well as cluster zoning and transfer of development rights.
- Parks will primarily be expanded or created through the purchase of land; however, cluster zoning, parkland dedication requirements, and other techniques might also be used.
- Trail development is often very difficult, given the varied ownership and use of land along a proposed trail right-of-way. An extensive county trail



The county's natural areas can be preserved through acquisition, zoning, and good stewardship.



Zoning, historic districts, and tax incentives are government tools that can be used to encourage historic preservation.

### **Public Review**

*This plan was mailed to county municipalities, conservation organizations, and school districts for review, as well as abutting counties, municipalities, and school districts. The plan was put online and made available for free to anyone requesting a copy.*

*In addition, public meetings on the plan were held in the following locations:*

- **September 13th, 2004, in Limerick Township.**
- **September 15, 2004, in Upper Dublin Township.**
- **September 23, 2004 in Upper Merion Township.**

*Comments from these public meetings and the mailings were incorporated into the final version of this plan.*

network is proposed, taking advantage of stream corridors, utility rights-of-way, and other existing corridors and greenways.

- By 2025, the goal is to permanently preserve another 12,000 acres of farmland and 150 farms, for a total of approximately 17,000 acres of farmland and 225 farms. In addition, farming operations will be supported through programs and education designed to help farmers adjust to new market demands.
- Scenic roads and historic properties can be preserved through many tools, primarily zoning, historic districts, and tax incentives. Local municipalities and developers must make a conscious effort to preserve these resources, incorporating a preservation ethos into all they do.

### **Relationship of Open Space to the Whole Comprehensive Plan**

Open space, natural features, and cultural resources do not exist in a vacuum; instead, their preservation and use are intimately connected to development and growth around the county. The relationship of other plan elements to open space is briefly described below.

- **Vision Plan.** This plan includes the Growth and Preservation Map, which shows designated growth areas, rural resource areas, and proposed open space. A critical determinant for the designated growth areas was the location of areas where growth is least desirable – near existing parks, in vulnerable natural areas, and in viable farmland areas. The *Open Space, Natural Features, and Cultural Resources Plan* identifies these locations so that designated growth areas can be determined. The designated growth areas shown in the Vision Plan are more compact than current trends, which means less open space and farmland will be developed to accommodate the county's expected population and employment growth.
- **Community Facilities Plan.** Community facilities, particularly sewer and water facilities, can have a strong impact on open space. On the one hand, if sewer and water lines are extended into rural and open space areas, development is encouraged, which leads to a loss of these resources. On the other hand, adequate and clean sewer service must be provided to homes to protect streams, groundwater, and wetlands from pollution. The *Community*

Figure 48  
COMPOSITE OPEN SPACE SYSTEM

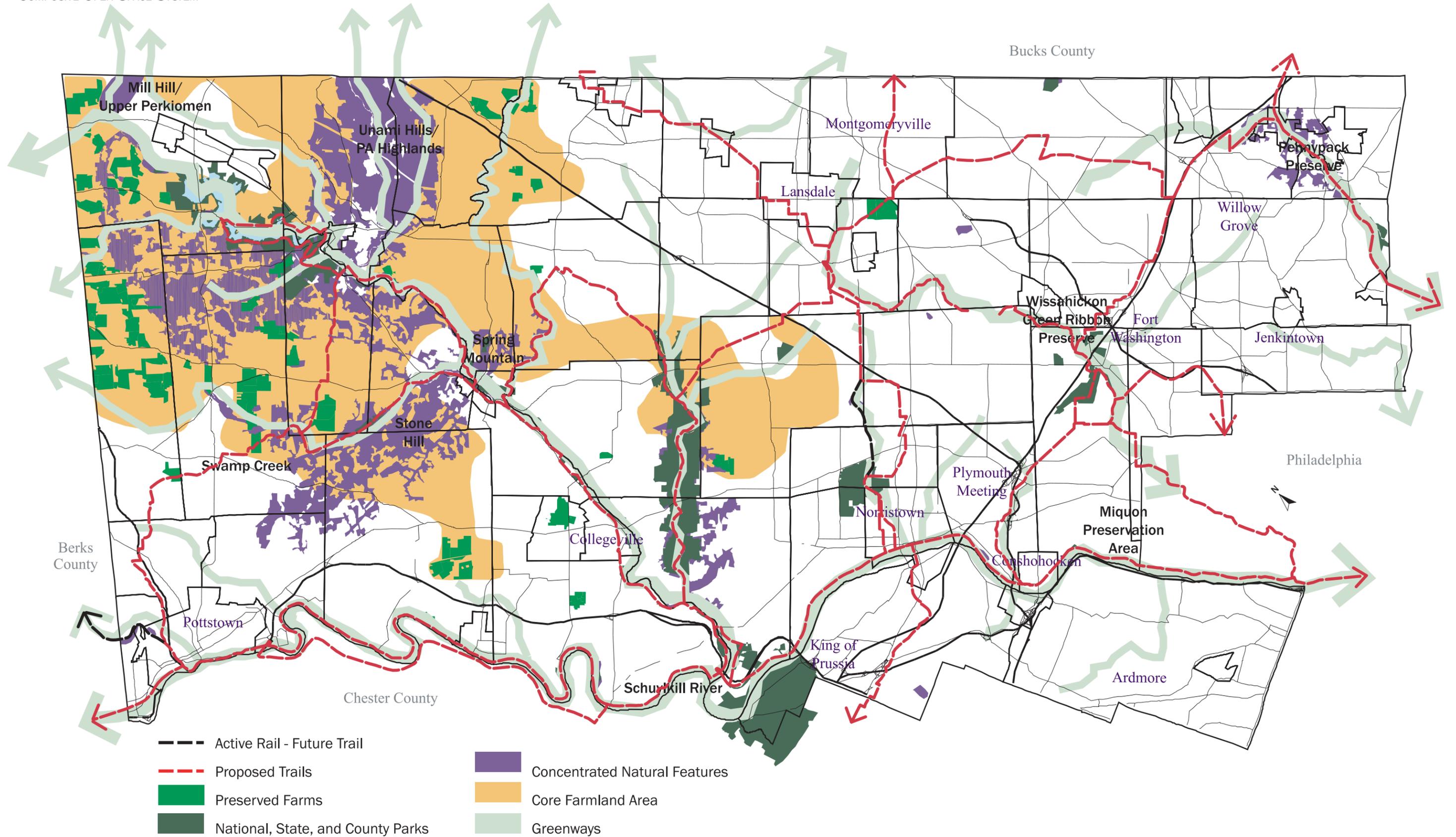
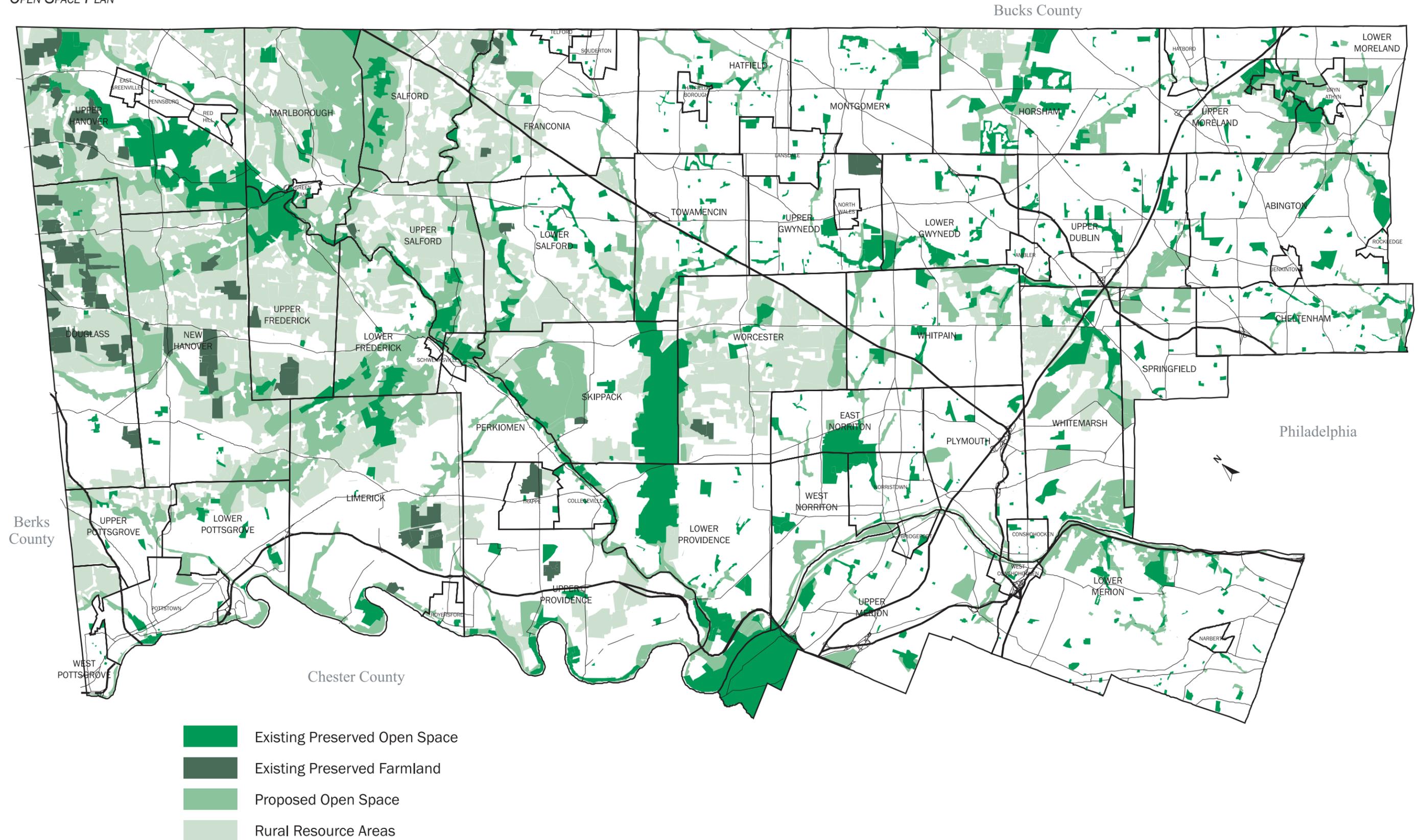




Figure 49  
OPEN SPACE PLAN





*Facilities Plan* generally shows sewer and water service in existing developed areas and designated growth areas rather than proposed open space and rural resource areas. However, the plan recognizes that concentrated areas of failing sewer systems must be improved.

- **Economic Development Plan.** This plan encourages new businesses to locate first in development centers, existing developed areas, brownfield sites, or downtown areas and secondarily in designated growth areas. All of these locations are outside of proposed open space and rural resource areas.

In addition, the *Economic Development Plan* strongly encourages redevelopment of downtown areas, old industrial sites, and underutilized shopping centers. This redevelopment will make existing developed areas more appealing places to live and work, thereby reducing the incentive for people to move to rural areas.

The plan also recognizes that a critical method for encouraging redevelopment of downtown areas is historic preservation.

- **Housing Plan.** Homes on large lots put tremendous pressure on open space. The *Housing Plan* discusses methods of creating smaller lots and a greater variety of housing types. This would allow the county to meet its housing demand by using less open space and farmland.
- **Land Use Plan.** Using the Growth and Preservation Map as a guide, the *Land Use Plan* discusses many methods of preserving rural character, reinvigorating older communities, and protecting natural features and open space within the designated growth areas.
- **Transportation Plan.** Although not obviously linked to open space, transportation is, in fact, an important potential negative influence on open space. The county *Transportation Plan* recognizes that new transportation improvements should be concentrated in existing developed areas and growth areas, not in locations that will encourage growth in farmland, natural areas, and other open space. In addition, the plan acknowledges that new transportation projects must respect historic buildings and natural areas.



Farmland and active farming can be preserved with zoning changes, new farming practices, and the purchase of land or development rights.



Trails are a means of recreation and transportation.

- **Water Resources Plan.** This plan is directly linked to the *Open Space, Natural Features, and Cultural Resources Plan* and encourages protection of floodplains, wetlands, and water resources.

### Implementation

Preservation will not happen without a concerted effort from many people and organizations using a variety of techniques to achieve preservation.

One critical implementation tool is funding. It is very difficult to preserve significant amounts of open space without buying the land, which takes money. Ideally, open space funds should come from a wide range of sources, including the federal government, the state, the county, and local municipalities. In fact, many municipalities in the region have recognized the critical importance of open space preservation and have approved bonds for buying open space. In addition to these government sources, foundations, conservancies, businesses, and private citizens should provide money for open space preservation.

A second critical implementation tool is regulation. Regulations, particularly zoning ordinances, are most effective for natural features preservation and historic preservation, although they can also help preserve farmland and other pieces of the open space system.

There is a third critical element to open space, natural feature, trail, farmland, and historic resource preservation—and this is attitude. Without a strong effort and a true ethos for preservation, it is very difficult to achieve comprehensive preservation. In communities where this preservation ethos exists and involves all parties, including developers, residents, and local businesses, the likelihood of achieving consistent preservation is much greater.

Figure 50 lists the tasks, parties responsible for implementation, and general time frame for the *Open Space, Natural Features, and Cultural Resources Plan*.

### Conclusion

Montgomery County is a beautiful place with historic homes perched above babbling brooks and tranquil ponds, rolling hills dappled with fertile farms and verdant woods, and scenic roads coursing through bustling towns and fabulous parks. These important resources can be preserved and protected, with a collaborative effort from many people and organizations.



The county's parks and open spaces bring people together, providing a common venue for everyone.

Figure 50

OPEN SPACE PLAN IMPLEMENTATION MATRIX

Natural Features Preservation - Tasks	Responsible for Implementation	Short-term	Medium-term	Long-term
Update municipal open space plans under the Green Fields/Green Towns Program.	Municipalities			
Preserve large natural areas of significance identified through municipal and county plans.	Montgomery County, Municipalities, Land Conservation Organizations			
Establish wetland protection standards in local zoning ordinances.	Municipalities			
Strengthen floodplain ordinance standards.	Municipalities			
Consider limitations on the amount and type of vegetation that may be removed for development purposes.	Municipalities			
Limit development on steep slopes.	Municipalities			
Adopt riparian corridor preservation ordinances.	Municipalities			
Adopt cluster zoning ordinances or land preservation districts.	Municipalities			
Adopt transfer of development rights ordinances in appropriate townships or multimunicipal planning regions.	Municipalities, Multimunicipal Planning Commissions			
Use land resource capacity based zoning (performance based) to eliminate environmentally constrained lands from development density calculations.	Municipalities			
Improve land stewardship practices to protect natural areas.	All property owners			

Open Space Tasks	Responsible for Implementation	Short-term	Medium-term	Long-term	Acres
Prepare or update resource management plans for protected Natural Areas Inventory (NAI) sites, review the status of privately owned sites to identify preservation opportunities, and update and expand the current version of the NAI.	Montgomery County, Municipalities, Private Property Owners				NA
Immediately prioritize any significant natural area that becomes threatened by development.	Land Conservation , Organizations Municipalities, Montgomery County				NA
Ensure that NAI sites are protected if included on development proposals.	Municipalities, Montgomery County				NA
Identify appropriate open space expansion and preservation areas around county parks, natural areas, and historic sites.	Montgomery County				NA
Map unprotected parcels around county parks, natural areas, and historic sites and determine degree of significance and degree of threat	Montgomery County				NA
Determine appropriate preservation strategies for significant parcels around county parks, natural areas, and historic sites.	Montgomery County				NA
Acquire or otherwise protect significant selected properties that adjoin or are physically related to county parks, natural areas, and historic sites.	Montgomery County				NA

Acquire or otherwise protect selected properties adjoining municipal, federal, and state open space and parkland, as identified in municipal, federal, and state open space and park plans.	Montgomery County, Federal Government, State Government, Municipalities, Land Conservation Organizations				NA
Preserve available undeveloped land within the Mill Hill / Upper Perkiomen Focus Area.	Montgomery County, Upper Hanover				1,900*
Preserve land within the Miquon Preservation Area.	Montgomery County, Whitemarsh, Springfield, Miquon Area Preservation Society, Montgomery County Lands Trust				800*
Preserve undeveloped private properties in the Stone Hill Focus Area that enhance connections to adjoining greenways.	Montgomery County, Lower Frederick, Limerick, Valley Forge Audubon Society, Natural Lands Trust				2,500*
Continue regional preservation efforts in the Unami Hills / PA Highlands Focus Area.	Montgomery County, Municipalities along the PA Highlands, Regional Preservation Organizations				4,200*
Develop parcel monitoring process and communication network with municipal and land conservation partners.	Montgomery County, Municipalities, Land Conservation Organizations				

\* Acreage figures are approximate, correspond to amount of proposed open space shown in figure 49, and may overlap with acreage amounts shown for other areas or greenways.

Greenway Preservation Tasks	Responsible for Implementation	Short-term	Medium-term	Long-term	Acres
Further enhance the Schuylkill River Greenway as the county's primary greenway for recreation, scenic value, heritage, and natural resource protection.	Schuylkill River Greenway Association, Local Preservation Organizations, Land Trusts, Municipalities, Montgomery County, Berks County, Chester County, Philadelphia				2,700*
Promote the recommendations of the <i>Rivers Conservation Plan</i> to further conserve, restore, and enhance the Wissahickon Creek Greenway.	Wissahickon Valley Watershed Association, Montgomery County, Fairmount Park (Philadelphia)				1,000*
Preserve the upper end of the Pennypack Creek Greenway through regional perspectives and multimunicipal cooperation.	Horsham, Upper Moreland, Hatboro, Montgomery County, Pennypack Ecological Restoration Trust, Philadelphia				950*
Further enhance the Perkiomen Creek Greenway with respect to new conservation plans prepared for the upper and lower halves of the greenway.	Perkiomen Watershed Conservancy, Natural Lands Trust, Upper Perkiomen Watershed Coalition, Pennsylvania Environmental Council, Municipalities, Montgomery County, Berks County				2,200*
Construct a trail and preserve the Balligomingo / Gulph Creek Greenway through W. Conshohocken and Upper Merion.	West Conshohocken, Upper Merion				200*
Create a preservation corridor in the Deep Creek Greenway.	Upper Frederick, New Hanover				1,000*
Develop a master preservation plan for the East Branch Greenway and preserve key connector parcels at the confluence of the Perkiomen Creek and its East Branch.	Skippack, Lower Salford, Upper Salford, Salford, Franconia				700*

Implement local open space plans to preserve the Macoby Creek Greenway.	Upper Hanover, Marlborough, East Greenville, Pennsburg, Red Hill, Green Lane				750*
Enhance preservation within the Manatawny Greenway and connect it to a potential regional park in Pottstown.	West Pottsgrove, Pottstown, Montgomery County, Berks County				100*
Create a connected greenway system along Mill Creek in Lower Merion.	Lower Merion, Lower Merion Conservancy, Villanova University				250*
Complete a greenway connection between Green Lane Park and the Mill Hill ridge top along the Hosensack Creek.	Upper Hanover				150*
Explore long-term possibility of a Mingo Creek Greenway with a cooperative master plan.	Limerick, Upper Providence, Friends of Mingo Creek				300*
Connect nodes of municipal open space to create a Neshaminy Greenway into Bucks County.	Montgomery Township Hatfield Township, Horsham				400*
Explore opportunities to create a Plymouth Creek Greenway in an urban stream corridor.	Plymouth, Conshohocken				50*
Focus additional preservation efforts in the Ridge Valley and Unami Greenways around scenic views, natural resources, and low impact recreational paths.	Marlborough, Salford, Natural Lands Trust, Montgomery County Lands Trust				4,500*
Enhance the Sandy Run Greenway with guidance from the Sandy Run Creek Watershed Conservation Plan.	Sandy Run Coalition, Abington, Upper Dublin, Springfield, Whitemarsh, Wissahickon Valley Watershed Association, Montgomery County				650*
Create the Saw Mill Run Greenway through urban areas along its corridor.	Whitpain, Plymouth, East Norriton, Norristown				
Enhance the Skippack Creek Greenway through its tributaries with the focus on sound land management and riparian protection.	Central Montgomery County Municipalities, DCNR				1,200*
Create the Sprogels Run Greenway connecting nodes of parkland and tributary stream corridors into the Schuylkill River Greenway.	Lower Pottsgrove, Upper Pottsgrove				650*
Create the Stony Creek Greenway to link existing significant preserved areas along the corridor.	Norristown, East Norriton, Whitpain, Worcester				600*
Enhance the Swamp Creek Greenway and extend it through Douglass Township into Berks County.	Lower Frederick, Upper Frederick, Limerick, New Hanover, Douglass				1,650*
Enhance the Tookany Creek Greenway in accordance with the <i>Tookany Creek Rivers Conservation Plan</i> .	Cheltenham				150*
Create the West Branch Perkiomen Greenway from the Green Lane Reservoir to Berks County .	Upper Hanover, Douglass				650*

\* Acreage figures are approximate, correspond to amount of proposed open space shown in figure 49, and may overlap with acreage amounts shown for other areas or greenways.

Trails and Pathways Tasks	Responsible for Implementation	Short-term	Medium-term	Long-term	Length
Complete portion of Chester Valley Trail from Norristown to King of Prussia, connecting with Chester County.	Montgomery County, Bridgeport, Upper Merion, DCNR, PENNDOT				5.5 miles
Complete portion of Cross County Trail from the Schuylkill River to Bethlehem Pike in Fort Washington.	Montgomery County, Conshohocken, Plymouth, Whitemarsh				8 miles
Complete Cross County Connector Trail at the Lower Wissahickon Green Ribbon Trail.	Montgomery County, Whitemarsh				1 mile

Complete the Audubon Loop Trail between the Perkiomen and Schuylkill River Trails.	Montgomery County, Lower Providence				2 miles
Complete the Lower Wissahickon Green Ribbon Trail from Fort Washington Park to Forbidden Drive in Fairmount Park.	Montgomery County, Springfield, Whitemarsh				5 miles
Complete portions of the Schuylkill River Trail - Perkiomen Trail to Mont Clare, Keystone Boulevard to Berks County, Schuylkill River to Norristown Farm Park.	Montgomery County				7 miles
Complete portions of the Perkiomen Trail including the Green Lane connector, Rt. 29 loop to the Green Lane Park Nature Center, and rehabilitating a Stone Arch Bridge in Perkiomenville.	Montgomery County				1.5 miles
Create new county-wide trails proposed under the county trail plan.	Montgomery County, Municipalities, DCNR, Non-profits				86 miles estimated
Build local trails that will connect with the county-wide trails.	Municipalities, Developers, Institutions				

Farm Preservation Tasks.	Responsible for Implementation	Short-term	Medium-term	Long-term
Preserve farmland by purchasing development rights.	Montgomery County, State Department of Agriculture, Municipalities, Farmers, Landowners			
Preserve farmland through zoning, including agricultural zoning, cluster zoning, and transfer of development rights.	Municipalities, Farmers, Landowners			
Support active farming through compatible land use regulations.	Municipalities, State Government			
Support farming and new farming practices with continued technical assistance, community supported agriculture, farmers' markets, and purchase of local farm products.	Penn State Cooperative Extension Service, Montgomery County Conservation District, Farm Service Agency, Natural Resources Conservation Service, Montgomery County, Farmers, Local Businesses, General Public			

Historic Preservation Tasks	Responsible for Implementation	Short-term	Medium-term	Long-term
Expand incentives for historic preservation with stronger tax credits, more grants, and flexible building code standards.	Federal Government, State Government, Municipalities			
Comprehensively identify historic resources around the county.	Municipalities, Local Historic Societies, Conservancy of Montgomery County, State Government, County Government			
Create local historic districts.	Municipalities, Local Property Owners			
Adopt zoning that will help preserve historic resources.	Municipalities			
Preserve and reuse historic buildings.	Developers, Property Owners, Historic Societies, Businesses, Institutions, All Levels of Government			

# Appendix A

## Natural Areas Inventory

### **Sites of Statewide Significance**

The Natural Areas Inventory identified specific sites which have the highest priority for conservation. Protection and proper management of these sites would further the preservation of biological diversity, certain endangered species, and high quality natural environments in Montgomery County. The 29 sites described below should receive immediate attention in terms of land acquisition considerations, growth management decisions, application of conservation tools, and other environmental protection measures. As part of its open space efforts, Montgomery County will have someone update the Natural Areas Inventory. At that time, additional sites may be added to this list.

For each site of statewide significance the presence of a species of special concern and/or exemplary natural community has been documented. The site description includes the state protection status of each identified species: “Endangered” - species which are in danger of extinction within Pennsylvania; “Threatened”- species which may become endangered if critical habitat is not maintained or other factors affecting the organism abated; “Rare”- applies only to plant species which are uncommon within Pennsylvania; and “Species of Special Concern” - refers to a plant or animal species that is currently listed by the state for protection but does not have a formal status (i.e. endangered, threatened or rare).

The following two sites have the highest priority for protection within Montgomery County:

#### **Spring Mountain Woods**

(Upper Salford Township)

This area, located adjacent to the Spring Mountain Ski Area, is a breeding site for an animal species of special concern. Existence of this animal has been documented from 1993-1995 and preservation of the existing woodland is critical to maintaining its essential habitat. The woods on the northwest slope also provides a locally significant example of a mesic central forest community and is representative of other sites found on diabase-derived soils. The site also has high scenic value and provides a good buffer for the Perkiomen Creek. Most of this area was preserved through the acquisition of the Spring Mountain Ski area by the county in 2000.

#### **Green Lane Marsh and New Goshenhoppen Meadows**

(Upper Hanover Township)

The two habitats described below are mapped as one site of statewide significance since they are located within the same subwatershed. In addition, this area around Green Lane Reservoir was designated by the Audubon Society as one of two Important Bird Areas within Montgomery County. The Unami Creek Valley was also designated as an Important Bird Area.

- **Green Lane Marsh** - Located at the northwest end of Green Lane Reservoir, this graminoid marsh provides breeding habitat for at least one rare animal species. The marsh also provides habitat for a diversity of birds and other animals. While designation as a “fly-fishing only” area helps to minimize species disturbance, invasion by purple loosestrife is a potential threat to habitat quality. This site is protected within Green Lane Reservoir Park.
- **New Goshenhoppen Meadows** - The meadows and adjacent habitat along Perkiomen Creek, northwest (upstream) of Green Lane Reservoir, provide breeding habitat for a rare animal species. Infrequent mowing (preferably in late fall) of the fields can benefit this species, as well as grassland birds such as savannah sparrow and meadowlark. The wet meadows north of Church Road contain a diversity of sedges and native wildflowers (ironweed, goldenrod, swamp milkweed, dogbane) and can provide good butterfly habitat if not mown during the summer. Fishing access at the site poses no threats to this rare animal species. A portion of the New Goshenhoppen Meadow is protected with the Green Lane Reservoir Park.

The following six sites have a high priority for protection within Montgomery County:

## **Niantic Northeast Woods**

(Douglass and Upper Hanover Townships)

A fair population of a rare wildflower is found in this diabase woodland along the West Branch Perkiomen Creek. The site also supports a diverse herb layer including sweet cicely, smooth yellow violet, and false Solomon's seal. Maintaining the forest cover will help to minimize the invasion of exotic species and continue to provide the shaded habitat required by the rare wildflower. Disturbance of the herb layer should also be minimized. Deer browse is also a potential problem.

## **Fraziers Bog**

(Upper Moreland Township)

A small remnant of this wetland community persists, containing three plants of special concern (including a threatened shrub). Historically the site, located east of Terwood Road, supported over a dozen rare species. Most of the habitat has been lost to development and a golf course that surrounds the site. Maintaining the remaining habitat and possibly controlling the exotic species at the site may help to preserve the remaining species. The Pennypack Ecological Restoration Trust is monitoring Fraziers Bog.

## **Knight Road Bluffs**

(Marlborough and Upper Hanover Townships)

A small population of an endangered plant occurs on shale slopes within Green Lane Park. Maintaining the forest canopy is important to prevent invasion of sun-loving weedy species. Increased erosion is a potential threat. Re-routing an existing bridle trail further upslope may help to minimize erosion impacts.

## **Ridge Valley Site**

(Salford Township)

These diabase woods and wet meadows along the Ridge Valley Creek support two plant species of special concern and many other plants of countywide significance. Part of site is protected within the Natural Land Trust's Fulshaw Craeg Preserve. Finally, the site includes a locally significant boulder field (geologic feature) known as the "Potato Patch." Natural plant community succession and invasion of exotics may be a threat to the species of special concern, but careful management may help to protect these species.

## **Linfield Bluffs**

(Limerick Township)

An endangered plant was found at this site overlooking the Schuylkill River in 1987. While the plant was not identified in the 1994 surveys the existing habitat is still intact. The site also contains locally interesting flora, including wild phlox, wild pink, huckleberry and others. Major threats to the endangered species include exotic weeds such as Japanese honeysuckle, and extensive herbicide spraying along the adjacent railroad. This area is an integral part of the Schuylkill River Greenway.

## **Deep Creek Marsh**

(New Hanover Township)

A good quality population (over 1,000 plants) of a sedge of special concern was found in the wet meadows and marshland along Deep Creek. Changes in hydrology or water quality would be detrimental to the habitat and since the sedge needs open habitat, succession of a woody plant community could eventually crowd out the species.

The following 21 sites should receive general priority for conservation within Montgomery County. The sites are listed in their general order of importance.

### **Barbadoes Overlook**

(Upper Merion Township)

A small population of an endangered tree occurs on a hillside with aspen and oaks overlooking Barbadoes Island. The plant is reproducing here and may benefit from some level of disturbance but possible expansion or clearing along a nearby power line is a potential threat.

### **Sumneytown South Slopes**

(Marlborough Township)

A good population of a rare plant occurs on steep wooded slopes along Unami Creek with sugar maple, oaks, hop-hornbeam and a diversity of wildflowers. The site provides a buffer along Unami Creek and disturbance at the site is minimal. The forest canopy must remain intact for this species' continued survival. Exotic weeds such as garlic mustard and stilt grass are present and management may be desired to prevent these exotics from further disrupting an existing rich diversity of wildflower species.

### **Macoby Creek Ravine**

(Marlborough Township)

This area contains a large population of a rare wildflower in a scenic wooded ravine with sugar maple, flowering dogwood, and herbs such as wild ginger. Hemlocks dominate the north-facing slope. Keeping the forest canopy intact is essential for this species to persist here and can help to prevent further invasion by weedy species.

### **Upper Ridge Road**

(Marlborough Township)

Two subpopulations of a wildflower species of special concern were found in 1995. The species needs open areas. A management plan defining an annual mowing regime could help to secure long-term viability of this species here. Herbicides would be detrimental to the plants. One of the subpopulations is found within Hart Boy Scout Camp, which was recently preserved through a conservation easement.

### **Pawling Ponds**

(Lower Providence Township)

A good population of a rare plant and a poor population of a threatened animal occur within these seasonally flooded ponds surrounded by woods and fields. The site is an abandoned siltation basin that has reverted to a vegetated habitat. Located within Valley Forge National Historic Park, the site offers good opportunities for hiking, and bird and butterfly watching.

### **Mayhall Road Woods**

(Skippack Township)

A poor population of an endangered wildflower occurs on the rocky, wooded slopes along Skippack Creek within Evansburg State Park. Non-native weeds are prevalent and threaten to crowd out the species, as well as other native herbs. Maintaining the forest cover and minimizing disturbance within this area can help limit further invasion by aggressive non-native species.

### **Fort Washington Woods**

Ten to twelve individuals of an endangered tree species have been reported within Fort Washington Park, several were found again in 1994. Leaving the existing forest intact can allow these trees to persist for some time, although regeneration may be hampered by deer browse and/or competition from aggressive weedy species.

### **Miquon River Road Site**

(Whitemarsh Township)

About 1,000 plants of an endangered sedge were discovered on open, sandy banks near the Schuylkill River. Occasional mowing may reduce competition from woody plants. Mowing should be avoided from July through September when the plants are in flower or in seed.

### **Clump Road Meadow**

(Salford Township)

Only 16 plants of this wildflower species of special concern were seen in 1994, a decline from previous surveys. It is located in meadow and woodland edges with goldenrod, mountain mint, dogbane and red cedar. Since natural succession of a woody plant community may crowd out the plant, limited cutting or mowing might benefit the species.

### **Deep Creek Reservoir Site**

(Upper Frederick Township)

A small population of a plant of special concern was found at the edge of woodland and mowed field within the county's Upper Perkiomen Valley Park. Late season annual mowing may provide a balance of conditions that will help the population of this species to persist or expand. This site also contains a threatened aquatic plant in Deep Creek Lake. Herbicide use, eutrophication or beach clearing would be potential threats to this plant.

### **Willow Grove Station**

(Horsham Township)

A small population of a grass species of special concern was found in seasonally wet fields at Willow Grove Naval Station. Annual mowing, preferably after seed set, will help maintain the open habitat used by this species.

### **Perkiomen Creek Floodplain**

A small population of an endangered plant was found in 1987. The floodplain forest habitat is marginal for this species but supports many other native floodplain species. Non-native plants such as garlic mustard are a problem. The site also provides a buffer along Perkiomen Creek.

### **Deep Creek Woods**

(Upper Frederick Township)

A poor population of a rare sedge was documented here in 1989. Follow-up surveys are needed to determine if the species is still present at the site. No management actions are suggested as viability of this population is poor.

### **Unami Creek Site**

(Marlborough Township)

A small population of a sedge of special concern and a threatened species of rush were found in 1994 along Unami Creek. The site is located partially within Hart Boy Scout Camp. Follow-up surveys are needed to assess the full extent and quality of site. The site includes a locally significant boulder belt within Unami Creek, north of Whites Mill Road Bridge.

### **Boutcher Road Site**

(Marlborough Township)

Wet meadows and shrubland along a power line corridor provide habitat for two species of special concern. The use of herbicides would be detrimental. Occasional cutting of woody vegetation may benefit the species at this site.

### **Ringling Rocks**

(Lower Pottsgrove)

This “boulder belt,” located off of Keim Road within Ringling Rocks Park, is identified as a significant scenic geologic feature in the state (Geyer & Bolles 1979). It gets its name from the fact that various boulders ring out different sounds when struck with a hammer. The site is bordered by woodland, which enhances the scenic and educational value of the site.

### **Mine Run Site**

(Limerick Township)

A very poor population of an animal species of special concern was last confirmed at the site in 1991. Much of the habitat is degraded by roads, development and exotic plants. The species is not apt to persist here and no management actions are suggested. A portion of the site is located within the Eastern State Game Farm along Mine Run.

### **Port Kennedy Cave**

(Upper Merion Township)

This site is mapped as a “Vertebrate Fossil Animals” geologic feature and is one of the most significant animal fossil sites in the state (Geyer & Bolles, 1979). The cave is now filled and closed and the site is protected within Valley Forge National Historic Park.

### **Willow Grove Roadside**

(Upper Moreland Township)

A poor population of a rare plant grows near the Pennsylvania Turnpike exit at Willow Grove. This may not be a natural occurrence and no protection measures are suggested.

### **Valley Forge Field**

(Upper Merion Township)

A poor population of an endangered sedge was found in fields at Valley Forge National Historic Park with fescue, orchard grass and other grasses. The site is currently being managed by the park to protect this endangered plant.

### **Mount Joy Site**

(Upper Merion Township)

A plant species of special concern was observed at Valley Forge National Historic Park in 1986. It occurs here in openings with mountain-mint, grasses, and horseweed. Threats to the plant include heavy deer browse and competition and shading from exotic invasive plants.

## ***Sites of Local Significance***

The ranking of sites with local significance in Montgomery County was based on size, diversity of wildlife and plant life, water quality protection, and recreation potential. (These sites do not include high quality natural communities and no species of special concern have been documented at the sites although several of the areas have potential for rare species to occur).

The following five sites have received a rank of “high” on a countywide level and should be targeted for local protection following the protection of viable sites of statewide significance, or as new information emerges.

### **Bethayres Swamp**

(Lower Moreland Township)

Located north of Huntingdon Pike near the Abington Township border, this site contains a

graminoid marsh and shrub swamp community of countywide significance and a small area of forested lowlands. Found within a heavily developed area, the site provides good bird habitat and could accommodate environmental education activities. The Pennypack Ecological Lands Trust has been pursuing the acquisition of the major properties that comprise the swamp.

### **Whites Mill Meadow**

(Salford Township)

Seasonally wet meadow with an abundance of native plants such as Indian grass, big bluestem, little bluestem, goldenrods, asters, ironweed, and others. Red cedar is scattered across part of the site. Some exotics are present, notably stilt grass (*Microstegium*), which could become a problem in outcompeting some of the native species. There are few good examples of this habitat type in the county. Most of this site was preserved through an acquisition by Salford Township.

### **Whites Mill Swamp**

(Marlborough and Salford Townships)

This forested wetland and shrub swamp along the Ridge Valley Creek is one of the largest areas of this type in the county. The site contains several shallow manmade or enlarged ponds with abundant aquatic vegetation. The habitat supports a number of bird and odonate (dragonfly/damselfly) species. The Mill Pond, at the intersection of Whites Mill and Reller Roads on the south end of the site, has reverted to a fairly natural condition. Management recommendations include the use of Pennsylvania native species in any necessary plantings near the area. Further survey of the site is encouraged. This property was preserved by Salford Township.

### **Henning Road Woods**

(New Hanover Township)

This site is within the Deep Creek drainage basin and contains a well-developed mixed-hardwood forest community on steep slopes strewn with diabase boulders. At least 13 species of trees, including red maple, oaks, ash, beech, hickory, flowering dogwood, sassafras and pawpaw, are found on the site. The site also contains a well-defined shrub strata and diverse herb layer, and includes a section of younger forest that serves as a buffer to the older hardwood section.

### **New Road Swamp**

(New Hanover Township)

Located north of New Hanover Square Road, this site is a locally significant example of a floodplain forest community. It provides habitat for pin oak, elm, white ash and red maple, with a well-developed shrub and herb layer, including spicebush, viburnum, sedges, false nettle, violets, jack-in-the-pulpit. The site also provides good breeding habitat for a variety of amphibian species. Maintaining the forest canopy will help prevent the spread of weedy species and maintain the integrity of the community as a whole.

The following 11 sites have received a rank of “medium” on a countywide level and should be targeted for local protection, following the protection of viable sites of statewide significance, or as new information emerges.

### **Mont Clare Cliffs/Ravines**

(Upper Providence Township)

West of Black Rock Road, this site’s scenic outcrops, wooded ravines, and banks along the Schuylkill River provide habitat for a diversity of native plant and animal species. The river corridor provides a path for many songbirds and is a popular spot for bird watching. Non-native invasive plants (Norway maple, multiflora rose, oriental bittersweet) are a threat. Maintaining the forest canopy and minimizing disturbance will help prevent the spread of exotic weedy

plants. Additional control and removal of exotics may be desired. The site is partially owned by the state and county and a trail along the river connects existing parkland. Property at the top of the cliffs has been recently developed.

### **Eagleville Woods**

(Lower Providence Township)

A good stand of beech and red oak exists at this site, located south of Germantown Pike east of Smith Road, adjacent to a township park. This type of site is somewhat uncommon in the county and includes locally interesting flora. The existing forest cover should be maintained to prevent the spread of weedy species. Monitoring trail use, erosion and other impacts might be necessary if use of the site increases.

### **Mill Hill Woods**

(Upper Hanover Township)

This diabase ridge, located east of the village of Palm, has good potential for several plant species of special concern and is one of the largest contiguous tracts of forest in the county. While the site could not be surveyed, aerial photo interpretation indicates the potential for seepage wetlands and at least two plants of special concern. Further study is encouraged to better evaluate the quality of the site. This property was partially preserved by Upper Hanover Township working with East Greenville and Red Hill Boroughs.

### **Church Road Floodplain**

(Upper Hanover Township)

This site, located upstream of Green Lane Reservoir, represents a locally significant floodplain forest and upland woods along Perkiomen Creek. The floodplain forest on the east side of the creek supports silver maple, ash, and spicebush. The upland woods, containing sugar maple, beech, and hemlock, form a canopy on the steep shale slopes on the west side of the creek. This site is contiguous with New Goshenhoppen Meadows. The wooded buffer helps maintain the stream quality for drinking water and for fisheries. Minimizing disturbance of the woodlands will allow this area to persist as a significant natural area.

### **Norritonville Woods**

(Worcester Township)

This site, located north of North Wales Road along Stony Creek, is a locally significant example of upland and floodplain woods. The woods consist of oaks, hickory, ash, red maple, and black walnut in a canopy with a shrub layer containing bladdernut and spicebush. Only part of the site was surveyed and further study is encouraged. The site provides significant biological diversity in a largely suburban area.

### **Hauck Road Marsh**

(Upper Frederick Township)

Located north of Perkiomenville Road, this site contains a small open marsh along a small stream and supports a variety of plant and animal life including birds, reptiles, amphibians and odonates (dragonflies and damselflies). The site is characterized by tussock sedge, spikerush, willow-herb, goldenrod and other sedges. Succession, nutrient input and expansion of multiflora rose are potential threats to the site. Occasional use as pasture may have helped keep shrubs out.

### **Goezel Road Seeps**

(Upper Frederick Township)

This site is located east of the Hauck Road Marsh site and includes diabase seeps in forestland and wet meadows. The site supports locally interesting flora and has the potential to support species

of special concern. Only a portion of the site was visited and further surveys are recommended to better define the quality of the site.

## **Spring Mountain Meadows**

(Upper Salford Township)

Located adjacent to Spring Mountain Woods, this site supports a diversity of butterflies, some of which are species of special concern. The meadows contain a variety of nectar plants such as ironweed, milkweed, and thistles. This site was largely preserved through acquisition by Upper Salford Township.

## **Scioto Creek Hemlocks**

(Upper Frederick Township)

This site includes a small but fairly intact hemlock forest with oaks and ash, shrubs such as maple-leaved viburnum, and a variety of wildflowers and ferns such as Christmas fern, lady fern and spinulose woodfern. Some of the hemlocks and oaks are estimated to be around 100 years old, a rarity in this part of the county. Minimizing disturbance at this site will maintain the forest and help to protect water quality of the Scioto Creek.

## **Swamp Creek at Sunrise Mill**

(Limerick and Lower Frederick Townships)

Fully encompassing the county's Sunrise Mill historic site, this site contains locally significant woodland (hemlock-hardwoods) and interesting flora in and along Swamp Creek, including a large population of lizard's tail (*Saururus cernuus*). The site also provides good habitat for a variety of animal species such as damselflies and dragonflies, amphibians and birds. Preserving the existing woodlands and streamside vegetation will help maintain the current species diversity.

## **Laughing Waters Hemlocks**

(New Hanover and Upper Frederick Townships)

This site includes older growth hemlocks on steep slopes along Swamp Creek within Laughing Waters Girl Scout Camp. Severe erosion from heavy foot traffic is a threat to the longevity of the hemlocks. Additional trail maintenance and rerouting of the high use trails could help to protect this natural area. The site also includes a young but healthy hardwood forest of sugar maple, shagbark hickory and ash.

The following 14 sites have received a rank of "low" on a countywide level and should be targeted for local protection following protection of viable sites of statewide significance, or as new information emerges.

## **Trewellyn Creek Woods**

(Lower Gwynedd Township)

Located north of Bethlehem Pike east of Norristown Road, this site contains a red maple and pin oak dominated woodland with a sparse shrub layer. The site includes seasonally saturated soils with an herbaceous layer of mosses and ferns. The site is a relatively large tract of woods for this area of county. This property is owned by Lower Gwynedd Township.

## **Glasgow Railroad Woods**

(Pottstown Borough and West Pottsgrove Township)

Identified as two separate sites with locally significant flora along Manatawny Creek and an adjacent railroad. Ivy and other exotics have crowded out some of the habitat. The woodland buffer should be retained to discourage further encroachment of weedy species.

**Green Hill Road Woods**

(Skippack and Worcester Townships)

One of the best populations in the county of a locally rare shrub (recently dropped from the species of special concern list) occurs west of Stump Hall Road within Evansburg State Park. In addition to the shrub, the site includes hemlock, beech, oak and cherry. Keeping the forest cover and minimizing disturbance can help to maintain the quality of this site.

**Collegeville Floodplain**

(Collegeville Borough)

This site, found south of Second Avenue along the Perkiomen Creek, is part of the county's Central Perkiomen Valley Park. The site is a locally significant floodplain community comprised of woods, swales and gravel bars. The canopy consists of sycamore, red maple and box elder with a diverse herb layer including sedges, grasses and wildflowers such as water lily, monkey-flower, forget-me-not, and stonecrop. The site serves as a buffer along the Perkiomen Creek but is impacted by runoff/nutrient input, ATV's and clearing for adjacent development.

**Fruitville Road Floodplain**

(Upper Hanover Township)

Located west of Water Street, this locally significant floodplain forest (silver maple, walnut, box elder) helps to protect water quality and fisheries within Perkiomen Creek. The site also provides wildlife habitat for birds, odonates, and amphibians.

**Big Oak Woods**

(Abington Township)

Protected within the county's Lorimer Park, this scenic site contains a small woodland area with mature red and white oaks and exhibits good community structure. The site also includes sugar maple, tulip poplar, flowering dogwood, mountain laurel, and spicebush. Maximizing the buffer around this area can help to preserve the natural quality of this site and help to prevent further encroachment of non-native, invasive plants.

**Harris Woods**

(Whitpain Township)

The majority of this site, located east of Morris Road, is protected within Crossways Farm, a Natural Land Trust preserve. The site is a locally significant example of a mesic forest community and contains an island of mature beech, oak, tulip poplar and ash surrounded by farmland and encroaching suburban development.

**Stony Creek Meadow**

(East Norriton Township)

An old field/meadow habitat within the county's Norristown Farm Park, this site provides a potential nesting area for grassland birds such as meadowlark and sparrows and contains an abundance of nectar and host plants (e.g. dock, thistles, dogbane, violets, etc.) that may support a diversity of butterfly species. Infrequent and late mowing (e.g. annual mow in fall) maximizes value to the bird and butterfly species.

**Ivy Rock Cliffs**

(Plymouth Township)

The limestone outcrops on this site support locally significant flora including alum root, ebony spleenwort (a fern), and columbine. Located along the Schuylkill River the site provides scenic interest along the Schuylkill River Trail. While weedy species (Japanese honeysuckle, garlic mustard) have crowded out some native plants, keeping the tree canopy and minimizing other disturbances (except possibly to remove exotics) can help to maintain conditions favoring the native plants.

## **Pennypacker Park Meadow**

(Perkiomen Township)

Protected within a county historic site (Pennypacker Mills) and adjacent to the Perkiomen Valley Watershed Association headquarters, the site is ideal for environmental education programs. It contains a diversity of native grasses and wildflowers—big bluestem, Indian grass, and swamp milkweed—and provides good habitat for butterflies. The site is an excellent example of some of the management options available to parks. The current mowing regime—perhaps once a year in late fall at this site—provides a cost savings while providing a very scenic and rich assemblage of native plants and butterflies.

## **Ridge Valley Creek Woods**

(Salford Township)

Partly protected as the Natural Land Trust's Fulshaw Craeg Preserve, this site contains good quality mixed hardwood forest (tulip poplar, sugar maple, ash, black birch, hickory, etc.) on diabase boulder slopes. The site is contiguous with the Ridge Valley site and exhibits diverse flora and some seepage wetlands. Keeping the forest canopy intact and minimizing disturbance can help maintain site quality.

## **McKaig Woods**

(Upper Merion Township)

This site contains about 90 acres of woodland in a densely populated area, consisting of beech, black oak, chestnut oak, and diverse flora for this area of county. Most of the site is protected by Upper Merion Township as the McKaig Nature Education Center. Control of non-native weeds such as multiflora rose may be necessary to maintain integrity as a natural area.

## **Keith Valley Road**

(Horsham Township)

Located west of County Line Road, this locally significant forest community includes hardwoods of mixed ages and a well-developed sub-canopy and shrub strata. Since the area was evaluated from the road, further survey is encouraged to further evaluate the site's rank. Left undisturbed this site may continue to provide a good example of this community type.

## **Otts Road Floodplain**

(Perkiomen Township)

Located north of Maple Avenue, this small locally significant floodplain with gravel bars along the Perkiomen Creek contains willow, sycamore, false nettle, and wildflowers such as cut leaf coneflower and sneezeweed. The existing forest cover should be maintained. Elimination of vehicle access would also help to restore the site's quality.

# Appendix B

## Municipal Open Space

\* Denotes lands fully or partially acquired through the Montgomery County Open Space Program (1993-2003)

<b>Abington Township:</b> .....	<b>403.7 Acres</b>
Alverthorpe Park, Forrest Avenue	126.63 Acres
Ardsley Park, Maple Avenue	11.40 Acres
Baederwood Park, Highland Avenue	24.83 Acres
Biddle Homes Open Space, Melmar Road	3.64 Acres
Briar Bush Nature Center, Edge Hill Road	12.17 Acres
Briarcliff Avenue	0.11 Acres
Conway Field, Fitzwatertown Road	5.38 Acres
Crestmont Park, Rubicam Avenue	19.16 Acres
Elk Street Tot Lot	0.26 Acres
Evergreen Manor Park, Coolidge Avenue	5.62 Acres
Fox Chase Manor, Kirkwood Avenue	12.00 Acres
Hammond Place Open Space, Susquehanna Road	4.37 Acres
Harrison Avenue	0.22 Acres
Hillside Cemetery, Jenkintown Road*	79.21 Acres
Jackson Avenue	0.12 Acres
Madison Avenue*	2.23 Acres
Manor Avenue	0.66 Acres
Maple Avenue	1.09 Acres
McKinley Park, Jenkintown Road	3.67 Acres
Meetinghouse Road Triangle	0.53 Acres
Miriam Avenue	0.76 Acres
Monroe Avenue	0.17 Acres
North Hills Playground, Tennis Avenue	3.22 Acres
Nylsor Avenue Park	9.16 Acres
Osbourne Avenue	0.79 Acres
Penbryn Park, Dumont Avenue	4.17 Acres
Pennypack Road	1.86 Acres
Revelation Road	0.69 Acres
Rockwell Park, Stratford Avenue	1.22 Acres
Roslyn Avenue	10.5 Acres
Roslyn Park, Brook Parkway	5.34 Acres
Roy Chester Park, Harding Avenue	13.92 Acres
Rubicam Avenue Park	3.35 Acres
Scott Park, Van Sant Road	0.43 Acres
Township Bird Sanctuary, Valley Road	17.30 Acres
Township Game Preserve, Valley Road	13.94 Acres
Tyson Green, Keith Road	0.53 Acres
War Memorial Island, Old York Road	3.05 Acres
<b>Ambler Borough:</b> .....	<b>23.85 Acres</b>
Ambler Borough Park, Tennis Avenue	8.93 Acres

Jean Thompson Playground, Chestnut Street	0.35 Acres
Knights Playground, Main Street	5.72 Acres
Pickering Fields, Highland Avenue	2.93 Acres
Reiffs Mill Road Park	0.36 Acres
Reiffs Mill Road Triangle	0.54 Acres
Ricciardi Memorial Park, Hendricks Street	5.02 Acres
<b>Bridgeport Borough: .....</b>	<b>17.44 Acres</b>
Anthony Chiccino Field, Sixth Street	5.48 Acres
Bridgeport Memorial Park, Seventh Street*	9.45 Acres
DeKalb Street Woods	2.51 Acres
<b>Bryn Athyn Borough: .....</b>	<b>28.26 Acres</b>
Bryn Athyn Borough Park, Alnwick Road	25.27 Acres
Elsa Park, Fetters Mill Road	2.99 Acres
<b>Cheltenham Township: .....</b>	<b>348 Acres</b>
Academy Lane	1.78 Acres
Ashmead Road	2.57 Acres
Bickley Road	0.43 Acres
Brookfield Road	17.00 Acres
Carroll Avenue	4.13 Acres
Cedarbrook Park, Waverly Road	8.70 Acres
Charles D. Conklin Jr. Recreation Area, Church Road	6.56 Acres
Church Road	2.50 Acres
Church Road 2	1.41 Acres
Coventry Avenue	1.65 Acres
Coventry Park, New Second Street	1.59 Acres
Curtis Arboretum, Church Road	48.04 Acres
Edward Hicks, Glenside Avenue	5.57 Acres
Edward Hicks Parry Bird Sanctuary, Cheltenham Drive	9.61 Acres
Fairmont Park, Cheltenham Avenue	8.41 Acres
George A. Perley Bird Sanctuary, Rices Mill Road	8.46 Acres
Glenside Avenue West	0.25 Acres
Green Valley Road	0.57 Acres
Grove Park, Lynnwood Avenue	2.90 Acres
H. Carrol Brooke Park, Brooke Road	6.81 Acres
Harry S. Renninger Recreation Area, Keswick Avenue	10.14 Acres
High School Park, Montgomery Avenue*	9.74 Acres
John Russell Park, Penrose Avenue	8.34 Acres
LaMott Community Center, Sycamore Avenue	1.64 Acres
Laurel Avenue	0.90 Acres
Lincoln Avenue	0.15 Acres
Lismore Avenue	0.42 Acres
Melrose Park, Asbury Avenue	7.90 Acres
Ogontz Park, High School Road	10.91 Acres
Old Soldiers Road	0.76 Acres
Ralph Morgan Park, Glenside Avenue	6.06 Acres
Rices Mill Road	0.35 Acres

Robinson Park, Bent Road*	4.36 Acres
Rock Lane	17.00 Acres
Rock Lane Park	0.87 Acres
Rowland Community Center, Myrtle Avenue	2.48 Acres
Thomas Williams Park, Hewett Road	9.18 Acres
Tookany Creek Parkway	81.37 Acres
Tookany Creek Parkway Gimbel Field, Harrison Avenue	3.42 Acres
Tookany Creek Parkway Kleinheinz Pond	1.86 Acres
Tookany Creek Parkway Little League Ball Park	9.56 Acres
Tookany Creek Parkway Police Pistol Range, Ashmead Road	1.00 Acres
Tookany Creek Parkway Shovel Shop, Ashbourne Road	5.29 Acres
Union Avenue	0.17 Acres
Wall Park, York Road	14.47 Acres
Waverly Road West	0.72 Acres

**Collegeville Borough: ..... 76.67 Acres**

Clayhor Avenue	0.40 Acres
Chestnut & Eighth Avenues	0.18 Acres
Collegeville Memorial Park, Fourth Avenue	4.88 Acres
Dam Site Perkiomen Creek, First Avenue	16.00 Acres
Hunsberger Woods, Ninth Avenue*	27.23 Acres
Perkiomen Creek Open Space, First Avenue	12.93 Acres
Perkiomen Creek Open Space, River Road	14.95 Acres
Scout Cabin Park, Clamer Avenue	1.10 Acres

**Conshohocken Borough: ..... 32.61 Acres**

A.A. Garthwaite Stadium, Hallowell Street	3.52 Acres
Aubrey Collins Park, Elm Street	0.55 Acres
Borusiewicz Field, Eleventh Avenue	2.87 Acres
Conshohocken Waterfront, Washington Street	3.08 Acres
Elm Street	0.23 Acres
Haines & Salvati Memorial Park, First Avenue	0.90 Acres
Mary H. Wood Park, Sixth Avenue	3.44 Acres
Second Avenue Meadow*	0.40 Acres
Sutcliffe Park, Eighth Street	17.62 Acres

**Douglass Township: ..... 77.63 Acres**

Acorn Drive	0.19 Acres
Colonial Manor, Oak Street	3.96 Acres
Douglass Township Park, Merkel Road	18.58 Acres
Keller Woods, Keller Road*	34.34 Acres
Moyer Property, Congo Road*	9.89 Acres
Nelmor Park II, Moore Road	2.16 Acres
Rhoads Property, Willard Road*	8.51 Acres

**East Greenville Borough: ..... 58.13 Acres**

Bieler Tract, Church Road*	13.70 Acres
East Greenville Firehouse, Main Street	0.27 Acres
Goshenhoppen Park, Third Street*	1.71 Acres

Main Street	0.35 Acres
Washington Street	0.59 Acres
Water Street	41.51 Acres
<b>East Norriton Township: .....</b>	<b>164.29 Acres</b>
Baker Drive Detention Basin	0.47 Acres
Ballard Wolffe Park, Trooper Road	35.52 Acres
Calvert Hurdle Park, North Wales Road	14.71 Acres
Carol Lane Detention Basin	0.43 Acres
DeSage Park, Germantown Pike*	9.70 Acres
Green Hill Lane Detention Basin	1.16 Acres
Holly Hill East Open Space, Fillmore Road	1.17 Acres
Louis K 'Mack' Watson Sr. Memorial Park, Shamokin Street*	1.25 Acres
Marna Court Detention Basin	0.66 Acres
Norris City Cemetery, Stanbridge Street	9.60 Acres
Old Arch Road Park*	2.79 Acres
Pierce Road	9.40 Acres
Potshop Road	7.60 Acres
Schultz Road Detention Basin	1.16 Acres
Stanbridge Street Island	2.20 Acres
Stanbridge Street Park Complex	35.37 Acres
Stonebridge Estates Open Space	4.20 Acres
Sunset Avenue	0.46 Acres
Taft Road	0.46 Acres
Tanglewood Lane Detention Basin	1.33 Acres
Township Line Road	4.75 Acres
Van Landeghem Property, Burnside Avenue*	19.53 Acres
Whitehall Road	0.37 Acres
<b>Franconia Township: .....</b>	<b>200.11 Acres</b>
Branchwood Park, Camp Road	50.05 Acres
Chestnut Grove, Cowpath Road*	9.53 Acres
Cowpath Road	3.10 Acres
Forest Meadow, Forrest Road*	23.25 Acres
Franconia Community Park, Allentown Road*	61.06 Acres
Godshall Park, Godshall Road	11.24 Acres
Hunters Green Open Space, Hedgerow Drive	0.39 Acres
Indian Creek Road	23.28 Acres
Laurel Lane Park	7.60 Acres
Orchard Hill Open Space, Quince Drive	5.51 Acres
Strawberry Fields Open Space, Winding Way	5.10 Acres
<b>Green Lane Borough: .....</b>	<b>34.13 Acres</b>
Green Street	32.10 Acres
Main Street	2.03 Acres
<b>Hatboro Borough: .....</b>	<b>29.01 Acres</b>
Hatboro Memorial Park, West Moreland Avenue	8.29 Acres
Hatboro Pool Complex, West Moreland Avenue	1.27 Acres

James T. Eaton Memorial Park, West Moreland Avenue	9.40 Acres
Miller Property, South York Road*	8.05 Acres
Tanner Playground, Jefferson Avenue	1.03 Acres
West Moreland Avenue	0.97 Acres

**Hatfield Borough: ..... 22.31 Acres**

Centennial Park, Cherry Street*	2.74 Acres
Chestnut Street	1.51 Acres
Circle Tot Lot	0.54 Acres
Dain Street	0.51 Acres
Electric Plant Park, Chestnut Street*	0.63 Acres
Heritage Park, Wheatfield Circle*	10.41 Acres
Market Street	2.37 Acres
Old Jail Open Space, Cherry Street	0.09 Acres
Sufrin Avenue	1.54 Acres
Union Street	0.05 Acres
Vine Street	1.18 Acres
Wilson Avenue	0.74 Acres

**Hatfield Township: ..... 267.39 Acres**

Bishop Property, Orvilla Road*	8.65 Acres
Castle Heights, Denbeigh Drive	11.44 Acres
Colmar Fire Company, Walnut Street	2.82 Acres
Cope Property, Lenhart Road*	6.19 Acres
Cowpath Road	3.44 Acres
Cowpath Village, Creek Road	10.08 Acres
Deer Run Open Space, Deer Run Road	1.07 Acres
Discovery Drive	7.39 Acres
Downing Drive	12.80 Acres
Elm Street	2.63 Acres
Fairgrounds Road	4.47 Acres
Floodplain Area, Fairgrounds Road	6.52 Acres
Fortuna Drive	0.66 Acres
Garfield Avenue	1.74 Acres
Hatfield Community Park, Chestnut Street	17.76 Acres
Juba Property, School Road*	1.14 Acres
Kindig Property, Welsh Road	2.30 Acres
Koffel Road	4.99 Acres
Leas Way	3.46 Acres
Line Lexington Industrial Park Open Space, Bethlehem Pike	20.59 Acres
Line Lexington Road	14.84 Acres
Movie Lots, Chestnut Street*	3.36 Acres
Normal Avenue	2.02 Acres
Oakwood Crest, Koffel Road	2.90 Acres
Orvilla Road	29.82 Acres
Palomino Farms, Ida Lane	2.00 Acres
Princeton Place, Fairgrounds Road	6.77 Acres
Providence Lane	6.70 Acres
Rebecca Drive	4.06 Acres
School Road	0.77 Acres

School Road Park	24.66 Acres
Schweiker Park, Moyer Road*	6.90 Acres
Sharon Road	6.79 Acres
Sibel Tract, Henry Street*	0.50 Acres
Valley Woods Road	2.27 Acres
Vernon Court	8.00 Acres
Wellington Way	6.45 Acres
Woodstream Drive	6.63 Acres
<b>Horsham Township: .....</b>	<b>640.34 Acres</b>
Applewood Court	0.34 Acres
Balmoral Way	14.04 Acres
Blair Mill Park, Blair Mill Road	4.18 Acres
Cedar Hill Road Park	87.05 Acres
Chestnut Creek Park, Lower State Road	64.61 Acres
Clearbrook Park, Beatrice Avenue	30.16 Acres
Columbia Avenue	1.50 Acres
Country Glen Basins, Brantford Circle	1.48 Acres
Country Glen Basins, Norristown Road	2.33 Acres
Country Springs Basins, Cavalry Drive	2.16 Acres
Country Springs Basins, Hunt Drive	2.04 Acres
Deep Meadow Park I, Horsham Road	49.22 Acres
Former Wichard Sewer Treatment Site, Wynmere Drive	12.16 Acres
Gilman Road	0.99 Acres
Horsham Road	24.22 Acres
Jarrett Road Park	2.31 Acres
Keith Valley Park, Keith Valley Road	29.20 Acres
Kohler Park, Horsham Road	70.20 Acres
Lukens Park, Drescher Road*	44.78 Acres
Maple Park, Brumar Drive	7.46 Acres
Pemmapecka Park, Summer Avenue	0.45 Acres
Rolling Glen Basins, Glenview Drive	0.74 Acres
Rolling Glen Basins, Gregory Drive	0.93 Acres
Samuel Carpenter Park, Horsham Road	29.05 Acres
Sawmill Lane Tot Lot	1.99 Acres
Sawmill Valley, Log Pond Drive	3.37 Acres
Sawyers Way Park	15.51 Acres
Springbrook Park, Maple Avenue	2.58 Acres
Strawbridge Property, Governors Road	102.52 Acres
Township Authority Open Space	15.29 Acres
Vestry Drive	7.32 Acres
Whetstone Tot Lot, Whetstone Road	1.32 Acres
Witmer Road	3.26 Acres
Wynmere Downs Basins, Danbridge Drive	2.01 Acres
Wynmere Downs Basins, Downey Drive	2.53 Acres
Wynmere Downs Basins, Herman Road	1.04 Acres
<b>Jenkintown Borough: .....</b>	<b>0.13 Acres</b>
Greenwood Avenue*	0.13 Acres

**Lansdale Borough: ..... 159.12 Acres**

Adams Avenue Park	1.70 Acres
Cherry Street & Pennbrook Avenue Park	0.73 Acres
Church Road Park	0.51 Acres
Fourth Street Park	6.35 Acres
Hidden Valley Park, Main Street	7.00 Acres
Jackson Street Park	0.28 Acres
Laurel Lane Park	0.61 Acres
Memorial Park, Main Street	11.31 Acres
Moyer's Road Park	3.82 Acres
Railroad Station, Main Street	0.38 Acres
Schweiker Park, Moyers Road*	7.82 Acres
Stony Creek Park, Hancock Street*	18.08 Acres
Triad Park, Main Street	0.14 Acres
Wedgewood Park, Moyers Road	40.50 Acres
West Fifth Street Park	5.88 Acres
Whites Road Park	32.29 Acres
Willow Street Park	1.87 Acres
Wissahickon Park, Knapp Road	18.99 Acres
York & Susquehanna Avenues*	0.86 Acres

**Limerick Township: ..... 177.76 Acres**

Bowman Property, Gerloff Road*	28.77 Acres
Chapel Heights, Limerick Rd	8.70 Acres
Fox Ridge, Hunter Lane	3.13 Acres
King Road	6.18 Acres
Landis Creek, Landis Creek Lane	3.12 Acres
Limerick Community Park, Zeigler Road*	68.68 Acres
Stone Hill Preserve, Ryanford Road*	27.09 Acres
Swamp Creek Road	6.84 Acres
Trinley Park, Trinley Road	6.00 Acres
Trinley Mill, Trinley Mill Road	12.00 Acres
Veterans Park, Ridge Pike	7.25 Acres

**Lower Frederick Township: ..... 100.18 Acres**

2nd Avenue Park	1.29 Acres
Cedar Hill, Laureen Road	18.12 Acres
Lower Frederick Fire Company, Main Street*	5.43 Acres
Lower Frederick Township Park, Little Road	6.20 Acres
Perkiomen Creek Open Space, Spring Mountain Road	4.75 Acres
Stone Hill Preserve, Meng Road*	52.02 Acres
Toto Property, Colonial Drive*	12.37 Acres

**Lower Gwynedd Township: ..... 279.33 Acres**

Bethlehem Pike	3.91 Acres
Bethlehem Pike Park	1.46 Acres
Brights Lane Basin	1.73 Acres
Brookside Avenue	0.17 Acres
Chesterfield Drive	4.63 Acres

Gwynedd Valley Basin, Grasshopper Lane	1.88 Acres
Henkel/Cognis Property, Mather Road*	18.57 Acres
John C. Parry Bird Sanctuary, Evans Road	7.25 Acres
Kingsley Court	10.44 Acres
Kyle Lane	9.46 Acres
Penllyn Park, Gwynedd Avenue	4.00 Acres
Penllyn Wood, Gwynedd Avenue*	76.60 Acres
Penn Oak Road	9.33 Acres
Peterman Lane	17.57 Acres
Project 70 Lands, Township Line Road	44.08 Acres
Springwood Lane	5.87 Acres
Tennis Avenue	0.46 Acres
Trewelyn Creek Park, Fairland Drive	29.57 Acres
Welsh Road	7.80 Acres
Wissahickon Avenue	0.19 Acres
Wister Woods, Wister Avenue	14.91 Acres
Wooded Pond Road	9.45 Acres

**Lower Merion Township: ..... 588.66 Acres**

Appleford Estate, Mt. Moro Road	8.17 Acres
Ardmore Avenue Park & Community Center	4.94 Acres
Ardmore Senior Citizens Center & Tot Lot, St. Pauls Road	0.28 Acres
Ashbridge Memorial Park, Montgomery Avenue	26.75 Acres
Austin Park, Airdale Road	2.43 Acres
Bala Avenue Park & Gymnasium	0.77 Acres
Bala Cynwyd Park, Belmont Avenue	6.09 Acres
Bryn Mawr Library & Community Building, Bryn Mawr Ave	6.41 Acres
Conshohocken State Road	0.27 Acres
County Line Road	0.12 Acres
Cynwyd Station Park, Bala Avenue	0.40 Acres
Elm Avenue	0.12 Acres
Flat Rock Park, River Road	9.28 Acres
General Wayne Park, Maplewood Avenue	9.95 Acres
Gladwyne Park & Margaret Weir Braun Mem, Youngsford Road	14.96 Acres
Gulley Run Park, Conshohocken State Road	16.56 Acres
Harriton Park, Harriton Road	12.96 Acres
Henry Lane Park	1.87 Acres
Jack Parker Park, Llanfair Circle	2.06 Acres
Kenealy Nature Park, Youngsford Road	82.35 Acres
Lippincott Avenue	0.86 Acres
McMoran Park/ Lewis J. Smith Park & Pool, Mary Watersford Rd	9.56 Acres
Merion Botanical Park, Merion Road	10.00 Acres
Merion Square Road	1.62 Acres
Mill Creek Valley Park, Conshohocken State Road	89.53 Acres
Montgomery Avenue	0.32 Acres
Old Gulph Road	0.23 Acres
Pencoyd Park, Mary Watersford Road	74.79 Acres
Penn Wynne Park, Manoa Road	4.61 Acres
Remington Pond, Drayton Lane	4.52 Acres
Righters Mill Road	2.20 Acres

Rolling Hill Farm, Mill Creek Road*	81.14 Acres
Saunders Woods, Conshohocken State Road	21.37 Acres
Sharpe Property & Bird Sanctuary, Montgomery Avenue	1.94 Acres
Shortridge Memorial Park, Wynnewood Road	10.62 Acres
Simpson Island, River Road	4.06 Acres
South Ardmore Park, Athens Avenue	16.58 Acres
Sussex Road Basin	2.48 Acres
Warner Avenue Tot Lot	0.56 Acres
Waverly Road	15.89 Acres
West Mill Creek Park, Mill Creek Road	13.73 Acres
Williamson Road	3.00 Acres
Wynnewood Station Park, Station Road	1.00 Acres
Wynnewood Valley Park, Remington Road	11.31 Acres
<b>Lower Moreland Township: .....</b>	<b>58.42 Acres</b>
County Line Road	0.75 Acres
Elkins Field, Huntingdon Pike	12.94 Acres
Justa Farm Park, Mettler Road	8.30 Acres
Lower Moreland Park, Warfield Road	22.18 Acres
Moreland Road	0.46 Acres
Ramage Run	1.27 Acres
Red Lion Road	4.70 Acres
Ridgeway Park, Pine Road	7.82 Acres
<b>Lower Pottsgrove Township: .....</b>	<b>197.04 Acres</b>
Alfred B. Miles Park & Nature Area, Sunnybrook Road	6.60 Acres
Brown Street	1.28 Acres
Crimson Lane	0.36 Acres
Donna Lane	3.13 Acres
E. High Street	0.06 Acres
Lower Pottsgrove Community Park, Pleasant View Road*	30.94 Acres
Lower Pottsgrove Historical Site, High Street	0.44 Acres
Ringing Hill Pond, Keim Street*	37.55 Acres
Riverfront Park, Porter Road	13.04 Acres
Sanatoga Creek Tract, Snell Road*	31.74 Acres
Sanatoga Park, Sanatoga Road	53.91 Acres
Sproegels Run Woods, Doe Run Lane	11.65 Acres
Sunnybrook Road	0.35 Acres
Terraced Hill, Allison Drive	1.00 Acres
Township Building, Buchert Road	4.99 Acres
<b>Lower Providence Township: .....</b>	<b>329.25 Acres</b>
Brant Park, Henry Road	2.53 Acres
Casselberry Farm, Casselberry Drive	5.47 Acres
Charles J. Eskie Memorial Park, Church Road	10.80 Acres
Cold Spring Drive	2.60 Acres
Colony Homes, Mt. Kirk Avenue	1.52 Acres
Eagleville Park, Ridge Pike	52.48 Acres
Elizabeth Lane	0.46 Acres

Farmhouse Drive	2.93 Acres
Featherbed Lane	14.37 Acres
General Washington Recreation Area*, Egypt Road	106.70 Acres
Greenbriar Court	9.46 Acres
Hoy Memorial Park, Arcola Road	2.51 Acres
Indian Woods Lane	7.89 Acres
Jode Road	4.75 Acres
Level Road Schoolhouse	0.18 Acres
Lloyd Lane	1.15 Acres
Park Avenue	6.24 Acres
Pinetown Road	6.34 Acres
Pond View Drive	5.32 Acres
Prescott Circle	2.77 Acres
Shearwater Drive	9.54 Acres
Sherwood Park, Amy Drive	1.01 Acres
Skippack Creek, Barrington Road	16.41 Acres
Skyline Circle	0.76 Acres
Still Meadow Drive	1.32 Acres
Sunnyside Avenue	17.13 Acres
Upper Mine Run, Park Avenue	21.12 Acres
Walker Lane Park	4.13 Acres
Water Fall Circle	11.36 Acres
<b>Lower Salford Township: .....</b>	<b>701.82 Acres</b>
Alderfer Park, Oak Drive	37.46 Acres
Alumni Avenue	4.99 Acres
Beechwood, Main Street	20.23 Acres
Bergery Park, Bergey Mill Road	74.48 Acres
Bramblewyck, Courtland Avenue	0.28 Acres
Brown/Jones Tract, Lederach Cross Road*	82.36 Acres
Bryarwyck Park, Sturgis Road	22.11 Acres
Bucher Park, School Lane	1.37 Acres
Clemens Road	8.35 Acres
Creekview Drive	23.23 Acres
Dan Roth Memorial Park, Maple Avenue	1.88 Acres
Doe Run Road	4.48 Acres
Farmview Drive	4.44 Acres
Frederick T. Dannert Memorial Park, Oak Drive	16.20 Acres
Groff's Mill Park, Old Skippack Road	31.04 Acres
Haldeman Road	30.66 Acres
Harleysville Community Center, Kulp Road	7.82 Acres
Heckler Plains Park, Landis Road	43.78 Acres
Hidden Creek, Creekview Drive	30.85 Acres
Indian Creek Road	26.09 Acres
Jacob Reiff Park, Quarry Road	78.38 Acres
Lower Salford Park, Main Street	4.55 Acres
Manor Road	2.16 Acres
Maple Avenue	3.40 Acres
Morris Road	2.35 Acres
Reed Park, Ruth Road	12.25 Acres

Old Sumneytown Pike	0.50 Acres
Park Avenue	1.38 Acres
Park Avenue 2	2.78 Acres
Pioneer Circle	2.60 Acres
Quarry Road	22.80 Acres
Samuel Harley Park, Kulp Road	45.38 Acres
Stover Road	10.54 Acres
Wawa Park, Camp Wawa Road	40.65 Acres

**Marlborough Township: ..... 239.98 Acres**

Camp Skymount, Long Road*	31.09 Acres
King Farm, Finland Road*	85.17 Acres
Township Building Open Space, Upper Ridge Road	14.76 Acres
Unami Creek Open Space, Swamp Creek Road	10.37 Acres
Weidner Farm, Geryville Pike*	98.59 Acres

**Montgomery Township: ..... 606.63 Acres**

Applewood, David Lane	5.89 Acres
Canterbury, Twining Road	4.59 Acres
Canterbury III, Walden Lane	7.35 Acres
Claremont Drive	22.24 Acres
Clearview Estates, Pauline Circle	0.63 Acres
Fellowship Park, Line Street	13.62 Acres
Forest Trail, Doylestown Road	0.80 Acres
Green Tree Tavern Road	6.77 Acres
Gwynedd Lea, Gwynedd Lea Drive	8.02 Acres
Hatboro-Horsham Road	19.42 Acres
Heather Knoll, Bellows Way	3.64 Acres
Heather Ridge, County Line Road	7.08 Acres
Horvath Property, Horsham Road*	26.98 Acres
Hourglass Park, Stoneridge Drive	8.65 Acres
Knapp Road	16.79 Acres
Lower State Road	24.48 Acres
Mallard Pond, Mallard Drive	11.10 Acres
Meadow Glen, Andrew Lane	4.92 Acres
Meadow Lane Farm	0.85 Acres
Montgomery Hill, Kelsey Drive	6.78 Acres
Montgomery Lea, Westminster Drive	10.45 Acres
Montgomery Ridge, Sunrise Drive	7.11 Acres
Montgomery Township Fitness Trail Park, Cricklewood Circle	6.30 Acres
Montgomery Township Natural Area, Knapp Road	36.92 Acres
Regency Drive	14.70 Acres
Spring Valley Park, Claremont Drive	65.58 Acres
Stone Ridge, Upper State Road	4.35 Acres
Stump Road	0.38 Acres
Summit Place	3.92 Acres
The Orchards, Stayman Drive	14.67 Acres
The Ridings, Chaps Way	8.42 Acres
Thornbury, Doylestown Road	1.82 Acres
Township Municipal Complex, Stump Road	22.93 Acres

Velvet Ridge Basin 1, Green Spring Circle	0.64 Acres
Velvet Ridge Basin 2, Summer Ridge Drive	1.30 Acres
Victoria Court, Bethlehem Pike	3.00 Acres
Westgate, Shelburne Drive	6.75 Acres
Whistlestop Park, County Line Road	13.28 Acres
Windlestrae Park, Kenas Road*	162.48 Acres
Wiseman Tract, Kenas Road*	16.00 Acres
Wrenfield, Westgate Drive	5.03 Acres
<b>Narberth Borough: .....</b>	<b>10.58 Acres</b>
Conway Avenue	0.14 Acres
Narberth Community Ballfield, Windsor Avenue	6.74 Acres
Sabine Avenue Playground	3.41 Acres
Station Circle	0.29 Acres
<b>New Hanover Township: .....</b>	<b>228.07 Acres</b>
Bower Property, Pleasant Run Road*	11.48 Acres
Colonial Ridge, Dotterer Road	0.03 Acres
Evans Road	20.10 Acres
Heather Lane	0.34 Acres
Layfield Park, Dotterer Road*	28.23 Acres
Middle Creek Athletic Fields, Dotterer Road*	10.00 Acres
New Hanover Community Park, Kleman Road*	21.20 Acres
Pleasant Run Park, Schultz Road*	11.42 Acres
Romig Road	12.01 Acres
Rosenberry 1, Rosenberry Road	11.30 Acres
Rosenberry 2, Turnbury Road	5.46 Acres
Swamp Creek Park, Reifsnnyder Road*	34.29 Acres
Wagner Road	62.21 Acres
<b>Norristown Borough: .....</b>	<b>107.82 Acres</b>
Airy Street	3.05 Acres
Atkinson Field, Sterigere Street	2.92 Acres
Barone Lots, Noblewood Street*	0.62 Acres
Bartsch Park, North Hills Drive	0.74 Acres
Basin Street	2.72 Acres
Downtown Public Square, Main Street	0.77 Acres
Elmwood Park, Harding Boulevard	55.00 Acres
Engro Property, Basin Street*	4.85 Acres
Guardino Park, Lafayette Street	0.77 Acres
Marshall Street	1.92 Acres
McCann Park, Ford Street	6.05 Acres
Oak Street	1.92 Acres
Riverfront Park, Haws Avenue	4.31 Acres
Skag Cottman Field, Violet Street	2.44 Acres
Sterigere Street	18.50 Acres
Walnut Street Playground	0.48 Acres
War Memorial Square, James & Astor Streets	0.16 Acres
Washington Street Park*	0.60 Acres

**North Wales Borough: .....8.64 Acres**

311 W. Montgomery Avenue*	0.21 Acres
A Child’s Garden, Eighth Street*	0.20 Acres
Bryant Memorial Park, Fourth Street*	0.29 Acres
East Walnut Street Plaza	0.21 Acres
Eighth & Willow Street Park*	1.40 Acres
Ninth Street Park	1.69 Acres
Second Street Park*	0.37 Acres
Tenth Street*	0.36 Acres
Wee Whalers Park, Shearer Street	0.83 Acres
Weingartner Park, Second Street	3.08 Acres

**Pennsburg Borough: ..... 20.13 Acres**

Main Street	0.16 Acres
Pennsburg Nature Preserve, Fifth Street*	8.67 Acres
Seachrist-Kurtz Ballfield, Eighth Street*	7.10 Acres
Sixth Street	4.20 Acres

**Perkiomen Township: ..... 71.32 Acres**

Altemose Property, Gravel Pike*	9.31 Acres
Bayonet Court	1.13 Acres
Commons Lane	3.26 Acres
Graterford/Bridge Street Area, Gravel Pike	0.91 Acres
Greene Boulevard	3.29 Acres
Gravel Pike	0.02 Acres
Mayberry Road	6.69 Acres
Musket Court	4.04 Acres
Red Coat Road	38.89 Acres
Municipal Building Park, Gravel Pike	3.78 Acres

**Plymouth Township: ..... 161.50 Acres**

Bicentennial Park, Belvoir Road	23.57 Acres
Black Horse Park, School Lane	2.05 Acres
Brookview Basin, Justin Drive	2.40 Acres
Cardinal View Basin, Cardinal Drive	3.42 Acres
Cardinal View Open Space, Cardinal Drive	1.70 Acres
Colwell Park, Hillcrest Road	4.56 Acres
Community Center Park, Jolly Road	29.68 Acres
Eagle Run, Plymouth Road	1.07 Acres
East Plymouth Valley Park, Germantown Pike	16.48 Acres
Harriet Wetherill Park, Narcissa Road*	40.34 Acres
John F. Kennedy Memorial Park, Lucetta Street	17.15 Acres
Larkin Tract, Narcissa Road	12.25 Acres
Plymouth Hills Park, Camelot Drive	2.00 Acres
Plymouth Meeting Park, Blue Ridge Road	2.94 Acres
Sandwood Park, Sandwood Road	1.89 Acres

**Pottstown Borough: ..... 172.02 Acres**

Beech Street	0.17 Acres
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Cherry Street Park	0.29 Acres
Evans Street	0.26 Acres
Hemlock Row	0.11 Acres
High Street	1.53 Acres
Jackson Street Park	0.57 Acres
Jefferson Avenue	0.19 Acres
King Street	0.90 Acres
Logan-Spruce Triangle	0.06 Acres
Manatawny Creek Park, Manatawny Street	8.06 Acres
Maple Street Park	5.94 Acres
Memorial Park, King Street	62.75 Acres
Oak Street Hill	0.56 Acres
Pollock Park, Cross Street	2.02 Acres
Potts Drive Park	0.60 Acres
Price & Cherry Triangle	0.14 Acres
Queen Street	0.81 Acres
Queen Street 2	0.42 Acres
Schuylkill River Park, Hanover Street*	79.37 Acres
South Street Park	0.44 Acres
Spruce Street Park	1.27 Acres
Transit Plaza, High Street*	2.69 Acres
Walnut Street Park	0.10 Acres
Washington Hill Park	2.10 Acres
Washington Street Park*	0.28 Acres
West & Washington Park	0.39 Acres
<b>Red Hill Borough: .....</b>	<b>5.14 Acres</b>
Main Street	0.32 Acres
Red Hill Borough Park, Graber Alley	4.60 Acres
Veterans Memorial, Main Street	0.22 Acres
<b>Rockledge Borough: .....</b>	<b>8.11 Acres</b>
Infanta Mill, Jarrett Avenue*	0.74 Acres
Robbins Avenue	0.59 Acres
Rockledge Borough Park, Loney Street	4.00 Acres
Rockledge Recreation Field, Valley Street	1.27 Acres
Vogt Property, Rockledge Avenue*	1.51 Acres
<b>Royersford Borough: .....</b>	<b>14.48 Acres</b>
Fifth Avenue	0.47 Acres
Royersford Foundry, Main Street*	1.60 Acres
Victory Park, Spring Street	12.41 Acres
<b>Salford Township: .....</b>	<b>119.73 Acres</b>
Badman Road	5.30 Acres
Copper Mine Creek, Hill Road*	16.99 Acres
Pine Oak Drive Park	0.97 Acres
Whites Mill Road	96.47 Acres

**Schwenksville Borough: ..... 18.44 Acres**

Borough Authority Wells, Cemetery Lane	0.73 Acres
Borough Authority Wells, Schwenk Avenue	1.71 Acres
Schwenksville Borough Park, Main Street	16.00 Acres

**Skippack Township: ..... 175.80 Acres**

Cholet Property, Bridge Road	23.12 Acres
Church Road Natural Area	5.34 Acres
Church Road Park	6.56 Acres
Cressman Road	8.44 Acres
Easter Avenue Park	0.77 Acres
Evansburg Road	0.51 Acres
Garges Road	27.72 Acres
McGinniss Property, Evansburg Road	24.15 Acres
Palmer Park, Heckler Road*	54.90 Acres
Skippack Township Park, Township Line Road	10.29 Acres
Yates Property, Thompson Road	14.00 Acres

**Souderton Borough: ..... 26.28 Acres**

Chestnut & Wile Street Park	1.69 Acres
Community Pool, Wile Avenue*	3.51 Acres
Holly Hill, Green Street*	3.97 Acres
Lawn Avenue Tot Lot	0.53 Acres
Souderton Community Park, Summit Street*	10.32 Acres
West Street Park	6.26 Acres

**Springfield Township: ..... 107.95 Acres**

Bysher Park, Bysher Avenue	10.72 Acres
Flourtown Country Club, McCloskey Road	53.00 Acres
Hillcrest Avenue	0.17 Acres
Hillcrest Park, Hillcrest Avenue	8.36 Acres
Hillcrest Pond, Hillcrest Avenue	4.81 Acres
Laurel Beech Park, Mermaid Lane*	6.36 Acres
Mermaid Triangle, Flourtown Avenue	0.26 Acres
Oreland Ballfield, Enfield Road	4.49 Acres
Oreland Park, Kingston Road	1.70 Acres
Sandy Run Park, Walnut Avenue	8.00 Acres
War Memorial, Bethlehem Pike	0.14 Acres
Wyndhill Playground, Flourtown Avenue	4.04 Acres
Wyndmoor Playground, Traymore Avenue	5.90 Acres

**Telford Borough: ..... 30.77 Acres**

Centennial Park, Church Road	7.01 Acres
Franconia Park, Broad Street	2.23 Acres
Madison Avenue Open Space	1.01 Acres
Summit Street Playground	1.16 Acres
Telford Municipal Park, Church Avenue	6.78 Acres
Twin Town Ballfield, Fourth Avenue*	5.35 Acres
Village Green Lane	7.23 Acres

<b>Towamencin Township: .....</b>	<b>280.36 Acres</b>
Adam's Road Park	8.47 Acres
Brookside Farm, Spring Valley Road	17.26 Acres
Bustard Road Community Park	16.72 Acres
Drinnon Way Park	2.87 Acres
Ellis Property, Kriebel Road*	6.92 Acres
Fieldstone Manor, Allentown Road	3.14 Acres
Finch Run	0.77 Acres
Firehouse Park, Green Lane Road	18.90 Acres
Fischer's Park, Kriebel Road*	55.10 Acres
Grist Mill Run, Grist Mill Drive	44.62 Acres
Heebner Way Park	2.21 Acres
Hunter Hill Park, Anders Road	11.78 Acres
Hunter Villa, Canterbury Drive	10.69 Acres
Keeler Road	1.25 Acres
Kriebel Road	2.19 Acres
Kriebel Road Park	9.39 Acres
Morgan Log House, Weikel Road	2.74 Acres
Morgan Way	2.08 Acres
Pembelton Farms, Bustard Road	5.60 Acres
Quarry Road	10.03 Acres
Rampart Lane	10.34 Acres
Reiff Road*	4.42 Acres
Specht Park, Sumneytown Pike	3.39 Acres
Towamencin Municipal Center, Troxel Road*	15.26 Acres
Towamencin Pool, Weikel Road	6.74 Acres
Valley View Way Park	3.66 Acres
Winding Brook Way	3.82 Acres
<b>Trappe Borough: .....</b>	<b>43.67 Acres</b>
Chmielewski Park, Main Street*	6.50 Acres
Collegetown-Trappe Waterworks Park, First Avenue*	19.85 Acres
Rambo Park, Fifth Avenue*	12.51 Acres
Seventh Avenue West	2.61 Acres
Seventh Avenue East	2.20 Acres
<b>Upper Dublin Township: .....</b>	<b>545.03 Acres</b>
Aldenn Lair Park, Arran Way	11.16 Acres
Aldenn Lair Woods, Dreshertown Road	7.04 Acres
Avenue G	0.39 Acres
Bub Farm, Susquehanna Road	10.32 Acres
Burn Brae Park, Twining Road	13.30 Acres
Camphill & Highland Athletic Complex*	27.49 Acres
Cinnamon Run Open Space, Susquehanna Road	2.23 Acres
Dannenberg Arboretum, Fitzwatertown Road	7.22 Acres
Dawesfield Open Space, Stonington Court	2.75 Acres
Dillon Road	0.10 Acres
Dublin Chase, Pinetown Road	34.28 Acres
Dublin Hunt, Dreshertown Road	37.18 Acres
Dublyn Open Space, Jarrettown Road	10.11 Acres

Evelyn B. Wright Park, Linden Avenue	2.90 Acres
Franklin Park, Morse Drive	6.44 Acres
Green Valley Circle	3.55 Acres
Henry Lee Willet Park, Twining Road	17.00 Acres
Holly Hill, Saxon Lane	2.50 Acres
John P. Mauchly Park, Meadowbrook Avenue	4.73 Acres
Limekiln Pike North	1.23 Acres
Loch Alsh Reservoir, Loch Alsh Avenue	20.96 Acres
Luther Klosterman Park, Madison Avenue	3.15 Acres
Meetinghouse Park, Keisel Lane	8.76 Acres
Mondauk Common, Susquehanna Road	51.33 Acres
Mondauk Manor, Camp Hill Road	23.80 Acres
Mondauk Waters, Pinetown Road	9.80 Acres
Mondauk Woods, Susquehanna Road	11.10 Acres
North Hills Park, Girard Avenue	2.03 Acres
Robbins-Cheston Park for Env. Studies, Butler Pike	37.79 Acres
Robert Williams Park, Howe Lane	5.40 Acres
Sandy Run Park, Limekiln Pike	19.26 Acres
Senior Adults Center/East Oreland Playground, Wischman Ave	1.25 Acres
Sheeleigh Playground, Argyle Avenue	3.11 Acres
Susquehanna Woods, Candlebrook Drive	6.34 Acres
Tannerie Run West, Meetinghouse Road	8.46 Acres
Three Tuns Playground, Cooper Drive*	5.21 Acres
Twining Valley Golf Club, Twining Road	103.17 Acres
Upper Dublin Municipal Complex, Loch Alsh Avenue	10.48 Acres
Veterans Memorial Park, Farm Lane	5.19 Acres
Willow Brook, Elbow Lane	2.96 Acres
Woodside Park, Fitzwatertown Road	3.56 Acres

**Upper Frederick Township: ..... 82.01 Acres**

Browder Tract, Big Road*	3.71 Acres
Former Girl Scout Property, Colonial Road*	39.55 Acres
Municipal Building, Big Road	5.59 Acres
Spray Fields Property, Fagleysville Road*	25.43 Acres
Trumbore Property, Big Road*	7.73 Acres

**Upper Gwynedd Township: ..... 204.86 Acres**

Acorn Lane Basin	1.37 Acres
Blue Fox Drive	0.27 Acres
Broad Street	4.85 Acres
Cardinal Way	10.94 Acres
Carmichael Drive	1.53 Acres
Eagle Lane	4.45 Acres
Eva Drive	2.86 Acres
Forges Homes Subdivision, Crest Road	1.25 Acres
Garfield Park, Garfield Avenue	7.63 Acres
Gwynedd Acres, Brookwood Lane	3.46 Acres
Gwynedd Farms, Flintlock Drive	12.62 Acres
Gwynedd Greens, Hancock Street	2.73 Acres
Gwynedd Square Estates, Newport Lane	0.80 Acres

Harper Lane	5.28 Acres
Jackson Street	9.72 Acres
Morris Road	4.28 Acres
North Wales Park Division, Sumneytown Pike*	56.88 Acres
Old Church Road	1.43 Acres
Park Road	3.70 Acres
Rexdale Subdivision, Grannery Lane	12.74 Acres
State Street	0.40 Acres
Sullivan Drive	5.10 Acres
Sugar Valley Subdivision, Stirling Drive	6.38 Acres
Swedesford Subdivision, Township Line Road	20.02 Acres
Valley Forge Road	5.41 Acres
West Point, Garfield Avenue	2.09 Acres
Whittaker Place	0.28 Acres
Wissahickon Green Ribbon (part), Sumneytown Pike*	1.88 Acres
Wissahickon Valley Watershed (part), North Wales Road	7.78 Acres
Wissahickon Woods Subdivision, Dickerson Road	6.73 Acres
<b>Upper Hanover Township: .....</b>	<b>410.76 Acres</b>
Berman Property, Main Street*	6.25 Acres
Brooke Road	0.57 Acres
Camelot Farm, Church Road	83.78 Acres
DeCowsky Property, Palm Hill Road*	41.85 Acres
Eppler Property, Peevy Road*	3.59 Acres
Fennel Road	19.00 Acres
Fruitville Road	21.14 Acres
Kutztown Road	12.78 Acres
Mill Hill Preserve, Zeigler & Mill Hill Roads*	210.08 Acres
State Street	2.10 Acres
Township Woods	9.42 Acres
<b>Upper Merion Township: .....</b>	<b>417.26 Acres</b>
Anderson Road School	9.84 Acres
Betzwood Park, Riverfront	1.12 Acres
Bob Case Park, Beidler Road*	26.48 Acres
Bob White Park, Croton Road	19.11 Acres
Brower Road Nature Area	21.04 Acres
Evelyn Drive	0.47 Acres
Executive Estates, Longview Road	9.33 Acres
Heuser Park, Beidler Road*	111.32 Acres
Kerrwood Drive	1.54 Acres
Lantern Lane	2.41 Acres
Mancill Mill Road	16.90 Acres
McKaig Nature Education Center, Croton Road	68.04 Acres
Merion View Park, Boro Line Road	0.07 Acres
Merrill C. Young Park, Church Road	2.88 Acres
Mt. Pleasant Park, Mt. Pleasant Avenue	1.18 Acres
Norview Farm, Henderson Road*	9.35 Acres
Rebel Hill, Supplee Lane	0.14 Acres
Schuylkill River Boat House, Riverfront	1.62 Acres

Susan Drive	4.96 Acres
Swedeland Park, B Street	4.93 Acres
Swedeland Road	0.16 Acres
Sweetbriar Park, Beidler Road	39.46 Acres
Tannery Road	1.98 Acres
Upper Merion Community Center, Moore Road	4.80 Acres
Upper Merion Township Building, Henderson Road	1.70 Acres
Valley Forge Acres Park, Church Road	1.04 Acres
Valley Forge Road	16.82 Acres
Valley Forge Road 2	4.09 Acres
Volpi Common, Keebler Road	3.50 Acres
Walker Park, DeKalb Pike*	30.98 Acres

**Upper Moreland Township: ..... 244.24 Acres**

Brooke Street Park*	0.39 Acres
Broughton Park, Barrett Road	0.72 Acres
Buehler Park, Fitzwatertown Road	6.96 Acres
Cherry Street Parklet	0.50 Acres
Dawson Manor Park, Lukens Lane	1.12 Acres
Fair Oaks Park, Krugel Street	8.19 Acres
Fern Village, High Avenue	3.14 Acres
Frank Pileggi Park, Shoemaker Road	55.42 Acres
Mason Mill Park, Mason Road*	76.81 Acres
Mill Road Park	11.22 Acres
Molloy Property, Byberry Road	11.10 Acres
North Willow Grove Park, Linden Avenue	3.09 Acres
Reed Street	0.20 Acres
Summit Avenue Park	0.17 Acres
Terwood Road	31.98 Acres
Valley Green Park, Moreland Road	1.01 Acres
War Memorial Park, Davisville Road*	20.74 Acres
Warren Street	1.24 Acres
Whitehall Park, Hideaway Drive	4.24 Acres
Woodlawn Park, Division Avenue*	6.00 Acres

**Upper Pottsgrove Township: ..... 44.23 Acres**

Hillside Aquatic Club, Gilbertsville Road*	6.97 Acres
Hollenbach Property, Hanover Street*	25.18 Acres
Laura Lane	0.24 Acres
Mocharniuk Property, Hanover Street	6.00 Acres
Township Building Park, Heather Place	5.84 Acres

**Upper Providence Township: ..... 311.49 Acres**

Black Rock Road Park*	49.97 Acres
Canal Park, Port Providence Road	9.91 Acres
Canal Street	1.65 Acres
Canal side, Port Providence Road	30.82 Acres
Crossmans Run, Egypt Road	11.31 Acres

Former Township Dump, Lovers Lane	13.30 Acres
Hess Tract, Hess Road	9.93 Acres
Knoll Drive	31.52 Acres
McFarlan Tract, Greentree Road*	10.28 Acres
Mildred S. Hess Nature Preserve, Hess Road*	42.65 Acres
Mingo Creek, Mingo Road	4.91 Acres
Oaks Impounding Basin, Port Providence Road	5.81 Acres
Paperbirch Drive	60.49 Acres
Port Providence Road	0.31 Acres
Railroad, Walnut Street	0.97 Acres
Reber Park, Reber Road	1.10 Acres
River Floodplain, Walnut Street	6.43 Acres
Second Avenue	0.83 Acres
Second Avenue Basin	5.30 Acres
Yellow Freight, Longford Road	14.00 Acres
<b>Upper Salford Township: .....</b>	<b>246.57 Acres</b>
Old Skippack Road	7.96 Acres
Orchard Park, Perkiomenville Road*	20.99 Acres
Spring Mountain, Spring Mountain Road	83.26 Acres
Spring Mountain House, Schwenksville Road	32.77 Acres
Sumneytown Pike	0.63 Acres
Thompson Road*	5.51 Acres
Upper Salford Park, Schwenksville Road*	56.22 Acres
William Rahmer Memorial Park, Salford Station Road	39.23 Acres
<b>West Conshohocken Borough: .....</b>	<b>12.87 Acres</b>
Keith Mackenzie Park, Balligomingo Road*	11.17 Acres
New Dehaven Street	1.26 Acres
Old Mackenzie Park, Josephine Avenue	0.44 Acres
<b>West Norriton Township: .....</b>	<b>197.83 Acres</b>
Burnside Fields, Marshall Street*	4.45 Acres
Burnside Oakland Park, Burnside Avenue	8.28 Acres
Firehouse Recreation Site, Egypt Road	7.15 Acres
James Street	2.19 Acres
Jeffersonville Golf Club, Ridge Pike	152.03 Acres
Mystic Lane	1.73 Acres
Rittenhouse Boulevard	1.19 Acres
Stoney Creek Basin, Burnside Ave	1.67 Acres
Storm Water Basin, Wagon Wheel Road	4.04 Acres
Van Landeghem, Burnside Avenue*	15.10 Acres
<b>West Pottsgrove Township: .....</b>	<b>16.93 Acres</b>
Edgewood Drive	3.68 Acres
Fitz Stream Park, Vine Street	1.64 Acres
Grosstown Road	5.10 Acres
Howard Street	0.39 Acres

Manatawny Creek Park, Manatawny Road	2.89 Acres
Pulaski Street	2.53 Acres
Race Street	0.70 Acres

**Whitemarsh Township: ..... 167.42 Acres**

Barren Hill Park, Germantown Pike	4.52 Acres
Cedar Grove Park, Cedar Grove Road	13.25 Acres
Cedar Grove Silt Basin, Cedar Grove Road	54.49 Acres
Hamilton Drive	7.58 Acres
Joshua Knoll, Hellman Road	2.37 Acres
Joshua Road	2.09 Acres
Lafayette Estates, Ash Lane	2.57 Acres
Leeland Open Space, North Lane	0.31 Acres
Leeland Park, Twelfth Avenue	1.97 Acres
Miles Park, Germantown Pike	26.72 Acres
Spring Mill Road	0.25 Acres
Thomas Road	6.88 Acres
Valley Green Park, Church Road	8.41 Acres
WFIL Property, Flourtown Road*	17.39 Acres
Whitemarsh Meadows, Woodbine Way	1.23 Acres
Wildflower Drive	6.16 Acres
Woodbine Way	11.23 Acres

**Whitpain Township: ..... 394.52 Acres**

Armentrout Preserve, Morris Road*	37.41 Acres
Belfry Drive	2.17 Acres
Butternut Circle	3.84 Acres
Erbs Mill Road	1.28 Acres
Hickory Drive	1.16 Acres
Horseshoe Drive	15.81 Acres
Juniper Drive	1.21 Acres
Lewis Lane	1.05 Acres
Maple Avenue	0.78 Acres
Marsh Tract, Skippack Pike	1.30 Acres
Miles Drive	0.63 Acres
Mount Pleasant Avenue	0.65 Acres
Penllyn-Blue Bell Pike	20.18 Acres
Plowshare Road	3.59 Acres
Pulaski Drive	10.88 Acres
Ritter Road	7.26 Acres
Silo Circle	1.06 Acres
St. Helena's, DeKalb Pike	34.61 Acres
Stoney Creek, Yost Road	60.13 Acres
Stony Creek Park, North Wales Road	11.87 Acres
Thompson Property, Skippack Pike	81.87 Acres
Township Building, Skippack Pike	56.73 Acres
Village Circle	7.98 Acres
Wissahickon Creek, Mt. Pleasant Avenue	29.62 Acres
Yost Road	1.45 Acres

<b>Worcester Township:</b> .....	<b>173.12 Acres</b>
Germantown Pike	10.00 Acres
Heebner Park, Valley Forge Road*	60.94 Acres
Markel Tract, Green Hill Road*	22.44 Acres
Russell Place Park, Church Road	9.20 Acres
Township Building Open Space, Valley Forge Road	27.65 Acres
Valley Forge Road	2.46 Acres
Valley Green Open Space, Defford Road	27.63 Acres
Zacharias Creek, Meadow Lane	12.80 Acres

# Appendix C

## Conservation and Privately-Preserved Open Space

Municipal Name	Owner	Acreage	Parcel ID Number	Additional Information
Abington	City of Philadelphia	50.00	300061992006	Fox Chase Farm, Shady Lane
	National Audubon Society	13.31	300012058008	Crosswicks Bird Sanctuary
	National Audubon Society	2.70	300012056001	Crosswicks Bird Sanctuary
Bryn Athyn	Pennypack Ecological Restoration Trust	16.18	030000340206	
	Pennypack Ecological Restoration Trust	20.85	030000422009	
	Pennypack Ecological Restoration Trust	1.13	030000337506	
	Pennypack Ecological Restoration Trust	9.99	030000337002	
	Pennypack Ecological Restoration Trust	7.50	030000487302	
	Pennypack Ecological Restoration Trust	9.29	030000333006	
	Pennypack Ecological Restoration Trust	22.25	030000340107	
	Pennypack Ecological Restoration Trust	6.50	030000273003	
	Pennypack Ecological Restoration Trust	56.47	030000488508	
	Pennypack Ecological Restoration Trust	8.98	030000488004	
	Pennypack Ecological Restoration Trust	9.42	030000334104	
	Pennypack Ecological Restoration Trust	15.83	030000587004	
	Pennypack Ecological Restoration Trust	23.58	030000334509	
	Pennypack Ecological Restoration Trust	3.16	030000334518	
	Pennypack Ecological Restoration Trust	6.15	030000334005	
	Pennypack Ecological Restoration Trust	10.61	030000481002	
	Pennypack Ecological Restoration Trust	23.85	030000592008	
	Pennypack Ecological Restoration Trust	40.52	030000581001	
Cheltenham	National Trust for Historic Preservation	6.08	310006856007	Neissin Property
Horsham	Natural Lands Trust	71.64	360007361001	Arbormeade Preserve
	Horsham Meeting of Friends	6.50	360008020008	6.5 acres of 17 acres leased to township/Meetinghouse Park
Limerick	Natural Lands Trust	12.60	370001498409	Stone Hill
Lower Frederick	Valley Forge Audubon Society	7.90	380002986009	Petrauskas
	Valley Forge Audubon Society	6.80	380001516003	Smith
	Valley Forge Audubon Society	6.19	380002971006	Petrauskas
	Valley Forge Audubon Society	2.00	380002977009	Petrauskas
Lower Gwynedd	Wissahickon Valley Watershed Association	0.18	390003116004	
	Wissahickon Valley Watershed Association	9.00	390000849003	
	Wissahickon Valley Watershed Association	2.14	390004378002	
	Wissahickon Valley Watershed Association	10.33	390003658506	
	Wissahickon Valley Watershed Association	5.80	390001259304	
	Wissahickon Valley Watershed Association	2.75	390001671099	
	Wissahickon Valley Watershed Association	4.00	390003550002	
	Wissahickon Valley Watershed Association	6.61	390000831003	
	Wissahickon Valley Watershed Association	4.82	390000844107	
	Wissahickon Valley Watershed Association	3.30	390000842001	
	Wissahickon Valley Watershed Association	6.90	390004142067	
	Wissahickon Valley Watershed Association	9.16	390004142058	
	Wissahickon Valley Watershed Association	2.60	390000918006	
	Wissahickon Valley Watershed Association	10.78	390004474203	
	Wissahickon Valley Watershed Association	3.49	390004143003	
	Wissahickon Valley Watershed Association	2.13	390000831309	

Municipal Name	Owner	Acreege	Parcel ID Number	Additional Information
	Wissahickon Valley Watershed Association	7.94	390000917007	Adjoins Green Ribbon
	Wissahickon Valley Watershed Association	0.51	390003661008	
	Natural Lands Trust	4.60	390004154001	Gwynedd Wildlife Preserve
	Wissahickon Valley Watershed Association	12.72	390000918105	
	Wissahickon Valley Watershed Association	1.16	390001512429	
	Wissahickon Valley Watershed Association	8.94	390003640506	
	Wissahickon Valley Watershed Association	3.80	390001259142	
	Natural Lands Trust	0.43	390003204456	Meadow Farm
	Wissahickon Valley Watershed Association	0.10	390003550101	
	Wissahickon Valley Watershed Association	4.41	390004151004	
	Natural Lands Trust	12.20	390000919005	
	Natural Lands Trust	2.73	390004142004	Gwynedd Wildlife Preserve
	Natural Lands Trust	41.86	390003204402	Meadow Farm/eased by Wissahickon Valley Watershed Association
Lower Merion	Philadelphia Conservationists, Inc.	20.44	40000683501	Idlewild Farm
	Natural Lands Trust	5.31	400015575009	Rocky Crest Preserve
	Natural Lands Trust	5.48	400064456007	Saunders Woods
	Natural Lands Trust	19.30	400064460003	Saunders Woods
	Riverbend Environmental Education Center	30.50	400056676254	
Lower Moreland	Pennypack Ecological Restoration Trust	3.35	410006510001	
	Pennypack Ecological Restoration Trust	13.07	410002600005	
	Pennypack Ecological Restoration Trust	2.36	410008880007	
	Pennypack Ecological Restoration Trust	3.42	410006508507	Paper Mill Road
	Pennypack Ecological Restoration Trust	81.42	410008878009	Open Space Grant, Raytharn Farm
	Pennypack Ecological Restoration Trust	57.93	410002600104	
	Pennypack Ecological Restoration Trust	1.96	410004597105	
	Pennypack Ecological Restoration Trust	16.08	410002590006	
	Pennypack Ecological Restoration Trust	0.99	410002598007	
	Pennypack Ecological Restoration Trust	32.26	410010003009	763 Welsh Rd.
	Pennypack Ecological Restoration Trust	16.76	410008892004	Open Space Grant, Raytharn Farm
	Pennypack Ecological Restoration Trust	1.38	410002598106	Open Space Grant, Raytharn Farm
	Pennypack Ecological Restoration Trust	11.50	410002282008	
Perkiomen	Perkiomen Valley Watershed Association	1.17	480002101002	
Salford	Natural Lands Trust	76.40	440000922006	Fulshaw Craeg Preserve
	Natural Lands Trust	11.00	440000965755	DiDomizio, Fulshaw Craeg
	Natural Lands Trust	12.50	440000805006	Fulshaw Craeg Preserve, Fretz
	Natural Lands Trust	3.00	440000916003	Weibel, Fulshaw Craeg
	Natural Lands Trust	1.95	440000965809	Fulshaw Craeg Preserve
	Natural Lands Trust	15.13	440000814006	Fretz
	Natural Lands Trust	8.52	440000724006	Reppert
	Natural Lands Trust	10.09	440000733006	Reppert/Fulshaw Craeg
	Natural Lands Trust	14.87	440000924112	PECO
	Natural Lands Trust	5.76	440000924202	PECO
	Natural Lands Trust	6.95	440000799003	Kaiser/Fulshaw Craeg
	Natural Lands Trust	3.95	440000857017	PECO
	Natural Lands Trust	0.44	440000924121	PECO
	Bucks County Conservancy Inc.	2.06	440000972001	Heritage Conservancy/46 King Road
	Natural Lands Trust	19.95	440001488106	Groves/Stoudt, Fulshaw Craeg
Springfield	Wissahickon Valley Watershed Association	4.90	520011055008	
	Natural Lands Trust	16.69	520001905401	Biddle Woods Preserve/eased by Wissahickon Valley Watershed Assoc.
	Wissahickon Valley Watershed Association	6.89	520015637007	

Conservation and Privately-Preserved Open Space

Municipal Name	Owner	Acreage	Parcel ID Number	Additional Information
Upper Dublin	Wissahickon Valley Watershed Association	17.48	540012070008	Four Mills
	Wissahickon Valley Watershed Association	0.60	540012085209	Four Mills
	Wissahickon Valley Watershed Association	10.65	540012067002	Four Mills
	Wissahickon Valley Watershed Association	2.42	540012076002	Four Mills
	Wissahickon Valley Watershed Association	19.82	540012086001	
Upper Gwynedd	Wissahickon Valley Watershed Association	9.00	560002080231	
	Wissahickon Valley Watershed Association	8.86	560005945002	
	Wissahickon Valley Watershed Association	0.38	560009967003	
	Wissahickon Valley Watershed Association	2.39	560001864105	
	Natural Lands Trust	110.00	560008686006	Gwynedd Wildlife Preserve/eased by Wissahickon Valley Watershed Assoc.
	Wissahickon Valley Watershed Association	3.63	560001449421	
	Wissahickon Valley Watershed Association	18.43	560005941141	
	Wissahickon Valley Watershed Association	0.41	560009973006	
	Wissahickon Valley Watershed Association	0.31	560008680003	
	Natural Lands Trust	66.12	560008686501	Gwynedd Wildlife Preserve/eased by Wissahickon Valley Watershed Assoc.
	Natural Lands Trust	1.41	560008686609	Gwynedd Wildlife Preserve/eased by Wissahickon Valley Watershed Assoc.
	Natural Lands Trust	34.23	560008699002	Gwynedd Wildlife Preserve/eased by Wissahickon Valley Watershed Assoc.
	Wissahickon Valley Watershed Association	0.62	560009970009	
	Wissahickon Valley Watershed Association	5.50	560000840121	
	Wissahickon Valley Watershed Association	0.87	560008680309	
Wissahickon Valley Watershed Association	2.50	560001449007		
Upper Merion	Natural Lands Trust	4.33	580009001004	Gypsy Woods
	Natural Lands Trust	4.52	580008992004	Gypsy Woods
	Natural Lands Trust	1.15	580008998007	Gypsy Woods
Upper Moreland	Pennypack Ecological Restoration Trust	23.71	590014281006	
	Pennypack Ecological Restoration Trust	6.95	590009747004	Open Space Grant, Raytharn Farm
	Pennypack Ecological Restoration Trust	59.47	590014032003	Open Space Grant, Raytharn Farm
	Pennypack Ecological Restoration Trust	11.16	590003737101	
	Pennypack Ecological Restoration Trust	15.49	590003737002	
	Natural Lands Trust	24.61	590005998009	Ruck
	Upper Moreland Little League	0.54	590012190108	
	Pennypack Ecological Restoration Trust	1.00	590012376003	
	Pennypack Ecological Restoration Trust	4.00	590014282005	
	Natural Lands Trust	1.00	590005998018	Ruck
	Pennypack Ecological Restoration Trust	3.60	590009799006	
	Pennypack Ecological Restoration Trust	0.21	590017242006	
	Pennypack Ecological Restoration Trust	2.71	590014248309	
	Pennypack Ecological Restoration Trust	14.15	590014248003	
	Pennypack Ecological Restoration Trust	16.70	590014283004	
	Pennypack Ecological Restoration Trust	1.04	590012379009	
	Pennypack Ecological Restoration Trust	1.01	590014287009	
	Pennypack Ecological Restoration Trust	1.06	590014284003	
Pennypack Ecological Restoration Trust	4.80	590014282509		
Upper Providence	Natural Lands Trust	26.96	610004496006	Andruss Island
Upper Salford	Natural Lands Trust	6.31	620002290006	Bishop/Fulshaw Craeg
	Natural Lands Trust	2.84	620002296009	Bishop/Fulshaw Craeg
	Natural Lands Trust	17.62	620002287009	Bishop/Fulshaw Craeg
Whitemarsh	City of Philadelphia	35.62	650005005006	Schuylkill Center for Environmental

Municipal Name	Owner	Acreage	Parcel ID Number	Additional Information
	Natural Lands Trust	113.33	650011144005	Education, Hagys Mill Road Erdenheim Farms
	Wissahickon Valley Watershed Association	65.57	650001387006	
	Natural Lands Trust	2.00	650011143006	Erdenheim Farms/Stenton Avenue
	Wissahickon Valley Watershed Association	21.70	650008164006	Four Mills (easement held by Natural Lands Trust)
	Natural Lands Trust	2.00	650011146003	Erdenheim Farms
	Wissahickon Valley Watershed Association	50.91	650010657006	
Whitpain	Wissahickon Valley Watershed Association	2.10	660000692007	
	Wissahickon Valley Watershed Association	0.06	660003139008	
	Wissahickon Valley Watershed Association	23.88	660004312005	(Easement held by Natural Lands Trust)
	Wissahickon Valley Watershed Association	6.65	660003282009	(Easement held by Natural Lands Trust)
	Wissahickon Valley Watershed Association	57.79	660000799908	150 Cathcart Road
	Wissahickon Valley Watershed Association	0.29	660003282108	
	Wissahickon Valley Watershed Association	5.44	660004316001	
	Wissahickon Valley Watershed Association	9.50	660004327404	
	Wissahickon Valley Watershed Association	4.02	660004327305	
	Wissahickon Valley Watershed Association	5.84	660003133005	
	Wissahickon Valley Watershed Association	2.30	660000689802	
	Wissahickon Valley Watershed Association	2.00	660000692106	
	Wissahickon Valley Watershed Association	0.88	660003136308	
	Wissahickon Valley Watershed Association	0.69	660003136317	
	Wissahickon Valley Watershed Association	0.86	660003545502	
	Wissahickon Valley Watershed Association	7.62	660000692205	
	Wissahickon Valley Watershed Association	2.90	660005416107	
	Wissahickon Valley Watershed Association	13.22	660004735005	
	Wissahickon Valley Watershed Association	5.08	660004734906	
	Wissahickon Valley Watershed Association	19.67	660004309017	
Wissahickon Valley Watershed Association	5.40	660004315002		
Wissahickon Valley Watershed Association	2.40	660000689703		

# Appendix D

## Preferential Tax Assessment Programs

*The state has two preferential tax assessment programs: Acts 319 and 515. Each of these is described below.*

### **Clean and Green Law-Act 319 of 1974**

Agriculture relies on the availability of productive land to be a successful business. Therefore, the cost of land both to acquire and lease is often the most critical factor in the viability of agriculture. Increases in land prices make land difficult for farmers to obtain and can also raise the yearly tax burden on land used by a farmer. Recognizing the problem of tax burdens increasing beyond the agricultural land use value, the Pennsylvania General Assembly in 1974 enacted the Clean and Green Law, Act 319, to allow for the preferential assessment of farmland. As of January 3, 2003, 1380 parcels of land in the county containing 45,644 acres were assessed under Act 319.

This act provides a method for a landowner who makes use of his or her land in one of three qualifying uses to have the value of the land for property tax assessment purposes determined on the basis of its use rather than on the basis of its fair market value. This approach to determining the assessed valuation yields a lower value than fair market value and a lower tax bill results as the tax millage rate is applied to a lower assessed value.

### **Qualifying Land**

Participation in the preferential tax program is voluntary. Land eligible under the agricultural use category must be devoted to such use for 3 years preceding the application and be either 10 contiguous acres or more in area or have an anticipated yearly gross income of two thousand dollars or more from the production of an agricultural commodity. The county assessor may require a landowner to demonstrate each year that the anticipated yearly gross income from production of an agricultural commodity on the enrolled land is at least \$2,000. This requirement will be met each year unless circumstances beyond the landowner's control prevent it. If a landowner has several uses on a single tract of land but only some uses qualify for preferential assessment treatment, the landowner may file an application to have only the portion that qualifies assessed under the act. In such a case, the portion to which the preferential assessment applies must meet the minimum acreage requirement or the gross income alternative in the case of land used in agriculture. In the case of land devoted to either an agricultural reserve or forest reserve use, the land must be 10 acres or more in area. A tract of land used in one of the three qualifying uses may be enrolled for preferential assessment despite the fact that it does not meet the minimum requirements for eligibility if the tract of land is part of the same operational unit as another tract that has been enrolled for preferential assessment by the same land owner. Neither the agricultural reserve nor the forest reserve uses have a gross income alternative to the 10-acre minimum acreage requirement.

### **Abandonment of Qualifying Use**

Once land is in the program, the landowner is obligated to continue the qualifying use of the land. A landowner can change from one qualifying use to another qualifying use or switch use to a use other than a qualifying use. Changes in use may subject the landowner to rollback tax

penalties. If a change in use occurs, the land is sold to a new owner, or any portion of the land is divided and sold or given to another, the landowner agrees to notify the county assessor 30 days prior to the proposed change.

Under the act, only agricultural reserve land is open to the public for noncommercial recreational use such as hiking, fishing or hunting. Landowners can place reasonable restrictions on public access to preferentially assessed agricultural reserve land. Examples of such restrictions include limiting access to pedestrian traffic only, prohibiting certain types of activities, prohibiting the use of firearms, prohibiting entry where harm or damage may occur or where hazardous conditions exist. Before entering an owner's land, the public is obligated to notify the landowner

Generally, if the property owner abandons a qualifying use the abandonment triggers a rollback tax on the preferentially assessed property. An exception to this applies when use of the property is abandoned as a result of the property's condemnation by a public agency or a voluntary sale of the property to an agency that has condemnation authority made in lieu of the condemnation action. In such cases rollback taxes will not be applied to either the land that is condemned or sold in lieu of condemnation or to the remaining preferentially assessed land. The taxing body may choose not to accept payment of the rollback tax on lands that are transferred as grants or donations to school districts, municipalities, counties, volunteer fire companies, volunteer ambulance service companies, not for profit corporations that are treated as tax exempt under Section 501(c)(3) of the Internal Revenue Code and religious organizations. For a transfer to a not for profit corporation to be given this treatment, prior to accepting ownership of the land, the corporation must enter into an agreement with the municipality in which the land is located guaranteeing that the land will be used exclusively for recreational purposes open to the general public free of charge. If the corporation changes the use of the land, or charges an admission price or other fee for use and enjoyment of it, roll back taxes and interest which would have otherwise been due will be immediately due and payable.

### **Transfer of Preferentially Assessed Land**

While land is in the program, a landowner faces certain restrictions on the transfer of the land. The act distinguishes between two types of transfer, one described as a "separation" and the other described as a "split-off." A separation of land is the division of a preferentially assessed tract of land into two or more tracts of land, each of which meets the use and the size or gross income requirements of the act. In essence, each tract is able to apply for and obtain a preferential assessment in its own right since its use is one of the three eligible uses and the acreage or gross income requirements are met. Separation of a preferentially assessed tract of land does not trigger the loss of the tax benefit if the owners of the separated tracts continue the qualified use. If the owner of a separated tract changes the qualified use, the owner faces the obligation to pay rollback taxes on the separated tract and the original tract from which it came if the change in use is made within 7 years after the separation. Abandonment of the qualified use more than 7 years after the separation subjects only the separated tract to rollback taxes. A "split off" on the other hand is a division of a tract of preferentially assessed land into two or more tracts, the use of which on one or more tracts does not meet the requirement of qualified use or the size or gross income requirement. If a tract of land is split off from a preferentially assessed tract, this transfer generally subjects the tract split off and the entire parcel from which it came to rollback taxes. If the split-off tract occurs through condemnation, there is no liability for rollback taxes. Two other types of transfer of preferentially assessed land do not result in any rollback tax. Preferentially assessed land that is transferred to a nonprofit corporation for use as a cemetery will not trigger rollback tax if there are at least 10 acres of preferentially assessed land that remain after the transfer. In addition, preferentially assessed land that is transferred, or on which an

easement or right of way has been given to a nonprofit corporation will not trigger a rollback tax if the land involved is not more than 20 feet in width; it is used for non-motorized passive recreational use; the land is available to the public without charge, and at least 10 acres of preferentially assessed land remains after the transfer is complete.

The act allows certain transfers to be made with liability for rollback taxes limited only to the transferred tract and not the entire tract. These transfers include annual split-off of tracts of up to two acres for residential, agricultural or forest reserve use and the construction of a residential dwelling to be occupied by the owner of the split-off tract. Up to ten percent of the original tract under the preferential assessment or 10 acres, whichever is less, can be split-off under this provision. In the case of any such transfers, rollback taxes apply only to the split-off tract. The remaining portion of the land retains the preferential assessment if it continues to meet the requirements of the act. A second situation where a split-off may be made without triggering rollback taxes on the entire tract is where the owner of the preferentially assessed land dies and the property is separated among the owner's beneficiaries. If the beneficiaries fall into the category of Class A beneficiaries for inheritance purposes (i.e. a person's parents, grandparents, spouse, children, stepchildren, grandchildren or spouse of a child), the split-off to the beneficiaries does not subject the land to rollback taxes. If a beneficiary later changes the use of a split-off tract, that beneficiary faces rollback taxes on the tract of land that he or she owns without causing rollback taxes to be imposed on any other tract. If the land that is divided to an individual heir does not meet any of the size or use requirements of the act, the preferential assessment of that land ends, but no roll back taxes are imposed on the land that is divided to the heir or to any other part of the original tract of land. A third situation involves the use of 2 acres of preferentially assessed land for the direct commercial sale of agriculturally related products and services or as part of a rural enterprise incidental to the operational unit. To qualify for this exception, the commercial enterprise must not interfere with production of agricultural commodities on the remaining portion of the land and the activity must be owned by the landowner or persons who are Class A beneficiaries of the landowner for inheritance tax purposes. When such a use occurs, rollback taxes are imposed on the portion of the preferentially assessed tract devoted to commercial activity. The remainder of the tract is not subject to rollback taxes. The commercial activity must be owned by the special class of people described above and an assessment of the inventory of the goods being sold must verify ownership by the qualifying people. A fourth situation is where owners of tracts of land subject to preferential assessment lease up to one-half of an acre of preferentially assessed land for placement of one wireless or cellular communication tower. To qualify under this situation the leased land must not exceed one-half acre in area, the land does not have more than one tower, the land is accessible and the tract of land is not sold or subdivided. In this case, roll back taxes will be imposed on the tract of leased land and its assessed value will be adjusted to its fair market value. The remaining land will continue to be preferentially assessed if the qualifying use requirements are met.

### **Rollback Taxes**

The major consequence to a landowner who obtains a preferential assessment and then changes the land use to a non-qualifying use or who "splits off" a portion of preferentially assessed land, other than as part of a condemnation, is imposition of a rollback tax. This tax is the difference between the taxes paid or payable on the basis of the preferential assessment and the taxes that would have been paid or payable had the land been valued, assessed and taxed as other land. The rollback tax covers this difference in the current tax year, the year of change, and six of the previous tax years for a total of up to 7 years. In addition to the tax, simple interest at the annual rate of 6 percent is imposed on each year's rollback tax. Land preferentially assessed for more than seven years is subject to rollback taxes for the current year and the six most recent

tax years. Rollback taxes are due on the date of change of use or other loss of the preferential assessment status and are an obligation of the owner of the land at the time the change in use or other loss of preferential assessment occurs. Unpaid rollback taxes are a lien on property and are collectible in the same manner as other delinquent taxes. Payment of a rollback tax does not invalidate preferential assessment on any land that continues to meet the eligibility and use requirements, but at the time that rollback taxes are imposed on the entire preferentially assessed tract of land the owner can provide written notice to the assessor of the owner's intent to terminate the preferential assessment in the future.

### **Application Process**

Applications for participation in the Act 319 program are filed by landowners with their county board of assessment appeals on or before June 1 of the year prior to the year in which the preferential assessment will be applicable. Landowners may apply for preferential assessment of eligible land in any county, regardless of where the owner resides and also regardless of whether the owner resides on the land described in the application. In a year when a reassessment is implemented, the application must be submitted within 30 days of the final order of the county board for assessment appeals or by October 15 of the same year, whichever date is sooner and regardless of whether judicial review of the order is requested. In completing the application the landowner must have common ownership of all land described in the application and must include the entire contiguous area used by the owner for agricultural or forest reserve purposes, although only a portion of the land may actually qualify for a preferential assessment. Any portions of the tract that are not used for a qualifying use will be ineligible for preferential assessment and will be assessed on a fair market value basis. Municipalities and school districts do not review or comment on applications.

After receiving the application, the county board of assessment appeals processes it and determines the value of the land in its qualifying use. The Department of Agriculture will annually determine land use categories and provide county assessors with use values for each land use category. In determining these values, the department will consult appropriate sources of information and apply the income approach for asset valuation. In determining use values, county assessors will calculate a total use value for qualifying land. In making this calculation, the assessor will utilize the USDA - Natural Resource Conservation Service Agricultural Land Capability Classification System and other information available from USDA - Economic Research Service, Penn State University, and the Pennsylvania Agricultural Statistical Service.

Once approved, participation in the Act 319 preferential assessment program continues under the initial application until a change in land use takes place, a split-off occurs, or a conveyance of the land occurs. During this period, the preferential assessment figure may change to reflect changes in the use value of the property. Should a landowner choose to terminate or waive the preferential assessment of a part or all of the enrolled land, the landowner will be liable for payment of rollback taxes and interest on the enrolled land that has been terminated. A landowner cannot unilaterally terminate or waive preferential assessment of enrolled land without a required 30 day notification to the County Board of Assessment office. Rollback taxes and interest for a portion of the enrolled lands will not result in termination of the preferential assessment of any remainder portion of the preferentially assessed land, so long as the remainder continues to qualify under the regulations of the act.

This summary is based upon a fact sheet published by the Montgomery County Planning Commission and a factsheet by the Penn State Agriculture Extension Service. This discussion of Act 319 and its various legal and regulatory requirements is of a general educational nature. Both this discussion and the fact sheet are not intended to be legal advice to the reader or to anyone

else regarding the law or how it will or could be applied to any given situation. If a person is interested in obtaining legal advice concerning the Act or the regulations, the services of a competent professional should be obtained. Only after a full discussion of a property owner's individual situation can legal advice be given in answer to questions about this law.

## **Open Space Covenant Act - Act 515 of 1966**

Act 515 enables Pennsylvania counties to covenant with landowners to preserve land in farm, forest, water supply or open space by taxing land according to its use value rather than the prevailing market value. The program is voluntary and requires a minimum acreage enrollment that will remain in the designated land use for a period of 10 years.

In accordance with Act 515, the Montgomery County Board of Commissioners first adopted an open space covenant plan and regulations for the implementation of the plan in 1975. Both the plan and regulations were consolidated and revised in the *1997 Open Space Covenant Plan Update*. After adopting the plan update in 1997, the Commissioners further revised the plan in 1999 to prohibit discrimination by a property owner benefiting from reduced taxes under Act 515.

The Montgomery County Open Space Covenant Program is a voluntary option for certain landowners who are interested in maintaining the open character of their land. Through the covenant, the landowner agrees that the land will remain open space for a period of ten years or more and the county, in turn, covenants that it will assess the property at its fair market value "as restricted." These covenants renew automatically for periods of one year unless either party notifies the other of its intent not to continue the covenant. The actual amount of tax reduction is based on the difference between the value of the highest and best use of the property and the value of the property with a covenant agreement. Since an open space covenant agreement is not permanent, the landowner can later subdivide or develop the property.

### **Eligible Lands**

The following lands are eligible to be covenanted:

- Farmland which provides a minimum of 20 acres.
- Forest land that provides a minimum of 25 acres.
- Water supply lands used for the protection of water resources and includes a minimum of 20 acres.
- Open space lands which meet various county criteria and include 10 acres.

### **Applications for Covenants**

Applications for open space covenants are accepted each year for action by the County Commissioners. The County Board of Assessments prepares two assessments for the property. One assessment is based upon the property's current value, while the other is of the value of the property with the covenant in place. Both assessments are sent to the applicant, host municipality or school district for comments prior to action by the County Planning Commission and Commissioners. If approved, the county shall prepare an open space covenant agreement for the property owner. The 10-year period under which the property is protected shall commence on January 1st. In the covenant agreement, the owner agrees to restrict his or her property or the land in the property designated as the covenant area to the uses for which it was approved. In exchange, the commissioners agree that the tax assessment of the property shall reflect the restriction placed on it by the covenant. Each year, the covenant agreement shall be extended for the period of one year. The agreement shall be officially terminated 10 years following the time that notice of termination was made by the landowner.

**Breach of the Covenant**

If the owner of the land alters the use of the land or takes an action that makes the land under the covenant no longer consistent with the purposes for which it was approved for a covenant, such action shall constitute a breach of the agreement. If a breach is determined to have occurred, the owner shall pay the county the difference in the standard assessment and the assessment that takes into account the covenant for a period for the five previous years plus 5 percent interest. Condemnation or acquisition by purchase or lease by a public body or corporation that can exercise the powers of condemnation shall not constitute an alternation of the covenant agreement. The covenant runs with the land.

# Appendix E

## Significant Private and Institutional Open Space

Owner Name/Address	Acreage	Purpose
<b>ABINGTON TOWNSHIP</b>		
Hillside Cemetery, Susquehanna Road	234	Cemetery
Abington Friends School, 520 Meetinghouse Road	51	School
Manor Junior College/ Convent of St. Basil the Great, 710 Fox Chase Road	101	College
Lawnview Cemetery, 501 Cedar Road, Elkins Park	58	Cemetery
Montifiore Cemetery Co., 358 Church Road, Fox Chase	52	Cemetery
Abington Friends Meeting, 520 Meetinghouse Road	65	Church
St Basil Academy, 710 Fox Chase Road	39	School
Philadelphia Presbytery Homes Inc.	26	Retirement
Convent of St. Basil the Great, 710 Fox Chase Road	8	Cemetery
Abington Golf Club, Meetinghouse Road	40	Golf Course
Holy Redeemer Hospital, 1648 Huntingdon Pike	37	Hospital
St. Joseph's Manor, 1616 Huntingdon Pike	11	Nursing Home
Meadowbrook Golf Club, Huntingdon Pike	59	Golf Course
Holy Redeemer Convent, Moredon Road	94	Church
Penn State Ogontz Campus, Cloverly Lane	43	College
<b>BRYN ATHYN BOROUGH</b>		
Academy of the New Church, 2815 Second Street Pike	137	School
Bryn Athyn Church Cemetery	9	Cemetery
Church of the New Jerusalem	5	Church
Academy of the New Church, 2815 Second Street Pike	3	Retirement
<b>CHELTENHAM TOWNSHIP</b>		
Arcadia University, Easton & Church Roads	60	College
Holy Sepulchre Cemetery	220	Cemetery
Holy Sepulchre Cemetery, Church Road	49	Cemetery
Gratz College, Old York Road	29	College
Faith Theological Seminary, 920 Spring Avenue	36	Church
Melrose Country Club, Ashmead Road	116	Golf Course
Cedarbrook Golf Club, 8440 Limekiln Pike	75	Golf Course
Ashbourne Golf Club, Ashbourne Road	106	Golf Course
Temple University-Tyler Arb., Penrose and Beech Avenues	32	College
Westminister Theological Seminary, Church Road	19	College
Moss Rehabilitation/Einstein at Elkins Park, Township Line Road	34	Hospital
Dominican House of Retreat, Ashbourne Avenue	45	Church
<b>COLLEGEVILLE BOROUGH</b>		
Ursinus College, Main Street	67	University
<b>DOUGLASS TOWNSHIP</b>		
Twin Ponds Golf Course, Gilbertsville Road	84	Golf Course
<b>EAST GREENVILLE BOROUGH</b>		
Perkiomen School (part) Seminary Street	9	School
Goschenhopen Folk Festival Grounds (part), Church Road	6	Church
<b>EAST NORRITON TOWNSHIP</b>		
Valley Forge Medical Center and Hospital, Germantown Pike	41	Hospital
St. Patrick's Cemetery, DeKalb Pike	21	Cemetery
Woods Golf Center Inc., 559 W. Germantown Pike, Norristown	53	Golf Course

Owner Name/Address	Acreage	Purpose
<b>FRANCONIA TOWNSHIP</b>		
Souderton Mennonite Homes, 207 W. Summit Street	15	Retirement
Franconia Mennonite Church, Route 113	16	Church
Franconia Mennonite School, 420 Cowpath Road	15	School
Indian Valley Golf Club, Bergey Road	148	Golf Course
<b>HATFIELD TOWNSHIP</b>		
Twin Woods Golf Club, Orvilla Road	46	Golf Course
<b>HORSHAM TOWNSHIP</b>		
Settlement College of Philadelphia, Witmer Road	156	School
Whitemarsh Memorial Park, Limekiln Pike	106	Cemetery
The Horsham Clinic, 722 E. Butler Pike	53	Health Care
Kuhn Day Camp, 600 Witmer Road	64	Camp
Ukrainian American Sport Center	32	Recreational Facility
Horsham Friends Meeting, Easton & Meetinghouse Roads	27	Church
Talamore@ OakTerrace, Welsh & McKean Roads	183	Golf Course
Commonwealth National Country Club	253	Golf Course
Squires Country Club, McKean Road	137	Golf Course
Limekiln Golf Club, Limekiln Pike	208	Golf Course
Horsham Valley Golf Course	65	Golf Course
<b>LANSDALE BOROUGH</b>		
St. Mary's Institute for the Blind, 701 Lansdale Avenue	25	Health Care
St. Stanislaus Roman Catholic Parish	13	Church
Lansdale Catholic High School	11	School
<b>LIMERICK TOWNSHIP</b>		
Limerick Bowman Inc., Grebe Road	35	Recreational Facility
Brian's House Inc., Swamp Creek Road	30	Camp
Limerick Garden of Memories, Swamp Pike	59	Cemetery
Springford Country Club, Country Club Road	134	Golf Course
Limerick Golf Estates, 826 N. Lewis Road	120	Golf Course
Linfield National Golf Course, Church Road	80	Golf Course
Turtle Creek Golf Course, Ridge Pike	123	Golf Course
Raven Claw Golf Course, Ruppert Rd. and Ridge Pike	182	Golf Course
Linfield Sportsmen Association, Longview Road	17	Recreational Facility
<b>LOWER FREDERICK TOWNSHIP</b>		
Camp Retarthur, Yerger Road	191	Day Camp
<b>LOWER GWYNEDD TOWNSHIP</b>		
Gwynedd Mercy College, Sumneytown Pike	159	University
Foulkeways @ Gwynedd, Meetinghouse Road	76	Retirement
ACTS, Norristown Road	77	Retirement
Sisters of Mercy, Norristown Road	63	School
Old York Road Golf Course, Tennis Avenue	125	Golf Course
<b>LOWER MERION TOWNSHIP</b>		
W. Laurel Hill Cemetery, Belmont Avenue	161	Cemetery
Calvary Cemetery, Upper Gulph Road	160	Cemetery
Woodmont/Father Divine Missionary, Spring Mill Road	65	Church
The Haverford School, 450 Lancaster Avenue (part)	18	School
Haverford College, Lancaster Pike (part)	16	University
Bryn Mawr College, Morris Road	117	University
Westminster Cemetery, Belmont Ave.	88	Cemetery
St. Ch. Borromeo RC Seminary, E. Wynnewood Road	72	Seminary
Gladwyne Waverly Association	53	Retirement
Lankenau Hospital, 100 E. Lancaster Avenue	51	Health Care

Owner Name/Address	Acreage	Purpose
Beaumont Retirement Community, 601 N. Ithan Avenue	50	Retirement
Rosemont College, 1341 Montgomery Avenue	44	University
Holy Child, 1341 Montgomery Avenue	17	Church
Episcopal Academy, 376 N. Latches Lane	35	School
Merion Mercy Academy, Montgomery Avenue	51	School
Henry Foundation for Botanical Research, 801 Stony Lane	49	Arboretum
Baldwin School, 731 Montgomery Avenue	25	School
Friends Central School, City Avenue	23	School
Philadelphia Country Club, Spring Mill Road	302	Golf Club
Barnes Foundation, Latches Lane	13	Museum
<b>LOWER MORELAND TOWNSHIP</b>		
Forest Hills Cemetery	146	Cemetery
Philmont Country Club	296	Golf Course
<b>LOWER POTTSBORO TOWNSHIP</b>		
Ringling Hill Fire Co., 815 White Pine Lane	100	Rec. Facility
Brookside Golf Club (part)	54	Golf Course
St. Aloysius Church, 214 N. Hanover Street	30	Church
Belauhland, Sanatoga Road	32	Church/Recreation
<b>LOWER PROVIDENCE TOWNSHIP</b>		
St. Gabriels, Pawlings Road	253	School
Eagleview Hospital, 75 Eagleview Road	59	Hospital
Lower Providence Rod and Gun Club	48	Private Recreation
<b>LOWER SALFORD TOWNSHIP</b>		
New Life School, (part) Freeman School Road	147	School
Franconia Mennonite Board of Missions	40	Church
Salford Mennonite Church	31	Church
Mainland Golf Course	109	Golf Course
<b>MARLBOROUGH TOWNSHIP</b>		
Musser Scout Reservation, Upper Ridge Road	1,277	Camp
Camp Unami, Swamp Creek Rd.	129	Camp
Macoby Run Golf Course, McLean Station Road	81	Golf Course
<b>MONTGOMERY TOWNSHIP</b>		
John Cardinal Krol, Philadelphia Archdiocese	30	Church
Pinecrest Golf Club, Route 202	108	Golf Course
<b>NEW HANOVER TOWNSHIP</b>		
Girl Scout Camp, New Hanover Square Road	289	Camp
Fellowship Farm, Sanatoga Road	119	Camp
Faulkners Swamp Lutheran Church, Lutheran Road	35	Church
Hickory Valley Golf Club, Ludwig Road	176	Golf Course
Gilbertsville Golf Club, Lutheran Road	140	Golf Course
Bella Vista Golf Club, Fagleysville Road	100	Golf Course
<b>PENNSBURG BOROUGH</b>		
Perkiomen School (part)	18	School
<b>PERKIOMEN TOWNSHIP</b>		
Rolling Turf Golf Club, 314 Smith Road	30	Golf Course
<b>PLYMOUTH TOWNSHIP</b>		
Plymouth Golf Club	115	Golf Course
Martin Luther School, Township Line Road	29	School
<b>POTTSTOWN BOROUGH</b>		
Brookside Country Club (part)	30	Golf Course
Hill School, 717 High Street	60	School

Owner Name/Address	Acreage	Purpose
Highland Mem. Park, Farmington Avenue	39	Cemetery
Edgewood Cemetery, High and Keim Streets	12	Cemetery
<b>SALFORD TOWNSHIP</b>		
Camp Green Lane, Camp Green Lane Road	106	Camp
Harleysville Game, Fish and Forestry Association	265	Recreation
<b>SKIPPACK TOWNSHIP</b>		
Lower Skippack Mennonite Church, Evansburg Road	70	Church
Skippack Recreational Association, Cressman Road	9	Recreation
<b>SPRINGFIELD TOWNSHIP</b>		
Carson Valley School, Wissahickon Avenue	104	School
Mt. St. Joseph School, Bethlehem Pike	94	School
Morris Arboretum, Northwestern Avenue	103	Arboretum
Lasalle College High School, Cheltenham Avenue	44	School
Girl Scout Camp (part), Manor Road	83	Camp
Sandy Run Country Club, Valley Green Road	115	Golf Course
North Hills Country Club, Paper Mill Road	126	Golf Course
Whitemarsh Valley Country Club (part), Thomas Road	43	Golf Course
<b>TOWAMENCIN TOWNSHIP</b>		
Christopher Dock Mennonite School, Forty Foot Road	73	School
Dock Acres Inc., Dock Drive	22	Retirement
<b>UPPER DUBLIN TOWNSHIP</b>		
Temple University, Meetinghouse Road	183	School
St. Mary's Girls School, Bethlehem Pike	46	School
Manufacturers Golf Club, Twining Road	193	Golf Course
LuLu Temple Golf Course, Limekiln Pike	114	Golf Course
<b>UPPER FREDERICK TOWNSHIP</b>		
Girl Scout Camp, Fagleysville Road	97	Day Camp
Montgomery County SPCA	52	Health Care
Frederick Mennonite Home, Route 73	49	Retirement
Brian's House (part), Swamp Creek Road	29	Camp
Goschenhoppen Historical Society, Colonial Road	26	Historic Site
Lower Merion Rod and Gun Club	56	Recreational Facility
<b>UPPER GWYNEDD TOWNSHIP</b>		
Corpus Christi RC Church and School, Susquehanna Pike	25	Church
Delaware Valley College-Roth Farm, Route 202 and Welsh Road	139	School
<b>UPPER HANOVER TOWNSHIP</b>		
Upper Perkiomen Recreation Council	45	Recreational Facility
Gun Club, 2071 Bauss Road	36	Fraternity Organization
BSA Valley Forge Council, East Greenville	7	Day Camp
Butter Valley Golf Club, Gehman Road	190	Golf Course
Upper Perkiomen Golf Club, Otts Road	148	Golf Course
Sweetwater Golf Course, Geryville Pike	43	Golf Course
Perkiomen School (part), Seminary Street	55	School
Goschenhoppen Folk Festival Grounds (part), Church Street	18	Church
Goschenhoppen Church and Cemetery, Church Street	101	Church
<b>UPPER MERION TOWNSHIP</b>		
Valley Forge Gardens, South Gulph Road	63	Cemetery
Upper Merion Park Historic Foundation	48	Cemetery
Washington Memorial Chapel, Valley Forge Road	42	Church
Gulph Mills Golf Club, Swedeland Road	188	Golf Course
Valley Forge Golf Club, North Gulph Road	132	Golf Course
Martins Dam Club, Radnor Road	32	Recreation

Owner Name/Address	Acreage	Purpose
<b>UPPER MORELAND TOWNSHIP</b>		
Carson Simpson Farm, 3405 Davisville Road	99	Camp
Willow Grove Day Camp, Old York Road	40	Day Camp
Huntingdon Valley Country Club, Paper Mill Road	207	Golf Course
June Fete/Abington Hospital, Edge Hill Road	41	Recreation
<b>UPPER POTTS GROVE</b>		
Upper Pottsgrove Recreation Association, Moyer Road	9	Recreation
<b>UPPER PROVIDENCE TOWNSHIP</b>		
Rivercrest Golf Course, Collegeville Road	152	Golf Course
<b>UPPER SALFORD TOWNSHIP</b>		
New Life Y & F SVCS, (part), Freeman's School Road	90	School
Reformed Church of Old Goshenhoppen	32	Church
Old Goschenhoppen Cemetery	14	Cemetery
Spring Mountain Ski Resort	25	Recreation
<b>WEST NORRITON TOWNSHIP</b>		
Riverside Cemetery Co., Montgomery Avenue	50	Cemetery
First Baptist Church of Norristown, Burnside Avenue	23	Church
Church Building Committee, Baptist Mission of NA	23	Church
Westover Golf Course, Schuylkill Avenue	84	Golf Course
Jeffersonville Golf Course, W. Main Street	150	Golf Course
Markley Swimming Club, Chestnut Avenue	56	Recreation
<b>WHITEMARSH TOWNSHIP</b>		
Germantown Academy, Morris Road	120	School
Green Valley Country Club, Ridge Pike and Joshua Road	176	Golf Course
Sunnybrook Golf Club, Stenton Avenue	202	Golf Course
Whitemarsh Valley Golf Club (part), Thomas Road	79	Golf Course
Philadelphia Cricket Club, Stenton Avenue and Joshua Road	318	Golf Course
George Washington Memorial Park, Stenton Avenue	88	Cemetery
St. Thomas Church, Bethlehem Pike	35	Church
World Wide Evan. Crusades, Pennsylvania Avenue	30	Church
ACE Golf Club and Conference Center, Barren Hill Road	302	Golf Course
Girls Scout Camp (part), Manor Road	14	Camp
Wissahickon Ski Club, Barren Hill Road	10	Recreation
<b>WHITPAIN TOWNSHIP</b>		
ACTS, Morris Road	68	Retirement
St. Eleanors, 1301 Yost Road	58	Church
Oak Lane Day School, 199 Stenton Avenue	29	School
Blue Bell Country Club, Route 202	179	Golf Course
Mermaid Lake, Old Arch Street	62	Recreational Facility
Meadowlands Country Club, School and Morris Roads	128	Golf Course
Cedarbrook Golf Club, Pennlyn Pike	189	Golf Course
Oak Lane Day School, Skippack Pike	29	School
<b>WORCESTER TOWNSHIP</b>		
Meadowood Retirement Community, Skippack Pike	114	Retirement
Philadelphia Variety Club	53	Camp
Evanangelical Lutheran Church of the Trinity, 1190 Valley Forge Road	25	Church
Central Schwenkfelder Church, Valley Forge Road	25	Church
Center Square Golf Club, Skippack Pike	161	Golf Course
Worcester Golf Club	56	Golf Course



# Appendix F

## Open Space in Surrounding Counties

### *Existing Open Space in Berks County*

Berks County includes large areas of rural landscape characterized by farms and historic villages. This county estimates that approximately 9 percent of its total area is in publicly owned parks and recreation areas. A significant portion of that is in state ownership as parkland, forestland, and game lands.

### **Federal and State Properties in Berks County**

- **Blue Marsh Lake**, operated by U.S. Army Corps of Engineers, is an 1,150-acre lake created by damming the Tulpehocken Creek. The 6,200-acre site includes about 30 miles of hiking trails and provides swimming, boating, fishing, and nature study activities as well as an historic farmstead and living history museum. The property is bordered by a 2,800-acre Game Commission property.
- **Hopewell Furnace National Historic Site**, managed by National Park Service, is a restored iron plantation giving demonstrations and programs about the early American iron industry. It is surrounded by 848 acres of woodlands, fields, and trails, and is adjacent to French Creek State Park.
- **French Creek State Park** is located in both Berks and Chester Counties, with a total of 7,339 acres. The park includes lakes, extensive forests, and almost 40 miles of hiking trails. The Horseshoe Trail passes through this park.
- **Daniel Boone Homestead** is a 579-acre property managed by the Pennsylvania Historic and Museum Commission. The property interprets lifestyles in 18th century Pennsylvania and includes a lake, trails, and picnic areas.
- **Nolde Forest Environmental Center** is a 665-acre woodland managed by the state to help people develop a sound environmental ethic.
- The 252-acre **Kernsville Recreation Area**, managed by the state's Bureau of Abandoned Mine Reclamation, is centered around the Kernsville Dam along the Schuylkill River in northern Berks County.
- A portion of the 17,961-acre **Weiser State Forest** is located in Berks County. The forest, which extends into three other counties to the northwest, includes areas of rugged terrain and wilderness forest. The Appalachian Trail passes through the forest along the northern edge of Berks County.
- **State gamelands** totaling approximately 18,800 acres provide hunting, scenic landscapes, and hiking trails in Berks County.

### **Other Sites of Regional Interest in Berks County**

Hawk Mountain Sanctuary is a privately managed area of 2,600 acres located near Hamburg. This site draws bird watching enthusiasts from the entire region.

### **Berks County Parks and Preserved Farmland**

Berks County maintains more than 500 acres of county parkland, the largest of which is the 375-acre Tulpehocken Valley Park. In addition, the County has participated in the purchase of agricultural easements on over 200 farms protecting more than 25,000 acres of farmland.

### Trails in Berks County

Several major regional trails cross Berks County. The Appalachian Trail and the Horseshoe Trail create a network that stretches from Georgia to Maine. In addition, the partially completed Thun Trail, implemented by Schuylkill River Greenway Association, follows the corridor of the Schuylkill River and when fully implemented will connect with Montgomery County's Schuylkill River Trail and Schuylkill County's John B. Bartram Trail.

### Greenways in Berks County

The Schuylkill River Heritage Corridor extends through Berks County, linking upstream to the headwaters in Schuylkill County and downstream through Montgomery County and Philadelphia to join the Delaware River. Schuylkill River Greenway Association promotes the development of a continuous greenway and sponsored annual canoe tours that run the full length of the river.

### Open Space Planning and Preservation in Berks County

Berks County's *1994 Open Space and Recreation Plan* guides open space planning activities. *Berks Vision 2020*, revises and updates the *County Comprehensive Plan of 1991*, and speaks to the protection of natural features, preservation of open space and historic sites, and creating a continuous, interconnected open space system. Berks County Conservancy, located in Reading, is a long-established nonprofit organization whose mission is the preservation of Berks County's unique cultural and environmental heritage for the benefit of future generations. The Conservancy focuses on open space, scenic, and natural resource preservation and on promoting a sustainable future.

### Existing Open Space in Bucks County

Bucks County's landscape is diverse and exceptionally scenic because of its many areas of dramatic natural features concentrated along the Delaware River. Many of Bucks County's towns and villages are popular destinations for heritage tourism because of museums and historic sites, shops, and restaurants.

### Federal and State Open Space in Buck County

- **Delaware and Lehigh National Heritage Area** is an intact canal that stretches along the Delaware River from Bristol in Bucks County to Easton in Lehigh County, where it joins the Lehigh River. This linear park combines history, heritage tourism, and recreation.
- **Ralph Stover State Park** is a 45-acre area along the Tohickon Creek known for fishing, hiking, rock climbing, canoeing, and scenic vistas.
- **Nockamixon State Park** encompasses more than 3,000 acres that include a large lake for water sports, biking and equestrian trails, and Haycock Mountain, the second highest point in Bucks County. Adjoining state game lands expand the park area.
- **Tyler State Park**, is a 1,711-acre farm and woodland setting on the banks of the Neshaminy Creek near Newtown. The park offers hosteling, extensive bike and equestrian trails, and a venue for regional craft shows and other community activities.
- **Washington Crossing Historic Park's** 500 acres focus is on Revolutionary War history near the Delaware River. The park includes the 100-acre Bowman's Hill Wildflower Preserve, a conservation landscape and research area dedicated to preserving the region's native plants.
- **Pennsbury Manor**, maintained by the Pennsylvania Historic and Museum Commission, is a 43-acre property in Morrisville interpreting 17th century life and the lifestyle of William Penn.

### **Other Sites of Regional Interest in Bucks County**

Three closely associated sites located in Doylestown, the Mercer Museum, Fonthill, and the Moravian Tileworks, are a unique assemblage of unusual architecture and collections of locally significant artifacts. Each of these properties is surrounded by a park-like setting used for a variety of community events and passive recreation. Nearby, the James A. Michener Museum extends heritage tourism opportunities. Many other historic sites, among them the 60-acre Pearl S. Buck property, provide open space as well as heritage interest.

### **Bucks County Parks and Preserved Farmland**

Bucks County's farmland program has preserved approximately 60 farms totaling more than 5,000 acres. In addition, Bucks County has more than 20 individual public park facilities that include active recreation, large areas of undeveloped land, and several nature centers. Among the largest of these parks are **Peace Valley Park** (a 1,500-acre park that contains a 365-acre lake, miles of hiking trails, and a regionally known nature center), **Core Creek Park** (1,200 acres of natural habitat, trails, and a large lake for recreational boating), **Tohickon Valley Park** (612 acres devoted to camping and canoeing, located at the edge of Ralph Stover State Park), **Ringine Rocks Park** near Upper Black Eddy (a 128-acre landscape of unique geologic formations), and **Silver Lake Park and Nature Center** in southern Bucks County (465 acres of wetlands, habitat trails, and species of special concern). Silver Lake Nature Center contains Delhaas Woods, the best remaining example of Atlantic Coastal Plain forest.

### **Trails in Bucks County**

Many of Bucks County's roads are actively used as recreational bicycle routes. From New Hope, a regionally popular towpath trail extends up the Delaware River to Easton. The Liberty Bell Trail, currently under design, will follow the approximate route of the old Liberty Bell Trolley from Quakertown into the North Penn area of Montgomery County. As part of the US Route 202 highway construction project, a regional multi-use trail is planned to parallel the new road from Montgomery Township in Montgomery County through Warrington Township in Bucks County. The East Coast Greenway, planned to eventually extend between Florida and Maine, will include a trail spine that will cross the lower portion of Bucks County.

### **Greenways in Bucks County**

In addition to the East Coast Greenway mentioned above, the Route 113 Heritage Corridor is planned to begin at the Delaware River and continue all the way across Bucks County before entering Montgomery County at Souderton Borough and to the Schuylkill River.

### **Open Space Planning and Preservation in Bucks County**

Bucks County's 1997 open space referendum committed \$59 million to expand county parks, provide open space grants to municipalities, preserve natural areas, and continue the county's agricultural preservation program. Heritage Conservancy, a nonprofit organization located in Doylestown, works with the county, local municipalities, and landowners to preserve the natural and historic heritage of Bucks County. Heritage Conservancy is the owner of preserved land and conservation easements in the county.

### **Open Space in Chester County**

Chester County's landscape is characterized by rolling hills, scenic farmsteads, and the long vistas made familiar by the Brandywine school of landscape painting.

### Federal and State Open Space in Chester County

- **Valley Forge National Historical Park**, with headquarters in Montgomery County, includes 984 acres located in Chester County. This portion of the park includes the scenic Mount Misery, some historic farm locations, and the beginning of the Horseshoe Trail that eventually connects with the Appalachian Trail.
- **French Creek State Park**, partially located in Berks County, is an extensive natural area encompassing in total about 7,340 acres. In Chester County, this provides miles of trails, including the Horseshoe Trail, as well as water activities along French Creek.
- **Marsh Creek State Park** provides boat launches and moorings at a 55-acre lake within 1,700 acres of parkland.
- **White Clay Creek Preserve** includes unique plant and animal species along the White Clay Creek Valley. Fishing is the major activity at this site.
- **Struble Lake**, maintained by the PA Fish and Boat Commission is a 146-acre lake that adjoins Chester County's Warwick Park.
- **State gamelands** totaling approximately 1,060 acres provide hunting, scenic landscapes, and hiking trails in Chester County.

### Other Sites of Regional Interest in Chester County

- **Longwood Gardens** in Kennett Square is a world-renowned public garden and arboretum covering 1,050 acres. This privately managed site provides a variety of educational, musical, and seasonal events, a four-acre glass conservatory, theme gardens, and a network of scenic walking paths.
- **The Brandywine River Valley** in southern Chester County incorporates historic landscapes, scenic vistas, and many villages with interesting shops, restaurants, and museums. A long-established emphasis on the arts makes the Brandywine Valley familiar to visitors from other areas who come to enjoy the paintings of the Wyeths and other well-known artists.

### Chester County Parks and Preserved Farmland

Chester County maintains some large parks that provide a variety of landscapes and recreational opportunities. **Hibernia Park** is 800 acres of woodland, meadows, and trail centered around Hibernia Mansion, an 18th century ironmaster's home. The **Exton Park** Site is a 713-acre future county park currently under development. **Nottingham Park's** 651 acres include extensive trails, a lake, and rare serpentine barrens. **Springton Manor** is a 300-acre demonstration farm. **Warwick Park**, 455 acres, incorporates the French Creek and the Horseshoe Trail. **Black Rock Preserve/Audubon's Schuylkill River Project** involves several county-owned silt basins along the Schuylkill River in and above Phoenixville. These preserved riverfront areas are an especially important opportunity for natural resource protection and environmental education.

### Trails in Chester County

Chester County is home to the Struble Trail along the Brandywine Creek which is part of a group of canoeing and hiking opportunities associated with the Brandywine Valley. A main section of the Schuylkill River Trail proposes to link Phoenixville to North Coventry Township along the Schuylkill River. This trail segment will connect at both ends to other sections of the regional trail located in Montgomery County. The Chester Valley Trail, when completed, will link Norristown in Montgomery County across the river to King of Prussia and then westward to Downingtown. The county also has the long-distance Horseshoe Trail that begins at Valley Forge Park and passes through Warwick County Park and French Creek State Park before eventually intersecting with the Appalachian Trail; the Horseshoe Trail is not publicly owned, and the alignment does change from time to time.

### Greenways in Chester County

The Brandywine Creek Valley already forms an informal greenway that extends through the heart of southern Chester County. Additional extensions of the Struble Trail will complement the use of the Brandywine Creek as a boating corridor and as the spine of a scenic landscape corridor. Seven Chester County municipalities share the Schuylkill River with Montgomery County. In light of the regional emphasis on a continuous Schuylkill River Greenway, Chester County will be an important partner in the future greenway community.

### Open Space Planning and Preservation in Chester County

Chester County has been active in open space and farmland preservation for the last several decades. The Chester County Agricultural Land Preservation Board has protected over 18,000 acres of land with agricultural easements. In addition, over 30,000 acres of mostly private property in Chester County has been protected by 13 land trusts. The Brandywine Conservancy, for example, works with Chester County, local governments, and property owners to promote and complete land preservation projects. Natural Lands Trust is also active in Chester County, with the Crow's Nest Preserve, Sharp's Canterbury Woods, and the Stroud Preserve totaling almost 1,200 acres of protected natural land. In the northern portion of Chester County, French and Pickering Creeks Conservation Trust has been instrumental in the preservation of over 7,000 acres.

In 1989, Chester County's \$50 million open space and farmland preservation referendum began the Chester County Open Space Program. In 2002, an additional \$75 million was pledged to the Landscape 21st Century Fund. Through these programs, funds are available for parks and open space acquisitions, park facilities, trails and greenways, and grants to nonprofit land conservation organizations. Early in 2003, an open space survey indicated continuing strong support among residents for open space preservation. Additional borrowing for future open space is being considered. Chester County's *Landscapes*, adopted in 1996 as the policy element of the county comprehensive plan, is an umbrella for the county's open space and water resources plans. *Linking Landscapes*, adopted in 2002 as the open space element of the *Chester County Comprehensive Plan*, updates the *Chester County Open Space and Recreation Study* adopted in the 1980s. *Linking Landscapes* focuses on protecting open space through partnerships with landowners, conservation organizations, and municipal governments.

### Open Space in Delaware County

Delaware County is smaller in size than the other counties that adjoin Montgomery, and its profusion of old established boroughs creates a landscape with fewer open space opportunities. However, the portions of Delaware County that remain undeveloped include many scenic, historic, and natural features.

### Federal and State Open Space

- **John Heinz National Wildlife Refuge** at Tinicum is located in both Delaware County and Philadelphia about a mile from Philadelphia International Airport. Managed by U.S. Fish and Wildlife Service, the refuge will eventually include 1,200 acres of varied habitat and is an especially interesting example of the tidal marshes that once dominated the banks of the Delaware River.
- **Ridley Creek State Park**, near Newtown Square, is a 2,606-acre state park with trails and woodland. Within the park, the Colonial Pennsylvania Plantation interprets life on a Delaware County farm prior to the Revolutionary War. Also located in the park is Pennsylvania Resources Council's Environmental Living Center.

- **Brandywine Battlefield Park** in Chadds Ford is administered by the Pennsylvania Historical Museum Commission. This site includes the headquarters of Generals Washington and Lafayette.

#### Other Sites of Regional Interest in Delaware County

- **Tyler Arboretum** is a privately managed public garden that includes 200 acres of specimen plant collections and 450 acres of uncultivated fields and woodlands. The undeveloped area is honeycombed with 20 miles of trails for hiking and bird watching.
- **The Brandywine River Museum** in Chadds Ford is located at the edge of Delaware County and is one of the premier destinations for visitors to the Brandywine Valley. Located on the banks of the Brandywine Creek, the museum houses an important collection of paintings and is also the site of antique and craft shows and seasonal events. The site is also the location of Brandywine Conservancy's Environmental Management Center.
- **Scott Arboretum** at Swarthmore College is a regionally recognized arboretum devoted to the use and display of plants suited for home gardens in this area. The 300-acre arboretum integrates the everyday needs of the college community. The arboretum also includes Crum Woods, managed as a native woodland.
- **Newlin Grist Mill and Park** in Glen Mills is a restored 18th century mill museum set in the midst of 150 acres that are preserved as a refuge for plants, animals, and birds.

#### Delaware County Parks

Delaware County maintains four major parks and ten smaller ones. **Clayton Park**, located in Concord Township, is the largest county park and includes playing fields, picnic areas, and scenic woodlands. The park also contains a challenging nine-hole golf course. **Rose Tree Park** in Upper Providence Township (120 acres) is an area of rolling hills and woodlands with nature trails and historic buildings. This park is the site of summer concerts and fairs throughout the year. **Smedley Park** (120 acres) is located near Media and is home to an Environmental Center and the Delaware County Cooperative Extension. **Upland Park** in Upland Borough is a 60-acre former day camp known for woods, trails, ball fields, and the Redwood Community Theater.

#### Open Space Planning and Preservation in Delaware County

Delaware County's current open space planning efforts are devoted to a two-pronged initiative: the Renaissance Program focuses on the revitalization of the county's first-generation suburbs and the Open Space Mapping Program intends to encourage orderly development while protecting the most important open properties. Delaware County's Heritage Commission coordinates and promotes the cultural heritage of the county. Delaware County's *Comprehensive Plan*, begun in 1999, emphasizes conservation of undeveloped and natural resources.

Natural Lands Trust, with headquarters in Media, owns two preserves in Delaware County, Hildacy Farm (55 acres) and the Wawa Preserve (70 acres). Brandywine Conservancy, with headquarters in Chadds Ford, focuses on the preservation of resources in the Brandywine Valley.

#### Open Space in Lehigh County

Lehigh County has a strong agricultural community in the center of the county. The county has almost 130 preserved farms protecting almost 12,500 acres of farmland. In addition, the county includes about 2,500 acres of county parkland and preserved open space.

#### State-owned Open Space

Although Lehigh County has no state parks, almost 6,500 acres of state gamelands provide

hunting, hiking, and scenic views throughout the county. Leaser Lake, a PA Fish and Boat Commission facility, adjoins county land to create a park of 540 acres.

### **Lehigh County Parks**

Lehigh County's major park areas include the **Cedar Creek Parkway**, which provides multiple recreation opportunities. **Jordan Park** is a stream valley park providing both active and passive recreation. **Rodale Park** is a velodrome for bicycle track racing. **Trexler Preserve** is a game preserve devoted to education and experiences about a variety of animals.

### **Trails and Greenways in Lehigh County**

Although Lehigh County currently has no regional trails or greenways, the county is a gateway to the Lehigh River corridor, where the Lehigh River Canal path links the cities of Allentown, Bethlehem, and Easton. The Delaware and Lehigh National Heritage Corridor follows this same route, creating a greenway experience that connects the Lehigh Valley with the Delaware River and its canal system.

### **Open Space Planning and Preservation in Lehigh County**

The Wildlands Conservancy, located on a 72-acre wildlife refuge in Emmaus, is a regional partner in promoting conservation and stewardship throughout the Lehigh Valley and Lehigh County. Wildlands' mission is to preserve land, keep waterways healthy, and teach the community about nature.

In 2002, Lehigh County's voters approved an open space referendum of \$30 million. The county is currently preparing guidelines for use of these funds and is partnering with Northampton County and the Lehigh Valley Planning Commission. A recent survey shows that area residents strongly support farmland preservation, large regional parks, biking and hiking trails, and nature reserves.

### ***Open Space in Philadelphia***

Philadelphia includes a large amount of preserved parkland as well as many historical and cultural sites that provide educational and heritage tourism opportunities to Montgomery County residents.

#### **Federal and State Open Space in Philadelphia**

- **Independence National Historical Park**, while not large in acreage, is the heart of an historic district that interprets the early history of our nation.
- **John Heinz National Wildlife Refuge**, a good portion of which is located in Philadelphia, is described above under Delaware County.

#### **Other Sites of Regional Interest in Philadelphia**

- **Fort Mifflin**, near the confluence of the Schuylkill and Delaware Rivers, interprets both early Pennsylvania history and urban ecology.
- **Schuylkill Center for Environmental Education**, overlooking the Schuylkill River in Roxborough, is a research and education center devoted to the environment. Its location at the edge of Montgomery County makes it a resource for the surrounding region.
- **Historic Bartram's Gardens**, located in West Philadelphia along the Schuylkill River, is the home of the nation's first botanist, John Bartram. This site combines historic interest, botanic garden tours, and restoration of natural lands along the river.

### City Open Space

Philadelphia's 8,900-acre park system, analogous to county open space, is administered by the **Fairmount Park Commission**. This city agency preserves and protects parks and open space, provides various recreation opportunities, and maintains natural and built landscape within the parks. Major nodes of parkland are associated with stream valleys within the city, with the parklands along the Wissahickon, Pennypack, Tacony, and Poquessing Creeks, and the Schuylkill River used intensively by both city residents and visitors from other counties. Nature centers are located in Cobbs Creek Park in West Philadelphia, Pennypack Park in Northeast Philadelphia, and Andorra in the Valley Green area of Northwest Philadelphia.

In addition, **Fox Chase Farm**, straddling the Montgomery County border along the Pennypack Creek, is a working farm with many activities that demonstrate the former agricultural character of the Pennypack corridor. Fox Chase Farm adjoins Montgomery County's Lorimer Park and is a major destination node along the Pennypack Greenway.

Fairmount Park's Natural Lands Restoration and Environmental Education Program (NLREEP) was established in 1997 with a \$26.6 million grant from the William Penn Foundation. This program works to restore natural areas in seven watershed and estuary parks in Philadelphia and to build constituencies for parks protection through environmental education and public stewardship. Each of these parks has a Natural Lands Restoration Master Plan that was prepared in cooperation with the Patrick Center for Environmental Restoration at the Academy of Natural Sciences.

### Trails in Philadelphia

Trails are a major component of the Fairmount Park system. Trail master plans have been prepared for Cobbs Creek, Fairmount, Pennypack, Poquessing, Tacony, and Wissahickon Valley Parks, and each of these addresses the need to balance intensive recreation use with the protection of fragile urban park landscapes. Several of these trail systems are regional extensions of Montgomery County trails and greenways. **The Pennypack Trail** connects to Montgomery County at Lorimer Park and continues ten miles down the creek to the Delaware River. **The Tacony Creek Trail** becomes the Tookany Creek Parkway when it enters Cheltenham Township. **The Schuylkill River Trail**, now almost completed between Schuylkill River Park in Center City and the Montgomery County line at Whitemarsh Township, is part of a regional trail that includes the towpath at Manayunk and connections to Valley Forge National Historical Park. **Forbidden Drive** is a regionally used trail that follows the Wissahickon Creek from Northwestern Avenue to the Schuylkill River.

### Greenways in Philadelphia

Philadelphia's preserved parkland includes a good part of the Schuylkill River corridor between City Line Avenue and the Fairmount Dam. Philadelphia's Schuylkill River is a major component of the Schuylkill River Greenway and the Schuylkill River Valley National Heritage Corridor. Within this corridor are the Philadelphia Museum of Art, the Philadelphia Zoo, the Mann Music Center, the Fairmount Waterworks and Boathouse Row, a large array of historic houses and museums, and many recreation sites. Below the dam, a greenway is planned to extend to the Delaware River. Continuing up the river, the greenway corridor includes the revitalizing area of East Falls and the shops, restaurants and mixed use developments of Manayunk.

- **The Pennypack Greenway**, a high priority for Montgomery County, is virtually completed in Philadelphia, incorporating Foxchase Farm, Pennypack Park, the Pennypack Trail, a variety of local historic points and community connections, and a scenic park along the shores of the Delaware River.

- **The Wissahickon Greenway**, a continuation of the Wissahickon Green Ribbon in Montgomery County, incorporates some of the most scenic landscape in southeastern Pennsylvania. Entering Philadelphia just west of Chestnut Hill, this greenway includes mature forests, historic houses, bridges, the Valley Green Inn, historic Rittenhousetown, the Andorra Nature Center, a heavily used system of hiking trails, and the continuous multi-use trail, Forbidden Drive. This greenway joins the Schuylkill Greenway at the Philadelphia Canoe Club on the banks of the Schuylkill River.
- **The East Coast Greenway** will follow the Delaware and lower Schuylkill Rivers through Philadelphia. When completed, this greenway and trail spine will make a continuous connection between Florida and Maine and the numerous cities inbetween. The Schuylkill River, with its accompanying Trail and Greenway, will be a major regional connection to the East Coast Greenway and will link Montgomery County to the national greenway network.



*Plan Elements of*  
**Shaping Our Future: A Comprehensive Plan  
for Montgomery County**

- Vision Plan
- Community Facilities Plan
- Economic Development Plan
- Housing Plan
- Land Use Plan
- Open Space, Natural Features, and Cultural Resources Plan
- Transportation Plan
- Water Resources Plan

