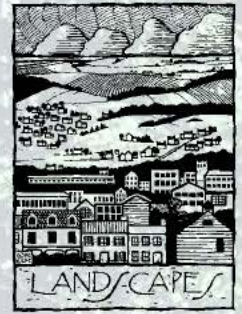
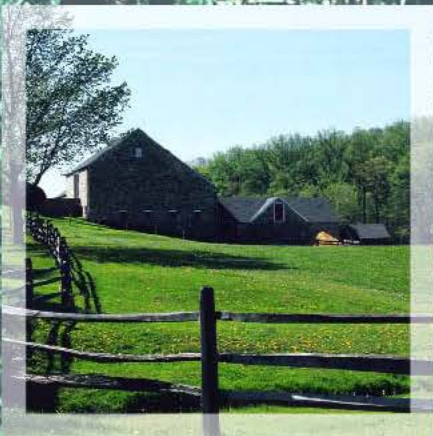


Linking LANDSCAPES

A Component of



A Plan for the Protected Open Space Network in Chester County, PA



September 2002

Linking Landscapes Follows the Policies of Landscapes

Linking Landscapes is an element of the County Comprehensive Plan

Linking Landscapes: A Plan for the Protected Open Space Network in Chester County, PA is a component of the overall Chester County Comprehensive Plan and follows the policies set forth in *Landscapes: Managing Change in Chester County 1996-2020*, which is the Policy Element of the County Comprehensive Plan.

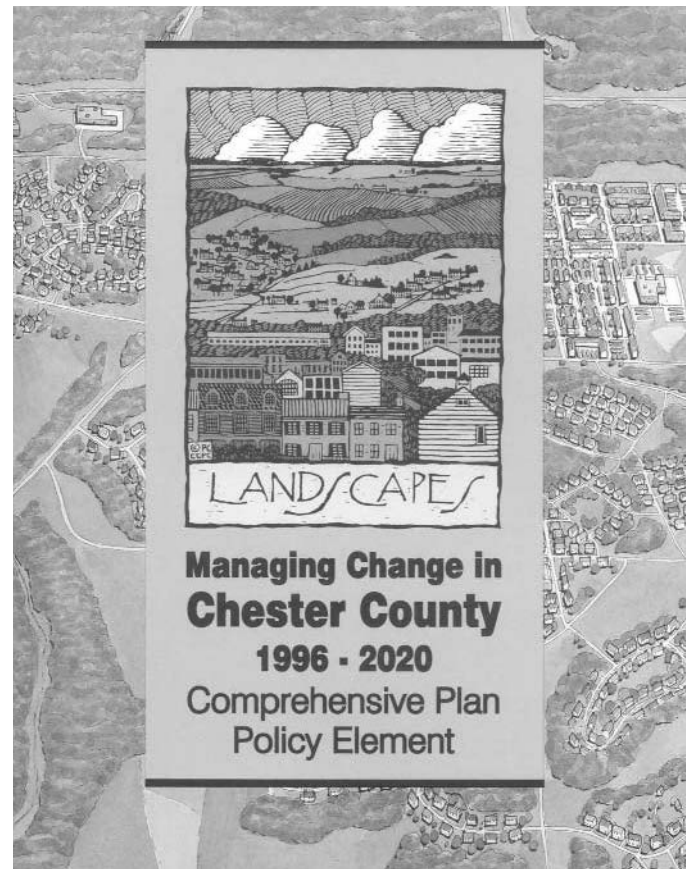
Linking Landscapes was written by the staff of the Chester County Planning Commission in close coordination with the County Parks and Recreation Department. The first draft was completed in January 2001 after a two-year work effort. This draft was then reviewed by a committee representing the public, municipal officials, the business community and experts in the field of open space planning.

In October 2001, a draft of *Linking Landscapes* was submitted to each of the County's 73 municipalities for a 45-day review. A total of five public meetings were also held throughout the County during this time.

In January 2002, *Linking Landscapes* was revised based on public and municipal comments. On February 26, 2002 *Linking Landscapes* was presented at a public hearing and adopted by the County Commissioners as the Open Space Element of the Chester County Comprehensive Plan.

For more information contact:

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Board of County Commissioners

Karen L. Martynick, Chairman
Colin A. Hanna
Andrew E. Dinniman

About the maps in this publication

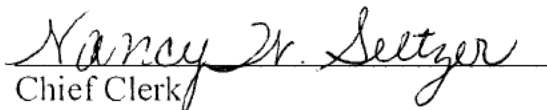
The maps in this publication were generated from data compiled by the Chester County Planning Commission (CCPC) of Chester County, PA. These maps are provided for reference purposes only and should not be used for any detailed engineering purposes. The CCPC and Chester County make no claims as to the completeness, accuracy, or currency of the maps or the digital data and files used to generate the maps.

Resolution #15-02

- WHEREAS, the Board of County Commissioners adopted *Landscapes, Managing Change in Chester County 1996 – 2020*, the Policy Element of the Chester County Comprehensive Plan on July 12, 1996; and
- WHEREAS, *Landscapes* includes six policies that promote the establishment of a countywide network of protected open spaces, namely Policies 1.2.5, 1.4.1, 2.1.3, 4.3.2, 5.1.2 and 5.1.8; and
- WHEREAS, the *Chester County Open Space & Recreation Study* adopted in by the Board of County Commissioners in June 1982 is now 20 years old and has become outdated; and
- WHEREAS, Chester County voters approved a \$50 million dollar Open Space Bond in 1989, which along with the \$75 million dollar 21st Century Fund established by the County Board of Commissioners in 1999, provides ongoing funding for open space initiatives; and
- WHEREAS, the Chester County Heritage Park and Open Space Municipal Grant Program and the Chester County Agricultural Lands Preservation Board agricultural easement program have contributed to the protection of over 15,000 acres of open space in Chester County since 1989; and
- WHEREAS, ongoing development and the loss of open space continues to influence the quality of life, ecology and economy of Chester County.

NOW, THEREFORE, be it resolved that on the 26th day of February, 2002, the Board of Commissioners of the County of Chester adopts *Linking Landscapes: A Plan for the Protected Open Space Network in Chester County, PA* here attached as the Open Space Element of the Chester County Comprehensive Plan.


ATTEST:



Chief Clerk

2-26-02
Date



Board of County Commissioners


Karen L. Martynick, Chairman


Colin A. Hanna, Commissioner


Andrew E. Dinniman, Commissioner

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Commission
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The Chester County Planning Commission and the Parks and Recreation Department would like to thank the following experts and community representatives for reviewing and providing comments on the preliminary draft of *Linking Landscapes*:

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LINKING LANDSCAPES:

*A Plan for the Protected Open Space Network in Chester County, PA
is dedicated to the memory of*

Ian McHarg (1920 – 2001)

*His pioneering work in environmental planning and design
has made plans such as this possible.*

Unfortunately, the whole thing is such a simple bloody problem – it just needs an arbiter. Almost all the problems of the Earth result from one single thing: that is the acquisition of power, which enables man to do things beyond his capability of predicting the consequences – many of which have a deleterious effect. He just needs an arbiter. Once upon a time, when we were working away with stone axes, the amount of effect you could have on your neighbors was quite small. Nature’s regenerative powers were so overwhelming compared with even the most destructive man.

But as man began to overpower nature, there wasn’t any way out. Nobody said, “Whoa, steady now, we’ve got to have a balance here between brains and power.” Today power has run [out of control] and there is no arbiter... Somehow we have to be able to keep a check on... our capability of affecting the environment and the environment. There is no central authority, there are no rules, there is no punishment that we know of. And yet, every ecosystem, the whole biosphere at large, seems to have engaged in, for God knows how many millions of years, [its own] self regulating process, which in fact has made the Earth more fit for life.

Man hasn’t been able to do that. He doesn’t even understand how it’s done.

*Ian McHarg, Unionville, Chester County – 1992
As quoted in “Profiles in Landscapes Architecture”, published by the
American Society of Landscape Architects, 1992. Used by permission.*

Abstract

Linking Landscapes; A Plan for the Protected Open Space Network in Chester County, is a component of the Chester County Comprehensive Plan and follows the policies set forth in ***Landscapes: Managing Land in Chester County 1996-2000***, which is the Policy Element of the Chester County Comprehensive Plan.

Open spaces provide benefits that improve the quality of life, the ecology and the economy of Chester County. Open spaces can only provide these benefits if they function properly, and in order to do so they must be linked together so that they do not become isolated islands surrounded by development. It is therefore necessary for government, industry and the general public to join together to establish a protected open space network in Chester County. This network should be recognized as a form of public infrastructure, just like other networks that serve the common good, such as sewer lines, water service and highways.

Linking Landscapes provides a vision for multi-municipal open space planning on a countywide basis. It presents a set of actions to coordinate the activities of the various County government departments involved with open space planning. It also provides municipalities with general guidelines they can use to responsibly protect open space, since Pennsylvania law grants them, and not the County government, with the ultimate authority regarding land use. This countywide vision focuses not only on planning and protecting open spaces, but also on restoring and maintaining them so as to ensure that they will retain their ecological and recreational qualities in perpetuity.

The key open space protection recommendations set forth in *Linking Landscapes* are:

- In order to retain the quality of life, ecological, and economic benefits provided by open space, *Linking Landscapes* recommends rigorously protecting 5,000 acres of open space each year through conservation easements or in-fee acquisition. For this benchmark to be achieved, homeowners, developers, land trusts, the farming community, government officials and the general public will be required to pursue the protection of open space more aggressively than they have over the past two decades.
- The annual 5,000-Acre Protected Open Space Benchmark is far reaching but reasonable, and could conceivably double the amount of protected open space in the County by the year 2015. If this benchmark is met over the long term, it is estimated that 50 percent of the currently undeveloped land in Chester County could remain protected as open space in perpetuity. Since the rate of development in Chester County is estimated to be approximately 5,000 acres per year, the practical impact

of the benchmark would be that one acre of land would be protected for each acre developed.

- *Linking Landscapes* also recommends limiting development on all Naturally Sensitive Areas such as steep slopes, hydric soils, wetlands and floodplains through municipal ordinances and other mechanisms. Naturally Sensitive Areas contain physical characteristics that make them unsuitable for most forms of development and are estimated to cover approximately 16 percent of the County's total area.
- In order to ensure that the environmental quality and recreational function of protected open spaces within the County are maintained, *Linking Landscapes* recommends linking all of the County's isolated protected open spaces through a countywide protected open space network, linked together by recreational trails and wildlife corridors. Furthermore *Linking Landscapes* recommends linking all 15 of the County's boroughs, and its only city to at least one state park, County park or national historic site, by public recreational trails.
- In order to improve communication between municipalities and facilitate multi-municipal open space planning and protection, *Linking Landscapes* recommends establishing one common set of terms describing open spaces and the specific uses for which protected open spaces are established. Because open space planning is a relatively young field, the planning profession has yet to develop widespread consensus regarding open space terminology. Therefore, *Linking Landscapes* includes a glossary of open space terms tailored to fit the needs of Chester County's municipalities and open space protection organizations.
- In order to ensure that sufficient active recreational facilities serve all parts of the County, *Linking Landscapes* recommends supporting municipalities in their efforts to establish approximately 2,900 additional acres of municipally owned and managed active recreational parks that are required to meet the recreation needs of the County's projected 2025 population.
- In order to ensure that sufficient passive recreation facilities and regional trails serve all parts of the County, *Linking Landscapes* recommends completing four regional County trails and establishing the 1,800 additional acres of County Parks that are required to meet the recreation needs of the County's projected 2025 population.
- In order to ensure that responsible and coordinated open space planning, restoration and protection will continue within Chester County, *Linking Landscapes* recommends establishing a Protected Open Space Network 12-Year Program for County managed or funded projects, to be updated every two years.

Executive Summary

Open Space Planning is Needed Now

In 1982, the Chester County Planning Commission completed the County's first open space plan. Since that time the County Commissioners passed a \$50 million dollar open space bond, acquired three additional sites for new County Parks, established five open space grant programs, assisted in protecting over 10,000 acres of farmland, and provided partial funding for over 1,900 acres of municipal parks. In 1999, with the original \$50 million obligated, the Chester County Commissioners announced the creation of the Landscapes 21st Century Fund, which provided \$75 million to continue open space preservation programs and created new programs to further implement **Landscapes**. Given this open space preservation activity and the unprecedented growth in Chester County, the County Commissioners directed the Chester County Planning Commission and the Parks and Recreation Department to complete an updated open space plan. *Linking Landscapes: A Plan for the Protected Open Space Network in Chester County, PA* is the result of this effort.

Linking Landscapes Builds on the Principles of *Landscapes*

Linking Landscapes is the open space element of the Chester County Comprehensive Plan. It follows the policies set forth in **Landscapes; Managing Change in Chester County 1996 – 2020**, which serves as the Policy Element of the County's Comprehensive Plan. **Landscapes** recommends that development be encouraged in designated "Suburban" and "Urban" Landscapes or "Suburban" and "Rural" Centers, instead of in "Rural" and "Natural" Landscapes. The guiding philosophy behind **Landscapes** is that clustering new development will reduce the highly land-consumptive "sprawl" development that began to appear in the County in the late 20th century. *Linking Landscapes* builds on this concept by recommending ways to protecting undeveloped open lands in "Rural" and "Natural" Landscapes, while recommending that recreational parks and trails be established in existing developed communities to improve the economy and quality of life in these built-up areas.

Countywide Open Space Planning Helps Municipalities Obtain Grant Funding

Linking Landscapes is like most conventional open space plans in that it presents a regional planning perspective regarding recreational parks and natural resource protection areas. This perspective is needed because natural features and recreational facilities, such as trails, do not end at municipal borders. Because municipal planners typically focus on local issues, it is up to the County to provide this regional evaluation. *Linking Landscapes* also documents a countywide plan for protecting open space.

Such a regional plan is essential for municipalities and local organizations that apply for state and federal grants. In fact, the text of *Linking Landscapes* was specifically written using language that will assist municipalities and local organizations in filling out applications for state and federal grant programs.

Linking Landscapes will not Invalidate Existing Municipal Open Space Plans

Linking Landscape is unconventional in that it does not provide a detailed “blue print” that will direct municipal planning. The primary purpose of the document is to present planning recommendations that can be initiated by County government agencies. Because almost all of the County’s municipalities have already completed municipal “Open Space, Recreation and Environmental Resource Plans,” there was no need for *Linking Landscapes* to make detailed recommendations about municipal open space planning. Recreational planning, such as determining the number of sports field or leagues needed by a community, is not included in *Linking Landscapes* because such issues are already addressed by municipal open space plans. *Linking Landscapes* should therefore not be regarded as a recreation plan.

Linking Landscapes Focuses on “Protected” Open Space

The term “open space” can mean many things to many people. For some people, a farm is open space, but others might say that the farm is a business. Some say a sports field is open space, while others say open space must be set aside for wildlife only. There is no one set definition for open space, and even professional planners cannot agree on what it is. For this reason *Linking Landscapes* does not use the term open space, but instead refers to “protected open space” which is defined as:

“Land and water areas that have little or no development, are used for recreation or protecting cultural or natural resources, including productive agricultural soils; and are protected either permanently or on a long term basis.”

The focus of *Linking Landscapes* is not simply open land, but rather open land that will remain protected from development forever. Given the pace of development in the County, it would be impractical to conduct an in-depth evaluation of unprotected open space, because those properties may already be slated for development by the time the study is complete.

Protected Open Spaces Must be Rigorously Protected
The *Linking Landscapes* definition of “protected open space” requires that an undeveloped parcel must be rigorously protected from future development. A property with a simple deed restriction limiting development is

not regarded as protected open space, since such restrictions are sometimes ignored after the property is sold to a new owner. Likewise, properties that are subject to zoning that limits development are not regarded as protected open space, because a municipality always has the option of a granting a variance from zoning ordinances, or modifying their zoning ordinance at a future date.

The *Linking Landscapes* definition of protected open space includes a wide range of land uses including public recreational parks, non-recreational open spaces owned by government entities, and private property that is protected by a land trust conservation easement. Homeowner Association open spaces and managed lands, like buffers around reservoirs, are also included because they are unlikely to ever be developed. Only those farmlands that are covered by agricultural conservation easements are regarded as protected open spaces, because these farms protect the soils beneath them. These soils are a complex ecosystem, and a valuable, but largely unnoticed natural resource that is threatened by excessive development just like any forest or wetland habitat.

Isolated Open Spaces Should be Linked into a Network
Linking Landscapes is also unconventional in that it recognizes that simply protecting individual parcels of open space will not adequately serve the recreational or natural resource preservation needs of Chester County. To fully meet these needs, protected open spaces must be linked together by trails, wildlife corridors, or clusters of protected private and public property. *Linking Landscapes* proposes that open space protection in Chester County should be focused on creating a network of protected open spaces, and not simply isolated undeveloped islands surrounded by development. The fact that this open space plan has been entitled *Linking Landscapes* shows how highly the County regards the establishment of these links.

Governments, Industry, Civic Groups and Individuals
Must Work Together

Linking Landscapes also recognizes that open space protection and habitat restoration cannot be achieved by government projects alone. If Chester County is to establish a protected open space network, it will require a substantial long-term effort by private residential landowners, civic organizations, the business community and land developers. For this reason, *Linking Landscapes* provides information that communities and civic groups can use to begin to plan and finance local open space initiatives. *Linking Landscapes* provides summaries of federal, state, County and private grant programs, and contacts for these grant programs including Internet web pages. It also provides an introduction to open space protection techniques such as, lot averaging, cluster zoning, transfer of development rights, effective agricultural zoning, conservation development,

urban renewal through in-fill and donating conservation easements to reduce tax burdens.

A 4-Step Process for Analyzing Open Space Facilities and Properties

Linking Landscapes consists of 20 chapters, each dealing with a different topic relating to the restoration or protection of open space. In this document all open space facilities and properties from parks and trails to protected farms and natural areas, are analyzed on a countywide basis using a 4-step process. All existing facilities were inventoried and then evaluated to determine how they could be maintained or improved. Vision and action items were then developed based on the evaluation. For example, all three State Game Lands within the County were inventoried and mapped. These properties were then evaluated to determine their current status and possible actions that might be taken to improve them. A “vision” statement was then developed describing what could happen to the State Game Lands under ideal conditions. One such vision is to link the County’s three State Game Land properties via a wildlife corridor. Lastly, “action” items were developed that could help realize this vision.

Action Items Must be Activities the County can Realistically Implement

The action items presented in *Linking Landscapes* are meant to be actions that the County government can undertake. These actions are meant to be practical and achievable. For example, one action item regarding State Game Lands is that the County will set up a meeting with the Game Commission to discuss the possibility of establishing wildlife corridors linking the three state game lands. This may be a small activity, but it can be readily implemented and will hopefully initiate a larger effort. The guiding philosophy behind the action items is that it is better to recommend a small specific action that can be completed, rather than propose a larger effort that needs to be further developed before any concrete activities can be started. Certainly there are many actions that the state or federal government, or private organizations can take to protect open space in Chester County that do not involve County government, but they are not listed in *Linking Landscapes* because it is specifically oriented toward County government initiated actions. In total there are 282 action items.

More County Park Facilities are Needed

There are a number of key recommendations regarding recreational parks in *Linking Landscapes*. The Plan recommends that state parks and national historic sites acquire conservation easements surrounding their property as a resource protection buffer. *Linking Landscapes* calls for the establishment of 600 acres of new County parkland in southeastern Chester County, and 1,200 acres of County parkland in the highly populated

north central part of the County. It also recommends changing County policy so that County parks can be acquired on properties such as re-vegetated former farm fields, that do not contain a unique natural or historic features. Parcels with unique features are increasingly rare in the north-eastern part of County where County parks are still needed.

Public Natural Areas Need Enhanced Management
Linking Landscapes also addresses open spaces that are protected from development, but are not used for active recreation facilities. The Plan recommends linking the three isolated state game lands. It also recommends permitting controlled burning in Valley Forge State Forest District Number 17 in West Nottingham Township to re-establish the forests original serpentine barrens vegetation. *Linking Landscapes* also calls for an increase in state-owned resource protection land, either by in-fee parcel acquisition or the purchase of conservation easements on properties surrounding resource protection properties. The Plan also recommends a joint state, County and municipal government and land trust effort to establish a countywide network of wildlife biodiversity corridors.

Brownfields, Utility Corridors and Historic Properties Can be Rehabilitated

In recent years, open space planning has begun to focus on both protecting undeveloped open space and restoring or reusing existing developed properties which have the potential to become open space. For this reason, *Linking Landscapes* recommends that abandoned rail lines should be considered as sites for recreation facilities and that brownfields that are not well suited for redevelopment, should be considered for open space restoration. It also recommends the management of utility corridors as wildlife habitat, especially the reintroduction of warm-season grass meadows within these corridors. The Plan even recommends that homeowner association-owned open spaces be voluntarily managed as either wildlife habitat or recreational facilities. It recommends the further construction of spray and drip irrigation fields that are protected from future development. A computerized inventory and mapping of historic resources within Chester County is also recommended, so that these resources can be incorporated into overall open space planning.

Trail Planning and Development Should be Substantially Increased

As a result of the research conducted for *Linking Landscapes*, it became clear that Chester County has fallen behind its neighboring counties in terms of the planning and construction of recreational trails. *Linking Landscapes* therefore recommends a joint state, County and municipal effort to design and construct a countywide network of trails. One specific recommendation is to link the County Chester Valley Trail to public trails

in surrounding counties for a multi-county trail network. *Linking Landscapes* calls for a spur of the East Coast Greenway to be designated on trails extending from New Castle County, DE, up the Brandywine Valley to Dowingtown Borough, and then east to Valley Forge National Historic Site. *Linking Landscapes* also recommends trail links within the County that extend to public schools, rural centers, villages, corporate centers and community facilities. *Linking Landscapes* calls for the County to focus its efforts on planning trails for ten “Regional Priority Corridors.”

Linking Landscapes also recommends that County continue its current commitment to construct and maintain the following officially designated County Trails:

- County Chester Valley Trail
- The Future County Octoraro Water Trail
- County Struble Trail
- The Future County Schuylkill River Trail

Revitalizing Urban Areas is Essential

Linking Landscapes focuses primarily on efforts to protect or restore undeveloped open space. As a result, much of the document deals with preservation efforts that are applicable to rural or low-density suburban communities. However, urban areas are also a key focus of *Linking Landscapes*. The Plan recognizes that it is pointless to protect undeveloped open space without also revitalizing the County’s boroughs and its city. If urban areas do not maintain an acceptable quality of life, their residents will continue to move away, putting more development pressure on existing open space. Because urban areas are so important, *Linking Landscapes* recommends urban greening including street trees, parking lot trees and urban gardens. The Plan also recommends establishing trail links connecting each County operated park property to one or more of the County’s boroughs and the City of Coatesville City. Such trail links will promote urban revitalization and quality of life by improving urban access to recreation facilities. All of these urban oriented recommendations could also be applicable in similar suburban settings.

The Voluntary Restoration of Natural Conditions on Private Property

Not all undeveloped land in Chester County is suitable for protection, but much of it can be restored to more natural conditions. *Linking Landscapes* recognizes that restoring open land on private property, even in developed areas, can contribute to improving the environmental quality of Chester County. For this reason *Linking Landscapes* recommends voluntary riparian buffers along streams on all properties including industrial parks, school and college campuses, golf courses and residential lots. It

also recommends that residential landowners voluntarily reduce the area of mowed lawn on their property, plant warm-season grasses, and create a 5 to 15 foot no-mow zone around streams and water bodies. For larger developments, *Linking Landscapes* recommends converting “dry” mowed storm water management basins to “wet” vegetated basins.

The “Chester County Style” of Land Management
Linking Landscapes also recommends that private landowners voluntarily adopt the “Chester County Style” using native plants, re-vegetating stream corridors, and reestablishing traditional hedgerows and meadows instead of mowed lawn. This concept, based on one formulated by Santa Barbara County CA, is a way to publicize environmentally sensitive land management as a cultural and aesthetic statement, rather than simply a set of dry scientific guidelines.

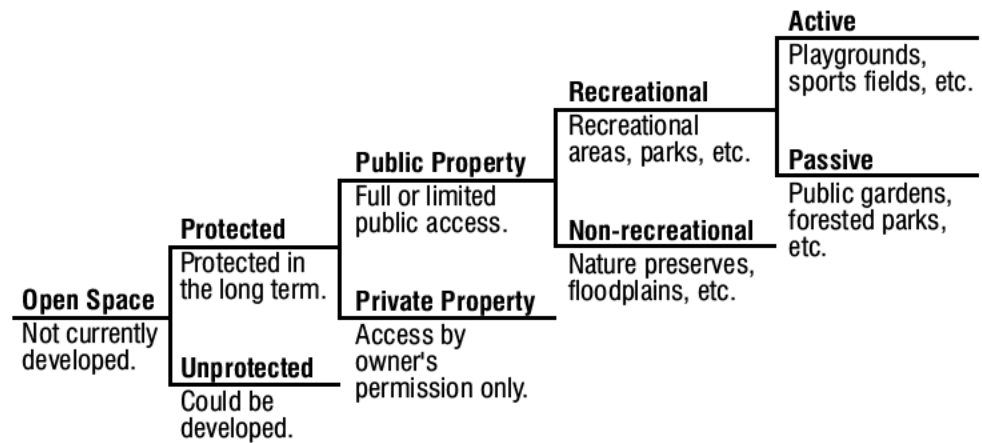
General Guidance for Municipal Recreational Park Planning

Although *Linking Landscapes* is focused on County government initiatives, it also provides general guidance to municipalities on issues of countywide significance. *Linking Landscapes* includes a recommendation for each municipality describing how many acres of active recreation facilities will be needed by 2025. In other words, it estimates how much municipal parkland each municipality will need based on 2025 population projections. This estimate is not meant to invalidate local municipal park planning, but rather to provide one evaluation method that can be used to compare open space protection efforts in all of the County’s 73 municipalities. In total, *Linking Landscapes* recommends that the acreage of municipal recreational parkland throughout the County should increase by approximately 2,900 acres by 2025.

Better Defining “Open Space” in Municipal Planning Documents

Linking Landscapes includes a number of recommendations that are somewhat new to open space planning. For example, the Plan recommends reducing user conflicts by using more specific language to describe open spaces in planning and zoning documents. These user conflicts arise when one group, such as a sports team, wishes to practice on a publicly owned “open space,” while another group, such as naturalists, wish for that same “open space” to be protected from the trampling of vegetation inherent in team sports. If the intended uses of public open space properties are clearly documented in municipal plans or ordinances, such conflicts can be resolved.

The terminology regarding open space recommended in *Linking Landscapes* is:



Separating Wildlife Corridors from Recreational Trails

Linking Landscapes also recommends establishing wildlife corridors that are separate from recreational trail corridors, since active human recreational activity in wildlife corridors can have negative impacts on animal species these corridors are intended to protect. County funded wildlife corridors will still require public access, but for only quiet low-energy passive activities. The Chester County Parks and Recreation Department has already used this approach in their grant programs. The Department administers a "Greenways Grant" program, which primarily funds wildlife corridors. The Department also administers a separate "Trails Grant" program that awards funds for recreational trails. By offering these grant programs, municipalities have two alternative options for protecting linear open spaces.

Increasing Protected Open Space on Private Property

Linking Landscapes also recommends the continued protection of private lands through conservation easements administered by private land trusts, or agricultural conservation easements administered through the joint state and County program. The protection of open space on private property is cost effective since private properties are managed by the landowner, instead of being managed by government funded programs. Most protected open space on private property is not open to the public, and County government respects the rights of private landowners to limit access to their property. In the past, concerns about landowner rights and public access were not always addressed in open space planning, but it is now regarded as a key issue. Such issues must be addressed, because without the cooperation of private landowners that sell or donate their development rights, a functioning protected open space network cannot be established in Chester County.

Locally-Based Non-Profit Land Trust are Expected to Increase

Linking Landscapes also evaluates open space preservation efforts of non-profit land trusts, such as the Brandywine Conservancy or the French and Pickering Creeks Conservation Trust among others. The Plan recommends that the Planning Commission conduct an annual inventory of protected open space, including privately held land that is eased by land trusts. It also recommends that land trusts pursue protecting land on small parcels including homeowner association open spaces and open areas of already developed properties. *Linking Landscapes* recommends that there be an increase in “Local Land Trusts,” which are small-scale private non-profit organizations that acquire conservation easements within only one municipality. Within the last ten years, six such organizations have formed through grass roots efforts. These small trusts work to compliment the efforts of the larger land trusts, and provide an opportunity for local communities to become involved in, quite literally, protecting their own back yards.

The Need to Significantly Increase Protected Farmland

Linking Landscapes recommends a major increase in the acreage of farmlands protected by joint state and County funded agricultural conservation easements, perhaps even doubling the annual acreage protected. Such an increase is needed because so much of the currently unprotected open space in Chester County is productive farmland. By protecting this farmland, Chester County will not only enhance the economic viability of rural communities, but also protect the soils of Chester County, which are some of the most productive in world and are a nationally significant, although unseen natural resource. *Linking Landscapes* also recommends expanding the protection of agricultural lands in Chester County among plain sect farmers.

The 5,000-Acre Protected Open Space Benchmark
Perhaps the most innovative recommendation in *Linking Landscapes* is that 5,000 acres of Chester County should be rigorously protected as open space each year, either through conservation easements or in-fee acquisition. This benchmark can be used to track the progress that the County, the state, municipalities, land trusts and homebuilders have made to protect undeveloped land in Chester County. *Linking Landscapes* presents extensive background research that demonstrates that the benchmark is feasible and consistent with *Landscapes*. Over the past few decades, it is estimated that the County protected an average of 3,000 acres of open space each year, although as many as 8,000 acres annually have been protected in recent years. Based on research completed for *Linking Landscapes*, no other county government in the United States has set such a benchmark.

All Parts of the Community Will Play a Role in Protecting Open Space

In order to encourage the protection of open space by all sectors of Chester County's community, *Linking Landscapes* lists the organizations that are expected to play the greatest role in protecting the County's open spaces during the 21st Century:

- 1,700 acres protected each year by the Agricultural Lands Preservation Board using agricultural easements.
- 1,500 acres protected each year by municipalities and homebuilders as homeowner association open space.
- 1,500 acres protected each year by land trusts as resource conservation easements or in-fee acquisitions.
- 300 acres protected each year as federal, state, County and municipal governments as publicly owned recreational parks or non-recreational open space.

Because the 5,000-Acre Benchmark is easy to remember, it can also be used to publicize ongoing public and private efforts to protect open space in Chester County. Such publicity is essential in an effort like this, which requires widespread involvement from landowners, businesses, land trust and the general public.

The Long Term Impact of the 5,000-Acre Protected Open Space Benchmark

The 5,000-Acre Benchmark will not be a "report card" or an "indicator" but rather a tool that can be used to measure the amount of open space protected during one year, and also cumulatively over a number of years. Although the County may not protect 5,000 acre each year, it is hoped that over the long term an average of 5,000 acres will be protected. If the benchmark is consistently met, the County could approximately double the amount of its protected open space by the year 2015, however this can only occur if homeowners, land trusts, the farming community, government officials, developers, lending institutions, utilities, and the general public more aggressively pursue open space protection.

Protecting Half of the County's Remaining Open Space Could be Possible

The rate of development of land in Chester County is estimated to be 5,000 acres a year. If the 5,000-Acre Benchmark can be met, then it is possible that one acre of Chester County's existing open spaces could be protected for every acre that is developed. The result of this protection effort would be that 50 percent of the County's remaining open spaces would ultimately be protected from development forever. Of course, this is a best case scenario, but all of the research conducted for *Linking*

Landscapes suggests that it is possible if efforts to protect open spaces in Chester County are increased from an average of 3,000 acres to 5,000 acres protected each year.

Limiting Development of Naturally Sensitive Areas Improves the Quality of Open Spaces

Naturally Sensitive Areas include floodplains, wetlands, hydric soils and steep slopes, and they cover an estimated 16 percent of Chester County. It is essential to consider these natural features when planning for open spaces because they are commonly the very landscapes that are best suited for protection. An increasing number of Chester County municipalities are limiting development on Naturally Sensitive Areas through their zoning or subdivision ordinances. By limiting development in these areas – which are already unsuitable for most forms of development – municipalities help improve the environmental quality of the County, which will benefit the entire protected open space network. For this reason *Linking Landscapes* recommends that the County's 73 municipalities limit development in all Naturally Sensitive Areas.

The Recommended Protected Open Space Network 12-Year Program

Linking Landscapes was developed to be the foundation upon which further open space planning initiatives could be launched. *Linking Landscapes* therefore recommends the development of a Protected Open Space Network 12-Year Program, following an approach that is similar to PennDOT's 12-Year Program. Since protected open space is a form of public infrastructure, it is only appropriate that it should be expanded into a network using a coordinated programming effort, just like the programming that is used when planning roadways, sewage systems and other forms of public infrastructure. Chester County's Protected Open Space Network 12-Year Program will consist of documentation that will provide the status of existing or proposed open space projects funded by County government. This documentation will function as an implementation plan that will be updated every two years, and will project the status of ongoing and future projects into the next twelve years.

Updating *Living Landscapes* as a "Living Document"

Linking Landscapes was developed using computer mapping and desktop publishing technology. In fact, all but a very few of the maps presented in the document were generated using the County's Geographic Information System or GIS. The GIS maps can be updated at any time, which means that it will be possible for the County to update one chapter of *Linking Landscapes* at a time, making it a "living document." For example, **Chapter 4** *Linking Landscapes* will be updated after year 2025 municipal population projections that are based on the Year 2000 Census are completed.

As individual chapters are updated, they will be distributed to each municipality where they can be slipped into the three-ring binder that will hold the original document.

We've Only Just Begun

It has been over 300 years since William Penn initiated the large-scale settlement of Chester County's undeveloped lands. It has only been in the last few decades that there has been an organized, publicly funded effort to protect these open spaces. In many respects open space protection is still in its infancy, and all of Chester County, from its municipalities and its businesses, to its civic groups and its residents still have a great deal to learn. With *Linking Landscapes*, Chester County is building upon the efforts of those who pioneered open space preservation in the 20th Century so that future generations will be able to enjoy the same landscapes, wildlife and quality of life that drew Penn and his followers here so many years ago.

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Chapter 1



Introduction

The Open Space Network: A New Infrastructure

Linking Landscapes is Part of the County Comprehensive Plan

Linking Landscapes: A Plan for the Protected Open Space Network in Chester County, PA, is the Open Space Element of the Chester County Comprehensive Plan. *Linking Landscapes* has been written to help implement the objectives of *Landscapes: Managing Change in Chester County 1996-2020*, which is the Policy Element of the Chester County Comprehensive Plan.

Linking Landscapes has been developed to be a useful and practical document that focuses on three major areas. First, it presents a countywide inventory of open space features and a regional vision of what Chester County could be like if an open space network were established. It also presents a listing of actions that County government should initiate in order for the various County departments to coordinate their efforts to protect open space as directed by *Landscapes*. Lastly, *Linking Landscapes* provides general guidelines for municipalities who wish to pursue the protection of open space, either through their own initiatives or through partnerships with other entities. In the Commonwealth of Pennsylvania it is municipal governments that have the final authority regarding land use issues, and this authority cannot be superseded by County government. The general guidelines presented in *Linking Landscapes* should therefore be regarded as recommendations, not required actions.

Linking Landscapes recognizes the following three fundamental principles regarding open space:

- Open spaces provide quality of life, natural resource and economic benefits;
- Open spaces can only function properly if they are part of a regional network of protected open space and;
- Open spaces can only be effectively protected if they are recognized as a form of public infrastructure.

The Benefits of Open Space

Open spaces provide benefits to communities in three key areas. They improve the overall quality of life, they improve the ecology, and they provide tangible economic benefits. These benefits can be enjoyed by all types of communities, from inner cities and suburbs, to rural communities and heavily forested areas. Although larger protected open spaces

provide the most benefits, even small protected open space areas can provide valuable open space benefits.

■ Quality of Life Benefits The quality of life benefits of open space were first identified during the late 19th century, when communities all over America began establish public open areas, usually as a way to counteract the effects of industrial and residential development. Open space pioneers like Fredrick Law Olmstead proposed that public parks should be built within cities to promote the health and mental well being of urban dwellers. Similarly, early conservationists, such as President Theodore Roosevelt or Sierra Club founder John Muir, promoted the protection of unique or unspoiled natural landscapes for the preservation of wildlife.

Open spaces provide quality of life benefits that can never be fully described by any scientific model or sociological theory. Parks and sports fields provide safe outdoors recreation for children. Local neighborhood tot lots give small children and their parents the option of enjoying the outdoors without having to load the family into the car. Bike paths and hiking trails give young adults the opportunity to safely explore their neighborhood and observe wildlife species that are not found in more developed areas. And for senior citizens and people with limited mobility, nearby open spaces are sometimes the only places where they can enjoy the natural world. Open spaces can also form the focal point of a neighborhood, they promote exercise and they can provide opportunities for local volunteers to bring together their community at the grass roots level.

■ Ecological Benefits Open spaces also provide ecological benefits that improve the health of both human and wildlife communities. In protected open space areas, vegetation is allowed to grow and flourish, supporting a wide variety of animal species that simply cannot survive in more developed areas. Vegetation growing in open space buffers around stream banks and wetlands purifies surface water, decreases the speed of storm water run off and reduces soil erosion and flooding downstream. The trees that grow in woodlands increase air quality, improve groundwater recharge and help hold steep slopes from collapsing. Street trees in urban settings and parking lots are also ecologically valuable. Their shade reduces ambient temperature of pavement and creates windbreaks that reduce dust particles in the air. Even the native grasses and wildflowers in open fields that most people would call weeds, are extremely valuable. These meadows can serve as a source of food and habitat for wildlife, just as long as they are allowed to grow to seed without being subjected to lawn mowers or weed killers.

For many of the animals of Chester County, open space protection does not simply improve the quality of life; it makes life possible. When William Penn's followers first settled Chester County some 300 years ago, they began a process that ultimately converted the majority of its original forests, meadows and wetlands into agricultural fields and manicured residential lawns dominated by domesticated plant species. Through this process they reduced or eliminated large expanses of native wildlife habitat. In recent

years, more and more agricultural lands have been converted to housing developments, exerting tremendous stresses on animals that avoid contact with humans. As this development increases, protected farmland and open spaces can be expected to serve as the only refuge for wildlife in our County.

■ Economic Benefits Through most of our nation's history, communities protected open spaces in order to improve the quality of life of an urban area, or to protect a unique natural feature or historic site. However, over the last few decades, studies have shown that protecting open spaces can provide measurable economic benefits to the communities that establish them. *Figure 1.1* lists a number of examples where open spaces have been found to have measurable economic benefits. These examples are not theoretical models but actual case studies of real communities that realized tangible benefits. Although there is no guarantee that developing an open space area will improve property values and retail sales, the findings presented in *Figure 1.1* provide convincing evidence that people are willing to spend time and money to live, work and relax in open space. The lesson to be learned from these studies is that any municipality that does not provide sufficient open space, risks losing residents and employers to one that does.

Certainly Chester County is a prime example of a community which has benefited economically by the fact that it still possess open spaces. Over the past few decades, major employers such as the Vanguard Group, Shared Medical Systems and QVC have moved into Chester County. These information-based industries could have moved into any community. They chose to come to Chester County because they wanted to attract good employees, and the way to attract good employees is to offer them an opportunity to live in a community with a high quality of life. Chester County provides the quality of life that employers seek, especially in this era of the Internet, where many companies are free to set up business anywhere there is a telephone line. The reason Chester County has such a high quality of life is due to a variety of reasons, but one of the most important is our farms, forests, parks and our tree lined streets. There is a direct connection that intertwines a healthy natural environment, a livable community and a strong economy, and all of these can be lost if we fail to protect our open spaces.

Reducing Open Space Isolation by Establishing an Open Space Network

People have been drawn to the landscapes of Chester County for over three centuries, and that trend is expected to continue. As the population of Chester County has grown, more and more of its open landscapes have been converted to residential, commercial and other types of development. In response to this growth, municipalities, private organizations and state and County governments have established areas of protected open space such as parks, protected farmlands and nature preserves. Unfortunately,

Figure 1.1: The Economic Benefits of Open Space

In Maryland, land use restrictions designed to protect the Chesapeake Bay resulted in a 14 to 27 percent increase in housing prices within 1,000 feet of protected waterways, and a 4 to 11 percent increase for houses up to three miles away.*

In the Charles River Basin in Massachusetts, properties abutting wetlands were found to be worth \$400 more than non-abutting properties, and each acre of wetland added \$150 in value to adjacent properties.*

In Massachusetts, the COE and a number of local governments acquired \$10 million worth of wetlands to serve as natural storage for floodwaters. It was estimated that the cost of constructing dams and levees to obtain the same results would have been \$100 million.*

In 1985 the American Forestry Council calculated that the average 50-year old urban tree provides \$73 in air conditioning, \$75 in soil erosion and sediment control, and \$50 in air pollution control.*

The US Department of the Interior estimated that in 1991, Americans spent \$24 billion on hunting, \$24 billion on fishing and \$18 billion on non-consumptive wildlife activities such as bird watching.*

A study in 1993 found that active birders spend between \$1,500 and \$3,400 on birding each year, most of which is spent on travel.*

A study in 1995 found that the 53,000 birders visiting Pennsylvania Hawk Mountain Sanctuary were estimated to contribute \$2.4 million to the local economy each year.*

In Boulder, Colorado, studies found that properties adjacent to linear open space areas such as trails and stream corridors were worth 32 percent more than those 3,200 walking feet away.*

In Salem, Oregon land adjacent to a greenbelt was found to be worth about \$1,200 an acre more than land only 1,000 feet away.**

In Dayton, Ohio five percent of the selling price of homes near the Cox Arboretum and Park was attributable to the proximity of that open space.**

In Front Royal, Virginia a developer who donated a 50-foot wide, seven-mile long easement along a popular trail sold all 50 parcels bordering the trail in only four months.**

A 1996 Survey by the US Fish and Wildlife Service found that, within Pennsylvania, the annual expenditures on fishing was \$649,764,000, on hunting was \$691,546,000, and on wildlife watching was \$858,354,000.***

Sources: *Fauswold, C. J. and Lilieholm, R. J. 1996. *The Economic Value of Open Space*. Lincoln Institute of Land Policy Research Paper; **Ives, S. Ed, 1999. *The Economic Benefits of Open Space*, The Trust for Public Lands; ***US Fish and Wildlife Service, 1998. *1996 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation*.

too many of these protected lands are isolated parcels surrounded by land that is either developed, or has the potential to be developed.

■ **Open Space Isolation** Open space isolation is a major concern in Chester County, because open spaces that are isolated cannot function properly. For example, an open space that is designated as wildlife preserve is supposed to promote the health and well being of the plants and animals that live within it. But if a nature preserve that is protected from all future development is then surrounded by development, the animals will become isolated and unable to move outside of their preserve. Such isolation promotes inbreeding, and if a drought or disease should strike, the animals will have no place to flee. For this reason it is necessary for open spaces that promote wildlife to be linked together. Without such links open spaces cannot function properly.

Open spaces set aside for human recreation also suffer if they are isolated. Parks and playground that are isolated are more difficult to reach and are less likely to be used. For example, a playground that can only be reached by automobile is less likely to be used during working hours, because during working hours parents are likely to be at work and thus unable to drive their children to these facilities. However, a playground that can be reached by a walking path that connects it to a residential community is more likely to attract children, the elderly or young parents with baby strollers, who can visit the facility all through the day. A playground that is used throughout the day is a more efficient use of public funding. It is also less likely to be vandalized or used for other criminal activity. Linking recreational open spaces through pedestrian trails can therefore improve the safety, quality and cost effectiveness of public parks.

■ **The Benefits of an Open Space Network** The key to reducing open space isolation is to link open spaces into an integrated regional network. In an open space network, protected open spaces such as parks and playgrounds are linked together by recreational trails for bicyclists, pedestrians and other non-motorized transport. Linking recreational open space facilities increases the recreation potential of each individual open space facility. For example, extending a bike path through an historic district could bring fitness enthusiasts into an area that might only have been visited by history buffs. Conversely, people who visit the historic district might be inspired to use the trail, which they would never have seen had it not been linked with a historic resource. Ideally, an open space network will link together all parts of Chester County, allowing its young and old residents to hike or bicycle from one end of the County to the other, through an unbroken network of trails.

An open space network also includes nature preserves and wilderness areas linked together by wildlife corridors. These corridors allow animal populations to roam as they do under natural conditions. Reducing isolation in wildlife populations decreased inbreeding and reduces the possibility of epidemic diseases. Of course, wildlife is not restricted only to wildlife corridors. At night, some forms of wildlife also use most trails used

by people during the day. As a result, an open space network serves two functions simultaneously. It provides for human recreation, and nocturnal wildlife migration. It is important to remember however, that some wildlife corridors are specifically established for species that avoid human contact and as a result human activity must be limited along these corridors.

An open space network establishes links between resources, in much the same way that the Internet links the resources of each computer that is part of its system. Each property within an open space network is established and managed independently, just as each Internet user is responsible for maintaining his or her computer. And once an improvement is made to one open space property, this improvement will add to the value the network as a whole. Of course, linking every single open space in Chester County will probably never occur, but by reaching for this goal the citizens of Chester County can still achieve an improved quality of life, a healthier environment and a stronger economy.

■ Examples of Open Space Networks Large-scale open space networks are not commonplace, but they have been successfully implemented in various locations through the United States. Cuyahoga County Ohio established a network of open spaces called “Cleveland MetroParks” that linked natural areas and recreation facilities within the City of Cleveland to those in its surrounding suburbs. In 1992, the Metro Council, an elected board representing three counties and 24 cities in the Portland Oregon area, adopted the *Metropolitan Greenspace Master Plan* that proposed connecting greenways, riparian corridors and trails. In 1997 the Mid-Peninsula Regional Open Space District south of San Francisco California conducted a *Regional Open Space Study* that proposed a future greenbelt of trails and natural areas throughout a district that covers much of two adjacent counties. This study is important to Chester County because it illustrates that it is possible to establish an open space network for a large area – like Chester County – which has a wide variety of land uses and a large population, but no major cities.

The Commonwealth of Pennsylvania is also promoting the notion that regional open space networks can be beneficial. The Pennsylvania Greenways Partnership Commission, composed of representatives from the Pennsylvania Department of Conservation and Natural Resources (DCNR), the Pennsylvania Environmental Council and other public and private organizations, published a document entitled *Pennsylvania Greenways: An Action Plan for Creating Connections* in June 2001. The *Action Plan* promotes the development of an integrated local, regional and statewide network of open space greenways, including a variety of undeveloped landscapes. This document emphasizes the need to plan open space infrastructure through municipal and regional planning.

Open Space is a Form of Public Infrastructure

In *Landscapes*, the Policy Element of the Chester County Comprehensive Plan adopted by the County Commissioners in 1996, there is a vision statement that directs the County to, “preserve and enhance the unique character of Chester County landscapes by concentrating growth in the most appropriate areas.” Based on this vision statement, it is clear that, in order for the County to protect its existing open space, it will be absolutely necessary to cluster new development on those parcels of land that are not protected as open space. In other words, the protection of open space and low-density development can not both be accommodated in the County.

■ **Development Practices can be Changed** This vision statement requires that Chester County shift the development patterns that have dominated the County’s landscapes for decades. Currently, the most common pattern of new development in the County consists of large multi-acre developments that surround islands of isolated open spaces. In order to realize the *Landscapes* vision, this pattern must change so that it is the developments that are isolated and surrounded by open space. The practical implementation of this vision will require the establishment of an interconnected network of protected open space that extends throughout the County. Changing the pattern of development throughout Chester County’s 485,848 acres is a task of enormous scale, however such large-scale changes have occurred in the County in the past.

Throughout the 19th century, most people in Chester County, like most other Americans, lived without public sewers or water service. The lack of public utilities was not a major concern until the Victorian Era when towns and cities expanded, and overflowing cesspools and unsafe drinking water began to threaten the public health and quality of life. Plugging individual wells or fixing malfunctioning cesspools initially solved these problems, but these were only short-term solutions. Eventually elected officials realized that the only way to thoroughly resolve all these problems was to establish an inter-linked network of public sewer lines and another that provided drinking water. This network spread throughout Chester County and it became the public infrastructure that is still with us today.

Our grandparent’s generation discovered that clean water and properly managed sewage were a key to maintaining their quality of life, ecology and economy. They also knew that sewer and water facilities could only function properly if they were part of a network, and that this network would only be established if it was recognized as a form of public infrastructure. Today, we in Chester County know that open spaces provide quality of life, ecological and economic benefits, and we know that in order for these benefits to be realized open spaces must be part of a network. If we are to establish a protected open space network as envisioned in *Landscapes*, we must regard protected open space as a form of public infrastructure, as important as sewer lines or public drinking water facilities.

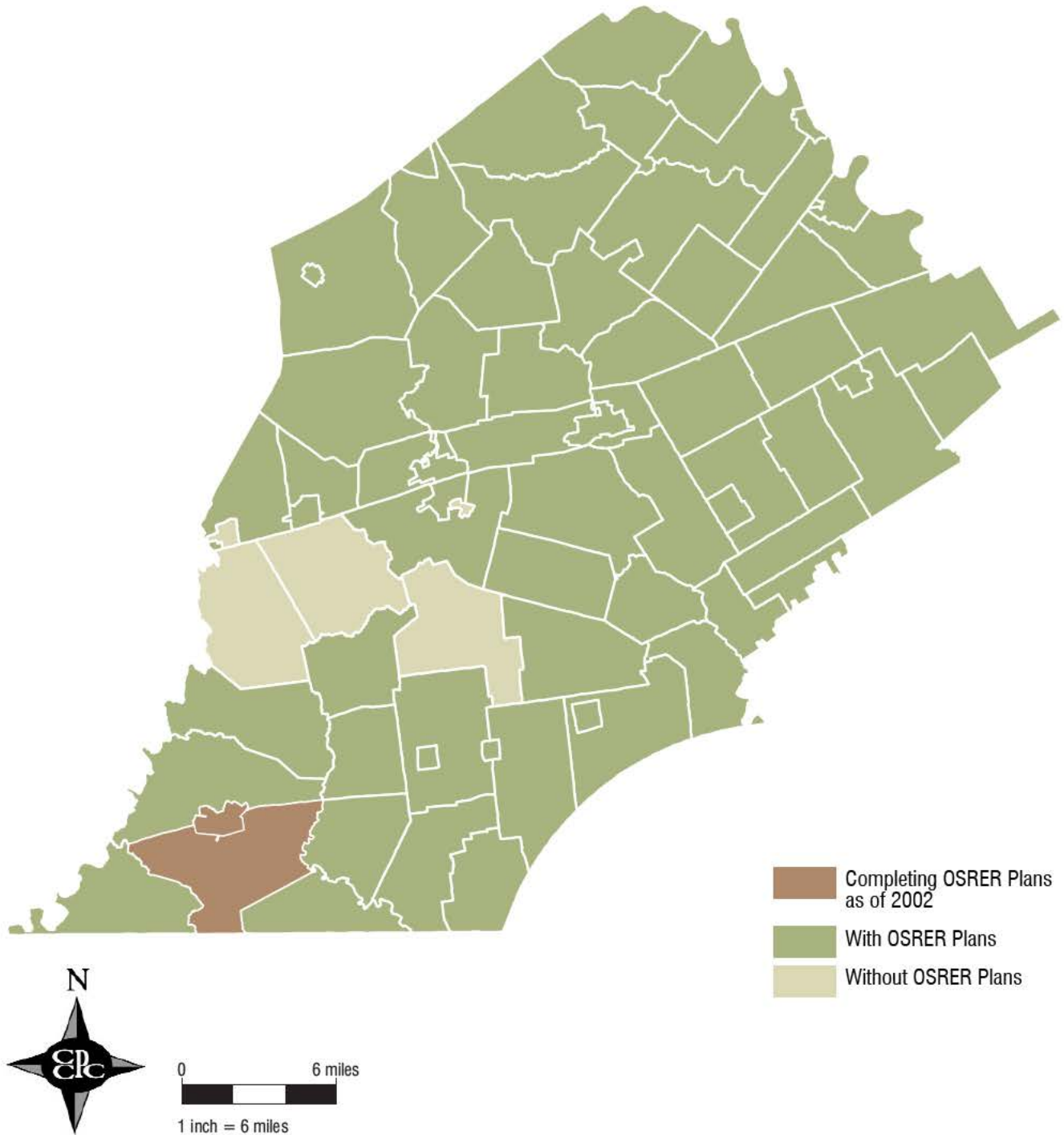
■ **Viewing Protected Open Space as Public Infrastructure** For most people the term “public infrastructure” conjures up images of electric high-tension lines, sewage treatment plants, or other steel and concrete structures associated with a utility. “Infrastructure” is not a word people often associate with protecting open spaces, but it is quite appropriate. Unlike a utility infrastructure, a protected open space network does not include pipes or buildings. Instead it is composed of meadows, forests, parklands and protected farm fields each of which provides benefits to the community as a whole. The public infrastructure of a protected open space network is not a collection of static man made structures, but instead a cluster of naturally occurring structures that are constantly changing, like trees, wetlands and soils.

Although a protected open space network is a public infrastructure, it is not a huge public works project like a power plant that is designed and constructed by one government agency. Rather such a network is built up incrementally over time by a variety of independent groups all working with a common goal. Parts of the network, like large parks and wildlife preserves, are best established by federal or state agencies. The County might establish other elements such as County parks and trails. Municipalities can establish recreational parks and local trails, or non-recreational natural resource preserves. Schools, local conservation groups or neighborhood associations can implement smaller projects. Even corporations can get involved by creating and managing trails or wildlife corridors in corporate campuses that link into other nearby facilities.

■ **Municipal Open Space Networks** Municipalities play a major role in creating links in a countywide protected open space network, and in fact many municipalities have already begun to establish such a public infrastructure at a municipal level. Most of Chester County’s municipalities have already completed municipal open space plans called Open Space, Recreation, and Environmental Resource (OSRER) Plans. As *Figure 1.2* shows, 66 of the County’s 73 municipalities have completed these plans, and two more were being completed as of winter 2002. These OSRER Plans present an inventory of natural and historic resources, and include maps depicting natural resource corridors that warrant special protection. It is these natural resource corridors that can provide the foundation for a protected open space network within a municipality.

In many parts of Chester County, parts of a countywide protected open space network have already been established. The effort to complete this network throughout the County must be a cooperative effort involving municipalities, County government, the development community, utility providers, private organizations and individual residents. The establishment of a protected open space network will not be one great project with a detailed blueprint and a scheduled completion date. Instead it will be an ongoing process that will never really end. The goal of creating this network is therefore not to construct one gigantic countywide project, but rather to make a commitment to land stewardship. We cannot simply

Figure 1.2: Municipalities with Open Space, Recreation and Environmental Resource (OSRER) Plans



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Source: CCPC, February 2002.

create open space and walk away content that our job is done. We must remember that when it comes to protecting the landscapes on which we live, the job is never finished.

What is Open Space?

There is No Standard Definition for “Open Space”

Almost anyone who reads the newspaper or watches the nightly news knows that communities throughout the United States have begun to take an interest in protecting open space. Over the last few decades the term “open space” has become a topic of conversation from corporate boardrooms and municipal hearings, to kitchen tables and corner coffee shops. However, if you ask a cross section of the general public to define “open space,” you are likely to get a variety of answers. For some people, a farm is “open space,” but others might say that it is a business. Some might say that a sports field is “open space,” while others say “open space” must be set aside for wildlife only.

■ **Terms Used by Open Space Planners** There is, in fact, no one set definition for open space, and even professional planners cannot agree on what it is. Because open space planning is still a relatively young field, the planning community has not yet developed consistent definitions for many of the terms used in open space planning. As a result, every planning project that deals with open space must provide its own definition. In *Linking Landscapes*, the term “open space” is defined very broadly as any land that is not covered by buildings or pavement. This definition covers all forms of open space from a multi-acre state game land to a ten-foot wide public walking path around the edge of an industrial park.

Currently, professional planners use a variety of terms to describe different types of open space. Planners often described open space as “active open space” when it refers to recreation areas like playgrounds or sports fields, or “passive open space” when it refers to land set aside for natural conservation or wildlife preserves. The term “public open space” is commonly used to describe landscapes owned by a government agency, while “private open space” denotes private property, which is undeveloped but is not available for public use. The term “quasi-public space” has also been used when discussing properties like, school campuses, golf courses or nature centers, which do not fit nicely into either of the other categories.

■ **Farm Fields and Open Space** There is also a wide range of opinions regarding how agriculture relates to open space. One school of thought says that farms should be classified as open space because they do not possess structures and thus are undeveloped. The opposing viewpoint

is that farms are businesses and that plowing the land or preparing it for livestock is a form of industrial development that creates an unnatural man-made environment. Both arguments raise valid points and each municipality or regional organization involved in open space planning must determine how farm fields should be viewed. This issue is further complicated by the fact that most people perceive cropland and grazing land to be open space, regardless of how farms are described in planning documents.

For the purposes of *Linking Landscapes*, farm fields are regarded as “open space.” Although farms are businesses that create an environment that is not found in nature, they possess many of the same qualities of naturalized open space. Like parks, they provide view sheds and quiet environments. Farm fields are not paved, they are not covered with buildings and they are uninhabited by humans at most times, making them suitable habitat for some forms of wildlife. Furthermore farms also do not usually generate sewage and traffic like residential or conventional industrial developments, nor do they require extensive public water service. In this respect farms are like open spaces, because they do not require publicly funded infrastructure, such as the public sewer and water lines. They also do not require the kind of extensive roadway network that residential or industrial developments commonly require.

Linking Landscapes regards farms as being more like natural open spaces than man-made developments, and so for the purposes of this document, farms are regarded as open space. The open space benefits that farms provide are valuable, and although farms may not provide all of the open space benefits of pristine natural lands, they still provide many more open space benefits than developed land. Like forests and wild meadows, farms are consumed by development, and when that happens, a wide variety of open space benefits is lost forever. Simply put, *Linking Landscapes* classifies farmlands and undeveloped natural lands as open space because they both provide similar open space benefits, and can both be eliminated as a result of highly land-consumptive development.

Although *Linking Landscapes* views farms as being open space, it also recognizes their historic and cultural values, and their importance as the very infrastructure of the County’s agricultural industry. For much of the County’s 300-year history, agriculture was the single greatest component of the County’s economy. Over the last few decades, service and other industries have taken a strong foothold in Chester County, but agriculture still remains a key component. In a sense, agriculture can be regarded as the “anchor” industry in the County. Over the decades, other industries may come and go, but farming has the potential to continue forever, because its foundation is the highly productive soils of Chester County, which can be cultivated in-perpetuity as long as they are maintained. No other industry has such a potential for permanence. The agriculture industry lays the foundation for rural communities and provides a living link to the County’s past. It cannot be denied that farms are businesses

and that agriculture is an industry, but is also clear that when they are properly managed and protected, they can also provide open space benefits that other commercial and even residential land uses cannot.

■ **Protected Versus Unprotected Open Space** The loosely defined terminology used by planners and the general public to describe open space can be confusing. Such inconsistent terminology can also cause problems, such as when two municipalities wish to conduct a joint planning effort but each has a slightly different definition for what constitutes open space, parks, trails or active recreation. The lack of any standard can also make it difficult for the County and municipal officials to coordinate their planning efforts. For this reason, *Linking Landscapes* clearly defines open space using one of the following two terms:

- Protected Open Space
- Unprotected Open Space

These terms are described in detail in the following sections. Each of these terms classifies open space based on how it is protected from future development. When planning for the future of Chester County it is important to know about the physical qualities and ownership of an open space parcel, but what is most important is to know if that parcel is protected from future development. This is the reason why *Linking Landscapes* focuses so heavily on the amount and type of protection that the County's open spaces currently have or possibly could have. If Chester County is to establish an open space network in the 21st Century we must know which open spaces are guaranteed to remain free from development, and which ones are not.

Protected Open Space

The majority of the data currently available suggests that in an average year, between 4,000 and 5,000 acres of open land are developed in Chester County. According to the 1982 and 1992 Census of Agriculture, Chester County lost over 4,300 acres of farmland every year from 1982 to 1992. In 2001 the Chester County Planning Commission conducted an evaluation of land uses in Chester County using historical records from the 1960s, and current records from the Tax Assessors Office which describe the type of land use found on each parcel in the County. This analysis found that, on average between 3,400 and 4,600 acres were developed each year between 1960 and 2000. Although there are many techniques that can be used to measure development, it is nonetheless clear that open space is rapidly disappearing in Chester County.

Fortunately, Chester County will never be completely covered with development because some open space properties have already been protected from future development. In *Linking Landscapes*, these undeveloped properties are called "Protected Open Spaces." As of July 2001, the Chester County Planning Commission estimated that approximately 15.5 percent

of the County was protected open space, as shown in *Figure 1.3*. (The inventory used to develop this map is discussed in detail in *Chapter 19*.)

For the purposes of *Linking Landscapes*, protected open space is defined as: “Land and water areas that have little or no development; are used for recreation or preserving cultural or natural resources, including productive agricultural soils; and are protected from development either permanently or on a long term basis.”

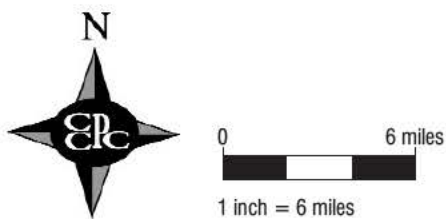
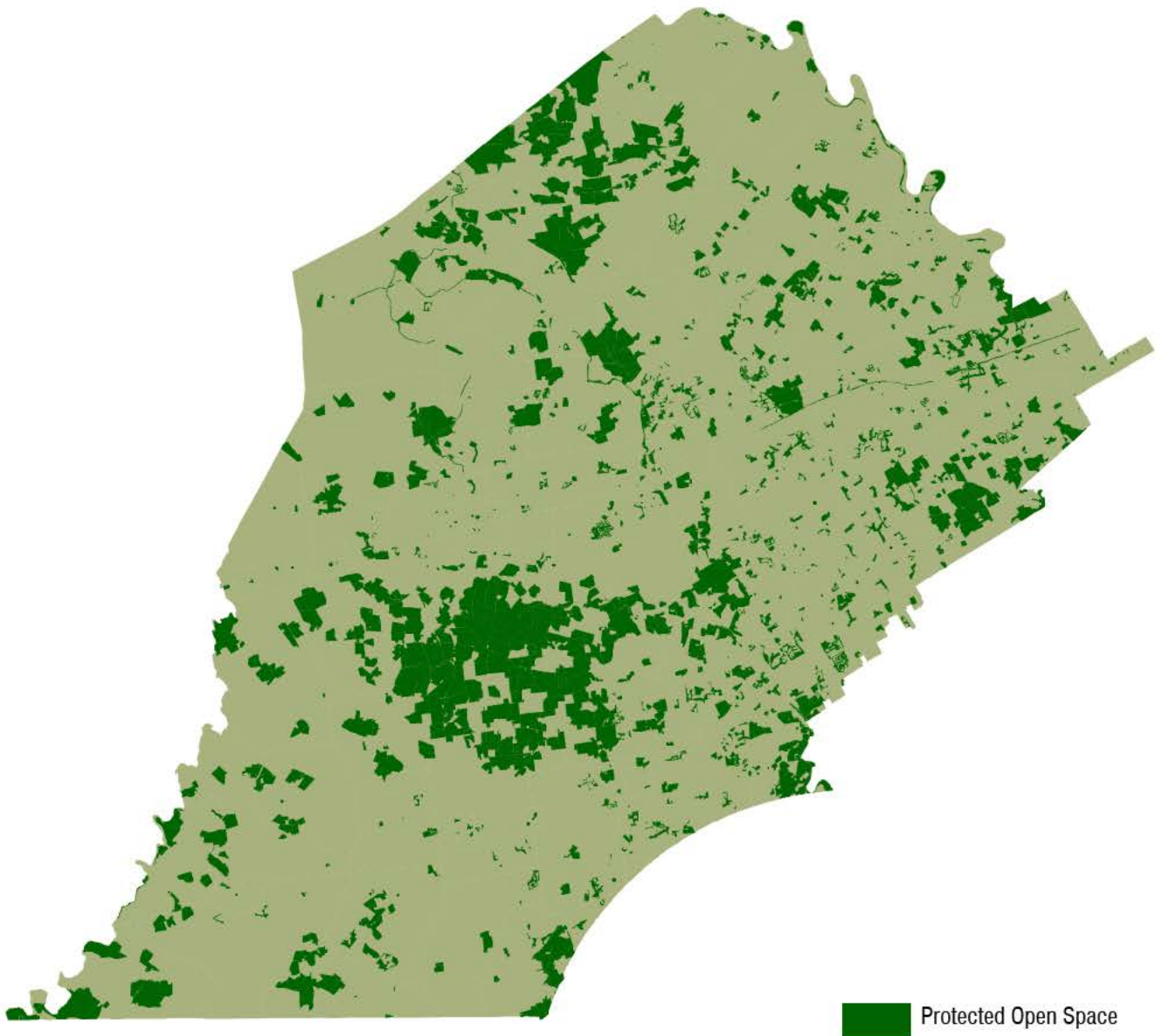
Protected open spaces include a number of different kinds of open spaces each with different uses and owners. What they have in common is that they are all rigorously protected from development. In order for a parcel to be rigorously protected, there must be some kind of formal agreement, like a conservation easement, which will ensure that the property is protected even after it is sold by its current owner. Publicly owned properties, that are largely undeveloped, are also regarded as protected open space. Although it is technically possible for a publicly owned park or open space to be sold, it is highly impractical. In general, the public opposes any effort to reduce existing publicly owned open space.

Under the *Linking Landscapes* definition, protected open space includes:

- Parcels that are owned by a private non-profit land trust, such as the Brandywine Conservancy the French and Pickering Creeks Conservation Trust or the Pennsbury Land Trust. This property is acquired by a land trust specifically to fulfill its mission of preserving open space in perpetuity.
- Parcels that are owned by private individuals who have either donated or sold their development rights to a land trust in the form of a conservation easement.
- Parcels owned by farmers who sold the development rights for their land to the Agricultural Conservation Easement Program administered by the state and the County.
- Parcels owned by a homeowner’s association that are designated as open spaces. These parcels are not likely to be developed and will be managed by one entity regardless of who moves into or out of the development.
- Parcels that are owned by federal, state, County and municipal governments and are largely undeveloped, including parks, playgrounds, public gardens, historic sites, non-recreational public open spaces, natural preserves, public golf courses, and public boat ramps.

Unprotected Open Space

The above referenced land use evaluation conducted by the Chester County Planning Commission using information provided by the Tax Assessment Office estimated that 35 to 45 percent, or roughly 40 percent of Chester County’s land was developed into residential, commercial or

Figure 1.3: Protected Open Space in Chester County

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Source: CCPC, May 2001.

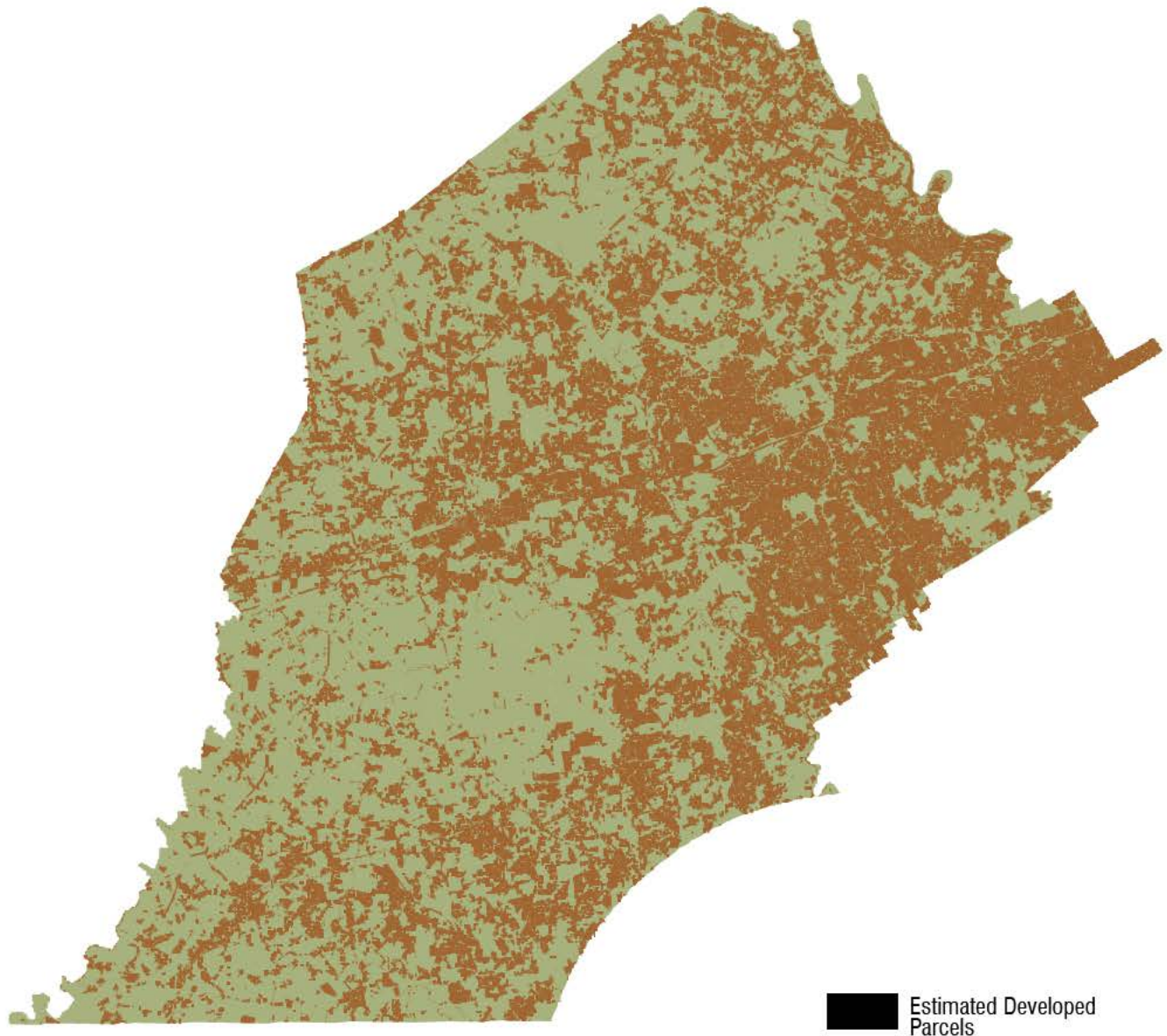
other built uses as of 2001. The mapping generated by this evaluation is presented in **Figure 1.4**. This map was generated by mapping all of the tax parcels in Chester County, and then subtracting those parcels that are, or have a reasonable potential to become, protected open space. These subtracted parcels included those that were:

- Protected open spaces, as presented in **Figure 1.3**.
- Designated by the County Tax Assessment Office as “Open Space” or “Farm.”
- Designated by the County Tax Assessment Office as “residential” and were over 25 acres.

The “developed parcels” presented on **Figure 1.4**, consist of houses, apartments, offices, stores and other civic and industrial buildings, and the associated structures, parking lots, sidewalks, lawns, grounds or curtilage that surround these buildings. Within these developed parcels there are many areas of open space, such as back yards, steep slopes and floodplains. Therefore, **Figure 4.1** should not be interpreted to imply that roughly 40 percent of Chester County is covered with a solid blanket of structures and pavement.

Figure 1.4 presents only an estimate of developed parcels. It does not include roadways or some types of development found on tax exempt properties, and so the actual acreage of developed parcels in the County may vary from the approximately 40 percent presented in **Figure 1.4**. This map may also be different from “Chester County development” maps that have been generated for documents other than *Linking Landscapes*. This difference is largely due to that fact that there is no single definition for “development” in common use, or in the legal or planning professions. As a result, different maps of Chester County’s development may vary based on the criteria used to generate the maps. Nonetheless, **Figure 1.4** suggests that approximately 60 percent of the County is currently undeveloped land, much of which still has the potential to either be protected as open space, or developed.

It would be appropriate to describe all of the County’s undeveloped land as “open space,” however not all of this property is protected from development. As stated previously, the Chester County Planning Commission estimated that 15.5 percent of Chester County could be classified as protected open space, as shown in **Figure 1.3**. It is therefore reasonable to assume that about three fourths of the open space in the County, is currently not protected from development. In other words, most of the open space in the County could be developed at a future date if permitted by municipal zoning. These undeveloped open parcels that have the potential for future development are “unprotected open space.”

Figure 1.4: Estimated Developed Parcels as of 2001

0 6 miles
1 inch = 6 miles

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Source: CCPC, July 2001.

Under the *Linking Landscapes* definition, unprotected open space includes:

- Open parcels or open areas within developed parcels that are privately owned, but for which there are no conservation easements. These unprotected open spaces include parcels that are undeveloped agricultural fields, meadows, swamps and woodlands, or the open areas within golf courses, campground, gardens, hospitals, conference centers, private recreation centers and other largely undeveloped privately owned properties that are not eased to limit future development.
- Farm fields owned by farmers who own all of the development rights for their land.
- Lawns or open vegetated areas that are not used for recreation, which surround government office buildings, parking lots, garages or other structures constructed on property owned by federal, state, County and municipal governments.
- All property that is owned by public schools, but for which there is no conservation easement, including vacant lots, playgrounds, sports fields and open lawns surrounding buildings. Public school parcels are commonly sold and redeveloped when schools are closed.
- Open parcels or open areas within developed parcels that are owned by governments but are used for purposes other than open space protection including campuses of publicly funded colleges or universities, fairgrounds, prisons, airports and other public properties.

In any open space planning effort, it is important to distinguish between protected and unprotected open space. It is an unfortunate reality that many residents of Chester County assume that most of the existing open space properties in the County are protected from development, but that is usually not the case. Too often local residents assume that an old farm or a wooded estate is somehow protected from development, and then are shocked when the parcel is sold and converted to residential or commercial units. Available information suggests that it would be wiser to assume that any undeveloped property in Chester County is in fact unprotected.

Many landowners do not wish to develop their property, and they may even openly state in public that neither they nor their heirs have any intention of developing the property. Unfortunately, a simple promise does not provide the kind of thorough guarantee that an open space parcel needs to be protected in perpetuity. An open space parcel must have a formally recorded and legally binding conservation easement in order to be rigorously protected. A promise should not be regarded as rigorous protection even if it is written down.

Similarly, some landowners have added restrictions to their deeds, compelling all future owners to refrain from developing the land. Properties with deed restrictions are not always rigorously protected from

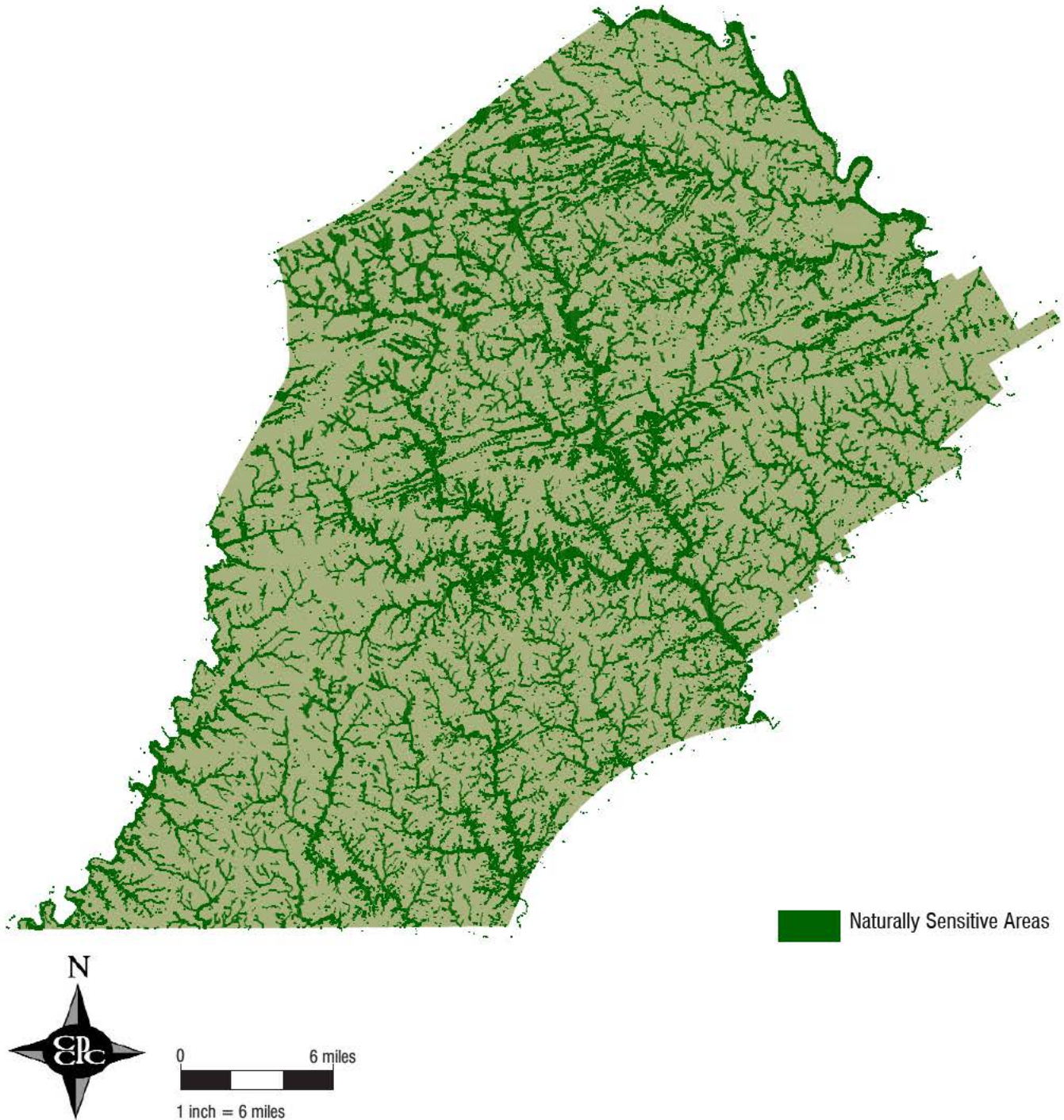
development. Unfortunately, deed restrictions are sometimes violated or simply forgotten by new landowners, and unless there is some party present to enforce the deed restriction established by the previous landowner, the violation will go unnoticed. Although some deed restrictions are stronger than others, the fact remains that deed restrictions do not provide the kind of rigorous protection that is present when a landowner donates or sells a conservation easement. (Conservation easements are discussed in more detail in *Chapter 6: Open Space Protected by Non-profit Land Trusts* and *Chapter 9: Protected Farmlands*.)

Naturally Sensitive Areas and Municipal Ordinances

Naturally Sensitive Areas

Under ideal conditions, a network of protected open space should consist of large clusters of interconnected protected open space parcels linked together by long corridors, also consisting of protected open space parcels. The pattern that ultimately forms resembles the spokes of a wheel which radiate out from an axis, which the State of Maryland's Greenprint Program refers to as "Green Hubs and Green Links." Under the "Hub and Link" approach, the links may follow along public trails, but in most circumstances they follow natural linear features such as steep sloped ridgelines and valleys, or stream corridors containing waterways, floodplains, hydric soils and wetlands. Each of these natural features is discussed in detail in *Chapter 3*.

A growing number of municipalities in Chester County, and the nation as a whole, are using their municipal zoning and subdivision ordinances to limit development of naturally occurring features such as steep slopes, waterways, floodplains, hydric soils and wetlands, which are unsuitable or inappropriate for most forms of development. These areas are sometime known as sensitive environmental features or environmentally constrained lands, but in planning nomenclature they are referred to as "Naturally Sensitive Areas." *Figure 1.5* shows where these Naturally Sensitive Areas or "NSAs," occur within Chester County. This map includes lakes, ponds, streams, 100-year floodplains, wetlands, hydric soils and steep slopes over 25 percent grade. Based on this mapping, approximately 16.5 percent of the County is covered by NSAs.

Figure 1.5: Naturally Sensitive Areas

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Source: CCPC, May 2001.

Zoning and Subdivision Ordinances

Municipalities can limit or forbid development on NSAs through either zoning or subdivision and land development ordinances, or a combination of the two, since certain natural features are best maintained by one or the other type of ordinance. Zoning ordinances provide guidelines for all existing or future development while subdivision and land development ordinances deal with the subdivision of parcels and the construction of new development. A municipality that intends to include provisions for NSAs in its ordinance should address a number of features including:

- 100-year floodplains
- Steep slopes
- Wetlands
- Water bodies
- Woodlands
- Significant trees
- Hedgerows

Most of the municipalities in Chester County include language in their zoning or subdivision and land development ordinances that focuses on maintaining some form of NSA in an undeveloped state. Currently, the Federal Emergency Management Agency will only provide flood insurance to property owners in municipalities that have restricted construction on 100-year floodplains in their municipal ordinances. As a result, every municipality in the County now limits development on 100-year floodplains, except Honey Brook and West Grove Boroughs, which have no floodplains. More information on using municipal ordinances to protect natural resources can be found in Section 3.2 of the *Community Planning Handbook*, commonly called the “Toolbox,” published by the Chester County Planning Commission in 1997.

Aside from floodplains, each municipality deals with NSAs in a unique way, and many municipalities define natural features within a NSA differently. For example, in one municipality a “steep slope” may be a slope exceeding 25 percent, while in another it may be 15 percent or more. Furthermore, the amount of a natural resource—like a wetland or a floodplain—that is allowed to be disturbed by development also varies from one municipality to the next. Some ordinances provide in-depth details on how much of a NSA can be disturbed while others are less specific. Regardless of the level of detail, all NSA ordinances should clearly state what percent of these NSAs can be disturbed by development and designate the width of protective buffers that surround a specific natural feature. The buffer surrounding each feature varies depending on the sensitivity of the feature.

An NSA that cannot be developed as a result of a municipal ordinance can provide open space benefits to its surrounding community, much like an open space that is protected by a conservation easement or in-fee acquisition. However, NSAs covered by a municipal ordinance cannot be regarded as “protected open spaces” because they are not rigorously protected in perpetuity. Municipal ordinances can always be amended, and landowners always have the option to be granted a variance, which relieves landowners from a specific requirement within the ordinance. For this reason NSAs that are maintained as undeveloped land through municipal ordinances do not have the kind of rigorous and permanent protection that is possessed by open spaces protected by a conservation easement or in-fee acquisition.

Municipalities that use their ordinances to limit development in NSAs provide Chester County with a wide range of open space benefits. Because many NSAs are along streams, they often form linear corridors that function as links between protected open spaces. Furthermore, many NSAs are in close proximity to water, which makes them ideal for wetland complexes, wildlife habitat or wildlife migration corridors. Undeveloped NSAs on floodplains also help to reduce storm water run off. Those NSAs that contain forests, meadow or wetland vegetation reduce erosion and improve water quality and groundwater recharge.

Municipalities that restrict development on NSAs also provide a fiscally responsible service to the County as a whole. By including language focusing on NSAs in zoning or subdivision ordinances, municipalities keep these valuable landscapes from being developed without incurring any of the costs involved in acquiring a conservation easement or the land in-fee. Because the NSAs covered by such ordinances are usually privately owned, their owners manage these lands, and so no public maintenance costs need to be expended.

In many cases, NSAs cover parts of properties that are already protected as open space through in-fee acquisition or a conservation easement. As a result, an NSA may be maintained as undeveloped land by a municipal ordinance and also protected by a conservation easement. Currently, many of the County’s larger protected open space parcels contain abundant NSAs, some of which are also covered in municipal ordinances. Using these two techniques simultaneously is quite acceptable and appropriate since each technique affords a different form of protection or preservation.

Maintaining NSAs through municipal ordinances is an important part of establishing a protected open space network, even though NSAs that are covered by a municipal ordinance cannot be regarded as protected open space. Municipalities with NSA ordinances help to expand the functioning areas of their protected open space network by creating links that provide most of the benefits of rigorously protected open spaces. Furthermore such ordinances serve to greatly improve the environmental quality of

wilderness areas, streams and stream corridors, which often extend into protected open space properties. Naturally Sensitive Areas, regardless of their type or level of protection, are so ecologically intertwined with protected open spaces that they should always be considered in any open space planning effort.

Previous Open Space Planning Efforts

A Historical Perspective is Important

Open space planning is a relatively new field and it has only been in the past few decades that it has become a major issue in communities throughout the United States. Fortunately, Chester County and Delaware Valley Region have been in the forefront of open space planning during the last quarter century. The following section provides a brief history of open space planning efforts in Chester County. It is important to understand these efforts because they are the foundation upon which *Linking Landscapes* was developed. This historical review also helps to illustrate how the establishment of the Chester County protected open space network will help fulfill planning goals that were previously set by County and regional planners during the last few decades.

Open Space Planning from the 1930s to 1990s

For most of the 20th Century, there was a limited interest in protecting open spaces within Chester County. This was mostly due to the fact that up until the 1970s, Chester County was still largely agricultural and unprotected open space was abundant. However, as early as the 1930s, regional planners recognized the need to protect open space. The authors of the 1932 *Regional Plan for the Philadelphia Tri-State District* noted that “acquisition of adequate areas of park land is urgent because of the rapidity with which potential park sites are being absorbed by building developments.” During World War II and throughout the 1940s, there was little activity in open space planning in the Delaware Valley and it would be another 30 years until a countywide inventory of open space features was compiled.

The first detailed inventory of open space throughout Chester County was presented in the 1970 *Open Space Inventory*, which was published by the Chester County Planning Commission. This inventory presented a listing of resources rather than a plan of action. The second chapter of

this document was entitled “The Frustrating Quest for Open Space.” It detailed post World War II open space and natural resource planning efforts including:

- 1956 – The Southeastern Pennsylvania Regional Planning Commission proposal for a series of major recreational parks as an “inner ring” around Philadelphia and a series of regional reservations as an “outer ring.”
- 1958 – *The Brandywine Basin Plan* completed by Brandywine Valley Association.
- 1960 – The Army Corps of Engineers reservoir proposal reports that resulted in the construction of Marsh Creek.
- 1961 – The Joint Planning Commission of the County Planners Association report recommending a scaled down version of the 1956 park planning study.
- 1963 – *The Natural Environmental and Planning Report* completed by the Chester County Planning Commission.
- 1963 – *The Chester County Soil Survey* completed by the Chester County Soil Conservation District.
- 1969 – *The Open Space Planning Study* completed by the Delaware Valley Regional Planning Commission (DVRPC).
- 1969 – *The “1980” Interim Open Space Plan* completed by the DVRPC.
- 1970 – *The Regional Park Plan* completed by the DVRPC.

In 1970 the book *Metropolitan Open Space and the Natural Process*, authored by Ian McHarg et al. was published the University of Pennsylvania. This book provided an evaluation of environmental and land use conditions in Philadelphia, its adjacent counties, and Chester County. It recommended the establishment of a multi-county “greenbelt” surrounding Philadelphia similar to the Greater London Green Belt in England as part of a “new regionalism.” This document also proposed “fingers” of open space extending on long streams and other natural linear features. Although this document was not adopted by any form of government, it was nonetheless important in shaping public opinion regarding open space protection in Chester County.

It was not until 1982 that Chester County completed its first truly comprehensive open space plan entitled *Chester County Open Space & Recreation Study*. This document inventoried the County’s natural resources and park facilities, and developed recommendations and action plans for parks, stream valleys, trail corridors and other open space features. Six years later the County published the *1988 Communities Facilities Inventory, Volume 3: Recreation and Open Space*, as an inventory update to the 1982 Plan.

In 1985, the Delaware Valley Regional Planning Commission (DVRPC) completed the *1985 Interim Regional Open Space Report*. This document was completed to provide a “first level” of data for open space planning for the region, and to qualify the region for federal open space funding. The four major goals presented in this report were:

- Provide for the current and future recreation needs of the entire population.
- Conserve and improve the natural environment of open space and its resources.
- Maintain and extend the attractive scenic qualities of open land.
- Preserve the historical and other land-based institutions of the Delaware Valley.

In 1988, Chester County published a countywide *Land Use Plan*. This document included a “Future Land Use Plan” that listed a variety of strategies for protecting open spaces that generally followed the recommendations of the 1982 *Open Space & Recreation Study*. A summary of these strategies is presented in *Figure 1.6*.

Figure 1.6: Chester County 1982 Land Use Plan Open Space Strategies

-
- Enhance the open space system with protection of existing areas and creation of new areas.
-
- Acquire and develop community parks in deficit areas as identified in the 1982 *Chester County Open Space and Recreation Study*.
-
- Encourage historic preservation to protect historic sites as part of development activity.
-
- Preserve natural areas, such as woodlands, floodplains, and wetlands, for the many environmental benefits they provide.
-
- Protect stream headwater areas, where not yet developed, from intensive development to preserve surface water quantity and quality.
-
- In rural development areas, offer assistance to municipalities for the creation of zoning techniques, such as transfer of development rights, performance zoning, and clustering that provide for development while retaining large amounts of open space.
-
- Target and give priority to agricultural preservation efforts in the rural development areas.
-
- Support the education of local officials on the use of techniques that preserve agricultural land.
-
- Implement the recommendations of the *Chester County Open Space and Recreation Study*, in particular sub-regional parks, community parks, and trail corridors.
-
- Restrict development along streams in order to protect this valuable natural resource, preserve open space, and provide for a continuous stream valley system.
-

During the 1990s, Chester County became even more active in open space planning, while a number of other open space initiatives were being conducted on a regional level. In 1991, the National Park Service conducted the *Delaware Valley Open Space Study* through its Conservation Assistance Program. This study concluded that there was a need to coordinate decision making about open spaces in the Delaware Valley.

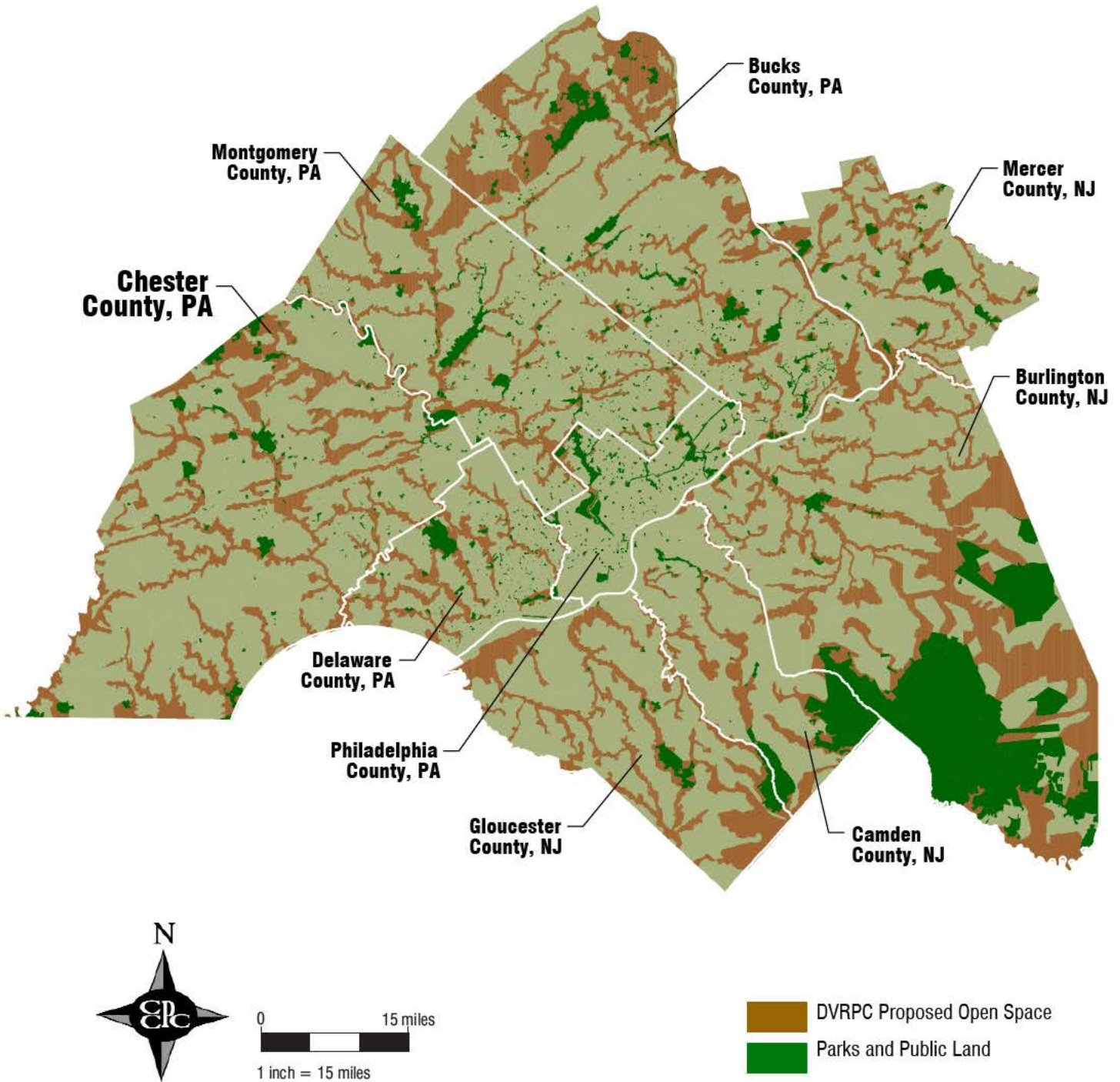
In response to this need, a committee of government, conservation and private industry groups called the Greenspace Alliance for Southeastern Pennsylvania was formed. The Alliance, staffed by the Pennsylvania Environmental Council, completed a *Green Plan for Southeast Pennsylvania*, in 1996. In this *Plan*, the Greenspace Alliance listed its main goals. One of these goals was to “create an expanded, coherent, well maintained and linked regional open space system.” Another goal was to “champion compact, environmentally sensitive development that reduces the consumption of land and energy, fosters walkable, livable communities, and supports the viability of existing town and city centers.”

In 1995, the Delaware Valley Regional Planning Commission published *Guiding Regional Growth, Land Use Element of the DVRPC Year 2020 Plan*. This document proposed the creation of an open space network as presented in **Figure 1.7**. The DVRPC also proposed three actions to increase open space and protect natural resources in the region. The first proposed action was to “provide new land for open space and recreational facilities to meet forecasted population needs.” The other actions were to “promote permanent protection of identified critical natural resource areas including no net loss of wetlands,” and to “increase river miles protected under state and federal scenic river designation, where appropriate.” Lastly, the DVRPC listed the actions presented in **Figure 1.8**, that could be implemented by counties and municipalities in order to create and preserve open space.

Open space protection has also become a greater concern in statewide planning in recent years. In 1992, the Pennsylvania Department of Environmental Resources, which has since become the Department of Environmental Protection, published *Pennsylvania's Recreation Plan 1991-1997*, as an update to the *Pennsylvania Recreation Plan 1975-1980*. This document presented a comprehensive plan to address the Commonwealth's recreational needs. In 1997, Governor Thomas J. Ridge established the 21st Century Environmental Commission whose mission was to recommend methods and policies to improve the environmental quality and measure the results while allowing for enhanced economic and social progress. One year later, the Pennsylvania 21st Century Environment Commission completed an extensive report in which it presented its recommendations for:

- Promoting Responsible Land Use.
- Conserving Natural Resources for Sustainable Use.

Figure 1.7: DVRPC Proposed Open Space Network, 1995



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Source: DVRPC, 1995.

Figure 1.8: DVRPC 2020 Plan, Open Space Implementation Actions

1. Counties and municipalities in the region should continue to take advantage of all available state and federal programs to assist in open space efforts, including ISTEA; the Pennsylvania Department of Community Affairs' Keystone Recreation Park and Conservation Fund Program; ... and individual county bond programs.
2. Pennsylvania counties and municipalities in the region should provide and/or expand bicycle paths, picnic areas, hiking trails, jogging/fitness trails, natural/wild areas and outdoor theaters, as identified with Pennsylvania's Recreation Plan 1991-1997. The Pennsylvania Bureau of State Parks should move to implement the Pennsylvania Trail Plan and to work with the National Park Service to define trails for the National Trail System, including rails-to trails opportunities.
3. Counties and municipalities should require developers to prepare an impact analysis identifying the recreational needs created by that development and a plan for mitigating impacts of their development, if any, upon the public open and recreational spaces and natural resources of the community.
4. Counties should provide technical assistance to municipalities on the use of open space preservation tools such as the official map technique to identify the public open and recreational spaces needed for forecasted needs. Both counties and municipalities should also prepare and adopt a capital facilities plan that budgets for and acquires sufficient lands over time to meet those needs.
5. Counties in the region should initiate bond issue programs for the acquisition and development of open space and recreational lands and facilities to meet their forecasted needs.
6. Local Comprehensive and Master plans should define and map natural resource areas, woodlands, watersheds and wetlands and include provisions for protecting significant resources in local zoning and subdivision ordinances.
7. Municipalities should identify, within their master plans, rivers and adjacent lands within their jurisdictions that possess outstanding aesthetic and recreational values of present and potential benefit to people of the region. The Heritage Parks program in Pennsylvania has recognized both the Delaware and Lehigh Heritage Park and the Schuylkill Heritage Park.
8. Municipalities should continue to adopt special zoning and subdivision ordinances to control development in 100 year floodplains, areas with steep slopes, and critical habitat areas. Setback buffers or conservation easements acquired through purchase, lease or donation will prevent development along the river's edge and may provide additional waterfront public access.
9. Municipalities should develop and enforce zoning and subdivision ordinances to control the indiscriminate cutting of trees or require the replacement of cut trees at a minimum of one to one size replacement.
10. Counties and municipalities should promote and support park and greenway proposals which aim to preserve sensitive areas as open space or to restore degraded urban areas back to useable open space. Local governments should coordinate agency actions to implement County and DVRPC regional open space plans.

- Making a Healthy Environment for Healthy People.
- Developing a New Foundation for Teamwork.
- Promoting Environmental Education, Training and Stewardship.

This document also presented a wide range of recommendations specifically directed toward preserving natural diversity, the exemplary stewardship of public lands and prosperity for agricultural, forestry, and the recreation and tourism industries.

In June 2001, *Pennsylvania Greenways: An Action Plan for Creating Connections*, was published by the Pennsylvania Greenways Partnership Commission, which was established in 1998 by the Governor's Executive Order 1998-3, and is chaired by the secretaries of the Pennsylvania DCNR and the Department of Transportation. In this document "greenways" were defined as narrow to wide corridors used for recreational or environmental protection. This Action Plan calls for the establishment of a network of greenways on public and private properties that connect "Pennsylvania's open space, natural landscape features, scenic, cultural, historic and recreation sites, and urban and rural communities." This Action Plan also recommends that all of the Commonwealth's 67 counties complete and adopt a Greenway Plan by 2007. **Chapters 12 and 13** of *Linking Landscapes* will serve as Chester County's Greenway Plan as recommended in *Pennsylvania Greenways*.

The Development of *Linking Landscapes*

The document you are now reading has been developed based on the foundation laid by all of the planning efforts previously mentioned. However, three events have played key roles in setting the stage for the creation of *Linking Landscapes*. The first was the November 1989 referendum, in which 81% of Chester County's voters supported a non-binding referendum which would authorize \$50 million in bonds to be used for open space and farmland preservation. The second was completion of Open Space, Recreation and Environmental Resource Plans by most of the County's municipalities during the 1990s, and the third was the June 12, 1996 adoption of the County's Comprehensive Plan Policy Element entitled *Landscapes, Managing Change in Chester County 1996-2020*.

■ **The Open Space Bond of 1989** The Open Space Bond Referendum was initiated on July 27, 1989 when the Chester County Board of Commissioners voted to place the referendum on the November 7 ballot. This action by the Commissioners followed extensive study by the Open Space and Environmental Task Force, a citizen's committee appointed by the Commissioners earlier that year. The task force recommended an aggressive preservation program to protect County open space, agricultural lands, environmentally sensitive areas, and natural and scenic resources.

The bond was funded by a series of three bond issues over a period of four years, totaling \$50 million. The bond program allocated approximately 40 percent of the funds for County park acquisition, planning, design and development. An additional 24 percent was allocated for the preservation of farmland. Approximately 22 percent of the fund was set aside to assist municipalities through a matching program for similar acquisitions. The remainder of the bond fund was allocated for matching grants to conservancies, preservation organizations and historical preservation organizations. Through leveraging grants made to municipalities and conservancies, the bond program was anticipated to extend the value of acquisitions to approximately \$75 million. The various grants programs that were established as a result of the 1989 Bond are discussed in *Chapter 16*.

■ **Open Space, Recreation and Environmental Resource (OSRER)**

Plans One of the grants programs established by the 1989 Bond was the Chester County Heritage Park and Open Space Municipal Grant Program. This program awarded grants to municipalities to assist them in developing municipal open space plans. These municipal open space plans were called Open Space, Recreation and Environmental Resources Plans, or OSRER Plans for short. A total of 66 of Chester County's 73 municipalities have completed the municipal open space plans, and as of February 2002, two municipalities were in the process of completing these plans. Each OSRER Plan was funded by a matching grant from the County. To date the County has awarded over \$ 0.9 million, which when added to the \$ 0.3 million raised by municipalities, has resulted in over \$1.2 million being used to develop municipal open space plans.

Each municipality that completed an OSRER Plan followed a detailed scope developed by the County Planning Commission that included a review and analysis of local natural, scenic, and historic resources and an analysis of present and future recreation needs. To date, municipal OSRER Plans have launched over 70 changes to local zoning and to subdivision and land development ordinances to promote resource protection and conservation. Furthermore, over 40 municipalities have acquired recreational parks and non-recreational open space on the basis of the evaluation of existing or future recreation needs identified in their respective OSRER Plans. A total of over 250 projects have been funded that help fulfill objectives presented in municipal OSRER Plans.

By the late 1990s most of the County's municipalities had completed OSRER Plans, and by that time the County's 1982 *Open Space and Recreation Plan* was becoming out of date. The Planning Commission and the Parks and Recreation Department realized that the 1982 *Plan* needed to be updated so that it would be in step with the more current municipal OSRER Plans. It was also becoming obvious that the detailed recreational planning that was included in the 1982 *Plan* was becoming so outdated that it was of limited use to municipalities. Fortunately, each municipal OSRER Plan included an analysis of municipal recreation needs, and this

municipal analysis was more detailed and up-to-date than the analysis presented in the County's 1982 *Plan*.

The development of OSRER Plans by the overwhelming majority of the County's municipalities spurred the Planning Commission and the Parks and Recreation Department to develop *Linking Landscapes* as an update to the 1982 *Open Space and Recreation Plan*. Furthermore, because each OSRER Plan addressed municipal recreation issues in detail, there was no need to evaluate these issues in detail in *Linking Landscapes*. Municipal recreation issues include the status of sports leagues and recreational clubs active in a municipality and the status of recreation infrastructure, such as the number of swing sets or tennis courts in a municipality.

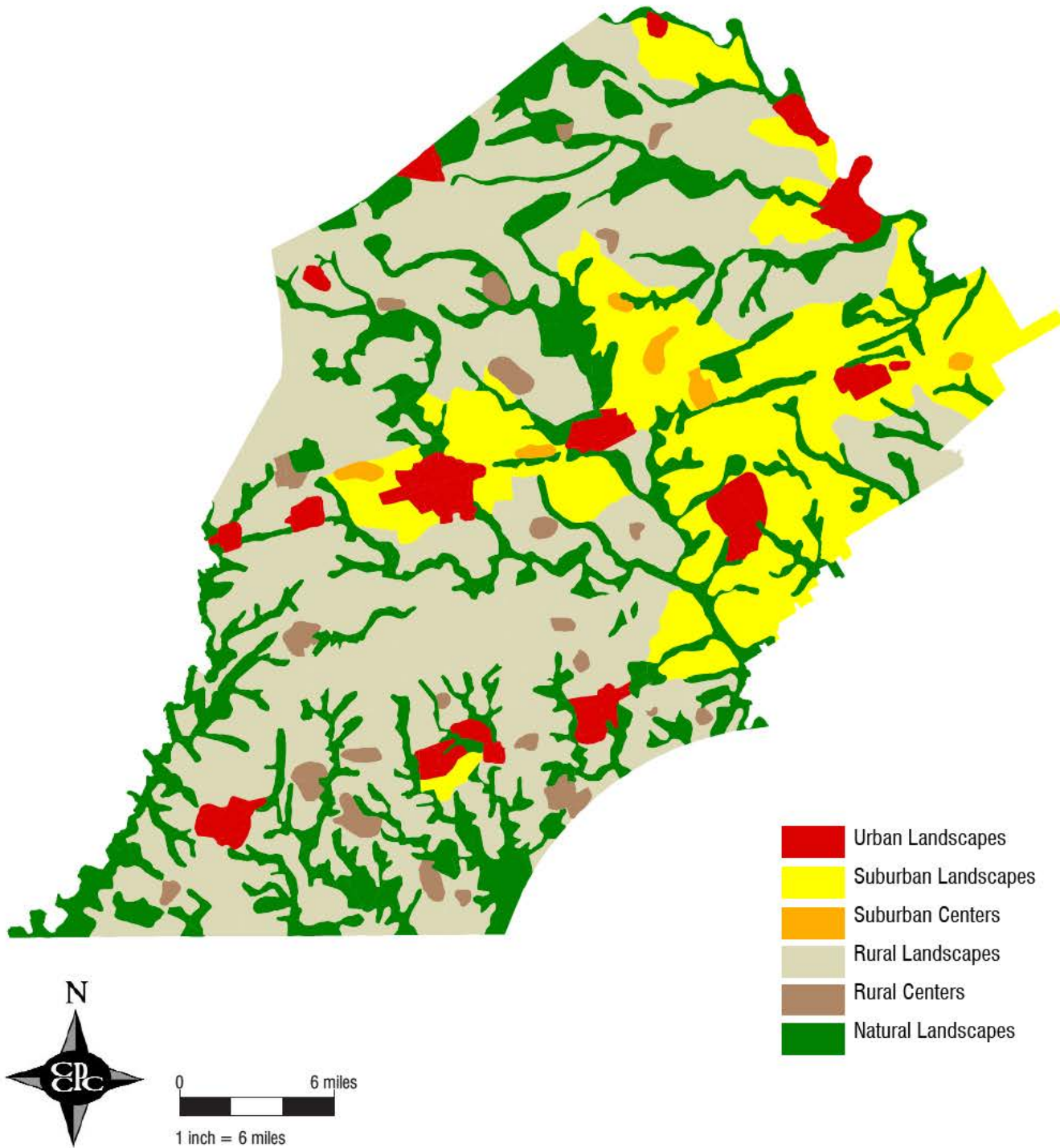
Linking Landscapes is not a detailed recreation plan although it does provide a general discussion of specific regional recreation issues. *Linking Landscapes* is not, and should not be regarded as a recreational plan for municipal facilities. Within Chester County, recreational issues are addressed at the municipal level in each municipal OSRER Plan. Individuals interested in municipal recreation planning issues should contact the municipality in question and review their adopted OSRER Plans.

■ **Landscapes, Managing Change in Chester County 1996-2020**

The other major initiative that led to the development of *Linking Landscapes* was the adoption of *Landscapes, Managing Change in Chester County 1996-2020*. This Policy Element of the Comprehensive Plan presented a framework for the growth and protection of Chester County's development called "Livable Landscapes." These Livable Landscapes were designated as either natural, rural, suburban or urban. Areas called villages, suburban centers and rural centers were also designated. Each Livable Landscape is presented on *Figure 1.9*, and described in *Figure 1.10*. These Livable Landscapes are growth boundaries that the County recommended as a way to best manage the expected population increase in Chester County. Key actions included in *Landscapes* that pertain to open space planning are also included on *Figure 1.10*.

Landscapes presented a vision for Chester County in which all sectors of the community, from governments and industry to homeowners and community groups would work to, "preserve and enhance the unique character of Chester County landscapes by concentrating growth in the most appropriate areas." Clearly *Landscapes* recognizes that Chester County must accommodate future growth, however it calls for that growth to occur in a planned and organized pattern that clusters development in the areas where it is most appropriate, while preserving valuable natural and cultural resources as open space.

Landscapes deals with a wide variety of issues from economic development and transportation to utilities and housing. Given its broad focus, *Landscapes* was not able to provide a detailed evaluation of open space resources in Chester County. However, *Landscapes* did include a number of goals and objectives that relate to the protection and restoration of

Figure 1.9: Livable Landscapes

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Source: CCPC, May 2001.

Figure 1.10: Livable Landscapes Descriptions and Key Actions

Landscape	Description	Key Actions
Natural Landscapes	The woodlands, stream corridors, steep hillsides, ridge tops, wetlands, and marshes make up the natural landscape of Chester County. These resources are permanent and essential elements of the physical environment, and are the foundation for the livability of all landscapes.	<ul style="list-style-type: none"> • Adopt, implement, and fund open space plans and preservation programs.
Rural Landscapes	Rural landscapes include farms, farm related businesses, and villages, along with some scattered housing sites. They are predominant in the northern, western, and southern areas of Chester County.	<ul style="list-style-type: none"> • Participate in farmland preservation programs. • Manage infrastructure to manage growth. • Create Transfer of Development Rights programs and Effective Agricultural Zoning.
Urban Landscapes	Urban landscapes, which include Coatesville City, the fifteen boroughs, and other historically urban areas, are the historic population centers of the County. They traditionally serve as the focal point of employment and the commercial and cultural centers for surrounding areas. Urban landscapes contain extensive existing infrastructure including sewer, water, and road networks. Most of their remaining natural resources are protected in local park systems.	<ul style="list-style-type: none"> • Promote economic and community development. • Provide design flexibility for mixed use development.
Suburban Landscapes	Suburban landscapes include low to medium-density subdivisions and related shopping centers and employment centers. They have developed rapidly and most extensively in eastern and central Chester County. Infrastructure and public services have been extended to accommodate the single-family residential subdivisions, shopping centers, office complexes, and industrial parks that predominate this landscape.	<ul style="list-style-type: none"> • Provide for linked open space and pedestrian networks.

open space. These goals and objectives are listed and discussed in detail in *Chapter 2. Linking Landscapes* was developed to provide the inventory, and evaluation of open space resources needed to realistically pursue the *Landscapes* open space goals and objectives relating to open space. *Linking Landscapes* was also developed to provide vision and action items that the County government could initiate either on its own or through partnerships, that could help to realize the goals and objectives of *Landscapes* in a practical and cost efficient manner.

The Current State of Open Space in Chester County

There is No Standard Definition for “Sprawl”

Over the last thirty years, Chester County has experienced a dramatic increase in development of all kinds. Many of these developments have been single-family units constructed on large lots located far away from existing urban centers. This type of development often occurs on former cropland, or vacant lands that have overgrown into meadows or wood lots. This “suburban” style of housing has been so popular with landowners that these developments have come to dominate large areas of the landscape creating an expansive and uniform development pattern that many people call “sprawl.” Technically speaking there is no one set definition for sprawl, and some people simply use the term to describe any new or unwanted development.

In *Landscapes*, the Comprehensive Plan Policy Element of the Chester County Comprehensive Plan, sprawl was defined as a “spreading low density, totally automobile dependent development pattern of housing, shopping centers and corporate and industrial parks that is wasteful and short-sighted.” This definition may not be universally accepted, but it accurately describes the pattern of development that has dramatically altered the character of Chester County in recent years.

What makes “sprawl” development so detrimental is that it is highly land consumptive per unit. For example, in many of Chester County’s older neighborhoods, houses were built on lots of a quarter acre or less, meaning that four households totaling 8 to 12 people lived on one acre of ground. So called “sprawl” developments consist of units that are commonly located on one acre or more meaning that only 2 to 3 people live on one acre of land. In order to build these large lots units, more land must be consumed per person, and the land that is used is usually farmland. As more and more large-lot developments have been built in

Chester County, there has been a decrease in open space, especially farmland. As a result, Chester County, which was once a largely rural county, is now becoming much like all the other the suburban communities surrounding the cities of Philadelphia and Wilmington.

There are a myriad of reasons that explain why large-lot development has become established in Chester County. These root causes of “sprawl” development include, but are not limited to:

- Insufficient funding and planning needed to reverse urban decay, and the reduction of the overall quality of life in some urban centers and cities through the region resulting in out-migration.
- Tax structures that encourage the subdivision of undeveloped land, and reduce the profitability of agriculture in developing communities.
- The decline of agriculture and the reduction of job opportunities in many rural communities throughout the region and the resulting out-migration.
- The establishment of employment centers along suburban highways in largely undeveloped areas.
- The extension of infrastructure, such as roads, sewer lines and water service into largely undeveloped areas.
- The popularity among homeowners of newly constructed housing, housing units on large lots, and housing units in low-density communities.
- The use of conventional but highly land-consumptive development designs by the homebuilding industry.
- The ease of obtaining financing for highly land-consumptive forms of development both for the developer and the homebuyer.
- The adoption of zoning ordinance language that permits highly consumptive land development.
- Insufficient coordination between the various public and private organizations involved with promoting and facilitating the protection and restoration of open space.

Ultimately, the loss of open space in Chester County in recent decades has been a direct result of all of these root causes. Finding solutions for these root causes will require a major effort, and certainly *Linking Landscapes* cannot address all these issues in detail. Some of these issues will be addressed by the County government through other documents such as the *Water Resource Conservation Plan*, scheduled for publication in 2002, and the *County Transportation Plan* which is currently being researched. In 2000, the County government also initiated Vision Partnership Program Tier –II Grants that focus on urban revitalization and are detailed in **Chapter 16**. Other County agencies, such as the Department of Community Development and the Agricultural Development

Council, conduct studies dealing with issues that can impact open space. Organizations outside County government, like the Economic Development Council and the Chamber of Business and Industry, also prepare such studies.

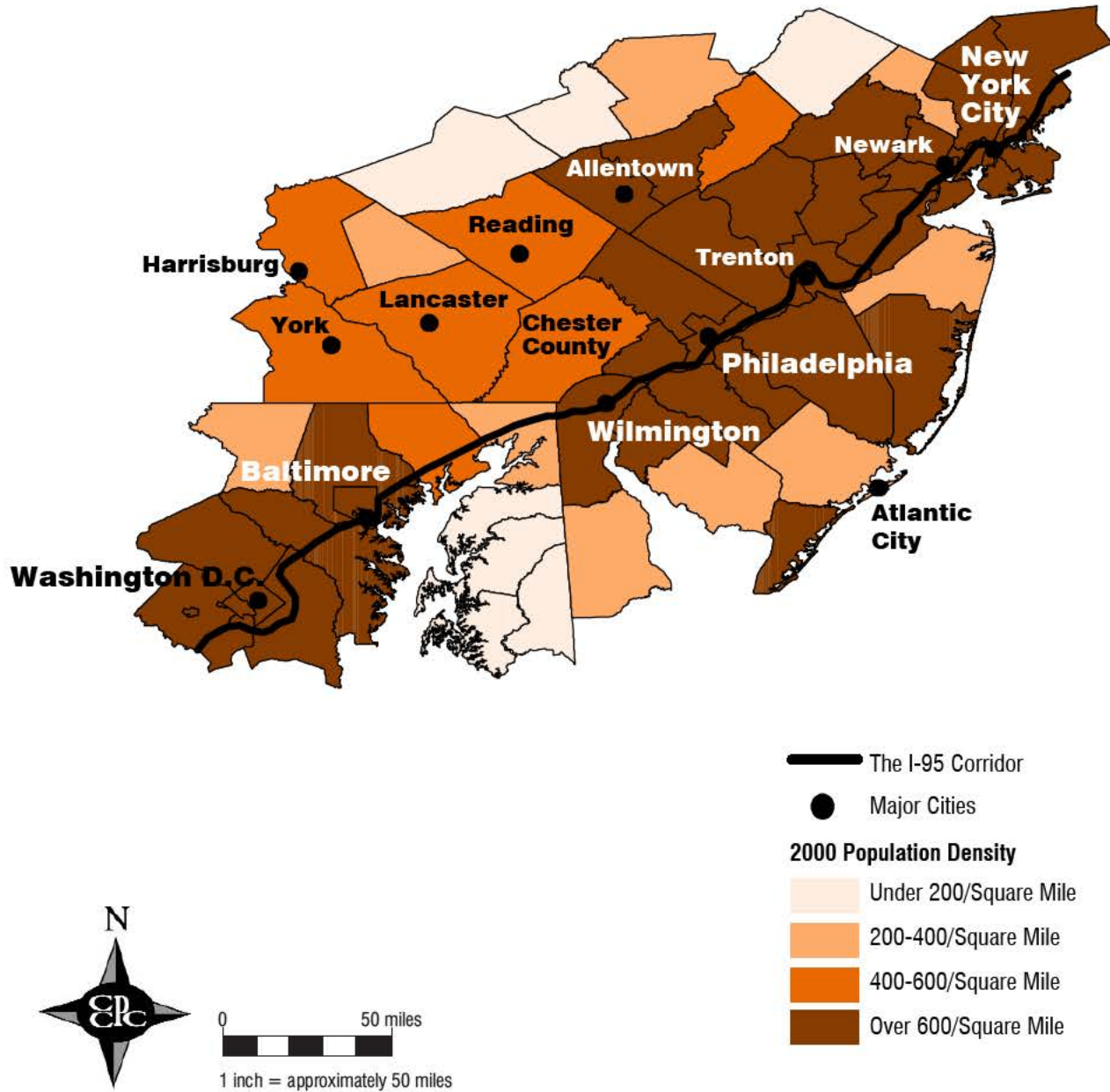
Development Cannot Be Avoided

During the 20th century, a pattern of migration became common throughout the United States in which urban dwellers left older cities and factory towns, and moved into suburban neighborhoods recently developed in formerly rural areas. This pattern occurred in the Delaware Valley after World War II when many residents of Philadelphia and Wilmington moved west into the suburbs of Delaware County, Lower Montgomery County and northern New Castle County. As these suburbs became more urbanized in the 1980s and 1990s, families again migrated west into the rural areas of Chester County and Upper Montgomery County. Although this so-called “urban flight” was possible in the past, it is no longer an option in Chester County.

In Chester County there are simply no rural communities left that are free from development pressure due to migration from outside the County. Simply put, the County is surrounded by expanding centers of development on all sides. The eastern parts of the County are well-established suburbs of Philadelphia, while the western part has become a distant suburb of the cities such as Lancaster and Harrisburg. Communities to the north have developed into distant suburbs of Reading while those to the south are receiving new residents from Delaware and Maryland. The effect of this surrounding growth is evident in **Figure 1.11**. This map shows that as of 2000, Chester County was one of the few counties between New York City to Washington, DC that still had a population density under 600 persons per square mile.

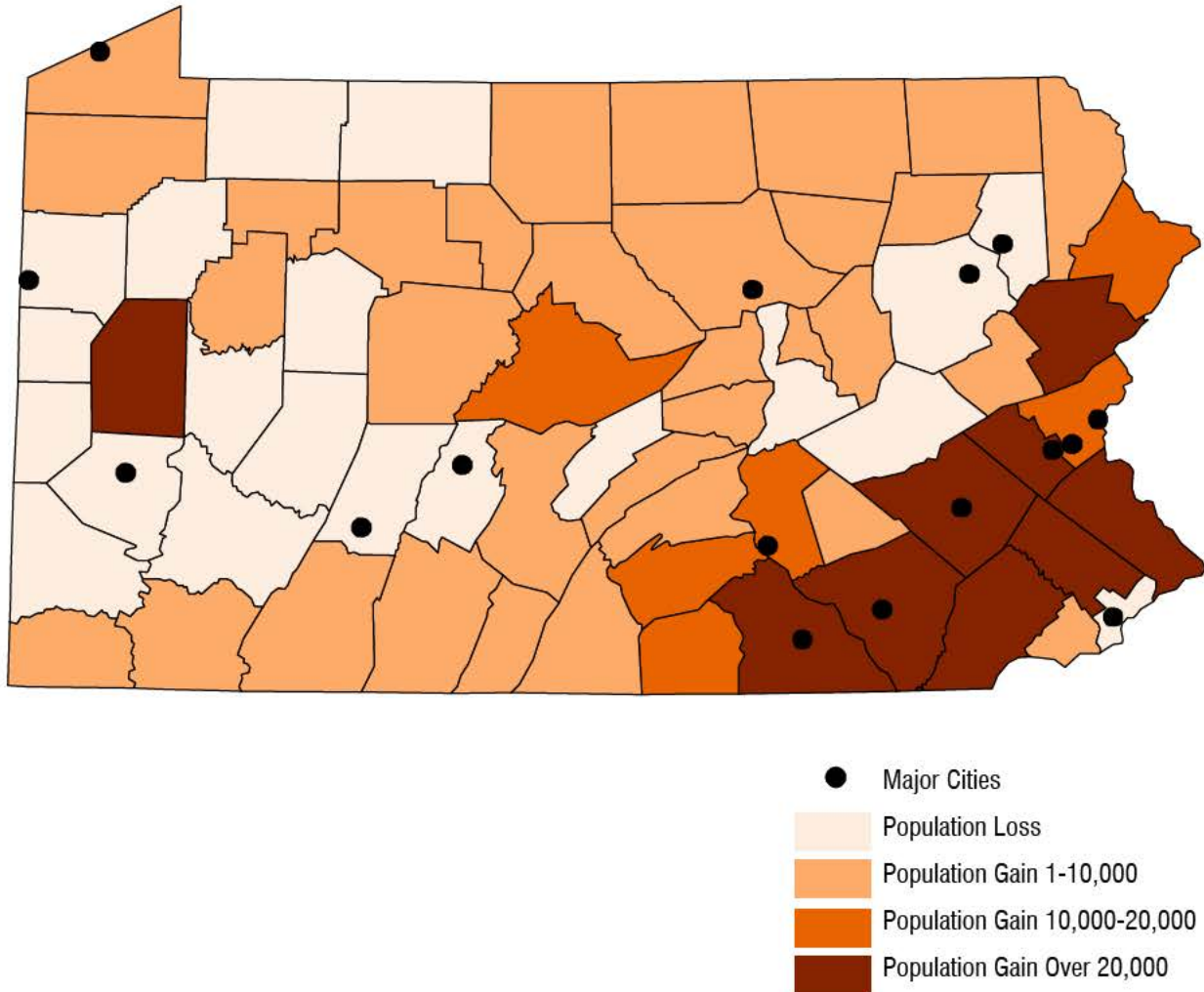
It is now increasingly difficult for anyone in the state of Pennsylvania to migrate to a less urban community. **Figure 1.12** shows how population has changed throughout Pennsylvania's Counties. As this map shows, the state's more rural counties are losing population. This out-migration follows a relatively recent national trend in which rural communities are losing population in part due to changes in agriculture, mining and forestry. New technology allows these industries to operate with fewer employees. Even though the introduction of the Internet makes it more possible for corporations to locate in rural areas; the fact is that they often prefer more urbanized areas where there is access to airports and other services that are not found in rural areas. In today's economy, those who want to move “out to the country” may find that there are no jobs there to support them. This is a major change from the past, which many people have not yet realized.

Figure 1.11: Population Densities Between New York City and Washington D.C.



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Figure 1.12: Change in Population for Pennsylvania Counties 1990 – 2000



0 40 miles

1 inch = approximately 40 miles

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Source: 1990 and 2000 Census.

The combined effect of people migrating away from of both urban and rural areas is that suburban communities and the rural communities adjacent to them are under severe development pressure. Chester County is experiencing such development pressure and it is likely to continue. In 1995 the Delaware Valley Regional Planning Commission projected that from 1990 to 2020 the population of Chester County would increase by over 100,000 persons, requiring the construction of 52,720 additional housing units. In fact this projection may be low, since between 1900 and 2000, Chester County's population increased by just over 57,000. This is over half what the DVRPC predicted for the 30-year period. Clearly, development will be unavoidable over the next few decades.

The question that Chester County residents must face is not "will there be development," but rather "what kind of development will there be." Developed communities, if properly planned and designed, can provide a multitude of benefits that can improve a community's quality of life. Fine restaurants, concert halls, and professional sports arenas can often exist only in areas with a concentrated population, and development is required to house such a population. Likewise, built-up areas are usually better suited to support universities, hospitals, museums and diverse employment opportunities than largely undeveloped areas. Growth and development can, and have, provided benefits to many Chester County residents. As the County grows, the challenge will be to find a way to optimize the benefits of development, rather than stereotyping all new construction as either "good" or "bad."

In short, we in Chester County have few choices. We cannot stop growth and the vast majority of us cannot leave. As a result, we must either plan for concentrated development that will provide pleasant livable communities and help protect our open spaces and the benefits they provide, or stand by while wasteful highly land consumptive development degrades our ecology and alters the character of our community forever. Running away is not an option because there is simply nowhere else to go.

How Linking Landscapes Can Be Used

Linking Landscapes Has Many Uses

The introduction of this chapter states that *Linking Landscapes* was developed to focus on three major areas. First, *Linking Landscapes* presents a countywide inventory of open space features and a regional vision of what Chester County could be like if a protected open space network were

established. It also presents a listing of actions that County government will initiate in order for the various County departments to coordinate their efforts to protect and restore the County's open space as directed by *Landscapes*. Thirdly, *Linking Landscapes* provides general guidelines that municipalities can choose to use if they wish to pursue the protection or restoration of open space, either through their own initiatives or through partnerships with other entities such as multi-municipal projects.

Although *Linking Landscapes* addresses three major areas, the document also provides general guidance and information relating to a number of other important open space issues. This information can be useful to regional and municipal planners or local civic groups involved in open space protection or restoration projects. Many of the open space planning issues that are presented in *Linking Landscapes* are discussed in detail in the *Community Planning Handbook: A Toolbox for Change* Volume I, published by the Planning Commission in 1997, and the updated Volume II published in 1999. The following sections describe how *Linking Landscapes* can be used by municipalities, local civic groups, or even individuals as a source of information or general guidance regarding a variety of open space issues.

***Linking Landscapes* Can Be Used as a Source for Regional Information**

Linking Landscapes provides a regional perspective on a variety of open space issues. *Linking Landscapes* presents regional maps and countywide evaluations that can be useful as a source of general information for municipalities or other entities involved in open space protection or restoration. *Linking Landscapes* provides this regional perspective because natural resources are a regional phenomenon; they do not stop at municipal boundaries. Any municipality, civic group or individual that wishes to conduct an open space planning project must consider regional issues, even though the project may be located entirely within one municipality. Likewise regional recreation features, such as multi-municipal or multi-county trails are regional in nature, and require a planning process that considers regional influences. Of course, the regional information included in *Linking Landscapes* is not detailed, and municipalities and other entities will most likely have to refer to municipal planning studies or other documents that provide more detailed information.

***Linking Landscapes* Can Be Used as a Source for Contacting Open Space Protection and Restoration Organizations**

Linking Landscapes present listings of regional organizations that are involved with protecting or restoring open spaces. These organizations may be able to provide assistance or additional information regarding open space resources or projects. They may also serve as stakeholders for

open space projects located in their region of interest. The listings of these organizations are usually found at the very end of a chapter and include the address and phone number of each listed organization. Internet pages and conventional hard copy publications that contain information on important regional open space issues are also referenced throughout *Linking Landscapes*.

Linking Landscapes presents information on these organizations because they are potential stakeholders or potential sources of information. Some of these organizations are public agencies and others are private entities such as conservation groups or non-profit land trusts. These listings should not be regarded as a County government endorsement of any of these organizations, nor should it be assumed that all of these organizations have endorsed the recommendations presented in *Linking Landscapes*. Given that organizations sometimes move or change their phone numbers or Internet addresses, it is possible that some of the information listed regarding these groups may be outdated soon after *Linking Landscapes* is published.

Linking Landscapes Can Be Used as a Source for Regional Mapping

Linking Landscapes includes a wide variety of maps depicting open space features and natural resources on a countywide scale. These maps were developed using a computerized mapping program called a Geographic Information System or GIS. Simply put, GIS combines an electronic map with a database spread sheet, so that a feature such as a municipal park can be mapped, and then information about that park, such as its size and tax parcel number, can also be stored.

In the Fall of 1997, the Chester County Bureau of Land Records completed the first computer generated mapping of all the tax parcels within Chester County. This base map allowed Chester County agencies to employ GIS mapping when evaluating natural and cultural features within the County. In the Fall of 1998, the Chester County Planning Commission began to compile open space information on a parcel level for the entire County. These GIS maps were used to generate most of the map graphics presented in *Linking Landscapes*.

Unlike conventional paper mapping, GIS mapping can be updated on an ongoing basis. These maps are never “finished,” because they are constantly changing as more information is added to the electronic database. Currently, Chester County is working toward the goal of posting these maps and their associated databases on the Planning Commission web page at www.chesco.org/planning. Once posted, regional planners, municipal officials and interested citizens can access this information. Mapping depicting sensitive features such as the locations of rare species habitat or archaeological sites will not be posted, since distributing this information

could promote poaching, illegal collecting or other activities that could endanger the features being mapped.

Municipalities, civic groups or individuals can use the maps presented in *Linking Landscapes* to illustrate regional conditions for studies, reports or grant applications. These maps have been presented in black and white so that they may be easily photocopied. The Planning Commission and the Parks and Recreation Department encourages these maps to be duplicated in paper form and used for open space planning projects. Anyone wishing to copy these documents, is free to do so without asking permission of the County Commissioners or any department of County government, however a reference to the County should always be cited.

Linking Landscapes Can Be Used to Acquire Updated Open Space Information

Linking Landscapes includes GIS generated maps, the mailing addresses, phone numbers, and e-mail addresses of numerous open space organizations, and Internet web pages that provide detailed open space planning information. The one thing each of these information sources has in common is that they are all constantly changing. As a result, it is almost certain that some of the maps and references presented in this document will be outdated within just a few years.

Although it is impractical to update an entire document like *Linking Landscapes* every few years, it is possible to update just one chapter every few years, and that is what the Planning Commission and the Parks and Recreation Department intend to do. For example, **Chapter 4**, which includes an analysis of recreational parks based on the 1990 census, is scheduled to be updated sometime in 2002 or 2003, once 2025 municipal population projections based on the final 2000 census data are available. By updating and distributing just those chapters that have become outdated, municipalities, civic groups and individuals can conduct ongoing open space planning and avoid problems that arise from relying on a “stale” open space plan. For this reason, this document is being published in a three-ring binder, allowing chapters to be replaced. Because this document will be modular, the month and year of each chapter’s adoption and publication will also be printed at the end of each chapter. In a way *Linking Landscapes* will be a “living document” that is periodically changed to accommodate changing conditions.

How Linking Landscapes Will Be Used by County Government

Linking Landscapes Will Guide County Government Activities

The various departments of the Chester County government will use *Linking Landscapes* to coordinate all of the projects involving open space protection or restoration that are funded by or managed by the County government. *Linking Landscapes* will provide one set of priorities and guidelines that can be used to focus the efforts of all County departments in an efficient and organized manner. County government will also use *Linking Landscapes* to guide the administration of County funded grant programs, and to guide its participation in partnerships with federal, state or municipal governments, or with other organizations. Municipalities and other potential County grant recipients may improve their understanding of the County administered grant application process if they become familiar with the ways that County government will be guided by *Linking Landscapes*.

Linking Landscapes Will Guide How the Planning Commission Conducts Act 247 Reviews

PA Act 247, the Municipalities Planning Code, requires a municipality to submit land development plans, zoning and subdivision ordinances, open space and recreation plans, and comprehensive plans to the County Planning Commission for review and comments prior to approving such plans or ordinances. If the County Planning Commission does not provide comments within 30 days, the municipality may proceed with approval without the County's input. In Chester County, the Planning Commission provides comments describing whether submitted plans and ordinances are consistent with the County Comprehensive Plan. The Planning Commission also provides recommendations on how submitted plans and ordinances could be revised to be more consistent with the County Comprehensive Plan. After the review is completed, the Planning Commission submits a letter to the municipality containing review comments and recommendations. Municipalities may then take these comments and recommendation under advisement. Under PA Act 247 it is the municipalities, and not County government, that have the final authority regarding land use issues.

Because *Linking Landscapes* is an element of the Chester County Comprehensive Plan, the Planning Commission will use it for guidance when conducting PA Act 247 reviews. Documents submitted by municipalities for PA Act 247 reviews will be evaluated by the Planning Commission

based on how consistent the documents are with the action items listed in *Linking Landscapes*.

Linking Landscapes Will Guide How County Government Endorses Proposed Projects

Many of the projects involving the protection or restoration of open space in Chester County are not funded or managed by Chester County government. These projects are typically funded by the federal government, a state agency, a municipality, or a non-governmental organization. Many of these projects are funded through grants, and can only be funded with the added financial assistance of an outside grant. Most grant applications require or encourage the grant applicant to submit a letter of support or endorsement from the County government. Every year, the various departments of County government receive many of these endorsement requests.

The various departments of County government will use *Linking Landscapes* to guide how they endorse projects involving the protection or restoration of open space. These endorsements will relate to projects that are eligible to receive funding from the federal government, a state agency, a municipality, or a non-governmental organization. When writing endorsement letters for such projects, the County will note if the project is consistent with the policies in *Landscapes*, whether it is generally consistent with *Linking Landscapes*, and whether it helps to implement the actions presented in *Linking Landscapes*. Of course, the County will reserve the option endorse a project of value even if it does not help to implement a specific action item presented in *Linking Landscapes*.

Linking Landscapes Will Guide How the Parks and Recreation Department Awards Open Space Grants to Municipalities and Land Trusts

In 1989 Chester County voters passed a \$50 million bond referendum. The funding from this bond was then used to establish a number of County matching grants which the Commissioners are authorized to award to municipalities. These grants have been awarded since 1990, and in 1999 the County Commissioners established the \$150 million dollar Landscapes 21st Century Fund in order to continue funding open space grants to municipalities. Most of these grants, described in detail in **Chapter 16**, can be used by municipalities to acquire open space or to design and construct parks or recreation facilities such as parking lots, swing sets or other landscapes structures. One of these grant programs can be used by qualified non-profit land trusts to assist in funding the acquisition of undeveloped parcels that are of importance to the County, or the acquisition of conservation easements on those parcels.

The Parks and Recreation Department is responsible for administering the following grants that are awarded by the County Commissioners:

- **Acquisition Grants** – awarded to municipalities.
- **Park Facilities Grants** – awarded to municipalities.
- **Trails Grants** – awarded to municipalities.
- **Greenway Grants** – awarded to municipalities.
- **Preservation Partnership Program Grants** – awarded to qualified non-profit land trusts.

The Parks and Recreation Department accepts applications for all of the above grants once a year by a specified deadline, usually in the Spring. The Parks department then reviews each application and assigns each a numerical score based on a number of criteria. All of the applications for a grant program are then compared, and those with the highest scores are awarded grants. In some years all projects are awarded grants, but in other years there are not sufficient funds to award all grants, and the applications with the lowest scores are not awarded.

The Parks and Recreation Department will use *Linking Landscapes* to help guide how they will score applications for the grants they administer. When reviewing municipal applications for County administered grants, applicants will be given additional credit if their proposed project helps to implement actions recommended in *Linking Landscapes*. As a result, projects that are consistent with *Linking Landscapes* will be more likely to receive funding from the County grants compared with those that are not consistent. Of course, the Parks and Recreation Department will reserve the option to award a grant to a project of value, even if it does not help to implement a specific action recommended in *Linking Landscapes*.

Linking Landscapes Will Guide How the Planning Commission Administers Open Space Planning Grants to Municipalities

As stated above, 1989 Bond referendum provided \$50 million for the protection and restoration of open space, and in 1999 the County Commissioners established the \$150 million dollar Landscapes 21st Century Fund in order to continue this funding. These funds are distributed through a number of County matching grant programs, described in detail in **Chapter 16: Open Space Funding Programs**. Two of these grant programs, the Vision Partnership Program and the Open Space, Recreation and Environmental Resource (OSRER) Plan Grant Program are administered by the Planning Commission. These grants are available only to municipalities or regional planning commissions and can only be used for the development of municipal planning documents.

The Vision Partnership Program (VPP) awards grants that municipalities or regional planning commissions can use to update comprehensive plans and zoning ordinances. The County requires that updates which receive County funds must be consistent with the County Comprehensive Plan.

Since *Linking Landscapes* is an element of the County Comprehensive Plan, these updates must be consistent with *Linking Landscapes*. As a result, any VPP funded updates to a comprehensive plan or zoning ordinance that deals with open space issues must be consistent with the action items presented in *Linking Landscapes*.

The OSRER Plan Grant program awards grants that municipalities, either jointly or alone, can use to develop an OSRER Plan. Updates to existing OSRER Plans are funded through the VPP. Currently 66 of the 73 municipalities in Chester County have completed OSRER Plans receiving partial funding from the County's Grant program. The County requires that OSRER Plans that receive County funds must be consistent with the County Comprehensive Plan. Since *Linking Landscapes* is an element of the County Comprehensive Plan, these updates must be consistent with *Linking Landscapes*.

***Linking Landscapes* Will Guide How County Government Revises County Administered Grant Program Procedures**

Periodically the Planning Department and the Parks and Recreation Department must update the grant procedures and the grant application manuals for the grant programs that they administer. These manuals include the grant application forms along with information on the grant such as eligibility requirements, deadlines and application procedures. The Planning Commission and the Parks and Recreation Department will use *Linking Landscapes* for guidance when making revisions to the County funded grant programs that they administer. Revisions to grant programs will be consistent with the actions presented in *Linking Landscapes*.

***Linking Landscapes* Will Guide How County Government Initiates Feasibility Studies and Coordinates with Non-County Entities**

Periodically the Planning Commission and the Parks and Recreation Department conduct feasibility studies regarding specific topics that relate to the protection or restoration of open space. These studies may include park location studies or natural resource management plans. County Government also periodically becomes involved with studies or initiatives that involve non-County entities. Such coordination might involve an adjacent County, a state agency, or a natural resource conservation organization. The County government will use *Linking Landscapes* as a guide when initiating feasibility studies or conducting coordination with non-County entities. Of course, County government will reserve the option to conduct a feasibility study of value, or coordinate with a non-County entity on a project of value, even if it does not help to implement a specific action recommended in *Linking Landscapes*.

Linking Landscapes Will Be Used by County Government to Prioritize Actions It Will Undertake

Linking Landscapes presents a listing of actions that County government intends to initiate to protect and restore open space as directed by *Landscapes*. These action items were developed using a multi-step process. This process focuses on a single type of open space resource or facility and then presents an analysis using the following four steps:

- **Inventory** – Each resource or facility was identified described and mapped.
- **Evaluation** – Each resource or facility was evaluated on a countywide basis to identify strengths, problem areas and future opportunities.
- **Visions** – A listing of beneficial possible future conditions or “visions” was developed which describes how each open space resource or facility in the County could be developed or improved under a best case scenario.
- **Actions** – A listing of actions was developed that could be taken by the County government to begin to implement each vision that was developed. Each action was developed to be realistic and feasible.

For example, in **Chapter 4** all County parks are inventoried and mapped, and then an evaluation was conducted to determine if each County park could support the population it was designed to serve. This evaluation was then repeated using the projected 2025 population. Based on this information, a number of vision items were developed to show what the County Parks system might look like if it were developed to accommodate the anticipated population growth. Action items were then developed to show what activities the County government could initiate to help realize each vision. These action items are meant to be activities that County government will undertake either alone or in cooperation with municipalities or other organizations.

Each action item is an activity that the County government intends to initiate. Some of these action items are activities that the County Government can initiate without outside assistance. Other action items will require assistance or partnerships with municipalities, other government entities, or private organizations. County government will pursue partnerships where appropriate, but of course all partnerships require the voluntary cooperation of the non-County partner. Action items presented in *Linking Landscapes* can not direct the actions of any municipality or other entity, unless the municipality or other entity voluntarily chooses to accept the action item recommendations.

Action items are presented throughout *Linking Landscapes*, and they are also listed by number in table form at the end of **Chapter 20: Establishing the Protected Open Space Network**. In this table each action item is prioritized. This prioritization will be used by County government to determine how County resources and staffing should be used to best

implement the action items. The prioritized action items will also be used by the Planning Commission to develop a *Protected Open Space Network 12-Year Program*. The *12-Year Program* documentation and its administration are described in detail in **Chapter 20. Appendix A** groups the action items based on how they can be implemented.

How Linking Landscapes Can Be Used by Municipalities

Municipalities Have the Ultimate Legal Authority Regarding Land Use Issues

According to PA Act 247, also called the Municipalities Planning Code or “MPC”, it is the municipalities who have the ultimate authority when it comes to land use issues, including the planning and establishment of recreational parks and non-recreational open spaces. Under this Act, County government is charged with an advisory role, and is provided with the opportunity to make recommendations to municipalities, which the municipal officials may choose to incorporate into their municipal comprehensive planning if they so desire.

The action items presented in *Linking Landscapes* are activities which the Planning Commission and the Parks and Recreation Department have developed through an extensive evaluation process. These are actions that the County government has developed as practical and prudent activities that can best achieve the open space objectives presented in *Landscapes*. The Planning Commission and the Parks and Recreation Department encourage municipalities to consider these action items, and the other data presented in *Linking Landscapes* as general guidelines that can be used or modified for municipal planning projects that pursue the protection or restoration of open space.

Because municipalities have the ultimate authority regarding land use issues, the Planning Commission and the Parks and Recreation Department can only request that municipalities consider the action items presented in *Linking Landscapes*. However, the Planning Commission and the Parks Department will require that any municipality that receives a County funded grant must agree, before the grant is awarded, that the project being funded will be consistent with the County Comprehensive Plan, of which *Linking Landscapes* is an element. Such an agreement does not nullify the ultimate authority regarding land use issues granted to municipalities under PA Act 247, because the municipality voluntarily chooses to accept the conditions of the agreement.

Linking Landscapes Can Be Used by Municipalities for Recreation Planning

To date, 66 of the County's 73 municipalities have already completed municipal open space plans, known as Open Space, Recreation and Environmental Resource (OSRER) Plans. Two of the municipalities that do not have OSRER Plans are currently developing them. Each OSRER Plan includes a detailed inventory of municipal recreational issues such as:

- Athletic clubs and organizations
- Recreation programming
- Budgets for recreation
- Staffing and administration for recreation programs
- Maintenance of recreational facilities
- Municipal recreation needs based on demographics

Because the vast majority of Chester County's municipalities have already developed detailed evaluation of municipal recreation issues, it would be redundant for *Linking Landscapes* to address these issues. As a result *Linking Landscapes* does not provide a detailed evaluation of municipal recreation issues facilities, and it should not be regarded as a recreation plan. Instead *Linking Landscapes* provides only general guidance regarding municipal recreation issues. The action items presented in *Linking Landscapes* that do relate to municipal recreation issues in no way invalidate or supersede municipal OSRER Plans.

Although *Linking Landscapes* is not a municipal recreation plan, it does address regional recreation issues in a number of chapters. This analysis includes an inventory and evaluation of federal, state, County and municipal recreation facilities. This information can be used by municipal planners to help identify potential links between municipal facilities and regional recreation facilities. Information that can assist municipal open space planners in recreational planning is presented in:

- Chapter 3: Chester County Profile
- Chapter 4: Parks
- Chapter 5: Managed Lands and Water Resource Buffers
- Chapter 8: Historic Resources
- Chapter 10: Open Space Restoration Opportunities
- Chapter 11: Rural Centers, Villages and Community Facilities
- Chapter 12: Regional Recreation Corridors
- Chapter 17: Open Space In Adjacent Counties

Linking Landscapes Can Be Used by Municipalities for Natural Resource Planning

Natural resources such as wildlife populations, streams and wetlands, cross municipal boundaries. Municipal open space planners must always consider how the actions within their municipality will affect those natural resources that extend outside of their municipality. Because municipal officials must focus most of their efforts on local issues, it is often impractical for them to conduct regional inventories of natural resources. For this reason *Linking Landscapes* includes an inventory of natural features, unique wildlife habitat and watershed protection areas on a countywide basis. This information can be used by municipal planners to help link together wildlife habitat or natural resources protected through wildlife corridors or other linear features. Information that can assist municipal open space planners in natural resource planning is presented in:

- Chapter 3: Chester County Profile
- Chapter 5: Managed Lands and Water Resource Buffers
- Chapter 7: Protected Spray and Drip Irrigation Fields
- Chapter 10: Open Space Restoration Opportunities
- Chapter 13: Wildlife Biodiversity Corridors
- Chapter 17: Open Space in Surrounding Counties

Linking Landscapes Can Be Used by Municipalities for Trail and Wildlife Corridor Planning

Trails and wildlife corridors, sometimes called “greenways” or “linear open spaces,” are becoming more and more common throughout the United States, and Chester County is no exception. Many trails and wildlife corridors cross through more than one municipality. When municipal planners are considering establishing these trails or wildlife corridors it is necessary to consider how these linear facilities might extend into adjacent municipalities. Because many municipalities do not have the staffing required to inventory and evaluate existing or potential regional trail and wildlife corridors, a countywide analysis of these feature are presented in *Linking Landscapes*.

Trails and wildlife corridors are key elements in establishing a functioning open space network, and are given special consideration in *Linking Landscapes*. **Chapter 12: Regional Recreation Corridors** presents an evaluation of 24 potential multi-municipal trail corridors within Chester County. **Chapter 13: Wildlife Biodiversity Corridors** inventories largely undeveloped corridors that could allow wildlife to pass through the County, reducing the likelihood that animal populations will be isolated on natural preserves. **Chapter 14: Recycling Land and Infrastructure for Open Space** also includes an inventory of abandoned rail corridors and utility corridors that can be used for linear open space.

Linking Landscapes Can Be Used by Municipalities For Writing Open Space Grants

Over the last few decades, matching grants awarded to municipalities and municipal authorities by the federal government, state agencies, the County and private organizations have become a major source of funding for municipal open space and recreation projects. **Chapter 16: Open Space Funding Sources** provides a brief summary of the major public and private grant programs available to municipal projects in Chester County. In general, most grants programs are more likely to award grants to municipalities if the proposed project is consistent with the County Comprehensive Plan, of which *Linking Landscapes* is an element. Some grants even require consistency with County or regional plans.

When a municipality prepares an open space grant, it is often useful to be able to directly quote text from an existing planning document that expresses the County government's adopted position regarding the proposed municipal project. For example, a municipality that is submitting a grant application for the acquisition of a recreational park might want to include a quote from *Linking Landscapes* stating that that County planners have identified that more recreational parks are needed in the municipality. These sort of quotes illustrate that the municipal project will help fulfill previously established regional planning goals.

In order to assist municipalities in filling out open space grant applications, *Linking Landscapes* has been written to include text which municipalities can quote directly to support a wide variety of municipal level open space projects. The Planning Commission and the Parks and Recreation Department specifically reviewed the language used in the vision and action items presented in *Linking Landscapes* to ensure that they include wording that can be quoted by municipalities, or other organizations, when applying for open space grants.

Linking Landscapes Can Be Used by Municipalities for Land Stewardship and Ecological Restoration

In order for an open space to provide benefits to a municipality, it must be properly managed. Simply protecting land from all future development is only the first step. Managing an open space property to promote recreation use or to make it suitable for wildlife habitat can be a major long-term undertaking. The proper management of protected open spaces also requires cooperation from the surrounding community. For example, it is counterproductive to protect a segment of stream in a municipal park, only to have it polluted by landowners downstream. For this reason, municipal open space planners must sometimes become involved in promoting land stewardship and ecological restoration on properties adjacent to protected open spaces.

Although *Linking Landscapes* is not a detailed guidebook for land stewardship it does provide an introduction to many land stewardship issues.

Chapter 15: Open Space Protection Techniques summarizes ways that private landowners can protect part or all of their property from development, or protect most of their land as open space as they develop the remainder of their property. *Chapter 14: Recycling Land and Infrastructure for Open Space* inventories properties such as brownfields and utility corridors, that can be re-used or rehabilitated for use as open space. *Chapter 18: Extending the Open Space Network into the Built Environment* provides techniques that can be used to improve habitat on properties that have already been developed.

Linking Landscapes Can Be Used by Municipalities to Coordinate Farmland and Land Trust Conservation

Over the past four decades, an increasing number of landowners in Chester County have sold or donated conservation easements to non-profit land trusts. Many farmers have also sold agricultural conservation easements to the program funded by the state and the County. It is common for parcels with conservation easements to be clustered together, sometimes creating extremely large clusters covering hundreds of acres of land that will remain free from development in perpetuity. These clusters sometimes extend across municipal boundaries.

It is important for municipal planners to identify what parts of their municipality are protected from development to better anticipate how much growth is likely, and where that growth will or will not occur. It is also important for municipal planners to know if, or where, parcels are protected from development in surrounding municipalities. Although *Linking Landscapes* is not a detailed guide to land conservation, it does provide an introductory discussion of conservation easements and non-profit land trusts in *Chapter 6: Open Space Protected by Non-Profit Land Trusts*. The state agricultural conservation easement program is discussed in *Chapter 9: Protected Farmlands*.

Linking Landscapes Can Be Used by Municipalities for Planning Multi-Municipal Projects

One of the guiding principles of *Linking Landscapes* is that open spaces provide benefits to the community, but only if those open spaces are protected and linked together in a network instead of being isolated. This protected open space network consists of protected open space parcels linked together by recreational trails and wildlife corridors that in many cases cross municipal boundaries. Because the protected open space network is a regional infrastructure, it can only be established through multi-municipal cooperation and planning.

Linking Landscapes is not a detailed guidebook for multi-municipal planning, but it does provide information that can help municipalities conduct joint planning efforts. *Chapter 19: Planning and Acquiring an Open Space Network* provides an analysis of how the different types of open

space properties in the County are now linked, and could be linked in the future. This chapter provides a countywide evaluation that municipalities can use to identify isolated clusters of protected open space. This evaluation can also be used by municipalities to better develop strategies for linking together protected open spaces within and across municipal boundaries.

Chapter 12: Regional Recreation Corridors shows linear corridors that the Planning Commission and the Parks and Recreation Department have identified as possible multi-county trail locations. The corridors presented in *Chapter 12* can be used by one or more municipalities as a starting point for discussions about multi-municipal trail planning. As a result of such discussion, municipalities may find that there are viable multi-municipal trail corridors that are not presented in *Chapter 12*. Such an outcome would be consistent with *Linking Landscapes* because the corridors presented in *Chapter 12* are presented as possible recommendations and not planned trail alignments.

Chapter 13: Wildlife Biodiversity Corridors also presents mapping showing recommended linear open space corridors, except these corridors are set aside primarily for wildlife or natural resource protection. These recommended corridors can also be used by one or more municipalities to initiate multi-municipal discussions about preserving habitat that crosses municipal boundaries. Of course, some municipalities may find that there are viable multi-municipal wildlife corridors that are not presented in *Chapter 13*. Such an outcome would be consistent with *Linking Landscapes* because the corridors presented in *Chapter 13* are presented as possible recommendations and not planned wildlife corridor alignments.

One of the greatest impediments to multi-municipal planning is that there is no standard terminology used to discuss open space restoration and protection. Two or more municipalities that wish to undertake a joint open space protection project may find that their comprehensive plans and zoning ordinances use different definitions for the same words used in open space planning. Terms like “greenways” or “passive recreation” may be defined differently in adjacent municipalities. *Chapter 19: Planning and Acquiring and Open Space Network* includes a discussion of the terminology used by the County government in open space planning, and there is *Glossary* of open space planning terms at the end of the document. The definitions presented in the *Glossary* may not be accepted throughout the nation, but they at least provide a consistent viewpoint that can be applied through Chester County.

Linking Landscapes Can Be Used by Municipalities for Urban Open Space Planning

When it comes to protecting and restoring open space, the maintenance and revitalization of urban areas is just as important as protection of undeveloped land. When urban areas are permitted to deteriorate, their

residents move away and thus increase the development pressure on nearby suburban and rural areas. Many open space issues, such as farmland and forest protection, have little practical application to most urbanized areas and so many of the chapters in *Linking Landscapes* focus on issues that relate mostly to lower density communities. However, *Linking Landscapes* does also focus on open space issues that relate to Chester County's older urban centers, its boroughs and the City of Coatesville.

Municipal planners that wish to protect and restore the open spaces within their community must also maintain and revitalize their high-density towns and urban centers. It is impossible to have one without the other. Although *Linking Landscapes* is not an urban revitalization plan, it does address a number of issues that relate to improving the quality of life in urban center by improving recreational facilities and promoting the revegetation of urban communities. **Chapter 4: Parks** addresses municipal recreational parks including urban parks. **Chapter 12: Regional Recreation Corridors** details how urban areas can benefit when they are linked to federal, state or County parks. **Chapter 18: Extending the Open Space Network into the Built Environment** addresses issues such as street trees, vegetating parking lots, and the voluntary reduction of mowed lawn to improve groundwater recharge and reduce surface runoff.

Ending the Culture of “Sprawl”

Low-density land-consumptive development has become so commonplace in Chester County that many people have come to perceive it as an unstoppable force. It is difficult for a Chester County resident to drive through the highly developed communities in Delaware County, Lower Montgomery County or Northern New Castle County without wondering if Chester County will go the same way. It sometimes seems as if we in modern society have forgotten how to view our fields and forests as anything other than future sites for development. The idea that all open land will eventually become developed has almost become a part of our culture.

Fortunately, Chester County residents have learned from the experiences of our more developed neighbors. We know that open space provides important benefits and that low-density large lot development excessively consumes open space. We know that open spaces cannot function if they are isolated, and that the key to establishing a protected open space network is recognizing that protected open space is a form of public infrastructure. We know that “sprawl” can be avoided if, and only if, open spaces are protected from development in perpetuity while at the same

time development is clustered. Simply put, Chester County cannot physically accommodate both large-lot development and the protection of open space.

We know that property that is undeveloped, but not protected, can be developed at any time in the future, and so provides no meaningful long term open space protection. The key to controlling “sprawl” is not simply to increase the amount of vacant land, but to increase the amount of open space that is rigorously protected. We also know that the protection of Naturally Sensitive Areas, such as steep slopes and stream corridors is sometimes addressed by municipal ordinances, but that this action alone does not substantially reduce highly land-consumptive development.

We in Chester County also know that that there is no one person or group who can be blamed for allowing so much of the County’s open spaces to have been so wastefully developed. We all must take responsibility. Likewise we know that it is everyone, from the citizens, the landowners and the governments, to the farmers, the developers and the business community, who must all play a role in ensuring that Chester County realizes the vision for the County presented in *Landscapes*.

When the communities surrounding Chester County were overwhelmed with large-lot development in the 1960s and 1970s, they did not know what has happening to them, because they had never seen it before and did not know what its long-term effects would be. We in Chester County now know better, and that information is a powerful tool. We know that we cannot simply flee from expansive development like our parents and grandparents did. But we also know that we have the knowledge, and the resources and the will to put an end to the culture of “sprawl” and make sure that our County remains a place that we can sustain and enjoy forever.

Chapter 2



Goals and Challenges

Open Space and Landscapes

In 1996, the Chester County Commissioners updated the County Comprehensive Plan by adopting a Policy Element entitled *Landscapes, Managing Change in Chester County 1996-2020*. This document was all encompassing, and dealt with many factors that could affect the County's anticipated growth, from utilities and housing to human services and public health. Simply stated, *Landscapes* sketched out a plan for the future of Chester County.

Although *Landscapes* is commonly called the "County Comprehensive Plan," it is in reality only the Policy Element of the larger County Comprehensive Plan. In fact, the County Comprehensive Plan for Chester County is composed of many documents called elements, such as the Transportation Plan and the Water Resources Management Plan. *Linking Landscapes* is also an element of the County Comprehensive Plan. Since *Landscapes* is the Policy Element, it sets the overall policies that are followed in all of the other County Comprehensive Plan Elements. As a result, *Linking Landscapes*, which is the Open Space Element of the County Comprehensive Plan, follows all of the policies set forth in *Landscapes*.

This chapter presents the goals, objectives and policies presented in *Landscapes* that deal with the protection or restoration of open spaces within Chester County. It also describes how the policies presented in *Landscapes* were used as the foundation that guided the development of *Linking Landscapes*. Lastly, this chapter discusses some of the practical considerations and challenges that municipalities and other organizations should always keep in mind when planning any open space project.

Goals

Landscapes presented a series of ten "guiding goals" which were developed to provide an overall picture of what Chester County could be like by the year 2020. Each goal presented a broad vision without specific details. None of the ten guiding goals within *Landscapes* dealt exclusively with open spaces, but five of them did address issues that affect the protection or restoration of open spaces. These five guiding goals were:

- **Land Use Goal** – Preserve and enhance the diversified mix of urban, suburban and rural land uses through municipal cooperation by concentrating development.

- **Resources Goal** – Sustain and enhance natural, scenic, and historic resources for the benefit of current and future generations while accommodating planned growth.
- **Economic Development Goal** – Achieve and maintain a healthy business climate to ensure continued, sound economic growth, and to preserve the quality of life that has made Chester County an attractive place to live and work.
- **Transportation Goal** – Provide an intermodal transportation system which optimizes mobility, strengthens the economy, protects the environment and is compatible with the vision for Chester County.
- **Community Facilities Goal** – Provide accessible community facilities and services which meet the residents’ needs through the cooperation of the public and private sectors.

As this list indicates, protecting and restoring Chester County’s open spaces will help fulfill fully half the ten guiding goals presented in *Landscapes*. This listing also illustrates how the protection and restoration of open space enhances not only the quality of life, ecology and economy of Chester County, but also its transportation system. It is quite clear that *Landscapes* considers protected and properly functioning open spaces as an essential component of the County’s overall infrastructure, and not simply an added benefit.

Objectives

Within *Landscapes*, each of the guiding goals was broken down into “objectives.” These objectives are more practical activities that could possibly be realized in the near future. Each objective that deals with open space protection or restoration is listed in **Figure 2.1** beneath the guiding goal with which it is associated. These open space objectives are the foundation for all open space planning within the County. If Chester County is to coordinate the protection and restoration of its open spaces – and establish a functioning Protected Open Space Network – it is important that each individual open space project be consistent with these objectives.

Figure 2.1: Open Space Objectives from Landscapes

Open Space Objectives of the Land Use Goal (1.0)

- 1.1 Urban Landscape Objective - Strengthen urban centers to serve as mixed-use centers of concentrated commercial activity, employment opportunities, institutions, and residential variety to increase diversity and provide a sense of community.

- 1.2 Suburban Landscape Objective - Concentrate new residential development in Suburban Landscapes and concentrate industries and offices at locations adequately served by necessary infrastructure and accessible to employees.

- 1.3 Rural Landscapes Objective - Preserve the open, rural character of Chester County, supporting agriculture as the primary land use while enhancing villages to accommodate future development.

- 1.4 Natural Landscapes Objectives - Restrict development in areas with significant natural resources, including stream corridors, woodlands, wetlands, groundwater recharge areas, steep slopes, and ridge tops.

Open Space Objectives of the Resources Goal (2.0)

- 2.1 Natural Resources Objective - Achieve and sustain a high-quality natural resource system to protect public health and safety, and support and protect a diversity of ecosystems.

- 2.2 Scenic Resources Objective - Conserve and enhance scenic resources that reflect the County's natural and cultural heritage.

- 2.3 Historic Resources Objective - Preserve historic and cultural resources and their appropriate settings; use historic resources and the County's existing cultural landscape as a basis for creating strong community character.

An Open Space Objective of Economic Development Goal (3.0)

- 3.1 Business Retention and Expansion Objective - Retain and expand existing businesses to preserve the tax base and provide employment opportunities.

Open Space Objectives of the Transportation Goal (4.0)

- 4.1 Highway Objective - Provide a highway system that ensures the highest degree of mobility and accessibility, enhances the economy, protects the safety of its users, and supports the future land use pattern.

- 4.3 Non-motorized Travel Objective - Promote alternative means of travel to reduce automotive dependency, increase accessibility, and improve air quality.

Open Space Objectives of the Community Facilities Goal

- 5.1 Parks and Recreation Objective - Maintain and improve the quality of life and environment for residents of Chester County through the provision of parkland and recreational facilities.

 - 5.5 Cultural Objective - Enhance cultural opportunities to maintain a high quality of life.
-

Policies and Challenges

Of course, setting open space goals and objectives is of little value if no actions are taken to implement them. For this reason, *Landscapes* included a list of policies, which if followed, will protect or restore open space. Each of these policies, and its *Landscapes* reference number, is presented in *Figures 2.2* through *2.13* presented at the end of this chapter.

In the ideal world, a well thought out plan for protecting open spaces should lead to actions that improve the landscape and the community in a timely manner. In reality however, there are a great number of complications and problems that can arise when trying to implement such a plan. Open space projects can be derailed by inadequate funding, environmental permitting or even the unpredictable forces of nature. For this reason, *Figures 2.2* through *2.13* also include some of the practical considerations and challenges commonly faced when trying to protect open spaces. These challenges have been included to highlight the level of work and commitment required in establishing and maintaining protected open spaces. Although they may appear daunting, it is better to be aware of these challenges before beginning an open space project, than to find out about them after it has begun.

Policies Supporting an Open Space Network

Although all the policies listed in *Figures 2.2* through *2.13* encourage the protection and restoration of open spaces, the following six policies specifically recommend the establishment of a Protected Open Space Network:

- Develop a permanent **open space system** (1.2.5.)
- Create an **open space network** of natural resources (1.4.1.)
- Preserve and enhance the existing **network of stream valleys** (2.1.3.)
- Link concentrations of development through a **network for non-motorized travel** (4.3.2.)
- Establish a **County-wide greenway system** of protected natural resources (5.1.2.)
- Link the County-wide open space system to a **regional network** (5.1.8.)

Key Challenges

There are a number of key challenges that appear repeatedly in the **Figures 2.2** through **2.13**. The need to inventory resources, and assess future needs appears on most of the tables. Likewise, the role that private property owners play in preserving open space is frequently listed. Coordinating actions between government, private and non-profit land trusts is a common challenge, which will always be a part of open space planning. Similarly, the need to secure funding is also an ongoing – but essential – element of open space enhancement and preservation. Meeting these challenges will require creativity, resourcefulness, and a good measure of elbow grease, but that is what the citizens of Chester County must do if they want to implement the open space policies presented in *Landscapes*.

Figure 2.2: Open Space Policies of the Urban Landscapes Objective

<i>Landscapes Policy</i>	Challenges
(1.1.7.) Acquire, develop, and maintain community and neighborhood parks.	<ul style="list-style-type: none"> • There is a limited supply of undeveloped or naturalized land in many urban areas. • Urban property can be very expensive to acquire. • Hazardous wastes and other environmental concerns should be investigated before acquiring urban land.
(1.1.9.) Protect and restore urban historic and natural resources.	<ul style="list-style-type: none"> • Urban parks are more likely to suffer from vandalism, and need ongoing maintenance. • Providing staffing and maintenance of urban parks requires a consistent source of funding.

Figure 2.3: Open Space Policies of the Suburban Landscapes Objective

<i>Landscapes Policy</i>	Challenges
(1.2.5.) Develop a permanent open space system linking existing areas and adding new areas.	<ul style="list-style-type: none"> • Implementing this policy will require extensive cooperation and coordination. • The permanent preservation of open space usually requires the purchase of property or easements.

Figure 2.4: Open Space Policies of the Rural Landscape Objective

<i>Landscapes Policy</i>	Challenges
(1.3.1.) Encourage agricultural preservation, with priority given to areas with prime agricultural soils, and Agricultural Security Areas.	<ul style="list-style-type: none"> • Private land owners may not choose to participate in agricultural preservation.
(1.3.2.) Encourage cluster development on non-prime agricultural soils which maintains open space and retains the overall rural character.	<ul style="list-style-type: none"> • Private land owners may not choose to participate in cluster development for prime agricultural soils preservation. • Local officials may not want to include clustering in their ordinances.

Figure 2.5: Open Space Policies of the Natural Landscapes Objective

<i>Landscapes Policy</i>	Challenges
(1.4.1.) Create an open space network of natural resources for the many environmental benefits it provides.	<ul style="list-style-type: none"> • Inventories of natural resources must be periodically updated. • Implementing this policy will require extensive coordination.
(1.4.2.) Encourage municipal programs for natural resource preservation throughout Chester County.	<ul style="list-style-type: none"> • Funding is required for such municipal programs. • Municipalities may not have the staff available to administer natural resource preservation programs.
(1.4.3.) Encourage cooperation among conservation groups, municipalities, and the County to protect natural features.	<ul style="list-style-type: none"> • Implementing this policy will require extensive cooperation and coordination. • Conservation groups and municipalities may not choose to participate together in resource preservation.
(1.4.5.) Encourage cooperation between conservation and preservation groups to protect both natural features and historic resources.	<ul style="list-style-type: none"> • Conservation and preservation groups may not choose to participate together in resource preservation.

Figure 2.6: Open Space Policies of the Natural Resources Objective

Landscapes Policy	Challenges
(2.1.3.) Preserve and enhance the existing network of stream valleys and their aquatic habitats.	<ul style="list-style-type: none"> • An inventory of aquatic life will be required.
(2.1.4.) Prevent development in floodplains to protect public safety and water quality, and reduce public costs from flood damage.	<ul style="list-style-type: none"> • Certain development in floodplains can be legal and necessary. • Removing existing development in floodplains can be impractical.
(2.1.5.) Preserve wetlands for their ecological and hydrological functions.	<ul style="list-style-type: none"> • Detailed studies are needed to identify wetlands.
(2.1.6.) Preserve and enhance buffer areas around water bodies to mitigate environmental and visual impacts from adjacent uses and activities.	<ul style="list-style-type: none"> • Detailed studies are often required to determine the appropriate buffer area around a stream. • Private land owners may choose not to participate in stream preservation.
(2.1.8.) Support upgrades of stream quality designations by the Pennsylvania Department of Environmental Protection.	<ul style="list-style-type: none"> • Certain landowners may oppose the upgrade of quality designations for streams on their property.
(2.1.10.) Preserve and manage large woodland areas for their wildlife habitat and scenic values and their contributions to groundwater recharge, improved air quality, and erosion control.	<ul style="list-style-type: none"> • The permanent preservation of woodland usually requires the purchase of property or easements. • Managing woodlands requires a long-term commitment by trained staff.
(2.1.11) Preserve and manage habitats necessary for survival of existing rare, threatened and endangered species identified in the PNDI and the Chester County Natural Areas Inventory.	<ul style="list-style-type: none"> • Inventories of existing habitats must be updated periodically. • The permanent preservation of habitat usually requires the purchase of property or easements. • Managing habitats requires a long-term commitment by trained staff.
(2.1.17) Protect existing woodlands and encourage reforestation.	<ul style="list-style-type: none"> • Reforestation requires long-term commitment by trained staff. • Reforestation can be extremely labor-intensive.

Figure 2.7: Open Space Policies of the Scenic Resources Objective

<i>Landscapes Policy</i>	Challenges
(2.2.1.) Retain agriculture and villages to preserve the Rural Landscapes of the County.	<ul style="list-style-type: none"> • The viability of agricultural operations is greatly influenced by free market conditions that cannot be controlled. • Private land owners may choose not to participate in rural preservation.
(2.2.2.) Support the protection of designated scenic rivers and designation of additional stream segments.	<ul style="list-style-type: none"> • Private land owners may choose not to participate in scenic stream preservation.
(2.2.3.) Preserve visible ridgelines which contribute to the scenic character of the community.	<ul style="list-style-type: none"> • Private land owners may choose not to participate in scenic ridgeline preservation. • Preserving scenic ridgelines requires the preservation of both the ridge and the surrounding landscape. • Hilltops are ideal locations for transmitters and antennas.
(2.2.4.) Preserve and enhance scenic qualities along major roadways, especially gateways to the County and State.	<ul style="list-style-type: none"> • Most properties along scenic roadways are privately owned. Private land owners may choose not to participate in scenic roadway preservation. • Preserving scenic roadways requires the preservation of both the roadway and the surrounding landscape.
(2.2.5.) Encourage the design of new development to complement a community's scenic and historic character.	<ul style="list-style-type: none"> • Private land owners may choose not to participate in scenic preservation. • Local zoning ordinances may not include certain scenic preservation techniques.

Figure 2.8: Open Space Policies of the Historic Resources Objective

Landscapes Policy	Challenges
(2.3.1.) Promote an understanding of and appreciation for the County's historic and cultural landscape resources.	<ul style="list-style-type: none"> • Public education requires a long-term commitment by trained staff.
(2.3.2.) Promote and encourage a cultural landscape approach to the County's historic resources.	<ul style="list-style-type: none"> • Private land owners may choose not to participate in historic preservation.
(2.3.3.) Use the County's historic resources and cultural landscape as a basis for revitalizing and creating strong urban, suburban, and rural landscapes	<ul style="list-style-type: none"> • Implementing this policy will require extensive coordination. • The revitalization of communities is greatly influenced by free market conditions, and may require considerable incentives.
(2.3.4.) Encourage compatible development within and adjacent to historic districts and significant cultural landscapes.	<ul style="list-style-type: none"> • Private land owners may choose not to participate in historic preservation.
(2.3.5.) Promote the County's historic and cultural heritage in tourism and economic development programs.	<ul style="list-style-type: none"> • Implementing this policy will require extensive coordination. • The tourism industry is greatly influenced by free market conditions that cannot be controlled.
(2.3.7.) Support the identification and designation of eligible national, state, and local historic properties.	<ul style="list-style-type: none"> • Private land owners may choose not to participate in historic preservation. • Studies required to properly identify and designate an historic site may be too expensive for private property owners.

Figure 2.9: Open Space Policies of the Business Retention and Expansion Objective

<i>Landscapes Policy</i>	<i>Challenges</i>
(3.1.4.) Maintain agriculture as a significant sector of a growing, diversified economy.	<ul style="list-style-type: none"> • Agriculture operations are greatly influenced by free market conditions that cannot be controlled.
(3.1.6.) Encourage public/private partnerships to maximize opportunities to create a County-wide infrastructure of open space.	<ul style="list-style-type: none"> • Implementing this policy will require extensive coordination.
(3.1.7.) Retain and expand the cultural heritage of the County and use it as a basis to promote tourism.	<ul style="list-style-type: none"> • The tourism industry is greatly influenced by free market conditions that cannot be controlled.

Figure 2.10: An Open Space Policy of the Highway Objective

<i>Landscapes Policy</i>	<i>Challenges</i>
(4.1.6.) Create, enhance, and protect the aesthetic and scenic qualities of the entire road network.	<ul style="list-style-type: none"> • Most properties along scenic roadways are privately owned. Private land owners may choose not to participate in scenic roadway preservation. • Preserving scenic roadways requires the preservation of both the roadway and the surrounding landscape.

Figure 2:11: Open Space Policies of Non-motorized Travel Objective

Landscapes Policy	Challenges
(4.3.1.) Protect existing corridors and create new corridors to provide opportunities for non-motorized travel with links to other means of travel.	<ul style="list-style-type: none"> • Adding non-motorized traffic in areas where the existing motor vehicle roadways are congested even with improvements can create unsafe conditions. • Widening existing roadways and the installation of median barriers eliminate road crossings for non-motorized traffic.
(4.3.2.) Link concentrations of development through a network of corridors for non-motorized travel.	<ul style="list-style-type: none"> • Implementing this policy will require extensive coordination. • Private land owners may choose not to participate in non-motorized travel preservation.
(4.3.3.) Enhance pedestrian and bicycle connections within and between residential, commercial and employment areas, and between community facilities.	<ul style="list-style-type: none"> • An inventory of existing trail conditions will be required.
(4.3.5.) Provide separate bicycle facilities and pedestrian facilities to avoid user conflicts.	<ul style="list-style-type: none"> • Without extensive signing and education, pedestrians and bicyclists often use the same trails.

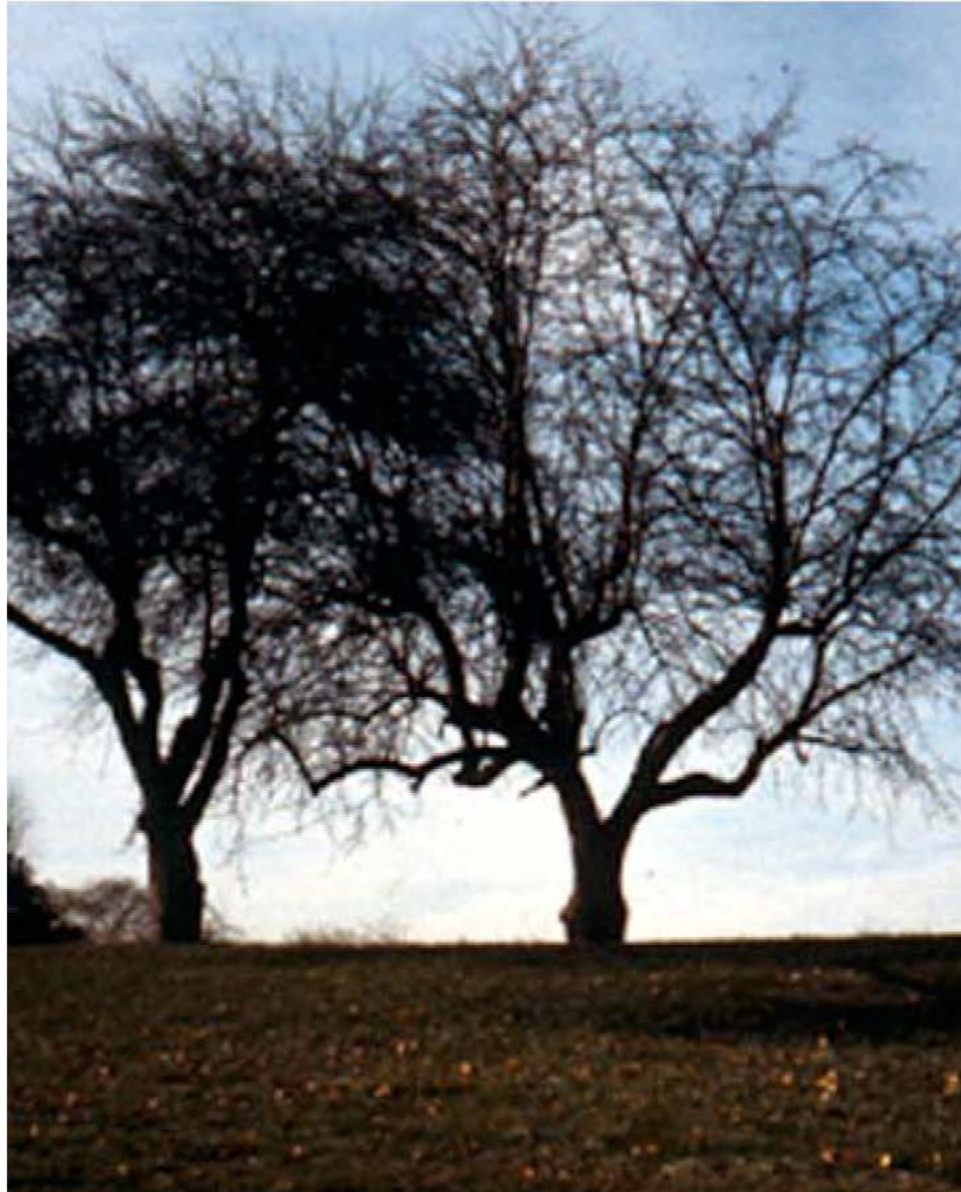
Figure 2:12: Open Space Policies of the Parks and Recreation Objective

<i>Landscapes Policy</i>	Challenges
(5.1.1.) Promote the protection of natural resources with park land acquisition and stewardship.	<ul style="list-style-type: none"> • Creating parkland requires extensive planning and construction efforts. • Land stewardship requires a long-term commitment by trained staff.
(5.1.2.) Establish a County-wide greenway system of protected natural resources.	<ul style="list-style-type: none"> • An inventory of potential greenways will be required. • Land acquisition requires funding for purchases, or extensive coordination to facilitate donations.
(5.1.3.) Provide new land for open space and recreational facilities to meet forecasted needs.	<ul style="list-style-type: none"> • Land acquisition can be costly and requires funding for purchases, or extensive coordination to facilitate donations. • Forecasts of open space and recreation facilities needs must be regularly updated.
(5.1.4.) Establish a trail and bikeway network to link residential areas, business uses, community facilities, and parks.	<ul style="list-style-type: none"> • An inventory of potential trails will be required. • Land acquisition requires funding for purchases, or extensive coordination to facilitate donations.
(5.1.5.) Ensure that special needs populations have access to parks, recreational facilities, and neighborhood parks.	<ul style="list-style-type: none"> • An assessment of special needs populations is required. • Adding handicap access to existing facilities can be expensive.
(5.1.6.) Provide diverse active recreational facilities and programs.	<ul style="list-style-type: none"> • Organizing and funding recreational activities can be time consuming and expensive.
(5.1.7.) Encourage and support joint recreational use of facilities among state, county, and municipal governments, local organizations, and school districts.	<ul style="list-style-type: none"> • Implementing this policy will require extensive coordination.
(5.1.8.) Cooperate with surrounding areas to link the County open space system to a regional network.	<ul style="list-style-type: none"> • Implementing this policy will require extensive coordination. • An inventory of open space outside the County will be required.

Figure 2.13: Open Space Policies of the Cultural Objective

<i>Landscapes Policy</i>	Challenges
(5.5.1.) Preserve, restore, and utilize historic resources to help to protect and promote the cultural heritage of Chester County.	<ul style="list-style-type: none"> • Private land owners may choose not to participate in historic preservation. • Restoring historic properties can be much more expensive and time consuming, than demolishing and rebuilding. • Historic sites may not meet modern standards, such as handicapped accessibility or electrical wiring.
(5.5.2.) Expand cultural opportunities by supporting the arts, including the development of theaters, arts schools, concert/music halls, museums, galleries, studios, publishing houses, etc.	<ul style="list-style-type: none"> • Commercial theaters, concert/music halls, and galleries are greatly influenced by free market conditions that cannot be controlled. • Art institutions often require extensive funding sources such as charitable foundations.
(5.5.3.) Increase coordination among school districts, colleges, and municipal governments to provide arts and cultural programs.	<ul style="list-style-type: none"> • Implementing this policy will require extensive coordination. • An inventory of cultural programs will be required. • Public education requires a long-term commitment by trained staff.

Chapter 3



*Chester County's Natural,
Cultural and Community
Resources*

Introduction

Natural, Cultural and Community Resources and Protected Open Space

When a municipality or any other organization decides to protect an open space from future development, their planners must first conduct an evaluation of the natural and cultural resources found within the site. Such an evaluation is needed to determine if the property has valuable natural features that should be maintained or historic buildings or landscapes that could become an asset to the community if protected. In many respects, it is the environmental evaluation of an open space property that will determine how it should be used. A parcel with flat slopes and few environmental constraints may be well suited for a recreation facility like a playground, while a property with wetlands and steep slopes would be better suited for a wildlife preserve.

It is also important to evaluate the demographics of the people who live around a protected open space. When planning a recreational open space, it is necessary to determine who will be the likely users. The age distribution of potential users is also important, as is the likely number of disabled people who will use the facility. It can also be valuable to gather information on people living around non-recreational open spaces, such as wildlife preserves. It is often nearby neighbors who form “friends-of” groups that provide greatly needed volunteer labor that helps maintain such naturalized areas.

Those municipalities that choose to protect naturally sensitive areas through zoning or subdivision ordinances must also gather information about environmental features. Before such ordinances can be adopted, municipalities must determine what Naturally Sensitive Areas are present in their community, so that they can formulate a way to protect them. Typically such naturally sensitive features include floodplains, steep slopes and other natural features.

This chapter provides a brief introduction to Chester County's natural, cultural and community resources. It identifies the major natural resources in the County, and briefly describes some of the key state and federal regulations that protect these resources. This chapter also presents demographic information that can be valuable in evaluating existing and future recreational open space needs. Lastly, this chapter includes a brief history of the County that can be used to help identify neighborhoods, buildings or landscapes that may have historic value. All of this information is presented on a countywide basis; it is not a detailed analysis. However, municipalities and other organizations can still use this generalized information as a starting point for the more detailed evaluations that they must conduct when initiating open space protection projects.

The names and addresses of selected organizations and government agencies that might be useful in open space protection projects are included throughout this chapter. In some cases phone numbers and web pages are also provided. Of course there may be other organizations that can provide assistance that are not listed in this chapter.

Chester County is a Central Part of the Mid-Atlantic Region

Chester County's regional location should always be considered by any municipality or other organization that plans to protect open space in the County. Large recreational open spaces, such as parks, can draw tourists from surrounding communities, and trails can link Chester County destinations with communities in other states and counties. For this reason it is important to examine how Chester County is accessed by people from the larger surrounding region.

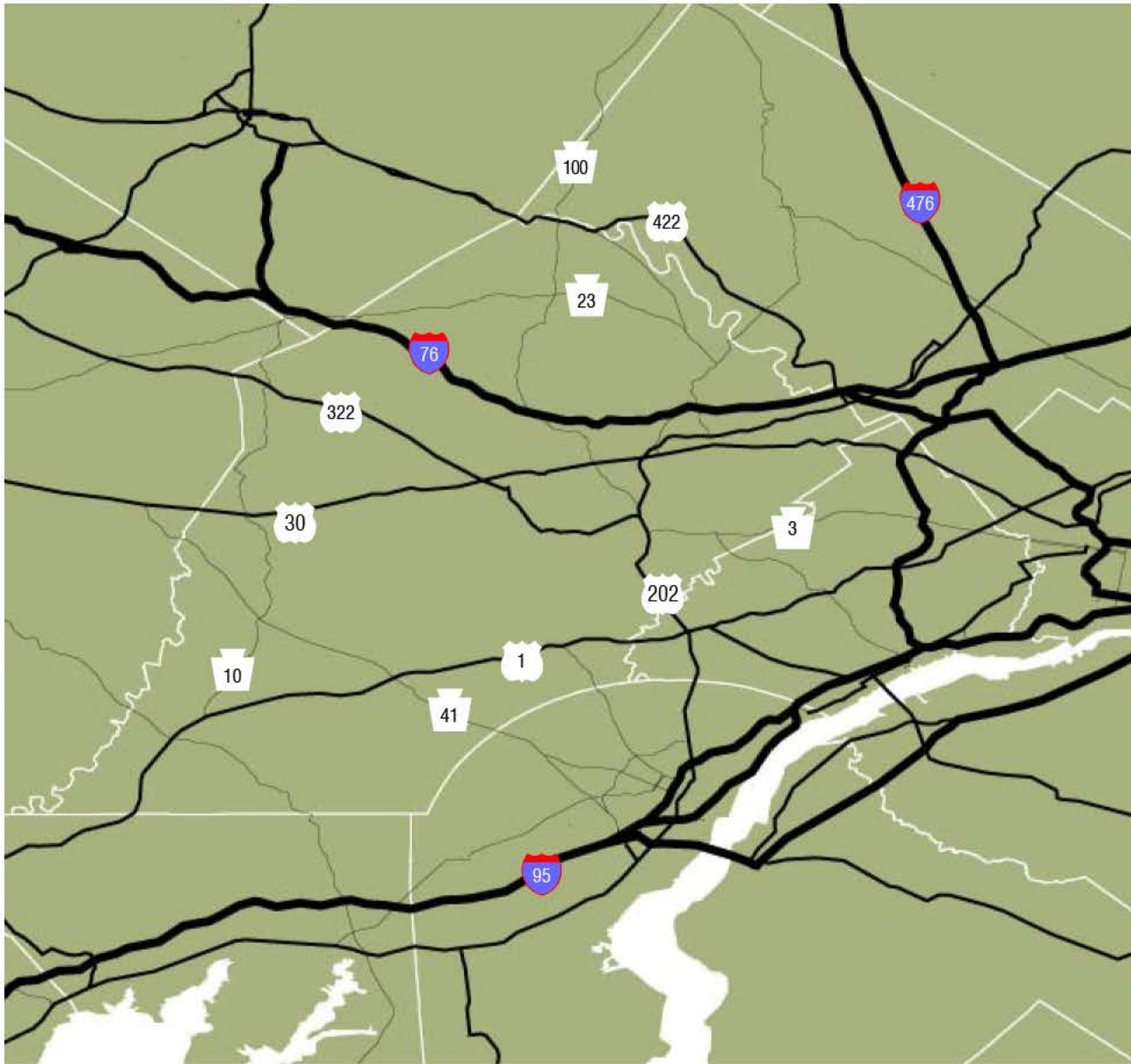
Chester County is situated near the center of the urbanized Mid-Atlantic corridor, or megalopolis, which extends from Boston to Washington, D.C. As *Figure 3.1* illustrates, the County is crossed by major highway corridors including the Pennsylvania Turnpike (Interstate Route 76), US Route 1, US Route 30, and US Route 202. Using such roadways, the residents of central Chester County are within 40 miles of "Center City" Philadelphia, PA, and 30 miles of downtown Wilmington, DE. Central Chester County is also within 80 miles of Harrisburg, PA, 100 miles of the City of Baltimore, MD and 125 miles of New York City, NY. Chester County is also crossed by commuter and freight rail lines mapped in *Figure 14.1* in *Chapter 14*.

Chester County covers 759 square miles – which is 485,845 acres – and contains 73 incorporated municipalities that are presented in *Figure 3.2*. General information on the County is available at www.chesco.org. Chester County is also part of the Delaware Valley Region, which consists of Bucks, Chester, Delaware, Montgomery and Philadelphia Counties in Pennsylvania, and Burlington, Camden, Gloucester, and Mercer Counties in New Jersey. The regional planning organization for this area is the Delaware Valley Planning Commission (DVRPC), which can be contacted at:

The Delaware Valley Regional Planning Commission

111 South Independence Mall East
Philadelphia, PA 19106-2582
215-238-2831
www.dvrpc.org

As *Figure 3.3* indicates, Chester County shares borders with six counties, including Cecil County, MD and New Castle County, DE. Lancaster County, PA and Berks County, PA are not part of a regional planning commission, however Cecil County, MD and New Castle County, DE are

Figure 3.1: Major Highway Corridors

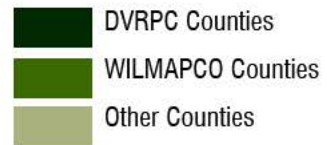
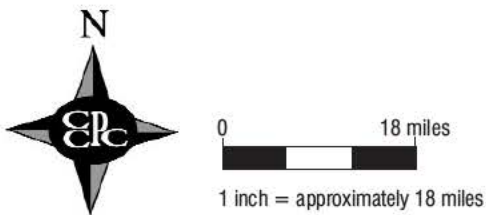
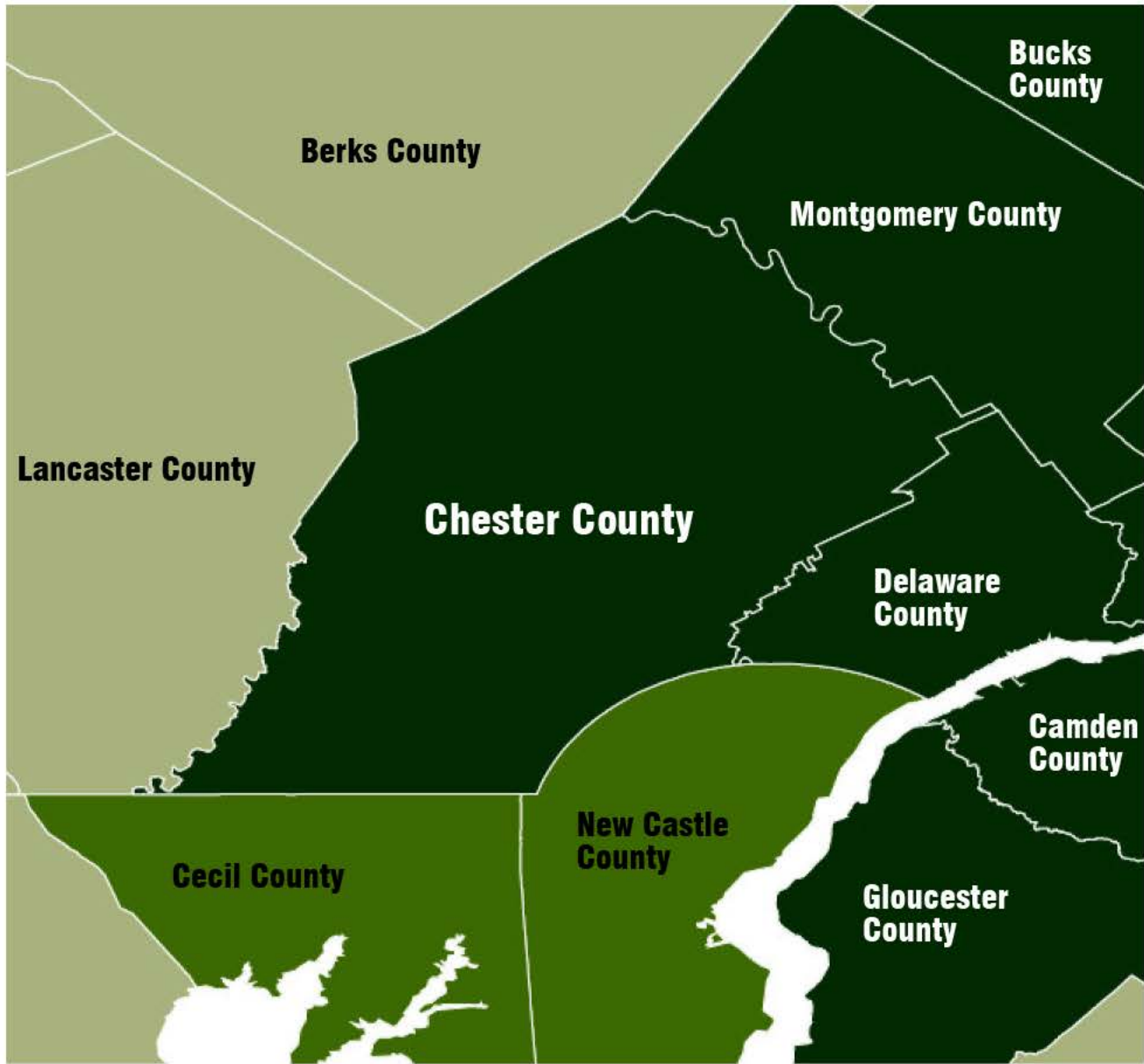
0 8 miles
1 inch = approximately 8 miles

-  Interstate Highways
-  Federal Highways
-  State Highways

The data and files for maps in this document were digitally compiled by the Chester County Planning Commission (CCPC) of Chester County, PA. This information and data are provided for reference purposes only and should not be used for any detailed engineering purposes. The CCPC and Chester County make no claims as to the completeness, accuracy, or currency of the paper map or the digital data and files used to generate the map.

Source: CCPC, 2001.

Figure 3.3: Surrounding Counties



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Source: ESRI, 1998.
CCPC, 2001.

both part of the Wilmington Area Planning Council (WILMAPCO). This organization can be contacted at:

Wilmington Area Planning Council
850 Library Avenue, Suite 100
Newark, DE 19711
302-737-6205
www.wilmapco.org

Natural Resources

Geology and Groundwater

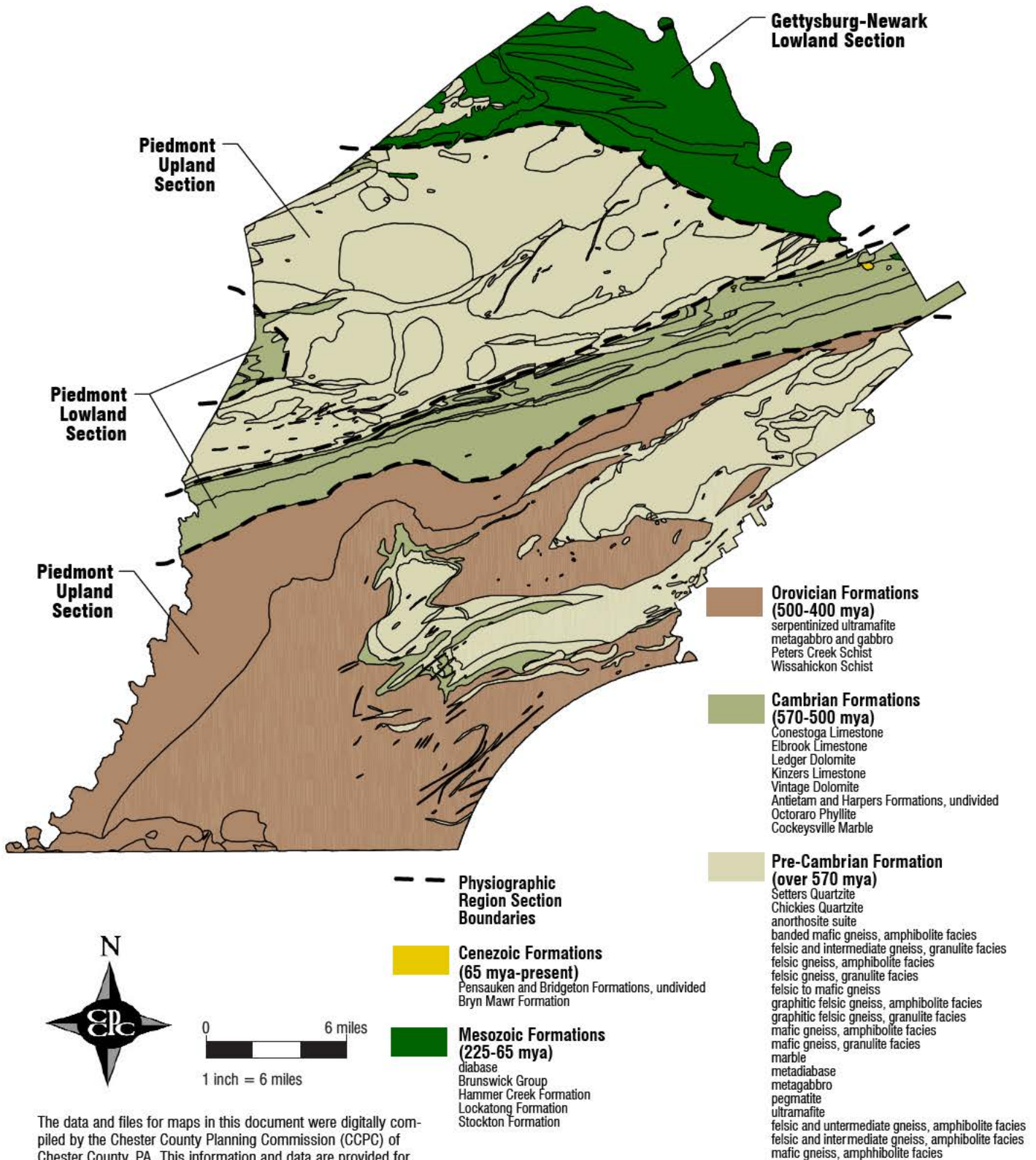
Any municipality or other organization that has identified an undeveloped parcel of land that they wish to protect as open space should have an understanding of the parcel's underlying geology and groundwater. The geology and groundwater features that underlie a landscape have a substantial impact on its topography, its soils and ultimately its vegetation. In many ways the character of a property is determined by its geology and it is essential for open space planners to understand the character of an open space property before they determine how it should be used. For example, the serpentine barrens of southern Chester County contain unique plant life that grows only in soils derived from the serpentine rich rock formations that underlie the area.

The following section provides a generalized discussion of the geology and ground water conditions throughout Chester County. More detailed information on Chester County geology and groundwater can be found in *Chester County Geology*¹ or *Water Use and Service in Chester County*² both available from the Planning Commission, or by contacting:

The Pennsylvania DCNR, Topographic and Geologic Survey
3024 Schoolhouse Road
Middletown, PA 17057
717-702-2017
www.dcnr.state.pa.us/topogeo

■ **Geology** Chester County is located within what geologists refer to as the Piedmont Physiographic Province as shown in *Figure 3.4*. This province consists of landscapes with similar topography, and it extends from New York to Georgia east of the Appalachian Mountains.³ In Chester County this province is broken into three "Sections." The Gettysburg-Newark Lowland Section, along the Schuylkill River, consists of rolling lowlands and isolated highlands. The Piedmont Lowland Section is found along the entire length of the Chester Valley and is characterized by valleys separated by broad low hills, with sinkholes in some areas. The

Figure 3.4: Generalized Geologic Formations of Chester County



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Note: mya = million years ago.
 Source: CCPC, 1996.

rest of the County is part of the Piedmont Upland Section, which consists of broad, low hills and valleys.

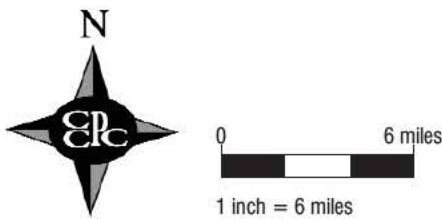
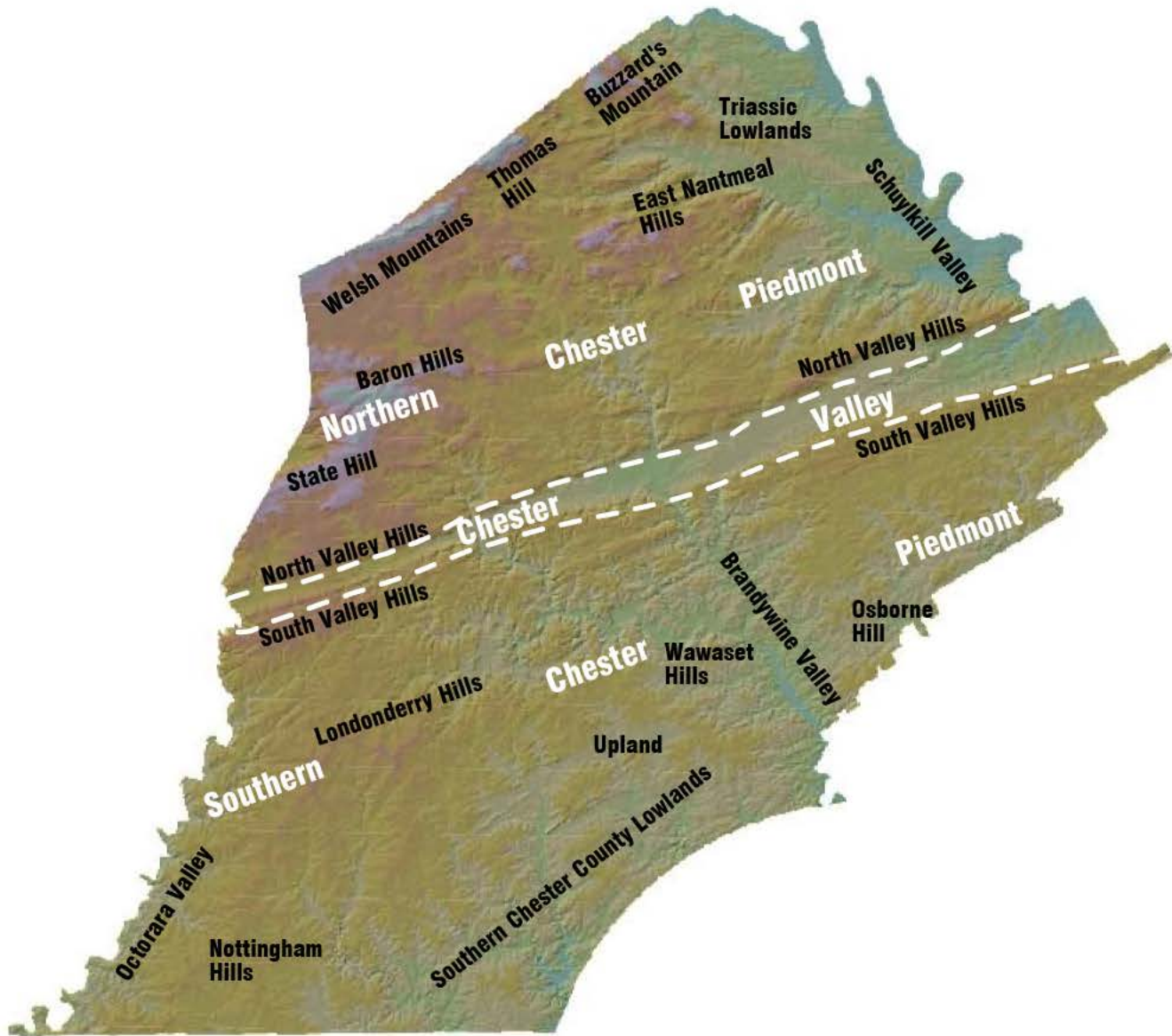
Understanding the geology underlying the County is important to understanding how and why Chester County's landscapes have developed as they have. There are over 40 different rock formations that underlie the County,⁴ the largest of which are presented in **Figure 3.4**. This map categorizes these formations into four major map units based on their age. This map also shows that formations dating to the Mesozoic Era generally underlie the Newark-Gettysburg Lowland Section in the northern part of the County, while the Cambrian Age Formations found in the Chester Valley underlie the Piedmont Lowland Section. The rest of the County is underlain by formations dating to either Ordovician Age or Pre-Cambrian Period.

■ **Topography** **Figure 3.5** presents a computer-generated relief map depicting the major valleys and ridges within Chester County. The County's ridges are commonly composed of hard, weather resistant rocks such as quartzites or diabase. These ridges tend to follow a northeast-to-southwest pattern, in contrast to most of the stream valleys, which flow east toward the Delaware River.⁵ The topography of Chester County ranges from a high of 1,071 feet above mean sea level (msl) at Welsh Mountain, to a low of 66 feet msl near the Schuylkill River at Valley Forge. Most of the County ranges from 350 to 650 feet msl. More information on the County's topography is available at www.epa.gov/eq under "Environmental Atlas" and "State Maps."

■ **Groundwater** Most of the County is underlain by hard crystalline rocks that have a low capacity to store or transmit large quantities of groundwater. The Eastern French Creek Valley is the only part of the County that can produce high groundwater yields, which are designated as over 60 gallons per minute (gpm). Moderate yields of 10 to 60 gpm, are common south of Chester Valley and near the Schuylkill River. Low yields, below 10 gpm, are common in the northwestern part of the County and between West Chester Borough and Easttown Township.⁶ More information on groundwater is available from the USGS at pa.water.usgs.gov, EPA at www.epa.gov/surf2 under "Watershed," and the DCNR at www.dvnr.state.pa.us/topgeo under "Groundwater." The limestone formations underlying the Chester Valley contain solution cavities, which are usually small underground caves and channels created by somewhat acidic water dissolving away the limestone. Sinkholes are formed when larger solution cavities collapse. Groundwater yields from these limestone formations vary, but this water is especially prone to being contaminated by pollutants seeping into the groundwater from the surface.⁷

Figure 3.6 shows the municipalities in Chester County that are within the Delaware River Basin Commission's (DRBC) Southeast Pennsylvania Groundwater Protection Area. The DRBC was formed in 1961 when the federal government and the states of Delaware, New Jersey, New York,

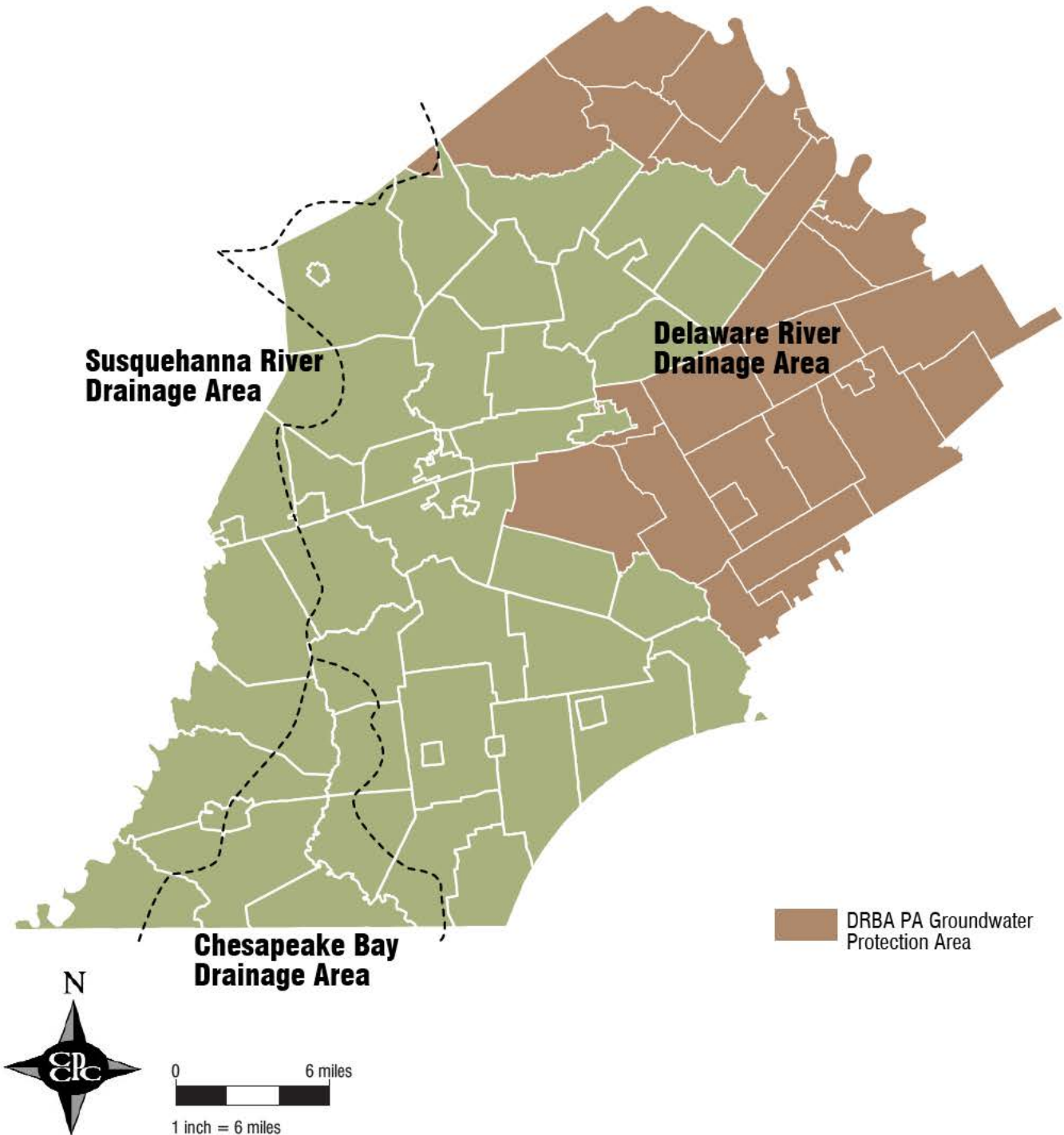
Figure 3.5: Chester County Topography



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Source: CCPC, 2001.
Chester County
Natural Environment
and Planning, 1963.

**Figure 3.6: Delaware River Basin Commission (DRBC)
Pennsylvania Groundwater Protection Area**



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Source: DRBC, 1999.
www.state.nj.us/drbc.

and Pennsylvania agreed to establish one agency that would be responsible for managing water resources within the Delaware River Basin. Within the Southeastern Pennsylvania Groundwater Protection Area, the DRBC requires permits for any groundwater withdrawal of more than 10,000 gallons over a 30-day period.⁸ There are no similarly designated groundwater protection areas in the parts of the County that drain into the Susquehanna River Watershed. There is no river basin commission with jurisdiction over the Elk Creek, Little Elk Creek, or Northwest Creek watersheds in Chester County, but information on the County's other basins is available from:

Delaware River Basin Commission

Box 7360
West Trenton, NJ 08628-0360
609-883-9500
www.drbc.net

Susquehanna River Basin Commission

1721 North Front Street
Harrisburg, PA 17102
717-238-0422
www.srbc.net

Soils

Understanding the nature and properties of the soils of Chester County is extremely important in open space planning. The presence of prime agricultural soils is one of the most important features that the County Agricultural Lands Preservation Board considers when determining what farms are eligible to be protected through easements. The presence of hydric soils is one of the defining features of wetlands. Furthermore municipalities that wish to protect naturally sensitive areas through zoning or subdivision ordinances may choose to include hydric soils as a resource to be protected.

Understanding soils can also aid in managing protected open spaces. Soils determine what vegetation will grow best in a given area and where recreation structures should be constructed. Municipal and other open space managers involved in constructing recreation facilities, trails or sports fields should also be familiar with the federal and state laws that regulate soil erosion and sedimentation. More detailed information on soils and laws regulating erosion and sedimentation can be found by contacting the following organizations:

Chester County Conservation District

601 Westtown Road, Suite 240
Box 2747
West Chester, PA 19380
610-696-5126 or 610-436-9182

Natural Resource Conservation Service

PA State Conservationist
One Credit Union, Suite 340
Harrisburg, PA 17110-2993
717-237-2200
www.pa.nrcs.usda.gov

■ **Soil Series and Soil Associations** The U.S. Department of Agriculture Natural Resource Conservation Service has mapped 39 different soil varieties in the County, called soil series. A soil series consists of a number of soils that all have a similar soil profile. In other words these soils have a similar texture, color and mineral content at roughly the same depth. Soils series are often found together in a particular location. These groupings of soil series are called soil associations, and are described in *Figure 3.7*. *Figure 3.8* shows the approximate location of the soils belonging to the largest soils associations in Chester County, while *Figure 3.9* shows the smaller ones. Soils are derived from the rocks beneath them, which explains why *Figures 3.8* and *3.9* show a similar overall pattern to the geology mapping presented previously in *Figure 3.4*.

■ **Sedimentation and Erosion** Sedimentation is the leading pollutant in Pennsylvania's waterways, and soil erosion damages the environment by depleting topsoil. The Federal Clean Water Act of 1977 requires a National Pollutant Discharge System Permit (NPDES) for all discharges – including sedimentation – that enter into surface waters of the U.S., including wetlands. Pennsylvania administers the NPDES program under the Pennsylvania Clean Streams Law of 1937. Regulations found in Title 25, Chapter 102 of the PA Administrative Code require any person who engages in an earth-moving activity which disturbs over 5,000 square feet of land to prepare and implement an Erosion and Sedimentation Pollution Control Plan (E&SCP). A copy of Chapter 102 can be obtained from the DEP Bureau of Dams, Waterways and Wetlands at 717-783-1384.

In Chester County, earth-moving activities that disturb more than 5,000 square feet, but less than five acres are reviewed at the municipal level. If an earth-moving activity affects five acres or more, an E&SCP must be submitted to the DEP, who then issues an earth disturbance permit. The DEP has agreed to delegate “Level 2” responsibilities to the Chester County Conservation District, which means that the District has responsibility for reviewing E&SCP and initiating enforcement actions according to Chapter 102. The DEP can be contacted at:

Pennsylvania Department of Environmental Protection

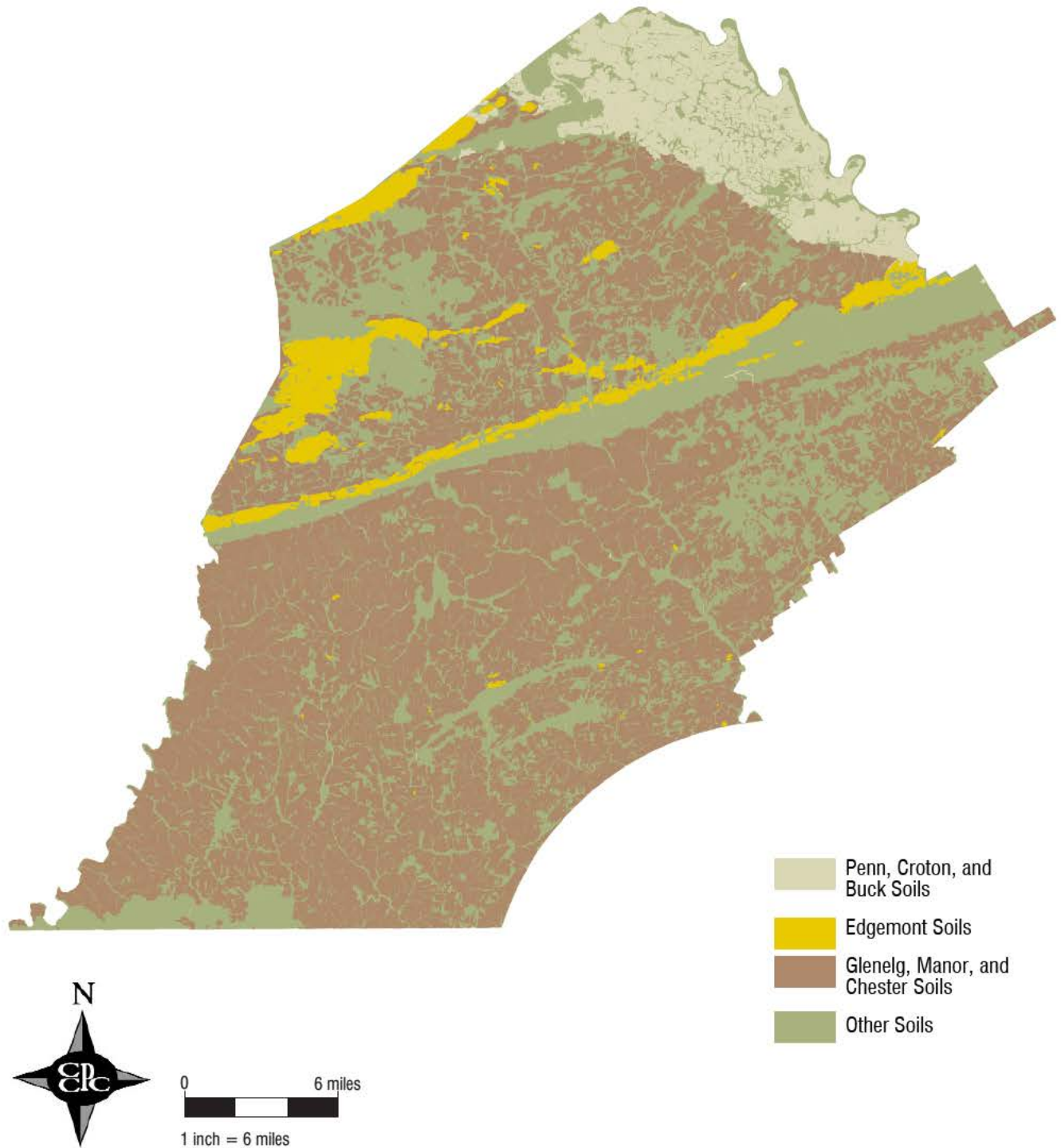
Southeast Regional Office
Lee Park, 555 North Lane, Suite 6010
Conshohocken, PA 19428-2233
610-832-6000
www.dep.state.pa.us

Figure 3.7: Soil Associations in Chester County

Association	Description	Natural Resource Value
Penn-Croton-Bucks (See Fig. 3.8)	Shallow to deep, silty soils that formed on red shale and sandstone. These soils can be nearly level to steep, but are gently rolling in most places. These soils were historically used for dairy farms.	Forests are dominated by oak species, with red maple, hickory and occasional dogwood. Soils support mayapple. Exotic plants grow in smaller woodlots.
Edgemont (See Fig. 3.8)	Moderately deep, channery soils that formed on grayish quartzite and phyllite. The soils are located on ridges and upper slopes. These soils can be nearly level to very steep, but are mostly gently to moderately sloping.	Forests are dominated by oaks, along with tulip poplar, red maple black birch and beech. Soils support blueberries, mountain laurel, azaleas and ferns.
Glenelg-Manor-Chester (See Fig. 3.8)	Shallow to deep, silty and channery soils that formed on grayish-brown schist and gneiss. These soils range from level to steep but the are gently to moderately sloping in most places. These soils, historically used for livestock and orchards, are subject to erosion and require conservation practices.	Forests contain beech, tulip poplar, hickory and oak, and red maple and red elm in wetter areas. Soils support hepatica, horse balm, Indian cucumber, and wild ginger. Hemlock is dominant on north slopes.
Hagerstown-Conestoga-Guthrie (See Fig. 3.8)	Deep, silty soils that formed on limestone. These soils range from level to moderately sloping.	Nearly all these soils have been cleared for agriculture at some time.
Neshaminy-Glenelg (See Fig. 3.8)	Moderately deep and deep, well-drained, silty, channery and gravelly soils on gabbro and granodiorite. Historically these soils were used for hay pastures.	Most of these soils have been cleared for agriculture. Remaining forests contain beech, red oak and white ash.
Neshaminy-Chrome-Conowingo (See Fig. 3.9)	Moderately deep and deep, silty soils that formed on serpentine bedrock. The soils can be nearly level to steep, but are moderately sloping in most places. Historically these soils were used for hay pasture.	The Chrome series, usually found on steep slopes, contains many rare plant species. Most of this area is known as "barrens" and contains pitch pine and scrubby oaks.
Montalto-Watchung-Mount Lucas (See Fig. 3.9)	Deep, silty and channery soils that formed on dark gray diabase bedrock. Because of the slope and stoniness of the soils, most of the land with these soils has remained forested.	The diabase rock underlying these soils provides rich nutrients that support a wide variety of species.

Sources: The Nature Conservancy, 1994. *Natural Areas Inventory for Chester County, PA*.
 USDA-Soil Conservation Service, 1963. *Soil Survey of Chester and Delaware Counties, PA*.
 CCPC, 1963. *Chester County Natural Environment and Planning*.

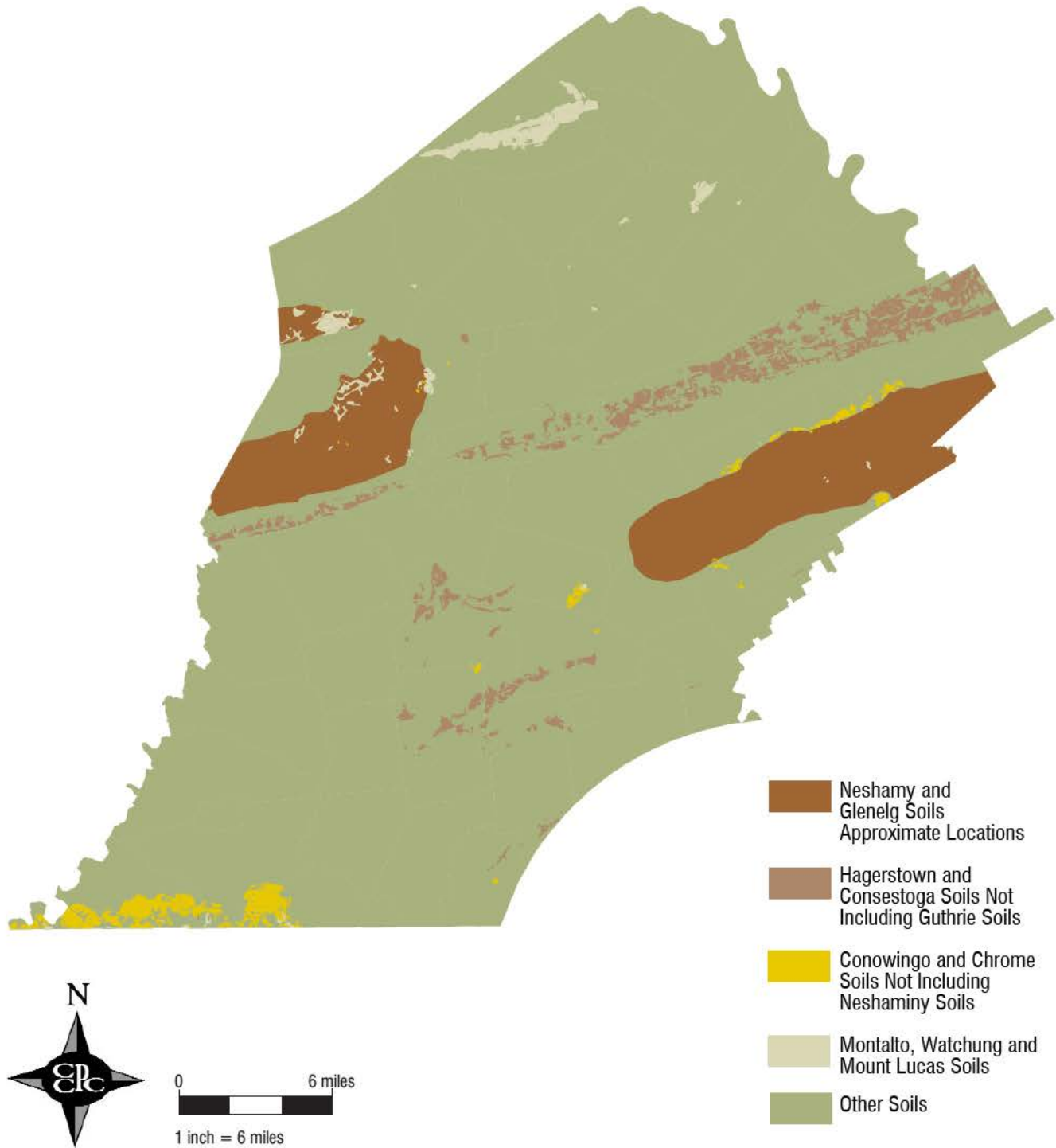
Figure 3.8: Major Soil Associations in Chester County



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Source: USDA-NRCS, 1997.
Soils Survey Database for
Chester County, PA.

Figure 3.9: Minor Soil Associations in Chester County



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Source: USDA-NRCS, 1997.
Soils Survey Database for
Chester County, PA.

Surface Waters

Surface waters include streams, rivers, lakes, ponds, or any other permanent or intermittent water feature. A knowledge of surface waters and how they are regulated and protected is important to open space planning. Streams and ponds serve as the sites of water based recreation like boating and fishing. Surface waters and vegetated stream valleys are also important as wildlife habitat and are sometimes protected as wildlife corridors. The shorelines around reservoirs can also be protected as open space to help in controlling storm water runoff and to reduce erosion and sedimentation. In some instances, the construction of recreation facilities such as trail stream crossings or boat launches may be regulated by state or federal agencies, and open space planners should be aware of these regulations.

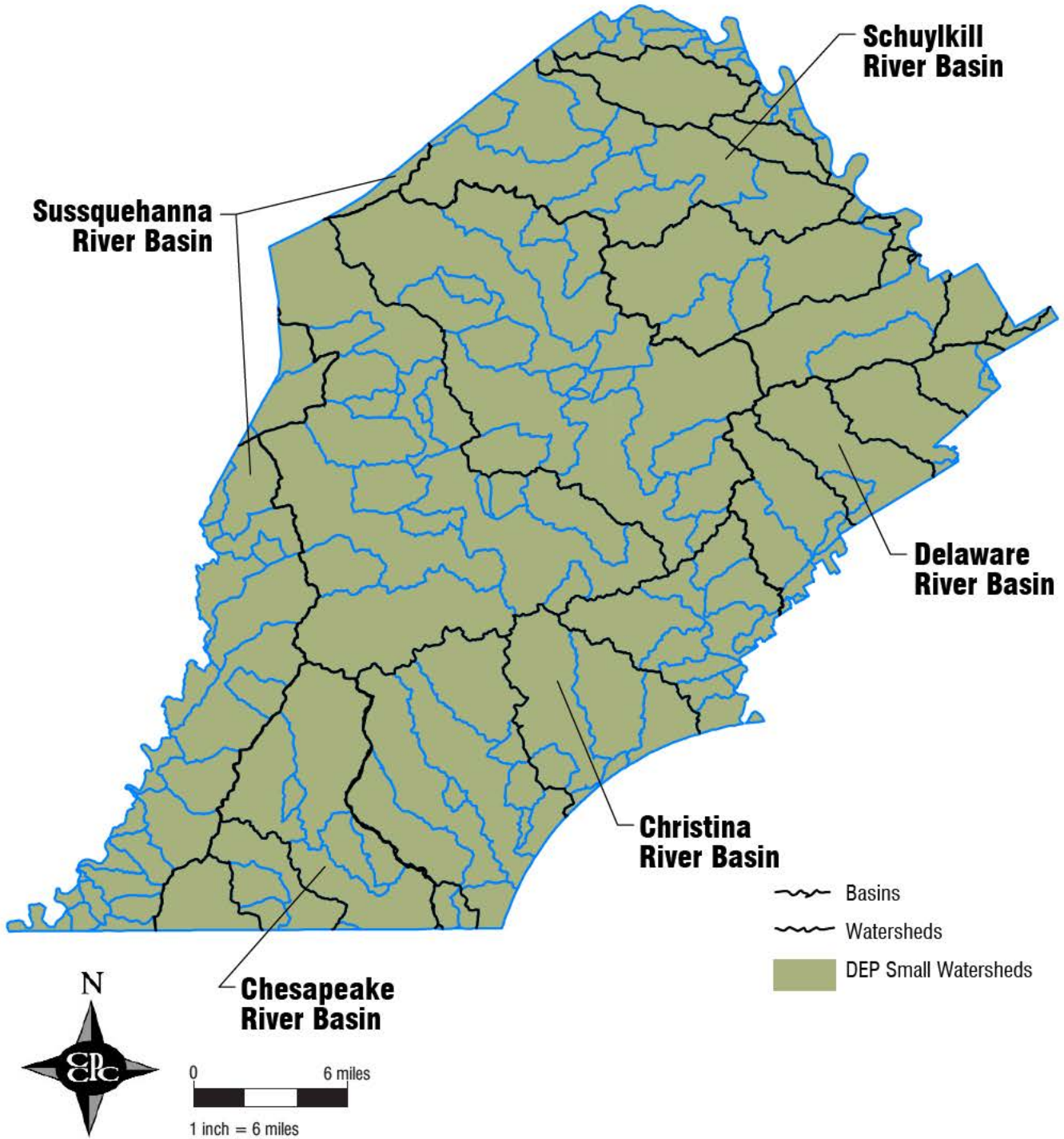
Municipalities that wish to protect naturally sensitive areas through zoning or subdivision ordinances should take a special interest in surface waters corridors. The areas around streams and ponds often include floodplains, hydric soils, wetlands and steep slopes, all of which are typically regarded as naturally sensitive areas. Water features also attract a wide variety of wildlife who use them as a drinking water supply. Furthermore, that fact that streams are linear, and often provide wildlife habitat, makes them suitable sites for establishing wildlife corridors.

■ **The Chester County Water Resources Plan** By late 2002, the Chester County Water Resources Authority (WRA) is scheduled to complete a comprehensive Water Resources Management Plan (WRMP) for all of the watersheds that are wholly or partially within Chester County. The WRMP will address the protection of streams and aquifers, guide the wise use of water resources, and further develop and support the County's efforts to manage growth and promote environmentally sensitive development practices. This document will be available at Planning Commission offices, and there are plans to post information from the report at the County web page, www.chesco.org.

■ **Streams and Basins** *Figure 3.10* presents the County's five major river basins, and its many watersheds. The Christina, Delaware, and Schuylkill River Basins all drain into the Delaware River. Information on the Delaware Estuary is available at www.delep.org. Information on the Christina River Basin is available at www.wr.udel.edu under "Christina Basin." The Elk Creek, Little Elk Creek, Northeast Creek and Susquehanna River Basins drain into the Chesapeake Bay, one of the East Coast's most important estuaries. Information on the Chesapeake Bay is available at www.chesapeakebay.net.

Chester County is crossed by numerous permanent and intermittent streams, many of which have never been named. The major waterways in the County that have been named are presented in *Figure 3.11*. As this maps shows, most of Chester County is characterized by gently winding streams. All of the large lakes in the County are man made and were

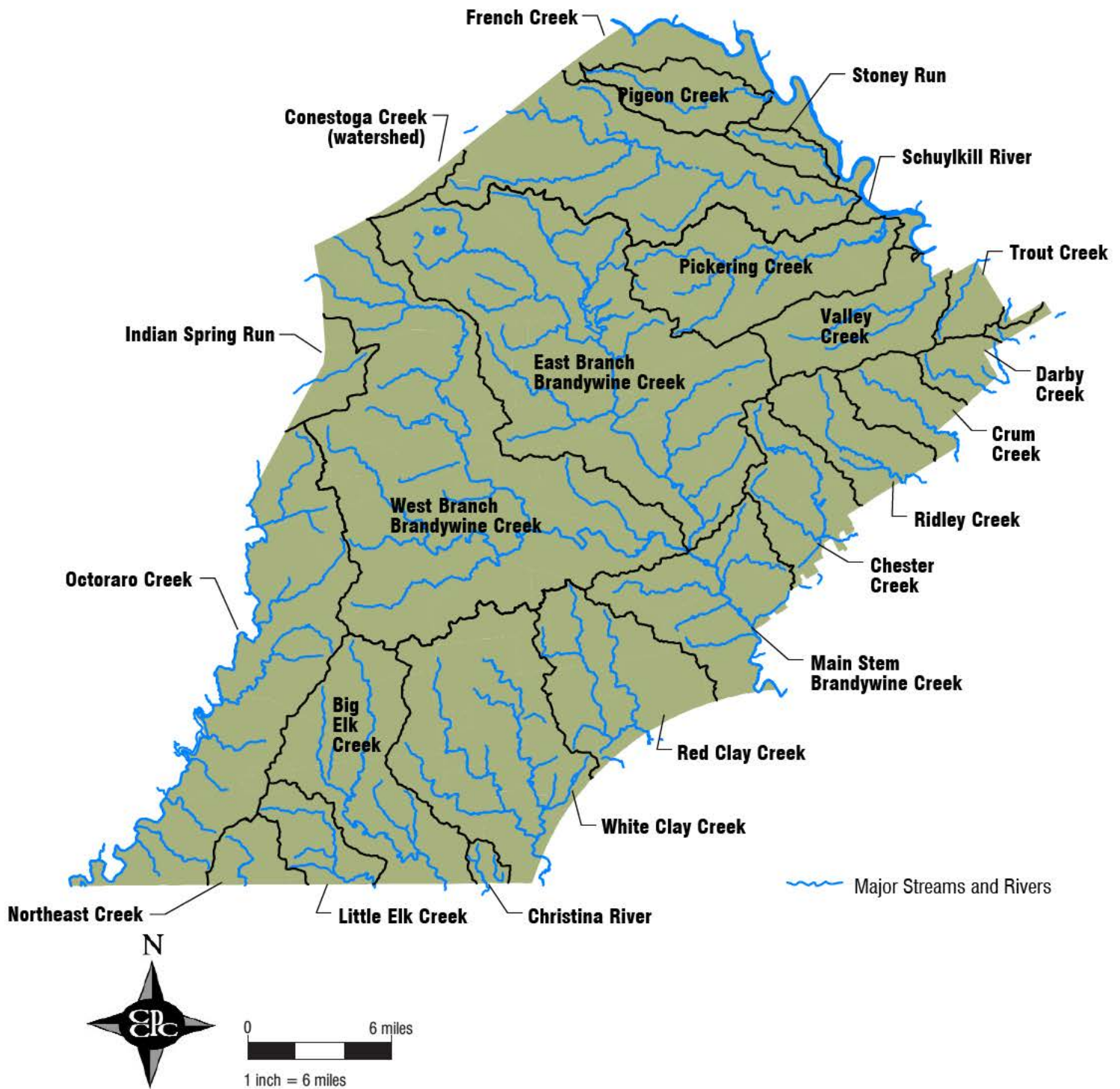
Figure 3.10: Major Drainage Basins and Watersheds in Chester County



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Source: PA DEP, 1997.

Figure 3.11: Major Streams in Chester County



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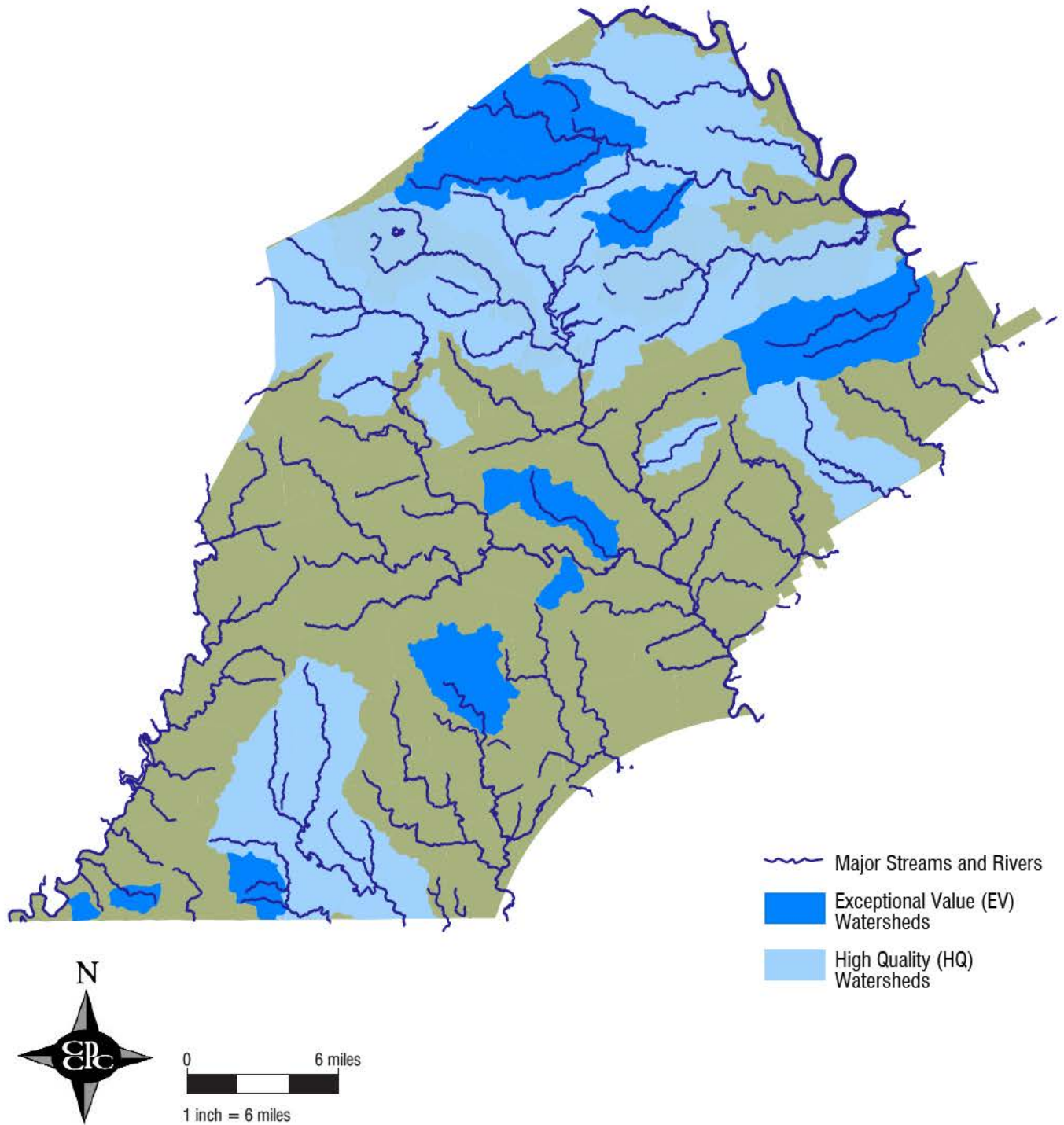
Source: CCWRA, 2000.
Aerial Data Reduction Assoc. Inc.
licensed to Chester County, 1994.

constructed for drinking water supplies, flood control, or both. These reservoirs include Pickering Reservoir, Marsh Creek Reservoir, Struble Lake, and Chambers Lake in Hibernia County Park. Marsh Creek and Struble Lake lie within state-owned recreation areas. Information of streams and stream flow conditions in Chester County are available from the USGS at pa.water.usgs.gov.

■ **Water Quality Regulations** The Federal Water Pollution Control Act of 1972 regulates the quality of the water that flows through Chester County's streams. Under this legislation, the Environmental Protection Agency (EPA) developed regulations designed to protect the physical, chemical and biological integrity of streams throughout the U.S. These EPA regulations also required each state to develop water quality standards and to develop programs to prevent further stream degradation. Pennsylvania complied with these regulations by establishing water quality standards in Chapter 93, "Water Quality Standards," of the Pennsylvania Department of Environmental Protection's Rules and Regulations. Chapter 93 designates the protected water uses – such as trout stocking, irrigation or potable water supply – for each stream in the Commonwealth. Chapter 93 also provides specific water quality criteria – such as pH, alkalinity or bacteria levels – that are necessary to protect these uses.⁹ A copy of Chapter 93 is available from the DEP Bureau of Watershed Conservation at 717-787-9637.

■ **Specially Protected Waters** Chapter 93 designates some of Pennsylvania's streams as Special Protection Waters, which are listed as either "Exceptional Value Waters" or "High Quality Waters." Exceptional Value (EV) Waters are streams or watersheds with outstanding ecological or recreation value. EV Waters must be protected so that they maintain their existing quality. EV Waters may include waters of County parks, state game lands, wilderness areas, trout streams or waters used as an unfiltered potable water supply source. High Quality (HQ) Waters are streams or watersheds with excellent quality waters, and environmental or other features that require special water quality protection. HQ Waters must be protected, but the water quality can be lowered for necessary social and economic development if all existing uses of the stream are protected.¹⁰ EV or HQ watersheds in Chester County are shown in *Figure 3.12* and listed in *Figure 3.13*.

Figure 3.12: Special Protection Waters



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Source: CCWRA, 2000.
PA DEP, 1997.

Figure 3.13: Special Protection Waters in Chester County**Exceptional Value Watersheds**

- | | |
|---|---|
| • Barren Brook | • Little Valley Creek |
| • Birch Run (French Creek Watershed) | • Pine Creek (French Creek Watershed) |
| • Black Run | • Rock Run (French Creek Watershed) |
| • Broad Run (W. Br. Brandywine Creek Watershed) | • South Branch French Creek |
| • East Branch White Clay Creek | • Unnamed Tributary to Octoraro Creek |
| • French Creek | • Unnamed Tributary to W. Branch Brandywine Creek |
| • Jordan Run | • Valley Creek |

Exceptional Value Watersheds

- | | |
|--|---|
| • Beaver Run | • McDonald Run |
| • Big Elk Creek | • North Branch Indian Run |
| • Birch Run (Brandywine Creek Watershed) | • Pequea Creek |
| • Black Horse Creek | • Pickering Creek |
| • Broad Run (E. Branch Brandywine Creek Watershed) | • Pigeon Creek |
| • Crum Creek | • Pigeon Run |
| • Culbertson Run | • Pine Creek (Pickering Creek Watershed) |
| • East Branch Big Elk Creek | • Ridley Creek |
| • East Branch Brandywine Run | • Shamona Creek |
| • French Creek | • Stony Run |
| • Hodgson Run | • Two Log Run |
| • Hunters Run | • Unnamed Tributary to E. Branch Brandywine Creek |
| • Indian Run | • Unnamed Tributary to Schuylkill River |
| • Jug Hollow | • Unnamed Tributary to West Branch Brandywine Creek |
| • Little Elk Creek | • Ways Run |
| • Lyons Run | • West Branch Big Elk Creek |
| • Marsh Creek | • West Branch Brandywine Creek |

■ **Waters Supporting Trout** Because trout prefer water cooler than 70 degrees Fahrenheit and are sensitive to pollution, the PA Fish and Boat Commission (FBC) has compiled a “Listing of Surveyed Streams having Verified Trout Reproduction.”¹¹ Technically speaking, it is only sections of streams that are listed, not the entire stream. The sections of the streams in Chester County on this listing are:

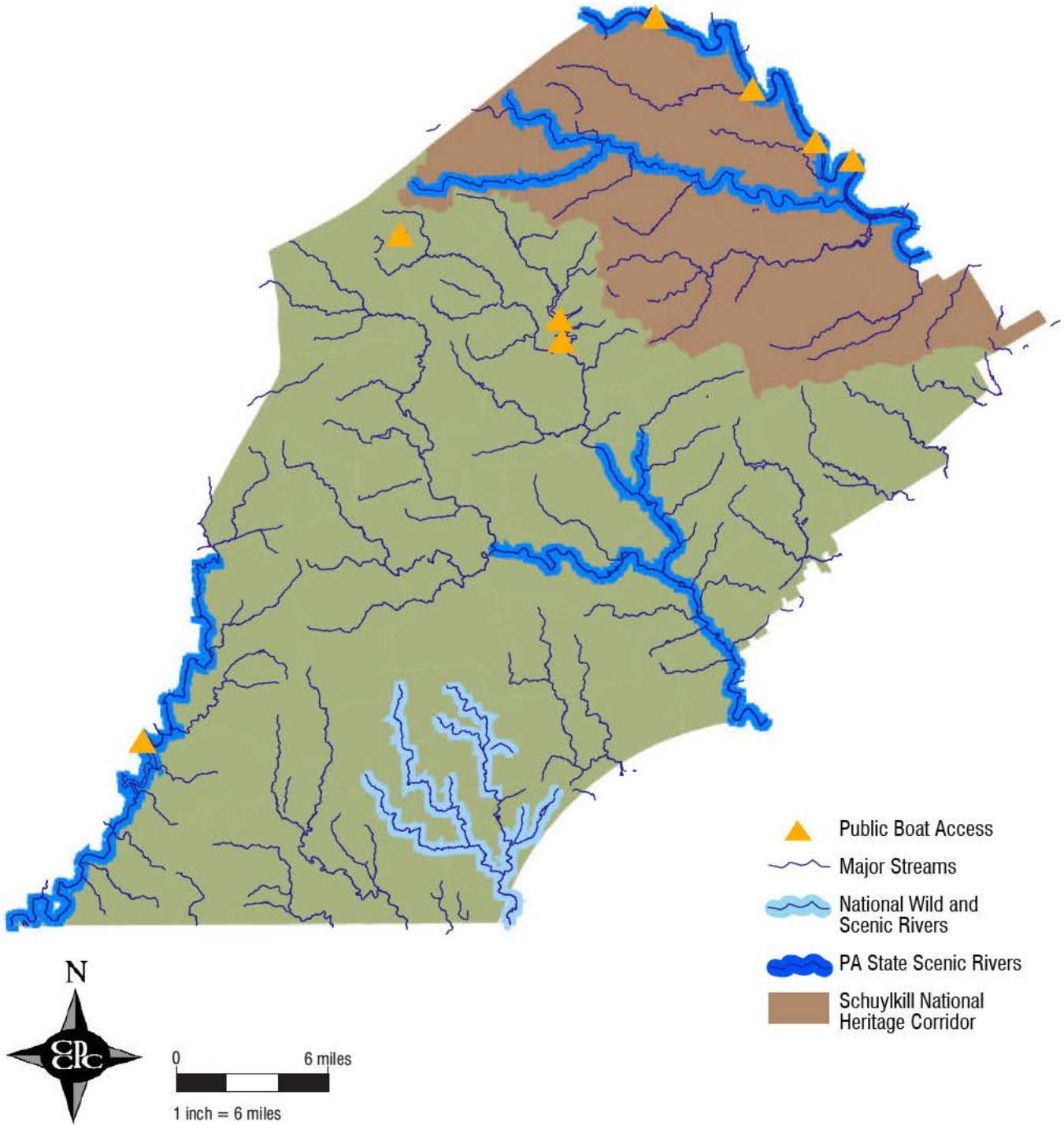
- **Indian Run**, tributary to East Branch of Brandywine Creek, from SR 82 to its headwaters.
- **North Branch**, tributary to Indian Run, from its mouth to its headwaters.
- **Valley Creek**, tributary to the Schuylkill River, from its mouth to its headwaters.
- **Little Valley Creek**, tributary to Valley Creek, from its mouth to its headwaters.
- **Unnamed**, tributary to little Valley Creek, from its mouth to its headwater.

The FBC also designates Class A Wild Trout Waters, which “support a population of naturally produced trout of sufficient size and abundance to support a long-term and rewarding sport fishery.” In Chester County the only 1998 Class A Wild Trout Water is Little Valley Creek from the tributary upstream from Route 202 in Tredyffrin Township downstream to its mouth in Valley Forge National Historic Park, and only for brown trout.¹² More information on trout streams and fishing in Chester County is available from:

Pennsylvania Trout/Trout Unlimited
RD 4, Box 140 AA
Greensburg, PA 15601
www.patROUT.org

■ **Wild and Scenic Rivers** The National Wild and Scenic Rivers Act of 1968 (Public Law 90-542) established a national system to protect selected free flowing rivers with outstanding natural, cultural and recreational features. In 1991, citizens of the White Clay Creek area requested that the Creek be considered for the National Wild and Scenic Rivers System. The U.S. Congress agreed, and in December 1991 passed the White Clay Creek Study Act, which authorized the National Park Service (NPS) to conduct a study of the watershed. In 1999, the NPS completed the *White Clay Creek and its Tributaries Wild and Scenic River Study* which was then submitted to Congress.¹³ In October 2000, the President signed legislation designating 190 miles of waterways within the White Clay Creek Watershed as National Wild and Scenic Rivers. **Figure 3.14** shows the sections of White Clay Creek that have been designated. Information on National Wild and Scenic Rivers is available from PA Act 283, the Pennsylvania Scenic Rivers Act of 1972, established the Commonwealth’s

Figure 3.14: Wild and Scenic Rivers



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Source: PA DCNR, 1993.
NPS, 1999.

intent to protect and conserve river segments that have outstanding aesthetic and recreational value. River segments which possess these values are listed in the Pennsylvania Scenic Rivers System administered by the DCNR. Rivers listed in the system are designated as wild, scenic, pastoral, recreational or modified recreational based on the values they possess. Of course, these are many waterways in Chester County that are used for recreation that are not part of the Scenic Rivers system. **Figure 3.14** shows rivers in Chester County that have public boating access areas.

The first column of **Figure 3.15** lists the Pennsylvania Scenic Rivers within Chester County as depicted previously in **Figure 3.14**. Information on the state Scenic Rivers System is available at www.dcnr.state.pa.us/rivers. The DCNR has also established the Cold Water Heritage Partnership Projects program to help preserve cold water streams. Currently no Chester County streams are included in this program.

■ **The Pennsylvania Rivers Conservation Program** PA Act 150, the Keystone Recreation, Park and Conservation Fund Act of 1993, authorized the DCNR to make grants to municipalities and other appropriate organizations, for the protection and conservation of rivers within the Commonwealth. In order to implement this legislation, the DCNR has developed the Pennsylvania Rivers Conservation Program. This program provides technical and financial assistance to municipalities or river-support groups that wish to complete River Conservation Plans.

Each River Conservation Plan covers an entire watershed, and is used to plan and prioritize projects that can be implemented within the watershed. Once the River Conservation Plan is completed and approved, the watershed is listed on the Pennsylvania Rivers Conservation Registry. The Registry is constantly adding new rivers. Updated information on the Registry is available at www.dcnr.state.pa.us/rivers. Once the watershed is listed on the Registry, local river conservation projects can then be implemented. The second column of **Figure 3.15** presents the status of watersheds within Chester County that initiated a River Conservation Plan. The County Water Resource Management Plan currently being completed by the WRA will serve as the Rivers Conservation Plan for all of the watersheds in the County that are not listed in column two of **Figure 3.15**.

Figure 3.15: The Status of Rivers Conservation in Chester County

Watershed	Federal and State Wild and Scenic Rivers Programs	PA Act 150 Conservation Status
Brandywine Creek Lower	<ul style="list-style-type: none"> PA Scenic River with scenic and pastoral designations for 65.85 miles. 	
Chester Creek		<ul style="list-style-type: none"> River Conservation Planning
Darby Creek		<ul style="list-style-type: none"> River Conservation Planning
Elk Creek, Big		<ul style="list-style-type: none"> River Conservation Planning
Elk Creek, Little		<ul style="list-style-type: none"> River Conservation Planning
French Creek	<ul style="list-style-type: none"> PA Scenic River with wild and scenic designations for 42.75 miles. 	<ul style="list-style-type: none"> Listed on the River Conservation Registry River Conservation Implementation
Octararo Creek	<ul style="list-style-type: none"> PA Scenic River with scenic and pastoral designations for 36.5 miles 	<ul style="list-style-type: none"> River Conservation Planning
Pickering Creek		<ul style="list-style-type: none"> Listed on the River Conservation Registry River Conservation Implementation
Ridley Creek		<ul style="list-style-type: none"> Listed on the River Conservation Registry River Conservation Planning
Schuylkill River	<ul style="list-style-type: none"> PA Scenic River with pastoral, recreational and modified recreational designations for 126.5 miles. 	<ul style="list-style-type: none"> River Conservation Planning
White Clay Creek	<ul style="list-style-type: none"> National Wild and Scenic River for 190 miles. 	<ul style="list-style-type: none"> River Conservation Planning

Sources: PA DCNR, Undated Fact Sheet circa 1999. The Pennsylvania Scenic Rivers System PA DCNR, 1998. The Pennsylvania Rivers Conservation Registry.
PA DCNR, Undated Fact Sheet circa 1995. PA Rivers Conservation Program Project Maps.

■ **Other Water Quality Preservation Programs** There are also a number of water quality preservation programs that are active within the County. The Chester County Conservation District administers a Nutrient Management program that addresses existing and potential non-point source pollution from agricultural operations. The program provides technical assistance to farmers in developing and implementing nutrient management and farm conservation plans. The District also helps administer the following programs that distribute grants to improve or maintain water quality:

- **The Chesapeake Bay Non-Point Source Pollution Abatement Program** is a pollution control program directed to assist agriculture in the Susquehanna River Basin. The program has targeted increased planning, and educational, technical and financial assistance to help landowners install Best Management Practices (BMP) that improve water quality by reducing nutrient loading of streams.
- **The Red and White Clay Creek Program** established five “Water Quality Demonstration Farms” that show BMPs for mushroom and dairy farms in the watershed. The District also completed a PL-566 Land Treatment Program plan to minimize or treat non-point source pollution for the watershed. The PA State Conservationist then approved this plan. Since approval, over \$5 million worth of BMPs have been funded. BMPs can also include riparian planting, wetland enhancements and stream bank stabilization.
- **The Interstate Christina Basin Project** operates as a partnership involving various federal, state and local agencies from both Delaware and Pennsylvania. The purpose of the program is to develop Total Maximum Daily Loading (TMDL) for point sources and non-point sources of pollution from various sources. The project is completing a Basin Plan, and it has sponsored a number of demonstration projects.

Floodplains

Floodplains have many features that make them especially well suited for protection as open space. Most of the floodplains in Chester County have not been developed because of their high flood potential. However, some of the County’s older communities were built in floodplains. Floodplains typically provide ideal habitat for wildlife. They are often undeveloped, they are near a source of surface water from which animals can drink, and they are often fringed by wetlands and trees that provide animals with protection and nesting materials. Because floodplains are linear, they can also be locations for wildlife corridors. Municipalities that wish to protect naturally sensitive areas through zoning or subdivision ordinances usually provide some sort of protection for floodplains. A map of floodplains in Chester County is presented in *Figure 13.5* in *Chapter 13*.

Technically speaking, a floodplain is an area that is partially or completely inundated during flood conditions. A floodplain consists of two parts, an

inner floodway surrounded by an outer flood fringe. A floodway, in general terms, is the deep central stream channel within a floodplain. The floodway fills during flood conditions, but still allows deep, fast moving waters to pass downstream. The flood fringe is the flatter part of the floodplain, outside the floodway that becomes flooded when the floodway overflows. Broader floodplains are usually found in low-lying areas adjacent to slow winding streams such as south of Avondale Borough, or where major waterways meet such as in central Phoenixville Borough.

Floodway Maps and Flood Insurance Rate Maps are available from the Federal Emergency Management Agency (FEMA). In 1996, FEMA completed a *Flood Insurance Study, Chester County, Pennsylvania (All Jurisdictions)*. The *Study* described floodplain characteristics throughout the County and mapped the 100-year and 500-year floodplains based on hydraulic and hydrological studies. There is a 1.0 percent chance that a flood will equal or exceed the 100-year floodplain in any given year, and a 0.2 percent chance for the 500-year floodplain.¹⁴ Protected open spaces that contain floodplains should be planned and managed to accommodate possible flooding.

The National Flood Insurance Act of 1968 allows communities to obtain federally subsidized flood insurance through the National Flood Insurance Program, if those communities meet certain requirements. This program requires communities to regulate development in 100-year floodplains. Currently all of the municipalities in Chester County regulate development on these floodplains, except Honey Brook and West Grove Boroughs, which have no floodplains. PA Act 166, the Floodplain Management Act of 1978, requires all flood prone communities to participate in the national program. Title 25, Chapter 106 of the PA Administrative Code, requires permits for a variety of construction activities in floodplains involving state and local governments or utilities. This permit program, administered by municipalities and the DEP, also regulates the construction of all floodplain obstructions, which could include some structures used for recreation.

Wetlands

Wetlands are extremely important to protecting water resources, providing wildlife habitat, and reducing flooding. Any municipality or other organization that wishes to protect a parcel of open space should conduct an evaluation to determine if the property contains wetlands. Wetland environments are highly productive in terms of the amount and variety of plants and animals that live on them. Parcels with abundant undisturbed wetlands are therefore especially well suited as locations for protecting wildlife habitat.

Because wetlands have wet soils during much of the year, they are not ideal locations for many constructed recreational facilities including trails and sports fields. Furthermore, there are state and federal laws that limit

disturbing wetlands. Open space planners that wish to construct trails, pedestrian bridges or sports fields may find that this construction will unavoidably require filling or altering a wetland, which may require a state or federal permit. Open space planners should therefore become familiar with the various regulations that protect wetlands.

It is usually necessary for wetland to be identified and mapped by professional environmental scientists working in the field in order to locate the extent of a wetland with accuracy. The vast majority of wetlands in the United States have not been field delineated in this detailed way. However, the U.S. Fish and Wildlife service has created National Wetland Inventory (NWI) maps using aerial photography, and these maps provide a general picture of where wetlands occur. NWI wetland maps have been completed for all of Chester County. NWI wetlands are presented on USGS quadrangles, and are available from the Planning Commission. Additional information on wetlands and a good overview of wetland issues is presented in Planning Bulletin #33 *Wetlands*, available from the Planning Commission. A map of all NWI designated wetlands in Chester County is presented in *Figure 13.4* in *Chapter 13*.

■ Wetland Benefits For much of our nation's history, marshes, swamps and other wetlands were regarded as wastelands of little value. Until the late 1900s, wetlands were commonly filled or drained to create dry lands for agriculture or development. It was also common for wetlands along rivers and streams to be regularly dredged to create navigable open waters that could be used for boating and shipping. As a result, almost 40 percent of America's original wetlands had been destroyed by 1954.¹⁵

It has only been in the past few decades that environmental scientists have fully understood the numerous environmental values of wetlands. Wetlands have been found to improve water quality by removing suspended and dissolved materials and chemicals. This natural water processing occurs as water passes through wetland soils and through the root and stems of the individual wetland plants. Wetlands also help control flooding by storing water during time of heavy rain, snowmelt or high-water discharge from adjacent streams. The root systems of wetland plants effectively control erosion by anchoring the soils along riverbanks and the shores of lakes. Furthermore, the shallow slow moving water in wetlands along shorelines provides spawning and feeding grounds for over 100 species of fish, including virtually all fish species that are sought by recreational anglers.¹⁶

■ Features that Define Wetlands Wetlands include swamps, marshes and the edges of many ponds and streams. However, wetlands also include wet meadows or wet forested areas that most people would not regard as "wet." In Chester County, any area dominated by phragmites, cattails or skunk cabbage is likely to be a wetland. The federally accepted methodology for delineating wetlands was established in the 1987 *Federal Manual for Identifying and Delineating Jurisdictional Wetlands* which was

revised in 1989 and 1991. According to this manual, a wetland must have all of the features described below:¹⁷

- **Wetland hydrology** develops when water stays in a soil long enough to create anaerobic conditions that limit the types of plants that can grow there. “Anaerobic” conditions occur when all the dissolved oxygen is removed from water, usually as a result of the decomposition of organic matter.
- **Hydric soils** are soils that are saturated, flooded or ponded long enough during the growing season – usually in the spring – to develop anaerobic conditions in the upper part, which is the soil layer or layers closest to the surface. The USDA periodically publishes a listing of these soils in *Hydric Soils of the United States*.
- **Hydrophytic vegetation** is plant life that grows in shallow water, on wet soil or on some other wet substrate, such as sand, that is at least periodically deficient in oxygen because of an excessive water content. The US FWS periodically publishes a *National List of Plants that Occur in Wetlands*.

Chester County's wetlands are typically found along streams or in wide floodplains surrounding winding streams or the confluence of two or more tributaries. There are a number of unique wetland marshes located within the County such as Pine Swamp, at the head of Pine Creek in northwestern Chester County, which contains the last remaining stand of white pine in the County. The Great Marsh at the headwaters of Marsh Creek above Glenn Moore is one of the largest marshes in the region.

■ **State and Federal Wetland Protection** Wetlands are protected by a number of state and federal regulations. Section 404 of the Federal Clean Water Act of 1977 regulates the “discharge of dredged or fill material” into all “waters of the United States,” including wetlands. The Army Corp of Engineers (COE) administers and reviews permit applications for wetlands. Wetlands in the Elk Creek, Octoraro and Pequea watersheds are under the jurisdiction of the Baltimore District of the COE. The Philadelphia District covers all the other wetlands in Chester County. The Environmental Protection Agency (EPA) has developed guidelines, called 404(b)(1) guidelines, that the COE must follow when evaluating permits. The US Fish and Wildlife Service and the National Marine Fisheries Service also have advisory roles. The EPA also has the power to veto COE permits.¹⁸ Information on COE permits is available from www.nap.usace.army.mil.

The Pennsylvania Dam Safety and Encroachments Act of 1978 requires the DEP to approve permits for a range of construction activities within or near various water features, including wetlands. This permit process is set forth in Title 25 of the Pennsylvania Administrative Code, Chapter 105. The DEP forwards a copy of each Chapter 105 permit to the COE for Section 404 consideration, eliminating the need for two submissions.

However, the COE and DEP approve each submission independently. A copy of Chapter 105 is available from the DEP Bureau of Dams, Waterways and Wetlands at 717-783-1384.

Chapter 105 designates certain wetlands as Exceptional Value (EV) wetlands based on the criteria presented in **Figure 3.16**. Under Chapter 105, these wetlands are given a higher level of protection than other wetlands. Chester County contains a number of Pennsylvania Scenic Rivers, five Exceptional Value Watersheds, and wetlands that are habitat for the federally endangered Bog Turtle. Wetlands near these areas should be investigated to determine if they are EV wetlands.

Figure 3.16: Exceptional Value Wetlands as Defined by Chapter 105

Wetlands that serve as habitat for fauna or flora listed as threatened or endangered under the Endangered Species Act of 1973.

Wetlands that are hydrologically connected to – or located with 0.5 mile of – wetlands that serve as habitat for the above endangered species.

Wetlands that are located in – or along the floodplain of – a stream in an Exception Value Watershed.

Wetlands that are located in – or along the floodplain of – the reach of a wild trout stream.

Wetlands that are located in – or along the tributaries of – the above two stream classifications.

Wetlands within the corridor of a watercourse – or a body of water – designated as a Federal Wild and Scenic River, or a Pennsylvania Scenic River.

Wetlands located along an existing public or private drinking water supply, including both surface water and groundwater sources that maintain the quality and quantity of the drinking water supply.

Wetlands located in areas within State forest and park land that is designated as “natural” and “wild” by the DEP.

Wetlands located in areas designated as federal wilderness areas under the Wilderness Act or the Eastern Wilderness Act of 1975.

Wetlands located in areas designated as National Natural Landmarks by the Secretary of the Interior under the Historic Sites Act of 1935.

Source: PA Code Title 25, Chapter 105 Dam Safety and Waterway Management (Current through May 1999).

When the DEP issues a Chapter 105 Permit, it also issues a “water quality certification” that indicates that the proposed project complies with Section 401 of the Federal Clean Water Act of 1977. Section 401 authorizes the Commonwealth to deny “water quality certification” to any activity that may result in a discharge into waters of the U.S. if the activity

violates Pennsylvania water quality standards, or provisions of certain other laws.¹⁹

The Federal River and Harbor Act of 1899 regulates navigable waters of the U.S., which includes the length of the Schuylkill River in Chester County. Section 9 of this act requires a U.S. Coast Guard permit to construct a dam or dike on a navigable waterway, and Section 10 requires a permit for work outside a navigable waterway which affects its condition. Work outside such a waterway can include impacting a wetland. The joint permit used to comply the Federal Section 404 regulations and Pennsylvania Chapter 105, also covers Section 9 and 10 of the River and Harbor Act of 1899.

Plants

Understanding the plant life, or flora, of Chester County is necessary when planning open space. Plants serve a number of essential functions from soil stabilization and water purification, to providing animal habitat and food. Open spaces are often established to protect native plants or threatened and endangered plants. The presence of rare plants can also limit the recreational use of a protected open space. When protecting or restoring open spaces, it is important to know what kind of plants are appropriate and would be feasible to install. Municipalities that protect naturally sensitive areas sometimes include language in their zoning or subdivision ordinances to protect especially old “champion” trees.

Unique plant communities in Chester County are mapped and discussed in the *Natural Areas Inventory of Chester County*, which was updated in 2000. In order to discourage the illegal collection of rare or endangered species, the *Inventory* used a numerical code for each species rather than identifying the plant by name. This document is available from the Planning Commission. Information on plants can also be gathered from the Chester County Agricultural Extension, any of the horticultural organizations within the County, or from the Pennsylvania Flora Database of the Morris Arboretum of the University of Pennsylvania at www.upenn.edu/paflora.

■ **Woodlands** Chester County is located in the Piedmont Section of the original Oak-Chestnut Forest Region that ranged from New Jersey to Virginia. American chestnut dominated this forest community until the 1920s, when this species was virtually eliminated by the chestnut blight fungus introduced in 1904. Currently, the County's forests are classified as Mixed Oak Forest, dominated by black, red and white oaks, mixed with tulip poplar, red maple and beech. Oaks typically dominate south facing slopes while beeches are more common on north-facing slopes. Chestnut oak is common on ridge tops.

Virtually all of Chester County has been logged at least once, and many of the currently forested lands are located on steep slopes, wetlands and other landscapes that are poorly suited for development. Quick growing

tulip trees are common on areas that are cleared of woodlands but are then allowed to regenerate. Eastern hemlocks, found along streams on cool north slopes, are declining in the County.²⁰ These trees are currently suffering from infection by an exotic insect called the woolly adelgid. A map showing all of the forests in Chester County is presented in **Figure 13.2** in **Chapter 13**.

The largest concentrations of woodlands in the County are along Octoraro Creek, north and south of Downingtown, and in the northwestern municipalities. From 1970 to 1990, Chester County woodlands decreased by less than 1.2 percent. According to the DVRPC,²¹ the municipalities with the largest woodland coverage in 1990 were West Caln Township with 8.7 square miles; Warwick Township with 8.3 square miles; East Nantmeal Township with 7.3 square miles; Honey Brook Township with 7.3 square miles; and West Vincent Township with 5.6 square miles.

■ **Shrub and Herbaceous Vegetation** Shrub and herbaceous vegetation varies throughout the County. Typical understory shrubs include viburnums, sassafras and spicebush. Mountain laurel, blueberry and huckleberry are found in the nutrient poor soils of drier hilltops, as are herbaceous plants such as partridgeberry, and frostweed. Wildflowers such as bloodroot, hepatica and trillium can be found in deeper, more mesic soils. Wildflowers common in open fields in Chester County include golden-rods, asters, blazing star, milkweed and Queen Anne's lace. Wetland wildflowers include cardinal flower, Joe pie weed, spotted-touch-me-not and bone set.

■ **Serpentine Barren Vegetation** Plant communities found on serpentine-based soils belonging to the Neshaminy-Chrome-Conowingo Soils Association, are different from the surrounding Mixed Oak Forest. These unique landscapes, commonly called chrome barrens, support drought-tolerant species such as moss pink and grasses that are common to mid-western prairies. Forests in the barrens include pitch pine, post oak and blackjack oak. Periodic burning is part of the natural life cycle of these barrens, and when burning is not allowed, these unique species are typically displaced by Mixed Oak vegetation. Serpentine barrens are discussed in detail **Chapter 19**.

Animals

Animals are important to open space planning in a number of ways. Without fish and game species, hunting and fishing cannot exist. Birds and small mammals are important for environmental education and of course, bird watching. Animals also are a key element of the general ecosystem. They help disperse seeds, and predators such as owls and snakes, help control rodent and small mammal populations. Recently, many open space property managers throughout the Delaware Valley have had to address the over population of deer on public land.

Many of the protected open spaces in Chester County have been established to provide habitat for threatened or endangered animal species. Mapping of unique animal habitat is presented in the *Natural Areas Inventory of Chester County*, which is available for review or sale at the Planning Commission. In order to discourage the illegal collection of threatened or endangered species, the *Inventory* uses a numerical code for each species, rather than identifying the animal by name. Information on animals in the County is also available from the PA Fish and Boat Commission and the PA Game Commission at:

PA Fish and Boat Commission

Southeast Regional Office

Box 8

Elm, PA 17152

717-626-9081

www.fish.state.pa.us

PA Game Commission

Southeast Region

448 Snyder Road

Reading, PA 19605

877-877-9470

www.pgc.state.pa.us

■ **Mammals** The wildlife of Chester County has been substantially altered since William Penn's colonists first settled the region. As a result, most large predators, such as bears and mountain lions, no longer exist in the County. The development of both agricultural and urban land in Chester County has resulted in an increase in what environmental scientists call "edge environments." These are landscapes where stands of trees meet open fields or lawns. These areas provide ideal habitat for deer, red and gray squirrels, rabbits, raccoons, opossum, woodchuck, muskrats and occasionally fox species. Not surprisingly, these species are common throughout the County. Bobcats are occasionally reported in less populated areas, and beavers which were once extinct in Chester County have been successfully reintroduced at a number of locations.

■ **Birds** A wide variety of birds inhabit Chester County, many of which are also tolerant of agriculture and urban development. Over the last few years, the West Chester Bird Club has been keeping records on the occurrence of bird species in Springton Manor Farm and Hibernia, Nottingham, and Warwick County Parks. *Figure 3.17* presents those species that are abundant in any of these parks during at least one season. This listing is a good indicator of common species found within the County. Less common birds, such as whippoorwills and barred owls, are sometime found in the County's serpentine barrens. These barrens include habitat for a number of birds, rarely seen within the state. The results of the annual "Christmas Bird Count" for Chester County are available at birdsource.tc.cornell.edu under "Elverson" and "West Chester."

Figure 3.17: Abundant Bird Species in Chester County as of 1992

Species			
American crow	Common grackle	House finch	Red-tailed hawk
American goldfinch	Common yellowthroat	House wren	Red-winged black-bird
American robin	Dark-eyed junco	House sparrow	Rufous-sided towhee
Barn swallow	Downy woodpecker	Indigo bunting	Song sparrow
Blue jay	Eastern bluebird	Mourning dove	Tufted titmouse
Brown-headed cowbird	Eastern kingbird	Northern cardinal	Turkey vulture
Canada goose	Eastern phoebe	Northern flicker	Veery
Carolina chickadee	Eastern wood-pewee	Northern mockingbird	White-breasted nuthatch
Carolina wren	European starling	Ovenbird	White-throated sparrow
Chimney swift	Field sparrow	Red-bellied woodpecker	Wood thrush
Chipping sparrow	Gray catbird	Red-eyed vireo	

Sources: Chester County Parks and Recreation Department, 1999. *Birds of Hibernia County Park*.
 Chester County Parks and Recreation Department, 1999. *Birds of Nottingham County Park*.
 Chester County Parks and Recreation Department, 1999. *Birds of Warwick County Park*.
 Chester County Parks and Recreation Department, 1999. *Birds of Springton Manor Farm*.

■ **Fish** Chester County's streams provide habitat for a wide variety of fish species. Although the vast majority of Chester County's streams are meandering, warm water creeks, there are some cold water environments that support trout populations. The Schuylkill River also provides habitat for species adaptable to deeper water. The water quality within a stream segment also affects the variety of fish which it can support, with more polluted waters typically supporting fewer species. **Figure 3.18** presents fish that were commonly found during a survey of the East Branch of Brandywine Creek and Marsh Creek during 1985. These species are currently still regarded as being common to most of the County's waters.²²

■ **Animal Habitat** The Pennsylvania Game Commission stores information on 394 species of birds, mammals, amphibians and reptiles that occur within the Commonwealth. Chester County contains habitat for 318 of these species. Of the 318 species, 282 have available habitat throughout the state, while 36 have more localized ranges. Species listed as having regional or local habitat ranges in Chester County are presented in **Figure 3.19**. Information on Pennsylvania mammals is available from the Carnegie Museum of Natural History database at www.clpgh.org under "Carnegie Museum of Natural History" and "Mammals."

Figure 3.18: Common Fish Species in Chester County

Species			
American eel	Common shiner	Pumpkinseed sunfish	Tessellated darter
Banded killifish	Creek chub	Redbreast sunfish	White sucker
Blacknose dace	Cutlips minnow	Rock bass	Yellow bullhead
Bluegill	Fallfish	Satinfin shiner	
Brown trout	Largemouth bass	Smallmouth bass	
Comly shiner	Marginated madtom	Spottail shiner	

Sources: Knorr, D.F. and Fairchild, G.W., 1987. "Periphyton, Benthic Invertebrates and Fishes as Biological Indicators of Water Quality in the E. Branch Brandywine Creek," Proceedings of the PA Academy of Science, Vol. 61. pp 61-66.

Figure 3.19: Species Listed as Having Regional or Local Habitats in Chester County

Amphibians	Reptiles	Birds	Mammals
Eastern hellbender	Bog turtle	Blue grosbeak	Beaver
Eastern spadefoot	Broadhead skink	Brant	Eastern mole
Eastern tiger salamander	Eastern hognose snake	Carolina chickadee	
Fowler's toad	Eastern mud turtle	Common loon	
Marbled salamander	Eastern painted turtle	Fish crow	
Northern cricket frog	Eastern ribbon snake	Glossy ibis	
Plains leopard frog	Eastern worm snake	Kentucky warbler	
Upland chorus frog	Five-lined lizard	Kirtlands warbler	
	Northern copperhead	Snowy egret	
	Northern fence lizard	Summer tanager	
	Queen snake	Yellow crowned night heron	
	Rough green snake	Yellow-throated warbler	
	Smooth earth snake		

Source: US Department of Agriculture, Soil Conservation Service, Undated. Wildlife Species Distribution in Pennsylvania, Biology Technical Note No. PA-1.

Chester County is also home to numerous aquatic invertebrates such as insects, worms and crayfish that live in the waters and sediments of streams, ponds and wet areas. These animals, some of whom are almost microscopic, are an important food source for fish, and are often a good indicator of water quality. Since 1970 the US Geological Survey has been conducting biotic diversity sampling at a number of stream locations throughout Chester County as a way to gauge changes in water quality.²³

■ **Game Species** Deer are the only large animals, or “game species,” hunted in Chester County. There is no modern record of any bear ever being harvested in the County, and turkey hunting is not permitted. The deer population has grown in the last few decades. Throughout the 1960s and 70s, the reported antler-less harvest ranged between 53 and 250 per year. In the last ten years that figure often exceeded 1,000. In 1997, the reported Chester County antlered harvest was 890 and the reported antler-less harvest was 2,491. Vehicle kills of deer were typically less than 200 a year in the 1960s, but in 1997 the vehicle kill was 922.²⁴

Biodiversity and Invasive Exotic Species

In recent years, ecologists and environmental scientists have become aware of the importance of protecting not only individual plants and animals found within an area, but also protecting and enhancing the biodiversity of the entire natural community in which these species live. In 1996, the Pennsylvania Biodiversity Technical Committee described this concept by stating that,

“Biological diversity, or biodiversity is the variety of species, the genetic variation within them, and the spectrum of ecological communities in which they occur. It is the sum total of compositional, structural, and functional diversity of genes, species, and ecological communities. Biodiversity can be described on a continuum of spatial and temporal scales; from local to global; from days to millennia.”²⁵

It has only been recently that municipalities and other organizations have begun to consider biodiversity when planning to protect open spaces. Simply protecting an open space can not assure that the property protected will have a healthy biodiversity. In order for this to occur the property must be properly managed. Biodiversity is therefore more of an open space management issue than an open space acquisition issue. However, the management of a protected open space must always be considered when plans are formulated to protect a parcel from development.

■ **The Impacts of Low Biodiversity** In laymen’s terms “biodiversity” refers to the number of different plant or animal species within a given area. Having a large biodiversity of species is healthier because it means that an ecosystem will be better able to survive unusual or harsh conditions. For example, if a forested property contains only one species of large tree, and a disease arises which kills that species, the loss of that one type of tree would have a serious impact on the forest’s entire ecosystem.

Losing just that one species of tree would eliminate all of the trees on the property, and thereby kill off the birds and animals that require a wooded habitat. Without the roots of the trees, soil erosion would occur. If however, there are a number of tree species on a wooded property, and only one variety is lost to an epidemic, the forest as a whole will survive and wildlife will still have habitat, and soil erosion will not occur.

The Irish Potato Famine of the 19th Century was a tragic example of the effects of low biodiversity. Because all the potatoes in Ireland were descended from but a few plants, all of the island's potato plants had the same tolerance to disease. As a result, a single strain of potato blight was able to decimate the island's potato crop. In terms of potatoes, 19th Century Ireland had a low biodiversity, and so was easily impacted by the outbreak of just one disease.

■ **Invasive Exotic Species can Reduce Biodiversity** Throughout the United States, the overall biological diversity of undeveloped natural landscapes has been reduced as a result of invasive non-native, or “exotic,” plants and animals. These exotic species do not occur naturally in North America, but were introduced by gardeners, farmers or any number of sources. Certain non-native plants are regarded as “invasive,” because they grow unusually well in North America and gradually eliminate the native vegetation around them. In extreme cases, these invasive exotics create what ecologists call “monotypic” growth, where only one species of plant exists. By displacing native plants, these invasive exotics also eliminate native wildlife food and habitat, and so reduce both plant and animal diversity. As of 1996, non-native plants accounted for 37 percent of Pennsylvania's vascular plants, which include larger leafy plants other than fungi, bryophytes, and lichens.²⁶

Chester County has already been exposed to a wide variety of exotics including some very common species such as dandelions, starlings and even Kentucky blue grass, which originated in Europe despite its name. Aggressive trees such as tree-of-heaven and Norway maple grow quickly in Chester County and shade out nearby native seedlings.²⁷ *Polygonum cuspidatum*, commonly called Japanese knot weed or Mexican bamboo, also grows along the County's streams and highways shading out slower growing native plants. This fast growing plant evolved on the slopes of Japanese volcanoes and can survive extremely harsh conditions.²⁸ Similarly, purple loosestrife poses a great threat to wetlands in the region because it out-competes native wetland plants.²⁹ Vines such as Japanese honeysuckle and oriental bittersweet can choke and kill even mature native shrubs and trees, while wildflowers like garlic mustard and multiflora rose can choke out all other groundcover in meadow areas. The National Park Service provides information on invasive exotic species at www.nps.gov/plants/alien.

Of course, not all non-native plants are invasive, and some native plants, like wild grapes, can become invasive. Nonetheless, the effects of invasive exotics can be devastating. For example, an Australian tree called

melalena has invaded over 450,000 acres of the Florida Everglades, reducing biodiversity by 60 to 80 percent.³⁰ Removing exotic invasive plants can also be time consuming and in some cases is prohibitively expensive. As a result of the proliferation of invasive exotics, many horticulturists and environmental scientists are promoting the use of native plants. Chester County has also promoted native planting by publishing *Planning Bulletin #51, Native Plants in the Chester County Landscape* in 1996.

Threatened and Endangered Species

A great deal of open space within Chester County has been preserved in order to protect habitat for state or federally threatened and endangered species. The existence of threatened or endangered plants or animals on a property increases the likelihood that the property will be acquired by a non-profit land trust or a publicly funded open space protection program. However, the presence of such a rare species, can also complicate the acquisition of open space, if it is to be used for recreation.

In 1973, the United States Congress passed the Endangered Species Act that prohibits killing, harming or harassing species facing the risk of extinction. It also provides species protection by requiring federal agencies to ensure that the activities they conduct, authorize or fund do not jeopardize the continued existence of listed species. Under this Act, a listed species is described as “endangered” when it is *in danger* of extinction throughout all or a portion of its range, or “threatened” when it is *likely to become* endangered within the foreseeable future throughout all or a significant portion of its range. According to the US Fish and Wildlife Service, the only federally listed animal species in Chester County is the threatened bog turtle (*Clemmys muhlenbergii*), which lives in swamps and wet meadows with a cool slow moving water source, such as a spring. No federally listed plants are present in Chester County. Information on federally threatened and endangered species is available at www.fws.gov.

The Commonwealth of Pennsylvania has also enacted legislation to protect state threatened and endangered species. Title 34, Chapter 133, Game and Wildlife Code is the legislative authority that protects Pennsylvania’s rare wild birds and mammals, while Title 30 Chapter 75, Fish and Boat Code protects fish, amphibians, reptiles and aquatic organisms. Plants that are rare, vulnerable, or probably extinct are regarded as “Species of Special Concern,” and protected under PA Title 25, Chapter 82 Conservation of Native Wild Plants. Information on state species of concern is available at www.dcnr.state.pa.us.

All of these state laws designate species as either “Pennsylvania Endangered” or “Pennsylvania Threatened.” In general, Pennsylvania Endangered species are in danger of extinction throughout most of their natural range within the Commonwealth, while Pennsylvania Threatened species may become endangered if critical habitat is not maintained. State

threatened and endangered animal species within Chester County as of 1998 are presented in *Figure 3.20*. Plant Species of Special Concern within the County as of 1988 are listed *Figure 3.21*.

Figure 3.20: Pennsylvania Threatened and Endangered Animals in Chester County

Pennsylvania Endangered Animal		Pennsylvania Threatened Animal	
Bald eagle	King rail	American bittern	Sedge wren
Bog turtle	Least shrew	Least bittern	Upland sandpiper
Coastal plain leopard frog	Osprey	Red bellied turtle	
	Short-eared owl	Rough green snake	

Source: PA DCNR Pennsylvania Natural Diversity Index, December 1998. Listing of Species of Special Concern Reported to Occur in Chester County, PA.

In 1994, the Nature Conservancy published a *Natural Areas Inventory of Chester County, PA*, which mapped each of the County's best known natural communities and the general locations of all known animal and plant species of special concern. In this document species are listed by a numerical code rather than by their names to discourage unauthorized collection. According to this inventory, there were 64 species of special concern in Chester County as of 1994. This report found the largest concentrations of species of concern, plant and animal, were at the Nottingham Serpentine Barrens (over 30), the Goat Hill Serpentine Barrens (over 20) and the Chrome Serpentine Barrens (over 12). This document is available at the Planning Commission office.

Figure 3.21: Pennsylvania Threatened and Endangered Plants in Chester County

Pennsylvania Endangered Plant		Pennsylvania Threatened Plants	
Autumn bluegrass	Leopard's Bane	Tufted buttercup	American holly
Bicknell's hoary rockrose	Maryland meadow-beauty	Umbrella flatsedge	Annual fimbry
Bicknell's sedge	Minor nutrush	Variable sedge	Bog bluegrass
Buffalo clover	Mouse-ear chickweed	Velvet panic-grass	Bradley's spleenwort
Carolina leaf-flower	Nodding pogonia	White-topped narrow-leaved aster	Cerex tetanica sedge
Cattail sedge	Pink milkwort	Willow oak	Ellisia
Cluster fescue	Possum haw viburnum		Falls witch-grass
Colic-root	Prairie dropseed		Few flowered nutrush
Cross-leaved milkwort	Reticulated nutrush		Larger Canadian St. John's-wort
Curtis's milkwort	Rough cotton-grass		Maryland golden-aster
Downy lobelia	Sandplain wild flax		Round-leaved flame-flower
Dwarf huckleberry	Scirpus-like rush		Serpentine aster
Eared false-foxglove	Slender blue iris		Sweet bay magnolia
Eastern blue-eyed grass	Small-whorled pogonia		Tall gramma
Elephant's foot	Southern red oak		Three awned feathered arrow
Forced rush	Southern twayblade		Torrey's rush
Glade spurge	Spring ladies'-tresses		Umbrella magnolia
Horrible thistle	Stagger-bush		
Lanceolate buckthorn	Swamp pink		
Leather-flower vase-vine	Tawny ironweed		

Source: PA DCNR Pennsylvania Natural Diversity Index, December 1998. Listing of Species of Special Concern Reported to Occur in Chester County, PA.

20th Century Development Trends

Most Open Space Has Been Protected in Only the Last 50 Years

In many respects, the drive to protect open space during the last few decades has been a reaction to the increase in suburban development in Chester County since World War II. In order for municipal or other open space planners to properly protect or restore open spaces in Chester County, it is necessary to understand the overall land use trends of the last sixty years. Future development forecasts are also needed to determine how much recreational open space will be needed in a given municipality or region. More detailed information on land use trends and forecasts can be found in *Delaware Valley Land Use 1970-1990* available from the DVRPC, or from their web page at www.dvrpc.org.

Post-World War II Growth

After the conclusion of World War II in 1945, the entire United States underwent a boom in population, economic growth, and public works projects. This boom was not however expected. After the war, many of the nation's civic leaders, including those of the Philadelphia region, anticipated that the mass of soldiers being discharged from the army would create a severe unemployment problem after the war. In order to avoid this anticipated economic down turn, new public works projects were proposed, such as building public housing and improving the highway system.³¹ The new residential communities and roadways built during the post war years helped to initiate the decades long conversion of farms and natural areas to development that is still impacting Chester County.

By the time the Federal Highway Act of 1956 had been passed to provide the funds for the construction of a 40,000 mile national highway system, fears about a slowing economy were put to rest.³² After the War, the economy grew and incomes rose allowing more people to purchase automobiles. There was also a population boom when returning soldiers started having families, which resulted in a construction boom. And because of the popularity of automobiles and the improved interstate system, large scale residential developments and commercial shopping centers could be located away from traditional town centers.³³ This wide ranging and automobile dependent style of development is what people commonly refer to as "sprawl."

The post-war residential development was primarily located in the suburbs surrounding the City of Philadelphia and other industrial and commercial employment centers such as Coatesville, Downingtown and Phoenixville. In the case of Philadelphia, developing these new suburbs

close to the City allowed for a short commute. This suburban development was also encouraged by the fact that electric service and train and trolley lines had generally developed in a radial pattern centered in Philadelphia. As *Figure 3.22* shows, it was during this era that most of Chester County along US Route 30 east of US Route 202 became essentially a suburb of Philadelphia.

Recent Growth Trends

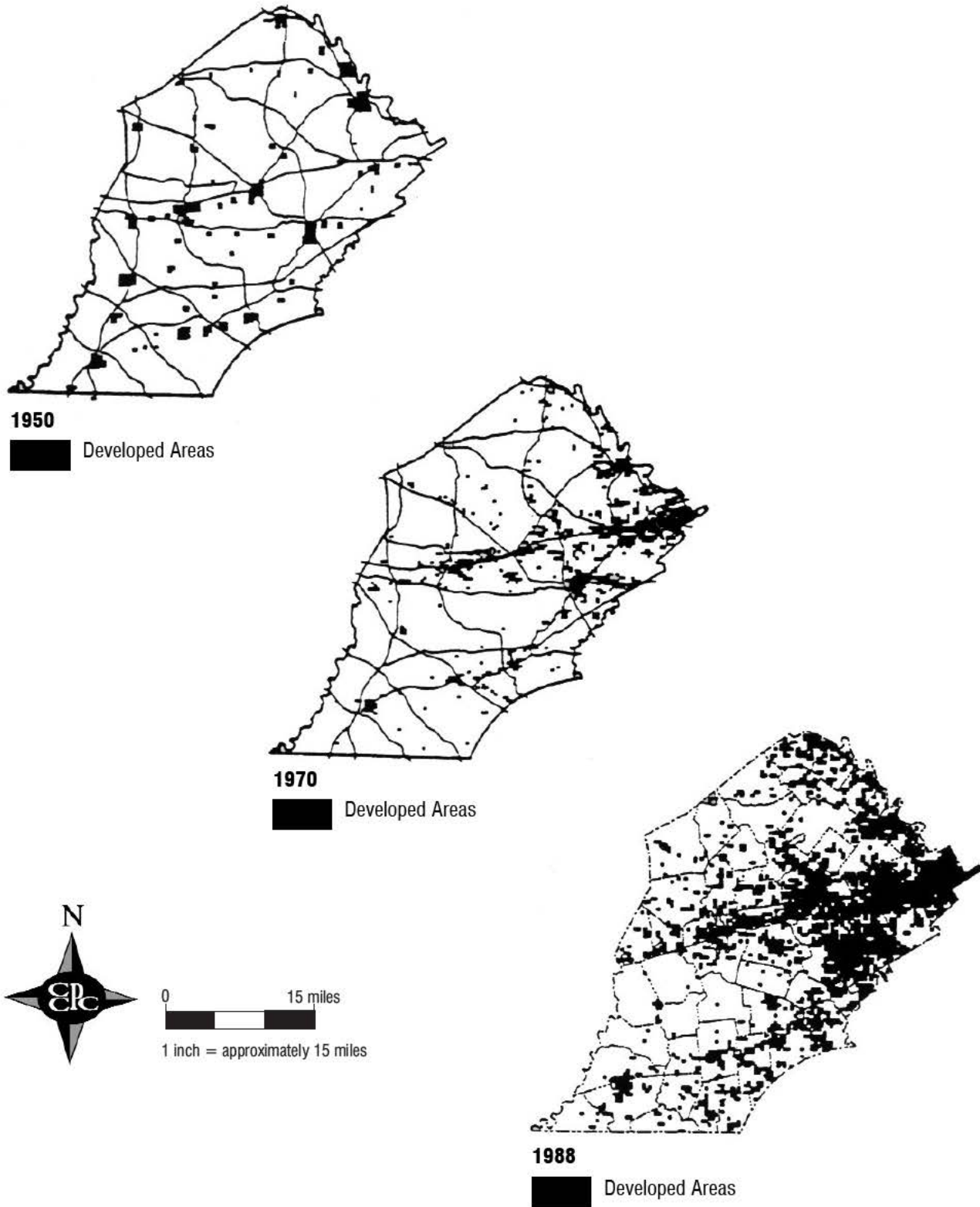
In the last 30 years, Chester County's population growth and development exceeded even that of the post-War years. This growth was also different from the post-War growth in that it has occurred in previously rural areas that were not adjacent to any large city or town. In the early 1960s, approximately 7.3 percent of Chester County's lands were described as "industrial and residential."³⁴ The Delaware Valley Planning Commission had estimated that 15.1 percent of the County was covered with residential or non-residential development in 1970, and that 25 percent of the County was developed as of 1995. This estimate was based on an evaluation of aerial photography from those years.³⁵ As of 2001, the Chester County Planning Commission estimated that 40 percent of the County had been developed as illustrated in *Figure 1.4* in *Chapter 1*.

The suburban style communities developed in Chester County in recent years have been called exurbs or edge cities, but are usually referred to as "outer suburbs." These outer suburbs include both residential developments and newly built employment facilities, typically in service industries. An example of such an "outer suburban" employer is Shared Medical Systems which started operating in Chester County in 1969 and has since grown to be the County's second largest employer.³⁶ The combination of residential and employment centers in the outer suburbs is a marked change from the County's previously built "inner suburbs," which were predominantly residential areas with rail or bus lines that led to employment centers in Philadelphia.

During the 1980s, there was a boom in office park construction along PA Route 100 and US Routes 30 and 202. In 1983, the Vanguard Group moved to Tredyffrin Township, and that same year QVC in East Goshen Township was founded. As of 1995, Chester County's largest office parks were Great Valley Corporate Center with 3,500,000 square feet; Pickering Creek Industrial Park with 1,950,000 square feet, Chesterbrook Corporate Center with 1,400,000 square feet; Brandywine Industrial Park with 1,000,000 square feet; and Whiteland Business Park with 950,000 square feet. A map showing the major industrial parks in the County is presented in *Figure 10.5* in *Chapter 10*.

As more employers have set up offices in Chester County, more of their employees have moved to Chester County thus increasing residential development. This growth in development has reduced the overall amount of open space in Chester County, but it has also inspired

Figure 3.22: Historical Growth



Source: DVRPC, 1982.
CCPC, 1988.

residents and government officials to find ways to protect open spaces and generate the funding to protect open space. It is in this environment – where there is a reduced opportunity to protect open spaces, but an increased interest in protecting open space – that Chester County’s open space planners must now operate.

Demographics

Demographics and Recreational Planning

Any municipality or other organization that wishes to plan a recreational open space must consider the population demographics of the community the facility is designed to serve. Population figures are required when determining if there are sufficient recreation facilities for a given community. Information such as age demographics can also be used by municipal and other planners in determining the type of recreation facility that would be most appropriate for their communities. Since park facilities also serve disabled individuals, it is important to know how they are represented in the broader population. The following section provides only a cursory overview of population and demographics for Chester County as a whole.

In March of 2001, the US Census Bureau released the final year-2000 population figures for the State of Pennsylvania, its counties and municipalities. *Linking Landscapes* includes year 2000 census data wherever possible. Some detailed information, is expected to be released in 2002, and could not be used in this document. Population projections for Chester County and its municipalities are prepared by the DVRPC and not the Census Bureau. Projections based on the 2000 Census are expected to be released in 2002. As a result some *Linking Landscapes* population projections are based on census data from 1990 and earlier.

The following sections provide only countywide demographic information, but municipal population data and projects are presented in **Chapter 4**. More detailed demographic information is available in *Chester County Profile 1998* available from the Chester County Planning Commission. The Pennsylvania State Data Center at pascd.hbg.psu.edu and the US Department of Commerce Bureau of the Census at can also be contacted for demographic information.

Population

Over the last 40 years, the population of Chester County has more than doubled from 210,608 in 1960 to 433,501 in 2000. As *Figures 3.23* and *3.24* indicate, the County's population increased 15.2 percent between 1990 and 2000, giving it the fifth highest population growth rate in the Commonwealth. During this same time, the population of Pennsylvania increased only 3.4 percent while the national population increased 13.2 percent. In terms of absolute numbers, the 1960s and the 1980s, were the only decades that had more growth than the 1990s.

The County growth rate is projected to decrease in the next few decades based on 1990 figures, but even with this slow down, the population is currently forecasted to increase to 546,800 by 2025, an increase of 170,404 residents or 26.1 percent from 1990. The 1990 populations and the 2020 projected population for each municipality in the County is presented in *Figure 3.25*. As this map shows, the major new development centers of the County are expected to move out from the West Chester region and into the Avon-Grove and Oxford areas.

Figure 3.23: Population Trends and Projections

Year	Population
1900	95,695
1940	135,626
1950	159,141
1960	210,608
1970	277,746
1980	316,660
1990	376,396
2000	433,501
2010 projection	482,100
2020 projection	527,100

Source: US Census 2000. CCPC, 1999. *Chester County Profile 1998*. DVRPC, 2000. *Year 2025 County and Municipal Population and Employment Forecasts*.

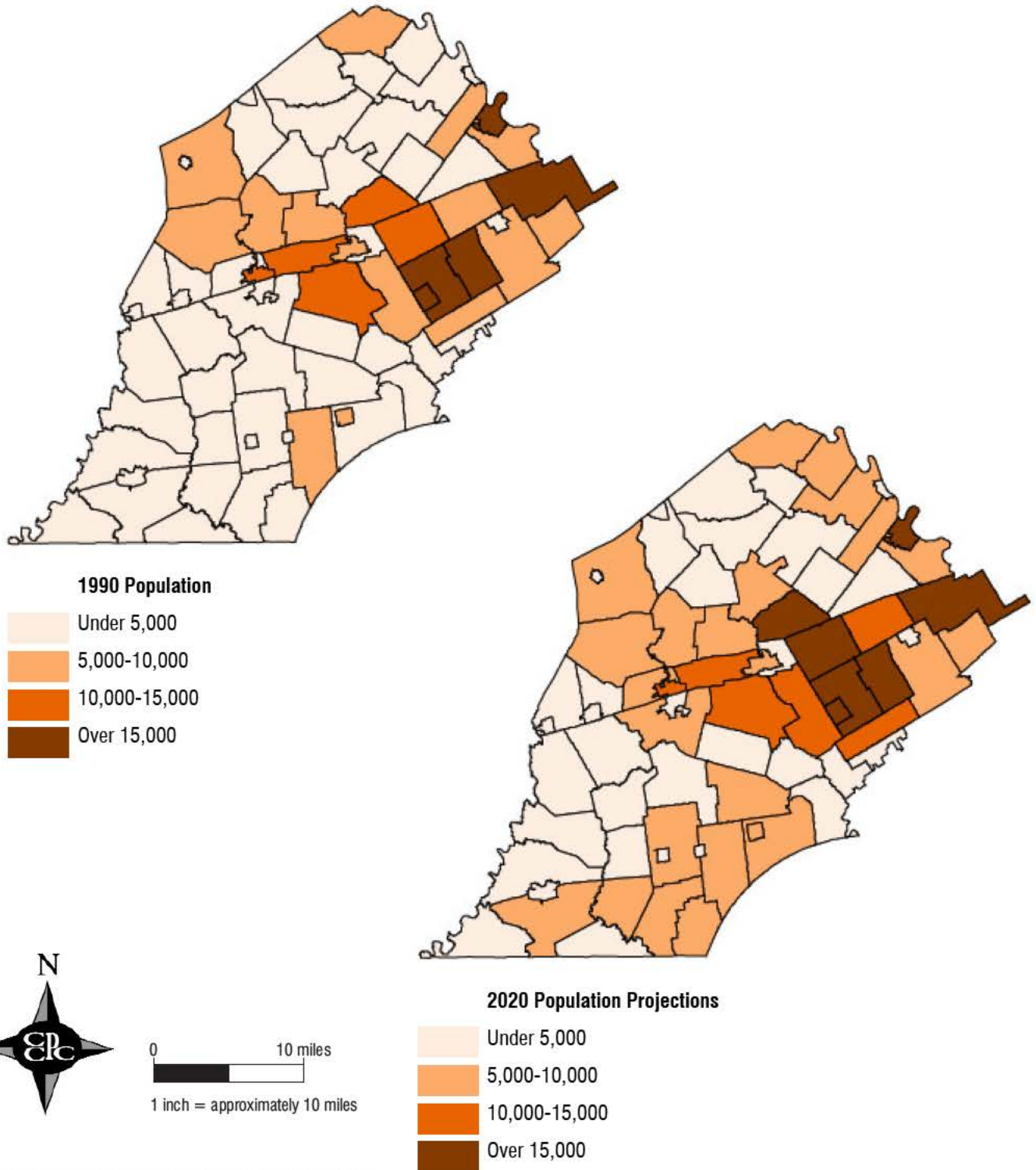
Figure 3.24: Population Increase Rates

Period	Population Increase	Percent Increase
1800 - 1900	35,665	111.1%
1900 - 1940	39,931	41.7%
1940 - 1950	23,515	17.3%
1950 - 1960	51,467	32.2%
1960 - 1970	67,138	31.9%
1970 - 1980	38,914	14.0%
1980 - 1990	59,736	18.9%
1990 - 2000	56,841	15.1%
2000 - 2010 projection	48,550	11.2%
2010 - 2020 projection	45,000	9.3%

Sources: US Census 2000. CCPC, 1999. *Chester County Profile 1998*. DVRPC, 2000. *Year 2025 County and Municipal Population and Employment Forecasts*. Schiffer, M.B., 1984. *Survey of Chester County, PA Architecture, 17th, 18th and 19th Centuries*, Schiffer Publishing Limited.

Population density is determined by dividing a municipality's population by its area. In general terms, high-density areas are more crowded. As **Figure 3.26** indicates, population density in 1990 was highest in the boroughs and the eastern half of Chester Valley. Population density forecasts for 2020, also presented in **Figure 3.26**, suggest that density will increase throughout Chester Valley, the Downingtown area and the communities bordering the State of Delaware. The US Route 202 corridor is expected to become the largest concentration of moderately high to high-density municipalities.

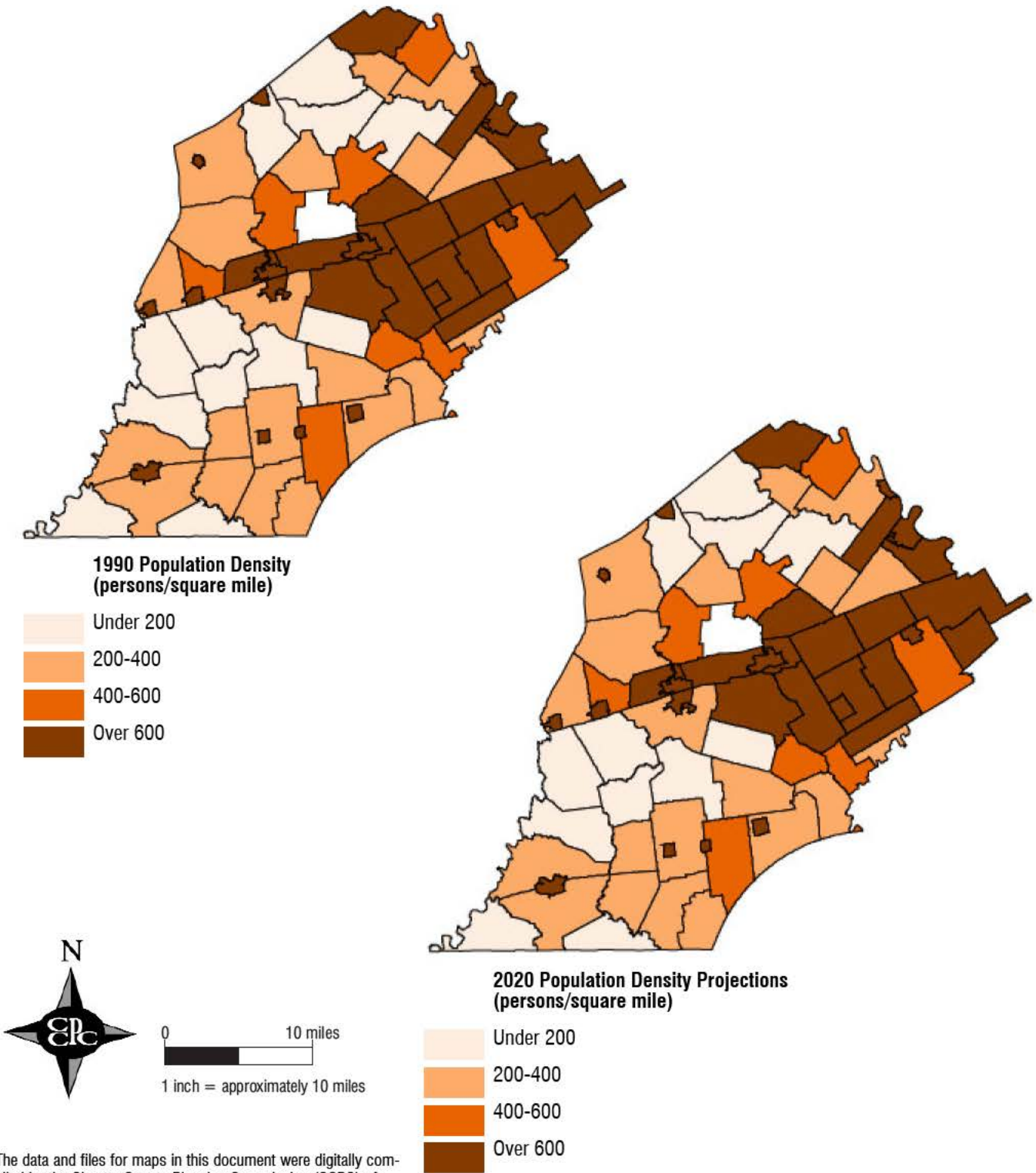
Figure 3.25: Population by Municipality, 1990 and 2020 Projected



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Source: ESRI, 1998.
1990 Census.

Figure 3.26: Population Density by Municipality, 1990 and 2020 Projected



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Source: ESRI, 1998.
1990 Census.

Age and Disability Demographics

Age distribution information from the 2000 census will be available in late 2002. According to the 1990 census, 34.2 percent of the County population was 20 years old or younger. As *Figure 3.27* shows, the percentage of children in the total population is projected to decrease over the next few decades. Chester County's population 65 years and older was 10.9 percent in 1990. Projections indicate that, unlike the youth population, the elderly will continue to increase as a percentage of the total population. Both the youth and elderly population density within the County as of 1990 are presented in *Figure 3.28* according to census blocks.

Figure 3.27: Youth and Elderly Populations, 1980 to 2020

	Trend		Projected		
	1980 % of Total Population	1990 % of Total Population	2000 % of Total Population	2010 % of Total Population	2020 % of Total Population
Youth Population*	34.2%	29.4%	27.0%	24.9%	21.8%
Persons 65 and Older	9.1%	10.9%	11.2%	12.8%	17.8%
Persons with Physical Disabilities**	0.6%	0.6%	0.6%	0.6%	0.6%

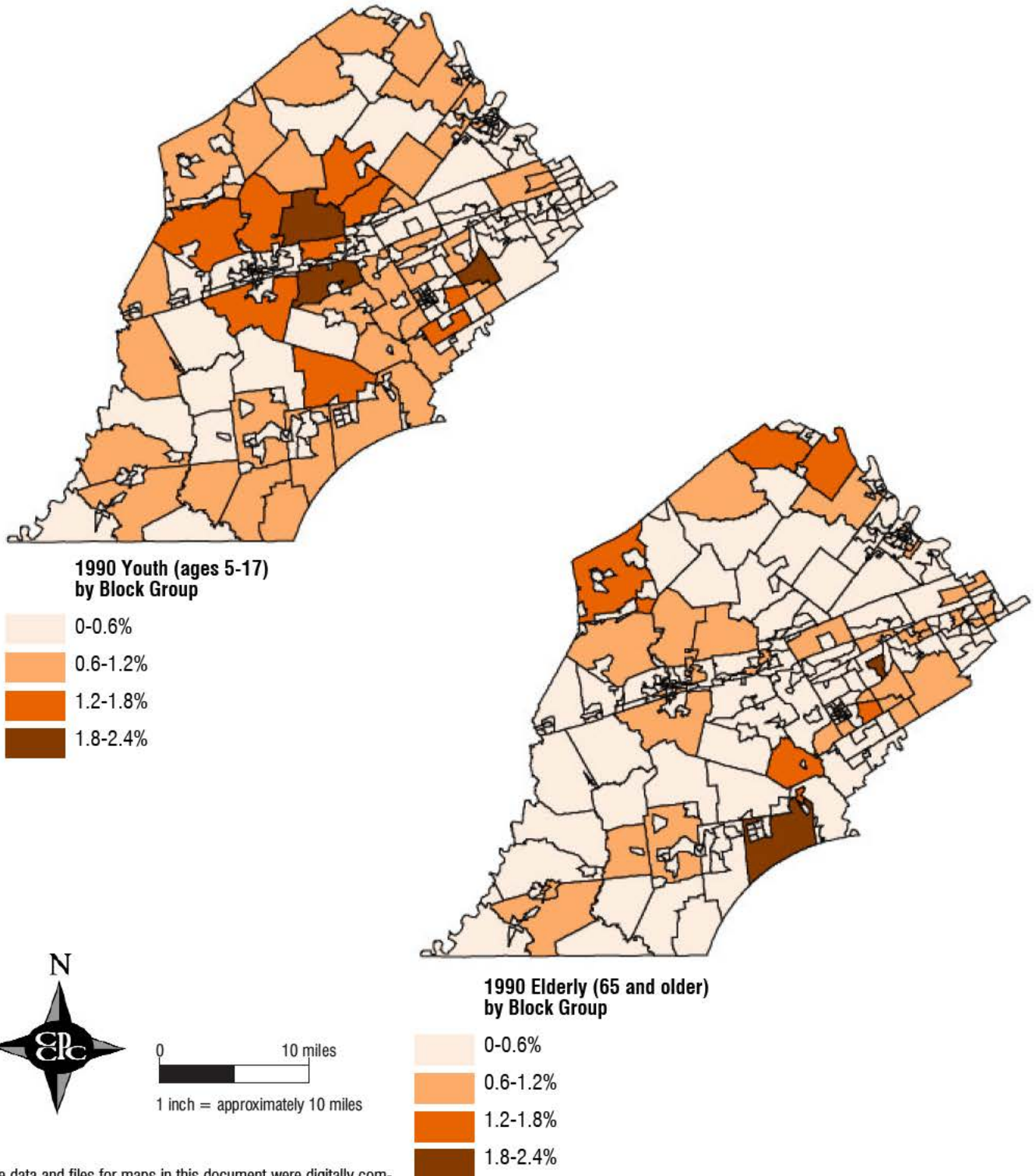
Source: CCPC. 2000. *Chester County Census '90, General Characteristics of Population and Housing for Chester County, 1991*. DVRPC, 2000. *Year 2025 County and Municipal Population and Employment Forecasts*.

Notes: * 1980 and 1990 figures are persons age 20 and under. 2000, 2010 and 2020 projections are persons age 19 and under.
** The standard measure for estimating the numbers of persons with physical disabilities is 6 percent of the total population (Cerebral Palsy Association of Chester County, 1999, Personal Communication).

The US Census enumerates people with “self-reported” disabilities, however this count is generally regarded as unreliable because some people who report themselves as “disabled” may not actually fit the definition of disabled that is accepted by the medical profession. According to the Cerebral Palsy Association of Chester County, the standard measure for estimating the numbers of persons with physical disabilities is 0.6 percent of the total population.

The Americans with Disabilities Act (ADA) requires that local governments, and other entities that provide public services, provide accessibility and make reasonable accommodations to local services, programs, and activities to qualified persons with disabilities. As a result, constructing or upgrading accesses to protected open spaces must involve a consideration of disabled persons.

Figure 3.28: 1990 Youth and Elderly Demographics by Census Block Group



The data and files for maps in this document were digitally compiled by the Chester County Planning Commission (CCPC) of Chester County, PA. This information and data are provided for reference purposes only and should not be used for any detailed engineering purposes. The CCPC and Chester County make no claims as to the completeness, accuracy, or currency of the paper map or the digital data and files used to generate the map.

Source: ESRI, 1998.
1990 Census.

Chester County History

Chester County is somewhat unique in that many of its protected open spaces, such as Springton Manor Special Purpose County Park and French Creek State Park, are also historic sites. County parks are discussed in **Chapter 4**. The County is known nationally as the site of the Revolutionary War Battles between the forces of Gen. George Washington and Gen. Sir William Howe. The County's early steel mills also played a major role in the birth of the Industrial Revolution . Understanding the rich history of Chester County is therefore of utmost importance in protecting its open spaces.

There are also practical reasons why municipal and other open space planners should consider including historic structures or landscapes as part of protected open spaces. Protected open spaces that include historic sites may be eligible to receive funds earmarked for historic preservation. Including historic resources in protected open spaces also broadens a property's potential users, making it easier to get public support and volunteers.

The following section provides a general summary of Chester County's history focusing on events that relate to historic structures, districts and landscapes. **Chapter 8** provides a discussion of National Register Historic Sites and Districts within Chester County. A wealth of detailed information on the County's history is also available from the Chester County Historical Society at www.chestercositorical.org.

Native American Settlement

Archaeologists have classified the prehistory of Pennsylvania into three cultural periods. The earliest is the Paleo-Indian Period, which dates from when humans first entered North America in large numbers some 10,000 to 20,000 years ago, and extends forward to 8000 BCE. This glacial period was followed by the Archaic Period from 8000 to 1000 BCE, when hunting and gathering was the dominant activity. During the Woodland Period, from 1000 BCE to 1600 CE, semi-permanent villages became the norm, and the cultivation of corn, beans and squash provided a year round food supply. In general, spear points and arrowheads are the most commonly found artifacts from these periods.³⁷ Prehistoric and more recent Native American human burial sites, which are rarely found, are protected by the Native American Graves Protection and Repatriation Act of 1990.

The Native Americans who inhabited the Delaware Valley just prior to European colonization belonged to the Lenape Nation, sometimes referred to as the Lenni Lenape. The Lenape were semi-nomadic hunters and farmers who used advanced stone-age technology such as pottery, stone tools and leather crafts. They typically settled in small villages

composed of bark shelters and traveled throughout the region in boats carved out of tree logs.³⁸ Much of their technology was constructed from biodegradable materials that did not preserve well in the archaeological record. The Lenape preferred to make their settlements or hunting camps near the confluence of two or more streams. As a result, floodplain areas are more likely to contain Lenape artifacts.

It is estimated that the Lenape population was 24,000 prior to European settlement, however their numbers dwindled to about 3,000 by 1700, largely as a result of disease and conflicts with colonists.³⁹ Because of their small population, the Lenape were often at the mercy of the ever-growing European colonists and the large and powerful Iroquois Nations of western New York.⁴⁰ Nonetheless, the Lenape adapted to their new situation and actively traded and interacted with neighboring communities. Archaeological sites dating from this “Contact Period” in which Lenapes used both indigenous and imported Old World materials are of special value.

During the mid-eighteenth century there were Lenape settlements at Glenmoore, West Chester, Doe Run, Toughkenamon and Coatesville. As part of Penn’s 1685 agreement with the Lenape, a “certain tract,” of Brandywine Creek was to be deeded to the Lenape for three generations. Lenapes lived there until 1795 when disputes over the construction of dams and other conflicts with settlers forced the Lenape to leave this area.⁴¹

By 1768, the Lenape had sold all of their territory in eastern Pennsylvania, although these sales were often coerced. The Lenape moved north and west where they joined with displaced Munsee or Minisink Indians from North Jersey.⁴² This combined nation took the name Delaware Indians, and their descendent communities still live in parts of Oklahoma and Ontario.⁴³ A Lenape woman, historically known as “Indian Hanna,” is generally regarded as the last surviving member of the County’s original native community. She died in 1802.⁴⁴

Colonial Settlement

Although Swedes and Dutch had established forts and trading posts along the banks of the Delaware River by the 1630s, the entire mid-Atlantic Coast was under English rule by 1672. In 1681 King Charles II granted Philadelphia and its adjacent counties to William Penn in repayment of a debt he owed Penn’s father. In 1682, Penn established Chester County, which included present-day Delaware County until it broke off in 1789.⁴⁵ Penn sold or granted large parcels of land, which were in turn divided and settled, becoming a largely agricultural landscape dotted with small farming villages. Initial settlement occurred in the fertile highlands of the southeastern part of present day Chester County, and in the eastern end of Chester Valley.

The City of Philadelphia was laid out in 1682, as the capitol of Penn's Province, and by 1750, it had grown to 18,000 persons, making it the largest city in the English colonies. Throughout this period, Chester County remained a sparsely populated rural landscape and it is estimated that by 1700, the total population of Chester County, including present-day Delaware County, was only a few thousand. By 1790, when the first census was conducted, Chester County had 28,000 residents, including 700 of African descent, most of whom were slaves.

The majority of Pennsylvania's early population was Quakers, who dominated the region's trade, culture and politics. However, the Quakers religious and ethnic tolerance led other nationalities to settle the region. English and Welsh Quakers first settled the southeastern townships and the Great Valley. They were followed by a migration of Irish Quakers and Scots-Irish Presbyterians who settled the southern and western townships.⁴⁶ Germans belonging to the German Reformed, Lutheran, Moravian and Amish denominations settled the northern portion of the County.⁴⁷

Independence and Growth

Chester County played an important role in the Revolutionary War. On September 11, 1777, a total of 20,000 British forces under the command of Gen. Sir William Howe engaged a force of 10,000 Continentals led by Gen. George Washington along the east bank of the Brandywine River. After having lost 1,000 men, Washington retreated upstream. Five days later a second skirmish occurred just west of Paoli known as the "Battle of the Clouds." This time Washington was nearly outflanked, but heavy rains stopped the British and allowed Washington to withdraw.⁴⁸

Following this battle, Gen. Anthony Wayne of Easttown, was sent back to Paoli to harass the Red Coats, but on September 20th the British surprised his forces. Nearly 250 of Wayne's men were killed or wounded in what came to be known as the "Paoli Massacre." Following these defeats, Washington gathered his forces at Valley Forge and remained there from December 17, 1777 until June 19, 1778. During this time Washington struggled to hold together his demoralized, ill-equipped and sometimes hungry army.⁴⁹

After the nation won its independence in 1783, Chester County became a center of economic activity. Throughout the 18th century, industrialists found Chester County's fast flowing streams to be ideal locations for mill works. By 1710 Francis Chadds was operating a mill on the Brandywine, while Thomas Jerman had established a mill on a tributary of the Schuylkill River in Tredyffrin Township. Chester County mills such as Coventry Forge, Reading Furnace, Warwick Furnace and Valley Forge helped usher in the beginning of the industrial age. As trade increased in the County, public roads such as "Old Lancaster," Swede's Ford Road, Boot Road and Strasburg Road were established. The Philadelphia and

Lancaster Turnpike, often described as the nation's first turnpike, was opened in 1795.⁵⁰ Inns and public houses sprung up along these roads, and by 1758 a total of 34 tavern licenses had been granted in Chester County.⁵¹

Industrial Development

Agricultural production remained the dominant economic and cultural force in Chester County community throughout the 19th century. Durham and Holstein Cattle, Spanish Merino Sheep and "Chester White" hogs were bred in the county at this time. By 1864, East Caln Township had 100 farms and West Caln had 85. The 19th century also saw the expansion of industrial production in Chester County. In 1793, Isaac Pennock built an iron furnace in East Fallowfield Township. In 1816, his son-in-law, Dr. Charles Lukens moved the works to Coatesville. After his death in 1825, his wife Rebecca took over the business that eventually grew into the Lukens Steel Company. Meanwhile in Phoenixville, Benjamin Longstreth and Lewis Wernwag established a mill that became incorporated as the Phoenix Iron Works in 1855.⁵²

As Chester County began to produce more farm goods and iron products, a new industry arose to transport these materials. In 1825, the Schuylkill Navigation Company opened the Schuylkill Canal to transport goods to the Philadelphia markets. Railways first appeared in Chester County in 1846 when the Columbia Railroad, which would later become the eastern segment of the Philadelphia Main Line, was laid across the County. In 1891, the West Chester Street Railway Company transported riders from West Chester to the southern part of the County, and in 1899 the Philadelphia and West Chester Traction Company began service between West Chester and 69th Street in Philadelphia.⁵³

Chester County remained a quite stable community throughout most of the nineteenth century, and was spared from seeing any action during the Civil War. However, Chester County's Quaker community was very active in the "underground railroad," a clandestine organization of abolitionists who would hide and secretly transport run-away slaves into areas where they could live as free men. Properties throughout the County were used to hide run-aways including that of Rachel Pierce, now known as Longwood Gardens.⁵⁴

20th Century

During the early 20th century, the eastern part of Chester County developed into a "railroad suburb," the precursor to the modern suburb. The small towns along the Pennsylvania Railroad's "Main Line" grew along the new commuter rail line, allowing residents to live in Chester County while working in Philadelphia. Berwyn, Devon, Paoli and Malvern all developed into dense residential neighborhoods clustered around a centrally located train station. During this time, the mushroom industry also

developed in southeastern Chester County after J. B. Swayne of Kennett Square developed the first mushroom house in 1896.⁵⁵ Chester County also became more ethnically diverse during the late 19th and early 20th century, with an increase in African Americans and immigrants from eastern and southern Europe. In recent years there has been an increase in Mexican immigrants, many of who are employed in agricultural production.

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Chapter 4



Recreational Parks

Background

Introduction

Parks that are used for passive or active recreation are some of Chester County's oldest protected open spaces and must be considered by any municipality or other group that wishes to establish a protected open space network in the County. There are hundreds of recreational parks in Chester County and each one is unique. These parks range from French Creek State Park, which covers over 7,000 acres of forests and historic sites, to Swing Park in Coatesville, a playground and basketball court that covers less than one acre. Recreational parks provide a wide variety of open space benefits. Because parks are rarely abandoned and developed, they serve as a key foundation of the County's protected open space infrastructure. Recreational parks also provide recreation opportunities for the residents in the communities that surround them. These parks can therefore be regarded a major component of the County's overall recreation infrastructure along with golf courses, indoor sports facilities and other private facilities.

This chapter presents an analysis of national, state, County and municipal parks within Chester County, as well as state and county parks in surrounding counties that are within 10 miles of Chester County. This extensive analysis is necessary in order to determine what parts of Chester County are not served, or are underserved by parks. This chapter does not provide a detailed assessment of each park within Chester County. Detailed information on individual parks can be gathered from the National Park Service, Pennsylvania DCNR Bureau of State Parks, the Chester County Parks and Recreation Department (Parks Department) or municipal offices.

This chapter does not include a recreational plan for the County or any of its municipalities, but it does include some discussion of some of the recreation programs administered by the Park Department on County Park System property. Information on Pennsylvania Heritage Parks Program is not presented in this chapter because this program focuses primarily on historic or culturally significant properties and not conventional recreational parks. This program is discussed in **Chapter 8**. County Trails, which are elements of the County Park System, are discussed in detail in **Chapter 12**.

Municipal and other public open spaces that are not used for recreation are not discussed in this chapter. They are inventoried and evaluated in **Chapter 5**. In the past, the Planning Commission and the Parks Department classified recreational and non-recreational public open spaces together as one type of land use, but they now regard them as two distinct land uses. This change in approach was made to recognize the fact that non-recreational open spaces are designed and maintained much differently from open spaces used for recreation.

Linking Landscapes Definition of a “Park”

The term “park” has no single definition that is recognized by recreational planners, and there is no established set of characteristics that a property must have in order to be called a park. *Linking Landscapes* defines a “park” as any outdoor property with few if any structures that is owned in-fee or permanently eased for recreation by a government agency, is open to the general public, is specifically managed to provide public recreation, and has public recreation as its primary use. This definition stresses that parks are acquired, designed and managed to be public recreational facilities. Some properties in Chester County that have been set aside as wildlife preserves are commonly referred to as “parks,” even though they provide little if any public recreation opportunities. Under the *Linking Landscapes* definition, such non-recreational natural resource preserves would not be classified as parks. Under the *Linking Landscapes* definition, the following properties or facilities are also **not** regarded as parks:

- Indoor recreation centers.
- State game lands, state forests and PA Fish and Boat Commission property.
- Nature preserves and wildlife preserves.
- Floodplain protection areas or watershed protection areas.
- Private properties or quasi-public properties, including those with agricultural conservation or land trust easements.
- Undeveloped vacant public properties Properties owned by a non-profit land preservation trust or conservancy.
- Public recreation facilities on land that is leased or eased from a private owner.
- Public lands used for non-recreational purposes, such as municipal open spaces.
- Non-recreational land surrounding indoor recreational centers or other public buildings.

Active and Passive Recreation

Professional planners typically describe parks based on the ways in which they are used. Some parks are designed and maintained to be used primarily for strenuous recreation activities such as exercise, team sports and child’s play. These activities are referred to as “active recreation.” Other parks are designed, maintained and used for quieter, less athletic activities, such as fishing, picnicking and bird watching. These lower energy activities are known as “passive recreation,” and they have a minimal effect on their surroundings. Passive recreation parks are usually established on naturally or culturally significant or scenic landscapes that might be negatively impacted by active recreation.

Parks that provide active recreation commonly include tennis, volleyball and basketball courts; swing sets, playgrounds, and tot-lots; or fields for team sports such as football, soccer and softball. Active recreation parks can be quite small, as in the case of a tot-lot, or they can cover multiple acres, as in the case of a sports field complex. In Chester County, most active recreation parks are less than 20 acres.

Parks that provide passive recreation include hiking trails, public gardens, historic sites or memorial parks, and picnic areas. In urban areas, passive recreation parks are often small properties that are established to create a quiet space for relaxation. These small properties may be urban gardens or commemorative monuments. Passive recreation parks in suburban or rural settings tend to be large and commonly provide picnic areas, and trails for walking, biking or horseback riding. These parks are often established on a site that already contains a historically significant landscape or a unique natural feature such as a stream or woodland.

Some recreational activities can be regarded as either passive or active depending on the scale of the activity or the size of the park. For example, most people would classify a pair of hikers or a small picnic of four people as being passive recreation, while a hiking group of 50 energetic teenagers or a large family reunion picnic would be called active recreation. Similarly a group of mountain bikers or horseback riders in a 5,000 acre wilderness preserve might have little impact and be called passive recreation, while the same group in a 50 acre park might be called active recreation. Simply put, there are some activities that cannot be clearly described as being exclusively active or passive recreation.

Of course, some parks are used for both active and passive recreation. For example, a 20-acre municipal park might consist of six acres of sports fields, surrounded by 14 acres of woodlands with hiking trails. As a result, many parks must be described as “primarily active” or “primarily passive.” All of the national and state parks in Chester County have been developed for primarily passive recreation, and it is a well established County government policy that all County-owned parks should be designed, maintained and used primarily for passive recreation and natural and cultural resource management.

Currently, municipal parks provide the vast majority of public active recreation opportunities within Chester County, and this situation is likely to continue. Municipalities are well suited to develop active recreation facilities because they are intimately aware of the recreational needs of the local population. Historically, active recreation parks in the County have been purchased and managed by municipal governments.

In the past, most municipal parks were established and managed only for active recreation. In recent years, however, some municipalities have

begun to establish parks for passive recreation and some municipalities have even acquired non-recreational open space. For example, Uwchlan Township has established a municipal open space network that includes:

- **Acker Park**, a five-acre active recreation park with a tot lot, a basketball court, and baseball and soccer field.
- **Baird Park**, a 10-acre passive recreation park with picnic tables surrounding small ponds.
- **Brookwood Open Space**, a 14-acre non-recreational open space containing retention basins and steep wooded slopes.

Municipalities benefit when they clearly designate if public open space is to be used primarily or exclusively for active or passive recreation or if it is to be used as non-recreational open space. By classifying public land in this way municipalities can avoid user conflicts. For example, a little league team might ask to practice in a municipal open space, causing nearby neighbors to oppose this use because of the noise and traffic that is unavoidable with organized team sports. If the municipality that manages the open space has already provided public notice that property can be used for active recreation, the team can practice there. If however, the property has been designated as passive or non-recreational open space, the team will have to make other arrangements. By adopting land use guidelines for open spaces that are reviewed through a public review process, municipalities can minimize potential user conflicts.

The inventory and evaluation of parks presented in this chapter only considers parks used for active and passive recreation, but *not* non-recreational open spaces. Municipal open spaces that are not used for active or passive recreation are discussed in *Chapter 5*.

The 2002 Chester County Recreation Park Standards

The Chester County Planning Commission and the Parks Department have developed a system for classifying each recreational park within the County. This system, called the 2002 Chester County Recreational Park Standards, is an updated version of the 1982 Chester County Park Standards first presented in the 1982 *Chester County Open Space and Recreation Study*. The 2002 Standards are population based and the categories of parks used in the 2002 Standards are shown in *Figure 4.1*. Municipalities that complete or update their municipal open space plan using County funds are required to include some form of population based recreation standard, although they are not required to follow the County's 2002 Standards.

Figure 4.1: The 2002 Chester County Recreational Park Standards

Type of Recreational Park	Service Radius	Minimum Acreage Standard	Maximum Population	Size of Recreational Park
Regional Park	30 miles (Equal to a 60 minute drive)	20 acres per 1,000 people	None	1000 acres or more
Sub-regional Park	7.5 miles (Equal to a 15 minute drive)	8.5 acres per 1,000 people	100,000	400 acres to 999 acres
Community Park	2.5 miles (Equal to a 5 minute drive or a 30 minute walk)	3.0 to 6.0 acres per 1,000 people	25,000	20 acres to 399 acres
Neighborhood Park	0.5 miles (Equal to a 15 minute walk)	2.5 to 3.5 acres per 1,000 people	5,000	0.5 acre to 19.9 acres
Mini Park	0.25 mi. (Equal to an 8 minute walk)	0.25 acres per 1,000 people	2,000	0.01 acre to 0.49 acre

Source: CCPC, June 1982 and February 2002.

The following terms are used in the 2002 Standards presented in *Figure 4.1*:

- The **Service Radius** of a park is a circular area drawn around a park on a map. Ideally, a park should be designed to accommodate the recreation needs of all the people who live within this circle.
- The **Acreage Standard** describes the number of park users per acre of parkland. It is measured in acres per 1000 users. A park with an Acreage Standard of 5 acres per 1000 users would have a density of 250 users per acre. In general, playgrounds and sports fields have a higher user density than wooded or natural resource based parks.
- The **Maximum Population** is the largest recommended population for a given Service Radius. If the population of a Service Radius exceeds the Maximum Population, park planners should consider adding more park facilities in the region.

These population-based Standards were developed to ensure that recreational parks would be built to serve all parts of the County, and to identify overcrowding on parks that were already built. The standards were

developed to apply to conventional non-linear recreational parks, and do not apply to other properties owned by the Parks Department, such as County Trails or Special Purpose Parks. Currently there are no population-based standards for County Trails or Special Purpose Parks because these facilities are established based on available resources, and not as a reaction to a community's population.

National Parks

Inventory of National Parks

The National Park Service (NPS) encompasses over 80 million acres throughout the United States. The mission of the NPS, as stated in the National Park Service Organic Act, is to manage national parks that “conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same.” Two NPS properties are located in Chester County and both of them extend outside the County. Together these two properties cover a total of 1,182 acres within Chester County. Both of these NPS properties are designated as “National Historic Sites” rather than “National Parks,” but both are still part of the National Park System. There are a number of the NPS properties that are outside the County. Most of the NPS properties within 10 miles of Chester County are located in Philadelphia County, PA. There are no NPS properties in New Castle County, DE or Cecil County, MD. Information on national parks is available at:

National Park Service

U.S. Custom House, 200 Chestnut St., 3th Floor
Philadelphia, PA 19106
(215) 597-7013
www.nps.gov

Valley Forge National Historic Site (NHS) is the one of the two NPS properties in Chester County. It also extends into Montgomery County. Valley Forge NHS covers 2,948 acres, 820 acres of which are in Chester County. According to the NPS, the most recent available attendance from 1990 was 1,659,425. The NHS focuses on the Revolutionary War encampment established there by George Washington during the winter of 1777. The NHS includes a visitor's center and offers outdoor recreation activities, historic recreations and educational programs. A portion of the Horse-Shoe Trail traditional hiking route passes through Valley Forge NHS and from there extends west through northern Chester County. The western terminus of the multi-county Schuylkill River Trail/Philadelphia-to-Valley Forge Bikeway is also located in the Valley Forge NHS at the Betzwood Picnic Area in Montgomery County.

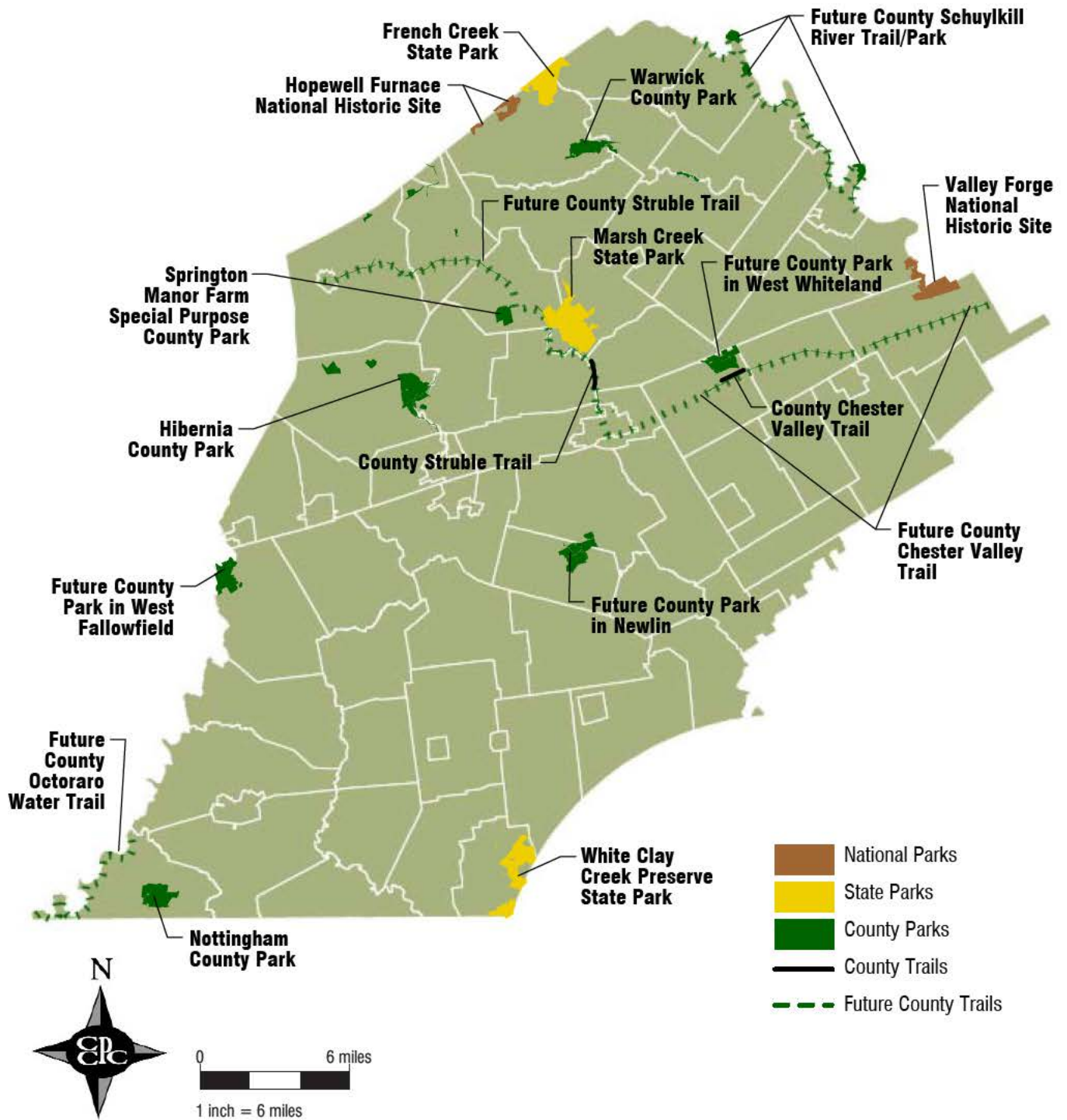
Hopewell Furnace National Historic Site is a NPS property located in both Chester and Berks County. This site covers 848 acres, 362 acres of which are in Chester County. This NHS property is almost surrounded by French Creek State Park, which also straddles the border between Chester and Berks Counties. Attendance in 1998 was 87,500. The NHS preserves the Hopewell Furnace complex, which was founded in 1771 and is one of the finest examples of a rural iron plantation. The NHS also offers molding and casting demonstrations, and history programs. A portion of the Horse-Shoe Trail traditional hiking route also passes through this NHS. The locations of Hopewell Furnace and Valley Forge National Historic Sites are presented on *Figure 4.2*.

Evaluation of National Parks

Chester County is within ten miles of a number of NPS properties, and so is well served by National Parks relative to many of the counties in the Mid-Atlantic Region. Because the County is so well served, it is not likely that the NPS will consider developing more National Parks in the County. Furthermore, neither of the County's National Parks are authorized to enlarge their property by acquiring more land. Over the last decade, the NPS has become involved in helping preserve properties in the County associated with the Battle of Brandywine of 1777, and the subsequent Paoli Massacre. The NPS has no plans to acquire these properties as part of the National Parks System. However, the NPS has played a limited role in coordinating the protection of these historic landscapes and is willing to consider designating these sites with a National Park System "Affiliate Status."

Valley Forge National Historic Site (NHS) covers more than 1,000 acres, and is therefore designated as a "Regional Park" by the 2002 Chester County Recreational Park Standards. Although Hopewell Furnace NHS is less than 1,000 acres, it can also be regarded as a Regional Park because it is part of the Hopewell Furnace-French Creek State Park complex, which does exceed 1,000 acres.

Figure 4.2: National, State and County Parks



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Source: CCPC, 2000.

Visions & Actions **for National Parks**

Vision 4.1

NPS properties should be linked to other protected open spaces via public trails.

Action 4.1

When reviewing land development plans, zoning and subdivision ordinances, open space and recreation plans, and comprehensive plans, the County will provide comments and recommendations on how well NPS properties are linked to other protected open spaces via public trails.

Vision 4.2

Projects that link NPS properties to other protected open spaces via public trails should be initiated at the federal, state, County and municipal level, and by community groups.

Action 4.2

The County will endorse federal, state and municipal projects that link NPS properties to other protected open spaces via public trails, and pursue such projects on a County level.

Vision 4.3

Municipalities and community groups should be encouraged to link NPS properties in Chester County to other protected open spaces via public trails.

Action 4.3

When reviewing applications for appropriate County grants, the County will give additional credit to public trail projects that link NPS properties to other protected open spaces.

Vision 4.4

A public trail with NPS Affiliate Status should be established connecting the Paoli Battlefield site with Valley Forge NHS.

Action 4.4

The County will study the feasibility of establishing a public trail with NPS Affiliate Status connecting the Paoli Battlefield site with Valley Forge NHS.

Vision 4.5

The parcels surrounding NPS properties in Chester County should be protected from further development, or managed in a way that is consistent with the management plans for the NPS property.

Action 4.5

The County will request that the NPS acquire conservation easements through donation or purchase on parcels surrounding NPS properties or secure management agreements with landowners of parcels surrounding NPS properties, and meet with the NPS regularly to discuss the status of its properties.

Vision 4.6

The properties within Chester County that are associated with the Battle of Brandywine and the Paoli Massacre should be protected from further development and designated with NPS Affiliate Status.

Action 4.6

The County will continue to cooperate with the NPS, the state, Delaware County, municipalities, and non-profit land trusts to protect properties associated with the Battle of Brandywine and the Paoli Massacre from further development, and to designate them with NPS Affiliate Status.

State Parks

Inventory of State Parks

The State of Pennsylvania owns 116 state parks that are managed by the DCNR Bureau of State Parks (BSP). State parks are open to the public year round, and most facilities in state parks are available from Memorial Day Weekend to Labor Day. The BSP was established in 1928 to provide outdoor recreation facilities in a natural setting, to preserve park areas, and to provide environmental education. The PA State Park System was originally established to provide one state park within approximately 25 miles of each resident. According to the 2002 Chester County Recreational Park Standards, each state park in Chester County is regarded as

a “Regional Park” that serves a population within a radius of 30 miles. More information on the Pennsylvania State Park System is available at:

Department of Conservation and Natural Resources
 PA Bureau of State Parks
 PO Box 8551
 Harrisburg, PA 17105-8551
 www.dcnr.pa.us.

The three state parks within Chester County are mapped in *Figure 4.2* and described in the table on *Figure 4.3*. Only Marsh Creek State Park is located entirely in Chester County. French Creek State Park extends into Berks County, PA, and White Clay Creek Preserve extends into New Castle County, DE. White Clay Creek Preserve is somewhat unusual in that it is a multi-state facility that straddles the border between Pennsylvania and the State of Delaware. As a result, this park is jointly administered by a bi-state commission, which includes representatives of both states. The BSP parks regards White Clay Creek Preserve as a non-traditional element of the State Park System. Within the White Clay Preserve, the BSF has therefore refrained from constructing many of the conventional recreation facilities found on most state parks.

Figure 4.3: State Parks in Chester County

State Park	Contact	Total Area (acres)	Area in Chester County (acres)	Annual Attendance (1997)
French Creek State Park	843 Park Road Elverson, PA 19520 610-582-9680	7,339	908	656,910
Marsh Creek State Park	675 Park Road Downingtown, PA 19335 610-458-5119	1,684	1,684	623,601
White Clay Creek Preserve	Box 172 Landenberg, PA 19350 610-274-2900	1,824	1,159	90,000 PA attendance only
TOTAL		10,847	3,753	1,370,511

Source: DCNR 1997, Pennsylvania State Parks & Forests Map

Figure 4.4: State Parks in Surrounding Counties



0 15 miles
1 inch = approximately 15 miles

▲ State Parks

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Source: CCPC, 2000.

State parks near Chester County are mapped in *Figure 4.4* and described in the table in *Figure 4.5*. As this table shows, there are 12 state parks within 10 miles of Chester County. Of these 11 parks, Delaware County's Ridley Creek State Park is the most likely to be used by Chester County residents. Fair Hill Natural Resource Management Area in Cecil County Maryland is adjacent to Chester County, but it is not a conventional recreational park. Information on state parks in Delaware and Maryland is available at www.destateparks.com and www.dnr.state.md, respectively.

Figure 4.5: State Parks Within 10 Miles of Chester County

State Park	Area (acres)	County	Annual Attendance (Year)
Delaware State Parks			
Bellevue State Park	271	New Castle, DE	231,226 (1995)
Brandywine Creek State Park	783	New Castle, DE	214,136 (1995)
Lums Pond State Park	1,757	New Castle, DE	302,916 (1995)
White Clay Creek Preserve (New Castle County, DE Section)	665	New Castle, DE	86,500 (1995) Combined DE attendance for both parks
Carpenter Recreation Area	593	New Castle, DE	
Pennsylvania State Parks			
Evansburg State Park	3,349	Montgomery, PA	150,645 (1997)
Fort Washington State Park	493	Montgomery, PA	405,488 (1997)
French Creek State Park (Berks County, PA Section)	6,431	Berks, PA	656,910 (1997) Total park attendance
Nolde Forest State Park	665	Berks, PA	29,902 (1997)
Norristown Farm Park	690	Montgomery, PA	No record
Ridley Creek State Park	2,607	Delaware, PA	699,461 (1997)
Susquehannock State Park	224	Lancaster, PA	76,381 (1997)

Sources: DCNR 1997, Pennsylvania State Parks and Forests Map.
DNREC 1996, Delaware's Open Space Program.

Evaluation of State Parks

Each of the BSP properties within Chester County cover more than 1,000 acres, and each is therefore designated as a “Regional Park” by the 2001 Chester County Recreational Park Standards. The 2001 Chester County Park Recreation Standards designate that Regional Parks should serve residents within 30 miles of the park. **Figure 4.6** shows the 30-mile service radius for each of the state parks.

According to the 2001 Standards, the residents of Chester County residents are sufficiently served by the State Park System. As **Figure 4.6** indicates, all of Chester County is within the service areas of at least one state park. In fact, most of the County is within the service area of all four of the area’s Regional Parks.

Because the County is so well served by state parks, it is not likely that any more state parks will be established within the County. However, the DCNR will allow state parks to be enlarged, usually by accepting donations of adjacent properties.

Visions & Actions **for State Parks**

Vision 4.7

Projects that link state parks to other protected open spaces through public trails and non-recreational wildlife corridors should be initiated on the federal, state, County and municipal level and by community groups.

Action 4.7

The County will endorse federal, state and municipal projects that link state parks to other protected open spaces through public trails and non-recreational wildlife corridors, and pursue such projects at the County level.

Vision 4.8

Municipalities and community groups should be encouraged to link state parks to other protected open spaces via public trails.

Action 4.8

When reviewing applications for appropriate County grants, the County will give additional credit to projects that link state parks to other protected open spaces via public trails and non-recreational wildlife corridors.

Figure 4.6: State Park 30-Mile Service Areas



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Source: CCPC, 2000.

Vision 4.9

Privately owned parcels, that are near a state park and that are either crossed by streams flowing into the state park or that contain documented wildlife habitat that is frequented by animals that also frequent the state park, should have easements that protect these natural resources from development.

Action 4.9

When reviewing applications for appropriate County grants, the County will give additional credit for projects that protect, through easements, privately owned parcels that are near a state park and that are either crossed by streams flowing into the state park, or that contain documented wildlife habitat that is frequented by animals that also frequent the state park.

Vision 4.10

The parcels surrounding state parks should be protected from further development, and managed in a way that is consistent with the management plans for the parks.

Action 4.10

The County will request that the DCNR Bureau of State Parks acquire conservation easements through donation or purchase on parcels surrounding state parks, secure management agreements with landowners of parcels surrounding state parks, and meet regularly with the Bureau to discuss the status of its properties.

Vision 4.11

The Hopewell Big Woods in and around French Creek State Park in Chester and Berks Counties is the largest contiguous woodland in southeastern PA should be protected from further development.

Action 4.11

The County will request a meeting with the DCNR and Berks County to discuss the feasibility of developing a management plan for preserving the Hopewell Big Woods in and around French Creek State Park in Chester and Berks Counties, which is the largest contiguous woodland in southeastern PA. This management plan will likely require gathering scientific data on the forest and coordinating with municipalities to modify zoning and comprehensive plans.

Vision 4.12

The DCNR Bureau of State Parks should continue to accept open space parcels transferred from non-profit land trusts or other entities, when such a transfer will better facilitate the protection and management of the property.

Action 4.12

The County will continue to support those transfers of open space parcels from non-profit land trusts, or other entities, to the DCNR Bureau of State Parks.

Chester County Parks

Inventory of Chester County Parks

The Chester County Park System consists of 4,953 acres of land including three operating County Parks, three future County Parks, two operating County Trails, two future County Trails, one Special Purpose Park one future Special Purpose Park and other smaller parcels. The County's facilities are managed by the Chester County Department of Parks and Recreation (Parks Department), and were visited by 275,000 people in 1999. The Parks Department is administered by professional staff of over 80 professionals, the majority of whom are involved with maintaining and patrolling the County Park System. The Parks Department also receives input from a volunteer Parks and Recreation Board. As of 2000, the Parks Department had an operating budget in excess of \$3.0 million.

The mission of the Parks Department is to preserve, maintain and patrol large tracts of open space for parks and trails while providing specialized programs and facilities. The Parks Department sponsors special events throughout the year, and provides environmental and cultural education programs to the public and specialized groups to encourage the protection and conservation of natural and cultural resources. Cultural resources may include historic, prehistoric, or archeological resources or ethnic or community heritage features. The Parks Department also provides assistance to municipalities, and its staff coordinates elements of the Landscapes 21st Century Fund Grant Program, which is discussed in detail in **Chapter 16**. The Parks Department also owns in-fee or has easements on a number of undeveloped sites acquired through purchase or donation. An inventory of existing and future elements of the Chester County Park System is mapped on **Figure 4.2** and presented in the table on **Figure 4.7**.

Figure 4.7: The Chester County Park System

County Park	Area* (acres)	Municipality	Description
Existing Facilities			
Hibernia County Park	798	W. Caln Twp. and W. Brandywine Twp.	The park focuses on the remains of an 18th century iron forge community and includes Chambers Lake. 1990 attendance was 83,093.
Nottingham County Park	642	W. Nottingham Twp.	The park includes one of the largest serpentine barren habitats on the eastern U. S. 1990 attendance was 67,316.
Springton Manor Farm Special Purpose Park	254	Wallace Twp.	This property has been cultivated since the early 1700s. 1990 attendance was 29,338.
County Struble Trail (Southern Section)	38	Caln Twp. to Upper Uwchlan Twp.	This 2.6 mile paved trail is planned to run north into Marsh Creek State Park and to Struble Lake. 1990 attendance was 65,000.
Warwick County Park	487	Warwick Twp. and S. Coventry Twp.	The park includes the ruins of several early iron forges and their adjacent stream corridors and woodlands. 1990 attendance was 33,044.
Acquired future facilities under design or under construction			
County Chester Valley Trail (Eastern Section)	84	W. Whiteland Twp. to Tredyffrin Twp.	The County purchased this abandoned rail bed in 1991, and opened a 1.4-mile gravel paved section in 2000.
Future County Park in West Whiteland Twp.	508	W. Whiteland Twp.	The County and West Whiteland Twp. jointly purchased this property in 1994. The township will dedicate a municipal park on 188 acres.
Future County Park in Newlin Twp.	644	W. Bradford Twp. and Newlin Twp.	The County purchased this site in 1987. The property consists of rolling hills, open meadows, woodlands, marshes and stream corridors.
Future County Park in West Fallowfield Twp.	559	W. Fallowfield Twp.	The County purchased the site in 1999. The property includes wetlands, forested slopes and Octoraro Creek floodplain.

Figure 4.7: The Chester County Park System (continued)

County Park	Area* (acres)	Municipality	Description
Future facilities that have not been fully acquired by the County			
County Chester Valley Trail (Western Section)	N/A	Downingtown Boro. to W. Whiteland Twp.	The County is coordinating efforts to acquire property in-fee or right-of-way along this 23.8 mile alignment that includes the opened section.
Future County Octoraro Water Trail	N/A	W. Nottingham Twp.	The County is coordinating efforts to provide non-motorized boat access from properties along 10 miles of the Octoraro Creek in West Nottingham Twp.
Future County Schuylkill River Trail/Park	407	N. Coventry Twp. to Phoenixville Boro.	The 12.4 mile trail and park will extend primarily along utility right-of-way and cross the Black Rock, Sanatoga and Linfield former silt basins.
County Struble Trail (Northern Section)	N/A	Honey Brook Twp. to Upper Uwchlan Twp.	This trail is planned to extend north for 14.9 miles, including the opened trail, through Marsh Creek State Park and ultimately to Struble Lake.
TOTAL	4,953	N/A	The County also owns 546 acres of undeveloped land that is not part of any proposed or existing recreational facility.

Source: CCPRD, 2001

Notes: *Acreage based on CCPC GIS evaluation, 2001.

Evaluation of Chester County Parks

■ **Recreational Needs and Park Acreage** All of the existing County Parks or future park sites are between 400 and 999 acres, and are therefore designated as “Sub-regional Parks” by the 2001 Chester County Recreational Park Standards. The 2001 Standards designate that each Sub-regional Park should serve residents within 7.5 miles of the park, and serve a maximum population of 100,000. *Figure 4.8* shows the 7.5-mile service radius for the County’s Sub-regional Parks, and also which of them are projected to exceed their maximum service population by 2025.

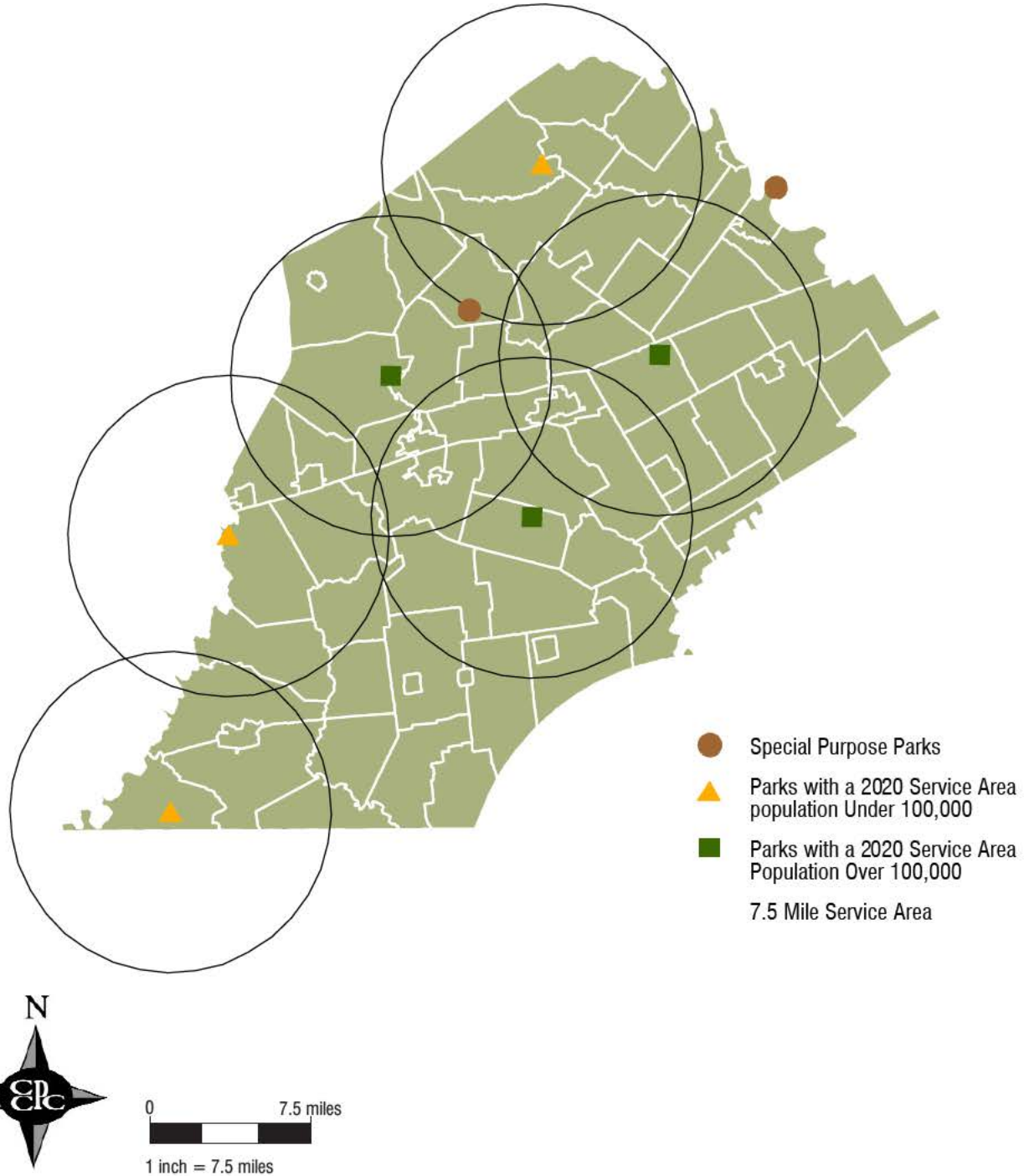
As *Figure 4.8* indicates, there are two parts of Chester County that are currently not served by Sub-regional Parks. These un-served areas are the southeastern corner of the County and the north eastern edge of the county adjacent to Delaware and Montgomery Counties. Both of these areas are near state parks or county parks outside of Chester County that provide similar passive recreation. However, State parks do not provide the same kind of recreation opportunities that are provided by County Parks, and all parts of Chester County should have access to County Parks. Furthermore the residents of Chester County do not have a permanent guarantee of access to parks operated by other Counties, and it would be inappropriate for the residents of the surrounding Counties to finance the recreation opportunities for residents of Chester County, or vice versa.

An estimate of the population served by each of Chester County’s eight Sub-regional Parks is presented on the table on *Figure 4.9*. Determining population for a circular Service Area within a 7.5-mile radius cannot be done with great accuracy and comparable population estimates were not available for all of the communities within 7.5 miles of Chester County’s Sub-regional Parks. The 2000 population data used in *Figure 4.9* was compiled using municipal population for municipalities in Berks, Chester, Lancaster and Montgomery Counties, and Census Block data for Cecil County, which has no incorporated municipalities along its border with Chester County.

Population forecasts for 2025 that are based on the 2000 Census are not expected to be available until 2002. As a result the 2025 population forecasts in *Figure 4.9* were developed based on a combination of population estimate from the 1990s, and data from the 2000 Census and earlier censuses. These forecasts have not been adopted for general use by Chester County government or any other government entity, and should not be used for any purpose other than the forecast presented in *Figure 4.9*.

As *Figure 4.9* indicates, one of the County’s existing or future sub-regional parks is close to its maximum service area population of 100,000, and two of them exceed it. By 2025, three County Parks are likely to exceed their maximum service area population, and one will be nearing its maximum population. The future County Parks in Newlin and West Whiteland Townships are both estimated to exceed their maximum

Figure 4.8: County Park 7.5 Mile Service Areas



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Source: CCPC, 2000.

service area population upon opening, and are projected to serve over 150 percent of their intended population by 2025. This table reflects the fact that County Parks in the more densely populated east and central parts of the County have higher service populations than those to the west.

Figure 4.9: Chester County Park System Evaluation

County Park	2000 Service Area Population	2025 Estimated Service Area Population
Future County Park in Newlin Township	124,049 ◆	159,350 ◆
Future County Park in West Whiteland	177,413 ◆	222,625 ◆
Hibernia County Park	85,632 ■	106,555 ◆
Nottingham County Park	37,684	41,989
Future County Park in West Fallowfield	36,684	36,684
Warwick County Park	70,825	84,889 ■

Legend: ■ = Estimated Service Area Population exceeds 80,000 persons.
◆ = Estimated Service Area Population exceeds 100,000 persons.

Sources: U.S. Census 2000
DVRPC, 1998. 1997 County and Municipal Population, Households and Employment Estimates.
DVRPC, 1993. Year 2020 County and Municipal Interim Population and Employment Forecasts.
Lancaster County Planning Commission, 1999. 1996 estimates and 2020 projections.
Berks County Planning Commission, 1999. 1996 estimates and 2020 projections.
Cecil County Office of Planning and Zoning, 1999. 1995 TAZ estimates and 2020 TAZ projections

Chester County has become so highly developed over the last few decades that there are an extremely limited number of locations where the County could acquire a new sub-regional park. Simply put, there are few locations in the County where there are 400 acres or more of contiguous undeveloped land that is not in agricultural use. As a result, it can be expected that future County Parks may consist of a small number of nearby parcels linked by trails or wildlife corridors, all of which total 400 to 600 acres.

■ County Special Purpose Parks There are a small number of existing and future Special Purpose Parks in Chester County, including Springton Manor Farm and the parcels along the future County Schuylkill River Trail. These properties consist of unique landscapes such as historic sites, traditional farms or other largely undeveloped properties. Special Purpose Parks may be used primarily for passive recreation, education or natural or cultural resource preservation. Because they have such a variety of uses, Special Purpose Parks can not be evaluated using the Chester County Parks Standards, which are designed to assess only recreational needs.

Although there are only a few existing or future Special Purpose Parks in Chester County, their numbers are anticipated to increase. Because these parks do not necessarily require large areas of land, they can be established in parts of the County where forests and natural areas are no longer abundant, such as the eastern part of the County. Given the high pace of development in much of the east and north of the County, it is likely that Special Purpose Parks will become a more significant part of the County Park System.

■ **Water Based County Facilities** Octoraro Creek, the Schuylkill River and many of their tributaries have the potential to be used for water based recreation such as fishing, boating and canoeing. Most of the waterways in these two watersheds that are suitable for water based recreation are underutilized even though there are a number of boat ramps that provide access to them. The Parks Department has acquired a number of parcels along the main stem of the Schuylkill River to be incorporated into a complex of Special Purpose Parks, County Trails and water access points. The Parks Department has also begun coordination with Lancaster County and landowners along the southern portions of the Octoraro Creek with the goal of establishing a County Water Trail. This water trail and the proposed walking trail along the Schuylkill River are both discussed in detail in *Chapter 12*.

■ **Managing Natural Resources in and Around County Parks**

County Parks in Chester County have been established primarily to provide passive recreation opportunities, which usually focus on the observation and appreciation of wildlife and natural resources. As a result, County Parks must be managed to provide an environment that will support wildlife, wilderness vegetation and protect natural resources such as soils, streams and wetlands. The natural resources found on County Parks require extensive maintenance and management. Forests and meadows must be monitored to ensure that they are not invaded by aggressive exotic plant species. Stream banks and wetlands must be protected from erosion and sedimentation.

The natural resources found within County Parks do not stop at the park boundaries, and many major features such as wetlands and stream banks, extend out into surrounding privately owned properties. If natural resources are mismanaged or destroyed on properties adjacent to a County Park, the ecosystem of the County Park can be dramatically degraded. As a result, the maintenance of natural resources within a County Park often requires the proper management of those same resources outside the park. It is therefore necessary to educate property owners that are adjacent to or upstream from a County Park, and involve these landowners in the overall management of the region surrounding the park.

The Parks Department actively manages natural resources within County Parks and conducts educational outreach programs. The Parks Department completed Master Plans for Hibernia, Nottingham and Warwick County Parks and Springton Manor Farm Special Purpose Park in the

early 1980s. These Master Plans were updated in 1999. As of March 2001, Master Plans were being completed or initiated for the three additional future County Parks. Such planning documents are valuable tools for directing and optimizing park maintenance resources and for establishing a coordinated effort to involve nearby property owners into a regional maintenance effort. Through such master planning efforts, County Parks can be managed to serve as demonstration areas for activities that improve the quality of the open spaces on public and private property beyond the park's boundaries. Parks that are also demonstration areas can be used as teaching tools and training areas for natural resource management.

■ Education and Volunteer Coordination The Parks Department has developed a number of programs that focus on educating the general public about cultural heritage and environmental issues. Parks Department staff includes a full time Education Coordinator who administers the Department's "Nature of Things" program, which provides educational outreach to schools and civic groups. Park rangers at the County Parks are also involved with public education and community outreach.

Although the Parks Department also uses volunteer labor on selected projects throughout the County Park System, there is no formal volunteer coordination program. Educating the general public and coordinating volunteer activities can be an important tool for better managing natural and cultural resources within the County Park System and in the communities that surround them. Educating the public and using educated volunteers on County Parks projects not only helps to fulfill the Parks Department mission to provide passive recreation opportunities, it also saves money and helps to improve the quality of public open spaces.

Visions & Actions **for Chester County Parks**

Vision 4.13

Projects that link County Parks and Trails to population centers, boroughs and the City of Coatesville by public trails should be initiated at the federal, state, County and municipal level and by community groups.

Action 4.13

The County will endorse federal, state, and municipal projects that link County Parks and County Trails to population centers, boroughs and the City of Coatesville by public trails, and pursue such projects on a County level.

Vision 4.14

County parks should be buffered by conservation and scenic easements, and linked to other protected open spaces using such easements, especially along riparian corridors and ridges.

Action 4.14

The County will endorse federal, state and municipal projects that buffer County parks by conservation and scenic easements that link them to other protected open spaces using such easements, especially along riparian corridors and ridges, and pursue such projects on a County level.

Vision 4.15

County parks should be used as demonstration areas to provide natural resource and land management models that can be used throughout the County.

Action 4.15

The County will endorse federal, state and municipal projects that use County parks as demonstration areas to provide natural resource and land management models that can be used throughout the County, and pursue such projects on a County level.

Vision 4.16

The management of County parks should include outreach activities that focus on educating the public about natural resource and cultural heritage issues, establishing positive relationships with park neighbors, and coordination with volunteers and “friends of” groups.

Action 4.16

The County will endorse federal, state and municipal projects for County Parks that include outreach activities that focus on educating the public about natural resources and cultural heritage issues, establishing positive relationships with park neighbors, and coordination with volunteers and “friends of” groups, and pursue such projects on a County level.

Vision 4.17

Municipalities and community groups should be encouraged to establish public trails that link County Parks and Trails to population centers, boroughs and the City of Coatesville

Action 4.17

When reviewing applications for appropriate County grants, the County will give additional credit to projects that link County Parks and Trails to population centers, boroughs and the City of Coatesville via public trails.

Vision 4.18

The County should establish a 600-acre County Park in the un-served southeastern part of the County.

Action 4.18

The County will study the feasibility of establishing a 600-acre County Park in the un-served southeastern part of the County. This Park should consist of either one contiguous 600-acre property, or a small number of nearby properties that total 600 acres and are linked by a County Trail.

Vision 4.19

The County should establish 1,200-acres of the County Park System properties, such as County Parks, Trails and Special Purpose Parks within the under-served east-central part of the County.

Action 4.19

The County will study the feasibility of establishing 1,200-acres of the County Park System properties, such as County Parks, Trails and Special Purpose Parks within the under-served east-central part of the County. Any County Park considered in this study may consist of small number of nearby properties that total 600 acres and are linked by a County Trail.

Vision 4.20

Volunteers should be involved in maintaining County Park System and natural and cultural resources within and surrounding County Parks, Trails and Special Purpose Parks.

Action 4.20

The County will study the feasibility of coordinating volunteer efforts on a countywide level to assist in maintaining natural and cultural resources within or surrounding County Parks, Trails and Special Purpose Parks.

Vision 4.21

Every County Park, Trail and Special Purpose Park should be linked by public trails to population centers, boroughs and the City of Coatesville.

Action 4.21

When developing master plans or master plan updates for County Parks, Trails, and Special Purpose Parks the County will include alternatives for using public trails to link County Parks, Trails and Special Purpose Parks to population centers, boroughs and the City of Coatesville.

Vision 4.22

The County should establish and enhance Special Purpose Parks that do not meet the conventional definition of a recreational park, but can be used for natural and cultural resource protection, recreation or education.

Action 4.22

The County will continue to establish and enhance Special Purpose Parks that do not meet the conventional definition of a recreational park, but can be used for natural and cultural resource protection, recreation or education.

Vision 4.23

The County should establish the County Schuylkill River Trail, loop trails and Special Purpose Parks along the southern side of the Schuylkill River to be used by pedestrians and bicyclists.

Action 4.23

The County will continue to acquire additional rights-of-way and parcels in-fee along the southern side of the Schuylkill River from PA Route 29 to US Route 422, to create the County Schuylkill River Trail, loop trails and Special Purpose Parks.

Vision 4.24

County Parks should be enlarged to meet service area deficits by acquiring through sale or donation nearby parcels that are wooded, vegetated, or contain streams that cross Parks, or nearby parcels whose acquisition will allow for easier management of the park.

Action 4.24

The County will continue to coordinate with landowners near County Parks to identify properties that could be sold or donated to enlarge County Parks to meet service area deficits.

Vision 4.25

The County Struble Trail should be extended north to Struble Lake and the County Chester Valley Trail should be extended in phases to Downingtown, Coatesville/South Coatesville, Parkesburg and Atglen Boroughs.

Action 4.25

The County will continue to acquire and construct extensions to the County Struble Trail and the County Chester Valley Trail.

Vision 4.26

The County should establish the County Octoraro Water Trail with access points at the Future County Park in West Fallowfield Township, Valley Forge State Forest in West Nottingham Township, and Atglen Borough.

Action 4.26

The County will continue to coordinate with municipalities, Lancaster County, the Chester Water Authority, and private landowners to establish the County Octoraro Water Trail.

Vision 4.27

All of the waterways in Chester County that are suitable for water based recreation should be considered as locations for recreation facilities.

Action 4.27

The County will inventory streams in Chester County to determine which are suitable for water based recreation.

Vision 4.28

Water based recreation should be available in appropriate sections of the Schuylkill River and its major tributaries, and the Octoraro Creek and its major tributaries.

Action 4.28

The County will continue to establish water based recreation facilities in appropriate sections of the Schuylkill River and its major tributaries, and the Octoraro Creek and its major tributaries.

Vision 4.29

Wetlands should be restored or established on County Park System properties to promote wildlife habitat and biodiversity, and to improve surface and groundwater quality.

Action 4.29

The County will continue to restore or establish wetlands on County Park System properties to promote wildlife habitat and biodiversity and to improve surface and groundwater quality.

Vision 4.30

County Parks in highly developed parts of the County should be established on large available parcels even if those parcels have been cleared of native vegetation and require habitat creation or restoration in order to attract wildlife habitat.

Action 4.30

The County will consider establishing County Parks on large parcels in or near Urban or Suburban Landscapes as mapped in *Landscapes*, even if those parcels have been cleared of native vegetation and require habitat creation or restoration in order to attract wildlife.

Vision 4.31

The restoration of wildlife habitat on County Park System properties should employ management techniques implemented through partnerships with private organizations.

Action 4.31

The County will meet with the major wildlife habitat preservation organizations to determine possible partnership opportunities for the management of wildlife habitat on County Park System properties.

Vision 4.32

Each County Park and Special Purpose Park should have a resource management plan that is updated at least every ten years.

Action 4.32

The County will develop a resource management plan for each County Park and Special Purpose Park to be updated at least every ten years.

Vision 4.33

The County should develop policies and guidelines for natural resource management on County Park System properties that address restoring and maintaining native species and biodiversity, reinstating disturbance regimes such as controlled burning on appropriate habitats, and using public education and volunteers to assist in resource management.

Action 4.33

The County will develop policies and guidelines for natural resource management on County Park System properties that address restoring and maintaining native species and biodiversity, reinstating disturbance regimes such as controlled burning on appropriate habitats, and using public education and volunteers to assist in resource management.

Vision 4.34

County Parks should continue to be used primarily for passive recreation focusing on cultural and historic resources and the observation of natural resources and wildlife.

Action 4.34

The County will manage a minimum of 80 percent of each County Park as resource based open areas.

Vision 4.35

Special Purpose Parks should continue to be used primarily for passive recreation and education focusing on observing unique or noteworthy undeveloped landscapes such as historic properties and farms.

Action 4.35

The County will manage a minimum of 80 percent of each Special Purpose Park, as undeveloped land or farm fields.

Vision 4.36

The County should complete the design and construction of recreational facilities on future parks sites that have been acquired, including an educational center at the future County Park in Newlin Township.

Action 4.36

The County will complete the design and construction of recreational facilities on future parks sites that have been acquired, including an educational center at the future County Park in Newlin Township.

Vision 4.37

The County should continue to plan and implement educational programming and special events to make the general public aware of environmental, historical and cultural features within County parks and the County as a whole.

Action 4.37

The County will continue to plan and implement educational programming and special events to make the general public aware of environmental, historical and cultural features within County Parks and the County as a whole.

Municipal Recreational Parks

Inventory of Municipal Recreational Parks

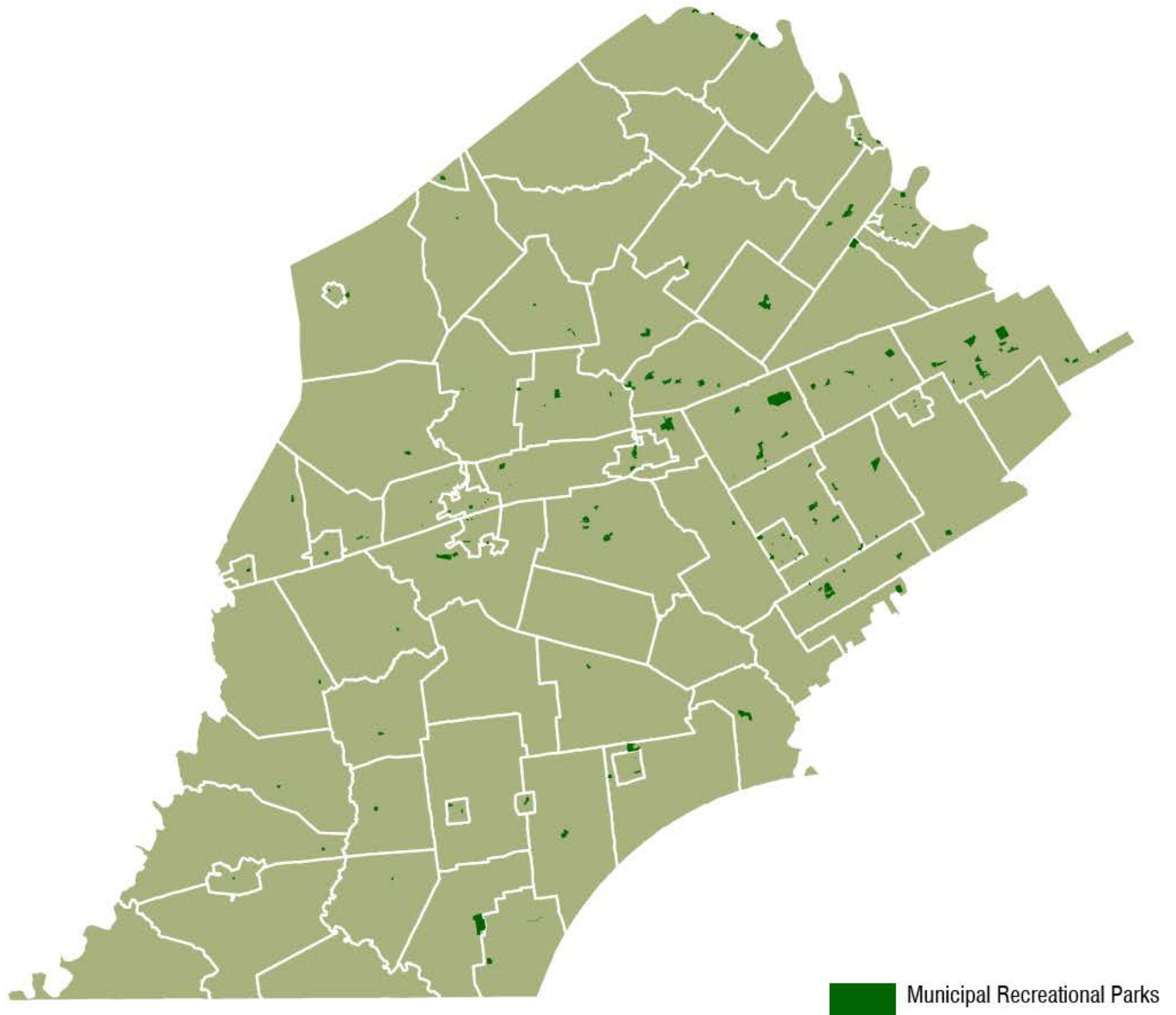
During the 1990s, all but seven of Chester County's municipalities completed municipal Open Space, Recreation and Environmental Resource Plans, also called "OSRER" Plans. Each OSRER plan provides a detailed inventory and evaluation of municipal parks used as recreation facilities. Individuals who want detailed information on specific municipal recreational parks should contact the municipality in question and review the OSRER Plan. The Planning Commission also has a copy of each OSRER for public review.

Municipal recreational parks in Chester County are mapped on **Figure 4.10**. This map lists only parks used for recreation, and includes both active and passive recreation parks. The table in **Figure 4.11** lists the total acreage for each recreational park based on a 1999 and 2000 survey of municipalities, and a review of OSRER Plans and the Chester County Real Estate System Records. The acreage of these parks was determined using the Planning Commission's Geographic Information (GIS) database, and may vary somewhat from municipal records or individual property deeds. This table does not include non-recreational municipal open spaces, which are inventoried in **Chapter 5**.

Evaluation of Municipal Recreational Parks

All of the municipal recreational parks in Chester County are under 400 acres, and are therefore designated as either "Community Parks, Neighborhood Parks" or "Mini Parks" by the 2002 Chester County Recreational Park Standards. A detailed evaluation of municipal recreational parks within Chester County is presented below. This evaluation employs a five-step evaluation technique that was developed based on:

- *Open Space Standards and Criteria for the Delaware Valley* published by the Delaware Valley Regional Planning Commission in 1977.
- *Regional and Local Park-Recreation and Open Space Standards for Chester County*, a report completed for the Chester County Commissioners by John Rahenkamp and Associates, Inc. in August 1980.
- *Chester County Open Space and Recreation Study* published by the Chester County Planning Commission in 1982.
- *The Park, Recreation, Open Space and Greenway Guidelines* published by the National Recreation and Park Association and the American Academy for Park and Recreation Administration in 1996.

Figure 4.10: Municipal Recreational Parks

0 6 miles

1 inch = 6 miles

The data and files for maps in this document were digitally compiled by the Chester County Planning Commission (CCPC) of Chester County, PA. This information and data are provided for reference purposes only and should not be used for any detailed engineering purposes. The CCPC and Chester County make no claims as to the completeness, accuracy, or currency of the paper map or the digital data and files used to generate the map.

Source: CCPC, 2000.

Figure 4.11: Municipal Recreational Park Acreage as of June 2000*

Municipality	Total Area (acres)	Municipality	Total Area (acres)
Atglen ♦	4.8	North Coventry	32.6
Avondale	11.3	Oxford ■	2.3
Birmingham	0.0	Parkesburg	9.5
Caln	21.4	Penn	9.9
Charlestown	41.1	Pennsbury	52.4
Coatesville	13.4	Phoenixville	35.1
Downingtown	45.7	Pocopson	0.0
East Bradford	7.2	Sadsbury	8.0
East Brandywine	44.6	Schuylkill	0.0
East Caln	86.4	South Coatesville	5.3
East Coventry	39.4	South Coventry	0.0
East Fallowfield	59.1	Spring City	15.6
East Goshen	65.1	Thornbury	28.0
East Marlborough	6.9	Tredyffrin	312.5
East Nantmeal	0.0	Upper Oxford	4.8
East Nottingham ■	0.0	Upper Uwchlan	39.5
East Pikeland	63.4	Uwchlan	127.0
Easttown	0.0	Valley	2.8
East Vincent	10.2	Wallace	11.6
East Whiteland	81.4	Warwick	0.0
Elk	0.0	West Bradford	76.2
Elverson	12.1	West Brandywine	2.3
Franklin	130.5	West Caln	15.4

Note: *This table only includes developed parks used for recreation and not non-recreational open space as of July 2000. Parcels that were acquired for recreational use, but were not open for public use as of July 2000 are not listed.

Legend: ♦ = Municipalities that have not completed OSRER Plans as of February 2002.
 ■ = Municipalities that are currently completing OSRER Plans as of February 2002.

Figure 4.11: Municipal Recreational Park Acreage as of June 2000* (continued)

Municipality	Total Area (acres)	Municipality	Total Area (acres)
Highland ♦	5.8	West Chester	42.3
Honeybrook Boro	3.7	West Fallowfield ♦	4.8
Honeybrook Twp.	10.6	West Goshen	76.8
Kennett	64.8	West Grove	13.1
Kennett Square	5.1	West Marlborough ♦	0.0
London Britain	19.4	West Nantmeal	1.8
London Grove	0.0	West Nottingham	0.0
Londonderry	9.8	West Pikeland	71.1
Lower Oxford	0.0	West Sadsbury	9.8
Malvern	3.4	Westtown	97.9
Modena ♦	4.0	West Vincent	12.0
New Garden	27.7	West Whiteland	278.7
Newlin	0.0	Willistown	18.0
New London	3.7	Chester County Total	2319.1

Note: *This table only includes developed parks used for recreation and non-recreational open space as of July 2000. Parcels that were acquired for recreational use, but were not open for public use as of July 2000 are not listed.

Legend: ♦ = Municipalities that have not completed OSRER Plans as of February 2002.
 ■ = Municipalities that are currently completing OSRER Plans as of February 2002.

This evaluation technique is just one of many that could be used to analyze municipal recreational parks within Chester County, and is not meant to invalidate any evaluation already included in a municipal OSRER Plan. This evaluation technique is based on human population and so should not be used to determine the acreage that is needed by a municipality for non-recreational open spaces, such as wildlife or natural resource preserves. The main value of the following evaluation technique is that it provides one consistent approach that applies to all of Chester County's municipalities. Each of the four steps used in this evaluation technique is explained below.

■ Step 1: Inventory In this step, the acreage of municipal recreational parks were inventoried for each municipality as presented above in *Figure 4.11*.

■ **Step 2: Determining Density Classes** In this step, each of the County's municipalities was grouped into three Density Classes based on the criteria presented in *Figure 4.12*. All boroughs and the City of Coatesville were grouped in the High Density Class regardless of their density.

Figure 4.12: Density Classes

Density Class	Average Land Area of Each Residential Unit	Population per Square Mile
Low	5.00 acres or more	375 people or less
Medium	4.99 to 0.50 acres	376 to 3,264 people
High (Including all boroughs and cities regardless of their density.)	0.49 acres or less	3,265 people or more

■ **Step 3: Determining Recreational Parks Needed Based on Density Class and Population** In this step, the acreage of municipal recreational parks needed for each Density Class was determined using the criteria presented in *Figure 4.13*. This table shows how much recreational park area is needed per 1,000 persons. It also shows the type of municipal recreational parks needed.

Figure 4.13: Recreational Parks Needed for Each Density Class

	High Density Municipality	Medium Density Municipality	Low Density Municipality
Parks	A Community Park with an acreage standard of 3.0 acres/1,000 users	A Community Park with an acreage standard of 4.5 acres/1,000 users	A Community Park with an acreage standard of 6.0 acres/1,000 users
	A Neighborhood Park with an acreage standard of 2.5 acres/1,000 users	A Neighborhood Park with an acreage standard of 3.5 acres/1,000 users	
	A Mini Park with an acreage standard of 0.25 acres/1,000 users		
Total Park Acreage Needed	5.75 acres	8.0 acres	6.0 acres

As this table shows, medium density municipalities have the highest “Total Park Acreage Needed,” while high density municipalities have the lowest. High-density communities typically have little open vacant land available for conversion into recreational parks, and so it would be unrealistic to expect them to construct expansive park sites. Medium density communities, where suburban style development is common, usually have sufficient vacant land to build larger parks. These communities also have large populations, and so it is reasonable to recommend that they build 8.0 acres of parklands for each 1,000 residents. Low density communities are usually rural, and have such small populations that it would be impractical to expect them to build parks facilities that are as large as those in more developed suburban areas. These communities should, however, target property for future parks as part of their comprehensive planning.

■ **Step 4: Using 2000 Population to Determine Existing Needs** In this step, the 2000 populations were gathered for each municipality based on the 2000 Census. This data, along with *Figures 4.12* and *4.13* were then used to determine the number of recreational parks currently needed for each municipality, and the total acreage of these parks. The results of this evaluation are presented in *Figure 4.14*.

Figure 4.14: 2000 Municipal Recreational Park Needs

Municipality	2000 Density Class	Community Parks Needed	Neighborhood Parks Needed	Mini-parks Needed	2000 Total Area Needed (acres)
Atglen	High	1	1	1	7.0
Avondale	High	1	1	1	6.4
Birmingham	Medium	1	1	0	33.8
Caln	Medium	1	1	0	95.3
Charlestown	Low	1	0	0	24.3
Coatesville	High	1	1	1	62.3
Downingtown	High	1	1	1	43.6
East Bradford	Medium	1	1	0	75.2
East Brandywine	Medium	1	1	0	46.6
East Caln	Medium	1	1	0	22.9
East Coventry	Medium	1	1	0	36.5
East Fallowfield	Low	1	0	0	30.9

Figure 4.14: 2000 Municipal Recreational Park Needs (continued)

Municipality	2000 Density Class	Community Parks Needed	Neighborhood Parks Needed	Mini-parks Needed	2000 Total Area Needed (acres)
East Goshen	Medium	1	1	0	134.6
East Marlborough	Medium	1	1	0	50.5
East Nantmeal	Low	1	0	0	10.7
East Nottingham	Low	1	0	0	33.1
East Pikeland	Medium	1	1	0	52.4
Easttown	Medium	1	1	0	74.7
East Vincent	Medium	1	1	0	43.9
East Whiteland	Medium	1	1	0	82.2
Elk	Low	1	0	0	8.9
Elverson	High	1	1	1	5.5
Franklin	Low	1	0	0	23.1
Highland	Low	1	0	0	6.8
Honeybrook Boro.	High	1	1	1	7.4
Honeybrook Twp.	Low	1	0	0	37.7
Kennett	Medium	1	1	0	51.6
Kennett Square	High	1	1	1	30.3
London Britain	Low	1	0	0	16.8
London Grove	Low	1	0	0	31.6
Londonderry	Low	1	0	0	9.8
Lower Oxford	Low	1	0	0	25.9
Malvern	High	1	1	1	17.6
Modena	High	1	1	1	3.5
New Garden	Medium	1	1	0	72.7
Newlin	Low	1	0	0	6.9
New London	Medium	1	1	0	36.7
North Coventry	Medium	1	1	0	59.0

Figure 4.14: 2000 Municipal Recreational Park Needs (continued)

Municipality	2000 Density Class	Community Parks Needed	Neighborhood Parks Needed	Mini-parks Needed	2000 Total Area Needed (acres)
Oxford	High	1	1	1	24.8
Parquesburg	High	1	1	1	19.4
Penn	Low	1	0	0	16.9
Pennsbury	Low	1	0	0	21.0
Phoenixville	High	1	1	1	85.0
Pocopson	Medium	1	1	0	26.8
Sadsbury	Medium	1	1	0	20.7
Schuylkill	Medium	1	1	0	55.7
South Coatesville	High	1	1	1	5.7
South Coventry	Low	1	0	0	11.4
Spring City	High	1	1	1	19.0
Thornbury	Medium	1	1	0	21.4
Tredyffrin	Medium	1	1	0	232.5
Upper Oxford	Low	1	0	0	12.6
Upper Uwchlan	Medium	1	1	0	54.8
Uwchlan	Medium	1	1	0	132.6
Valley	Medium	1	1	0	40.9
Wallace	Low	1	0	0	19.4
Warwick	Low	1	0	0	15.3
West Bradford	Medium	1	1	0	86.2
West Brandywine	Medium	1	1	0	57.2
West Caln	Low	1	0	0	42.3
West Chester	High	1	1	1	102.7
West Fallowfield	Low	1	0	0	14.9
West Goshen	Medium	1	1	0	164.0
West Grove	High	1	1	1	15.2

Figure 4.14: 2000 Municipal Recreational Park Needs (continued)

Municipality	2000 Density Class	Community Parks Needed	Neighborhood Parks Needed	Mini-parks Needed	2000 Total Area Needed (acres)
West Marlborough	Low	1	0	0	5.2
West Nantmeal	Low	1	0	0	12.2
West Nottingham	Low	1	0	0	15.8
West Pikeland	Low	1	0	0	21.3
West Sadsbury	Low	1	0	0	14.7
Westtown	Medium	1	1	0	82.8
West Vincent	Low	1	0	0	19.0
West Whiteland	Medium	1	1	0	132.0
Willistown	Medium	1	1	0	80.1
Chester County	N/A	73	47	16	3120.3

Source: CCPC, 2001 based on the 2000 Census.

■ Step 5: Using 2025 Population Projections to Determine Future Needs

Year 2025 population forecasts based on the 2000 Census are not expected to be available until 2002. As a result the 2025 population forecasts in *Figure 4.12* were developed by taking 2000 census data for each municipality, and adding the population increases for 1997 through 2025 based on 1997 estimates as published by the DVRPC in their *Year 2025 County & Municipal Population & Employment Forecasts*. These forecasts have not been adopted for general use by the DVRPC, Chester County government or any other government entity, and should not be used for any purpose other than the analysis presented below. This projected data, along with *Figures 4.12* and *4.13* were then used to determine the number of recreational parks currently needed for each municipality, and the total acreage of these parks. The results of this evaluation are presented in *Figure 4.15*.

Figure 4.15: Municipal Recreational Park Needs 2025

Municipality	2025 Density Class	Community Parks Needed	Neighborhood Parks Needed	Mini-parks Needed	2025 Total Area Needed (acres)
Atglen	High	1	1	1	7.8
Avondale	High	1	1	1	7.2
Birmingham	Medium	1	1	0	60.0
Caln	Medium	1	1	0	125.6
Charlestown	Low	1	0	0	21.0
Coatesville	High	1	1	1	64.7
Downingtown	High	1	1	1	48.9
East Bradford	Medium	1	1	0	105.6
East Brandywine	Medium	1	1	0	64.0
East Caln	Medium	1	1	0	28.0
East Coventry	Medium	1	1	0	42.8
East Fallowfield	Medium	1	1	0	49.6
East Goshen	Medium	1	1	0	157.2
East Marlborough	Medium	1	1	0	62.4
East Nantmeal	Low	1	0	0	11.1
East Nottingham	Low	1	0	0	36.6
East Pikeland	Medium	1	1	0	76.4
Easttown	Medium	1	1	0	80.4
East Vincent	Medium	1	1	0	79.6
East Whiteland	Medium	1	1	0	48.0
Elk	Low	1	0	0	11.1
Elverson	High	1	1	1	8.1
Franklin	Medium	1	1	0	39.2
Highland	Low	1	0	0	7.2
Honeybrook Boro.	High	1	1	1	8.6
Honeybrook Twp.	Low	1	0	0	44.7

Figure 4.15: Municipal Recreational Park Needs 2025 (continued)

Municipality	2025 Density Class	Community Parks Needed	Neighborhood Parks Needed	Mini-parks Needed	2025 Total Area Needed (acres)
Kennett	Medium	1	1	0	61.2
Kennett Square	High	1	1	1	31.3
London Britain	Medium	1	1	0	34.4
London Grove	Medium	1	1	0	56.4
Londonderry	Low	1	0	0	13.2
Lower Oxford	Low	1	0	0	24.3
Malvern	High	1	1	1	19.8
Modena	High	1	1	1	3.5
New Garden	Medium	1	1	0	84.4
Newlin	Low	1	0	0	41.1
New London	Medium	1	1	0	10.0
North Coventry	Medium	1	1	0	75.2
Oxford	High	1	1	1	23.0
Parkesburg	High	1	1	1	19.3
Penn	Medium	1	1	0	33.6
Pennsbury	Medium	1	1	0	46.0
Phoenixville	High	1	1	1	99.2
Pocopson	Medium	1	1	0	45.6
Sadsbury	Medium	1	1	0	25.6
Schuylkill	Medium	1	1	0	60.8
South Coatesville	High	1	1	1	6.0
South Coventry	Low	1	0	0	15.6
Spring City	High	1	1	1	21.0
Thornbury	Medium	1	1	0	18.8
Tredyffrin	Medium	1	1	0	261.2
Upper Oxford	Low	1	0	0	17.1

Figure 4.15: Municipal Recreational Park Needs 2025 (continued)

Municipality	2025 Density Class	Community Parks Needed	Neighborhood Parks Needed	Mini-parks Needed	2025 Total Area Needed (acres)
Upper Uwchlan	Medium	1	1	0	104.8
Uwchlan	Medium	1	1	0	184.4
Valley	Medium	1	1	0	71.6
Wallace	Low	1	0	0	30.6
Warwick	Low	1	0	0	21.9
West Bradford	Medium	1	1	0	136.0
West Brandywine	Medium	1	1	0	103.6
West Caln	Medium	1	1	0	85.2
West Chester	High	1	1	1	109.5
West Fallowfield	Low	1	0	0	22.8
West Goshen	Medium	1	1	0	184.0
West Grove	High	1	1	1	20.4
West Marlborough	Low	1	0	0	5.4
West Nantmeal	Low	1	0	0	19.5
West Nottingham	Low	1	0	0	20.7
West Pikeland	Medium	1	1	0	33.6
West Sadsbury	Medium	1	1	0	32.8
Westtown	Medium	1	1	0	124.4
West Vincent	Low	1	0	0	25.8
West Whiteland	Medium	1	1	0	172.0
Willistown	Medium	1	1	0	100.0
Chester County	N/A	73	61	16	4052.0

Source: CCPC 2001, based on the 2000 Census and DVRPC. 2000. Year 2025 County & Municipal Population & Employment Forecasts.

■ **Results of the Four-Step Evaluation Technique** The table in *Figure 4.16* presents the existing park acreage of each municipality, along with the acreage of parks needed to accommodate the 2000 population and the projected 2025 population.

Figure 4.16: Municipal Recreational Park Evaluation

Municipality	Existing 2001 Parks (acres)	Additional Acres Required to Meet 2000 Needs (acres)	Additional Acres Required to Meet 2025 Needs (acres)
Atglen	4.8	2.2* ■	3.0* ■
Avondale	11.3	0.0*	0.0*
Birmingham	0.0	33.8 ◆	60.0 ◆
Caln	21.4	73.9 ◆	104.2 ◆
Charlestown	41.1	0.0	0.0
Coatesville	13.4	48.9* ◆	51.3* ◆
Downingtown	45.7	0.0*	3.2*
East Bradford	7.2	68.0 ◆	98.4 ◆
East Brandywine	44.6	2.0 ■	19.4 ■
East Caln	86.4	0.0	0.0
East Coventry	39.4	0.0	3.4 ■
East Fallowfield	59.1	0.0	0.0
East Goshen	65.1	69.5 ◆	92.1 ◆
East Marlborough	6.9	43.6 ◆	55.5 ◆
East Nantmeal	0.0	10.7 ■	11.1 ■
East Nottingham	0.0	33.1 ◆	36.6 ◆
East Pikeland	63.4	0.0	13.0
Easttown	0.0	74.7 ◆	80.4 ◆
East Vincent	10.2	33.7 ◆	69.4 ◆
East Whiteland	81.4	0.8 ■	0.0

No Symbol = Municipalities with enough park acreage to serve their existing or projected population.

■ = Municipalities that need less than 20 additional acres to serve their population.

◆ = Municipalities that need 20 additional acres or more to serve their population.

* = Boroughs or the City of Coatesville, which may not have enough open land to meet their recreational needs.

Figure 4.16: Municipal Recreational Park Evaluation (continued)

Municipality	Existing 2001 Parks (acres)	Additional Acres Required to Meet 2000 Needs (acres)	Additional Acres Required to Meet 2025 Needs (acres)
Elk	0.0	8.9 ■	11.1 ■
Elverson	12.1	0.0*	0.0*
Franklin	130.5	0.0	0.0
Highland	5.8	1.0 ■	1.4 ■
Honeybrook Boro.	3.7	3.7* ■	4.9* ■
Honeybrook Twp.	10.6	27.1 ◆	34.1 ◆
Kennett	64.8	0.0	0.0
Kennett Square	5.1	25.2* ◆	26.2* ◆
London Britain	19.4	0.0	15.0 ■
London Grove	0.0	31.6 ◆	56.4 ◆
Londonderry	9.8	0.0	3.4 ■
Lower Oxford	0.0	25.9 ◆	24.3 ◆
Malvern	3.4	14.2* ■	16.4* ■
Modena	4.0	0.0*	0.0*
New Garden	27.7	45.0 ◆	56.7 ◆
Newlin	0.0	6.9 ■	41.1 ◆
New London	3.7	33.0 ◆	6.3 ■
North Coventry	32.6	26.4 ◆	42.6 ◆
Oxford	2.3	22.5 ◆	20.7 ◆
Parkesburg	9.5	9.9* ■	9.8* ■
Penn	9.9	7.0 ■	23.7 ◆
Pennsbury	52.4	0.0	0.0
Phoenixville	35.1	49.9* ◆	64.1* ◆
Pocopson	0.0	26.8 ◆	45.6 ◆

No Symbol = Municipalities with enough park acreage to serve their existing or projected population.

■ = Municipalities that need less than 20 additional acres to serve their population.

◆ = Municipalities that need 20 additional acres or more to serve their population.

* = Boroughs or the City of Coatesville, which may not have enough open land to meet their recreational needs.

Figure 4.16: Municipal Recreational Park Evaluation (continued)

Municipality	Existing 2001 Parks (acres)	Additional Acres Required to Meet 2000 Needs (acres)	Additional Acres Required to Meet 2025 Needs (acres)
Sadsbury	8.0	12.7 ■	17.6 ■
Schuylkill	0.0	55.7 ◆	60.8 ◆
South Coatesville	5.3	0.4* ■	0.7* ■
South Coventry	0.0	11.4 ■	15.6 ■
Spring City	15.6	3.4* ■	5.4* ■
Thornbury	28.0	0.0	0.0
Tredyffrin	312.5	0.0	0.0
Upper Oxford	4.8	7.8 ■	12.3 ■
Upper Uwchlan	39.5	15.3 ■	65.3
Uwchlan	127.0	5.6 ■	57.4 ◆
Valley	2.8	38.1 ◆	68.8 ◆
Wallace	11.6	7.8 ■	19.0 ■
Warwick	0.0	15.3 ■	21.9 ◆
West Bradford	76.2	10.0 ■	59.8 ◆
West Brandywine	2.3	54.9 ◆	101.3 ◆
West Caln	15.4	26.9 ◆	69.8 ◆
West Chester	42.3	60.4* ◆	67.2* ◆
West Fallowfield	4.8	10.1 ■	18.0 ■
West Goshen	76.8	87.2 ◆	107.2 ◆
West Grove	13.1	2.1* ■	7.3* ■
West Marlborough	0.0	5.2 ■	5.4 ■
West Nantmeal	1.8	10.4 ■	17.7 ■
West Nottingham	0.0	15.8 ■	20.7 ◆
West Pikeland	71.1	0.0	0.0

No Symbol = Municipalities with enough park acreage to serve their existing or projected population.

■ = Municipalities that need less than 20 additional acres to serve their population.

◆ = Municipalities that need 20 additional acres or more to serve their population.

* = Boroughs or the City of Coatesville, which may not have enough open land to meet their recreational needs.

Figure 4.16: Municipal Recreational Park Evaluation (continued)

Municipality	Existing 2001 Parks (acres)	Additional Acres Required to Meet 2000 Needs (acres)	Additional Acres Required to Meet 2025 Needs (acres)
West Sadsbury	9.8	4.9 ■	23.0 ◆
Westtown	97.9	0.0	6.5 ◆
West Vincent	12.0	7.0 ■	13.8 ■
West Whiteland	278.7	0.0	0.0
Willistown	18.0	62.1 ◆	82.0 ◆
Chester County	2319.1	1,390.4	2,169.6

No Symbol = Municipalities with enough park acreage to serve their existing or projected population.

■ = Municipalities that need less than 20 additional acres to serve their population.

◆ = Municipalities that need 20 additional acres or more to serve their population.

* = Boroughs or the City of Coatesville, which may not have enough open land to meet their recreational needs.

Source: CCPC Municipal Recreational Park Acreage 2001, 2000 Census, and CCPC 2525 projection modified from DVRPC projections based on 1990 Census and earlier Censuses.

According to *Figure 4.16*, there are 19 municipalities that have enough acreage of municipal recreational parks to accommodate their current population. A total of 29 need less than 20 acres to accommodate future growth, and 25 municipalities need 20 acres or more. This table also shows that 30 of Chester County's municipalities are likely to need over 20 additional acres of recreational parkland by 2025. Of course, these numbers are based on projections that may well be changed in 2002 when projections based on the 2000 census are scheduled to be completed. Nonetheless this analysis suggests that roughly half of the County's municipalities will need to increase their recreational facilities by at least 20 acres over the next few decades in order to meet the needs of their respective populations.

■ Managing Municipal Recreational Parks Municipal recreational parks are visited by thousands of Chester County residents each year. Because of this exposure, these parks have a great potential to serve as models for land management practices that improve the quality of open spaces. Best Management Practices for open spaces, such as promoting native vegetation, restoring wetlands, buffering stream corridors and minimizing mowed lawn, can be used on municipal parks to educate park users about the benefits that these management techniques provide. Of course these best management practices should only be used on areas of recreational parks that are not used for active recreation. For example, it is appropriate to maintain sports fields and picnic areas as turf lawn, but there is no need to maintain mowed turf lawn along streams, on steep slopes, or in areas near the shoulders of roadways since these areas are

not used for active recreation. A number of these Best Management Practices are discussed in *Chapter 18*.

When a municipality practices these open space improvement techniques on recreational park properties, it serves an example to its users, who can then employ these techniques on their own properties thereby increasing the open space benefits of their own property. Of course these techniques will also improve wildlife habitat, improve surface water quality and improve groundwater recharge on municipal property. Some of these techniques, such as establishing vegetated buffer and reducing mowed lawn, can discourage excessive populations of Canada Goose and may even result in lower municipal maintenance costs.

Visions & Actions **for Municipal Recreational Parks**

Vision 4.38

Each municipality should designate the properties within its park system as either “Recreational Parks” which are used for recreation, or “Non-recreational Open Spaces” which are not used for recreation.

Action 4.38

When reviewing land development plans, zoning ordinances, open space and recreation plans and comprehensive plans, the County will provide comments and recommendations on how well municipal park system properties are designated as either recreational parks or non-recreational open spaces.

Vision 4.39

Projects that help establish municipal active recreation parks should be initiated at the federal, state, County and municipal level, and by community groups.

Action 4.39

The County will endorse federal, state and municipal projects that help establish municipal active recreation parks, and pursue such projects on a County level.

Vision 4.40

Each municipality should contain at least one active recreational municipal park.

Action 4.40

When reviewing applications for appropriate County grants, the County will give additional credit to projects that establish a municipality's first active recreational park.

Vision 4.41

Planning policies that encourage the designation of the properties within a municipality's park system properties as either "Recreational Parks" which are used for recreation, or "Non-recreational Open Spaces" which are not used for recreation, should be included in municipal comprehensive plans and implemented in municipal ordinances to the greatest extent possible.

Action 4.41

The County will work with municipalities through the VPP to develop municipal planning policies that encourage the designation of the properties within a municipality's park system as either "Recreational Parks" which are used for recreation, or "Non-recreational Open Spaces" which are not used for recreation.

Vision 4.42

Municipalities that are conducting unique or regionally important recreational park projects should have access to technical assistance.

Action 4.42

The County will study the feasibility of providing technical assistance to municipalities conducting unique or regionally important recreational park projects.

Vision 4.43

Each municipality should have an Open Space, Recreation and Environmental Resources (OSRER) Plan to assess its existing and projected park and recreation deficiencies.

Action 4.43

The County will request that municipalities that do not have an OSRER Plan complete one, and will provide those municipalities with an OSRER County grant manual. The County will also study options that these municipalities might use to raise funds so that they can match the County OSRER Grant.

Vision 4.44

Each municipality should have an OSRER Plan or OSRER Plan update that is less than ten years old.

Action 4.44

The County will determine which municipalities have OSRER Plans over ten years old, and will work with municipalities through the VPP to update those OSRER Plans that are over ten years old.

Vision 4.45

Municipal recreation parks should be managed to provide wildlife habitat in areas not used for active recreation and to maintain and restore wetlands and vegetated stream buffers as a demonstration to park users.

Action 4.45

The County will request that municipalities manage their recreational parks to provide wildlife habitat in areas not used for active recreation and to maintain and restore wetlands and vegetated stream buffers as a demonstration to park users.

Vision 4.46

Except at stream access points or crossings, the stream banks and pond shorelines of municipal recreational parks should not be mowed.

Action 4.46

The County will request that municipalities refrain from mowing municipal recreational parks within 5 to 15 feet of stream banks and pond shorelines, except at stream access points or crossings.

Vision 4.47

Tall vegetation such as cattails and tall grasses should be allowed and encouraged to grow along stream and pond edges on municipal recreational parks to reduce the habitat for Canada geese.

Action 4.47

The County will request that municipalities allow and encourage tall vegetation such as cattails and tall grasses to grow along stream and pond edges in municipal recreational parks to reduce the habitat for Canada geese.

Multi-municipal Parks

Inventory of Multi-municipal Parks

Multi-municipal parks are recreation facilities that are funded and managed jointly by two or more municipalities. These parks may extend into two or more municipalities, or they may be located entirely within one municipality, but serve the residents of more than one municipality. Currently Anson B. Nixon Park in Kennett Square Borough and Kennett Township is the only multi-municipal park in Chester County. St. Matthews Park in West Vincent and Upper Uwchlan Townships is owned by West Vincent Township.

Evaluation of Multi-municipal Parks

As the population of Chester County has increased over the last few decades, many Chester County municipalities have found it difficult to fund and manage all of the recreation facilities that are desired by their residents. The establishment of multi-municipal parks is one way to resolve this issue. Multi-municipal parks can be economical because they provide facilities for two municipalities, but only require maintenance staff for only one facility. Multi-municipal parks also allow one or more municipalities to raise enough funding to pay for facilities such as large sports fields, swimming pools and ice-rinks, that may be too expensive for one municipality to fund alone.

Figure 4.17 lists the municipal parks in Chester County that are adjacent to other municipalities and hence have the potential to be expanded into multi-municipal parks.

Figure 4:17: Potential Multi-municipal Parks

Park, Municipality	Adjacent Municipality
Lloyd Park, Caln Twp.	Downingtown Boro.
Charlestown Park, Charlestown Twp.	Schuylkill or E. Pikeland Twps.
Spatola Field, East Brandywine Twp.	West Brandywine Twp.
Wall St. Ball Fields, East Vincent Twp.	Spring City Boro.
Elwood Crossan Memorial Park, Franklin Twp.	London Britain Twp.
Anson. B. Nixon Park, Kennett Twp.	East Marlborough Twp.
Brown Street Park, Spring City Boro.	East Vincent Twp.
Jones Tract Park, Thornbury Twp.	Westtown Twp.

Visions & Actions **for Multi-municipal Parks**

Vision 4.48

Projects that establish multi-municipal active recreation parks should be initiated at the federal, state, County and municipal level, and by community groups.

Action 4.48

The County will endorse federal, state and municipal projects that help establish multi-municipal active recreation parks, and pursue such projects on a County level.

Vision 4.49

Municipalities and community groups should be encouraged to establish multi-municipal parks.

Action 4.49

When reviewing applications for appropriate County grants, the County will give additional credit to multi-municipal park projects.

Vision 4.50

Municipalities that do not have enough undeveloped land available to serve the recreation needs of their residents should work with one or more adjoining municipalities, to establish a multi-municipal park that would be jointly used, owned and managed by two or more municipalities.

Action 4.50

When reviewing applications for appropriate County grants, the County will give additional credit to projects in which municipalities that do not have enough undeveloped land available to serve the recreation needs of their residents work with one or more adjoining municipalities, to establish a multi-municipal park that would be jointly used, owned and managed by two or more municipalities.

Vision 4.51

Rural municipalities in need of a low cost-saving approach for meeting the recreational needs of their population should work with one or more adjoining municipalities, to establish a multi-municipal park that would be jointly used, owned and managed by two or more municipalities

Action 4.51

When reviewing applications for appropriate County grants, the County will give additional credit to projects in which rural municipalities work with one or more adjoining municipalities, to establish a multi-municipal park that would be jointly used, owned and managed by two or more municipalities.

Vision 4.52

Planning Policies that encourage the establishment of multi-municipal parks should be included in municipal comprehensive plans, and implemented in municipal ordinances to the greatest extent possible.

Action 4.52

The County will work with municipalities through the VPP to develop municipal planning policies that encourage the establishment of multi-municipal parks.

Outdoor Facility Development Standards

In 1982, Chester County developed a set of design standards for the development of individual recreational facilities such as baseball fields, tennis courts and swimming pools. These 1982 standards are now outdated. The County currently follows the 1996 Suggested Outdoor Facility Development Standards adopted by the National Recreation and Park Association. These standards are presented in **Figure 4.18**, and should be considered by municipalities when developing recreation facilities.

More detailed information on recreation facility design is presented in:

- J. DeChaira and L. Koppelman, 1978. *Site Planning Standards*, McGraw-Hill Book Company.
- J. DeChaira and L. Koppelman, 1984. *Time Saver Standards for Site Planning*, McGraw-Hill Book Company.

Figure 4.18: National Recreation and Park Association (NRPA) 1996 Suggested Outdoor Facility Development Standards

Activity Format	Size and Dimensions	Space Requirements	Orientation	Service Radius and Location Notes
Badminton	Singles - 17' x 44' Doubles - 20' x 44' with 5' unobstructed area on both sides.	1,622 sq. ft.	Long axis north-south	¼ - ½ mile. Usually in school recreation center or church facility. Safe walking or biking or biking access.
Basketball				
1. Youth	46' - 50' x 84'	2,400-3,036 sq. ft.	Long axis north-south	¼ - ½ mile. Same as badminton. Outdoor courts in neighborhood/ community parks, plus active recreation areas in other park settings.
2. High School	50' x 84'	5,040-7,280 sq. ft.		
3. Collegiate	50' x 94' with 5' unobstructed space all sides.	5,600-7,980 sq. ft.		
Handball (3-4 wall)	20' x 40' with a minimum of 10' to rear of 3-wall court. Minimum 20' overhead clearance.	800 sq. ft. for 4-wall, 1,000 sq. ft. for 3-wall.	Long axis is north-south Front wall at north end.	15-30 minute travel time, 4-wall usually indoor as part of multi-purpose building. 3-2 all usually in park or school setting.
Ice Hockey	Rink 85' x 200' (min. 85' x 185'). Additional 5,000 22,000 sq. ft., including support area.	22,000 sq. ft., including support area.	Long axis is north-south if outdoors.	½ - 1 hour travel time. Climate important consideration affecting number of units. Best as part of multi-purpose facility.
Tennis	36' x 78'. 12 ft. clearance on both ends.	Minimum of 7,200 sq. ft. single court area (2 ac. per complex).	Long axis north-south.	¼ - ½ mile. Best in batteries of 2-4. Located in neighborhood/ community park or near school site.
Volleyball	30' x 60'. Minimum of 6' clearance on all sides.	Minimum 4,000 sq. ft.	Long axis north-south.	½ - 1 mile.

Figure 4.18: NRPA 1996 Suggested Outdoor Facility Development Standards (continued)

Activity Format	Size and Dimensions	Space Requirements	Orientation	Service Radius and Location Notes
1. Baseball Official	Baselines - 90' Pitching distance - 60.5' Foul lines - min. 320' Center field - 400'+	3.0- 3.85 ac. minimum	Locate home plate so pitcher is not throwing across sun, and batter not facing it. Line from home plate through pitchers mound to run east-north-east.	¼ - ½ mile. Part of neighborhood complex. Lighted fields part of community complex.
2. Little League	Baselines - 60' Pitching distance - 46' Foul lines - 200' Center field - 200' - 250'	1.2 ac. min.		
Field Hockey	180' x 300' with a minimum of 10' clearance on all sides.	Minimum 1.5 ac.	Fall season - long axis northwest or southeast. For longer periods, north/south.	15-30 minute travel time. Usually part of baseball, football, soccer complex in community park or adjacent to high school.
Football	160' x 360' with a minimum of 6' clearance on all sides.	Minimum 1.5 ac.	Same as field hockey.	15 - 30 minute travel time. Same as field hockey.
Soccer	195' to 225' x 330' to 360' with 10' minimum clearance on all sides.	1.7 - 2.1 ac.	Same as field hockey.	1- 2 miles. Number of units depends on popularity. Youth popularity. Youth soccer on smaller fields adjacent to fields or neighborhood parks.
Golf- driving range	900' x 690' wide. Add 12' width each additional tee.	13.5 ac. for min. of 25 tees.	Long axis is southwest-northeast with golfer driving north-east.	30 minute travel time. Part of golf course complex. As separate unit may be privately operated.

Figure 4.18: NRPA 1996 Suggested Outdoor Facility Development Standards (continued)

Activity Format	Size and Dimensions	Space Requirements	Orientation	Service Radius and Location Notes
¼ mile running track	900' x 690' wide. Add 12' width each additional tee. Overall width - 276'; length - 600'. Track width for 8 - 4 lanes is 32'.	4.3 ac.	Long axis in sector from north to south to northwest - southeast, with finish line at north end.	As separate unit may be privately operated. 15 - 30 minute travel time. Usually part of a high school or community park complex in combination with football, soccer, etc.
Softball	Baselines - 60' Pitching distance - 45' men; 40' women Fast pitch field radius from plate - 225' Slow pitch - 275' (men) 250' (women).	1.5 - 2.0 ac.	Same as baseball. In dimensions for 16".	¼ - ½ mile. Slight difference. May also be used for youth baseball.
Multiple use court (basketball, tennis, etc.)	120' x 80'	9,840 sq. ft.	Long axis of court with primary use north and south.	1 - 2 miles, in neighborhood or community parks.
Archery Range	300' length x minimum 10' between targets. Roped, clear area on side of range minimum 30', clear space behind targets minimum of 90' x 45' with bunker.	Minimum 0.65 ac.	Archer facing north + or - 45 degrees.	30 minute travel time. Part of a regional/metro complex.

Chapter 5



*Managed Lands and
Water Resource Buffer Areas*

Background

Some of the largest publicly owned protected open spaces in Chester County are properties that have been acquired to preserve wildlife or other natural resources. Any municipality or other organization that wishes to help establish a protected open space network should consider ways to link the network to these protected open spaces. These protected open spaces include state game lands, vegetated buffers surrounding reservoirs and non-recreational municipal open spaces. These properties are managed primarily to protect or restore natural resources, although some like state game lands also permit limited public access for some forms of recreation. Some of these properties, like certain parcels surrounding dams, do not permit public access even though they have been purchased or eased using public funds.

This chapter presents an analysis of publicly owned open spaces that are used primarily to preserve natural resources rather than to provide recreation opportunities. This chapter also addresses both publicly and privately owned protected open spaces with easements that serve as buffers surrounding reservoirs. These buffer properties are also used primarily for non-recreational purposes. This chapter concludes with an analysis of unique natural areas such as endangered species habitat that are ideal locations for future non-recreational protected open spaces established to protect or restore natural resources.

State Game Lands

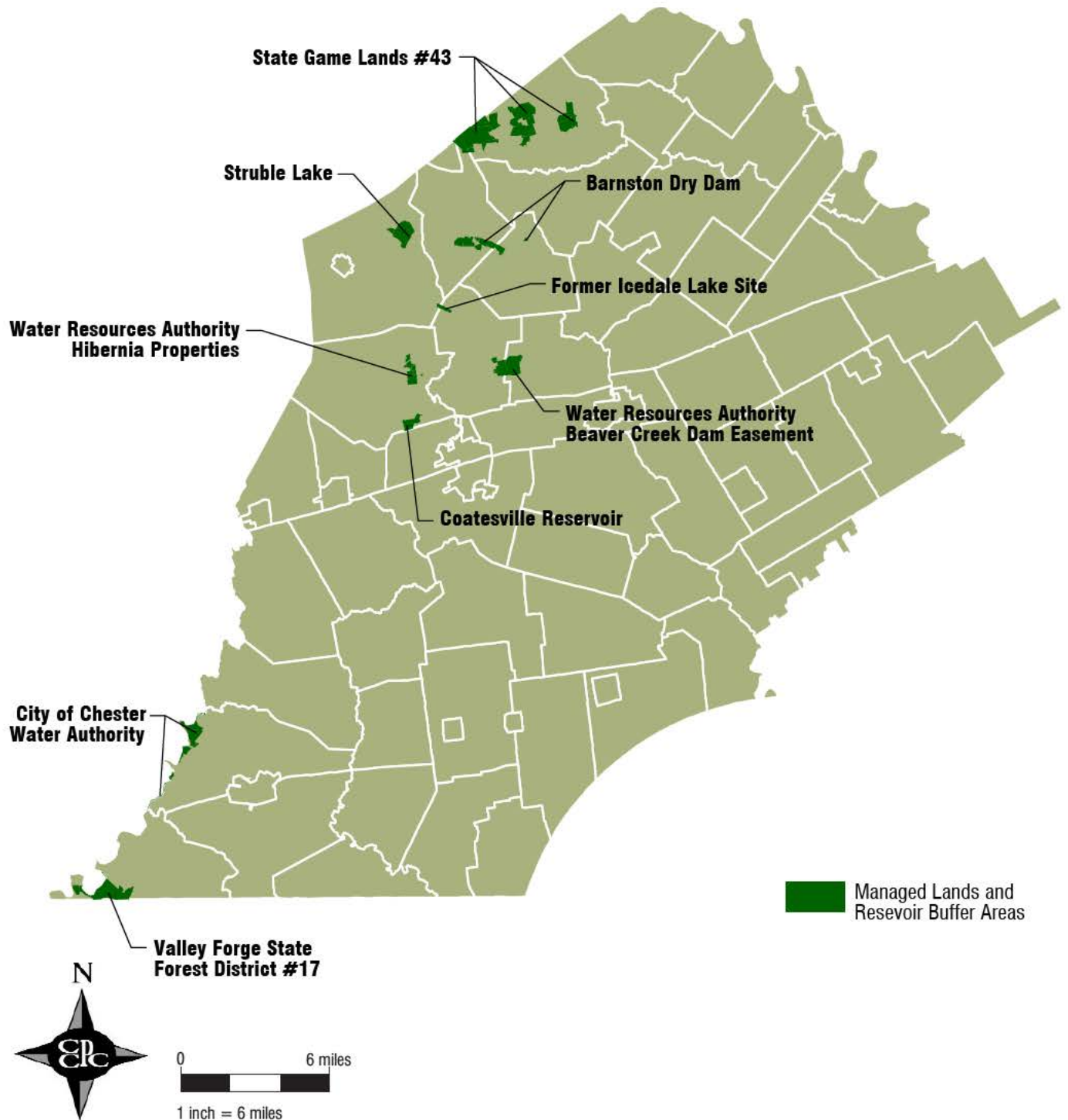
Inventory of State Game Lands

The Pennsylvania Game Commission (PGC) owns 2,035 acres of State Game Lands within Chester County. As *Figure 5.1* shows, these lands consist of three isolated properties located in or near Warwick Township. The PGC has designated all three of these isolated properties as parts of PA State Game Land #43. More information on state game lands is available from:

Pennsylvania Game Commission

Southeast Region
448 Snyder Road
Reading, PA 19605
877-877-9470
www.pgc.state.pa.us

Figure 5.1: Managed Lands and Reservoir Buffer Areas



The data and files for maps in this document were digitally compiled by the Chester County Planning Commission (CCPC) of Chester County, PA. This information and data are provided for reference purposes only and should not be used for any detailed engineering purposes. The CCPC and Chester County make no claims as to the completeness, accuracy, or currency of the paper map or the digital data and files used to generate the map.

Source: CCPC, 2000.

The State Game Lands System was established in 1920, and currently includes about 3,000 separate tracts covering about 1.4 million acres. These lands are managed to provide food and habitat for wild animals. Legal hunting and trapping are encouraged on game lands. Other authorized activities, such as hiking, berry picking, photography, fishing, horseback riding and canoeing are also permitted as long as they do not damage property or habitat. Swimming, tree cutting, and operating motor vehicles are not permitted on any State Game Lands. Camping is not permitted on the Game Lands in Chester County.

The PGC also administers the Cooperative Farm Game Program, which was created in 1987. Under this program, the PGC executes an agreement with farm owners through which the owner agrees to give hunting rights to the PGC for a period of 5 years. To be enrolled in the program, farm properties must cover at least 1,000 acres and have suitable hunting opportunities. In return, the PGC provides patrolling by Wildlife Conservation Officers and technical assistance on soil conservation and other profitable farm practices. A similar program called the Cooperative Safety Zone Program, deals with farm properties of at least 50 acres.

According to the PGC's most recent *Southeast Region Outdoor Recreation Map* from 1993, farms enrolled in the Cooperative Farm-Game Program are mostly located in the northern and southwestern parts of Chester County. East Coventry and East Vincent Townships have many enrolled farms, as do most of the townships south and west of PA Route 41. Highland, West Fallowfield and West Sadsbury Townships have the largest concentrations in the County. There are a small number of properties in Chester County enrolled in the Cooperative Safety Zone Program, including the Barneston Dam property.

Evaluation of State Game Lands

There are abundant legal hunting and trapping areas within Chester County, but they are mostly located along the northern, western and southern borders of the County. The more densely populated parts of the County, such as the US Route 202 and 30 corridors, have no state game lands or farms enrolled in PGC Programs. This poses a potential ecological problem, because deer flourish in developed areas. Parts of the County that do not have sufficient hunting grounds risk creating an over population of deer, which leads to an overgrazing of vegetation, the destruction of habitat for other wildlife, and potential increases in Lyme disease and deer related automobile accidents.

Visions & Actions for State Game Lands

Vision 5.1

French Creek State Park, Warwick County Park and the three parts of State Game Lands #43 should be linked together by wildlife corridors.

Action 5.1

The County will study the feasibility of establishing wildlife corridors that link together the three parts of State Game Lands #43, French Creek State Park and Warwick County Park, and then share this study with the DCNR and PGC.

Vision 5.2

Properties that permit legal and responsible hunting should be established throughout the County to control the over population of game species, and thereby help protect the overall biodiversity within the County.

Action 5.2

The County will request that the PGC determine what areas of the County do not provide sufficient hunting opportunities. The County will also request that the PGC recommend how hunting opportunities could be improved in these areas.

Vision 5.3

There should be more game lands in the County to provide opportunities for hunting and to promote the conservation and control of game species present in the County including beaver, bobcat, coyote, deer, duck, fox and turkey.

Action 5.3

The County will provide the PGC with maps depicting existing protected open spaces within the County, and request that the PGC acquire more State Game Lands in the County.

Vision 5.4

Over populated game species should be controlled through hunting, culling, or in parts of the County where hunting and culling is not practical, non-lethal means that have been documented through multiple case studies to be effective, feasible and cost efficient.

Action 5.4

The County will continue to support the control of overpopulated game species by hunting and culling, and continue to consider for parts of the County where hunting and culling is not practical, non-lethal means that have been documented through multiple case studies to be effective, feasible and cost efficient.

PA Fish and Boat Commission Lands

Inventory of PA Fish and Boat Commission Lands

The Pennsylvania Fish and Boat Commission (PFBC) conducts a wide range of activities including the issuing of licenses and boat registrations. They stock streams and enforce rules and regulations governing fishing, boating and the protection of amphibians, fish, and reptiles. They also own, lease or ease over 33,000 acres of land in the Commonwealth.

The PFBC manages lands and interests in land under their jurisdiction for the benefit of the Commonwealth's citizens, especially anglers and boaters. Some PFBC lands are also used for passive recreation or hunting. Each PFBC property has its own unique set of authorized uses, but all are managed to provide opportunities for fishing and boating. PFBC waters are limited to electric or non-power boating. More information on the PFBC is available at:

PA Fish and Boat Commission

Southeast Regional Office

Box 9

Elm, PA 17152

717-626-0228

www.fish.state.pa.us

Pennsylvania Department of General Services records at www.dgs.state.pa.us indicate that the PFBC owns four properties within Chester County. The PFBC's largest property in the County is Struble Lake, which includes a man-made lake, and its surrounding property. The Chester County Parks and Recreation Department maintains the Lake's parking facilities. The Chester County Water Resource Authority (CCWRA) owns and manages Struble Dam. The Icedale Lake Site is a wetland property that was previously the site of Icedale Lake, a reservoir owned by the PFBC. The old dam was breached and the reservoir was drained after the dam was found to have deteriorated beyond repair. There are currently no plans to re-establish the lake. These two properties are presented on **Figure 5.1**.

The PFBC also owns and maintains the Phoenixville Access Area, a boat launch along the Schuylkill River just east of PA Route 113. The PFBC owns the South Pottstown Access Area, also called the Penn Street Boat Launch, along the Schuylkill River near Penn Street east of Hanover Street. North Coventry Township maintains this boat launch. The PFBC also patrols the Struble Lake boat access off Morgantown Road, and the East Coventry boat access in Tow Path Park, which is owned by East Coventry Township. There are other launches in the County that are not owned or operated by the PFBC.

Evaluation of PA Fish and Boat Commission Lands

PFBC properties in Chester County are managed primarily to provide fishing and boating opportunities, with open space protection as an additional function. In general, the PFBC is successfully managing these lands and has worked with the PA Game Commission to promote waterfowl and game bird habitat in the private properties around Struble Lake. Although the Icedale Lake Site no longer includes a large water body, it is still a unique and valuable wetland site that provides habitat for reptiles and amphibians, whose protection is one of the PFBC's objectives.

Visions & Actions **for PA Fish and Boat Commission Lands**

Vision 5.5

The Icedale Lake Site should be a wetland preserve managed for the protection of amphibians and reptiles.

Action 5.5

The County will request that the PFBC designate Icedale Lake Site as a permanent wildlife preserve and develop a management plan to preserve and enhance its wetlands as habitat for amphibians and reptiles.

Vision 5.6

More PFBC managed lands and boat launches should be established in the County to promote the conservation and control of fish, reptile and amphibian species.

Action 5.6

The County will provide the PFBC with maps depicting existing protected open spaces within the County and request that the PFBC acquire more managed lands and more boat launches to promote the conservation and control of fish, reptile and amphibian species.

PA State Forests

Inventory of PA State Forests

The Pennsylvania Bureau of Forestry owns one State Forest within Chester County, covering 577 acres, which is shown *Figure 5.1*. This property, officially designated as Valley Forge State Forest District #17, is

located in West Nottingham Township. The Valley Forge State Forest District covers all of southeastern Pennsylvania.

The mission of the Bureau of Forestry is to ensure the long-term health, viability and productivity of the Commonwealth's forests and to conserve native wild plants. The Bureau manages state forests to retain their wild character and maintain biological diversity. State forests may also be managed to provide pure water, wildlife habitat, sustainable yields of quality timber, environmentally sound utilization of mineral resources and opportunities for low-density recreation.

Evaluation of PA State Forests

State Forests are not well distributed within Chester County. Unfortunately, the absence of large stands of forest within the County makes it unlikely that more large areas of forested land within the County will be acquired for State Forests. Although Valley Forge State Forest District #17 is located on serpentine soils, it is not currently being managed to promote its indigenous serpentine vegetation.

Visions & Actions **for PA State Forests**

Vision 5.7

A wildlife corridor should link together Valley Forge State Forest District #17 with Nottingham County Park.

Action 5.7

The County will study the feasibility of establishing a wildlife corridor that links together Valley Forge State Forest District #17 with Nottingham County Park.

Vision 5.8

The dominant vegetative species within Valley Forge District #17 should be ones that were known to have existed on the serpentine barrens of Southern Chester County prior to European and African settlement of the area.

Action 5.8

The County will request that the PA Bureau of Forestry alter their management of Valley Forge District #17 to return it to its original serpentine savanna habitat. This management may include active intervention such as controlled burns and other means to restore open canopy.

Vision 5.9

Chester County's forests and hardwood resources should be comprehensively managed on a countywide scale.

Action 5.9

The County will request that the PA Bureau of Forestry develop a plan to direct forestry management on a countywide scale using modern management techniques. Such an effort may include timber harvesting, reforestation and riparian buffer rehabilitation.

Vision 5.10

There should be more state forest properties in the County, especially along the Octoraro Creek and on serpentine barrens.

Action 5.10

The County will provide the Bureau of Forestry with maps depicting existing protected open spaces within the County, and request that the Bureau acquire more state forest properties.

Submerged Lands and Water Resource Buffers

Inventory of Submerged Lands and Water Resource Buffers

Lakes and other water bodies that submerge land are important open space features. Lakes serve as recreation facilities and lakes within the County are currently used for swimming, fishing, canoeing and sailing. Water bodies and the wetlands around them are also important as wildlife habitat. These water dependent ecosystems provide habitat for aquatic plants and wildlife including fish and invertebrates. These aquatic species also support the terrestrial animals that feed on aquatic plants and animals, especially birds. Lakes and streams are also ideal settings for trails, since they provide scenic vistas.

All of Chester County's lakes are man made. These water bodies are referred to as reservoirs if they are sources of water for community water supply systems. The lands beneath the County's lakes are permanently submerged, and cannot physically be developed unless they are drained. These lakes are either publicly owned or are owned by a public utility or a private landowner. Although these submerged lands could be drained and

developed, it is more likely that they will remain submerged for the foreseeable future. Submerged lands beneath these lakes can therefore be regarded as protected open spaces.

In some locations, properties surrounding lakes or other water resources have been eased or purchased in-fee to protect nearby floodplains and riparian corridors, in order to improve the water quality of the surrounding watershed. A variety of public and private entities own or ease these buffer parcels including:

- Chester County Parks and Recreation Department (CCPRD)
- Chester County Water Resources Authority (CCWRA)
- Chester Water Authority – City of Chester in Delaware County
- Pennsylvania American Water Company (PAWC)
- Homeowner Associations
- The Pennsylvania Department of Conservation and Natural Resources (DCNR)
- Philadelphia Suburban Water Company (PSWC)

The following list describes each major lake, submerged area or water resource buffer property area in Chester County:

- **Barneston Dry Dam**, in Wallace Township, was constructed for flood control along the East Branch Brandywine Creek. There is no permanent lake associated with this dam. CCWRA owns 176.4 acres of property around the dam and 101.9 acres of floodplain easements near the dam in Wallace and West Nantmeal Townships.
- **Beaver Creek Dam**, in East Brandywine Township, was constructed for flood control along Beaver Creek. There is a privately owned lake associated with this dam. All of the property around the dam is privately owned. The CCWRA owns 163.2 acres of floodplain easements behind the dam and around the lake.
- **Chambers Lake**, in Hibernia County Park in West Caln Township, is a reservoir created by a dam on Birch Run. The CCPRD owns 798 acres in Hibernia County Park. CCWRA owns 199.0 acres adjacent to the Park in-fee and 21.6 acres of floodplain easements.
- **Icedale Lake Site**, in Honey Book and West Brandywine Townships, is an undeveloped property along the East Branch of Brandywine Creek that previously contained a dam and lake. The Pennsylvania Fish and Boat Commission owns all 44.3 acres of the Icedale Lake Site.
- **Kurtz Fish Hatchery**, in West Nantmeal Township, is a large man-made aquaculture pond surrounded by over a dozen smaller ponds, all of which drain into Perkins Run. The ponds and all of the property around them are privately owned.

- **Marsh Creek Lake**, in Uwchlan Township, is a reservoir created by a dam on Marsh Creek. The lake and all the property surrounding it are owned by the PA Bureau of State Parks as part of Marsh Creek State Park.
- **Milltown Reservoir**, in East Goshen Township, is a reservoir created by a dam on Chester Creek East Branch. The lake and the land surrounding it covers 19.4 acres and are owned by East Goshen Township.
- **Octoraro Lake**, Lower Oxford Township, is a man made lake that dams Octoraro Creek. The western half of the Lake is within Lancaster County. The Chester Water Authority owns a number of water resource buffer properties surrounding the eastern side of the lake, covering a total of 357.0 acres. This Lake also extends west into Lancaster County.
- **Pennsylvania Submerged Lands** are located beneath flowing streams and rivers throughout the County. Most of these lands are beneath streams that are located on private property. Some submerged lands, mostly beneath the Schuylkill River, have never been privately owned and have never been assigned tax parcels. According to the Planning Commission there are 280.0 acres of these unassigned state owned lands.
- **Pickering Creek Reservoir**, in Schuylkill Township, is a reservoir created by a dam on Pickering Creek. The PSWC owns the 168.8-acre reservoir property.
- **Rock Run (Coatesville) Reservoir**, in West Caln Township, is a reservoir created by a dam on Rock Run. The PAWC owns the 149.0-acre lake and surrounding watershed protection areas. West Caln Township owns a 90.8 acre water resource buffer north of the reservoir and a 76.4 acre public golf course south of the reservoir.
- **Somerset Lake**, in New Garden Township, is a man made lake that drains into Broad Run. The lake property is privately owned.
- **Struble Lake**, in Honey Brook Township, is a man made lake at the headwaters of the East Branch of Brandywine Creek. The Pennsylvania Fish and Boat Commission owns the 382.2-acre lake property.
- **West Chester Reservoir**, in West Goshen Township, is a man made lake created by a dam on the East Branch of Chester Creek. The PSWC owns the 115.7-acre lake property.
- **West Valley Creek Lakes**, in East Caln and West Whiteland Townships, are two man made lakes that drain into West Valley Creek. The lake properties are privately owned.
- **Westtown Lake** in Westtown Township is a man made lake created by a dam on tributary of Chester Creek. The lake property is privately owned.

A listing of major reservoir and water resource buffer properties in Chester County is presented in **Figure 5.2**. This figure does not include Marsh Creek Lake because it is part of Marsh Creek State Park, and is discussed in **Chapter 4**.

Figure 5.2: Managed Lands and Water Resource Buffers

Water Resource Property	Owner	Protected In-fee Open Space	CCWRA Easement
Barneston Dry Dam	CCWRA	176.4 acres	101.9 acres
Beaver Creek Wet Dam	CCWRA & Private	None	163.2 acres
Chambers Lake*	CCWRA	199.0 acres	21.5 acres
Icedale Dry Site	PFBC	44.3 acres	None
Milltown Reservoir	E. Goshen Twp.	19.4 acres	None
Octoraro Lake	CWA	357.0 acres	None
Pickering Creek Reservoir	PSWC	168.8 acres	None
Rock Run Reservoir	PAWC	149.0 acres	None
Struble Lake	PFBC	382.2 acres	None
West Chester Reservoir	PSWC	115.7 acres	None
PA Submerged Lands	Commonwealth of PA	280.0 acres	None
Total		1,891.8 acres	286.6 acres

Source: Chester County Planning Commission GIS database, April 2001.

Note: * Does not include adjacent Hibernia County Park property used for recreation.

Evaluation for Submerged Lands and Water Resource Buffers

Within Chester County there are nearly 2,000 acres of water resource buffer or lake properties that are eased or owned in-fee. There is only one substantial water resource buffer property in the County and it is located along the Octoraro Creek in Lower Oxford Township. The CCWRA owns properties in-fee and easement on properties throughout the County. These properties were acquired under Public Law 566 and the Brandywine Watershed Work Plan in order to protect downstream communities from flooding. The CCWRA is also in the process of completing a comprehensive Water Resources Management Plan (WRMP) for all of the watersheds that are wholly or partially within Chester County. This document is scheduled to be completed by 2002.

The PFBC and the PA DEP are currently conducting a regional effort to remove or modify dams along the Schuylkill River to promote fish migration, most notably shad. This initiative will include all dams from the Delaware Bay up to Felix Dam north of Reading. Dams will be modified with the addition of fish ladders, or removed altogether. This effort will lower the level of the Schuylkill River and make it less accommodating to motorized water craft. However, the lowering of the River will make it more accommodating to non-motorized craft such as rowboats and canoes. Some of the dams in this area have already been modified or breached, and the rest are expected to follow suit over the next decade. In 1999 the PFBC began releasing shad fry in Berks County.

Visions & Actions **for Submerged Lands and Water Resource Buffers**

Vision 5.11

Properties that contain regionally significant water resources, such as floodplains, large wetland complexes, riparian buffers and buffers surrounding water bodies, should be protected as open space.

Action 5.11

When reviewing land development plans, zoning ordinances, open space and recreation plans, and comprehensive plans, the County will provide comments and recommendations on how well regionally significant water resources, such as floodplains, large wetland complexes, riparian buffers and buffers surrounding water bodies, are protected.

Vision 5.12

Projects protecting open spaces that contain regionally significant water resources, such as floodplains, large wetland complexes, riparian buffers and buffers surrounding water bodies should be initiated at the federal, state, County and municipal level, and by community groups.

Action 5.12

The County will endorse federal, state and municipal projects that protect open space containing regionally significant water resources, such as floodplains, large wetland complexes, riparian buffers and buffers surrounding water bodies, and pursue such projects at the County level.

Vision 5.13

Municipalities and community groups should protect open spaces that contain regionally significant water resources, such as floodplains, large wetland complexes, riparian buffers and buffers surrounding water bodies.

Action 5.13

When reviewing applications for appropriate County grants, the County will give additional credit to projects that protect open spaces that contain regionally significant water resources, such as floodplains, large wetland complexes, riparian buffers and buffers surrounding water bodies.

Vision 5.14

All public and private projects involving the acquisition and management of properties containing water resources or water resource buffers by a land trust or municipality should be consistent with the CCWRA comprehensive Water Resources Management Plan (WRMP) scheduled to be completed in 2002.

Action 5.14

A project that involves the acquisition or management of property containing water resources or water resource buffers will be endorsed or funded by the County if it is consistent with the WRMP.

Vision 5.15

The Schuylkill River should be managed to permit both fish migration and watercraft recreational use of some kind.

Action 5.15

The County will not endorse projects that maintain or create an impediment to fish migration within the Schuylkill River, and the County will only endorse projects that improve fish migration which also permit watercraft recreational use of some kind.

Non-recreational Municipal Open Space

Inventory of Non-recreational Municipal Open Space

Over the past few decades, municipalities in Chester County have begun to acquire open space that is not used for active recreation, but instead is used to protect wildlife habitat, floodplains or historic resources. These

municipally owned properties may be referred to as “nature preserves” or “public open space” or even “parks.” Regardless of what they are called, these non-recreational open spaces can be of great value to a community, especially in developed areas. These vegetated areas provide wildlife habitat, create windbreaks, slow runoff and improve groundwater recharge. They also create breaks in suburban development and provide vegetated viewsheds, which can improve the real estate value of surrounding residences.

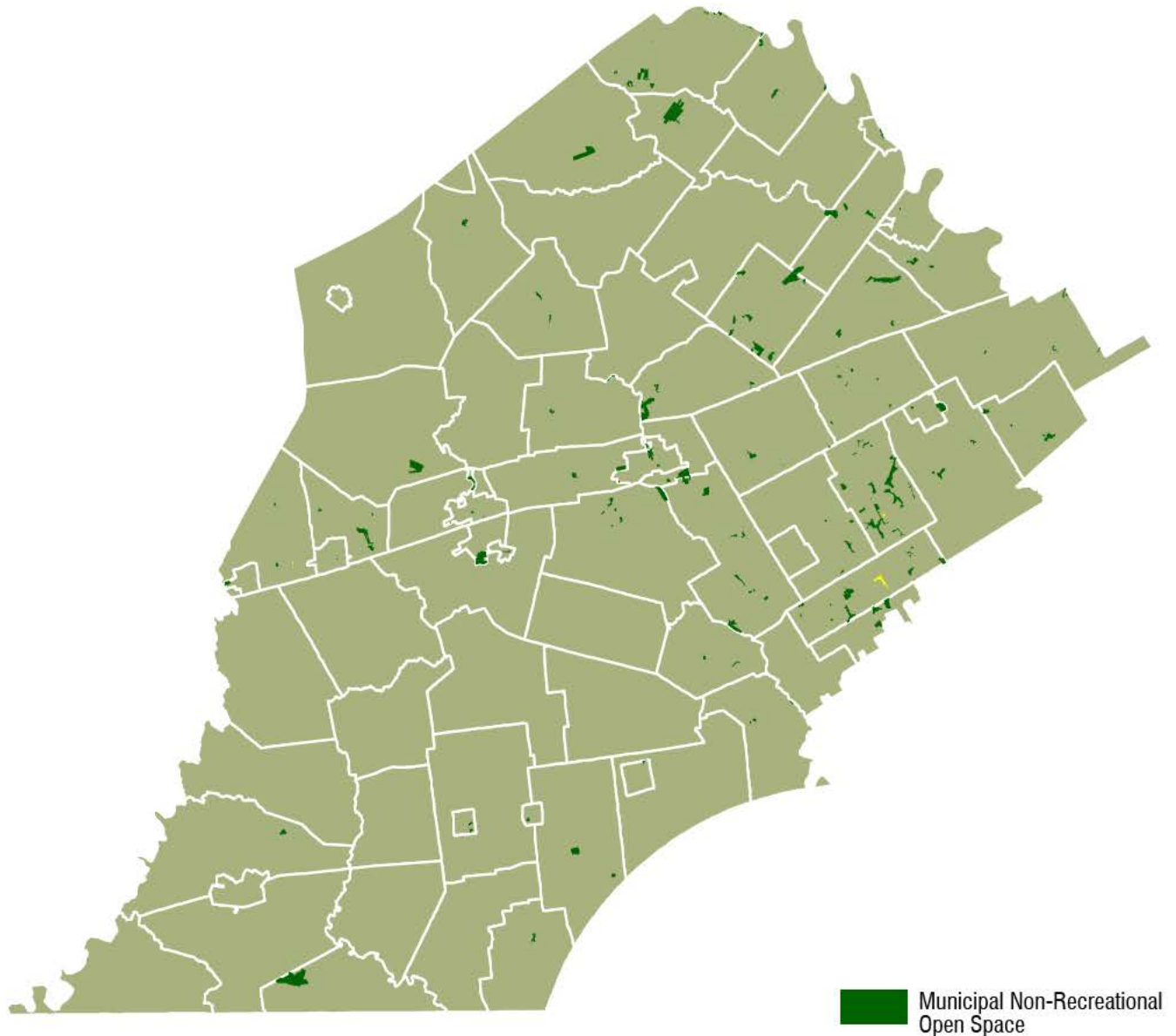
Once a year, the County contacts each municipality and requests a listing of all municipally owned land parcels used for recreation or open space preservation. The most recent inventory was completed in 2000 and lists municipal open spaces as of the summer of 2000. The Planning Commission and the Parks and Recreation Department then classified each listed parcel as either “recreational” parks, or “non-recreational” open space, based on information gathered from municipal Open Space, Recreation and Environmental Resource Plans and other sources. Under this classification, any property that has been purchased for recreational use *but is not yet constructed and dedicated* is classified as “non-recreational” open space. The results of this effort are mapped in **Figure 5.3** and listed in **Figure 5.4**.

This classification was needed to distinguish what municipal parcels are being used primarily for recreation, and what ones were being used for non-recreational open space preservation. In the past, recreational and non-recreational open spaces were commonly regarded as one unified land use. Currently the Planning Commission and the Parks and Recreation Department regard non-recreational and recreational open space as two distinct land uses. Recreational open spaces, as described in **Chapter 4**, serve human recreational needs and should be established or enlarged based on the size of the population of its human users. Non-recreational open spaces serve to improve environmental conditions or protect unique natural or cultural resources, and so are not established based on human population.

Evaluation of Non-recreational Municipal Open Space

According to the *Park, Recreation, Open Space and Greenway Guidelines* published by the National Parks and Recreation Association (NRPA) in 1996, there are no population-based or area-based guidelines that can be used to determine the amount of municipal open space needed within a community. It is therefore up to each municipality to set its own target for protecting non-recreational open space as part of municipal comprehensive planning.

Figure 5.3: Municipal Non-recreational Open Space



The data and files for maps in this document were digitally compiled by the Chester County Planning Commission (CCPC) of Chester County, PA. This information and data are provided for reference purposes only and should not be used for any detailed engineering purposes. The CCPC and Chester County make no claims as to the completeness, accuracy, or currency of the paper map or the digital data and files used to generate the map.

Source: CCPC, 2000.

As *Figure 5.4* shows, 25 municipalities currently do not have any non-recreational municipal open space. Those municipalities that have protected non-recreational open space, have done so voluntarily. Since there are no guidelines to determine how much non-recreational open space is needed in a community there is no accepted way to measure how much is needed. However, common sense suggests that all of the County's municipalities would benefit from protecting some amount of non-recreational open space. This is especially true in the parts of the County that are undergoing rapid development, and have projected future growth. It is therefore reasonable to suggest that the total absence of any protected non-recreational open space in the 25 municipalities shown in *Figure 5.4* is a deficiency that should be mitigated.

Municipalities should carefully consider the costs and benefits of protecting non-recreational open space. Any property that is acquired must also be maintained and patrolled in perpetuity, and so any non-recreational open space project must provide funding for the acquisition of the land and for its ongoing maintenance. These costs should be compared to the long and short-term benefits that non-recreational open space can provide, such as improved storm water management and increased real estate values.

Figure 5.4: Municipal Non-recreational Open Space 2000

Municipality	Municipal Open Space (acres)	Municipality	Municipal Open Space (acres)
Atglen	14.7	North Coventry	101.1
Avondale	6.9	Oxford◆	0.0
Birmingham◆	0.0	Parkesburg	0.7
Caln	47.1	Penn◆	0.0
Charlestown	120.2	Pennsbury	10.0
Coatesville	30.9	Phoenixville	0.1
Downingtown	37.3	Pocopson	12.7
East Bradford	154.2	Sadsbury	76.3
East Brandywine	15.5	Schuylkill	30.6
East Caln	64.4	South Coatesville	87.6
East Coventry	36.5	South Coventry	203.0
East Fallowfield	0.0	Spring City	10.5
East Goshen	332.3	Thornbury	83.8

Figure 5.4: Municipal Non-recreational Open Space 2000 (cont.)

Municipality	Municipal Open Space (acres)	Municipality	Municipal Open Space (acres)
East Marlborough◆	0.0	Tredyffrin	21.9
East Nantmeal◆	0.0	Upper Oxford◆	0.0
East Nottingham◆	0.0	Upper Uwchlan◆	0.0
East Pikeland	104.0	Uwchlan	116.6
Easttown	47.5	Valley◆	0.0
East Vincent◆	0.0	Wallace	19.5
East Whiteland	18.5	Warwick	88.0
Elk	232.5	West Bradford	82.7
Elverson◆	0.0	West Brandywine◆	0.0
Franklin◆	0.0	West Caln	88.2
Highland◆	0.0	West Chester◆	0.0
Honey Brook Boro.◆	0.0	West Fallowfield◆	0.0
Honey Brook Twp.◆	0.0	West Goshen	31.2
Kennett◆	0.0	West Grove	9.1
Kennett Square	4.1	West Marlborough◆	0.0
London Britain	15.9	West Nantmeal	16.7
London Grove◆	0.0	West Nottingham◆	0.0
Londonderry◆	0.0	West Pikeland	235.8
Lower Oxford	16.8	West Sadsbury	10.8
Malvern	45.5	Westtown	163.3
Modena	4.6	West Vincent	21.5
New Garden	48.5	West Whiteland	27.1
Newlin◆	0.0	Willistown	36.8
New London◆	0.0	Chester County	2,973.5

Source: CCPC Protected Open Space GIS database as of July 2000.

Note: ◆ = Municipalities with no municipal non-recreational open space.

Visions & Actions

for Non-recreational Municipal Open Space

Vision 5.16

Unique or locally important natural or cultural resources should be protected as non-recreational open space in all municipalities.

Action 5.16

When reviewing land development plans, zoning and subdivision ordinances, open space and recreation plans and comprehensive plans, the County will provide comments on how well municipalities have protected unique or locally important natural or cultural resources as non-recreational open space.

Vision 5.17

Projects that establish non-recreational open space that protects unique or locally important natural or cultural resources should be initiated at the federal, state, County and municipal level.

Action 5.17

The County will endorse federal, state and municipal projects that establish non-recreational open space that protects unique or locally important natural or cultural resources, and pursue such projects at the County level.

Vision 5.18

Municipalities should acquire parcels for non-recreational open space that are sites of local significance; unique properties that are not well suited for protection by a non-profit land trust; and sites that contain unique natural or cultural resources, or scenic views.

Action 5.18

When reviewing applications for applicable County grants, the County will give additional credit to municipal projects that acquire parcels for non-recreational open space that are sites of local significance; unique properties that are not well suited for protection by a non-profit land trust; and sites that contain unique natural or cultural resources, or scenic views.

Vision 5.19

Planning policies that encourage the acquisition of parcels for non-recreational open space that are sites of local significance; unique properties that are not well suited for protection by a non-profit land trust; and sites that contain unique natural or cultural resources, or scenic views should be included in municipal comprehensive plans, and implemented in municipal ordinances to the greatest extent possible.

Action 5.19

The County will work with municipalities through the VPP to develop municipal planning policies that encourage the acquisition of parcels for non-recreational open space that are sites of local significance; unique properties that are not well suited for protection by a non-profit land trust; and sites that contain unique natural or cultural resources, or scenic views.

Vision 5.20

Municipalities should properly manage the natural or cultural resources within non-recreational open spaces in perpetuity.

Vision 5.20

Before awarding County funded municipal acquisition grants for the protection of natural or cultural resources as non-recreational open spaces, the County will require that the municipality commit to completing a resource management plan for the property to be acquired.

The Natural Areas Inventory

Inventory of the Natural Areas Inventory

In 1994 the Pennsylvania Science Office of the Nature Conservancy completed an inventory of all known high-quality natural areas within Chester County. This inventory was published in 1994 and updated in 2000 as *Chester County Pennsylvania Natural Areas Inventory 1994 With 2000 Update*. It is available from the Planning Commission. This document was sponsored by the Chester County Board of Commissioners, and funded through the DCNR Bureau of Recreation and Conservation, formerly a part of the Pennsylvania Department of Community Affairs.

The *Inventory* identified 91 sites in the County that provided habitat for species of special concern, or exemplary natural communities, or both. The *Inventory* designated these sites as “Sites of Statewide Significance,” and classified each of them on a scale of 1 to 5, with 1 being “the top sites

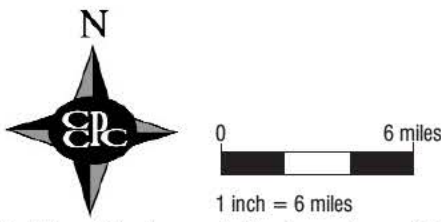
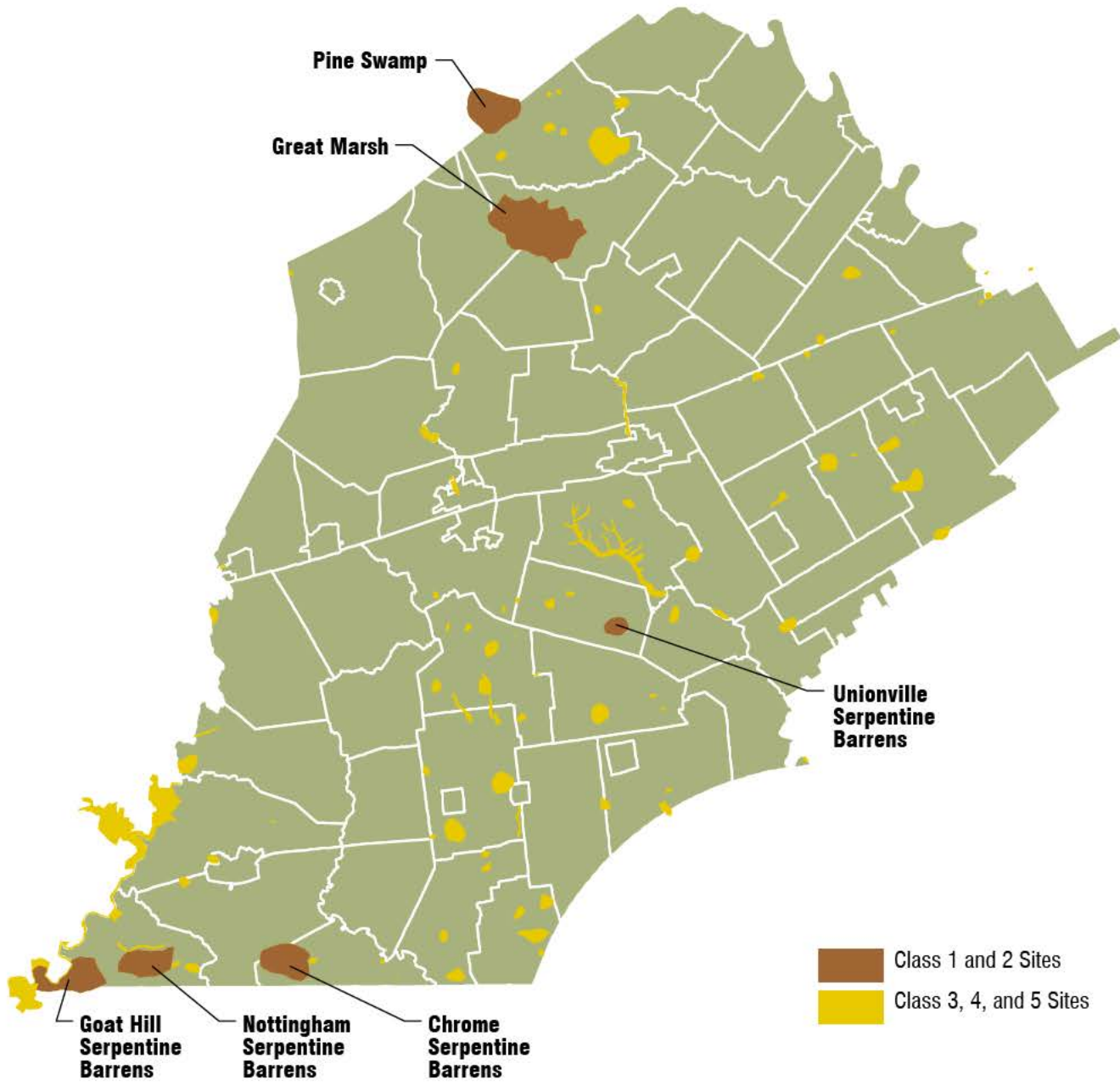
for the preservation of biological diversity in Pennsylvania.” Chester County’s Sites of Statewide Significance are presented on **Figure 5.5** and listed in **Figure 5.6**. Because some of these sites contain rare species that are illegally collected by poachers, a detailed description of these sites and their location is not provided.

The *Inventory* also identified 16 areas throughout the County that did not include high quality natural communities or habitat for species of special concern, but do have the potential for rare species to occur. Each of these areas, designated as “Areas of Local Significance,” was classified as having low, medium, or high protection needs at a municipal or county level. Some of these areas were given a lower classification because they already had some level of protection. These areas are mapped on **Figure 5.7** and listed in **Figure 5.8**. **Figure 5.7** also presents “Managed Lands” which *Inventory* defined as areas that may contribute to the biological diversity of the County, but may be managed for a variety of purposes such as public parks or private preserves.

Evaluation of the Natural Areas Inventory

The Chester County Pennsylvania 1994 Natural Areas Inventory With 2000 Update provides a thorough inventory of sites of statewide significance. Given the extensive rate of development expected in Chester County over the next few decades, and the ongoing revisions to state and federal lists of species of concern, the *Inventory* will need to be updated every five to ten years.

Figure 5.5: Sites of Statewide Significance



The data and files for maps in this document were digitally compiled by the Chester County Planning Commission (CCPC) of Chester County, PA. This information and data are provided for reference purposes only and should not be used for any detailed engineering purposes. The CCPC and Chester County make no claims as to the completeness, accuracy, or currency of the paper map or the digital data and files used to generate the map.

Source: CCPC, 2000.

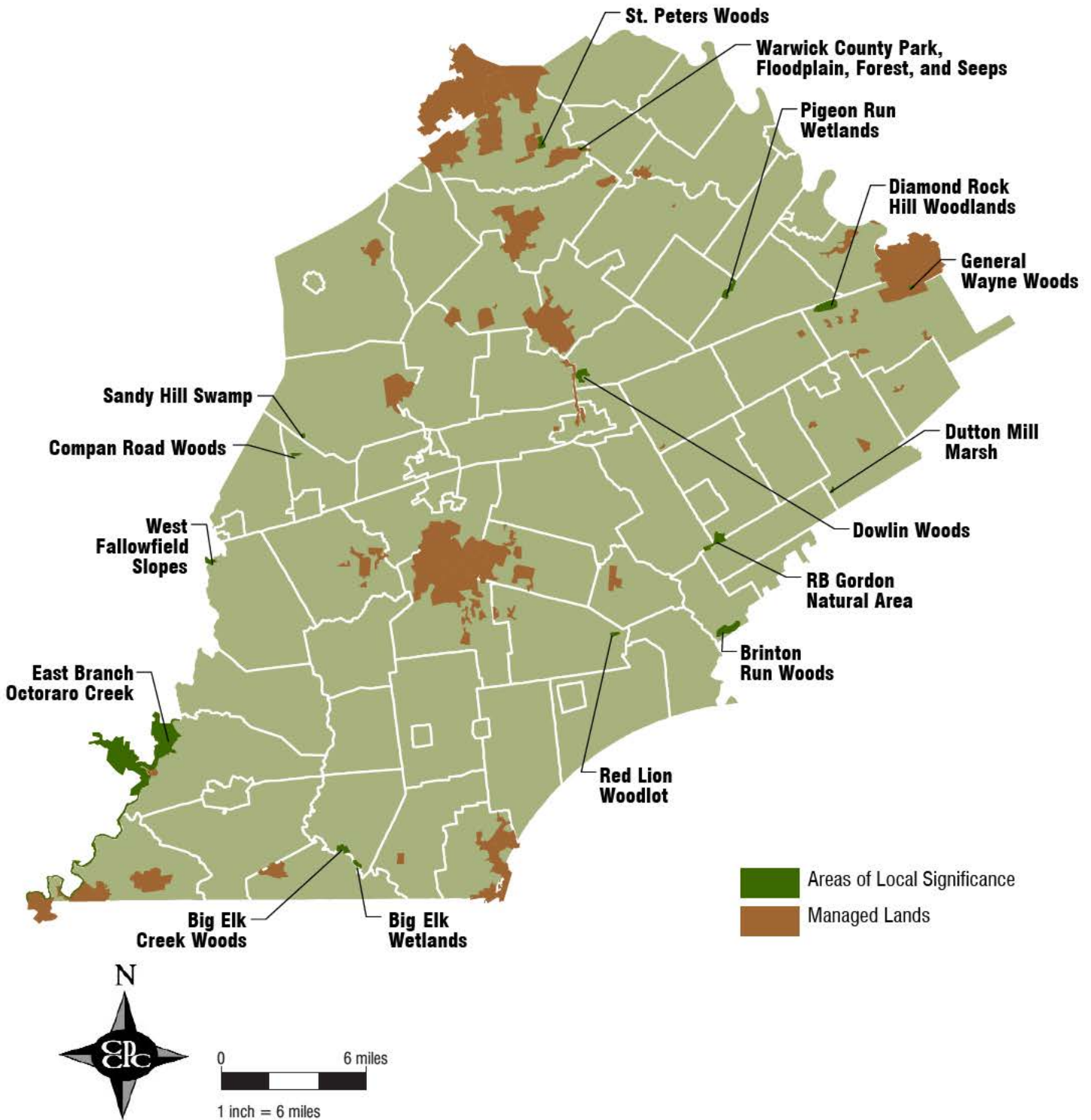
Figure 5.6: Sites of Statewide Significance by Class

Class*		Site
1	Chrome Serpentine Barrens Goat Hill Serpentine Barrens	Nottingham Serpentine Barrens
2	Great Marsh Pine Swamp	Unionville Serpentine Barrens Warwick County Park Seeps
3	Brintons Serpentine Quarry Camp Horseshoe Shrublands Charlestown Oak Seeps Fern Hill Serpentine Barrens Sugartown Serpentine Barrens	Sugartown Serpentine Barrens Hershey Mill SW Habitat Octoraro Creek L. Oxford Thistle Hill Grasslands Wollaston Road Woods
4	Bacton Mine Ridge Buck Run Tributary Chesterville Woods Clonmel Upland Creek Road Site Hershey Mill SE Habitat Kings Ranch Habitat Kirks Wood Bridge Laurel Run Natural Area London Tract Woods and Wetlands	Marshallton Barrens North Valley Hills Old Kennett Road Habitat Oxford Airport Barrens Red Lion Woods Rock Valley Woods Steelville Hollow Stroud Water Research Center Warwick Seeps Willistown Serpentine Barren
5	Apple Grove Road Atglen Meadows Avondale Habitat Avondale Woods Black Rock Tunnel Black Run Broad Run Bucktoe Creek Woods Chatham Habitat Church Road Quarry Crum Creek Barrens Dorrance Estate Dutton Mill Woods E. Branch Brandywine Creek E. Branch Octoraro Creek Wetland E. Branch White Clay Creek East Green Valley Road East Upland Habitat Embreeville West Habitat French Creek Green Lawn South Hibernia Park Habitat Hopewell Floodplain Lewisville North Lewisville Road Habitat Little Elk Creek Swamp London Tract South	Marsh Creek Lake Mill Road Habitat Mill Road Woods Myrick Forest North Bank Habitat Nottingham Woodlot Octoraro Creek Tributary Octoraro Creek W. Nottingham Oxford Meadow Oxford Woods Pickering Creek Peacedale Road Wetland Red Lion Woods Rock Run Railroad Rock Run Thicket Saw Mill Pond Smith Bridge Woods Sportsman Club Habitat State Line Woods Tice Road Habitat Trythall Woods Valley Forge County Line Valley Forge Schuylkill Valley Forge Tredyffrin Wawaset Marsh Wickerton North Woods Wickerton Woods Woodville Woods

Note: * Sites are ranked 1 to 5 indicating the highest priority sites for protection based on state or national significance with 5 indicating the lowest priority of protection. Ranks take into account potential threats, management needs and existing protection.

Source: Chester County Board of Commissioners, 2000. *Chester County Pennsylvania Natural Areas Inventory, 1994 with 2000 Update*

Figure 5.7: Areas of Local Significance



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Source: CCPC, May 2000.

Figure 5.8: Areas of Local Significance

Class*	Site	
High	<ul style="list-style-type: none"> • R. B. Gordon Natural Area • St. Peters Woods 	<ul style="list-style-type: none"> • Warwick Co. Park Floodplain Forest and Seeps
Medium	<ul style="list-style-type: none"> • Big Elk Creek Woods • Dowlin Woods • East Branch Octoraro Creek • Gen. Wayne Woods 	<ul style="list-style-type: none"> • Pigeon Run Wetlands • Red Lion Woodlot • West Fallowfield Slopes
Low	<ul style="list-style-type: none"> • Big Elk Wetlands • Brinton Run Woods • Compass Road Woods 	<ul style="list-style-type: none"> • Diamond Rock Hill Woodlands • Dutton Mill Marsh • Sandy Hill Swamp

Source: Chester County Board of Commissioners, 2000. *Chester County Pennsylvania Natural Areas Inventory, 1994 with 2000 Update*

Visions & Actions for the Natural Areas Inventory

Vision 5.21

State, County and municipal governments, and non-profit land trusts should make it a priority to acquire parcels in-fee or conservation easements on parcels that contain Sites of Statewide Significance or Areas of Local Significance.

Action 5.21

When reviewing applications for appropriate County grants, the County will give priority to projects that contain Sites of Statewide Significance or Areas of Local Significance.

Vision 5.22

Individuals who own properties that include natural Sites of Statewide Significance or Areas of Local Significance should manage their properties with consideration for the unique natural features they possess.

Action 5.22

The County will continue to inform landowners about land stewardship techniques, and support land stewardship education efforts initiated by government agencies, non-profit land trusts and watershed associations.

Vision 5.23

The Chester County Natural Areas Inventory should be updated every five to ten years.

Action 5.23

The County will contact the DCNR and the Nature Conservancy to determine how to best implement regularly scheduled updates of the Inventory.

Vision 5.24

Sites of Statewide Significance and Areas of Local Significance should be protected from development or improper management.

Action 5.24

The County will determine what parcels within the County contain Sites of Statewide Significance and Areas of Local Significance, and which of these parcels are not yet protected. The County will then study what options are feasible for protecting these unprotected parcels.

Chapter 6



*Open Space Protected by
Non-profit Land Trusts*

Background

Introduction

Chester County holds a special place in the history of open space protection in the United States. Beginning in the 1940s, Chester County landowners established some of the nation's first non-profit land trusts. These land trusts are organizations whose purpose is to protect open space from development by either acquiring land in-fee or protecting it with a conservation easement. Because of these open space pioneers, Chester County now has over a dozen land trusts, who all together have protected open space on over 38,000 acres of property within the County. Given the great amount of land in Chester County that is already protected by land trusts, any municipality or other organization that wishes to help establish a protected open space network in the County should determine how land trust properties will contribute to the network, and coordinate with the trusts in this effort.

Within Chester County there are a wide variety of land trusts that protect open space properties including natural areas, farms and historic sites. These organizations may be called "conservancies" or "trusts" but they all function in a similar way. Some of these land trusts, such as the Nature Conservancy, protect lands throughout the world, while others, like the Pennsbury Land Trust, focus on a single township. Other land trusts only acquire open space properties or conservation easements for a short period, and then sell or transfer them to another land trust or a state agency.

Land trusts usually protect open space by placing a "conservation easement" on a property. A conservation easement is a voluntary contract that permanently limits the type and intensity of future land use while allowing a landowner to retain control of his or her property. Detailed information about conservation easements is presented in *Landscapes Community Planning Handbook: a Toolbox for Managing Change in Chester County*, Tool #27 "Conservation Easements and Local Land Trusts." A more technical examination of conservation easements is available in the *Conservation Easement Handbook: Managing Land Conservation and Historic Preservation Easement Programs* published in 1988 by the Land Trust Exchange.

Land trusts can either acquire a conservation easement on a property that someone else owns, or they can acquire the property themselves, in which case they own the property "in-fee." Land trusts rarely purchase a property in-fee and typically do not purchase conservation easements. It is also unusual for a landowner to donate land in-fee to a trust. However it is quite common for a landowner to donate an easement on a property, and this is how land trusts acquire most of their holdings. In some instances, a landowner will make a "bargain sale" and sell an easement at a below market price, thus donating part of the value of the easement.

Conservation Easements

When a land trust acquires an “easement” on a property, they do not purchase the property from its owner. Instead, the trust makes a contract with the landowner, which allows the trust to have exclusive use of the land for a specific purpose. Put another way, the trust removes from the owner some of the rights to use the property. For example, Mr. and Mrs. Brown own a wood lot that they want to protect, and so they donate a forest conservation easement to the ACME Land Trust. Mr. and Mrs. Brown still own the land, but they have given up the right to cut down the trees. When the ACME Land Trust acquires the easement, they acquire a “property right” previously owned by Mr. and Mrs. Brown.

One of the best ways to understand property rights and conservation easements is to picture a parcel of land as a bundle of sticks. Each stick in the bundle is a property right. One stick might be the right to build a house, while another might be the right to sub-divide the property, or extract minerals from the site. A landowner can sell or give away any or all property rights. In essence, one or more of the “property right” sticks can be removed from the bundle.

Many land trusts acquire conservation easements to limit future development on farmland, natural lands or historic sites. When a landowner sells or donates a conservation easement, people often say that the landowner has given up the “development rights” to the land. This description is somewhat inaccurate in that it implies that a conservation easement always eliminates all future development on a property. In fact there are many types of conservation easements, some of which allow limited development. It is also common for a landowner to sell or donate a conservation easement for only a portion of a property. For example, a developer may choose to donate a conservation easement for the part of a residential development that is along a wooded stream corridor, but not on the parts of the property that are built up with houses and apartments.

When a landowner sells or donates a conservation easement, the landowner still retains the majority of the rights to the land. The landowner is still responsible for maintaining the property, just like any other private property owner. The great majority of eased parcels are on private property and like all private properties they are not open to the general public. Anyone who wishes to enter a private property with a conservation easement must first get permission from the landowner.

Each conservation easement is unique, and conservation easements can be tailored to protect wildlife habitat, farmlands, watersheds, historic sites or other features – or any combination of these resources. Conservation easements are usually established to protect land forever (in perpetuity), but some only protect the property for only a designated number of years. In some instances, two or more land trusts will join together to preserve a parcel, so that one land trust will own the parcel and another will own the conservation easement for that same parcel. Land trusts will also

occasionally transfer land they own in-fee to a government. Landowners interested in protecting their property should contact a land trust active in their region. A list of land trusts active in Chester County is presented at the end of this chapter.

Under certain circumstances, a landowner who donates a conservation easement to a non-profit land trust can reduce his or her tax burden. The Internal Revenue Code (IRC) authorizes certain charitable contribution deductions when a conservation easement that is granted in perpetuity to a “*qualified organization exclusively for conservation purposes.*” The IRS has come up with a detailed definition for “qualified organization”, but in general the term most often refers to non-profit land trusts. Landowners who want to find out if they can get tax benefits by donating conservation easements should always seek experienced legal advice.

Landowners who wish to pass their lands on to their children can sometimes reduce the inheritance tax that their estate will be required to pay by donating a conservation easement to a land trust. In general, a property that is protected from development has a lower real estate value, and so has a lower tax burden when it is passed to a landowner’s heirs. Any landowner who is conducting estate or transitional planning should at least consider the benefits of donating a conservation easement to a non-profit land trust.

Land Trusts

Linking Landscapes classifies land trusts into the following three categories:

- **Regional Land Trusts**, also called “conservancies,” are professionally staffed private non-profit organizations that protect land from development by either acquiring the land in-fee or acquiring conservation easements. Regional Land Trusts acquire property in-fee and conservation easements within a large area like a watershed or an entire state. Regional Land Trusts will occasionally purchase property, but most of their acquisitions are donated by landowners. The Regional Land Trusts that have the largest holdings in Chester County are the Brandywine Conservancy, the French and Pickering Creeks Conservation Trust and the Natural Lands Trust.
- **Local Land Trusts** are usually established by residents of one municipality and focus on property within that municipality. Most Local Land Trusts will only accept donated easements, but some purchase conservation easements or property in-fee. Occasionally a Local Land Trust will acquire easements or property in-fee outside its municipal borders if that property affects the municipality. For example, a Local Land Trust might acquire a conservation easement on a farm that extends into two municipalities. Local Land Trusts are not a branch of municipal government, although many received start up grant funding from their municipal government. They are usually staffed by volunteers.

- **Non-profit Corporations**, such as the Coventry Land Trust, the Delchester Group Incorporated and the Trust for Public Land, assist other land trusts in protecting open space. They may also acquire parcels for a short time and then re-sell the property to other land trusts or state agencies. This short term ownership technique is usually used for parcels that urgently need protection but cannot be preserved using conventional techniques.

Technically speaking, neither Chester County nor the Commonwealth of Pennsylvania operates a land trust. However, the Chester County Parks and Recreation Department will purchase land or accept donations under certain circumstances. Chester County also administers the Preservation Partnership Program that provides Regional and Local Land Trusts with funds to purchase conservation easements on selected properties whose protection would benefit the County. This Program is described in detail in *Chapter 16*.

State agencies, such as the PA State Game Commission will also purchase land or accept donations under certain circumstances. Furthermore, the state and the County jointly purchase agricultural conservation easements through the Commonwealth of Pennsylvania and Chester County Agricultural Land Preservation Program. An inventory of properties with agricultural easements is presented in *Chapter 9*. In many instances, parcels or clusters of parcels are protected by a combination of different government programs and land trust conservation easements.

Open Space Protected by Regional Land Trusts

Inventory of Open Space Protected by Regional Land Trusts

There are seven Regional Land Trusts in Chester County. According to mapping developed by the Chester County Planning Commission, these seven trusts protected open space on 38,042 acres of parcels in Chester County as of March 2001. This acreage represents 7.8 percent of the entire County area, and 50.3 percent of the County's protected open space. A breakdown of this protected open space by Regional Land Trust is presented in *Figure 6.1*. A profile of the each of these non-profit land trusts is presented at the end of this Chapter.

Figure 6.1: Estimated Percent of Chester County Protected by Regional Land Trusts

Regional Land Trust	Percent of the County Protected In-Fee	Percent of the County Protected By Easements	Percent of the County Protected by Each Regional Land Trust
Brandywine Conservancy	0.28%	5.37%	5.65%
Brandywine Valley Association	0.11%	0.01%	0.12%
French and Pickering Creeks Conservation Trust	0.03%	0.64%	0.67%
The Nature Conservancy: Pennsylvania Chapter	0.26%	0.11%	0.37%
Natural Lands Trust	0.30%	0.48%	0.78%
North American Land Trust	0.00%	0.03%	0.03%
Open Land Conservancy of Chester County	0.05%	0.06%	0.11%
Willistown Conservation Trust	0.00%	0.09%	0.09%
Total	1.02%	6.81%	7.83%

Source: CCPC March 2001.

Figure 6.1 lists lands that are owned by Regional Land Trusts in-fee, and lands that are eased by these same organizations. In some instances, a parcel of land that is owned by one trust will be covered by an easement owned by another trust. As a result, some of the in-fee protected land included in the second column of *Figure 6.2* is also counted in the third column, which measures eased land. For this reason this table is presented as an estimate of land protected.

Figure 6.2 highlights all of the parcels in Chester County that are owned or eased by a Regional or Local Land Trust. A total of 98.3 percent of the protected parcels depicted on this map are owned or eased by Regional Land Trusts. In this figure, the parcels depicted in black are owned in-fee by a land trust. Parcels of land that are owned by a land trust in-fee are regarded as protected open space, because they are purchased by a non-profit organization whose purpose is to protect open space in perpetuity. Technically speaking, it is possible for a land trust to sell a property that it owns and permit it to be developed. However, it is unlikely that a land trust would sell or permit the development of property it owns since that would blatantly contradict the purpose for which a land trust is established.

Parcels that are shown in dark gray in *Figure 6.2* are those that contain a land trust easement somewhere on the property. It is common for a landowner to place a conservation easement on 20 to 80 percent of his or her property, but not to place an easement on the entire parcel. As a result, the actual area covered by conservation easements in Chester County is less than the area depicted in gray in *Figure 6.2*. As this figure shows, there are hundreds of conservation easements within Chester County. Due to the large number of easements, it is impractical to present a detailed description of each of them in this document. Easement information is however, publicly available. In order to find out which land trust owns an easement on a parcel or a parcel in fee, it is usually necessary to review tax maps and conduct a deed search for the parcel in question.

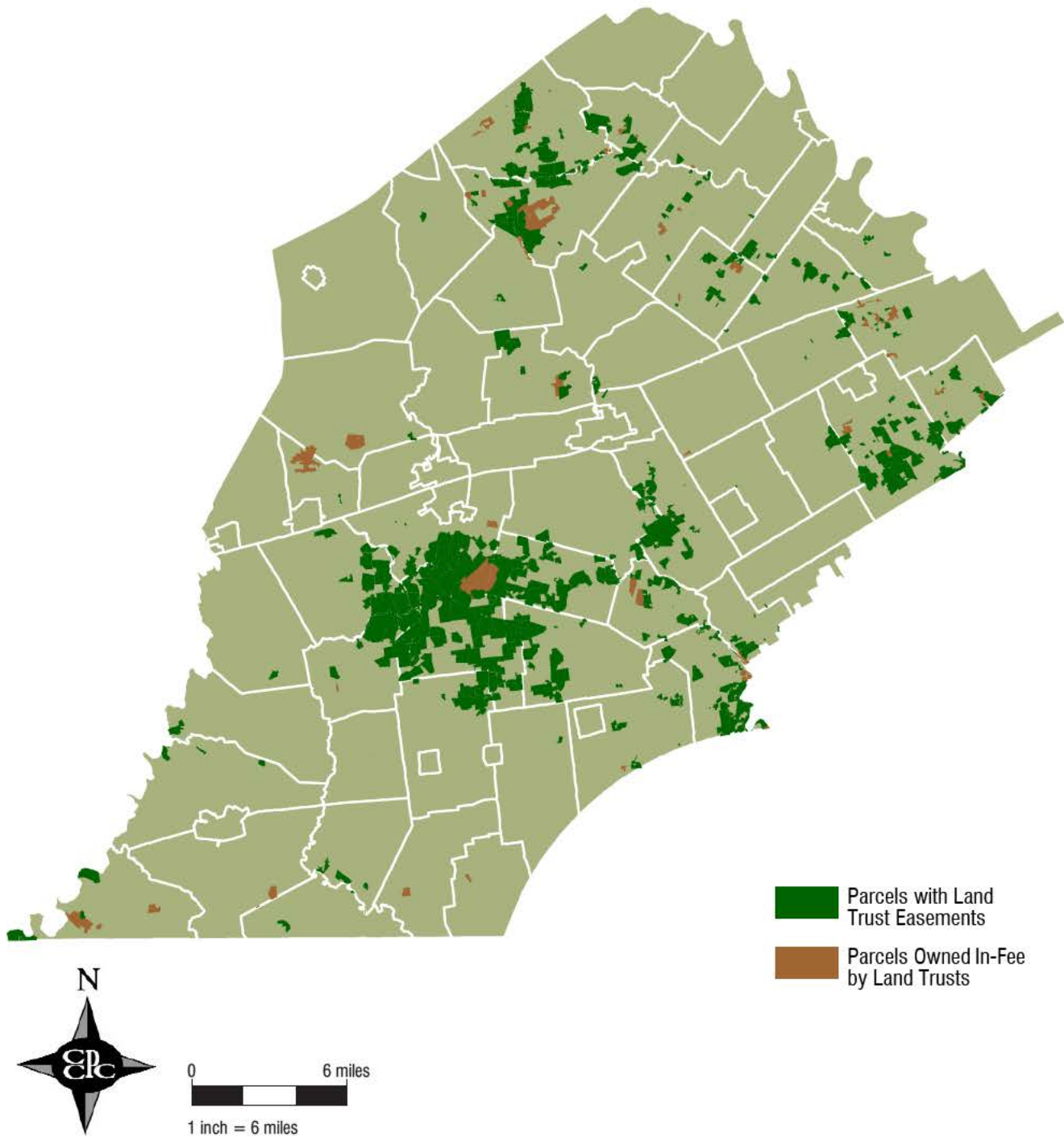
Evaluation of Open Space Protected by Regional Land Trusts

As the map in *Figure 6.2* shows, there are some communities in Chester County which contain extensive clusters of trust owned and eased lands, while other parts of the County have few if any. The largest cluster is the “King Ranch” area that is centered on West Marlborough Township. The upper French Creek area around Warwick Township also contains a major cluster. The eastern part of the County, between West Pikeland, Willistown and Tredyffrin Townships, has many scattered protected parcels, as does the Lower Brandywine Valley from Pennsbury to East Bradford Townships. The barrens region of western West Nottingham Township has also been a center of land trust acquisition.

The properties that are currently protected by land trusts tend to be clustered, but in many locations these clusters are isolated. As Chester County becomes more suburbanized and loses more farm fields, meadows and woodlands, there is a risk that the lands that are currently protected by the trusts will be surrounded by development. For some protected properties, negative impacts from this surrounding development could be so intense that they would threaten to damage the sensitive environmental resources within the protected lands. Surrounding a protected parcel with development also eliminates any possibility that future links could be established to connect it to other protected open spaces.

Figure 6.2 shows the 4,972 acres of parcels that are owned in-fee by Regional Land Trusts. These parcels have been purchased by the Regional Land Trusts to protect the resources on those parcels and it is very unlikely that these parcels will ever be sold or developed. In order for any parcel to be rigorously protected from all future development, even a parcel that is owned in-fee by a Regional Land Trust, it must have a conservation easement. In order for a Regional Land Trust to thoroughly ensure that its land will remain as open space in perpetuity, it must sell or donate a conservation easement to another land trust. Such an action also serves as an excellent example to individual private landowners.

Figure 6.2: Parcels Owned or Eased by Regional and Local Land Trusts



The data and files for maps in this document were digitally compiled by the Chester County Planning Commission (CCPC) of Chester County, PA. This information and data are provided for reference purposes only and should not be used for any detailed engineering purposes. The CCPC and Chester County make no claims as to the completeness, accuracy, or currency of the paper map or the digital data and files used to generate the map.

Source: CCPC, 2001.

Visions & Actions

for Open Space Protected by Regional Land Trusts

Vision 6.1

Municipal officials, park boards and open space boards should coordinate their efforts with any Regional Land Trust active in their municipality.

Action 6.1

When reviewing land development plans, zoning and subdivision ordinances, open space and recreation plans and comprehensive plans, the County will provide comments and recommendations on how well municipal officials, park boards and open space boards are coordinating their efforts with any Regional Land Trust active in the municipality.

Vision 6.2

Regional Land Trusts in Chester County should acquire easements or property in-fee as a conservation buffer surrounding parcels they already ease or own.

Action 6.2

When reviewing applications for appropriate County Grants, the County will give additional credit to projects that acquire easements or property in-fee as a conservation buffer surrounding parcels already eased or owned by Regional Land Trusts.

Vision 6.3

Regional Land Trusts should acquire more property in the far southern portion of the County – especially along the steep valleys of the Elk and Octoraro Creeks – and in the northern half of the Brandywine Watershed and along the Welsh Mountain ridge line.

Action 6.3

When reviewing applications for appropriate County grants, the County will give additional credit to projects that protect property in the far southern portion of the County – especially along the steep valleys of the Elk and Octoraro Creeks – and in the northern half of the Brandywine Watershed and along the Welsh Mountain ridge line.

Vision 6.4

Regional Land Trusts should aggressively seek funding from the state and from private donors, such as corporate donors and private individuals.

Action 6.4

When reviewing applications for appropriate County grants, the County will give additional credit to Regional Land Trust projects that obtain funding from the state and from private donors.

Vision 6.5

Regional Land Trusts with large endowments should foster the growth of Local Land Trusts and create cooperative agreements with these small trusts to ensure the maintenance of Local Land Trust properties and the enforcement of easements on Local Land Trust properties.

Action 6.5

The County will study the feasibility of developing a program to foster the growth of Local Land Trusts and create cooperative agreements between Regional and Local Land Trusts to ensure the maintenance of Local Land Trust properties and the enforcement of easements on Local Land Trust properties.

Vision 6.6

The Chesapeake Bay Foundation should acquire conservation easements within the Elk Creek and Octoraro Creek Watersheds.

Action 6.6

The County will request that the Chesapeake Bay Foundation consider acquiring conservation easements in Chester County within the Elk Creek and Octoraro Creek Watersheds.

Vision 6.7

Parcels that are owned by a Regional Land Trust in-fee should be eased by another land trust, or some other easement holding organization to limit future development.

Action 6.7

The County will request that Regional Land Trusts ease parcels that they own in-fee to another land trust or some other easement holding organization to limit future development.

Vision 6.8

Regional Land Trusts should coordinate their land protection efforts within Chester County with all other regional and Local Land Trusts, and the County.

Action 6.8

The County will continue to gather and provide countywide information on protected open spaces to Regional Land Trusts.

Open Space Protected by Local Land Trusts

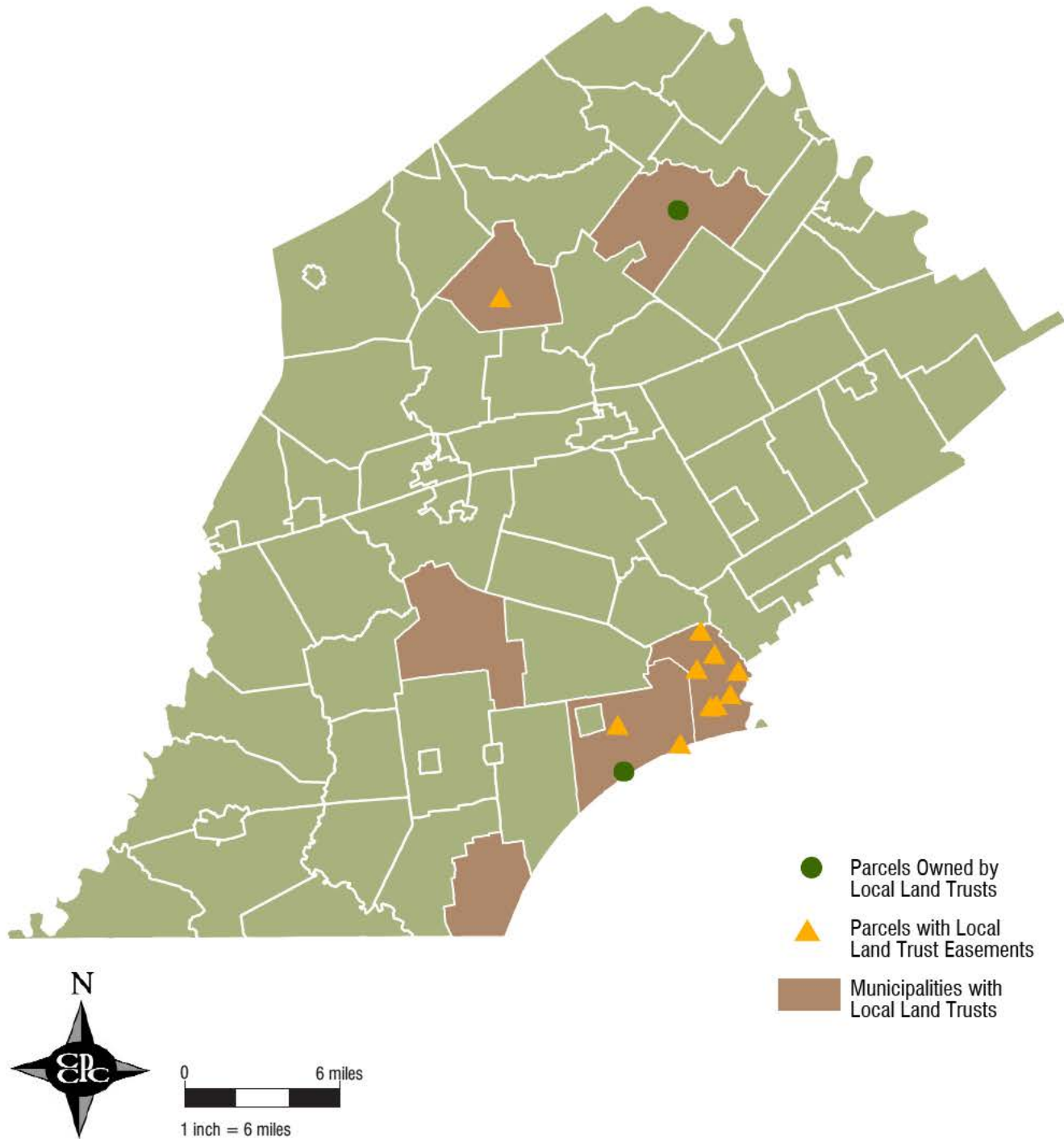
Inventory of Open Space Protected by Local Land Trusts

The map in *Figure 6.3* identifies those municipalities in which a Local Land Trust has been established. This figure also highlights the parcels in the County that are eased or owned in-fee by a Local Land Trust. Many of the eased parcels are only partially covered by the easement. As a result, the actual acreage protected by Local Land Trusts is somewhat less than the area highlighted on *Figure 6.3*.

As *Figure 6.3* shows, there are few Local Land Trust holdings within Chester County, and some Local Land Trusts have not yet acquired any conservation easements or parcels in-fee. A detailed description of each of these easements is not presented in this document. Easement information is however, publicly available. In order to find out which Local Land Trust owns an easement on a parcel or a parcel in-fee, it is usually necessary to review tax maps and conduct a deed search for the parcel in question.

There are six Local Land Trusts in Chester County. The Valley Forge Chapter of Trout Unlimited also owns a few easements on private property, and so functions like a Local Land Trust. For this reason it is included as a Local Land Trust even though it can acquire easements in more than one municipality. According to mapping developed by the Chester County Planning Commission, Local Land Trusts were responsible for protecting 672 acres in Chester County as of March 2001. This acreage represents 0.07 percent of the entire County, and 0.9 percent of the County's protected open space. A breakdown of this protected open space by each Local Land Trust is presented in *Figure 6.4*. A profile of each of these non-profit land trusts is presented at the end of this Chapter.

All of the Local Land Trusts in Chester County were established through municipal grants, but that is not a requirement. Local Land Trusts are private organizations and could be established or funded through private or corporate donations. Such donations could be cash, easements or land. For example the Homestake Mining Company owned approximately 10,000 acres north of San Francisco, California, but they only used roughly 1,000 acres for their gold mine. The remaining 9,000 acres was managed as a wilderness area that was valued by nearby residents. When the ore from the mine became depleted and it was clear that the mine would have to be closed, the company donated a conservation easement on the wilderness area to the Land Trust of Napa County, a private land trust. Corporations in Chester County could make a similar contribution to Chester County's municipalities by providing financial support, or donating easements to Local Land Trusts working in the vicinity of the corporation.

Figure 6.3: Properties with Local Land Trust Easements

The data and files for maps in this document were digitally compiled by the Chester County Planning Commission (CCPC) of Chester County, PA. This information and data are provided for reference purposes only and should not be used for any detailed engineering purposes. The CCPC and Chester County make no claims as to the completeness, accuracy, or currency of the paper map or the digital data and files used to generate the map.

Source: CCPC, 2000.

Figure 6.4: Estimated Percent of Chester County Protected by Local Land Trusts

Local Land Trust	Percent of the County Protected In-Fee	Percent of the County Protected by Easements	Percent of the County Protected by each Local Land Trust
East Marlborough Land Trust	0%	0%	0%
Kennett Land Trust	0.003%	0.019%	0.022%
London Britain Land Trust	0%	0%	0%
Pennsbury Land Trust	0%	0.017%	0.017%
Trout Unlimited	0%	0.022%	0.022%
Wallace Land Trust	0%	0.007%	0.007%
West Vincent Land Trust	0.002%	0%	0.002%
Total	0.005%	0.064%	0.069%

Source: CCPC, March 2001.

Evaluation of Open Space Protected by Local Land Trusts

Although Local Land Trusts currently protect a small part of Chester County's open space, they are expected to become an increasingly valuable resource for protecting land in Chester County. These organizations protect open spaces that are locally significant, but may be too small or otherwise poorly suited for protection by the larger Regional Land Trusts. Throughout the County, there is an abundance of locally significant open parcels that are unprotected. Local Land Trusts are well suited to protect these properties. To date the Local Land Trusts have acquired only a few easements or properties in-fee, but this is likely due to the fact that most of them have only recently been established.

The six Local Land Trusts that have been established in the County are all located in regions that are already served by Regional Land Trusts and most of these Local Land Trusts work in cooperation with Regional Land Trusts. It is essential for a newly established Local Land Trust to establish relationships or get sponsorship from one of the more well-established Regional Land Trusts. The professional staff of the Regional Land Trusts can provide assistance to the volunteers who operate Local Land Trusts. It is also necessary for a newly established Local Land Trust to enter into a partnership with an existing Regional Land Trust to ensure that any parcels protected by the Local Land Trust will continue to be protected by the Regional Land Trust if it should happen that the Local Land Trust is dissolved.

Visions & Actions

of Open Space Protected by Local Land Trusts

Vision 6.9

Municipal officials, park boards and open space boards should coordinate their efforts with any Local Land Trust active in the municipality.

Action 6.9

When reviewing land development plans, zoning and subdivision ordinances, open space and recreation plans and comprehensive plans, the County will provide comments and recommendations on how well municipal officials, park boards and open space boards are coordinating their efforts with any Local Land Trust active in the municipality.

Vision 6.10

Local Land Trusts should aggressively seek funding from the state and private donors, such as corporate donors and private individuals.

Action 6.10

When reviewing applications for appropriate County grants, the County will give additional credit to Local Land Trust projects that obtain funding from the state and private donors.

Vision 6.11

Municipal officials in all of Chester County's townships should become aware of the opportunities they have for providing start-up grants to Local Land Trusts.

Action 6.11

The County will study the feasibility of establishing a grant program that will help municipalities provide start-up grants to Local Land Trusts.

Vision 6.12

Local Land Trusts should enter into agreements with Regional Land Trust to ensure that properties protected by Local Land Trust will remain protected, even if the Local Land Trust is dissolved.

Action 6.12

The County will request that all Local Land Trusts enter into agreements with Regional Land Trust to ensure that properties protected by Local Land Trust will remain protected, even if the Local Land Trust is dissolved.

Vision 6.13

All of Chester County's municipalities that contain locally significant undeveloped properties that are not likely to be acquired by a Regional Land Trust should establish a Local Land Trust, or become part of a multi-municipal Local Land Trust.

Action 6.13

The County will continue to provide technical assistance and education materials dealing with Local Land Trusts to municipal officials.

Vision 6.14

Landowners in Chester County should become aware of opportunities that exist for preserving their lands through a Local Land Trust.

Action 6.14

The County will continue to provide technical assistance and education materials dealing with Local Land Trusts to private landowners.

Vision 6.15

The staff of Local Land Trust should be more familiar with the Preservation Partnership Program.

Action 6.15

The County will meet with the staff of Local Land Trusts to explain the Preservation Partnership Program.

Vision 6.16

Local Land Trusts should coordinate their efforts with municipal officials, park boards and open space boards.

Action 6.16

The County will only endorse major Local Land Trust projects after coordination with appropriate municipal representatives occurs.

Parcels with Easement Potential

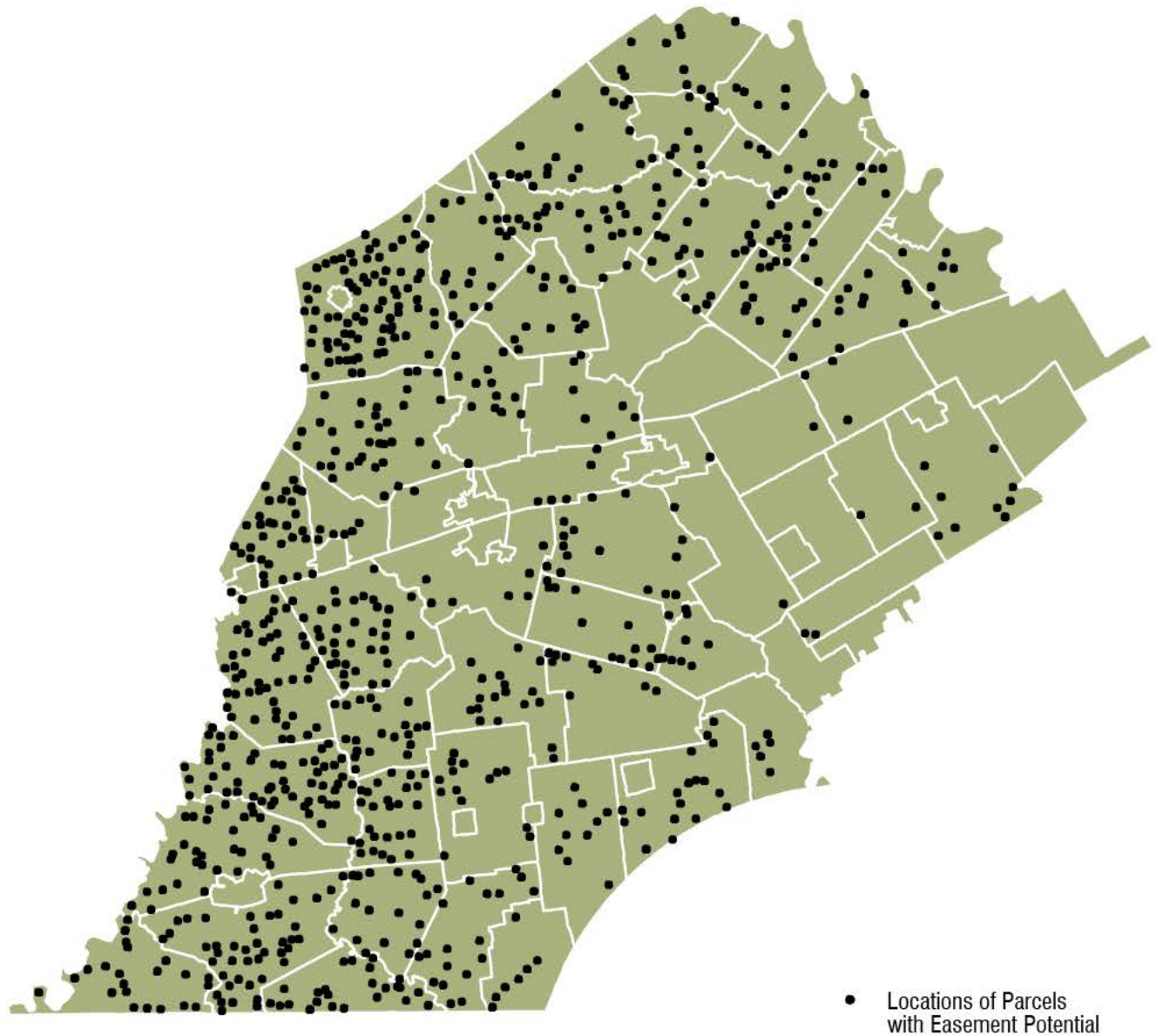
Inventory of Parcels with Easement Potential

In order to maintain its status as a tax-exempt organization, a land trust can only acquire parcels of land that help fulfill its land preservation mission. In fact, land trusts must declare their mission when applying for tax-exempt status. In general, the mission of all land trusts is to protect parcels that are undeveloped and contain qualities and features that warrant protection. Although land trusts may acquire parcels of any shape or size, they typically prefer to protect large parcels, with a strong preference for parcels that are over 50 acres. This preference explains why 64 percent of the area eased by land trusts in Chester County is located on parcels of 50 acres or more. In most cases, parcels that are protected by a land trust that are less than 50 acres are adjacent to parcels that are over 50 acres.

Parcels of 50 acres or more are well suited for protection because it is easier and more cost effective for a land trust to acquire one large property from one landowner, than to acquire a number of small properties from many landowners. It is also easier for a land trust to maintain one parcel, which is a major consideration since a land trust must ensure that a protected parcel has the staff and funding needed to maintain the parcel forever.

Land trusts are not the only open space protection organizations that prefer to focus on protecting larger parcels. Under the State Agricultural Land Easement Program, the Chester County Agricultural Land Preservation Board (ALPB) can only ease parcels of 50 acres or more, unless the parcel is 10 acres and adjacent to an already eased parcel, or supports unique agricultural production. As of April 2001, 75 percent of the area of ALPB eased farmland in Chester County was on parcels of 50 acres or more. Similarly 99 percent of the County Parks, 76 percent of State Parks, and 83 percent of National Park Sites in Chester County are on parcels of 50 acres or more.

Figure 6.5 shows the location of the parcels in Chester County that are larger than 50 acres and are well suited for protection as open space. As of April 2001, these 827 parcels were all classified as either vacant or farmland by the Chester County Tax Assessment Office, and none of them were protected by in-fee purchase or a land trust or agricultural conservation easement. None of these parcels are located in “Suburban” or “Urban” Landscapes as presented in *Landscapes*, because all parcels in these landscapes have been designated as areas for future development. Because these parcels are ideally suited for protection, in term of size, and location, *Linking Landscapes* refers to them as “Parcels with Easement Potential.”

Figure 6.5: Parcels with Easement Potential

0 6 miles

1 inch = 6 miles

1 inch = 6 miles

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Source: CCPC, March 2001.

Evaluation of Parcels with Easement Potential

The Parcels with Easement Potential presented in *Figure 6.5* cover 71,362 acres or 14.6 percent of Chester County. Most of these large parcels are isolated from each other, which means that they are either surrounded by development or by undeveloped parcels that are smaller than 50 acres. In order to link together Chester County's Parcels with Easement Potential, it will be necessary for land trusts to protect parcels of less than 50 acres and acquire easements on open areas within previously developed properties.

In heavily developed parts of the County, linking Parcels with Easement Potential into a countywide network may also require the acquisition of conservation easements on properties that have already been developed but contain large areas of open space. Such properties include golf courses, privately owned gardens, homeowner association open spaces, and corporate, educational or other campuses. By protecting these open areas, the land trusts would also be encouraging conservation development techniques, such as setting aside 50 percent or more of a development as protected open space while clustering development on the remaining portion of the development.

Although the Parcels with Easement Potential are well suited for protection as open space, they are also well suited for development. Most of these parcels are located on level to gently rolling land with prime agricultural soils, making them ideal locations for the construction of residential, commercial and industrial development. It is therefore expected that competition for the use of these parcels will be great over the next few decades, and many of them could be developed before they can be protected through in-fee acquisition or an easement.

Vision & Actions

for Parcels with Easement Potential

Vision 6.17

Regional Land Trusts should acquire easements on open space on parcels that are already developed or are planned for development including golf courses, privately owned gardens, homeowner association open spaces, and corporate, educational or other campuses, if those easements link to eased parcels or parcels that are well suited to be eased.

Action 6.17

The County will meet with the Regional Land Trusts and request that they acquire easements on open space on parcels that are already developed or are planned for development including golf courses, privately owned gardens, homeowner association open spaces, and corporate, educational or other campuses, if those easements link to eased parcels or parcels that are well suited to be eased.

Vision 6.18

Local Land Trusts should acquire easements on open space on parcels that are already developed or are planned for development including golf courses, privately owned gardens, homeowner association open spaces, and corporate, educational or other campuses.

Action 6.18

The County will meet with Local Land Trusts and request that they acquire easements on open space on parcels that are already developed or are planned for development including golf courses, privately owned gardens, homeowner association open spaces, and corporate, educational or other campuses.

Vision 6.19

Each landowner who owns a Parcel with Easement Potential should be made aware of the community and ecological importance of protecting his or her parcel from development.

Action 6.19

The County will contact each landowner who owns a Parcel with Easement Potential and inform him or her of the community and ecological importance of protecting his or her parcel from development.

Vision 6.20

Parcels with Easement Potential should be monitored to determine whether they have been protected as open space or proposed for development.

Action 6.20

The County will annually monitor whether Parcels with Easement Potential have been protected as open space or are proposed for development.

Vision 6.21

Undeveloped parcels that could form open space links or that are unique but not well suited for protection by a land trust or ALPB easement due to size or other features should be protected.

Action 6.21

The County will study the feasibility of protecting, through public and private entities, or public and private partnerships, undeveloped parcels that could form open space links or that are unique but not well suited for protection by a land trust or ALPB easement due to size or other features.

Additional Information

Introduction

The information presented below was gathered from the *1998 National Directory of Conservation Trusts*, published by the Land Trust Alliance; from interviews conducted in Spring 1999; and from a review of records from the Chester County Real Estate System. Land trusts are continually acquiring and transferring parcels. It is therefore likely that the information presented below has been modified since the publication of this listing.

Regional Land Trusts Active within Chester County

The Regional Land Trusts listed below either own property in-fee or conservation easements on property within Chester County.

Brandywine Conservancy, Environmental Management Center

PO Box 141, Chadds Ford, PA 19317

Phone: 610-388-8342

Founded in 1967, the purpose of the Conservancy is to identify, preserve, manage and research natural, historic and scenic resources of the Wilmington-Philadelphia region and other selected areas, emphasizing protection of water resources and the resources of the Brandywine Valley. The Conservancy's main protection methods are accepting conservation easement donations and fostering limited development. They own over 1,500 acres of land in-fee and over 23,000 acres of easements within Southeast PA and Northern DE.

Brandywine Valley Association

1760 Unionville-Wawaset Road, West Chester, PA 19382

Phone: 610-793-1090

Founded in 1945, the purpose of the Association is to promote conservation, restoration and preservation of natural resources in the Brandywine Valley, with a special emphasis on water resource conservation. The Association's main protection methods are accepting easement donations. They own over 500 acres of land in-fee and over 20 acres of easements within the Brandywine Valley Watershed.

French and Pickering Creeks Conservation Trust

RD 2, PO Box 360, Pottstown, PA 19464

Phone: 610-469-0150

Founded in 1967, the purpose of the Trust is to preserve open space and historic sites within the watersheds of French and Pickering Creeks. The Trust's main protection methods are purchasing land, accepting easement donations and pre-acquiring land for public agencies. They own over 80 acres of land in-fee and over 2,900 acres of easements within Northern Chester County, PA.

The Nature Conservancy; Pennsylvania Chapter

100 East Hector Street, Suite 470, Conshohocken, PA 19428

Phone: 610-834-1323

Founded in 1951 – with the PA Chapter established in 1975 – the purpose of the Conservancy is to preserve plants, animals and natural communities that represent the diversity of life on earth by protecting the lands and waters they need to survive. The Conservancy's main protection methods are purchasing land and easements, accepting land and easement donations, pre-acquiring land for public agencies, and operating landowner registries. They own over 961,000 acres of land in-fee and over 952,000 acres of easements throughout the U.S. They protect approximately 60 million acres world wide.

Natural Lands Trust

1031 Palmers Mill Road, Media, PA 19063

Phone: 610-353-5587

Founded in 1961, the purpose of the Trust is to work to conserve land in the Philadelphia metropolitan region and other nearby areas of environmental concern. The Trust's main protection methods are purchasing land, and accepting land and easement donations. The Trust has transferred over 20,000 acres to governments. Philadelphia Conservationists Incorporated, which previously held easements in Chester County, has now merged into the Natural Lands Trust. They own over 12,000 acres in-fee and over 10,000 acres of easements within Eastern PA, southern NJ, DE and the Eastern Shore of MD.

North American Lands Trust

PO Box 1578, Chadds Ford, PA 19317

Phone: 610-388-3670

Founded in 1992, the purpose of the Trust is to preserve and manage open space with agricultural, ecological and/or historical significance. They own one acre of land in-fee and over 2,100 acres of easements in their area of operation, U.S., but primarily MD, NC and SC. They own no land in-fee but over 130 acres of easements in Chester County.

Open Land Conservancy of Chester County

PO Box 1031, Paoli, PA 19301

Phone: 610-647-5380

Founded in 1939, the purpose of the Conservancy is to preserve open space, protect environmentally sensitive areas, educate the public, and provide passive recreation in a natural setting. The Trust's main protection methods are purchasing land, and accepting land and easement donations. They own over 270 acres of land in-fee and over 110 acres of easements within the Valley Creek Watershed and Tredyffrin Township.

Willistown Conservation Trust

7000 Goshen Road, Newtown Square, PA 19382

Phone: 610-353-2563

Founded in 1996, the purpose of the Trust is to preserve the open land, rural character, scenic, historic and ecological resources with an emphasis on the Crum, Ridley, and Darby Creek Watersheds. The Trust's main protection methods are accepting easement donations, identifying a pool of conservation buyers, and negotiating with landowners for other parties transactions. They own no land in-fee and over 100 acres of easements within the Willistown Township Area.

Local Lands Trusts Active within Chester County

The Local Land Trusts listed below have all been founded within the last ten years, and some have not yet acquired any property. All of them, however, expect to acquire new conservation easements or land in-fee within Chester County in the next few years.

East Marlborough Land Trust

2 Haldane Drive, Kennett Square, PA 19348

Phone: 610-444-0725

Founded in 1994, the purpose of the Trust is to protect open space in East Marlborough Township, PA. The Trust's main protection methods are purchasing land, and accepting land and easement donations. They own no land in-fee and no easements throughout their area of operation, East Marlborough Township, PA.

Kennett Township Trust, c/o Kennett Twp.

1001 East Baltimore Pike, Kennett Square, PA 19438

Phone: 610-388-1300

Founded in 1997, the purpose of the Trust is to preserve the land, landscapes and natural resources of Kennett Township. The Trust's main protection methods are accepting land and easement donations. They own no land in-fee and over 20 acres of easements throughout their area of operation, Kennett Township, PA.

London Britain Land Trust

81 Good Hope Road, Box 215, Kemblesville, PA 19347

Phone: 610-255-0388

Founded in 1999, the purpose of the Trust is to protect open space in London Britain Township, PA. The Trust's main protection methods are accepting land and easement donations. They own no land in-fee and no easements throughout their area of operation, London Britain Township, PA.

Pennsbury Land Trust,

c/o Pennsbury Township

702 Baltimore Pike, Chadds Ford, PA 19317

Phone: 610-388-7323

Founded in 1995, the purpose of the Trust is the conservation of open space in Pennsbury Township, and educating the public. The Trust's main protection method is accepting easement donations. They own no land in-fee and over 40 acres of easements within their area of operation, Pennsbury Township.

Wallace Land Trust

Box 100, Glenmoore, PA 19343

Phone: 610-942-3732

Founded in 1991, the purpose of the Trust is to protect open space in Wallace Township and on properties adjacent to the Township. The Trust's main protection method is accepting land or easement donations. They own no land in-fee, and over 30 acres of easements within their area of operation, Wallace Township.

West Vincent Land Trust

Box 235, Birchrunville, PA 19421

Phone: 610-469-9858

Founded in 1999, the purpose of the Trust is the conservation of open space in West Vincent Township, especially as it relates to trails. The Trust's main protection method is purchasing land, and accepting land and easement donations. They own over 9 acres of land in-fee and no easements within their area of operation, West Vincent Township.

Land Trusts Active in Adjacent Counties

The non-profit land trusts listed below are active in nearby counties, and could be involved in partnerships for protecting open spaces that extend across County lines.

Berks County Conservancy

960 Old Mill Road, Wyomissing, PA 19610

Phone: 610-372-4992

Founded in 1974, the purpose of the Conservancy is to promote the preservation and enhancement of farmland, open space, environmental resources, and historic places that contribute to a sustainable future for our community. They own over 260 acres of land in-fee and over 3,200 acres of easements in their area of operation, Berks County, PA.

The Cecil Land Trust

135 East Main Street, Elkton, MD 21912

Phone: 410-392-9667

Founded in 1997, the purpose of the Trust is to protect open space, especially agricultural land, within Cecil County, MD. They operate through a cooperative agreement with the Maryland Environmental Trust. They own no land in-fee and over 140 acres of easements in their area of operation, Cecil County, MD.

Chesapeake Bay Foundation

6 Herndon Avenue, Annapolis, MD 21403

Phone: 410-268-8816

Founded in 1967, the purpose of the Chesapeake Bay Foundation is to restore and sustain the Bay's ecosystem by substantially improving the watershed and to maintain a high quality of life for the people of the Chesapeake Bay region. They own over 1,100 acres of land in-fee and over 1,200 acres of easements in the Chesapeake Bay Watershed.

Conservancy of Montgomery County

PO Box 314, Plymouth Meeting, PA 19462

Phone: 215-283-0383

Founded in 1990, the purpose of the Conservancy of Montgomery County is to preserve important open space and historic resources through a conservation easement program and educational programs and publications. They own no land in-fee and over 8 acres of easements within their area of operation, Montgomery County, PA.

Delaware Nature Society

PO Box 700, Hockessin, DE 19707

Phone: 302-239-2334

Founded in 1964, the purpose of the Society is to foster an understanding, appreciation and enjoyment of the natural world through education; to preserve ecologically significant areas; and to advocate stewardship and conservation of natural resources. They own over 500 acres of land in-fee and over 140 acres of easements in DE, PA, MD and NJ.

Delaware Wild Lands

315 E. Main Street, Odessa, DE 19730

Phone: 302-378-2736

Founded in 1961, the purpose of Delaware Wild Lands is to acquire and preserve certain unspoiled tracts of land and achieve a realistic balance between development and the natural landscape. They own over 20,200 acres of land in-fee and over 1,000 acres of easements in their area of operation, the Delmarva Peninsula, mainly DE.

Heritage Conservancy

85 Old Dublin Pike Doylestown, PA 18901

Phone: 215-345-7020

Founded in 1958, the purpose of the Conservancy is to preserve our natural and historic resources. They own over 1,100 acres of land in-fee and over 1,800 acres of easements in their area of operation, the Delaware River Watershed, Eastern PA, Western, NJ and NY.

Lancaster County Conservancy

117 Southwest End Avenue, Box 716, Lancaster, PA 17608

Phone: 717-392-7891

Founded in 1969, the purpose of the Lancaster County Conservancy is to protect and manage natural lands and open space. They own 1,240 acres of land in-fee and over 650 acres of easements in their area of operation, Lancaster County, PA.

Lancaster Farmlands Trust

128 East Marion Street, Lancaster, PA 17602

Phone: 717-293-0707

Founded in 1989, the purpose of the Lancaster Farmland Trust is to conserve the farmland of Lancaster County, and encourage farmland stewardship and the agriculture economy. They own no land in-fee and over 8,800 acres of easements in their area of operation, Lancaster County, PA.

Montgomery County Lands Trust

PO Box 300, Lederach, PA 19450

Phone: 215-513-0100

Founded in 1993, the purpose of the Montgomery County Lands Trust is to aid citizens in conserving, protecting and managing the valuable assets of the county for the benefit of present and future generations. They own no land in-fee and over 170 acres of easements in their area of operation Montgomery County, PA.

Other Land Protection Organizations

The organizations listed below do not own land or land conservation easements in Chester County, but can provide land conservation assistance for projects within the County.

Coventry Land Trust

2342 Jones Road, Pottstown, PA 19465

Phone: 610-469-0905

The Coventry Land Trust is a land protection organization that does not own any property or easements on a permanent basis. Instead they are a referral service matching landowners with land trusts throughout East Coventry, North Coventry, South Coventry and Warwick Townships.

Delchester Group, Incorporated

7000 Goshen Road, Newtown Square, PA 19382

Phone: 610-353-2563

The Delchester Group is a land protection organization that does not own any property or easements on a permanent basis. Instead, they acquire land and then transfer it to a land trust.

National Trust for Historic Preservation: NE Field Office

7 Faneuil Hall, Marketplace, Boston, MA 02109

Phone: 617-523-0885

Chartered by Congress in 1949, the purpose of the Trust is to save historic buildings and the neighborhoods they anchor. They own preservation easements on historic structures and do not own any land or land easements. Within Chester County, they own preservation easements on three National Register Sites, and one National Historic Landmark.

Land Trust Alliance

1319 F Street NW, Washington, DC 20004

Phone: 202-638-4725

Founded in 1982, the Alliance is the national membership organization of land trusts. It promotes voluntary land conservation and strengthens the land trust movement by providing the leadership, information skills and resources that land trusts need to conserve land for the benefit of communities and natural systems. They own no land in-fee or easements.

Maryland Environmental Trust

100 Community Place, First Floor, Crownsville, MD 21032

Phone: 410-514-7900

Founded in 1967, the purpose of the Trust is to protect Maryland's natural environment, including farmland, forestland, waterfronts and historic and scenic areas. They own over 240 acres of land in-fee and over 54,000 acres of easement within their area of operation, Maryland.

Preservation Alliance for Greater Philadelphia

2200 One East Penn Square, Philadelphia, PA 19107

Phone: 215-546-1146

Founded in 1979, the purpose of the Alliance is to preserve historic structures in Philadelphia and its suburbs. The Alliance does not protect open lands surrounding historic structure. They own no land in-fee and no land easements. They have historic easements, such as façade easements, on 148 properties within their area of operation, DE, NJ and PA.

Rails-to-Trails Conservancy: NE Regional Field Office

501 Locust Street, Harrisburg, PA 17101

Phone: 717-238-1717

Founded in 1986, the purpose of the Conservancy is to convert abandoned railroad right-of-way and connecting open spaces into a national system of trails and greenways. Their primary focus is providing technical assistance. They also pre-acquire land for public agencies. They own no land in-fee or easements. Their Office operates in NJ, NY and PA.

Springton Lake/Crum Creek Conservancy

3714 Gradyville Road, Newtown Square, PA 19073

Phone: 610-356-4107

Founded in 1984, the purpose of the Conservancy is to preserve wetlands around Springton Lake, and Crum Creek. They own no land or easements within their area of operation, Newtown Square, PA.

Trust for Keystone Trail Lands

PO Box 251, Cogan Station, PA 17728-0251

Phone: 717-763-9276

Founded in 1991, the Trust's purpose is preserving trail corridors. The Trust's main protection method is to pre-acquire land for public agencies. They are an umbrella organization for trail associations, and do not own or ease land.

The Trust for Public Land: New York Field Office

666 Broadway, 9th Floor, New York, NY 10012

Phone: 212-677-7171

Founded in 1972, the purpose of the Trust is to work with public agencies. They provide assistance to state, county and municipal governments that wish to initiate open space preservation bonds, or acquire conservation lands or easements. They also negotiate between landowners and public agencies, typically state parks system. They have worked in PA.

Wildlands Conservancy

3701 Orchid Place, Emmaus, PA 18049

Phone: 610-965-4397

Founded in 1973, the purpose of the Conservancy is to preserve open space, wildlands and watersheds; to conserve important irreplaceable natural resources; and educate people, especially children. They own over 2,100 acres of land in-fee and over 1,000 acres of easements within their area of operation, Eastern PA.

Chapter 7



*Protected Spray and
Drip Irrigation Fields*

Background

It has only been recently that spray and drip irrigation fields have been fully recognized as valuable open space resources. These undeveloped fields are used to treat wastewater in a more ecologically sensitive manner than conventional treatment techniques. Because spray and drip irrigation fields are open meadows, they provide many of the benefits of open space. Most of the spray and drip irrigation fields in the County are privately owned, but some are owned by municipalities and were constructed using County funds. In order to receive these funds, the municipality must agree to never develop the field even if it is no longer used as a spray or drip irrigation field. As a result, spray and drip irrigation fields that receive County funding can be regarded as protected open space. Municipalities that wish to protect open space and have a need to treat wastewater can achieve both goals by pursuing County funds for a spray or drip irrigation field.

The conventional method that communities use for treating wastewater discharged from sinks, baths, toilets and industrial or commercial wastewater, is to pump it to a sewage treatment plant, where the waste solids, also called sludge, are removed leaving behind only liquid effluent. This “treated effluent” contains chemicals such as nitrogen, phosphorus and potassium which are called nutrients. A conventional sewage treatment facility processes the treated effluent two times in order to reduce the nutrient level. After the second treatment, the effluent is discharged into a stream. This doubly treated effluent still contains some nutrients and so increases the amount of nutrients in the stream into which it is discharged. The discharged effluent also increases the volume of water in the stream.

In the past few decades, many communities have turned to spray irrigation as an alternative to conventional sewage treatment. With spray irrigation, sludge is removed from raw sewage, but the nutrient rich effluent is then sprayed on a vegetated field. The nutrients present in the sprayed effluent have a composition that is similar to most plant fertilizers. As a result, the plants in spray irrigation fields thrive and process the effluent nutrients naturally as part of their normal life cycle. Spray irrigation is described in more detail in CCPC Bulletin #40 *Utilization of Spray Irrigation in Wastewater Treatment*.

Drip irrigation is quite similar to spray irrigation except the effluent is sent through perforated pipes buried just below the surface. The holes in the pipes allow the effluent to slowly drip out and irrigate the soil. Recently communities in Chester County have been using drip irrigation in addition to spray systems.

Spray and drip irrigation provide many environmental benefits that conventional sewage treatment does not. Effluent that is applied onto spray

or drip irrigation fields recharges the groundwater, without increasing the water volume or nutrient level of streams. Spray and drip irrigation fields can also support a range of vegetation and often provide excellent wildlife habitat. Meadows supported by spray irrigation can also be utilized for scenic view sheds or passive open spaces surrounded by trails. Drip irrigation can even be utilized to support forests.

Spray and drip irrigation fields can also be incorporated into some recreation facilities. Walking trails can be constructed around the fields, although the trails must be separated from the fields by a buffer. A functioning spray or drip field will not create wet soils or unpleasant odors that discourage trail users. Lagoons associated with spray or drip irrigation fields should also be aesthetically designed and vegetated if they are going to be part of a recreation facility. Drip irrigation fields can even be used under grass fields for team sports.

There are a substantial number of spray or drip irrigation facilities owned by municipal wastewater authorities throughout Chester County. Like public schools and municipal office buildings, these spray and drip irrigation fields can be abandoned and sold for development. As a result, the County does not consider them as protected open space. However, public spray and drip irrigation fields that receive funding through the Chester County's Spray Irrigation Grant Program are required to remain permanently undeveloped and so can be regarded as protected open space.

The Chester County Municipal Spray/Drip Irrigation Grant Program was established in 1993 to provide funds for the acquisition of land to be used for wastewater treatment systems that employ land application of treated effluent. This grant provides a 50 percent match to municipalities who may then pass the funding on to a municipal authority. Property in-fee or easements may be acquired using these funds. The Grant Program eligibility requirements and application process are discussed in **Chapter 16**. Grant applications and the grant manual are available from the Planning Commission.

This program may reimburse a single municipality up to \$250,000 toward the cost of acquiring land to support a Land Application System. Three or more municipalities working together may be eligible for up to \$600,000. The acquired property does not need to provide public access, however municipalities that integrate the sites into their municipal park and open space systems are given additional credit when the County reviews their application.

Spray and Drip Irrigation Fields

Inventory of Spray and Drip Irrigation Fields

As *Figure 7.1* shows there are many spray or drip irrigation fields in the County, but only two of them – both spray irrigation fields – have been constructed under the Municipal Spray Irrigation Grant Program. One is in East Marlborough Township and the other is in New Garden Township, as shown on *Figure 7.1*. Together, these two properties cover 144.3 acres. A second grant application has been submitted by East Marlborough Township to expand their current facility. No drip irrigation facilities have yet been funded under this program.

Evaluation of Spray and Drip Irrigation Fields

The number of spray and drip irrigation fields is increasing in Chester County and this trend is expected to continue. The only spray and drip irrigation facilities in the County that are currently protected from development are the two that have been funded by the County grant program.

The Spray and Drip Irrigation Grant Program has been under utilized, but this program has the potential to be used to protect open spaces extensively throughout the County. The three existing properties acquired under this program are not yet linked to other protected open spaces.

Visions & Actions

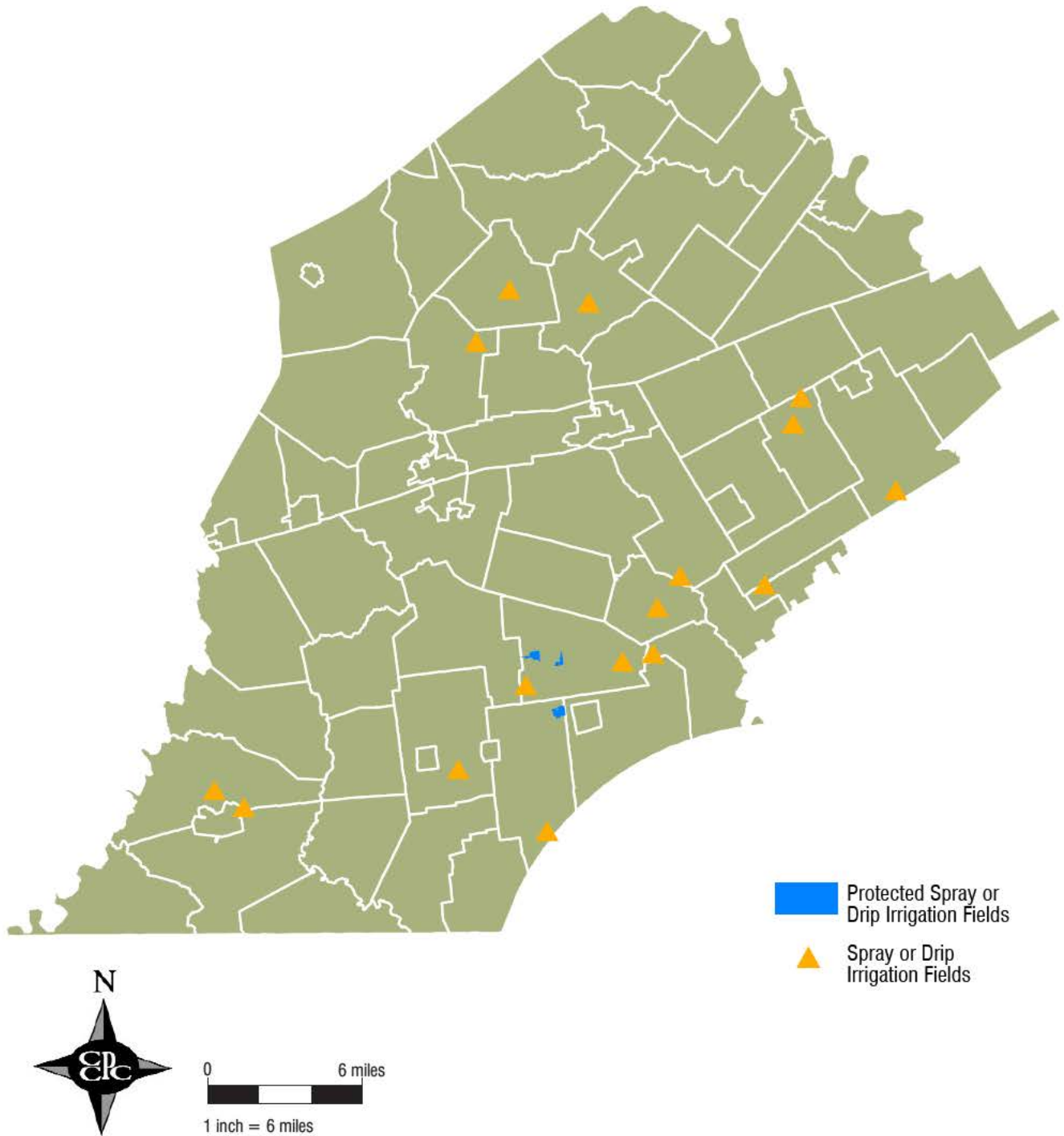
for Spray and Drip Irrigation Fields

Vision 7.1

Spray and drip irrigation fields should be a part of public wastewater treatment systems to the greatest extent possible.

Action 7.1

When reviewing land development plans, zoning and subdivision ordinances, open space and recreation plans and comprehensive plans the County will provide comments and recommendations on how well spray and drip irrigation fields are included in public wastewater treatment systems.

Figure 7.1: Protected Spray and Drip Irrigation Fields

The data and files for maps in this document were digitally compiled by the Chester County Planning Commission (CCPC) of Chester County, PA. This information and data are provided for reference purposes only and should not be used for any detailed engineering purposes. The CCPC and Chester County make no claims as to the completeness, accuracy, or currency of the paper map or the digital data and files used to generate the map.

Source: CCPC, 2000.

Vision 7.2

Spray and drip irrigation fields should be linked to other nearby protected open spaces.

Action 7.2

When reviewing applications for appropriate County grants, the County will give additional credit to spray or drip irrigation projects that link to other protected open spaces.

Vision 7.3

Spray and drip irrigation fields should be located as near to a point of large groundwater withdrawal as possible, as is suggested in the County Water Resource Management Plan, once it is adopted.

Action 7.3

When reviewing applications for appropriate County grants, the County will give additional credit to projects that locate spray and drip irrigation fields as near to a point of large groundwater withdrawal as possible.

Vision 7.4

Unprotected spray and drip fields should be protected from future development.

Action 7.4

The County will study the feasibility of having non-profit land trusts or municipalities acquire conservation easements on unprotected spray or drip irrigation fields.

Chapter 8



Historic Properties and Districts

Background

Introduction

Chester County is somewhat unique in that so many of its large protected open spaces, such as Valley Forge and Hopewell Village National Historic Sites, are also historically significant properties. Protecting open spaces that include historic resources, such as structures or landscapes, can be a valuable tool for preserving the important elements of Chester County's history. Protecting open spaces that include historic resources can also be valuable to municipalities or other organizations seeking funding for their projects, because such projects are more likely to receive funds set aside for both open space protection and historic preservation. It is therefore important to consider historic resources when conducting any kind of open space protection or restoration project.

There are many sources for information about historic resources and ongoing historic restoration efforts in Chester County. A list of organizations involved with historic preservation in Chester County is presented at the end of this chapter. A detailed discussion of historic preservation options in Chester County is also presented in *Preserving Our Places: Historic Preservation Manual for Chester County Communities*, which was published by the Planning Commission in 1998 and is available at their office. A wealth of historical records and other information about Chester County's history is available at the Chester County Historical Society whose web page is at www.chestercohistorical.org.

Federal Level Historic Preservation

The National Historic Preservation Act of 1966 created an extensive framework for protecting and preserving historic and cultural resources. This Act authorized the expansion of the National Register of Historic Places, which is discussed on the next page. The Advisory Council on Historic Preservation, which advises the President and Congress on historic preservation matters, also grew out of this Act. In addition, this Act established the National Trust for Historic Preservation as the national non-profit historic preservation advocacy organization. The Act also set up an organizational structure for state preservation efforts by authorizing each state to create a State Historic Preservation Office (SHPO), charged with administering preservation activities at the state level.

Section 106 of the National Historic Preservation Act of 1966 requires that a project sponsored by a federal agency must evaluate the impact of that project on historic resources before proceeding with the project. For example, a construction project that receives federal funding can only be built after research has been conducted to see if the project would damage historic sites or buildings. If such a project is found to impact historic

sites, the design for the project will be altered to eliminate or minimize those impacts, unless there is no reasonable alternative.

State Level Historic Preservation

There are a number of state laws that serve to protect historic resources in Pennsylvania. Title 37 of the Pennsylvania Consolidated Statutes also known as the “Pennsylvania History Code,” designates the Pennsylvania Historical and Museum Commission (PHMC) as the agency responsible for historic resources and preservation activities within the Commonwealth. Chapter 5 of the Pennsylvania History Code gives the PHMC the authority to serve as the SHPO, as required by the National Historic Preservation Act of 1996. More information on the PHMC is available at www.phmc.state.pa.us.

PA Act 167, the Historic District Act of 1961, authorizes counties and municipalities to create historic districts within their boundaries using local ordinances. These ordinances can protect the historic character of a community by regulating the erection, reconstruction, alteration, restoration, demolition, or razing of buildings within a specified district. Districts established through Act 167 must be certified through the PHMC.

Municipalities are also authorized to protect historic resources by PA Act 247, the Municipal Planning Code (MPC) of 1968. This Act provides municipalities with the authority to regulate land use in places having unique historical, architectural or patriotic interest or value by creating a specific zoning classification.

National Register Sites

Inventory of National Register Sites

The National Register of Historic Places was initially created by the Historic Sites Act of 1935, but was greatly enhanced by the National Historic Preservation Act of 1966. The National Register of Historic Places, or “National Register,” is a comprehensive listing of districts, sites, buildings, structures and objects of historical or cultural significance to the history or prehistory of the nation, a state or a locality. National Register sites can consist of entire villages, farms, buildings, bridges or objects such as prehistoric carvings on a rock outcrop.

The National Register is administered by the National Park Service under the direction of the Secretary of the Interior. Although the National Register is a federal program, each State Historic Preservation Office (SHPO) plays a key role in determining what properties are eligible for listing on the National Register.

Properties that are eligible for listing on the National Register are those which have at least one of the following four features:

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

The National Register Sites within Chester County that were digitally mapped in the late 1990s are presented on the map in **Figure 8.1**. The 270 sites on this map include 29 historic bridges, 35 historic districts, 7 historic landmarks, and 199 historic buildings. The US Department of the Interior lists all of the National Register Sites on its web page at www.nr.nps.gov. As of March 2000, there were 298 sites listed on this web page, which are more than have been digitally mapped by the County to date. Mapping of National Register Sites is usually presented in municipal Open Space, Recreation and Environmental Resource (OSRER) plans available at municipal offices and the Planning Commission office.

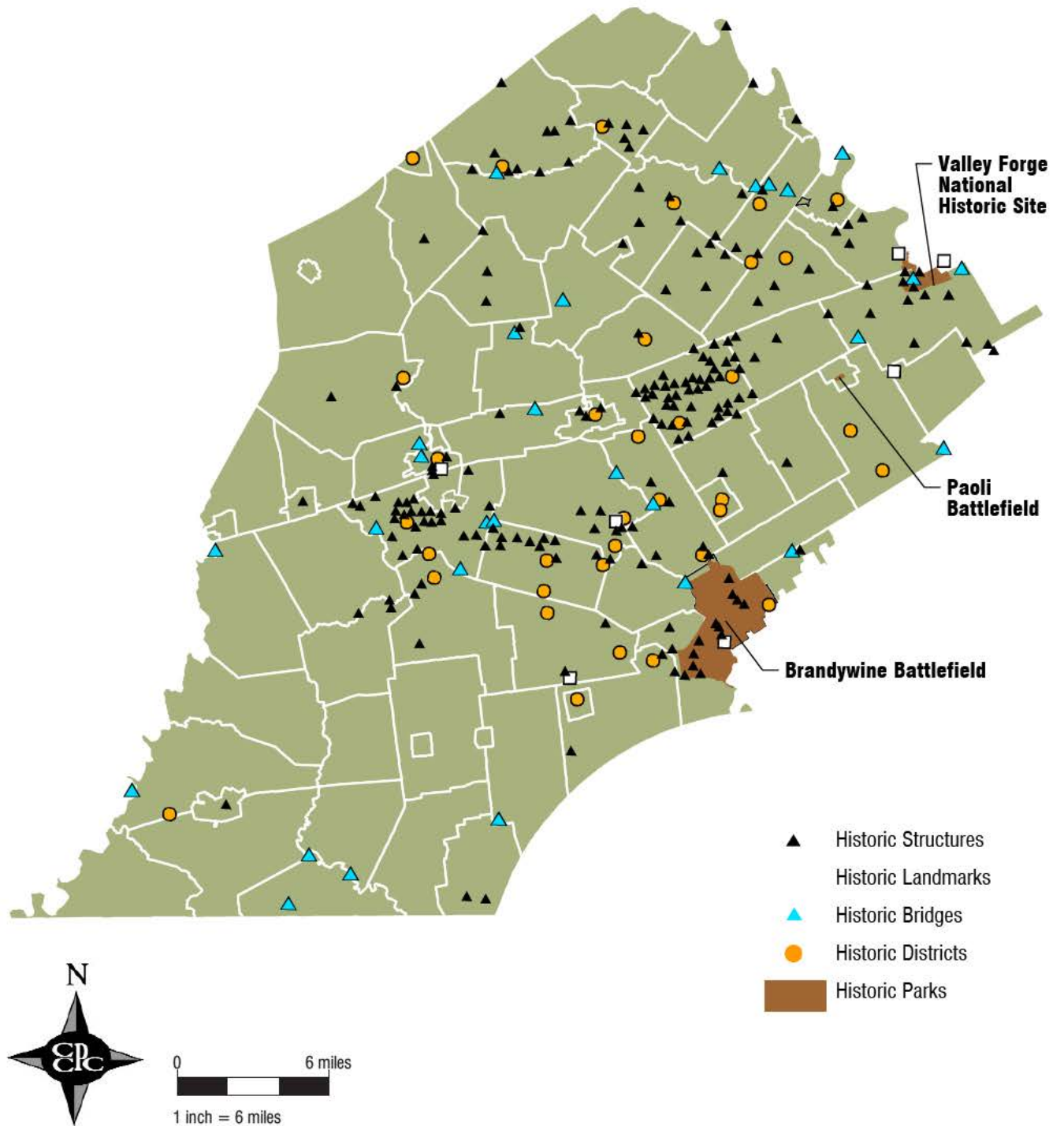
Evaluation of National Register Sites

Most of the National Register Sites in Chester County are buildings. As a rule of thumb, any building that is over 50 years old, and has not been significantly altered by recent construction, such as replacing the original windows or adding aluminum siding, may be eligible for listing on the National Register. Not all buildings that are eligible for listing on the National Register get listed. In many cases the building's owners do not wish to list their property. The County has not yet mapped all the National Register Eligible sites using digital mapping.

Some owners do not list their buildings simply because they do not have the money or time to conduct the extensive research required to comply with National Register requirements. As a result, the map presented in **Figure 8.1** shows only those historic resources within the County, that have gone completely through the National Register process. There are, in fact, many more historic sites in Chester County than are presented on this map, some of which have not yet been researched or documented.

During the 1980s, the Chester County Redevelopment Authority was awarded federal funding to conduct historic resource surveys throughout the County. These surveys were conducted at a municipal level using a combination of paid and volunteer staff. Each municipality developed its own methodology for assessing historic resources. As a result, the data

Figure 8.1 National Register of Historic Places Sites



The data and files for maps in this document were digitally compiled by the Chester County Planning Commission (CCPC) of Chester County, PA. This information and data are provided for reference purposes only and should not be used for any detailed engineering purposes. The CCPC and Chester County make no claims as to the completeness, accuracy, or currency of the paper map or the digital data and files used to generate the map.

Source: National Park Service, circa 1995.

compiled by this inventory was not uniform for the whole County. This project was also completed prior to the widespread use of digital mapping, and so is not available in a format that can be converted to the County's current Geographic Information System.

Currently there is no County grant program that provides funding for the acquisition of historic structures, however there are a number of County grants that can protect certain historic sites that are also used for active or passive open space. Chester County's Vision Partnership Program Grants provides funds to municipalities for the completion of an historic preservation plan element of a comprehensive plan update. This grant program, and all other County grants, are discussed in detail in *Chapter 16*.

Visions & Actions **for National Register Sites**

Vision 8.1

Where appropriate, National Register Sites and Districts should be linked by trails to recreational parks.

Action 8.1

When reviewing applications for appropriate County grants, the County will give additional credit to projects that link National Register Sites and Districts to recreational parks.

Vision 8.2

A uniform system for recording data on historic resources within Chester County should be developed that will consider existing and potential historic sites, including those listed and not listed on the National Register.

Action 8.2

The County will develop a uniform reference system for recording and cataloging data on historic resources that will include tax parcel numbers listed in a database that can be converted to the County's GIS database.

Vision 8.3

Digitized mapping should be prepared showing what parcels contain National Register Sites and Districts, and potentially eligible non-listed sites identified by historic inventories previously conducted in the County.

Action 8.3

The County will map parcels that contain National Register Sites and Districts, and potentially eligible non-listed sites identified by historic inventories previously conducted in the County.

Pennsylvania Heritage Parks

Inventory of Pennsylvania Heritage Parks

The Pennsylvania Heritage Parks Program was established in 1989 to preserve areas that are important to the Commonwealth's heritage, and also to promote historic resource based tourism and economic development. The Program is administered by the DCNR in conjunction with a Task Force consisting of several state agencies including the PHMC. Nine areas have been officially designated under this program throughout Pennsylvania, but only one, the Schuylkill River Heritage Corridor, is located in Chester County. The DCNR is currently considering including two more areas in the Pennsylvania Heritage Parks Program, but it is expected that few new areas will be considered after these two.

The Schuylkill River Heritage Corridor was established in 1995 and extends up to three miles along both sides of the Schuylkill River from Reading to Philadelphia. The Corridor promotes the historical significance of the industrial sites along the Schuylkill River, its canal system, and its tributaries. The Schuylkill River Region was a major canal boat and rail transportation corridor in the 18th and 19th centuries and was the site of some of the nation's first iron mills. In the 19th and early 20th centuries, this area developed into a center for paper and textile mills, and the densely populated industrial towns that grew around them. The Schuylkill River Corridor is managed by the Schuylkill River Greenways Association (SRGA), which is under contract to the DCNR.

In October 2000, the federal government designated the entire Schuylkill River Watershed as a National Heritage Corridor. This designation will allow municipalities, County government and other organizations more opportunities to pursue federal funding for open space, recreation and historic preservation projects throughout the whole Watershed. The SRGA was also designated as the management entity for the National Heritage Corridor.

Evaluation of Pennsylvania Heritage Parks

It is unlikely that the DCNR will consider another site in Chester County as part of its Pennsylvania Heritage Corridor Program. However, the SRGA is currently petitioning DCNR to expand the current boundaries of the Pennsylvania Schuylkill River Heritage Corridor to include the entire watershed, which would make it consistent with the boundaries of the National Heritage Corridor. This action would allow County government, municipalities and community groups to pursue state funding for open space, recreation and historic preservation projects throughout all parts of the Watershed.

Visions & Actions **for Pennsylvania Heritage Parks**

Vision 8.4

The Schuylkill River State Heritage Corridor should be widened to include the entire Watershed.

Action 8.4

The County will continue to endorse the widening of the State Heritage Corridor to include the entire Watershed.

Vision 8.5

Chester, Berks and Montgomery Counties should cooperate on multi-county projects within the Schuylkill River State Heritage Corridor and National Heritage Corridor.

Action 8.5

The County will cooperate with Berks and Montgomery County on multi-county projects within the Schuylkill River State Heritage Corridor and National Heritage Corridor.

Historic Preservation Contacts

The following organizations are involved in preserving historic features or recording the history of Chester County. There are also a number of smaller historic societies and local preservation groups. For more information in these smaller groups, contact the office of the municipality in question, or the Parks and Recreation Department historic preservation coordinator.

Advisory Council on Historic Preservation

Eastern Office Project Review
1100 Pennsylvania Avenue NW
Suite 809
Washington, DC 20004
202-606-8503
www.achp.gov

Bureau of Pennsylvania Historic Preservation
Pennsylvania Historical and Museum Commission
400 North Street
Harrisburg, PA 17120
717-783-8946
www.state.pa.us/bhp

Chester County Historical Society
225 North High Street
West Chester, PA 19380
610-692-4800
www.chestercohistorical.org

Chester County Historic Preservation Network
c/o John Milner Associates
535 North Church Street
West Chester, PA 19380
610-436-9000

National Park Service Regional Office
Mid-Atlantic Regional Office
200 Chestnut Street
Philadelphia, PA 19106
215-597-7013
www.nps.gov

National Trust for Historic Preservation
1785 Massachusetts Avenue NW
Washington, DC 20036
202-588-6000
www.nationaltrust.org

Preservation Action
1350 Connecticut Avenue NW
Suite 401
Washington, DC 20036
202-659-0915
www.preservationaction.org

Preservation Pennsylvania
257 North Street
Harrisburg, PA 17101
717-234-2310
www.preservationpa.org

Chapter 9



Protected Farmlands

Background

Protecting Farmlands as Open Space

Farmlands have been the predominant feature of Chester County's landscapes for most of the last 300 years, and they are still recognized as one of the County's most valuable resources. *Landscapes* designates 229,573 acres, or 47.3 percent of the County as "Rural Landscapes," which are defined as including "farms, farm related businesses and villages, along with some scattered housing sites." Clearly *Landscapes* indicates that farmlands are one of the key elements of Chester County's landscape, and are a significant component of its distinctive traditional identity.

As noted in **Chapter 3**, *Linking Landscapes* regards farmlands as a form of open space because farmlands provide many, but not all of the benefits of more naturalized open spaces. Furthermore farmlands do not require the kind of infrastructure, such as sewers, water lines and roadways, that are necessary on developed properties. Of course it is important to remember that farms are businesses and farmlands are private property. Furthermore, farm owners pay for the upkeep and management of their farmlands, and they have the option to legally restrict public access if they choose to do so.

The following chapter presents a general discussion of farmlands in Chester County, and the importance of protecting them as a community, natural, and economic resource. This information can be useful to municipalities or other organizations that wish to protect farmlands from future development. This chapter also describes a number of state and County programs that help to protect farmlands in Chester County. Although this chapter discusses some issues relating to the business of agriculture, the focus of this chapter is how well farmlands are, or could be, protected as open space in Chester County. *Linking Landscapes* is not an agricultural master plan for the County and should not be interpreted as such.

In 1989, the Commonwealth of Pennsylvania established the statewide Agricultural Easement Program to protect productive farmlands from development. The following chapter provides a summary of this program and includes an inventory of farmlands protected by agricultural conservation easements through this program. These eased farmlands can be regarded as protected open space because they are permanently protected. Farmlands without easements are not inventoried in the chapter, because they have no permanent protection from development and so could be developed if their owner chooses to do so.

Protecting Farmlands as Open Space Protects Open Space Benefits

Although farmlands provide economic benefits that support the rural lifestyle, they also provide many of the open space benefits that can be found in wildlife preserves. Because farmlands are not extensively paved

or covered with buildings and are largely uninhabited by humans at most times, they are quite suitable as habitat for some forms of wildlife. Farmlands provide habitat for many nocturnal animals that pass through the fields at night. The low human population density of farmlands also provides habitat for diurnal animals that are easily disturbed by human activity. Farm management techniques such as using trees and hedgerows for windbreaks or rehabilitating wetlands to process stormwater run off, also create wildlife habitats. Farms are not however naturalized areas, since they do not possess a diversity of wild plants and are regularly treated with fertilizers and other agro-chemicals.

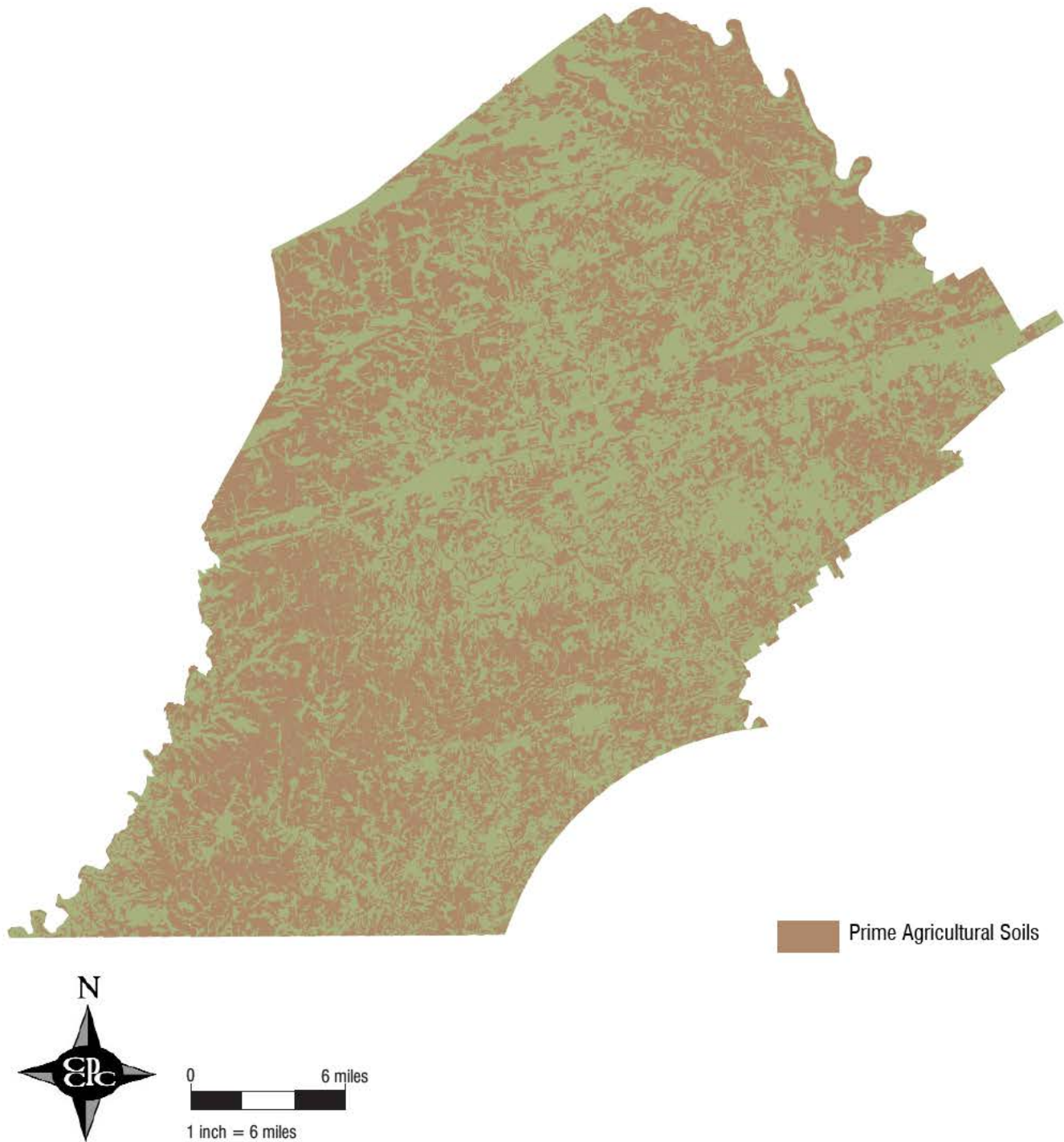
Farmlands also provide many of the open space benefits typically associated with parks and natural areas. Cultivated fields do not contain houses or other structures and so provide scenic rural viewsheds that do not exist in more developed areas. Farmlands are similar to more naturalized open spaces in that they do not usually generate noise, sewage or traffic like residential or conventional industrial developments, nor do they require extensive public water service. Like more naturalized open spaces, farmlands do not require publicly funded infrastructure, such as public sewer and water lines or roadways. Of course farmlands are different from parks in that they are privately owned businesses and are usually closed to the general public.

When a municipality or another organization protects a parcel of farmland they are also protecting all of the open space benefits that the farmland provides to its surrounding community. These benefits may not be as extensive as those found in naturalized woodland or marshes, but they are nonetheless valuable. Conversely, when farmland is developed, its open space benefits are irrevocably lost. For this reason the protection of farmland should be viewed as a mechanism for protecting not just the location of a farmer's business, but also the open space benefits that farmlands provide to the entire community.

Protecting Farmlands as Open Space Protects Pennsylvania's Piedmont Soils

When a municipality or any other organization protects a parcel of farmland from development, it is both the surface features of the landscape and the soil beneath the landscape that are protected. The soils that lie beneath Chester County are part of the Pennsylvania piedmont soils. These soils are some of the most productive in the nation and are a unique and valuable natural resource that can be irrevocably damaged by development. The protection of Chester County's soils is therefore one of the benefits of protecting its farmlands as open space.

The 1963 USDA *Soil Survey of Chester and Delaware Counties* noted that in 1963, "prime agriculture soils" covered 221,357 acres or 46 percent of the County as shown in **Figure 9.1**. Prime agricultural soils are well-drained, fertile soils that are suitable for a wide range of crops and require

Figure 9.1: Prime Agriculture Soils

The data and files for maps in this document were digitally compiled by the Chester County Planning Commission (CCPC) of Chester County, PA. This information and data are provided for reference purposes only and should not be used for any detailed engineering purposes. The CCPC and Chester County make no claims as to the completeness, accuracy, or currency of the paper map or the digital data and files used to generate the map.

Source: NRCS, 1997.

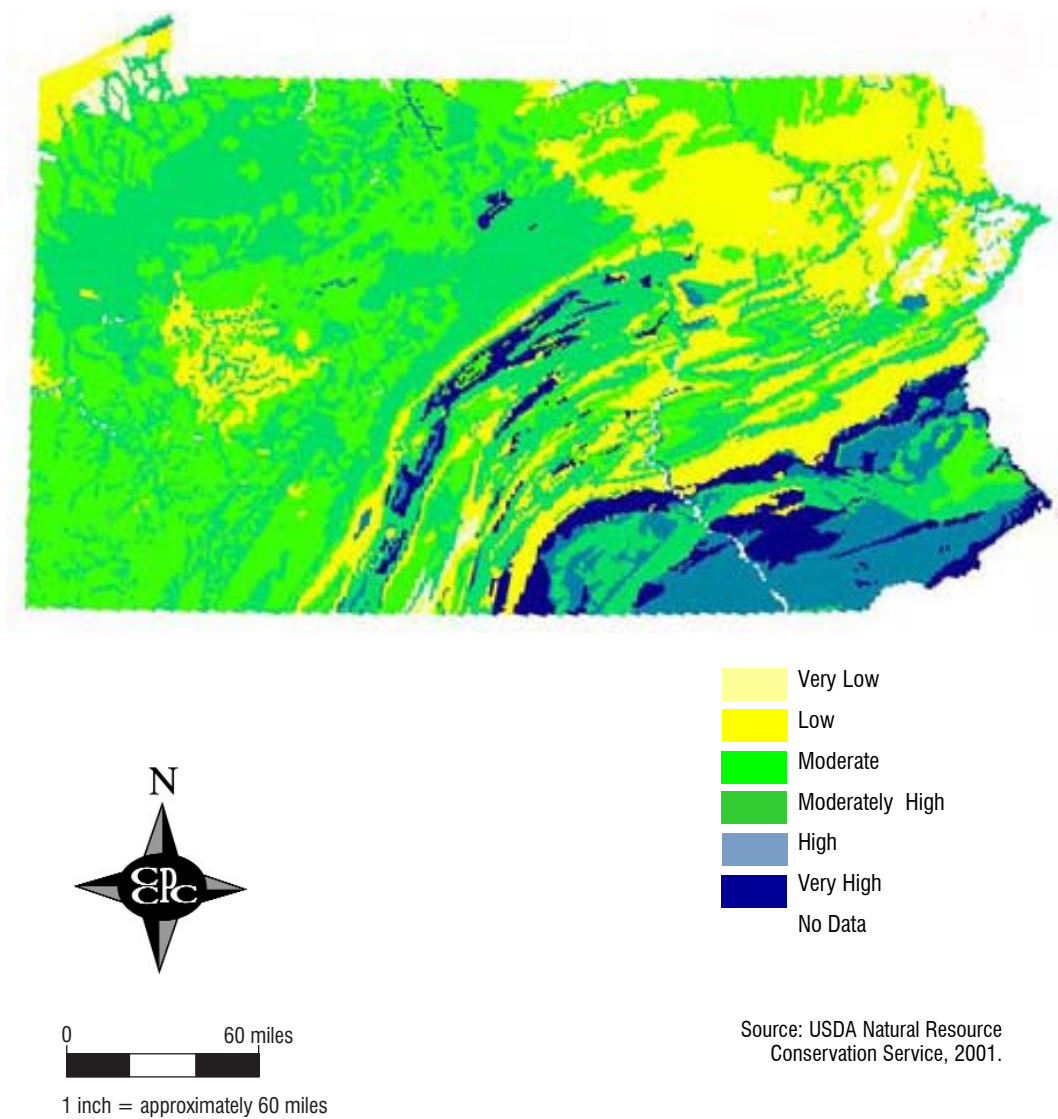
less fertilizer, irrigation, and conservation measures than most soils. The USDA also designates “soils of statewide importance,” which are also well suited for agriculture but have a narrower range of crop choices and may require increased conservation measures. These soils cover an additional 66,632 acres, or 14 percent of the County. Combined, prime agricultural soils and statewide important soils covered 60 percent of the County in 1963. There is currently no data on how much of these soils have been converted to urban or suburban development since then.

Chester County’s prime agricultural soils are also part of a much larger complex of extremely productive soils that extend through the piedmont region of southeastern Pennsylvania. These Piedmont Soils are labeled as “High” and “Very High Soil Productivity” soils in *Figure 9.2*. This productivity measurement is based on corn production. The piedmont soils region extends from southern Bucks County, PA east to York County, PA and into Maryland. The largest concentration of these soils is in Chester, Lancaster and York Counties. Lancaster County is almost entirely covered by these soils, and the northern half of Lancaster County is covered with an especially productive variety of these soils.

The productivity of the soils of southeastern Pennsylvania is also due to the region’s climate. The piedmont region has consistent and abundant rainfall, and as a result its farmlands do not require extensive irrigation. According to the *Geology, Hydrology and Groundwater Quality of Chester County* published by the USGS in 1994, Chester County has a humid, modified continental climate with a normal precipitation of 45.73 inches annually. In general, precipitation is evenly distributed throughout the year, with slightly more occurring in July and August. The average annual temperature in the County is usually just above 50 degrees Fahrenheit, with a typical average annual range of 30 to 75 degrees.

Figure 9.3 lists how the counties of southeastern Pennsylvania rank nationally for a number of agricultural indicators listed in the most recent Census of Agriculture compiled in 1997. This table demonstrates how southeastern Pennsylvania, including Chester County, contains the largest concentration of highly productive non-irrigated soils in the nation. Only a few other regions, such as San Joaquin Valley of California, are more productive than southeast Pennsylvania, but they must be irrigated requiring a major water transportation infrastructure.

The soils of the Pennsylvania piedmont are also some of the most profitable in the nation. The farmers of the piedmont region do not have to pay for extensive irrigation, which lowers operating costs. Most of the nation’s top producing agricultural counties must rely on irrigation. The fact that southeastern Pennsylvania is within a day’s drive of many of the nation’s largest urban centers also means that produce transportation costs are lower, which again increases overall profitability. According to

Figure 9.2: Pennsylvania Soil Corn Yields

the 2000 Census, the population of Pennsylvania and its six surrounding states is over 281 million people, or 20.9 percent of the whole nation.

By protecting farmlands in Chester County, municipalities and other organizations are also protecting Pennsylvania's piedmont soils, a vast unique natural feature that spans throughout the region. The soils of southeastern Pennsylvania are an enormous natural feature that can be compared to the Everglades of Florida or the redwood forests of Northern California. Because these soils are underground and cannot be seen, they are not always appreciated by those outside the farm community. However it is important for the broader public to be made aware of national significance of these soils, and the many benefits that can be derived from preserving them for future generations.

Figure 9.3: 1997 Census Agriculture County Rankings

Lancaster County, PA ranks as the 2nd highest County in the nation in terms of farms with sales of \$100,000 or more. Three of the top four counties in this category are Fresno, Tulare and San Joaquin Counties in California. No other counties in the mid-Atlantic region rank in the top 100 nationally for this category except Berks County, PA, which ranks 84th.*

Lancaster County, PA ranks as the 4th highest County in the nation in terms of the number of farms. The leading three counties are Fresno, Kern and Tulare Counties in California. Only one other county in the mid-Atlantic Region ranks in the top 100 nationally for this category, namely York County, which ranks 82nd.*

Lancaster County ranks as the 15th leading county in the nation in terms of market value of agricultural products sold. The leading three counties are Fresno, Kern and Tulare, all in California. Only two other mid-Atlantic region counties are listed in the top 100 nationally for this category, namely Chester County, PA which ranks 50th nationally, and Berks County, PA which ranks 90th nationally.*

The top four counties in the nation in terms of area with irrigated land are Fresno, Kern, Tulare and San Joaquin Counties in California. No Pennsylvania counties are listed in the top 100 nationally for this category.*

Lancaster County measures 983 square miles and yet in terms of agricultural activity it ranks nationally along side much larger California counties such as Kern (8,161 sq. mi.), Fresno (6,018 sq. mi), Tulare (4,839 sq. mi.) and San Joaquin (1,426 sq. mi.).**

Source: *USDA 1997 Census of Agriculture

** Environmental System Research Institute, Inc. 1998.

Protecting Farmlands as Open Space Protects Rural Communities

When municipalities or other organizations protect farmlands as open space, they are protecting the open space benefits of the farmlands and the unique Pennsylvania piedmont soils. Furthermore, protecting farmlands also helps to protect Chester County's rural communities. These rural communities are low-density areas whose landscapes and economy are greatly influenced by farm operations and the agricultural industry. In order to understand Chester County's rural communities it is therefore important to understand the role that the agricultural industry plays in Chester County.

For most of the County's history, farmlands were its dominant land use, but this is no longer the case. According to the most recent Census of Agriculture published in 1997, there were 175,363 acres of farmland in the Chester County, which represented 36 percent of the County's area. This farmland was distributed over 1,424 farms, with an average farm size of 123 acres. The predominant agricultural land use in the County is still cultivated fields despite that fact that mushroom sector produces the most sales. Mushrooms are grown in houses called "doubles." As of 1997 there were \$342.9 million in total agriculture market sales in Chester

County. Mushroom production alone grossed over \$205 million in market sales, or 60 percent of the gross of the County's total agricultural sales.

According to the 1997 Agricultural Census, 6,720 hired farm labor workers were employed in Chester County, which was 3.1% of the County's total 1997 employment as determined by the Pennsylvania Department of Labor and Industry. According to the U.S. Department of Commerce, Bureau of Economic Development 1997 measurement of jobs by place of employment, 1.7% of Chester County jobs were in agricultural services and 2.2% were in farms.

Figures 9.4 through **9.7** provide information on farms and farm operators in Chester County. These tables are based on data gathered by the Census of Agriculture from 1982, 1987, 1992 and 1997. The U.S. Bureau of the Census produced the Census of Agriculture until 1997, when the USDA assumed responsibility. The 1997 Census of Agriculture also made changes to the terms used to define agricultural production. For example, in the 1992 Census "Christmas tree farms" were not regarded as agriculture, but these operations were included as agriculture for the 1997 Census. As a result, it is not always appropriate to compare 1997 Census data with data from previous years.

As **Figure 9.4** indicates, agriculture has been declining steadily over the past few decades, primarily as a result of farmlands being converted to residential or commercial developments. Between 1982 and 1992, Chester County lost 43,337 acres of farmland, which is equal to 19.7% of all the farmland that was present in 1982. At this rate, all of the farmlands in Chester County's would be lost by the year 2032. A total of 60 percent of the soils covering farms in Chester County are prime agriculture soils or soils of statewide importance. It is therefore safe to assume that at least 60 percent of the 43,337 acres lost since 1982 were covered with these especially productive soils.

Figure 9.4: Features of Farms in Chester County

Farm Feature	1982	1987	1992	1997
Number of Farms	1,825	1,573	1,367	1,424
Land in Farms (in acres)	219,980	189,943	176,643	175,363
Percent of County in Farms	45%	39%	37%	36%
Average Size of Farm (in acres)	121	121	129	123
Total Cropland (in acres)	166,295	147,535	136,827	139,405
Market Value of Products Sold (mil.)	\$206.2	\$234.6	\$282.6	\$342.9

Sources: U.S. Bureau of the Census, 1982, 1987 and 1992 Census of Agriculture.
USDA, 1997 Census of Agriculture.

Figure 9.5 shows that the total value of crops produced in Chester County has continued to rise throughout the last two decades, and that mushroom production has consistently accounted for over 75 percent of the crop value. Based on the data in *Figure 9.6*, livestock production has had limited growth in the 1980s and 90s, with dairy products as the dominant segment.

Figure 9.5: Value of Crops Produced in Chester County

Crop	1982 (millions)	1987 (millions)	1992 (millions)	1997 (millions)
Grains	\$12.6	\$9.4	\$12.2	\$14.2
Tobacco	\$0.5	\$0.5	\$0.8	\$1.5
Hay, Silage & Field Seeds	\$3.1	\$3.2	\$3.5	\$4.9
Vegetables, Sweet Corn & Melons	\$0.4	\$0.5	\$1.2	\$1.0
Fruits, Nuts & Berries	\$1.0	\$1.1	\$1.1	\$1.2
Mushrooms	\$103.4	\$125.9	\$165.0	\$205.7
Nursery & Greenhouse Crops (except Mushrooms)	\$11.4	\$19.7	\$20.2	\$36.4
Other Crops	\$0.3	\$0.4	\$0.4	\$0.9
Total	\$132.7	\$160.7	\$204.3	\$265.7

Sources: U.S. Bureau of the Census, 1982, 1987 and 1992 Census of Agriculture.
USDA, 1997 Census of Agriculture.

Figure 9.7 provides information on farm operators in Chester County over the past two decades. This table indicates that the percent of farms owned by the farmer has remained consistent at around 50 to 60 percent. Likewise, individual and family farms have constituted 75 to 85 percent of all farms. However, farmers who have farming as their principal occupation, dropped 18.6 percent from 1982 to 1992. Chester County is one of the state's most productive agricultural counties, which is largely due to the fact that it is underlain by the nationally significant piedmont soils of southeastern Pennsylvania. According to the 1997 Census, the market value of "agricultural products sold, total sales" was \$142 million. In Pennsylvania only Lancaster, York and Berks County ranked higher in this category. The 1997 Census also showed that Chester County had 495 farms with annual value of sales of \$100,000 or more. Only Lancaster, Franklin and Berks Counties ranked higher in this category statewide.

Figure 9.6: Value of Livestock, Poultry and Their Products Produced in Chester County

Livestock, Poultry and Their Products	1982 (millions)	1987 (millions)	1992 (millions)	1997 (millions)
Poultry & Poultry Products	\$11.0	\$10.3	\$9.7	\$9.5
Dairy Products	\$42.9	\$41.9	\$45.7	\$47.5
Cattle & Calves	\$9.0	\$12.7	\$12.6	\$10.3
Hogs & Pigs	\$3.9	\$2.4	\$2.5	\$0.6
Sheep, Lambs & Wool	\$0.08	\$0.2	\$0.2	\$0.2
Other Livestock and Livestock Products	\$6.7	\$6.5	\$7.5	\$9.0
Total	\$73.5	\$73.9	\$78.3	\$77.1

Sources: U S. Bureau of the Census, 1982, 1987 and 1992 Census of Agriculture.
USDA, 1997 Census of Agriculture.

Figure 9.7: Characteristics of Farm Operators in Chester County

Characteristic of Farm Operators	1982	1987	1992	1997
Land in Farms (in acres)	219,980	189,943	176,643	175,363
Land Farmed by Renter (in acres)	88,961	83,041	88,277	89,151
Land Farmed by Owner (in acres)	131,019	106,902	88,366	86,212
% of Lands in Farms that are Lands Farmed by Owner	59.6%	56.3%	50.0%	49.2%
Farmers with Farming as Principle Occupation	1,136	1,035	925	912
Farmers with Another Job as Principle Occupation	689	538	442	512
Average Age of Farm Operator	49.9	50.6	51.3	52.2
Farms	1,825	1,573	1,367	1,424
Individual or Family Farms	1,475	1,280	1,057	1,116
% of Farms that are Individual or Family Farms	80.1%	81.4%	77.3%	78.4%

Sources: U S. Bureau of the Census, 1982, 1987 and 1992 Census of Agriculture.
USDA, 1997 Census of Agriculture.

Although farming is no longer the dominant economic sector in Chester County, the presence of farms in the County has been essential in creating and sustaining the County's recent economic prosperity. Over the last few decades, the U.S. economy has shifted away from heavy industrial manufacturing and towards the service and high tech sectors. These new businesses are no longer restricted to locate in only those communities that can accommodate a large factory or manufacturing plant. In this modern economy, many businesses are choosing to locate in communities that offer a high quality of life as a way to attract employees. Chester County's rural communities and rural landscapes provide just the kind of "employee friendly" environment that has led many large employers to relocate to the County in recent years. Simply put, the presence of farmlands in Chester County promotes employment even outside of the agricultural industry.

The Equine Industry

Chester County has a long tradition of breeding and riding horses, and equestrian sports are still popular. The 1997 USDA Census of Agriculture lists sales figures for "Horses and Ponies" in Chester County at \$8,768,000, making Chester County the leading Pennsylvania county in this category and one of only three counties in the state that exceeded \$1 million in sales. Statistics dealing with horse production, horse sales, and the sale of horsemeat are not included in the 1999-2000 edition of *Pennsylvania Agricultural Statistics*. This document is published every year by the Pennsylvania Agricultural Statistics Service, in cooperation with the US Department of Agriculture and the Pennsylvania Department of Agriculture.

Breeding horses, raising slaughter horses for human consumption, and the production of horsemeat for pet food are only parts of the larger equine industry in Chester County. Businesses that board and train horses, veterinarians that care for horses, slaughterhouses that prepare horsemeat, and dealers in riding supplies or "tack" are also parts of the equine industry. Because the equine industry includes both agricultural and non-agricultural components it can be difficult to classify properties with equine facilities as agricultural operations. In fact, there is no consensus among professional land use planners on this issue. Furthermore, the term "agriculture" is commonly defined differently by different County, state or federal agencies, laws and programs. Some agencies, laws and program will include certain equine industry activities as agriculture, while others do not.

The equine industry is important to Chester County, but not all sectors of the equine industry are consistently accepted as a form of agriculture. Because *Linking Landscapes* is not an agricultural policy plan, it does not include any recommendations or policies about which types of equine industry activities should or should not be defined as agriculture. *Linking Landscapes* only evaluates how well agricultural properties are protected

or have the potential to be protected from development, without discussing what kind of agricultural production occurs on the property. *Linking Landscapes* does however address recreational horseback and coach riding in **Chapter 12**, since it is permitted on some trails and paths at various locations throughout the County.

The Chester County Agricultural Easement Program

Until the 1980s, farmlands in Pennsylvania were commonly regarded as a kind of quasi-open space, and were not fully integrated into open space preservation efforts. However, during the 1980s, Lancaster County initiated a program to protect its farm properties by purchasing the development rights to farm properties that met specific criteria. Inspired by this success, the Commonwealth of Pennsylvania created the Statewide Agricultural Easement Program. This Program, created in 1989 by PA Act 149 and administered by the State Department of Agriculture, provided \$100 million in bond funds for the purchase of development rights on agricultural land. In 1993 a tax of two cents per pack of cigarettes was established to continue the funding for the Program and by 1998 the Program had purchased easements on over 1,000 farms statewide.

In July 1989, Chester County established the Chester County Agricultural Easement Program that allocated \$400,000 in County funds to match the state program. The Chester County Agricultural Preservation Board (ALPB) was created to oversee the County's Agricultural Easement Program. Since the first agricultural easement was purchased in 1990, the ALPB has protected over 12,000 acres of farm property in Chester County. Additional County funding has also been provided to continue the program.

The County program is administered in coordination with the State Program, and requires that farm properties meet the same requirements as the State Program. Both programs evaluate easement applications using the Land Evaluation Site Assessment (LESA) technique developed by the USDA. LESA evaluates farm properties based on soil type, slope and other features. For example, farms that have gently sloping prime farm soils receive higher scores when applying for the program, while farms with steeper topography receive lower scores. Farms must be located within an Agricultural Security Area in order to be considered for easements. This program has proven to be so successful that in most years there is not enough funding to purchase easements for all the eligible applicants. More information on the program is available at:

Chester County Agricultural Lands Preservation Board

Government Services Center
601 Westtown Road, Suite 270
West Chester, PA 19380
610-344-6285
www.chesco.org

Agricultural Technical Assistance Programs

There are a number of state and federal programs that provide technical assistance and other services to Chester County farmers. The USDA Farm Service Agency works with farmers to properly plan and manage the use of natural resources on their lands. The Chester County Conservation District provides assistance to farmers, as well as builders, contractors and developers, in implementing soil conservation. They are provided with technical support by the USDA Natural Resources Conservation Service, formerly called the Soil Conservation Service. The Cooperative Extension Service, a joint effort of the USDA, Pennsylvania State University and the County, provides information and educational programs dealing with agronomy, food science and agri-business. More information on these organizations is available at:

USDA Chester-Delaware County

Farm Service Agency

601 Westtown Road, Suite 280

West Chester, PA 19380

610-696-8750

Chester County Conservation District

Government Services Center

601 Westtown Road, Suite 240

West Chester, PA 19380

610-696-5126 or 610-436-9182

www.chesco.org/conserves.html

Natural Resource Conservation Service

Government Services Center

601 Westtown Road, Suite 381

West Chester, PA 19380

610-696-0398

Chester County/Penn State

Cooperative Extension

601 Westtown Road, Suite 370

West Chester, PA 19380

610-696-3500

chester.extension.psu.edu

During the early 1980s, the Chester County Commissioners established the Agricultural Development Council (ADC) to examine strategies for retaining agricultural land and agribusiness. The ADC consists of 11 appointed members and is administered by two County employees, who also work for the ALPB. The ADC assists farmers and municipal officials in establishing Agricultural Security Areas, and helps raise public awareness of the major role agriculture plays in the local economy. The ADC can be contacted at:

Chester County Agricultural Development Council
Government Services Center
601 Westtown Road, Suite 270
West Chester, PA 19380
610-344-6285
www.chesco.org

Agricultural Security Areas

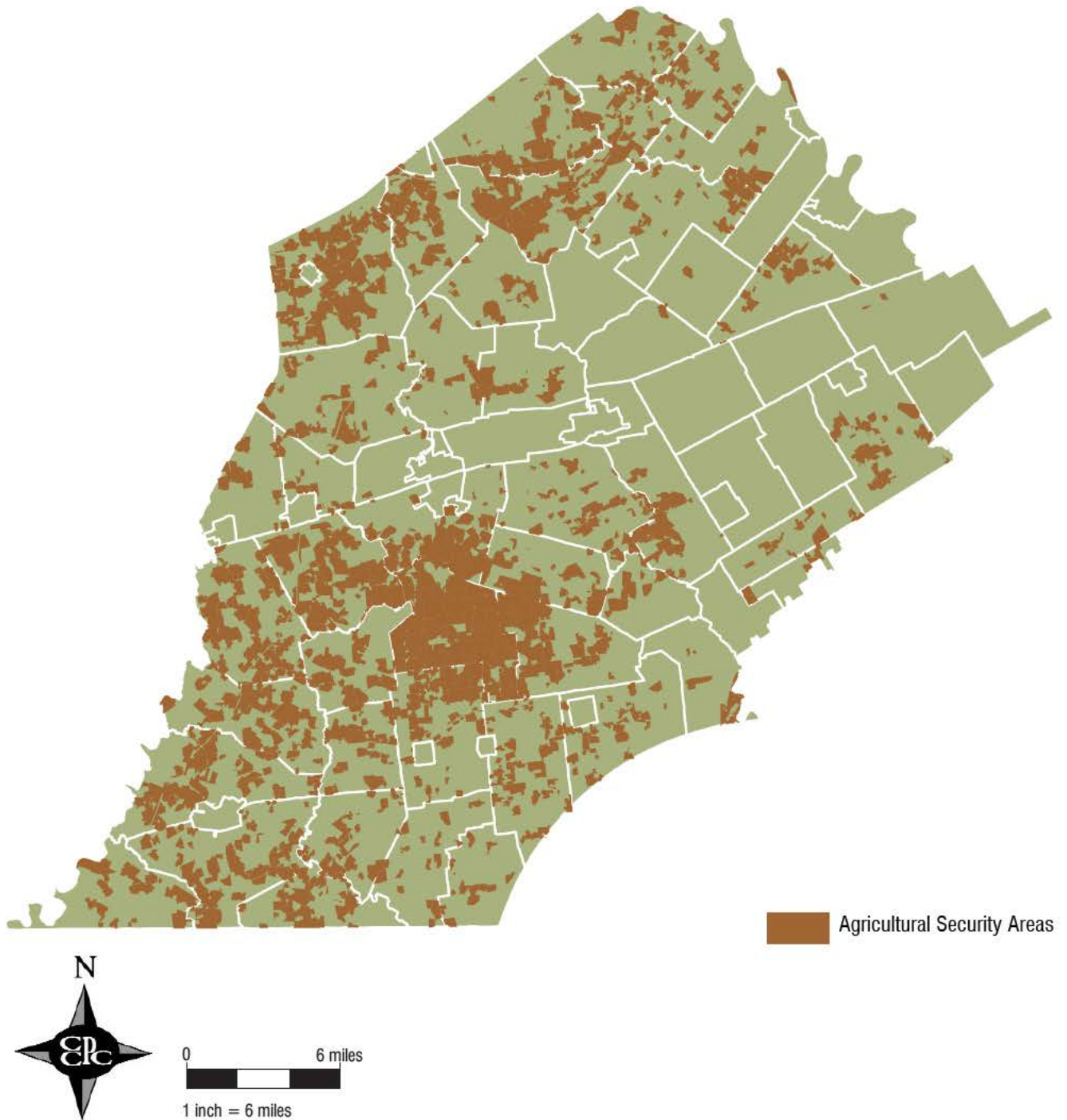
Inventory of Agricultural Security Areas

In 1981, the Commonwealth enacted PA Act 43, The Agricultural Security Law that permits municipal governments to designate an “Agricultural Security Area,” or ASA, within their municipality. PA Act 43 currently requires that each ASA consists of a minimum of 250 acres of productive farmland. The ASA can be composed of any number of parcels, and the parcels do not need to be contiguous. An ASA can only be established within a municipality after one or more farmers request that an ASA be created, and show that the proposed ASA fulfills the requirements of Act 43. A farm can also be enrolled in the ASA of a nearby municipality, if no ASA exists in that farm’s municipality. Farm properties enrolled in ASAs within Chester County are presented in *Figure 9.8*.

Once an ASA is adopted, local governments may not pass ordinances that unreasonably restrict farm structures or practices within the ASA. Act 43 prevents municipalities from defining agricultural activities and operations as a “public nuisance,” or prohibiting those activities within the ASA. For example, a municipality’s ordinances can not define the term “public nuisance” to include unpleasant farm related odors or early morning animal noises that are generated on a farm within an ASA. Furthermore, farmlands within an ASA can only be condemned after the condemnation is approved by the Agricultural Condemnation Approval Board (ALCAB). This Board is composed of representatives of state agencies, elected officials and farmers. Perhaps the most significant element of the ASA program is that farmers must enroll their farmland within an ASA in order to sell an agricultural conservation easement to the state under the Agricultural Conservation Easement Program.

Evaluation of Agricultural Security Areas

ASAs are located throughout Chester County except for the more developed central eastern suburbs. Although there are no data regarding the religion of farmers enrolled in ASAs, it is generally recognized that farmers belonging to Plain Sects such as the Amish are under represented in ASAs. Although the ASA program has been successful, some municipal

Figure 9.8: Agricultural Security Areas as of 2000

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Source: Chester County ADC, 2000.

officials are still unaware of the role an ASA can play in protecting farmland, or the procedures they must undertake to change or enlarge an ASA.

The Planning Commission, in coordination with the ADC and ALPB, has been inventorying and mapping ASAs within the County using digital mapping since 1998. This information is especially valuable to the ALPB for targeting farmlands that are within an ASA, and thus are eligible for conservation easements. Because the mapping is digital it can be updated frequently, an important feature since farmland parcels are continually being added and removed from ASAs. Involvement with this mapping effort is voluntary, and could be improved if all municipalities provided updated ASA information in a timely manner.

There is a popular misconception in many parts of Chester County that a farmland that is enrolled into an ASA is protected from condemnation and all forms of development. In fact, farmland located in an ASA may be condemned after approval by the ALCAB. Furthermore farms within an ASA can be withdrawn from the ASA by the landowner at any time and then be sold or developed. Any municipality or other organization that wishes to protect its rural landscapes must recognize that the vast majority of the County's farmlands are not protected from development. Even farmland that is within an ASA is not protected. Communities should never assume that a farmland parcel will provide open space benefits over the long term unless the parcel has an agricultural conservation easement or some other form of easement.

Visions & Actions **for Agricultural Security Areas**

Vision 9.1

Municipalities should provide the Planning Commission with information on changes to ASAs in a timely manner to facilitate regional coordination by the ADC and ALPB.

Action 9.1

The County will study the feasibility of improving the way it gathers and updates information on changes to ASAs.

Vision 9.2

All landowners in Chester County who wish to use their land for agriculture on a long term basis should enroll their property into an ASA.

Action 9.2

The County will request that the ADC study the feasibility of increasing enrollment in ASAs and set an annual target for increasing the acreage of farmlands enrolled in ASAs.

Vision 9.3

The percentage of the total County ASA acreage that is owned by Plain Sect farms should match the percentage of total County farm acreage owned by Plain Sect farmers.

Action 9.3

The County will request that the ADC study the feasibility of increasing Plain Sect enrollment in ASAs and set an annual target for increasing the acreage of Plain Sect-owned farmlands enrolled in ASAs.

Vision 9.4

Municipal officials should fully understand the procedures for establishing and altering ASAs.

Action 9.4

The County will request that the ADC study the feasibility of educating municipal officials regarding the administration of ASAs.

Agricultural Easements

Inventory of Agricultural Easements

In 1988, the Commonwealth enacted PA Act 149, which created the Agricultural Conservation Easement Program. This program enables a county to create an Agricultural Land Preservation Board (ALPB), and permits landowners to sell the development rights of their property through the ALPB to either the Commonwealth, the County, their municipality, or any combination of these government entities. Once the development rights are sold, the government owns an “agricultural conservation easement,” on the property. (The various types of conservation easements are discussed in detail in *Chapter 6*.) Information on the state agricultural conservation easement program is available at:

PA Department of Agriculture

Bureau of Farmland Preservation
2301 North Cameron Street
Harrisburg, PA 17110
717-783-3167
www.pda.state.pa.us

A farmer who sells an agricultural conservation easement gives up the right to develop his or her property, which lowers the value of the property and in some cases can lower the farmer’s property taxes. The farmer

can still continue profitable farming, and because the value of the farmland is lowered, it can be passed on to the farmer's children with a reduced inheritance tax. The farmer may sell the property, but the new owner must continue to practice agriculture and may not develop the property. Farmers receive a payment in cash when they sell an agricultural conservation easement, which is limited by the state to a maximum of \$10,000 per acre. Under certain circumstances, the program also allows farmers to use the money they are paid for their easements to purchase other productive land, with a reduction in their taxes.

The Pennsylvania Agricultural Easement Program was first implemented in 1988 following a \$100 million bond issue approved by the voters in a statewide election in 1987. In 1990, the Chester County ALPB began to purchase agricultural conservation easements using a combination of state funds and funds provided by the Chester County 1989 Open Space Bond. The 1989 Bond stipulated that 24% of the \$50 million bond fund would be reserved for farmland preservation.

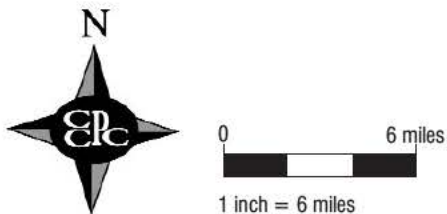
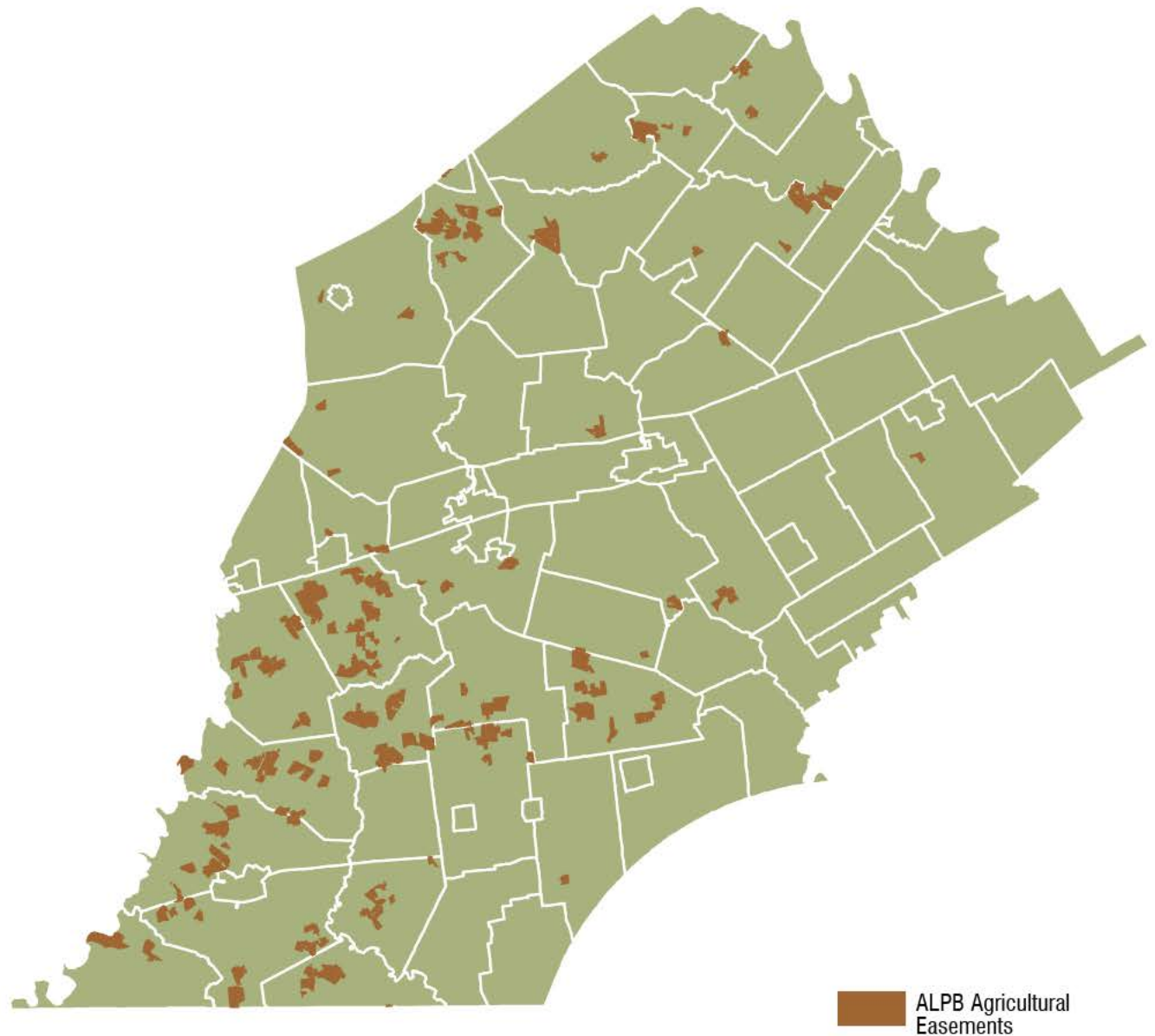
As of the end of 2000, the Chester County ALPB had purchased 11,712 acres of easements at a rate of 1,065 acres per year. The total cost of these 11,712 acres of easements was \$44,374,726, which amounts to an average cost of \$3,789 per acre. From 1990 through 2000, Chester County funded 39 percent of these easements with the state covering the remaining 61 percent. **Figure 9.9** presents all the parcels that contain ALPB easements. In many cases, the ALPB has only purchased an easement that covers part of a parcel. As a result, the actual acreage protected by ALPB easements is somewhat less than the acreage of the parcels presented in **Figure 9.9**. The Chester County ALPB has also worked with non-profit land trusts to develop a coordinated approach for purchasing conservation easements on farm parcels within the County.

A farm can only operate profitably if it has access to nearby farm support services such as farm equipment dealers, livestock supplies, and seed and chemical suppliers. Farm support services can only be profitable if there is a large enough number of nearby farms to patronize them. As a result, farms must be preserved as a cluster of farms in order to be viable. It is difficult for an isolated farm to be protected from development and remain a viable business. For this reason the ADC and ALPB have made it a priority to establish clusters of farms protected by agricultural conservation easements.

Evaluation of Agricultural Easements

Farmland parcels with ALPB agricultural conservation easements are located throughout Chester County except for the more developed eastern suburbs. Although there are no data regarding the religion of farmers who have sold easements, it is generally recognized that only a few farmers belonging to Plain Sects such as the Amish have become involved with this program. Because there is currently no countywide agricultural

Figure 9.9: Parcels with ALPB Agricultural Conservation Easements as of 2000



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Source: Chester County ALPB, 2000.

plan, goals for promoting or protecting Plain Sect farmlands, or any other element of the County's agricultural industry have not been determined.

Because the agricultural conservation easement program focuses on preserving prime agricultural soils, which are usually found on more level topography, farms with steep or rolling topography are much less likely to be considered for an easement. However, within Chester County there are a number of farms located on rolling topography, which have the potential to be highly productive if properly managed. Such farms could greatly benefit from an agricultural conservation easement of some kind.

Visions & Actions **for Agricultural Easements**

Vision 9.5

An easement program should be established to protect farms that are located on topography that is so rolling that these farms are likely to rank low when applying to the existing easement program administered jointly by the state and County.

Action 9.5

The County will study the feasibility of establishing a locally administered program for purchasing agricultural easements on farms that are located on topography that is so rolling that these farms are likely to rank low when applying to the existing easement program administered jointly by the state and County.

Vision 9.6

Funding should be available to all qualified landowners who wish to sell agricultural easements to the Chester County ALPB.

Action 9.6

The County will request that the ALPB study the feasibility of pursuing alternative funding for the purchase of agriculture conservation easements.

Vision 9.7

The percentage of the farms in the County with agricultural conservation easements owned by Plain Sect farms should match the percentage of total farms in the County owned by Plain Sect farmers.

Action 9.7

The County will request that the ALPB study the feasibility of increasing Plain Sect participation in the agricultural conservation easement program and setting annual targets for increasing Plain Sect participation.

Vision 9.8

The County should have a countywide agriculture development plan to coordinate agricultural production and the preservation of farmland in Chester County.

Action 9.8

The County will request that the ADC and ALPB prepare or sponsor a countywide agricultural development plan.

Vision 9.9

Farms with agricultural conservation easements should be situated in clusters of at least 750 to 1,000 acres.

Action 9.9

The ALPB will continue to make it a priority to purchase easements that create clusters of protected farmland consisting of at least 750 to 1,000 acres.

Farm Preservation Initiatives

Inventory of Farm Preservation Initiatives

This section presents an inventory of state and federal programs or policies that can be used by farm owners to protect or more economically maintain their property. More information on ways to protect farmland are presented in the *Community Planning Handbook: A Toolbox for Managing Change in Chester County*, which was prepared by the Planning Commission in 1997 and updated in 1999. It is available at the Planning Commission office. Information on a variety of farmland preservation issues is also available from:

American Farmland Trust

1200 18th Street NW
Suite 800
Washington, DC 20036
202-331-7300
www.farmland.org

■ Federal Farmland Protection Policy Act of 1981 (7 USC. 4201)

The Farmland Protection Policy Act (FPPA) of 1981 is a federal mandate that applies to federally funded projects that might convert farmland to nonagricultural uses. The FPPA directs federal agencies to consider how their projects might impact preservation of farmland, and consider alter-

native actions that could lessen adverse effects. Federal agencies are also directed to assure that their programs are compatible with state, local and private efforts to protect farmland. This act has a limited value throughout most of the County because it does not cover any farmland that is zoned for a nonagricultural use. As of March 2001 the only municipalities in Chester County municipalities that had adopted effective agricultural zoning were West Fallowfield and West Marlborough Townships. This type of zoning effectively limits land use to agricultural production and so and it is only these two communities that could be effected by the FPPA.

■ **1996 Farm Bill and the Farmland Protection Program** In 1996 the Federal Agriculture Improvement and Reform Act of 1996, commonly called the 1996 Farm Bill, was signed into law. This legislation authorized most federal agriculture programs for fiscal years 1996 through 2002. Section 388 of the 1996 Farm Bill authorized the establishment of the Farmland Protection Program (FPP). The FPP provide funds to states, tribal and local governments to purchase development rights for active farmland. To qualify for these funds, farmland must meet criteria including the presence of prime, unique or other productive soil. The farmland must also be part of a pending offer from a state, tribe or local government, and have a conservation plan. The program is administered by the USDA.

In 1998 the entire \$35 million of FPP funds authorized by the 1996 Farm Bill was awarded to 52 government entities in 19 states. Pennsylvania received \$1.6 million, the second highest allocation of any state. Of this funding, \$1 million was allocated to the state and \$600,000 was allocated to Adams, Bucks, Chester, Lancaster, Lebanon and York Counties.

■ **Pennsylvania Governor's Executive Order 1997-6** Executive Order 1997-6 is similar to the FPPA in that it established policy for state agencies to protect prime agricultural land. Compliance with this order is now required for many state programs, such as the Keystone Fund recreation grants and transportation projects. This order directs state agencies to protect Pennsylvania's "primary agricultural land" from conversion to non-agricultural uses, and stipulates that state agencies should not use state or federal fund funds to encourage farm conversions if there is another feasible alternative.

■ **PA Act 247 of 1968, The Municipal Planning Code (MPC)**

The recently updated MPC permits agriculture to be protected through zoning. Section 604 of the Act states that "zoning ordinances shall be designed to preserve prime agriculture and farmland considering topography, soil type and classification, and present use." Zoning which encourages the preservation of farmlands, discourages their conversion into non-agricultural uses, and discourages the establishment of land uses that are incompatible with agricultural uses is referred to as "effective agricultural zoning." Zoning districts that are simply labeled "Agricultural" or "Rural" are generally not regarded as "effective agricultural zoning," because they do not provide enough protection of agricultural lands or operations.

West Fallowfield, and West Marlborough Townships are the only municipalities in Chester County that have effective agricultural zoning.

■ **PA Act 319 of 1974, the PA Farmland and Forest Land**

Assessment Act Act 319 allows counties to place two values on each parcel of farmland or forestland that is 10 acres or more in size. These values are known as the Fair Market Value and the Agricultural-Use Value, commonly called the “Clean and Green” Value. The Fair Market Value is based on the value that the land would have if it were put up for sale. By law, taxes are assessed based on this value. The Agricultural-Use Value considers the worth that a property would have if it were used for only agricultural purposes such as cropland, woodland, or pasture. In Act 319, the Agricultural-Use value is based on the agricultural productivity of the soil. Property enrolled in the program remains in the program continuously, or until the owner chooses to withdraw and return to the standard tax assessment.

Landowners who enroll in Act 319 agree to maintain their land as farmland or forest land, and in return, the County assesses their tax according to the Agricultural-Use Value, rather than the Free Market Value. In many areas that are undergoing development, the value of undeveloped land – and the taxes levied on that land – increases as the surrounding region is developed. When this situation occurs, the Agricultural-Use Value can be lower than the Free Market Value, and a landowner enrolled in Act 319 can pay a lower tax. As of March 2001, a total of 6,565 parcels in the County covering 189,439 acres were enrolled in Act 319.

■ **PA Act 515 of 1966** Act 515 is similar to Act 319 in that it provides farmers with a lower tax assessment for keeping their lands in agriculture, forest, water supply, or open space uses. With Act 515, the value of land is based on location size and use, and the owner has to renew his or her enrollment after 10 years. Under Act 515 the County enters into a covenant with the landowner in which the County agrees to lower the tax assessment by a pre-determined amount, if the owner agrees to not develop the land during the 10-year period. As of March 2001, a total of 1,104 parcels in Chester County covering 32,334 acres were enrolled in Act 515.

Evaluation of Farm Preservation Initiatives

Chester County has benefited from funds authorized by the 1996 Farm Bill, and from policies set forth in the Pennsylvania Governors Executive Order 1994-3. Farmers have also taken advantage of PA Acts 319 and 515 to lower their tax burden. Chester County has not however taken full advantage of the farmland protection techniques permitted by the Municipal Planning Code. To date only two municipalities in Chester County have adopted effective agricultural zoning. As of March 2001, there were over 30 municipalities with effective agricultural zoning in nearby Lancaster County. In 1997 Chester County ranked fourth among all the

state's counties, in term of total market value of agricultural crops, and yet it still only employs effective agricultural zoning in a small fraction of its municipalities. Because the FPPA only applies to municipalities that have effective agricultural zoning, most of Chester County cannot receive the full benefits of this federal farmland protection.

Visions & Actions **for Farm Preservation Initiatives**

Vision 9.10

Municipalities that wish to preserve agriculture as an industry should implement effective agricultural zoning.

Action 9.10

The County will work with municipalities that wish to preserve agriculture as an industry through the VPP to implement effective agricultural zoning to preserve agriculture.

Vision 9.11

Effective agricultural zoning should be implemented in municipalities where agriculture is the primary land use and a dominant contributor to the economy.

Action 9.11

The County will study the feasibility of implementing effective agricultural zoning in municipalities where agriculture is the primary land use and a dominant contributor to the economy.

Vision 9.12

Funding to protect farmland in Chester County should be acquired through federal sources whenever possible.

Action 9.12

The County will monitor federal funding projects for farmland protection, and lobby for funds to be included in the 2002 Farm Bill.

Vision 9.13

Chester County farmers should be aware of the options they have for reducing their tax burden through PA Act 319 and 515.

Action 9.13

The County will continue to publicize the benefits that farmers can derive from PA Acts 319 and 515.

Chapter 10



*Open Space Restoration
Opportunities*

Background

Introduction

When developing plans to protect a network of open space throughout a community, it is important for municipalities or other organizations to consider not just undeveloped parcels, but also existing developed properties that contain open areas. Many developed properties in Chester County include large open areas such as the stream corridors, lawns and vacant fields. These large open areas can be found on industrial parks, golf courses, college campuses, hospital grounds or other large properties. Given the extensive amount of development in Chester County, it is likely that any municipal or regional open space network could include trails or wildlife corridors that extend through the large open areas within existing developments.

When restored to more natural conditions, the large open areas on developed properties can provide many of the same ecological benefits provided by protected open spaces established for natural resource preservation. The mowed areas, vacant fields and wood lots on many college campuses and hospital grounds can be re-vegetated with native grasses and trees to provide animal habitat and improve groundwater recharge. The water features on golf courses and industrial parks can be restored to improve the habitat of aquatic life, and the wetlands surrounding these water features can be rehabilitated. Undeveloped lands owned by homeowner associations are also well suited for natural restoration because they are commonly established on woodlands, steep slopes or stream corridors. Even quiet properties such as cemeteries and landfills can be managed to provide habitat for animal species that are easily frightened by human activity.

The large open areas within some properties can also be used as the location of trails that can be used for recreation or bicycle commuting trails. The jogging paths and service roads within industrial parks can be modified and connected to municipal trails. Likewise, trails and paths can be established on undeveloped corridors and service roads on school campuses or homeowner association open spaces. Of course such recreational trails might not be appropriate for certain properties, such as hospitals which need quiet, or golf courses where golf balls are sometimes hit off target.

The following chapter includes an inventory of those properties in Chester County that contain large open areas that could be restored to provide natural habitat or used as the location of recreational trails or paths. Some of these properties are privately owned, while others are owned by school districts, municipal authorities or other public entities. Of course, the inventory presented in this chapter is not exhaustive, and there may be properties within Chester County that contain large open areas that are not presented in this chapter. Individuals who want more

information on a specific property should contact its owner. A discussion of the techniques that can be used to add vegetation to existing developments or to restore undeveloped areas to more natural conditions are presented in *Chapter 15*.

Homeowner Association Open Spaces

Inventory of Homeowner Association Open Spaces

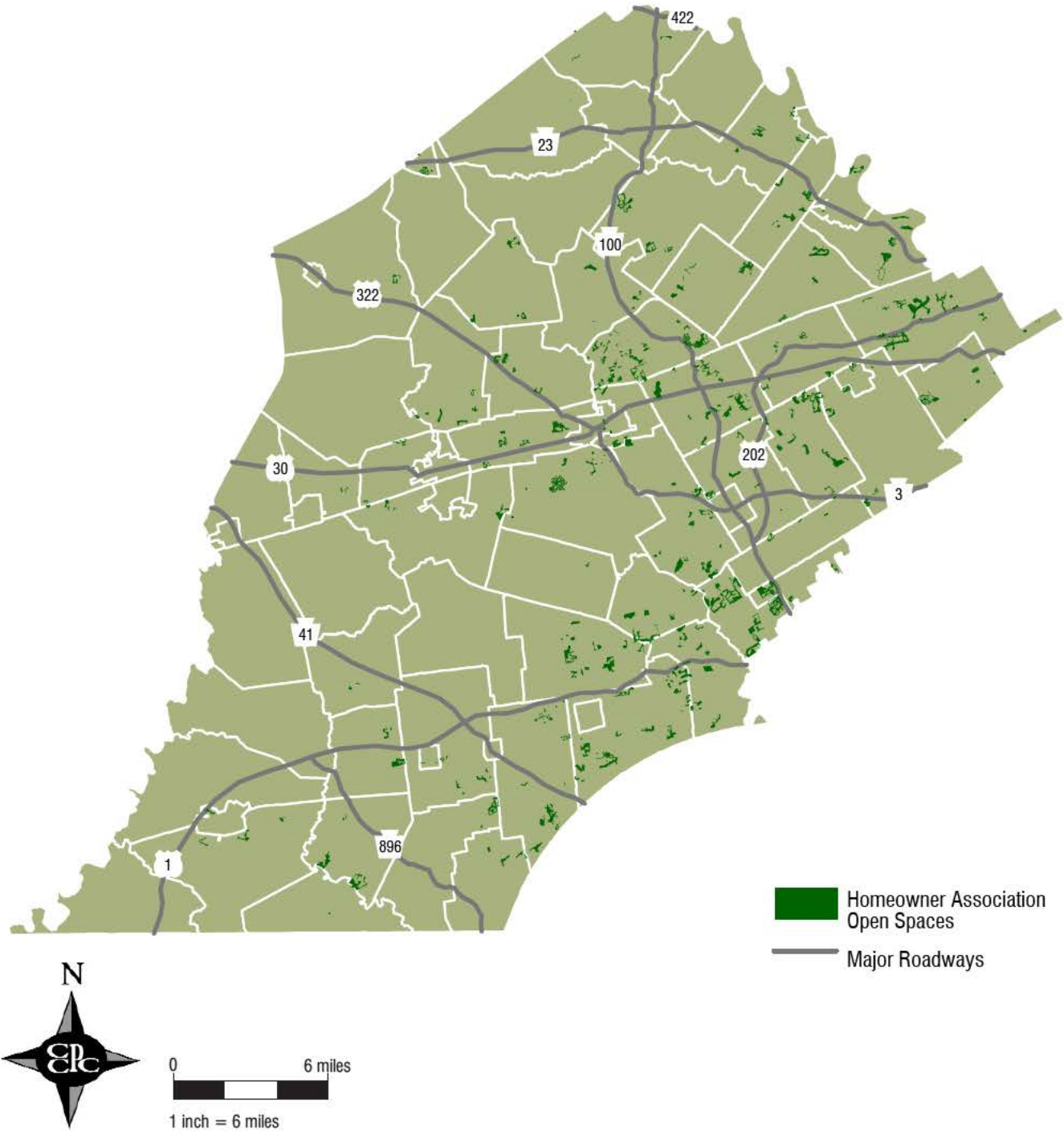
In recent decades, it has become common for developers to set aside the land between houses or apartment buildings as “common open space” which is maintained by the resident’s homeowners association (HOA). This land is often along a hill or stream valley, where it is impractical to build structures. Some municipalities have adopted ordinances that require developers to designate a certain percentage of new developments as common open space, or pay a fee to be used for preserving open space. *Figure 10.1* shows the parcels in Chester County designated by the County Bureau of Land Records as “HOA Open Space.”

Evaluation of Homeowner Association Open Space

The overwhelming majority of HOA parcels in Chester County are oddly shaped gerrymanders that wrap around residential units and parking lots. Their unusual shape provides opportunities for the creation of links between protected open spaces. A prime example of this is in Tredyffrin Township, where HOA open space parcels link Valley Forge National Historic Park with municipal parks and properties owned by a non-profit land trust. HOA open space parcels are private properties, many of which are protected from development by municipal ordinances. In some cases they are also protected by conservation easements.

It is extremely unlikely that any HOA open space will ever be developed because it is unlikely the homeowners of the development would permit the development of land previously set aside for their communal use. HOA open space parcels can therefore be regarded as protected open space. There are currently 5,301 acres of HOA open space parcels within the County.

HOA open spaces have many of the same physical characteristics as public recreational parks or non-recreational open spaces, and if they are properly managed they can provide many benefits to their surrounding community. Playgrounds and internal loop trails can be established on

Figure 10.1: Homeowner Association Open Spaces

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Source: CCPC, 2001.

HOA open spaces to serve the development's residential population. Trails within HOA open spaces can also be linked to municipal trails that lead to recreational open spaces outside the development such as parks and playgrounds. Of course, HOA open spaces are not public property and are not always open for use by the general public. It is therefore necessary for any municipality or other organization to resolve any public access issues before they link a public trail to a trail in an HOA open space.

Many HOA open spaces are located on steep slopes and along stream corridors with wetlands, and so may be unsuitable for recreational use of any kind. Those HOA open spaces that contain naturally sensitive environmental features or woodlands are best suited to be managed as wildlife habitat. HOA open spaces adjacent to existing protected open spaces established as nature preserves could even be used as wildlife corridors. Preserving wildlife in an HOA open space can also provide economic benefits to the developments residents. The scenic views and wildlife watching opportunities of naturalized HOA open spaces can sometimes increase the value of the surrounding residences.

Visions & Actions **for Homeowner Association Open Space**

Vision 10.1

New developments in the County should contain HOA open space, except where impractical, and HOA open space should be designed to link developed communities to existing protected open spaces, except where impractical.

Action 10.1

When reviewing land development plans, zoning and subdivision ordinances, open space and recreation plans, and comprehensive plans, the County will provide comments and recommendations on the extent to which developments include or have the potential to include HOA open space.

Vision 10.2

HOA open space should be managed either to restore wildlife habitat or better facilitate recreational activities.

Action 10.2

The County will study the feasibility of developing a handbook of open space Best Management Practices for Homeowner Associations, perhaps through the County Conservation District.

Vision 10.3

HOA open space should be maintained according to a management plan either to restore wildlife habitat or better facilitate recreational activities.

Action 10.3

The County will work with municipalities through the VPP to include language into municipal planning documents that addresses how HOA open space should be maintained according to a management plan either to restore wildlife habitat or better facilitate recreational activities.

Vision 10.4

Homeowners Associations should be aware of techniques they can use to restore HOA open space.

Action 10.4

The County will study the feasibility of publicizing open space Best Management Practices for Homeowner Associations, perhaps through the County Conservation District.

Cemeteries

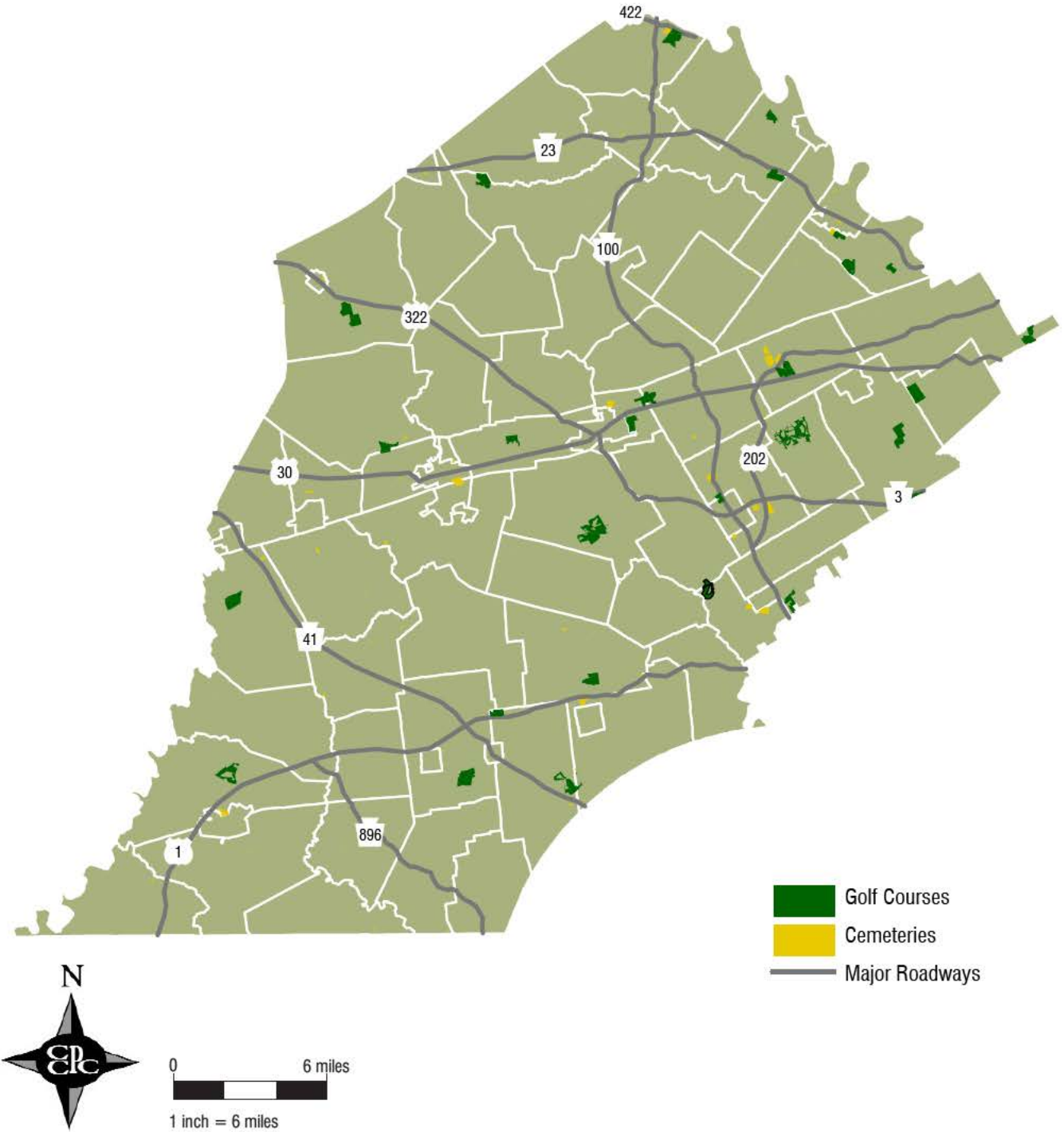
Inventory of Cemeteries

During the later part of the 19th Century, cemeteries were commonly used for picnicking and public recreation. Throughout the 20th Century however, attitudes toward burial grounds changed, and most cemeteries now limit access to the general public. The map in **Figure 10.2** presents all of the cemeteries and burial grounds within Chester County, according to records maintained by the County Bureau of Land Records.

Evaluation of Cemeteries

As **Figure 10.2** shows, most of the cemeteries in Chester County are small parcels. These small cemeteries are often associated with nearby churches. The County's larger burial grounds are mostly located in the eastern suburban communities. Under Pennsylvania law, it is very difficult for a government entity to acquire or condemn cemetery property. General cultural attitudes also discourage the disturbance of gravesites. As a result of these two conditions, it is highly unlikely that any established cemetery in Chester County will ever be developed for other uses.

Figure 10.2: Cemeteries and Golf Courses as of 2000



The data and files for maps in this document were digitally compiled by the Chester County Planning Commission (CCPC) of Chester County, PA. This information and data are provided for reference purposes only and should not be used for any detailed engineering purposes. The CCPC and Chester County make no claims as to the completeness, accuracy, or currency of the paper map or the digital data and files used to generate the map.

Source: CCPC, 2000.
ADC of Alexandria Inc.,
Chester County Street Map.

Visions & Actions for Cemeteries

Vision 10.5

Land uses surrounding cemeteries should not conflict with the quiet environment needed at burial grounds.

Action 10.5

When reviewing land development plans, zoning and subdivision ordinances, open space and recreation plans, and comprehensive plans, the County will provide comments and recommendations on the presence of any conflict between cemeteries and surrounding land uses.

Vision 10.6

Cemeteries should be linked to protected open spaces, except where impractical.

Action 10.6

The County will provide maps showing cemeteries and burial grounds to municipal offices and land trusts with holdings in the County.

Golf Courses

Inventory of Golf Courses

Although most of the golf courses in Chester County are privately owned commercial businesses, they possess manicured landscapes that have many of the same features of natural open meadows. The map in *Figure 10.2* presents the 28 golf courses that were in operation in the County as of September 1999. More recent mapping of golf courses is not currently available.

Evaluation of Golf Courses

There has been a boom in golf course development in Chester County in the last two decades. From 1981 to 1999, the number of golf courses nearly doubled, rising from 15 to 28, with 10 opening since 1990. *Figure 10.3* lists the number of golf courses that have been built in Chester County from 1981 to 1999. This table includes golf courses that cross into Chester County, but not ones adjacent to the County or within close proximity. Available mapping indicates that a total of 18 golf courses are located just outside Chester County as of 1999, and so Chester County

residents are served by a total of 46 golf courses. Mapping of golf courses opened in and near Chester County after 1999 is not yet available.

Figure 10.3 shows that the number of golf courses in Chester County has increased at a higher rate than the population as a whole. Assuming that there were 15 golf courses in the County in 1980, it would appear that golf courses have increased 86.7 percent by 1999, while the population only rose 35.8 percent. A more detailed evaluation of the market for golf courses would be required to determine how many golf courses can be supported by golfers in Chester County and the region. If the region were to become over saturated with golf courses, market forces would drive some of them out of business. In all likelihood, any defunct golf course would be redeveloped into residential or commercial development.

Figure 10.3: Golf Courses in Chester County 1981 to 1999

Year	Number of Golf Courses in Chester County	Golf Courses per Square Mile	Population or Population Estimates	Persons per Golf Course
1981	15	0.020	316,660	21,111 (1980)
1990	18	0.024	376,396	20,911
1995	22	0.030	403,722	18,351
1999	28	0.037	430,001	15,357

Sources: 1981 Golf Courses – CCPC, 1982, Chester County Open Space and Recreation Study
 1990 to 99 Golf Courses – County Maps published by ADC Inc of Alexandria, VA, 1990, 1995 and 1999.
 County Area – Environmental Systems Research Institute, 1998.
 1990 Population – US Census Bureau
 1995 and 1999 Population Estimates – US Census Bureau

Many of the new golf courses in Chester County have been developed as part of a planned residential “golf course community” in which houses or apartments surround each fairway. In these communities, the golf course serves as a recreational facility, a scenic viewshed, and a sound and visual buffer. Golf course communities have been quite popular; attracting homebuyers by offering them all the amenities of living near a golf course. Given the popularity of golf and golf course communities, the number of golf courses in Chester County is likely to continue to increase.

Golf courses are commonly developed along natural stream corridors, and streams cross many of the courses in Chester County. Golf course designers use the streams and ponds on their property as water hazards. These water features add complexity to the course, increasing the challenge for the golfers and adding to the economic value of the course. The stream banks and pond shores on golf courses are usually mowed and cleared of

all woody vegetation. This land management discourages wetland vegetation, promotes storm water runoff and inadvertently provides an ideal habitat for Canada geese.

Canada geese were once a threatened species, but in the past few decades, their population has experienced such a boom that they are now regarded as a pest species whose foraging habits and scat are damaging to lawns and local ecosystems. To reduce these problems, golf course designers and managers can design or redesign, and vegetate areas around streams and ponds as recommended in the Chester County Water Resources Management Plan. This Plan recommends a minimum of 5 to 15 feet of un-mowed vegetation on either side of the side of a stream channel. In areas with Canada geese overpopulation, tall vegetation such as cattails and tall grasses should be allowed and encouraged to grow along pond edges. This practice reduces the habitat for Canada geese. Canada geese have an inborn fear of tall shore vegetation. In the southern US, where the geese naturally migrate, tall shore vegetation serves as the hiding place for geese predators including alligators.

Golf courses provide nearby residents with open viewsheds and quiet environments during the winter months. Although golf courses have many open space features, they are in fact private property used for business purposes and should not be considered as protected open space, unless the golf course is publicly owned and open to the general public just like any other public park. Publicly owned golf courses that are open to the public can be regarded as protected open space even though they may charge fees for their use. Charging fees in public parks for services such as for canoe rentals, musical concerts or the use of cabins is a well-established practice in public parks.

Privately owned golf courses have many open space features, however all of these features can easily be lost if the golf course owner chooses to demolish the golf course and develop the property. The only way to rigorously ensure that the open space features on private golf courses are permanently protected is for the course owner to sell or donate the property's development rights to a non-profit land trusts. Such an approach would ensure that the property would remain either a golf course or a protected open space in perpetuity. It is currently not a common practice for non-profit land trust to accept easements on golf courses.

Visions & Actions **for Golf Courses**

Vision 10.7

Golf courses in the County should be vegetated with species native to Chester County in all areas except fairways, putting greens and heavily used areas, such as lawns around clubhouses.

Action 10.7

The County will request that golf course owners and managers plant species native to the County on golf courses in all areas except fairways, putting greens and heavily used areas, such as lawns around clubhouses.

Vision 10.8

Stream banks and pond shorelines within golf courses should not be mowed, as is recommended in the WRMP.

Action 10.8

The County will request that golf course owners and managers refrain from mowing within 5 to 15 feet of stream banks and pond shore lines.

Vision 10.9

Tall vegetation such as cattails and tall grasses should be allowed and encouraged to grow along stream and pond edges on golf courses to reduce the habitat for Canada geese.

Action 10.9

The County will request that golf course owners and managers allow and encourage tall vegetation such as cattails and tall grasses to grow along stream and pond edges to reduce the habitat for Canada geese.

Vision 10.10

Golf courses in the County should have easements limiting their future use to either golf course development or protected open space.

Action 10.10

The County will request that golf course owners pursue selling or donating conservation easements on golf courses, and that land trusts and municipalities pursue buying or accepting donations of such easements.

Vision 10.11

Municipalities should encourage golf courses to limit their future use to either golf course development or protected open space.

Action 10.11

The County will contact municipalities to recommend that they consider requiring golf courses to limit their future use to either golf course development or protected open space as part of plan approval.

Private Schools

Inventory of Private Schools

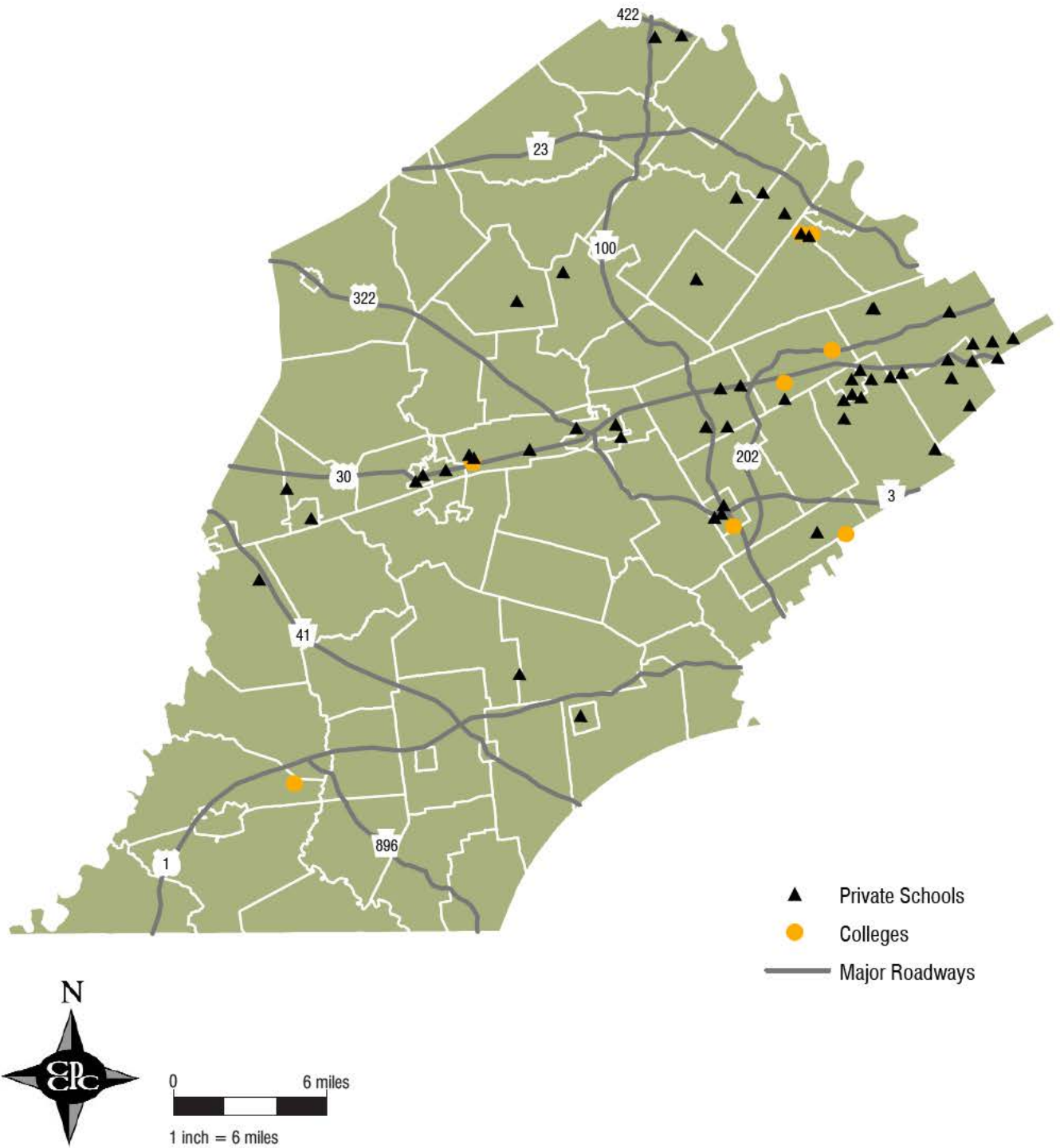
Private elementary and secondary schools, especially boarding schools, are often located on campuses with extensive lawns, playing fields and in some cases wooded areas. The open landscapes within these campuses, possess similar features to natural open meadows or recreational parks. Private schools, including parochial schools, are found throughout Chester County as shown on *Figure 10.4*. Public schools are analyzed in *Chapter 11*.

Evaluation of Private Schools

The private schools in Chester County range from small facilities on small parcels to large campuses with numerous buildings surrounded by maintained lawns, playing fields and wood lots. Private schools with large campuses tend to be older institutions such as the Westtown School or the Church Farm School. Institutions with smaller parcels typically consist of a small number of buildings surrounded by mowed lawn with little open space value.

Some of the larger private school campuses contain woodlands and stream corridors. In most cases these areas are not highly manicured like sports fields or lawns surrounding buildings. As a result, the woodlands and stream corridors on private school campuses often retain much of their natural qualities. In many respects, the campuses of private schools share many open space features with golf courses and should be managed with a sensitivity to water resources, native vegetation, and the control of overpopulated animal species, as discussed previously in this chapter.

Figure 10.4: Private Schools and Colleges



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Source: CCPC, 2000.

Visions & Actions **for Private Schools**

Vision 10.12

Private school campuses in Chester County should be vegetated with species native to Chester County, except in high use areas.

Action 10.12

The County will request that private schools plant species native to the County in all areas except, high use areas.

Vision 10.13

Except at stream access points or crossings, the stream banks and pond shorelines within private school campuses should not be mowed.

Action 10.13

The County will request that private schools refrain from mowing within 5 to 15 feet of stream banks and pond shore lines, except at stream access points or crossings.

Vision 10.14

Tall vegetation such as cattails and tall grasses should be allowed and encouraged to grow along stream and pond edges on private school campuses to reduce the habitat for Canada geese.

Action 10.14

The County will request that private schools allow and encourage tall vegetation such as cattails and tall grasses to grow along stream and pond edges to reduce the habitat for Canada geese.

Vision 10.15

Private school campuses of 50 acres or more in the County should have easements that restrict intensive future development of the property.

Action 10.15

The County will request that private schools pursue selling or donating conservation easements, and that land trusts and municipalities pursue buying or accepting donations of such easements.

Vision 10.16

Private school campuses should be managed to provide wildlife habitat, and provide opportunities for on-campus ecological education.

Action 10.16

The County will request that private schools manage their campuses to provide wildlife habitat, and provide opportunities for on-campus ecological education.

College Campuses

Inventory of College Campuses

Colleges are usually located on campuses with extensive lawns and playing fields. The open landscapes within these campuses have similar features to natural open meadows or recreational parks. The colleges in Chester County are shown on **Figure 10.4**, above. These colleges are: Cheyney University, Immaculata College, Lincoln University, Penn State Great Valley, University of Pennsylvania New Bolton Center, Valley Forge Christian College and West Chester University.

Evaluation of College Campuses

In general, the colleges in Chester County are all located on campuses with many buildings connected by walking paths and service roads. These campuses are often integrated into their surrounding communities. Walking paths within college campuses typically connect to sidewalks along streets. Compared to the general public, college students are more likely to commute by foot or on bicycles. As a result, college campuses are ideal locations for trail destinations.

College campuses often contain small woodlands and stream corridors. In most cases these areas are not highly manicured like sports fields or lawns surrounding buildings. As a result, the woodlands and stream corridors on college campuses often retain much of their natural qualities. In many respects, college campuses share many open space features with golf courses and should be managed with a sensitivity to water resources, native vegetation, and the control of overpopulated animal species, as discussed previously in this chapter. Many college campuses are also sparsely populated in the summer months, making them ideal habitat for certain migratory species that avoid contact with humans.

Visions & Actions **for College Campuses**

Vision 10.17

College campuses or sidewalks leading to them should be linked to public trails, except where impractical.

Action 10.17

When reviewing land development plans, zoning and subdivision ordinances, opens space and recreation plans and comprehensive plans, the County will provide comments and recommendations on how well walking paths and service roads within college campuses, or sidewalks leading to them are linked to public trails.

Vision 10.18

Public trails should be linked to college campuses, except where impractical.

Action 10.18

When reviewing applications for appropriate County grants, the County will give additional credit to projects that link public trails to walking paths and service roads within college campuses.

Vision 10.19

Except at stream access points or crossings, the stream banks and pond shorelines within college campuses should not be mowed.

Action 10.19

The County will request that colleges refrain from mowing within 5 to 15 feet of stream banks and pond shore lines, except at stream access points or crossings.

Vision 10.20

Tall vegetation such as cattails and tall grasses should be allowed and encouraged to grow along stream and pond edges on college campuses to reduce the habitat for Canada geese.

Action 10.20

The County will request that colleges allow and encourage tall vegetation such as cattails and tall grasses to grow along stream and pond edges to reduce the habitat for Canada geese.

Vision 10.21

College campuses of 50 acres or more in the County should have easements that restrict intensive future development of the property.

Action 10.21

The County will request that colleges pursue selling or donating conservation easements on campuses of 50 acres or more, and that land trusts and municipalities pursue buying or accepting donations of such easements.

Vision 10.22

College campuses should be managed to provide wildlife habitat, and provide opportunities for on-campus ecological education.

Action 10.22

The County will request that colleges manage their campuses to provide wildlife habitat, and provide opportunities for on-campus ecological education.

Corporate Campuses

Inventory of Corporate Campuses

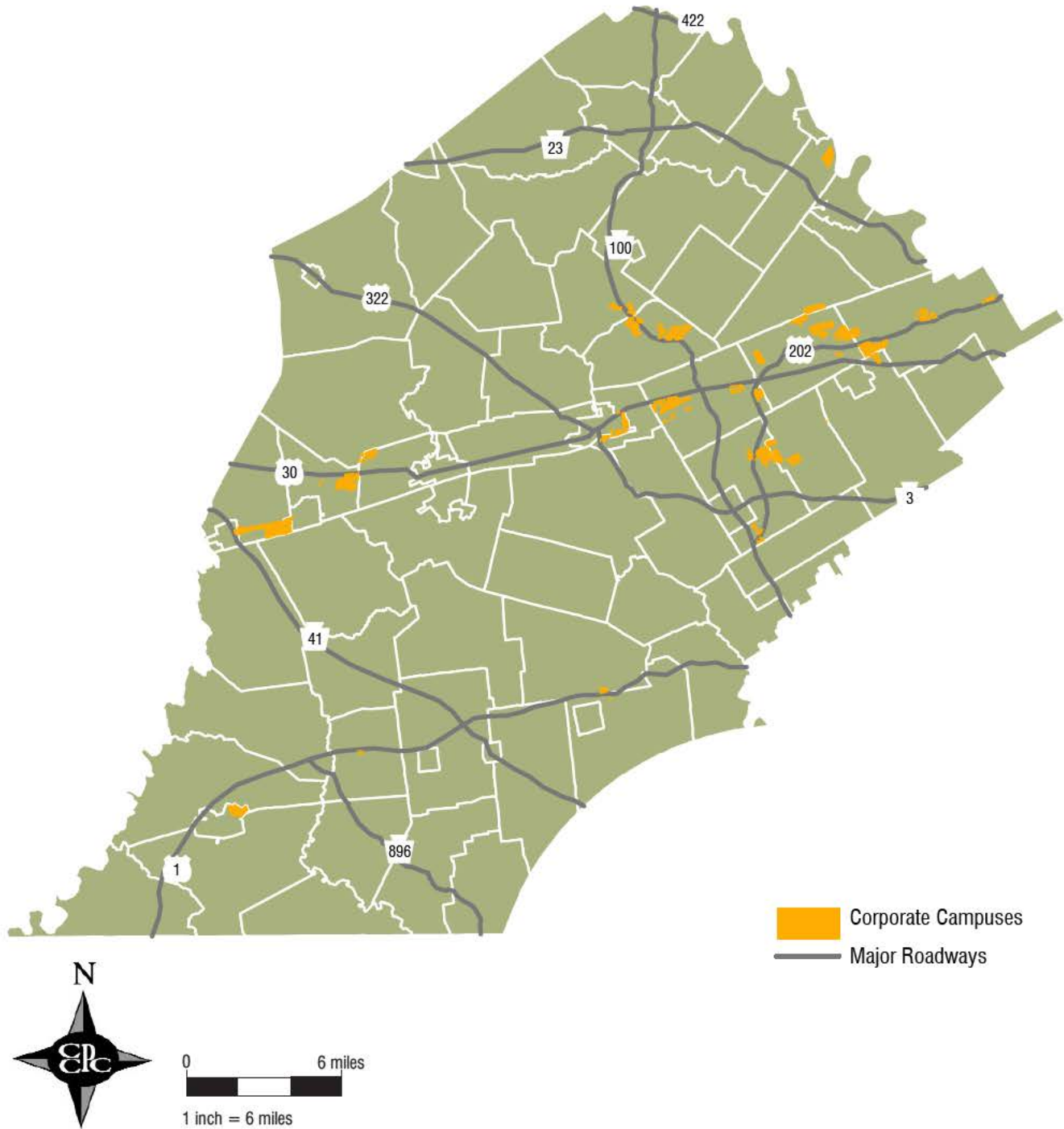
A survey of corporate campuses within Chester County was conducted by the CCPC in September 1999. This survey mapped 39 corporate campuses that were large enough to be indicated on available public and commercial maps. The corporate campuses identified by this survey are presented on the map on *Figure 10.5*.

Evaluation of Corporate Campuses

As *Figure 10.5* shows, the majority of the County's corporate campuses are located along the US Route 30 and US Route 202 corridors. These corridors are also located in the most developed parts of the County. In highly suburbanized areas, the grounds around corporate centers are one of the few remaining open landscapes. During evening and night hours, when most corporate campuses are largely vacant, they provide habitat for some nocturnal species that naturally avoid contact with humans.

Chester County's corporate campuses include business parks, office complexes, industrial parks, manufacturing centers and light industrial facilities. The landscape of these corporate campuses varies widely. Some are simply buildings surrounded by parking lots, while others contain vegetated grounds crossed by service roads, sidewalks and even jogging paths. In general, the corporate campuses with extensive open landscapes are mowed and highly manicured, and are commonly vegetated with non-native trees and shrubs. In many respects, the corporate campuses share many open space features with golf courses and should be managed with a sensitivity to water resources, native vegetation, and the control of overpopulated animal species, as discussed previously in this chapter.

Corporate campuses are commonly located near highways, and usually can only be accessed by automobiles. As a result it can be difficult for pedestrians or bicyclists to safely access corporate campuses from outside. Within corporate campuses, however, pedestrian movement is often quite safe because traffic is slow. Furthermore, the traffic volumes on these internal roads are low except during the peak commuting hours. It is not unusual to see employees taking a recreational walk on the service roads of a corporate campus during lunch hours. Some corporate campuses have even built walking or jogging paths within their campuses as an added benefit to their tenants. Corporate campuses that have low traffic volume during evenings and weekend can be ideal locations for trails that link to municipal trails. Such linked trails can also be used for bicycle commuting.

Figure 10.5: Corporate Campuses as of 2000

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Source: CCPC, 2000.

Visions & Actions **for Corporate Campuses**

Vision 10.23

The walking paths and service roads within corporate campuses should be linked to public trails, except where impractical.

Action 10.23

When reviewing land development plans, zoning and subdivision ordinances, open space and recreation plans and comprehensive plans, the County will provide comments and recommendations on how well walking paths and service roads within corporate campuses are linked to public trails.

Vision 10.24

Public trails should link to walking paths and service roads within corporate campuses, except where impractical.

Action 10.24

When reviewing applications for appropriate County grants, the County will give additional credit to projects that link public trails to walking paths and service roads within corporate campuses.

Vision 10.25

Except at stream access points or crossings, the stream banks and pond shorelines within corporate campuses should not be mowed.

Action 10.25

The County will request that corporate campuses refrain from mowing within 5 to 15 feet of stream banks and pond shore lines, except at stream access points or crossings.

Vision 10.26

Tall vegetation such as cattails and tall grasses should be allowed and encouraged to grow along stream and pond edges on corporate campuses to reduce the habitat for Canada geese.

Action 10.26

The County will request that corporate campuses allow and encourage tall vegetation such as cattails and tall grasses to grow along stream and pond edges to reduce the habitat for Canada geese.

Publicly Owned Campuses and Open Lands

Inventory of Publicly Owned Campuses and Open Lands

Within Chester County there are numerous parcels of land that are owned by the federal government, the state, the County and individual municipalities. Some of these publicly owned properties, like the campuses of publicly owned hospitals, contain large open areas that could be restored into natural open spaces or could serve as the site of recreational open spaces.

The Chester County Bureau of Land Records maintains a database of all publicly owned parcels within the County. This database does not indicate if a parcel of publicly owned land contains large undeveloped areas.

Evaluation of Publicly Owned Campuses and Open Lands

It can sometimes be both efficient and cost effective for municipalities and other organizations to acquire protected open space by acquiring campuses or other open lands that are already owned by another public entity. In the past 20 years the Chester County Parks and Recreation Department acquired a number of large properties from the state for recreational open spaces. In 1987 the Department acquired the future County Park in Newlin Township, which was formerly the campus of the Embreeville State Hospital. In the 1990s, the Department acquired three properties to be included in the future County Schuylkill River Trail. These properties were formerly the state owned silt basins at Linfield, Sanatoga and Black Rock.

There is currently no available mapping of publicly owned lands in Chester County. Furthermore there is no mapping of parcels that are publicly owned, and also contain large amounts of open areas that could potentially be restored as natural open spaces or used as a site for recreational open spaces. Such a map would be a valuable tool for locating publicly owned lands with the potential for future open space protection.

Visions & Actions

for Publicly Owned Campuses and Open Lands

Vision 10.27

Publicly owned parcels that contain large open areas that are suitable for restoration as natural open spaces or as the site of recreational open spaces should be acquired as public open space, except where impractical.

Action 10.27

When reviewing applications for appropriate County grants, the County will give additional credit to projects that acquire publicly owned parcels that contain large open areas that are suitable for restoration as natural open spaces or as the site of recreational open spaces.

Vision 10.28

Publicly owned parcels that contain large open areas that are suitable for restoration as natural open spaces or as the site of recreational open spaces should be mapped.

Action 10.28

The County will develop criteria for identifying publicly owned parcels that contain large open areas that are suitable for restoration as natural open spaces or as the site of recreational open spaces.

Unique Unprotected Open Space Properties

Introduction of Unique Unprotected Open Space Properties

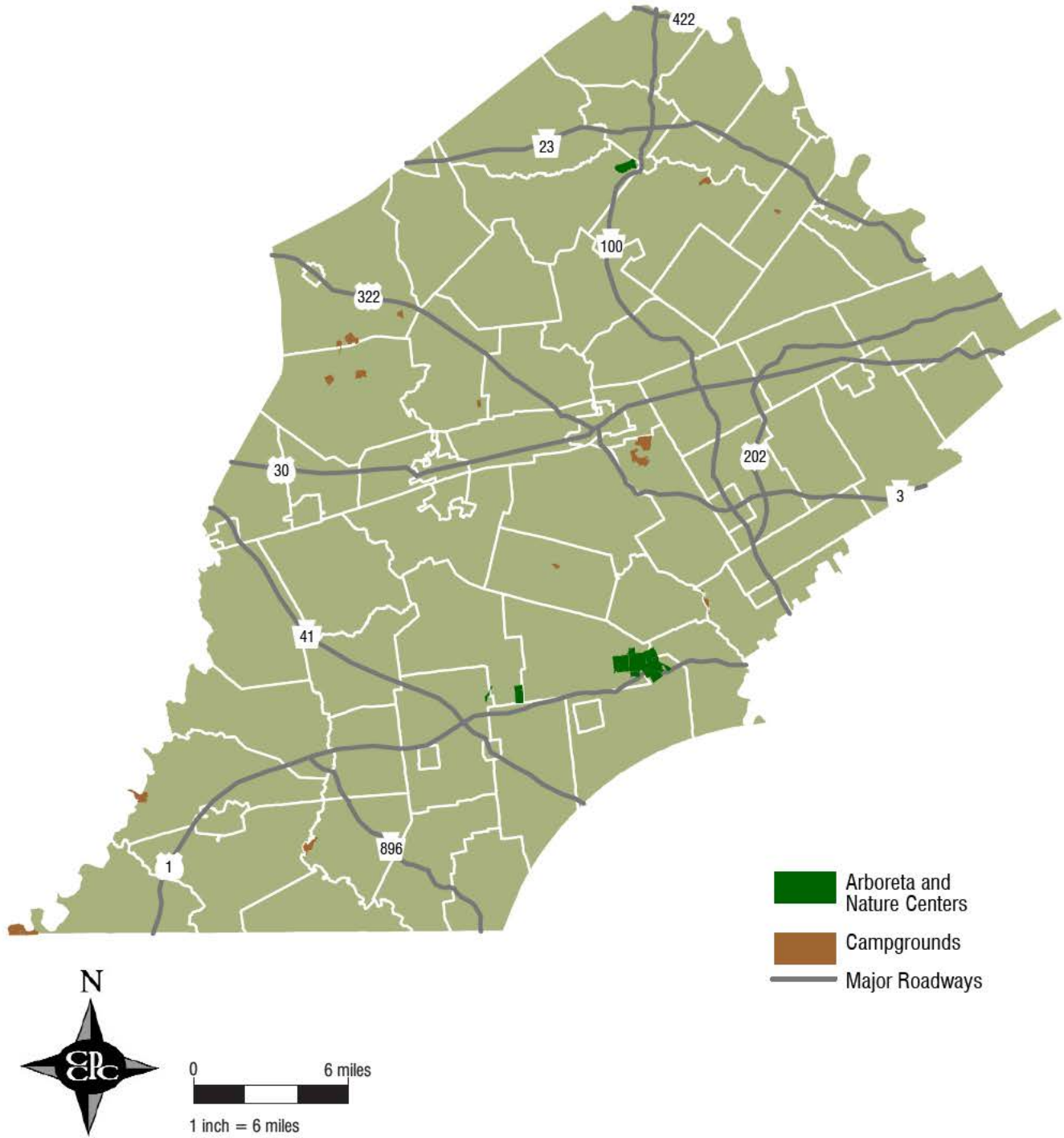
There are a large number of unique properties within Chester County that contain unprotected open space. Many of these properties, including airports, landfills, private campgrounds, hospital grounds, arboreta and private nature centers, are presented on the maps in *Figure 10.6* and *10.7*. There may be other unique unprotected open space properties that are not presented in these figures.

Some municipalities contain one or more unique open space parcels, which are of such great value to the community, that the municipality tailors its comprehensive plan or zoning ordinance to limit development on these special parcels. For example a cherished fairground or a camping area might be placed in a low-density zone. However, such actions only provide limited protection from development, because it is always possible for a municipality to modify its zoning or comprehensive plan. As a result, unique open spaces, even those that have some level of protection through municipal ordinances, are not permanently protected unless they are rigorously protected with some form of conservation easement.

Because these properties are so unique, either in terms of ownership or use, they are difficult to classify. The following is a partial list of these properties:

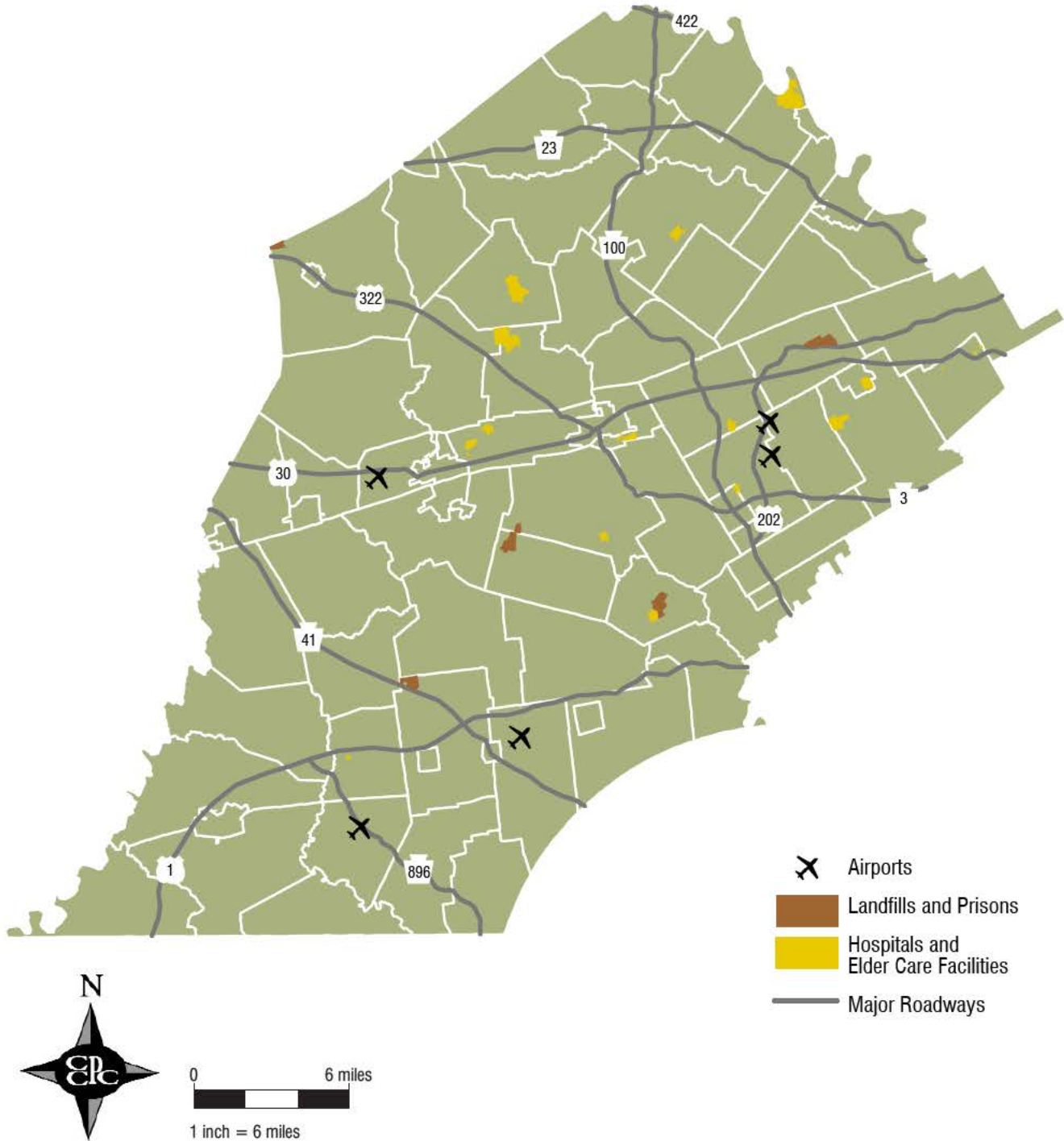
- Brandywine Airport
- Bryn Mawr Rehabilitation Center
- Chester County Airport
- Chester County Prison
- Devereux Foundation Brandywine Campus
- Devereux Foundation Glen Loch Campus
- Knickerbocker Sanitary Landfill
- Laymans Home Mission
- Longwood Gardens New Garden Airfield
- Southeastern Chester County Refuse Authority Landfill
- SE Veterans Administration Hospital
- Strausberg Landfill
- Stroud Water Research Center
- Temenos Center
- The Pocopson Home
- Veterans Hospital

Figure 10.6: Campgrounds, Arboreta and Nature Centers



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Source: CCPC, 2000.

Figure 10.7: Hospitals, Landfills, Prisons and Airports

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Source: CCPC, May 2000.

Evaluation of Unique Unprotected Open Space Properties

Unique unprotected open space properties are far too diverse to evaluate as a group. Each however has the potential to contribute the Chester County Open Space Network. Properties such as hospital grounds or the Pocopson Home, share many features with corporate and college campuses. Even properties such as prisons and landfills provide a unique opportunity for preserving open space. Most people prefer to physically distance themselves from prisons and landfills, which can make the property around these properties an ideal location for a wildlife preserve for animals that avoid human contact.

Some unique unprotected open space properties, such as arboreta and campgrounds provide open viewsheds and quiet environments during the winter months. These open space features can easily be lost if their landowners choose to sell or develop the property. The only way to rigorously ensure that these open space features are protected is for these landowners to sell or donate the property's development rights to a non-profit land trust. Such an approach would ensure that the property would remain either as is or as a protected open space in perpetuity.

There are also other property owners, such as churches and civic associations that own large properties that provide open space benefits. These properties are closed to the public, but could be managed to promote wildlife habitat. Some of these properties are also well suited to be converted to protected open space should their owners choose to vacate the property. In many respects, unique unprotected open space properties share many open space features with golf courses and should be managed with a sensitivity to water resources, native vegetation, and the control of overpopulated animal species, as discussed previously in this chapter.

Visions & Actions

for Unique Unprotected Open Space Properties

Vision 10.29

Unique unprotected open space properties should be linked to protected open spaces, except where impractical.

Action 10.29

When reviewing land development plans, zoning and subdivision ordinances, opens space and recreation plans and comprehensive plans, the County will provide comments and recommendations on how well unique unprotected open space properties are linked to protected open spaces.

Vision 10.30

Except at stream access points or crossings, the stream banks and pond shorelines on unique unprotected open space properties should not be mowed.

Action 10.30

The County will request that unique unprotected open space property owners refrain from mowing within 5 to 15 feet of stream banks and pond shore lines, except at stream access points or crossings.

Vision 10.31

Tall vegetation such as cattails and tall grasses should be allowed and encouraged to grow along stream and pond edges on unique unprotected open space properties to reduce the habitat for Canada geese.

Action 10.31

The County will request that unique unprotected open space property owners allow and encourage tall vegetation such as cattails and tall grasses to grow along stream and pond edges to reduce the habitat for Canada geese.

Vision 10.32

Unique unprotected open spaces of 50 acres or more in the County should have easements that restrict intensive future development of the property.

Action 10.32

The County will request that unique unprotected open space property owners pursue selling or donating conservation easements, and that land trusts and municipalities pursue buying or accepting donations of such easements.

Chapter 11



*Rural Centers, Villages and
Community Facilities*

Background

Municipalities and other organizations that wish to establish a network of recreational trails within their community should always consider the destinations of their trails. A trail can lead to a scenic vista or a historic site, or simply to a village center where hikers and bicyclists can take a break or get a snack. Trails that lead to public schools or recreation centers can also allow children to access these facilities on their bicycles. For this reason, planners should always consider rural centers, villages and community facilities when establishing a trail network.

The following chapter presents an analysis of rural centers, village centers, public school grounds and indoor recreation facilities. All of these features act as community gathering points or “activity nodes” where people from the surrounding neighborhoods meet and interact. These places are typically open to the general public with some restrictions. In some planning documents, these areas are referred to as “quasi-public” open spaces. Many of these centers are not owned or operated by any municipal, County or state government and many of them have evolved over time, such as traditional village centers. The general public sometimes has the perception that these centers, such as public schools, are open to the general public without restrictions, but that is rarely the case.

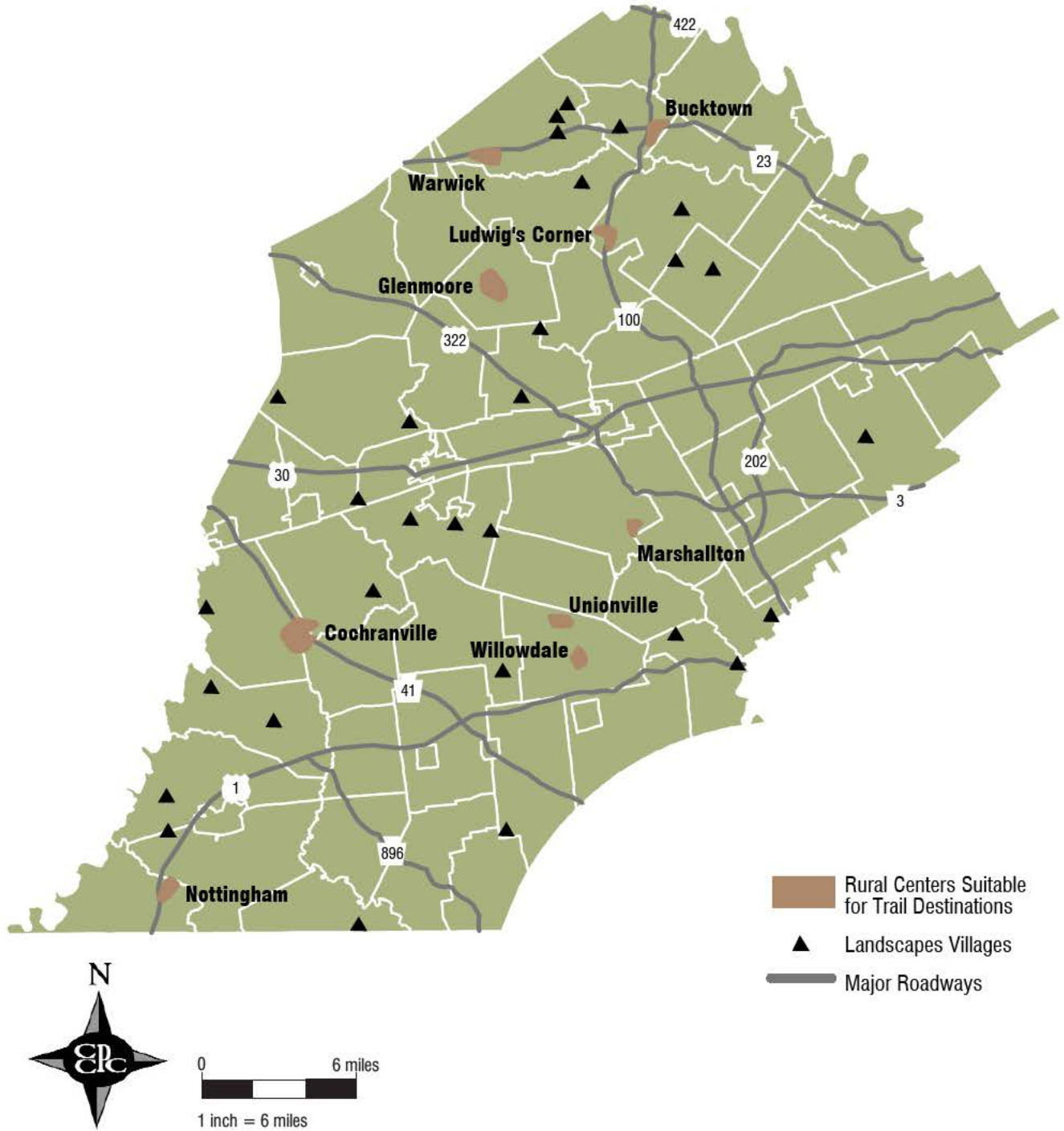
Rural Centers and Villages

Inventory of Rural Centers and Villages

Landscapes, the Policy Element of the Chester County Comprehensive Plan, includes a “Livable Landscapes” map showing 22 locations designated as “Rural Centers” within Chester County. These Rural Centers may consist of a cluster of residential development, a cluster of commercial development, or both. Rural centers are commonly, although not exclusively, found in municipalities that do not contain any urban or suburban landscapes. *Landscapes* recognizes these centers as areas for future growth within rural communities.

Of the 22 Rural Centers identified in *Landscapes*, only seven of them have features that would make them suitable locations for trail destinations. The seven selected Rural Centers that are suitable for trail destinations are also presented on **Figure 11.1**. In general, these seven Rural Centers are suitable for trail destinations because they have historic architecture or shops that might be of interest to trail users.

Figure 11.1: Rural Centers and Villages Suitable for Trail Destinations



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Source: CCPC, 2000.

Landscapes also identified 33 selected villages within Chester County that exhibited traditional village features. The map presented on **Figure 11.1** shows the locations of these villages. These villages were mapped as a result of research conducted for the *Village Planning Handbook: A Guide for Community Planning*, published by the Planning Commission in 1993. Both *Landscapes* and the *Village Planning Handbook* are available from the Planning Commission. The villages mapped on **Figure 11.1** consist of small concentrations of development with a strong focal point or center, such as a crossroads. They also include historic villages, which may be largely uninhabited.

Evaluation of Rural Centers and Villages

Rural Centers and villages are located throughout Chester County. Although these locations have the potential to be trail destinations because of their historic resources or commercial districts, only St. Peters Village is currently realizing its potential. The greatest obstacle to establishing Rural Centers and villages as trail destinations is the overall lack of multi-municipal trails within the County.

Visions & Actions **for Rural Centers and Villages**

Vision 11.1

Rural Centers and villages should be linked to nearby protected open spaces by public trails.

Action 11.1

When reviewing land development plans, zoning and subdivision ordinances, open space and recreation plans and comprehensive plans, the County will provide comments and recommendations on how well Rural Centers and villages are linked to nearby open spaces by public trails.

Vision 11.2

Public trails should be linked to Rural Centers and villages.

Action 11.2

When reviewing applications for appropriate County grants, the County will give additional credit to projects that link public trails to Rural Centers and villages.

Vision 11.3

Municipalities and village community groups within the County should all use consistent development guidelines when planning Rural Centers and villages.

Action 11.3

The County will continue to develop a Rural Center Design Guide.

Public Schools

Inventory of Public Schools

As *Figure 11.2* shows, there are 14 public school districts that serve the residents of Chester County. Each district is governed by an elected school board that sets policy, and directs the school superintendent and administration. School districts have their own taxing authority. Typically school districts generate most of their tax revenue through property tax, although income and per capita taxes are also used. In most cases, the majority of property taxes paid by a landowner are used to finance public education.

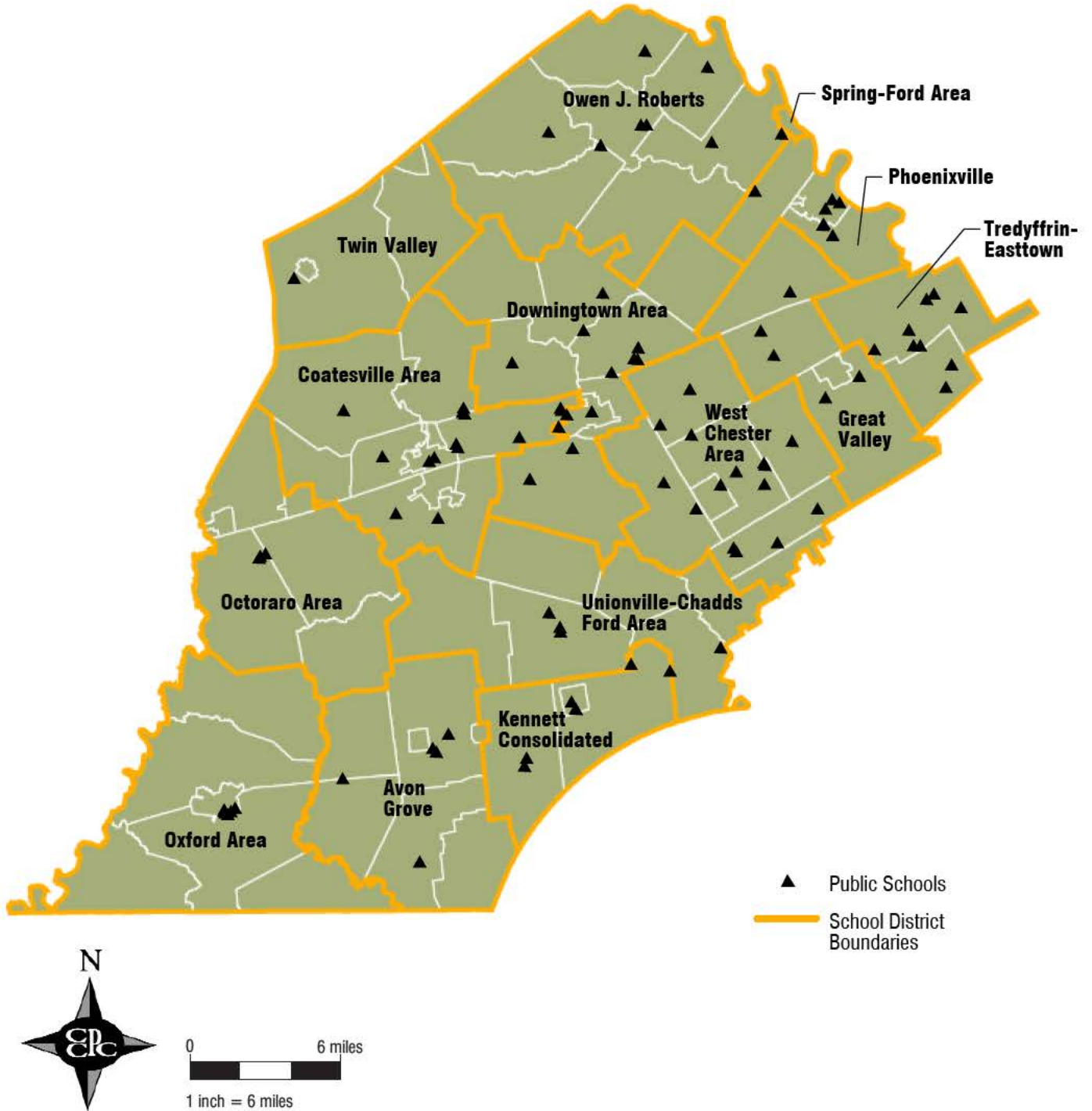
Parcels containing public schools are presented in *Figure 11.2*. These properties include school grounds and playing fields. Colleges, private schools and other developed and undeveloped properties owned by school districts, such as administrative offices, are not shown on this map.

Evaluation of Public Schools

Public school properties are located throughout Chester County. These properties possess many of the same features as recreational open space, and are often used by the general public as if they were active recreation parks. Children commonly use school playgrounds and sports fields after school hours and on weekends. Adults also use school ground, especially running tracks and tennis courts, when school is not in session. Although the primary function of public schools is the education of the youth, these facilities also function as significant community centers.

Although public school grounds are used like public parks, they are not protected open space and can be sold at any time. It is not unusual for a school district to sell old school properties to developers who then demolish the school buildings or convert them into residential or office units. As the student population continues to grow, it is likely that more existing older schools will be closed and replaced with larger facilities built

Figure 11.2: Public Schools and School Districts



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Source: CCPC, 2000.

elsewhere. Older schools that were not built to support Internet technology are also more likely to be sold and replaced.

Larger public school properties are similar to college or corporate campuses in that they may include walking paths and wildlife habitat such as wetlands, forests and stream banks. The land management activities required to preserve and restore these wildlife habitats can be a valuable educational tool. Science clubs and youth service organizations can use on-campus habitat restoration and management projects as part of their activities. Furthermore, classes in the physical and natural sciences can use on-campus habitat areas for labs and student projects. Schools that undertake on-campus habitat restoration are also eligible to receive grants from organizations such as the Pennsylvania Urban Forestry Grant Program, discussed in *Chapter 16*.

Visions & Actions **for Public Schools**

Vision 11.4

Public schools should be linked to public trails that extend into residential areas.

Action 11.4

When reviewing land development plans, zoning and subdivision ordinances, open space and recreation plans, and comprehensive plans, the County will provide comments and recommendations on how well public schools are linked to public trails that extend into residential areas.

Vision 11.5

Public trails that extend from residential areas should be linked to public schools.

Action 11.5

When reviewing applications for appropriate County grants, the County will give additional credit to projects that link public trails that extend from residential areas to public schools.

Vision 11.6

Public school properties should be vegetated with species native to the County, except in high use areas.

Action 11.6

The County will request that public school properties be vegetated with species native to the County, except in high use areas.

Vision 11.7

The stream banks and pond shorelines within public school properties should not be mowed, except as stream access points or crossings.

Action 11.7

The County will request that public schools refrain from mowing within 5 to 15 feet of stream banks and pond shorelines, except at stream access points or crossings.

Vision 11.8

Public schools should be managed to provide wildlife habitat, and provide opportunities for ecological education.

Action 11.8

The County will request that public schools manage their campuses to provide opportunities for ecological education.

Vision 11.9

School districts should consider pursuing opportunities to restore or protect open space when acquiring, transfer or easing their property, except where it is documented to be impractical.

Action 11.9

The County will request that public schools consider pursuing opportunities to restore or protect open space when acquiring, transfer or easing their property, except where it is documented to be impractical.

Vision 11.10

Local and regional planners should have access to mapping that shows all types of public school district property on a countywide basis.

Action 11.10

The County will create a map that shows all types of public school district property, and describes the general use of the properties.

Indoor Public Recreation Centers

Inventory of Indoor Public Recreation Centers

Indoor recreation centers include indoor sports facilities, such as basketball courts and ice skating rinks, and community centers such as the YMCA. There is currently no countywide inventory of indoor public recreation centers in Chester County.

Evaluation of Indoor Public Recreation Centers

Historically, most of the indoor recreation facilities within Chester County have been owned and operated by non-profit organizations such as the YMCA/YWCA. As a result, the development of publicly owned indoor recreation facilities has not been a priority within the County.

Indoor public recreation centers are valuable to their respective communities because they provide the opportunity for sports and recreation activities during the winter months and at night, when outdoor parks are closed. In recent years many urban areas throughout the nation have used indoor facilities for “midnight basketball” leagues and other activities that provide young adults with a supervised activity during the hours when most juvenile crimes occur.

Indoor facilities are ideal locations for trail connections, primarily because they are destinations that children can reach on foot or by bicycle. These buildings can also serve as rest stops with water fountains and phones to report emergencies along a trail.

Visions & Actions

for Indoor Public Recreation Centers

Vision 11.11

Indoor public recreation centers should be linked with public trails that extend to residential areas.

Action 11.11

When reviewing land development plans, zoning and subdivision ordinances, open space and recreation plans, and comprehensive plans, the County will provide comments and recommendations on how well indoor public recreation centers are linked to public trails that extend to residential areas.

Vision 11.12

Public trails that extend from residential areas should be linked to indoor recreational centers.

Action 11.12

When reviewing applications for appropriate County grants, the County will give additional credit to projects that link public trails that extend from residential areas to indoor recreational centers.

Vision 11.13

Regional and local planners should have access to a map showing indoor public recreation centers.

Action 11.13

The County will conduct a survey of municipal OSRER plans and other information sources to develop a countywide map showing the location of indoor public recreation centers.

Chapter 12



Regional Recreation Corridors

Background

Introduction

Municipalities and other organizations that wish to link together protected open spaces can use a variety of techniques. However the most commonly used way to link protected open spaces is to construct recreational trails. Although there are only a few trails in Chester County that link to existing protected open spaces, such trails are more common in nearby Montgomery County, PA and New Castle County, DE. It is likely that the need for trails in Chester County will increase over the next two decades as the population increases. For this reason, this chapter includes an extensive evaluation of corridors that are suitable locations for the construction of future trails. In *Linking Landscapes*, these corridors are called Regional Recreation Corridors.

The planning, design and construction of trails can be extremely complicated. Before a trail can be constructed, its alignment must be determined, which often requires extensive coordination with individuals who live or own property along the proposed alignment. The design of a trail must address privacy issues, concerns of adjacent property owners and safety issues, such as street or rail crossings. There are also a number of unique issues involved with trails located near water bodies, or on bridges, or beneath bridges. Trails built along streams must be evaluated to determine if they will negatively impact wetlands or floodplains, just like any other construction project. Although the following chapter cannot address all of these trail issues in detail, it does provide an introduction to many of the key concepts that should be addressed in any municipal or multi-municipal trail project.

In July 2001, *Pennsylvania Greenways: An Action Plan for Creating Connections*, was published by the Pennsylvania Greenways Partnership Commission, which was established in 1998 by the Governor's Executive Order 1998-3, and is chaired by the secretaries of the Pennsylvania DCNR and the Department of Transportation. In this document "greenways" were defined as narrow to wide corridors used for recreational or environmental protection. This Action Plan calls for the establishment of a network of greenways on public and private properties that connect "Pennsylvania's open space, natural landscape features, scenic, cultural, historic and recreation sites, and urban and rural communities." This Action Plan also recommends that all of the Commonwealth's 67 counties complete and adopt a Greenway Plan by 2007. The following chapter, along with **Chapter 13**, will serve as Chester County's Greenway Plan as recommended in *Pennsylvania Greenways*.

Regional Recreation Corridors Defined

Landscapes, the Policy Element of the Chester County Comprehensive Plan, recommends that Chester County should consist of inter-linked communities, with some areas developed and some undeveloped. In order for the County to realize this vision, its residential communities must be linked together, and its natural communities must be linked together. By establishing Regional Recreation Corridors, Chester County can link both residential communities and wildlife habitat using the same “facility.”

A Regional Recreation Corridor is a conceptual planning zone that *Linking Landscapes* has identified as a prime location for the construction of a multi-municipal trail. Chester County’s 24 recommended Regional Recreation Corridors are presented in **Figure 12.1**. These Corridors represent an update to the “Trail Corridor Establishment and/or Protection Zones” published in the *1982 Chester County Open Space & Recreation Study*.

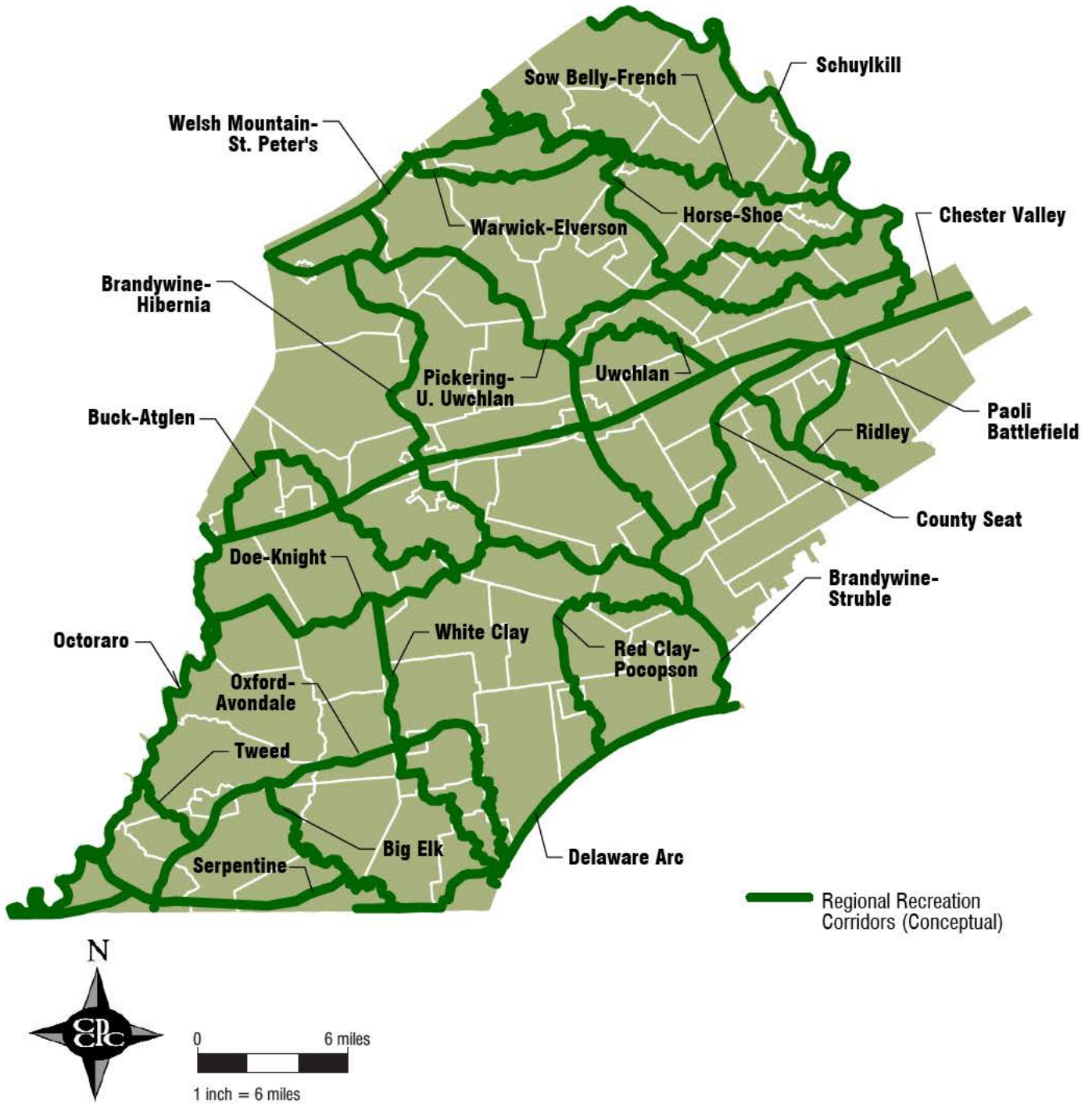
A Regional Recreation Corridor is not an actual property like a park or a state forest. Rather, it is a long, thin planning zone, much like a transportation corridor. A transportation corridor is a heavily traveled region that includes a cluster of travel destinations, such as shopping malls and office complexes, and the transportation facilities that link them such as highways, back streets and commuter rail lines. Likewise, a Regional Recreation Corridor is a linear area of land that includes points of interest or recreational destinations – like state parks and historic villages – and the trails, paths and bike routes that link them.

A number of Chester County’s municipalities have already established a system of municipal trails that link recreation facilities within the municipality. The recommended Regional Recreation Corridors presented in this chapter have not been designed to take the place of municipal trails. Instead, they are suggested as a means for connecting the trails within adjacent municipalities to create a multi-municipal trail system. In a way, the recommended Regional Recreation Corridors link together municipal trails just as state and federal highways link together local secondary streets.

Trails within a recommended Regional Recreation Corridor can be used for recreation or non-motorized transportation, including bicycle commuting. During the daylight hours, trails within a corridor serve to link residential communities by permitting both young and old to walk, run or bicycle between neighborhoods that would otherwise be separated by roadways. At night, many nocturnal animals also use the undeveloped areas along trails to travel throughout the County. Such animal migration helps to reduce isolation and inbreeding in natural populations.

Although the term “Regional Recreation Corridors” may sound similar to the “Wildlife Biodiversity Corridors,” which are discussed in **Chapter 13**, the two terms refer to very different things. A Wildlife Biodiversity Corridor is an ideal location for a non-recreational linear open space that is specifically set aside to assist wildlife in moving from one habitat area to

Figure 12.1: Regional Recreation Corridors



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Source: CCPC, 2000.

another without being overly exposed to contact with humans. As a result, the public is often discouraged from using open spaces in a Wildlife Biodiversity Corridors for active recreation, although limited passive recreation is sometimes permitted. Regional Recreation Corridors are ideal locations for active recreation facilities like trails or bike paths. The public is strongly encouraged to use Regional Recreation Corridors, which only promote wildlife movement as a secondary use.

How the Recommended Regional Recreation Corridors Were Developed

Figure 12.1 presents the 24 recommended Regional Recreation Corridors that were developed by the Planning Commission and the Parks Department based on the following criteria:

- Each corridor had to pass through at least two municipalities.
- Each borough and the City of Coatesville had to be accessed by at least one corridor.
- Each state and Chester County park had to be accessed by at least one corridor.
- Each corridor had to link with at least two other corridors, and no corridor could dead-end within Chester County. Some corridors extend out to the County's borders where they link to trails outside the County.

Wherever possible, corridors followed the general alignments of trails that have been partially constructed, established hiking routes mapped by hiking clubs, or trail corridors previously delineated in the *1982 Chester County Open Space & Recreation Study*.

When combined, the 24 recommended Regional Recreation Corridors form a network of interconnected Corridors that cover all parts of Chester County and provide links to existing and proposed trails in adjacent counties. The regional scope of this network explains why each part of it is called a *Regional Recreation Corridor*. By linking boroughs and the City of Coatesville to federal, state and County parks, this network links the County's most densely populated urban centers with its largest publicly owned recreational lands.

Linking urban centers to federal, state and County parks provides the most efficient means for providing the greatest number of Chester County residents with non-motorized access to major regional recreation facilities. This approach can also serve to spur economic development in the County's urban centers in two ways. First, the network will draw trail users into existing downtown commercial districts, creating the possibilities for increased recreation-based commerce. The existence of regional trails in boroughs and the City of Coatesville will also provide their residents with increased access to recreational facilities, a feature which

has been shown to increase the value of residential housing and increase municipal tax revenues, as discussed in *Chapter 1*.

Trails, Paths, Routes, and Water Trails Defined

There is no universally recognized definition for “trail” and in common conversation the term is often used interchangeable with “path” or “route.” In this chapter, trails, paths and routes will be discussed using definitions developed by the County Planning Commission and Parks Department based on terminology used by the Pennsylvania DCNR in their 1998 publication *Creating Connections; The Pennsylvania Greenways and Trails How-To Manual*. According to the *Linking Landscapes* definition, a “trail” is an off-road facility with a permanent alignment that is open to the general public, and that is designed, constructed, and maintained as part of a public park system and used for a variety of non-motorized forms of travel including walking, hiking, bicycling, cross-country skiing or horseback riding.

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

Linking Landscapes defines a “route” as a facility that utilizes the shoulders of paved streets, or the motor vehicle travel lanes of roads with low traffic volumes. “Bicycle routes” along roadways are only briefly discussed in *Linking Landscapes* because they are commonly funded and designed as part of transportation improvement projects, and not as part of open space and recreation projects. In general, routes extend along streets or rights-of-way owned by the Pennsylvania Department of Transportation (PennDOT). Roadside routes are sometimes used to link together trail segments that cannot be linked by an off-road corridor, and so should be considered in any trail project.

Chester County is crossed by the Horse-Shoe Trail, the Brandywine Trail and the Mason Dixon Trail. Although these facilities may be commonly called “trails,” it is more accurate to describe them as traditional hiking routes. They do not fit the *Linking Landscapes* definition of a trail, because they are not constructed facilities, and do not have a permanent alignment. The alignments of these hiking routes were established by hiking clubs, many of which have been operating for decades. As a result, these facilities are referred to as “traditional hiking routes” in *Linking Landscapes*.

In recent years, the term “water trail” has been used to refer to a waterway that has been officially designated and posted for use by recreational water craft such as canoes, rafts or motor boats. A water trail also con-

tains access points and boat ramps that are open to the public. Unlike navigable waterways used for commercial shipping, water trails are specifically managed to provide recreational public use. Typically a water trail will link together villages and public recreation facilities located along the waterway, such as County parks, or scenic areas such as state forests.

A Regional Recreation Corridor is Not a Proposed Trail Alignment

The recommended Regional Recreation Corridors analyzed in this chapter are presented as possible links in a countywide network of trails, and should not be regarded as a detailed plan for all future County Trail or municipal trail alignments. Regional Recreation Corridors are not presumed to be the only logical locations for multi-municipal trails. In fact, unforeseen changes in land use within the County over the next few years may make some of these recommended Regional Recreation Corridors impractical to implement. As a result, the County Planning Commission and Parks Department encourages any municipality or group of municipalities that are able to fund and construct a practical and feasible multi-municipal trail to pursue that project, even if it does not follow one of the recommended Regional Recreation Corridors.

All of the recommended Regional Recreation Corridors shown in *Figure 12.1* are 2,000 feet wide. This width is much wider than the right of way needed for a single trail or path. These extra-wide corridors are useful because they allow municipal planners flexibility in locating the final alignment of a trail or path. These 2,000-foot wide corridors also allow for multiple trails or paths to be developed within one corridor, such as one on each side of a river. A 2,000-foot width is also convenient because it can be easily measured on USGS quadrangles, where 1 inch equal 2,000 feet. Environmental studies commonly use USGS quadrangles as base maps, and many grant applications require that copies of USGS quadrangles be used to map a project's location.

Features Inventoried and Evaluated in This Chapter

In this chapter, the following information has been inventoried for each Regional Recreational Corridor:

- Corridor location and the location of other corridors that are linked to the corridor.
- Parks and municipal open spaces including federal, state and County parks, and municipal recreational parks and non-recreational open spaces.
- Stakeholders including municipal governments, natural resource groups, significant large properties and school districts.

- Trail destinations and points of interest including communities, tourist attractions, and historic and natural features.

This inventory is not meant to be exhaustive, and there may be many other features that are not listed. The inventory does not include municipal trails, loop trails within federal, state or County parks, or any other small trails, paths or routes within the County.

The recommended Regional Recreation Corridors presented in this chapter have been classified into the following categories:

- **Undeveloped Corridors** – include all those Regional Recreation Corridors that are not currently used for recreation, and in which little if any property has been acquired for recreation.
- **Informally Used Corridors** – include the six Regional Recreation Corridors that are currently used informally for non-motorized transportation, but in which few if any public trails have been constructed. These corridors include traditional hiking routes, proposed municipal trails and waterways that are sometimes used for boating.
- **Partially Developed Corridors** – include the four Regional Recreation Corridors that currently include constructed and opened County or municipal trails, or future County Trails for which extensive property has already been acquired.

The goal of this Corridor inventory is to illustrate the large number of potential trail destinations that could be linked together in a countywide trail network. Currently most of the potential trail destinations, such as parks, are not linked by trails and can only be reached by automobile. The ultimate goal of this chapter is to begin the process of establishing visions and actions that can be used by municipal and County government, and other organizations as the foundation for an effort to prioritize, plan, develop and construct a countywide network of multi-municipal trails.

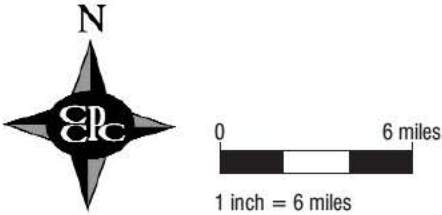
This chapter does not include a detailed inventory of each municipal trail system, because these trail networks are already addressed in municipal Open Space, Environmental Resource and Recreation Plans (OSRER), which are available at municipal offices or the Planning Commission office. These OSRER plans document municipal trail planning efforts and should be considered in any trail project.

Undeveloped Corridors

Inventory of Undeveloped Corridors

As stated on *Page 12.7* of this chapter, an Undeveloped Regional Recreation Corridor is one that is currently not being used for recreation, and in which little if any property has been acquired for recreation. The 13 Undeveloped Regional Recreation Corridors with the County are presented in *Figure 12.2* and described in detail in the following section.

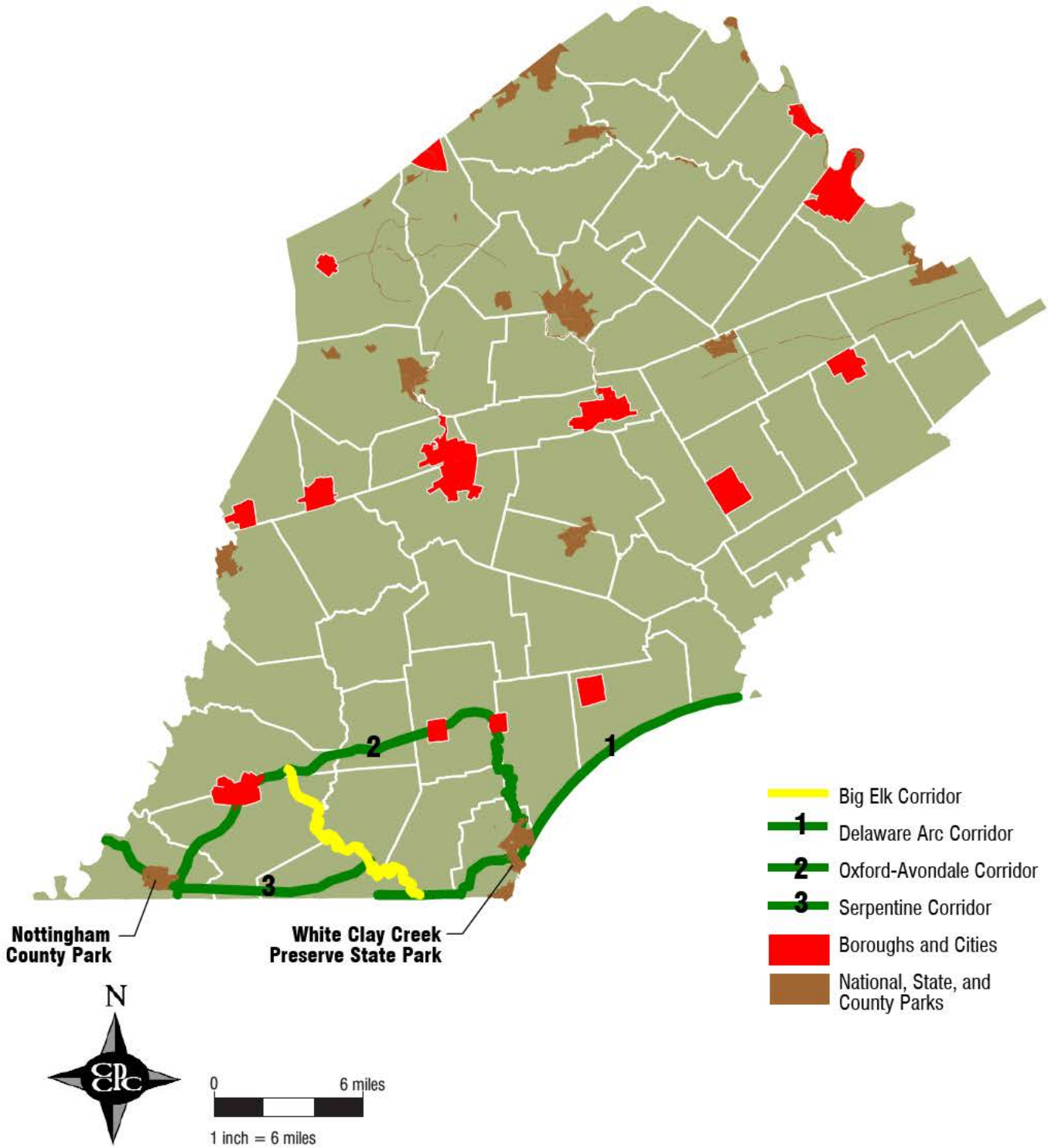
Figure 12.2: Undeveloped Corridors



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Source: CCPC, 2000.

Figure 12.3: The Big Elk Regional Recreation Corridor



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Source: CCPC, 2000.

■ **The Big Elk Creek Regional Recreation Corridor** This Corridor, illustrated in *Figure 12.3*, extends from the Maryland State border, up Big Elk Creek, and from there up the West Branch of Big Elk Creek to the Oxford-Avondale Regional Trail Corridor. It links with three other corridors and forms a part of Potential Trail Loop “K” presented in *Figure 12.30* of this chapter. The primary purpose of this Corridor is to provide the communities in Southern Chester County with access to the Fair Hill Natural Resources Management Area located just south of the Maryland boarder in Cecil County.

Inventory of Parks and Municipal Open Spaces

Federal, State & County Parks	Municipal Recreation Parks	Municipal Non-recreational
State •Fair Hill Natural Resource Management Area	None	None

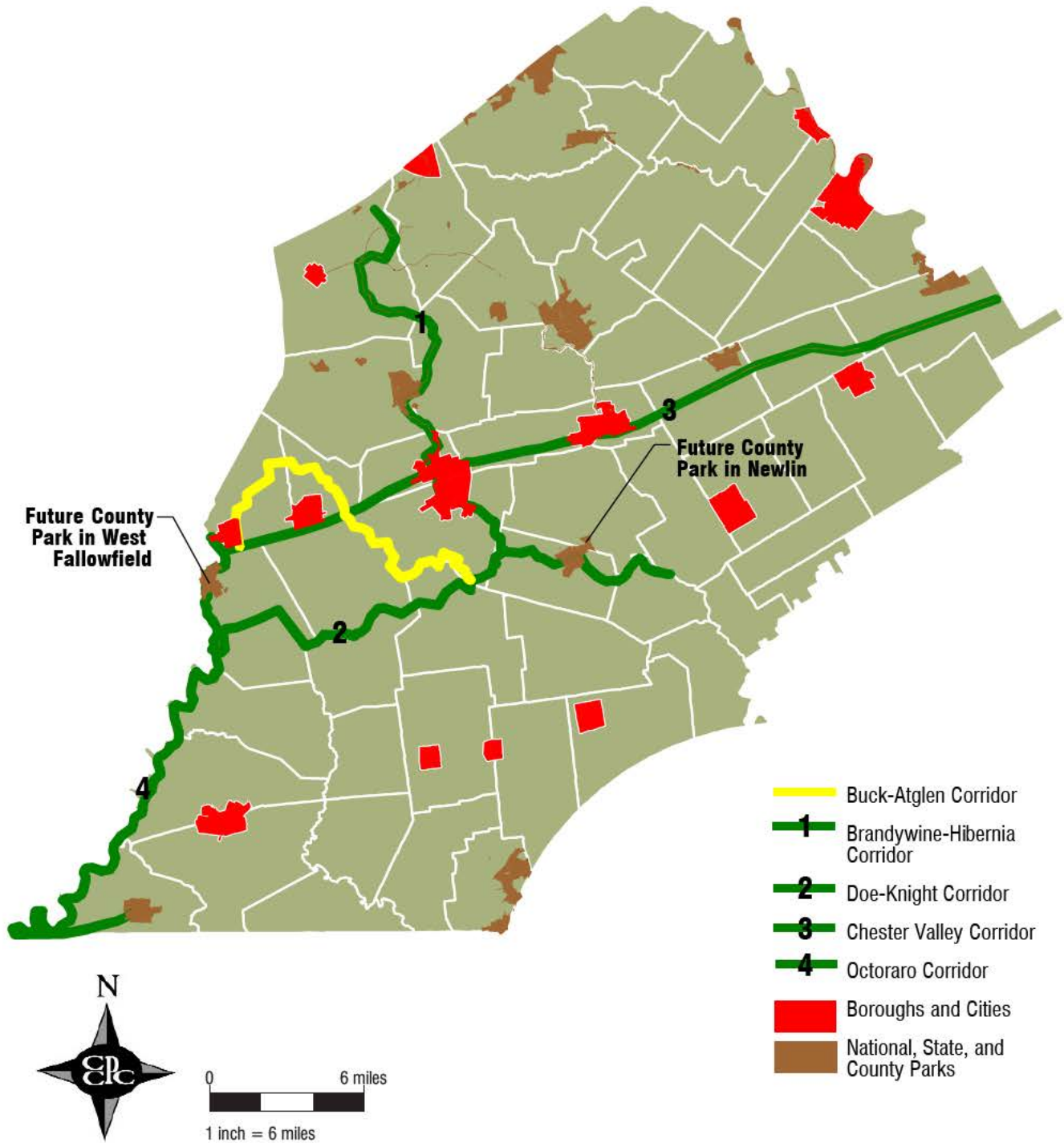
Inventory of Stakeholders

Governments	Natural Resource Groups	Significant Properties	Other
•Lower Oxford Twp. •E. Nottingham Twp. •New London Twp. •Elk Twp. •Franklin Twp. •Cecil County, MD	•Elk Creeks Watershed Association	New London Twp. •Camp Saginaw	School Districts •Avon Grove •Oxford

Inventory of Trail Destinations and Points of Interest

Trail Destinations	Points of Interest
•Fair Hill Natural Resources Management Area	•Big Elk Creek •Linton Steven Covered Bridge over Big Elk Creek (New London & E. Nottingham Twps.) •Rudolph and Arthur Covered Bridge over Big Elk Creek (New London & E. Nottingham Twps.)

Figure 12.4: The Buck-Atglen Regional Recreation Corridor



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Source: CCPC, 2000.

■ **The Buck-Atglen Regional Recreation Corridor** This Corridor, illustrated in *Figure 12.4*, extends from Doe Run, up Buck Run to north of US Route 30, from there west to Officers Run, and down Officers Run to Valley Creek in Atglen Borough. It links with two other corridors and forms a part of Potential Trail Loops “F” and “G” as presented in *Figure 12.30* of this chapter. The primary purpose of this Corridor is to provide the communities in West-central Chester County with access to the future County Park in West Fallowfield Township.

Inventory of Parks and Municipal Open Spaces

Federal, State & County Parks	Municipal Recreation Parks	Municipal Non-recreational
None	Atglen Boro. • Atglen Park Sadsbury Twp. • Bert Reel Park W. Sadsbury Twp. • West Sadsbury Park	Sadsbury Twp. • Green Belt Park

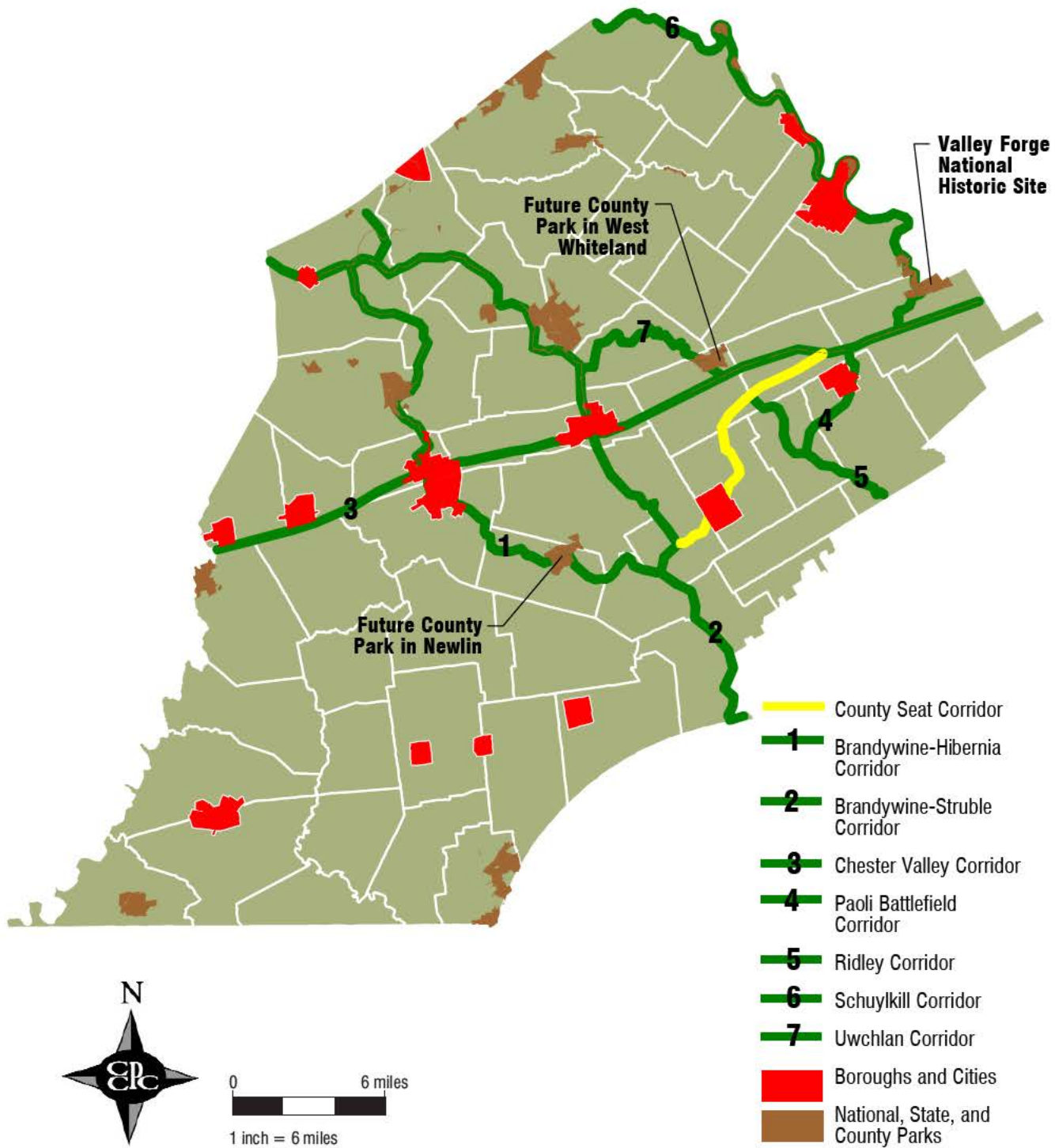
Inventory of Stakeholders

Governments	Natural Resource Groups	Significant Properties	Other
<ul style="list-style-type: none"> • Atglen Boro. • E. Fallowfield Twp. • Highland Twp. • Sadsbury Twp. • W. Marlborough Twp. • W. Sadsbury Twp. 	<ul style="list-style-type: none"> • Brandywine Valley Association • Octoraro Watershed Association 	Atglen Boro. • West Sadsbury Industrial Park W. Sadsbury Twp. • West Sadsbury Industrial Park	School Districts: • Coatesville Area • Octoraro • Unionville-Chadds Ford

Inventory of Trail Destinations and Points of Interest

Trail Destinations	Points of Interest
<ul style="list-style-type: none"> • Atglen Boro. 	<ul style="list-style-type: none"> • Glen Rose Historic District (E. Fallowfield Twp.) • Hayes-Clark Covered Bridge over Doe Run (E. Fallowfield Twp.) • Speakman Covered Bridge over Buck Run (W. Fallowfield & W. Marlborough Twps.)

Figure 12.5: The County Seat Regional Recreation Corridor



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Source: CCPC, 2000.

■ **The County Seat Regional Recreation Corridor** This Corridor, illustrated in *Figure 12.5*, extends from the East Branch Brandywine Creek along PA Route 842 east into West Chester Borough, from there northeast along an abandoned railroad through Immaculata College, and from there to the County Chester Valley Trail in East Whiteland Township. It links with three other corridors and forms a part of Potential Trail Loop “E” as presented in *Figure 12.30* of this chapter. The primary purpose of this Corridor is to provide the communities in the West Chester Region with access to the East Branch Brandywine Valley and the County Chester Valley Trail.

Inventory of Parks and Municipal Open Spaces

Federal, State & County Parks	Municipal Recreation Parks	Municipal Non-recreational
County • County Chester Valley Trail	E. Whiteland Twp. • Winding Way Park West Chester Boro. • Everhart Park • Fugett Park • Market Street Playground • Marshall Square Park	E. Whiteland Twp. • Glenloch Station Open Space

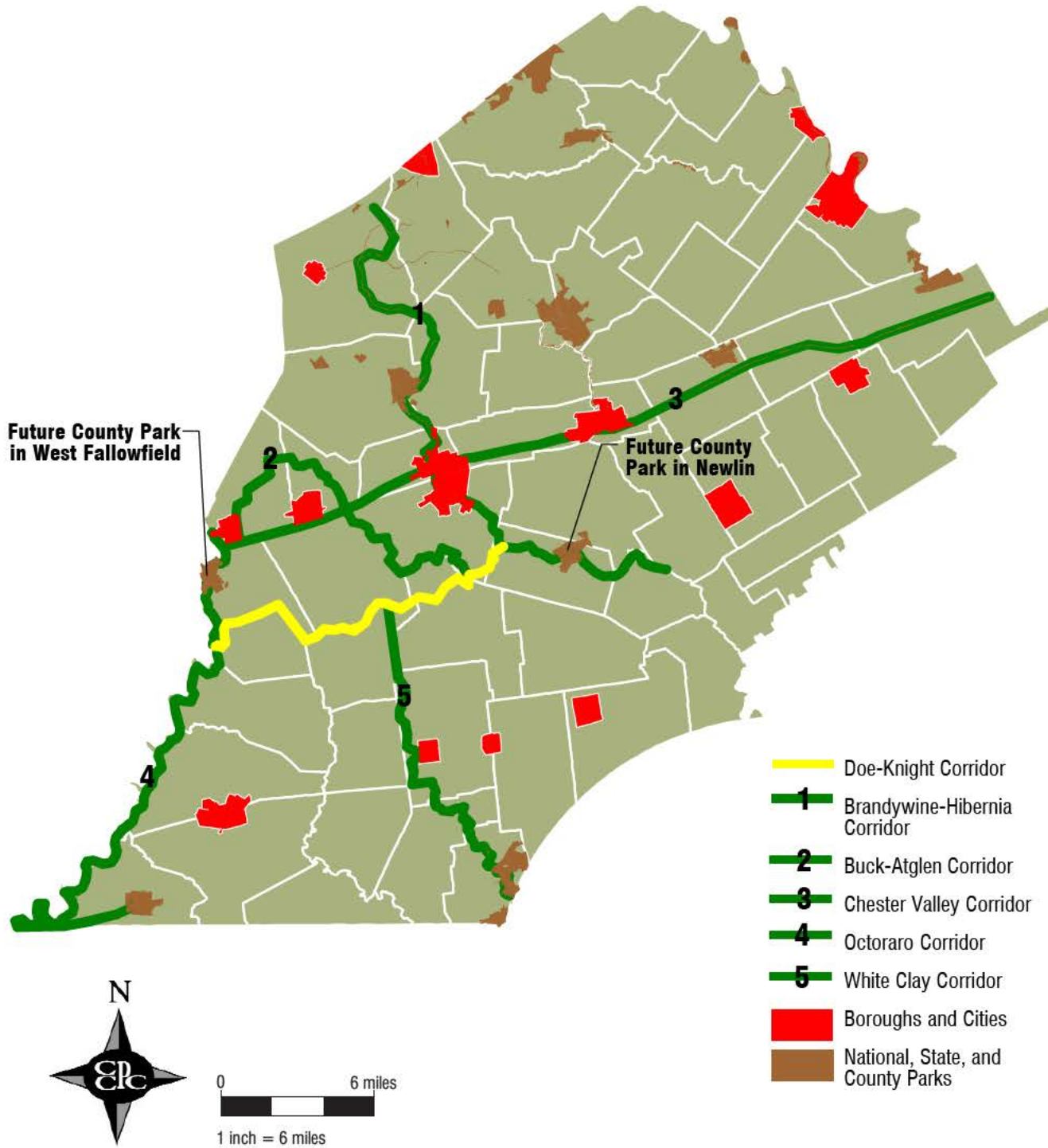
Inventory of Stakeholders

Governments	Natural Resource Groups	Significant Properties	Other
• E. Bradford Twp. • E. Whiteland Twp. • W. Chester Boro. • W. Goshen Twp. • W. Whiteland Twp.	• Brandywine Valley Association • Chester Ridley Crum Watershed Association • Valley Creek Coalition	E. Whiteland Twp. • Chester County Industrial Park • Devereux Glen Loch Campus West Chester Boro. • West Chester University W. Goshen Twp. • Deer Run Industrial Park W. Whiteland Twp. • Immaculata College	E. Bradford Twp. • Hillsdale Elementary School West Chester Boro. • Henderson High School • Bishop Shanahan High School School Districts: • Great Valley • West Chester Area

Inventory of Trail Destinations and Points of Interest

Trail Destinations	Points of Interest
• West Chester Boro.	• West Chester Historic District (West Chester Boro.) • West Chester State University Quadrant Historic District (West Chester Boro.)

Figure 12.6: The Doe-Knight Regional Recreation Corridor



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Source: CCPC, 2000.

■ **The Doe-Knight Regional Recreation Corridor** This Corridor, illustrated in *Figure 12.6*, extends from the Octoraro Creek, up Knight Run to PA Route 41, from there south to Doe Run, and from there down Doe Run to the West Branch Brandywine Creek. It links with four other corridors and forms a part of Potential Trail Loop “G” as presented in *Figure 12.30* of this chapter. The primary purpose of this Corridor is to provide the communities in Central Chester County with access to future County Parks in Newlin and West Fallowfield Townships.

Inventory of Parks and Municipal Open Spaces

Federal, State & County Parks	Municipal Recreation Parks	Municipal Non-recreational
County •Future County Park in Newlin Twp. •Future County Park in W. Fallowfield Twp.	W. Fallowfield Twp. •Community Park and Center	None

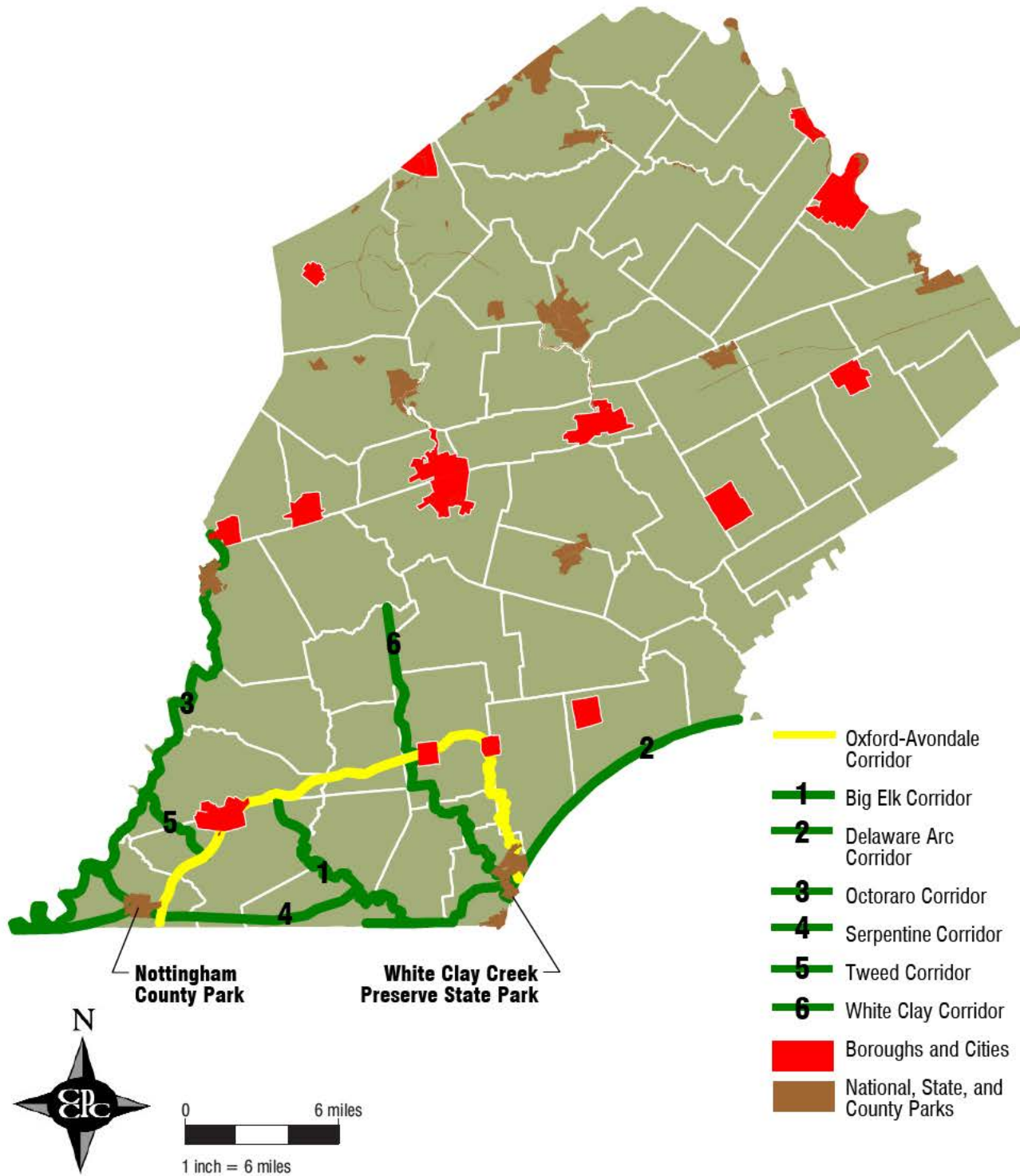
Inventory of Stakeholders

Governments	Natural Resource Groups	Significant Properties	Other
•E. Fallowfield Twp. •Highland Twp. •Londonderry Twp •Newlin Twp. •W. Fallowfield Twp. •W. Marlborough Twp.	•Brandywine Valley Association •Octoraro Watershed Association	None	School Districts: •Coatesville Area •Octoraro •Unionville – Chadds Ford

Inventory of Trail Destinations and Points of Interest

Trail Destinations	Points of Interest
•The Octoraro Valley	•Doe Run Historic District (W. Marlborough Twp.) •Hayes-Clark Covered Bridge over Doe Run (E. Fallowfield Twp.)

Figure 12.7: The Oxford-Avondale Regional Recreation Corridor



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Source: CCPC, 2000.

■ **The Oxford-Avondale Regional Recreation Corridor** This Corridor, illustrated in *Figure 12.7*, extends from the Pennsylvania-Maryland Border north along the old Octoraro Railway lines now owned by SEPTA, into Oxford Borough, from there east into Avondale Borough, and from there south down the White Clay Creek to the Pennsylvania-Delaware Boarder. It links with five other corridors and forms a part of Potential Trail Loops “J, K” and “L” as presented in *Figure 12.30* of this chapter. The primary purpose of this Corridor is to provide the communities in Southern Chester County with access to White Clay Creek Preserve State Park and the proposed Octoraro rail-trail in Cecil County, MD.

Inventory of Parks and Municipal Open Spaces

Federal, State & County Parks	Municipal Recreation Parks	Municipal Non-recreational
State • White Clay Creek Preserve State Park County • Nottingham County Park	Avondale Boro. • James Watson Mem. Park Oxford Boro. • Oxford Memorial Park West Grove Boro. • West Grove Memorial Park	Avondale Boro. • Lawrence Road Open Space West Grove Boro. • Myrtle Ave. Open Space

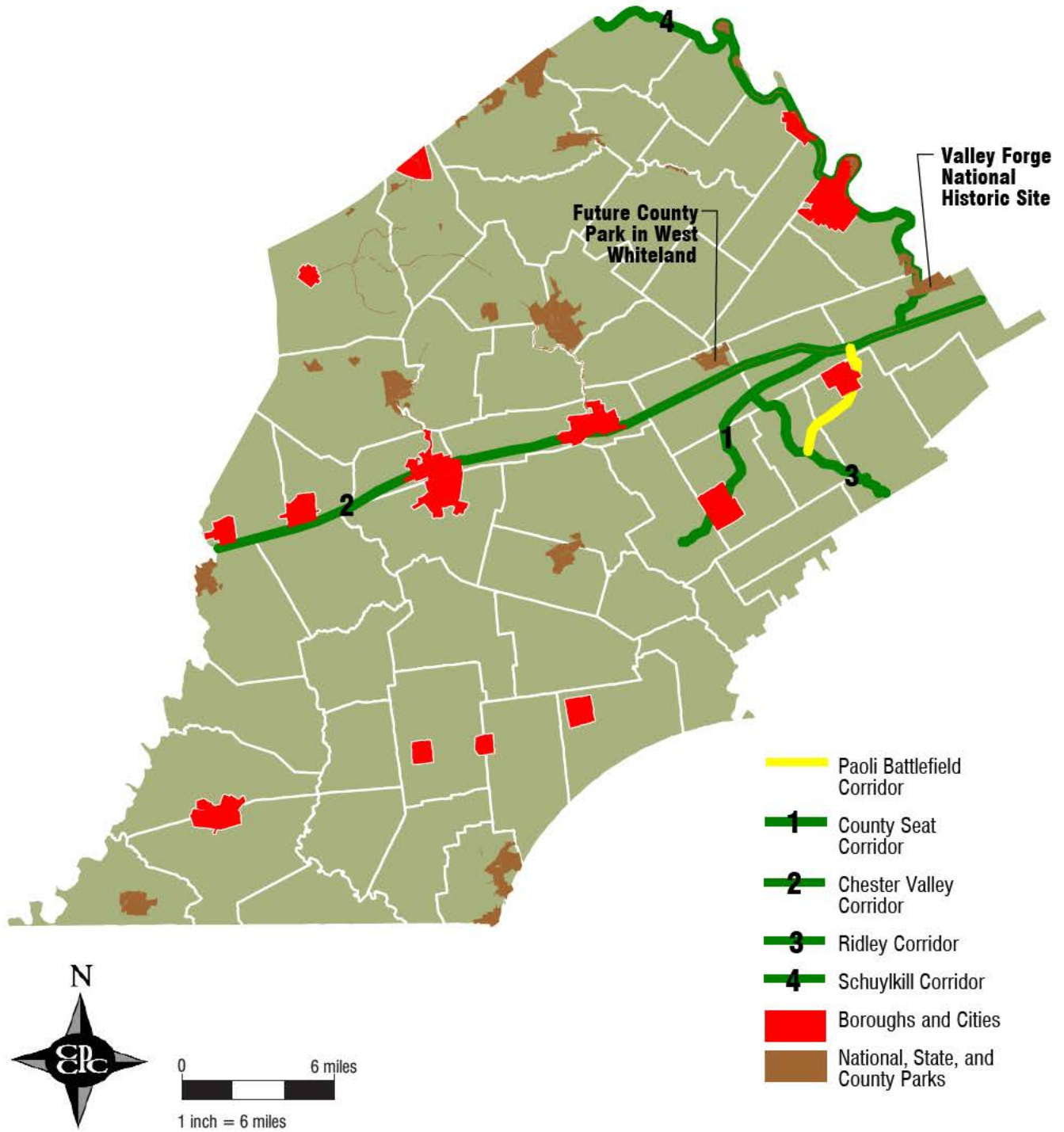
Inventory of Stakeholders

Governments	Natural Resource Groups	Significant Properties	Other
• Avondale Boro. • E. Nottingham Twp. • Franklin Twp. • L. Oxford Boro. • London Britain Twp. • London Grove Twp. • New Garden Twp. • Oxford Boro. • Penn Twp. • W. Nottingham Twp. • W. Grove Boro. • Cecil County, MD	• Elk Creeks Watershed Association • Octoraro Watershed Association • White Clay Creek Bicycle Club • White Clay Creek Watershed Association	L. Oxford Boro. • Lincoln University Oxford Boro. • Oxford Industrial Park	School Districts: • Avon Grove • Kennett Area • Oxford Area

Inventory of Trail Destinations and Points of Interest

Trail Destinations	Points of Interest
• Avondale Boro. • Oxford Boro. • West Grove Boro. • Landenburg Village Center • White Clay Creek Preserve State Park • Nottingham County Park	• White Clay Creek

Figure 12.8: The Paoli Battlefield Regional Recreation Corridor



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Source: CCPC, 2000.

■ **The Paoli Battlefield Regional Recreation Corridor** This Corridor, illustrated in *Figure 12.8*, extends from Ridley Creek east along Paoli Pike to Malvern Borough, and from there up Crum Creek to the County Chester Valley Trail. It links with two other corridors and forms a part of Potential Trail Loop “E” as presented in *Figure 12.30* of this chapter. The primary purpose of this Corridor is to provide the communities in the Malvern area with access to East Goshen Township Park, the Paoli Battlefield Monument and the County Chester Valley Trail.

Inventory of Parks and Municipal Open Spaces

Federal, State & County Parks	Municipal Recreation Parks	Municipal Non-recreational
Federal •Paoli Battlefield County •County Chester Valley Trail	E. Goshen Twp. •E. Goshen Township Park	E. Goshen Twp. •Rutland Ave. Open Space •Waterford Open Space

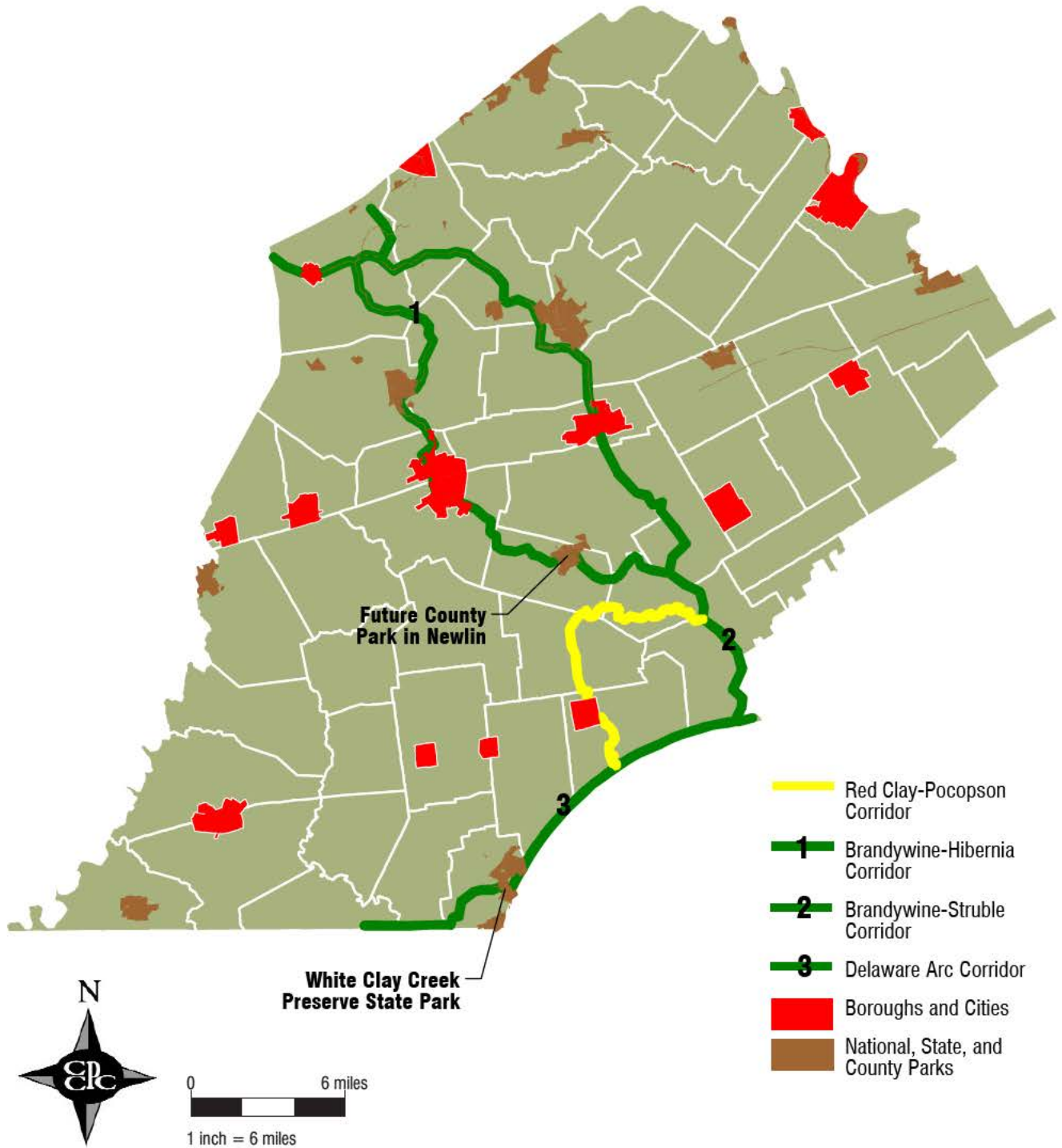
Inventory of Stakeholders

Governments	Natural Resource Groups	Significant Properties	Other
•E. Goshen Twp. •E. Whiteland Twp. •Malvern Boro. •Tredyffrin Twp. •Willistown Twp.	•Chester Ridley Crum Watershed Association •Valley Creek Coalition	Malvern Boro. •St. Joseph’s Layman’s Retreat •Malvern Preparatory School Willistown Twp. •Bryn Mawr Rehabilitation Center •Phelps Academy	School Districts: •Great Valley •Tredyffrin – Easttown •West Chester Area

Inventory of Trail Destinations and Points of Interest

Trail Destinations	Points of Interest
•Malvern Boro. •Paoli Battlefield •The Ridley Creek Trail Corridor •The Chester Valley Trail Corridor	•Paoli Battlefield Monument

Figure 12.9: The Red Clay-Pocopson Regional Recreation Corridor



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Source: CCPC, 2000.

The Red Clay-Pocopson Regional Recreation Corridor This Corridor, illustrated in *Figure 12.9*, extends from the Pennsylvania-Delaware Border up the East Branch Red Clay Creek, from there north across Doe Run Road, and from there down Pocopson Creek to the Brandywine Creek Main Stem. It links with two other corridors and forms a part of Potential Trail Loop “H” as presented in *Figure 12.30* of this chapter. The primary purpose of this Corridor is to provide the communities in Southeastern Chester County with access to the East Branch Brandywine Valley and the Delaware Arc/Mason-Dixon Trail region.

Inventory of Parks and Municipal Open Spaces

Federal, State & County Parks	Municipal Recreation Parks	Municipal Non-recreational
None	Kennett Twp. • Anson B. Nixon Park Kennett Square Boro. • Kennett Community Park • Race St. Park	Kennett Square Boro. • Walnut St. Open Space Pocopson Twp. • Bittersweet Development Open Space • Brintons Bridge Open Space

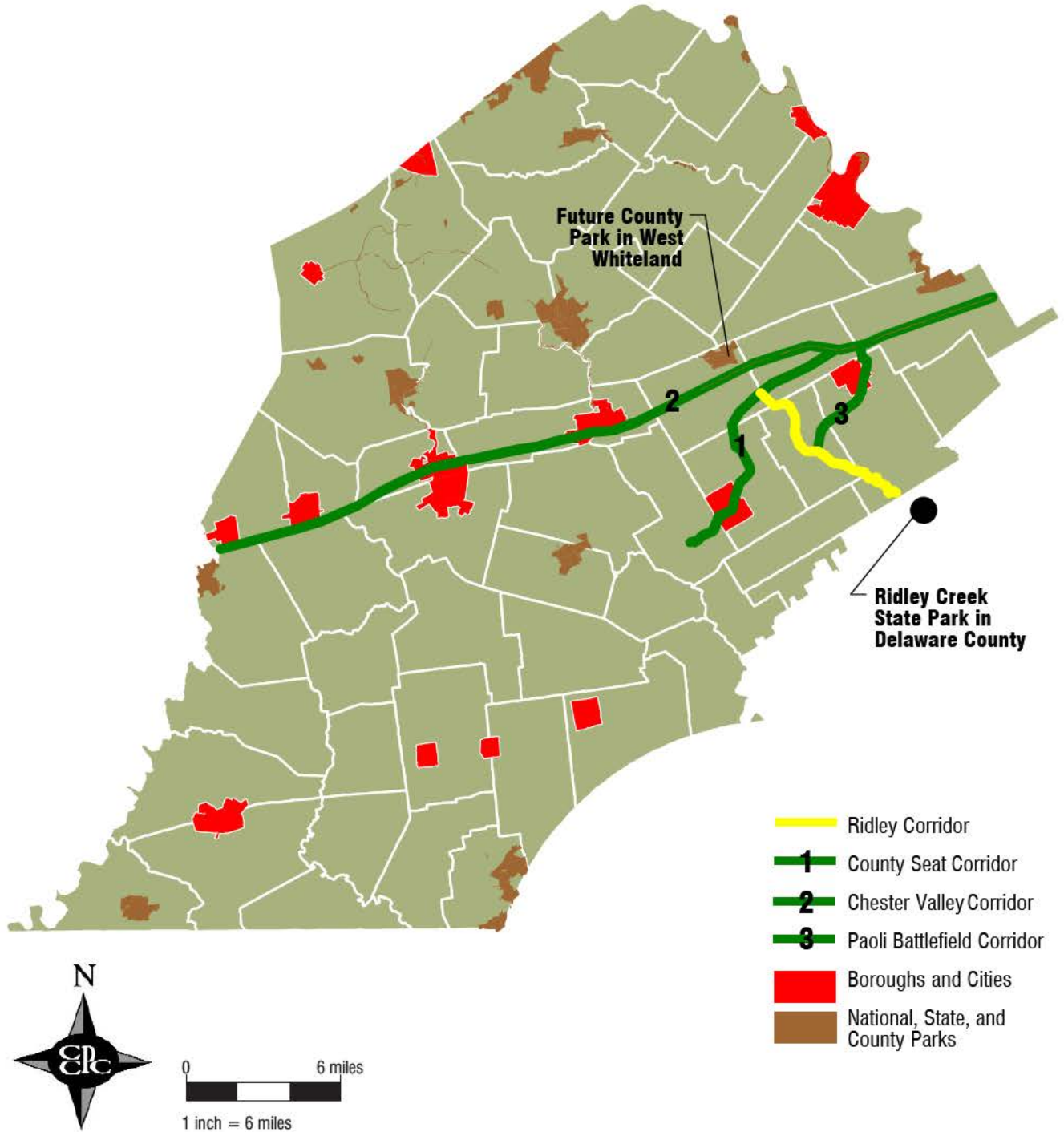
Inventory of Stakeholders

Governments	Natural Resource Groups	Significant Properties	Other
<ul style="list-style-type: none"> • E. Marlborough Twp. • Kennett Twp. • Kennett Square Boro. • Newlin Twp. • Pennsbury Twp. • Pocopson Twp. 	<ul style="list-style-type: none"> • Brandywine Valley Association • Red Clay Valley Association 	Kennett Twp. • Union Hill Cemetery Pocopson Twp. • The Pocopson Home • The Chester County Prison Farm School	E. Marlborough Twp. • Unionville Elementary School Kennett Square Boro. • Kennett High School • Kennett Middle School School Districts: • Kennett Area • Unionville-Chadds Ford

Inventory of Trail Destinations and Points of Interest

Trail Destinations	Points of Interest
<ul style="list-style-type: none"> • Kennett Square Boro. • Willowdale Village Center 	<ul style="list-style-type: none"> • Kennett Square Historic District (Kennett Square Boro.) • Cedarcroft (Bayard Taylor House) Historic Landmark (E. Marlborough Twp.)

Figure 12.10: The Ridley Regional Recreation Corridor



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Source: CCPC, 2000.

■ **Ridley Regional Recreation Corridor** This Corridor, illustrated in *Figure 12.10*, extends from the Chester County-Delaware County Border, up Ridley Creek to its headwaters just west of Immaculata College. It links with two other corridors and forms part of Potential Trail Loop “E” as presented in *Figure 12.30* of this chapter. The primary purpose of this Corridor is to provide the communities in East-central Chester County with access to Ridley Creek State Park nearby in Delaware County.

Inventory of Parks and Municipal Open Spaces

Federal, State & County Parks	Municipal Recreation Parks	Municipal Non-recreational
None	None	E. Goshen Twp. •Bow Tree Open Space •Hershey’s Mill Open Space E. Whiteland Twp. •Brooklands Park Willistown Twp. •Garrett Mill Road Park

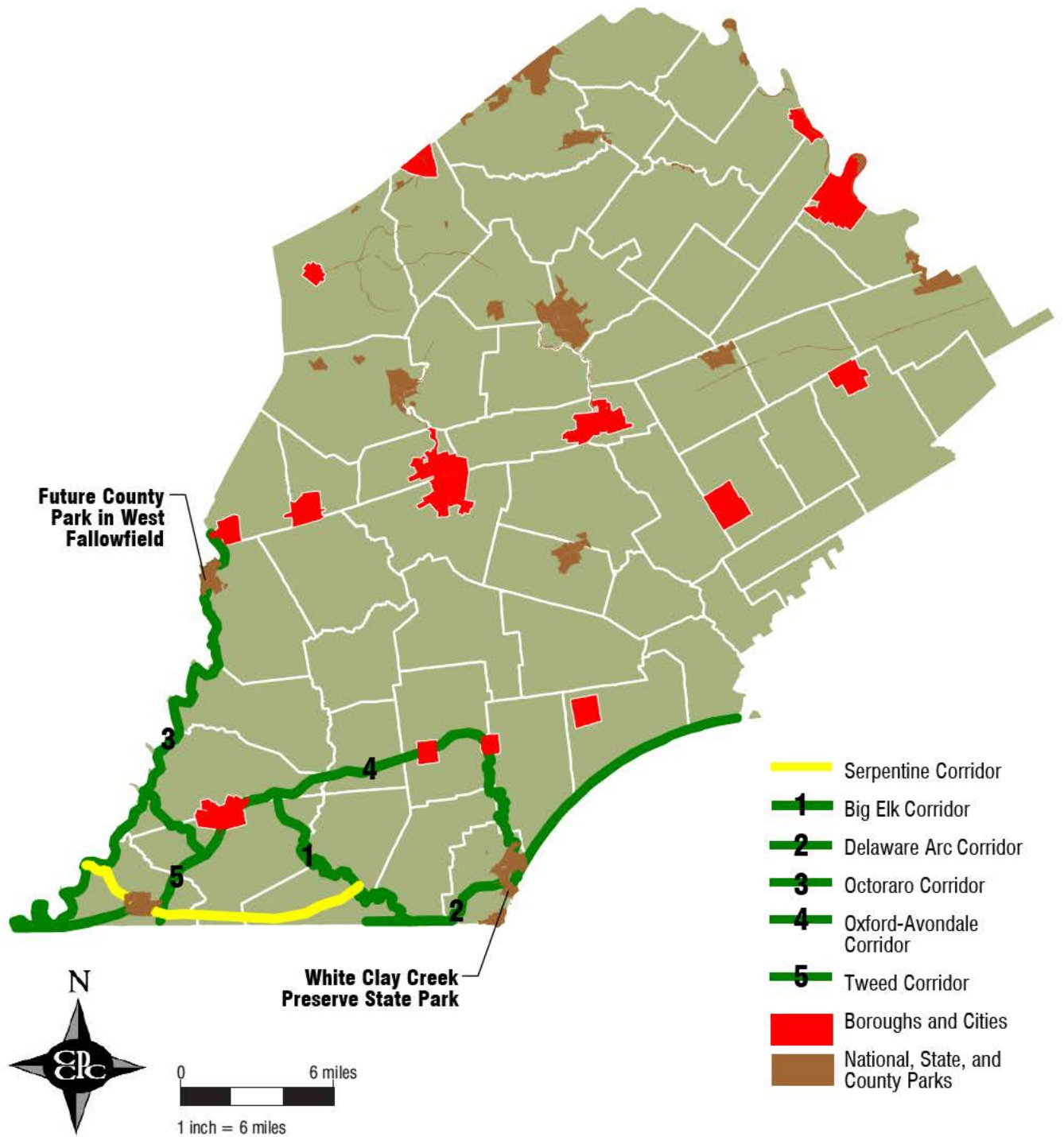
Inventory of Stakeholders

Governments	Natural Resource Groups	Significant Properties	Other
<ul style="list-style-type: none"> •E. Goshen Twp. •E. Whiteland Twp. •W. Whiteland Twp. •Willistown Twp. •Delaware County, PA 	<ul style="list-style-type: none"> •Chester Ridley Crum Watershed Association 	W. Whiteland Twp. •Chester County Industrial Park	E. Goshen Twp. •East Goshen Elementary School School Districts: •Great Valley •West Chester

Inventory of Trail Destinations and Points of Interest

Trail Destinations	Points of Interest
<ul style="list-style-type: none"> •Potential Trail Links in Delaware County, PA 	<ul style="list-style-type: none"> •Ridley Creek

Figure 12.11: The Serpentine Regional Recreation Corridor



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Source: CCPC, 2000.

■ **The Serpentine Regional Recreation Corridor** This Corridor, illustrated in *Figure 12.11*, extends from Octoraro Creek up Black Run into Nottingham County Park, and from there east through a series of serpentine barrens to Big Elk Creek. It links with three other corridors and is part of Potential Trail Loops “I, J” and “K” as presented in *Figure 12.30* of this chapter. The primary purpose of this Corridor is to provide the communities in Southwestern Chester County with access to Nottingham County Park and the various the serpentine barrens sites in the region.

Inventory of Parks and Municipal Open Spaces

Federal, State & County Parks	Municipal Recreation Parks	Municipal Non-recreational
County •Nottingham County Park	None	None

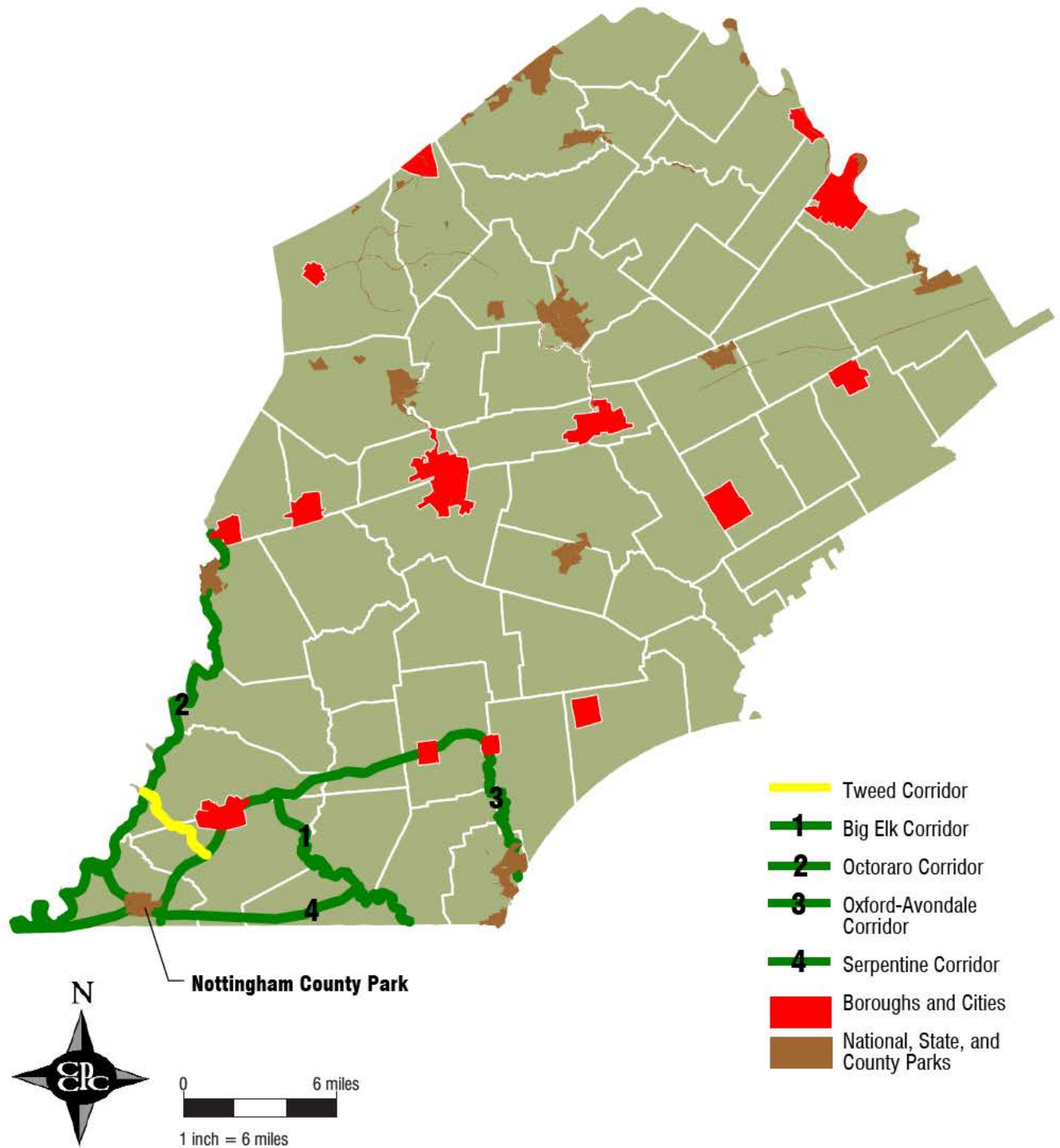
Inventory of Stakeholders

Governments	Natural Resource Groups	Significant Properties	Other
•Elk Twp. •E. Nottingham Twp. •W. Nottingham Twp.	•Elk Creeks Watershed Association •Octoraro Watershed Association	None	School District: •Oxford Area

Inventory of Trail Destinations and Points of Interest

Trail Destinations	Points of Interest
•Nottingham County Park	•Glen Hope Covered Bridge over Little Elk Creek (Elk Twp.) •Various Serpentine Barrens Sites

Figure 12.12: The Tweed Regional Recreational Corridor



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Source: CCPC, 2000.

■ **The Tweed Regional Recreational Corridor** This Corridor, illustrated in *Figure 12.12*, extends from the Octoraro Creek up Tweed Run to the old Oxford-Avondale Regional Trail Corridor. It links with two other corridors and is part of Potential Trail Loop “J” as presented in *Figure 12.30* of this chapter. The primary purpose of this Corridor is to provide the communities in Southwestern Chester County with access to Octoraro Creek and Hopewell Village.

Inventory of Parks and Municipal Open Spaces

Federal, State & County Parks	Municipal Recreation Parks	Municipal Non-recreational
None	None	None

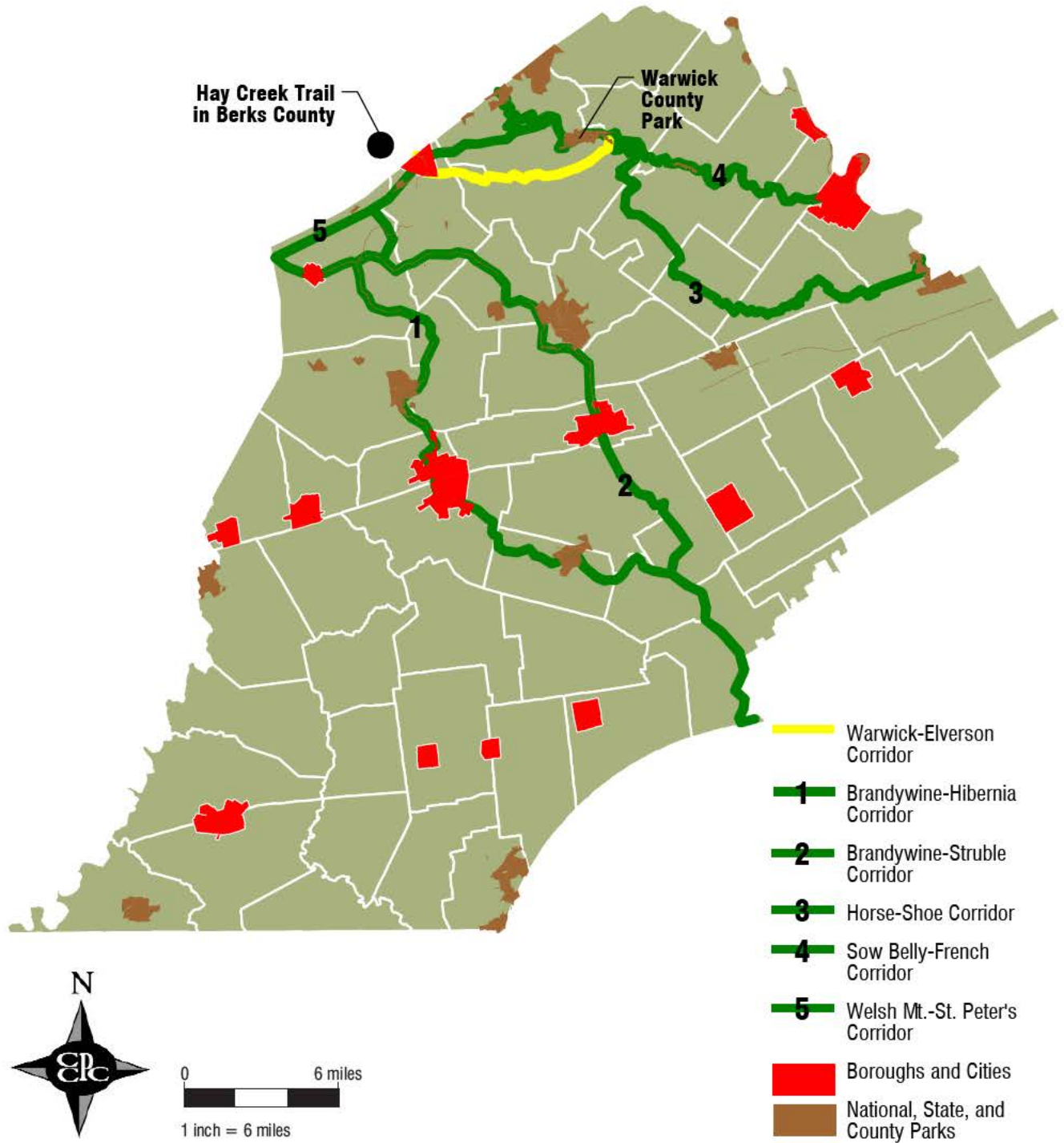
Inventory of Stakeholders

Governments	Natural Resource Groups	Significant Properties	Other
<ul style="list-style-type: none"> • E. Nottingham Twp. • L. Oxford Twp. 	<ul style="list-style-type: none"> • Elk Creeks Watershed Association • Octoraro Watershed Association 	None	School Districts: <ul style="list-style-type: none"> • Oxford

Inventory of Trail Destinations and Points of Interest

Trail Destinations	Points of Interest
<ul style="list-style-type: none"> • Hopewell Village Center • Octoraro Creek 	<ul style="list-style-type: none"> • Tweed Run • Hopewell Historic District (L. Oxford Twp.)

Figure 12.13: The Warwick-Elverson Regional Recreation Corridor



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Source: CCPC, 2000.

■ **The Warwick-Elverson Regional Recreation Corridor** This Corridor, illustrated in *Figure 12.13*, extends from Warwick County Park, up the South Branch of French Creek, and from there north to Elverson Borough. It links with three other corridors and is a part of Potential Trail Loop “B” as presented in *Figure 12.30* of this chapter. The primary purpose of this Corridor is to provide the communities in Northwestern Chester County with access to Warwick County Park and the Hay Creek Trail in Berks County.

Inventory of Parks and Municipal Open Spaces

Federal, State & County Parks	Municipal Recreation Parks	Municipal Non-recreational
County • Warwick County Park County Rail Right-of-Way In: • Elverson Boro. • W. Nantmeal Twp.	None	None

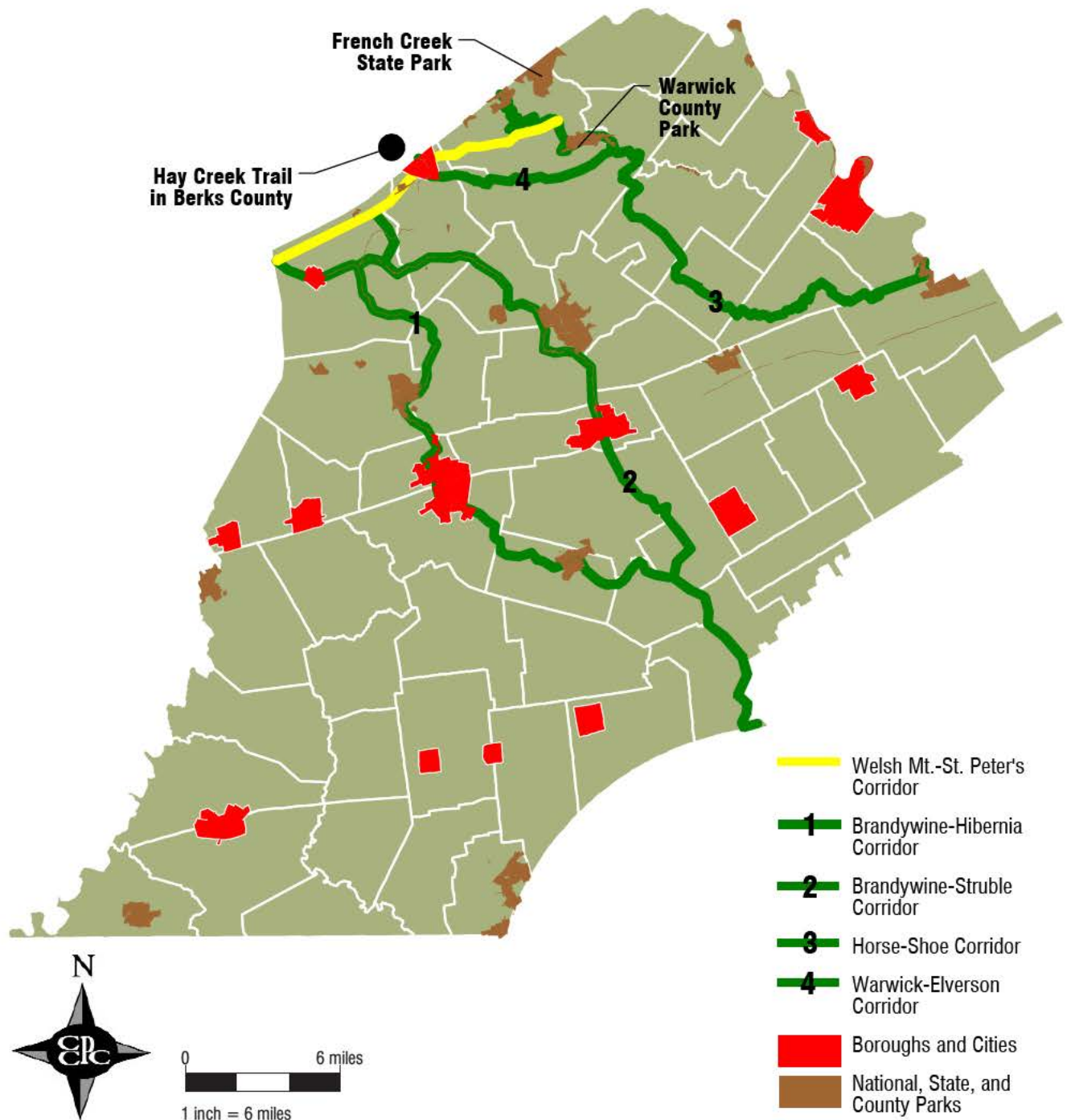
Inventory of Stakeholders

Governments	Natural Resource Groups	Significant Properties	Other
• E. Nantmeal Twp. • Elverson Boro. • S. Coventry Twp. • W. Nantmeal Twp. • Warwick Twp.	• Brandywine Valley Association • Green Valleys Association	E. Nantmeal Twp. • The Stonewall Golf Course	School Districts: • Owen J. Roberts • Twin Valley

Inventory of Trail Destinations and Points of Interest

Trail Destinations	Points of Interest
• Elverson Boro. • Warwick County Park • Hay Creek Trail in Berks County	• South Branch French Creek • Reading Furnace Historic District (E. Nantmeal Twp.) • Elverson Historic District (Elverson Boro.)

Figure 12.14: The Welsh Mountain-St. Peters Regional Recreation Corridor



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Source: CCPC, 2000.

■ The Welsh Mountain-St.Peters Regional Recreation Corridor

This Corridor, illustrated in *Figure 12.14*, extends from the Chester County-Lancaster County Border, east along the Welsh Mountain Ridge to Elverson Borough, and from there east along the old St. Peters rail line to St. Peters Village. It links with four other corridors and forms part of Potential Trail Loops “A” and “B” as presented in *Figure 12.30* of this chapter. The primary purpose of this Corridor is to provide the communities of Northwestern Chester County with access to State Game Lands No. 43, St. Peters Village and Hay Creek Trail in Berks County.

Inventory of Parks and Municipal Open Spaces

Federal, State & County Parks	Municipal Recreation Parks	Municipal Non-recreational
State • State Game Lands No. 43 County • Twin Valley Tracts County Rail Right-of-Way in: • Elverson Boro.	Elverson Boro. • Borough Hall Park • Livingood Park	None

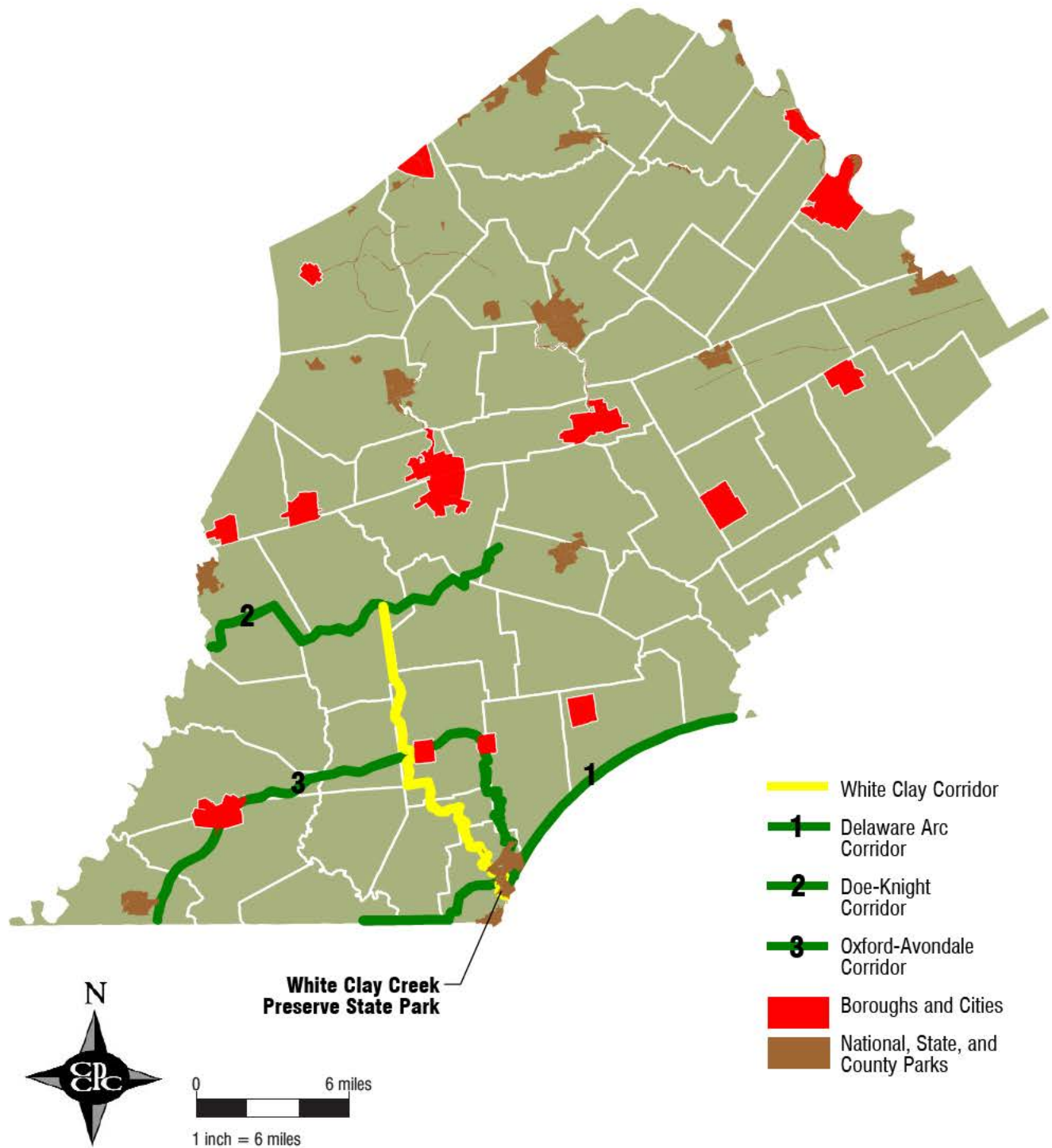
Inventory of Stakeholders

Governments	Natural Resource Groups	Significant Properties	Other
• Elverson Boro. • Honey Brook Twp. • Wallace Twp. • W. Nantmeal Twp.	• Brandywine Valley Association • Green Valleys Association	None	School Districts: • Owen J. Roberts • Twin Valley

Inventory of Trail Destinations and Points of Interest

Trail Destinations	Points of Interest
• Elverson Boro. • St. Peters Village • Hay Creek Trail in Berks County	• Welsh Mountain Ridgeline • Elverson Historic District (Elverson Twp.)

Figure 12.15: The White Clay Regional Recreation Corridor



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Source: CCPC, 2000.

■ **The White Clay Regional Recreation Corridor** This Corridor, illustrated in *Figure 12.15*, extends from the Pennsylvania-Delaware Border, north along the White Clay Creek Middle Branch to its headwaters, and from there due north to the Doe Knight Corridor. It links with three other corridors and forms part of Potential Trail Loop “L” as presented in *Figure 12.30* of this chapter.” The primary purpose of this Corridor is to provide the communities in and around West Grove Borough with access to White Clay Creek Preserve State Park and the Doe-Knight Corridor.

Inventory of Parks and Municipal Open Spaces

Federal, State & County Parks	Municipal Recreation Parks	Municipal Non-recreational
State •White Clay Creek Preserve State Park County •None	None	London Britain Twp. •London Britain Twp. Open Space

Inventory of Stakeholders

Governments	Natural Resource Groups	Significant Properties	Other
•Franklin Twp. •London Britain Twp. •London Grove Twp. •Londonderry Twp. •Penn Twp. •W. Grove Boro. •W. Marlborough Twp.	•Green Valleys Association	None	School Districts: •Avon Grove •Octoraro Area •Unionville-Chadds Ford Area

Inventory of Trail Destinations and Points of Interest

Trail Destinations	Points of Interest
•White Clay Creek Preserve State Park •West Grove Boro.	•White Clay Creek Middle Branch

Evaluation of Undeveloped Corridors

■ **The Big Elk Regional Recreation Corridor** This Corridor is within two miles of Oxford Borough. This Corridor is part of Potential Trail Loop “K,” which could bring trail users through Oxford Borough creating the possibility for an expansion of recreation related businesses. This Corridor has many scenic wilderness areas along the steep banks of Big Elk Creek. The establishment of trails in this Corridor may be hampered by the fact that there are so few protected open spaces in this area to serve as trail destinations.

The Big Elk Corridor links with three other corridors. It is also the only corridor in Southern Chester County that permits east-west travel along the Mason-Dixon Line. Because of its unique location, trails established on this Corridor will provide an essential link in the countywide trail network. For this reason the Big Elk Regional Recreation Corridor has been designated as a Regional Priority Trail Corridor in *Figure 12.32* of this chapter.

■ **The Buck-Atglen Regional Recreation Corridor** This Corridor could link Atglen Borough, in the Octoraro Creek Watershed, with the Buck Run located in the Brandywine Creek Watershed. The Buck-Atglen Corridor is part of Potential Trail Loops “F” and “G.” These two loops meet, creating a double loop or figure eight that could bring trail users through five boroughs and the City of Coatesville creating the possibility for an expansion of recreation related businesses in six urban centers. This Corridor goes through scenic and significant natural areas, but trail planning may be hampered by major roadway crossings. To date, trail planning for this Corridor has not progressed beyond preliminary concepts.

■ **The County Seat Regional Recreation Corridor** This Corridor could utilize an abandoned rail line that extends east from West Chester Borough and passes through Immaculata College before linking into the County Chester Valley Trail. This eastern portion of the Corridor would create a bike facility that could be used by students of both Immaculata College and West Chester University in West Chester Borough. The western end of this Corridor is within five miles of the future County Park in Newlin Township. If trails in this Corridor were extended five miles west to link to this Park, they would provide Park access to the densely populated West Chester area. The northern end of this Corridor is a part of Potential Trail Loop “E” which could bring trail users through Malvern Borough creating the possibility for an expansion of recreation related businesses. This Corridor would serve a densely populated suburban region. The establishment of trails in this Corridor may be hampered by multiple street crossings and difficulty in acquiring trail right-of-way.

■ **The Doe-Knight Regional Recreation Corridor** This Corridor could link the Brandywine Creek and Octoraro Creek Watersheds. The western terminus of the Corridor is within four miles of future County

Park in Newlin Township. If trails in this Corridor were extended four miles west to link to this Park, they would provide Park access to the communities in the Doe Run area. The northern end of this Corridor is part of Potential Trail Loops “G,” which could bring trail users through Modena and South Coatesville Boroughs and the City of Coatesville creating the possibility for an expansion of recreation related businesses. This Corridor extends through scenic areas, but to date, trail planning for this Corridor has not progressed beyond preliminary concepts.

■ **The Oxford-Avondale Regional Recreation Corridor** This Corridor is within two miles of Nottingham County Park and the eastern terminus is located in the White Clay Creek Preserve State Park. If trails within this corridor were extended two miles out to Nottingham County Park, there could be one trail linking two major regional parks. Trail users who wish to travel the entire Corridor would have to pass through Avondale, Oxford and West Grove Boroughs, creating the possibility for an expansion of recreation related businesses in all these urban centers. This corridor also forms a part of Potential Trail Loops “K” and “L,” which have potential trailheads in Oxford Borough, and both Avondale and West Grove Boroughs, respectively.

The alignment of most of the Oxford-Avondale Corridor follows the alignment of the active Octoraro Rail Line, which is owned by SEPTA. Cecil County Maryland has acquired 5.7 miles of the inactive Octoraro Rail Line from the Pennsylvania border south. The 1998 *Cecil County Land Preservation and Recreation Plan* recommends that the Octoraro Rail Line in Cecil County be utilized as the Octoraro Rail Greenway. The northern end of the proposed Cecil County Greenway meets the southern terminus of the Oxford-Avondale Corridor.

The right-of-way along the Octoraro Rail Line is too thin to allow the development of a rails-with-trails type of trail. Therefore the only feasible option for establishing a trail in this corridor will require that SEPTA abandon this rail line. Although SEPTA has no immediate plans to abandon this line, this Corridor is still well suited for trail development if it were abandoned at a later date.

■ **The Paoli Battlefield Regional Recreation Corridor** This Corridor could provide a link between the important Revolutionary War sites of Valley Forge and the Paoli Battlefield, which are within one mile of the Corridor. This scenario could bring trail users from Valley Forge National Historic Site through Malvern Borough creating the possibility for an expansion of recreation related businesses. The portion of the Paoli Battlefield Corridor north of Malvern Borough could provide its residents with a two-mile long trail link to the County Chester Valley Trail. Borough residents could also be able to access Valley Forge National Historic Site via the lower end of the Schuylkill Corridor, which extends along Valley Creek for approximately eight miles.

The portion of the Paoli Battlefield Corridor south of Malvern Borough extends along Paoli Pike and would provide Borough residents with access to East Goshen Township Park. Currently there are no plans for a trail along Paoli Pike, however there are a number of properties along the south side of Paoli Pike that are not densely developed, including one cluster of protected open space parcels protected by non-profit land trust easements. Establishing a trail along the Paoli Battlefield Corridor south of Malvern Borough will pose many challenges. However, there are so few vacant or undeveloped properties in the communities surrounding Malvern Borough, that this Corridor must be considered as one of the few options available for creating a trail link to the south of the Borough.

■ **The Ridley Regional Recreation Corridor** This Corridor could link trails in Eastern Chester County with those in Delaware County in the vicinity of Ridley Creek State Park. Delaware County is currently establishing a number of trails south of Ridley Creek State Park that could ultimately link to the Park's internal trail system, as described in *Chapter 17*. The northern terminus of the Ridley Corridor is within four miles of the County Chester Valley Trail, via the County Seat Corridor.

If this network of trails were established, there would be a 13 mile long trail connecting Ridley Creek State Park with the County Chester Valley Trail, which will link to trails in Montgomery County. This 13 mile long link could therefore connect three counties, thus creating a regional trail network of statewide importance. The western end of this Corridor is a part of Potential Trail Loop "E" which could bring trail users through Malvern Borough creating the possibility for an expansion of recreation related businesses. This Corridor would serve to give a densely populated suburban region access to a nearby state park, but to date, trail planning for this Corridor has not progressed beyond preliminary concepts.

■ **The Red Clay-Pocopson Regional Recreation Corridor** This Corridor is a part of Potential Trail Loop "E" which could bring trail users through Kennett Square Borough creating the possibility for an expansion of recreation related businesses. As of April 2001, organizations in Kennett Square Borough have begun to consider trail alignments within the Borough, but trail planning for the remainder of the Corridor has not progressed beyond preliminary concepts.

■ **The Serpentine Regional Recreation Corridor** This Corridor could link Octoraro Creek, Nottingham County Park and Big Elk Creek. The western terminus of the Corridor is also within four miles of the Fair Hill Natural Resource Area in Cecil County, MD. The Serpentine Corridor links to this wildlife preserve via the Big Elk Corridor. The Corridor therefore has the potential to serve as a large-scale interpretive trail, highlighting the serpentine barren ecosystem sites and the two stream valleys through which it passes. To date, trail planning for the Corridor has not progressed beyond preliminary concepts.

The Serpentine Corridor links with three other corridors. This Corridor is also a part of Potential Trail Loop “K” which could bring trail users through Oxford Borough creating the possibility for an expansion of recreation related businesses, and Potential Trail Loops “I” and “J” which both have potential trailheads at Nottingham County Park. It is also the only corridor in Southwestern Chester County that permits east-west travel. Because of its unique location, trails established on this Corridor will provide an essential link in the countywide trail network. For this reason the Serpentine Regional Recreation Corridor is designated as a Regional Priority Trail Corridor in *Figure 12.32* of this chapter.

■ **The Tweed Regional Recreation Corridor** This Corridor could link the Octoraro and Oxford-Avondale Corridors. Oxford Borough is within approximately two miles of the southern terminus of the Tweed Corridor. If trails within this Corridor were extended two miles west, they could provide residents of Oxford Borough with access to Octoraro Creek. This scenario could bring trail users from the Borough through the Village of Hopewell, creating the possibility for an expansion of recreation related businesses. This Corridor is part of Potential Trail Loops “J” which has a potential trail head at Nottingham County Park. This Corridor extends through scenic areas, but to date, trail planning for the Corridor has not progressed beyond preliminary concepts.

■ **The Warwick-Elverson Regional Recreation Corridor** This Corridor could link Elverson Borough to Warwick County Park via South Branch French Creek. Elverson Borough is also the trail head for the planned Hay Creek Trail that will extend west into Berks County. This scenario could bring trail users from throughout Northwestern Chester County to the Park through Elverson Borough creating the possibility for an expansion of recreation related businesses in the Borough. This Corridor is also a part of Potential Trail Loop “B” which has a potential trailhead in Elverson Borough. This corridor extends through scenic areas, but to date, trail planning for the Corridor has not progressed beyond preliminary concepts.

■ **The Welsh Mountain-St. Peters Regional Recreation Corridor** This Corridor could link to five other Corridors that extend southeast into Chester County. The Welsh Mountain-St. Peters Corridor could therefore act as a collector trail linking all of these trails with Elverson Borough which is also the trailhead for the planned Hay Creek Trail that will extend west into Berks County. This scenario could bring trail users from throughout Northwestern Chester County through the Borough, creating the possibility for an expansion of recreation related businesses. The western terminus of the Corridor is within two miles of Honey Brook Borough, and the eastern terminus is within two miles of Warwick County Park. The Corridor could therefore provide the residents of two boroughs with access to Warwick County Park. To date, trail planning for the Corridor has not progressed beyond preliminary concepts.

The Welsh Mountain-St. Peters Corridor links with four other corridors. It is also a part of Potential Trail Loop “A,” which has a potential trailhead in Honey Brook Borough. Furthermore, it is the only corridor in Northwestern Chester County that permits northeast-southwest travel. Because of its unique location, trails established on this Corridor will provide an essential link in the countywide trail network. For this reason Welsh Mountain-St. Peters Regional Recreation Corridor is designated as a Regional Priority Trail Corridor as in *Figure 12.32* of this chapter.

■ **The White Clay Regional Recreation Corridor** This Corridor could provide the residents of West Grove Borough with access to White Clay Creek State Park. It could also link the Doe-Knight Corridor with White Clay Creek Preserve State Park, and the Delaware Arc Corridor. This scenario could bring trail users from throughout Southwestern Chester County through West Grove Borough, creating the possibility for an expansion of recreation related businesses. This Corridor also forms a part of Potential Trail Loop “L,” which could bring trail users through businesses in both Avondale and West Grove Boroughs creating the possibility for an expansion of recreation related. This Corridor extends through scenic areas, but to date, trail planning for the Corridor has not progressed beyond preliminary concepts.

Visions & Actions for Undeveloped Corridors

Vision 12.1

Projects that establish multi-municipal public trails that link together along Undeveloped Regional Recreation Corridors should be initiated at the federal, state, County, and municipal level, and by community groups.

Action 12.1

The County will endorse federal, state and municipal projects that establish multi-municipal public trails that link together along Undeveloped Regional Recreation Corridors, and pursue such projects at the County level.

Vision 12.2

Municipalities and community groups should establish multi-municipal public trails that link together along Undeveloped Regional Recreation Corridors.

Action 12.2

When reviewing applications for appropriate County grants, the County will give additional credit to projects that establish multi-municipal public trails that link together along Undeveloped Regional Recreation Corridors.

Vision 12.3

Municipalities should develop plans to provide links between their internal municipal trails and the trails in adjacent municipalities, and consider using Undeveloped Regional Recreation Corridors as alignments for these multi-municipal links.

Action 12.3

The County will require that any Open Space, Recreation and Environmental Resource (OSRER) Plan written or updated using County funds must map trails outside the municipality within one mile; must evaluate the establishment of links between internal municipal trails and the trails in adjacent municipalities; and must consider using Undeveloped Regional Recreation Corridors as alignments for multi-municipal links.

Vision 12.4

A Trail Feasibility and Recreation Master Plan Study should be completed for each of the Undeveloped Regional Recreation Corridors in order to identify potential alignments for right-of-way or in-fee acquisition, potential users, stakeholders, and funding opportunities.

Action 12.4

The County will either conduct a Trail Feasibility Study and Recreation Master Plan for each Undeveloped Regional Recreation Corridor, or identify other qualified organizations that will agree to conduct such studies. These studies may be part of a larger regional recreation or planning study.

Vision 12.5

Multi-municipal trails within or along an Undeveloped Regional Recreation Corridor should be established as a joint planning effort involving all of the municipalities crossed by the trail.

Action 12.5

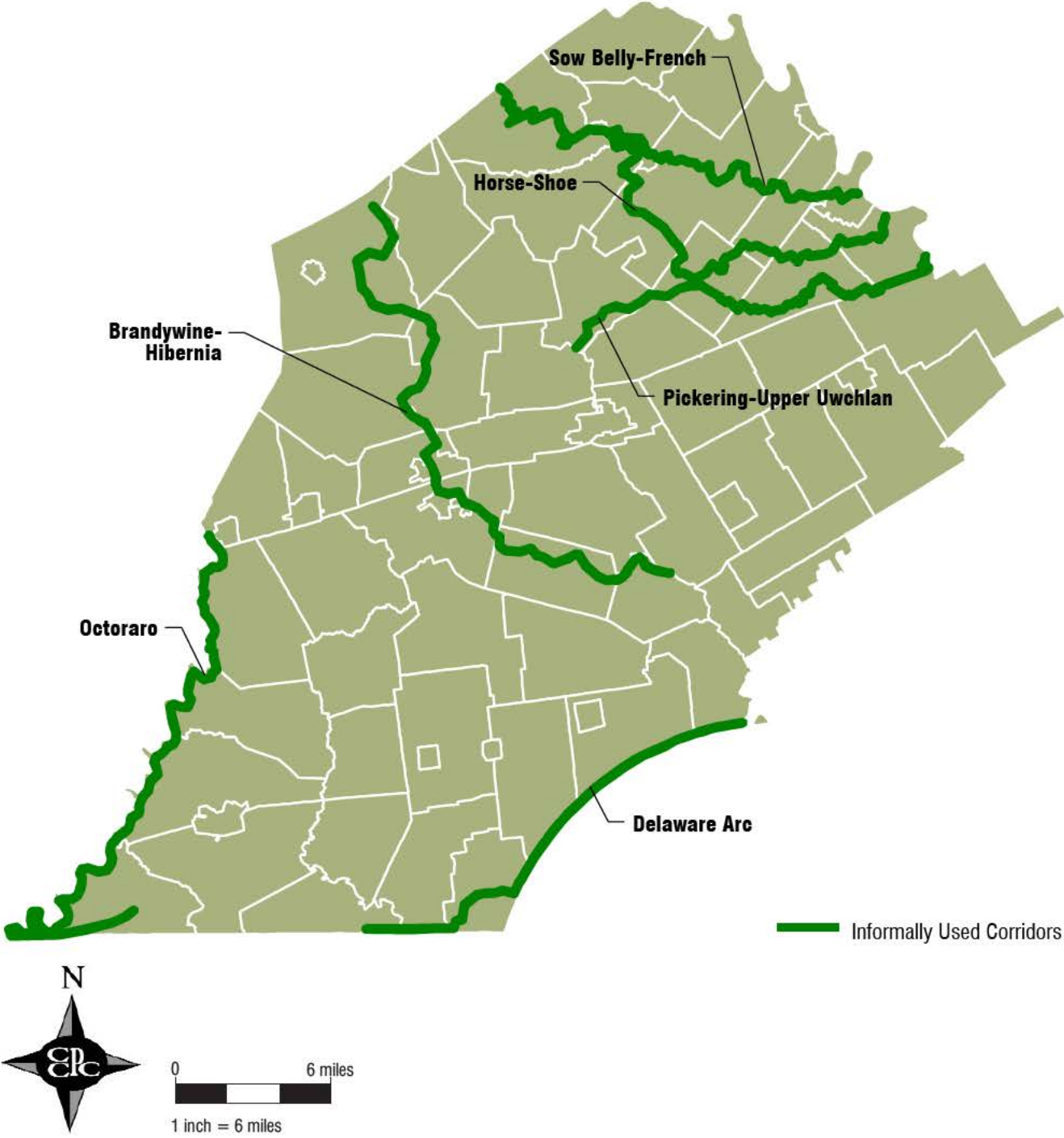
Before endorsing a project or awarding a County grant for a multi-municipal recreational trail, the County will require documentation that the project was established through joint planning involving all of the municipalities crossed by the trail.

Informally Used Corridors

Inventory of Informally Used Corridors

As stated on *Page 12.7* of this chapter, an Informally Used Corridor is one that contains a trail or path that is currently being used for recreation, but has not been dedicated as a public facility. These Corridors include existing traditional hiking routes and waterways that are sometimes used for boating. The six Informally Used Regional Recreation Corridors within the County are presented in *Figure 12.16* and described in detail in the following sections.

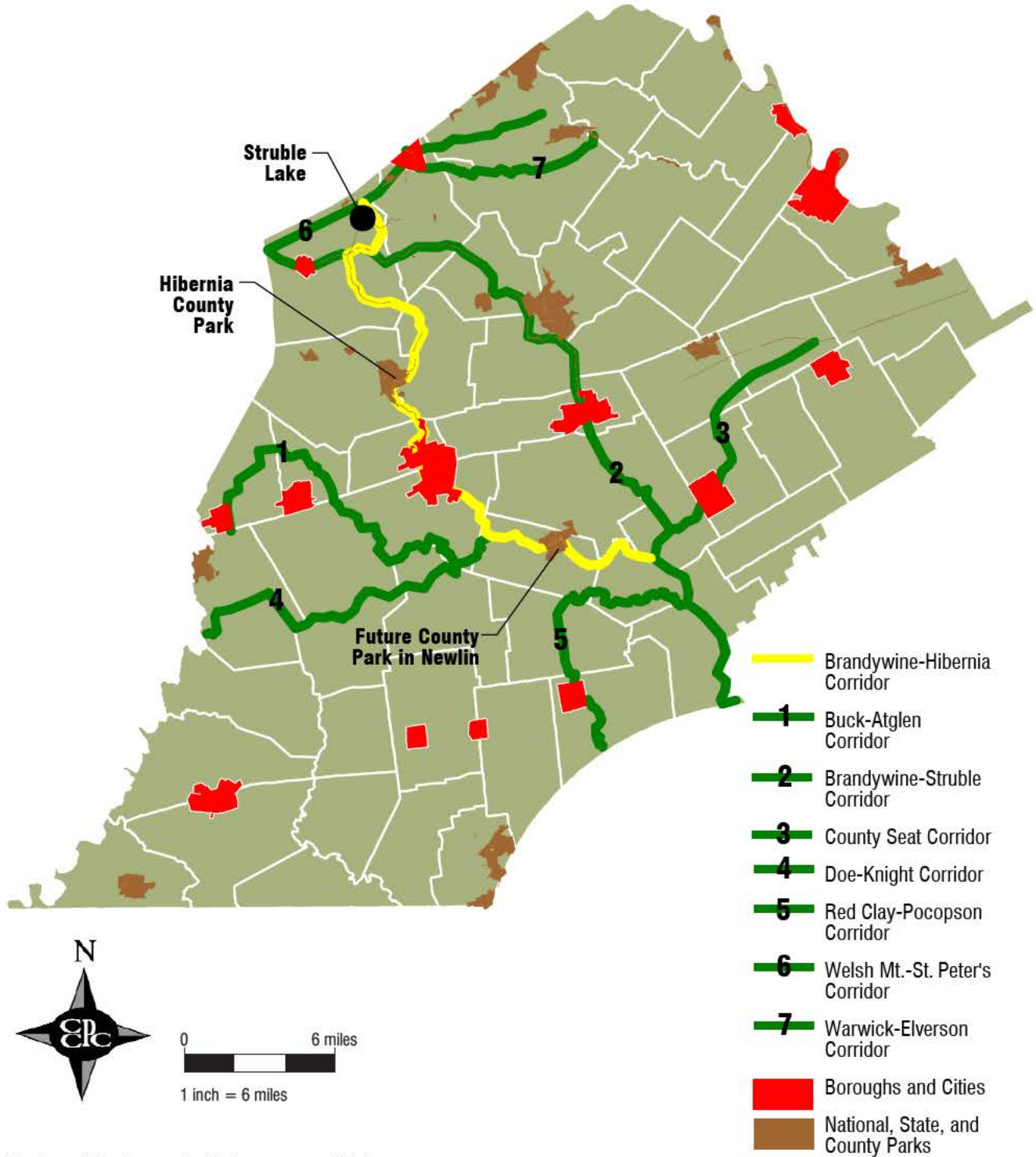
Figure 12.16: Informally Used Corridors



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Source: CCPC, 2000.

Figure 12.17: The Brandywine-Hibernia Regional Recreation Corridor



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Source: CCPC, 2000.

■ **The Brandywine-Hibernia Regional Recreation Corridor** This Corridor, illustrated in *Figure 12.17*, extends from the Brandywine Creek Main Stem up the West Branch Brandywine Creek to US Route 322, and from there north to the Welsh Mountain Ridge north of Honey Brook Borough. It links with three other corridors and is part of Potential Trail Loops “A” and “G” as presented in *Figure 12.30* of this chapter. The primary purpose of the Corridor is to provide the communities in Central Chester County with access to Hibernia County Park, Struble Lake and the future County Park in Newlin Township.

Inventory of Parks and Municipal Open Spaces

Federal, State & County Parks	Municipal Recreation Parks	Municipal Non-recreational
<p>State</p> <ul style="list-style-type: none"> • Icedale Property <p>County</p> <ul style="list-style-type: none"> • Future County Park in Newlin Twp. • Hibernia County Park <p>County Rail Right-of-Way in:</p> <ul style="list-style-type: none"> • Honey Brook Boro. • Honey Brook Twp. • W. Brandywine Twp. • W. Caln Twp. 	<p>Coatesville City</p> <ul style="list-style-type: none"> • Brandywine Creek Park <p>S. Coatesville Boro.</p> <ul style="list-style-type: none"> • Gibbon Street Mini Park • McDougald Mini Park 	<p>E. Brandywine Twp.</p> <ul style="list-style-type: none"> • River Park <p>Modena Boro.</p> <ul style="list-style-type: none"> • E. Brandywine Ave. Open Space

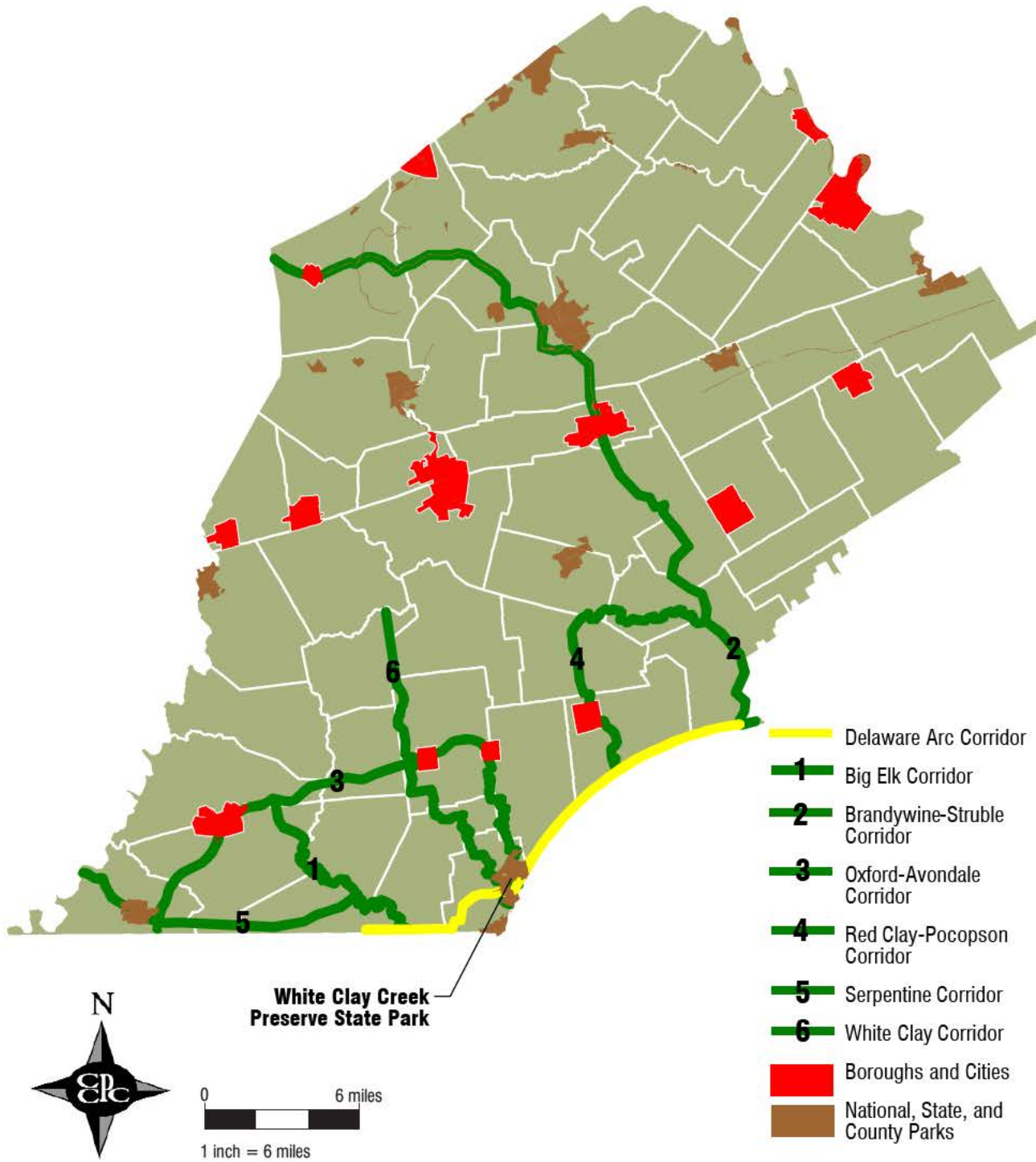
Inventory of Stakeholders

Governments	Natural Resource Groups	Significant Properties	Other
<ul style="list-style-type: none"> • Coatesville City • E. Brandywine Twp. • E. Fallowfield Twp. • East Bradford Twp. • Honey Brook Boro. • Honey Brook Twp. • Modena Twp. • Newlin Twp. • Pocopson Twp. • S. Coatesville Boro. • Valley Twp. • W. Brandywine Twp. • West Bradford Twp. 	<ul style="list-style-type: none"> • Brandywine Valley Association 	<p>Honey Brook Twp.</p> <ul style="list-style-type: none"> • Brandywine Meadow Camp Ground <p>Newlin Twp.</p> <ul style="list-style-type: none"> • West Chester KOA Campground 	<p>School Districts:</p> <ul style="list-style-type: none"> • Coatesville Area • Twin Valley • West Chester Area • Unionville-Chadds Ford

Inventory of Trail Destinations and Points of Interest

Trail Destinations	Points of Interest
<ul style="list-style-type: none"> • Coatesville City • Honey Brook Boro. • Modena Boro. • S. Coatesville Boro. • Future Embreeville County Park • Hibernia County Park 	<ul style="list-style-type: none"> • East Branch Brandywine Creek • Embreeville Historic District (Newlin Twp.) • Northville Historic District (Newlin Twp.) • Mortonville Bridge over W. Branch Brandywine Creek (E. Fallowfield Twp.) • Pennsylvania Railroad High Bridge over W. Branch Brandywine (Valley Twp.)

Figure 12.18: The Delaware Arc Regional Recreation Corridor



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Source: CCPC, 2000.

■ **The Delaware Arc Regional Recreation Corridor** This Corridor, illustrated in *Figure 12.18*, extends from PA Route 841 east along the Mason-Dixon Line to the Pennsylvania-Maryland border, and from there east along the entire length of the Pennsylvania-Delaware Border. It links with five other corridors and is part of Potential Trail Loops “K” and “L” as presented in *Figure 12.30* of this chapter. The primary purpose of this Corridor is to provide the communities in Southeastern Chester County with access to White Clay Creek State Park Preserve and Fair Hill Natural Resource Area.

Inventory of Parks and Municipal Open Spaces

Federal, State & County Parks	Municipal Recreation Parks	Municipal Non-recreational
Federal • White Clay Creek National Wild and Scenic River Corridor State • White Clay Creek Preserve State Park • Fair Hill Natural Area (MD)	None	New Garden Twp. • Limestone Road Open Space

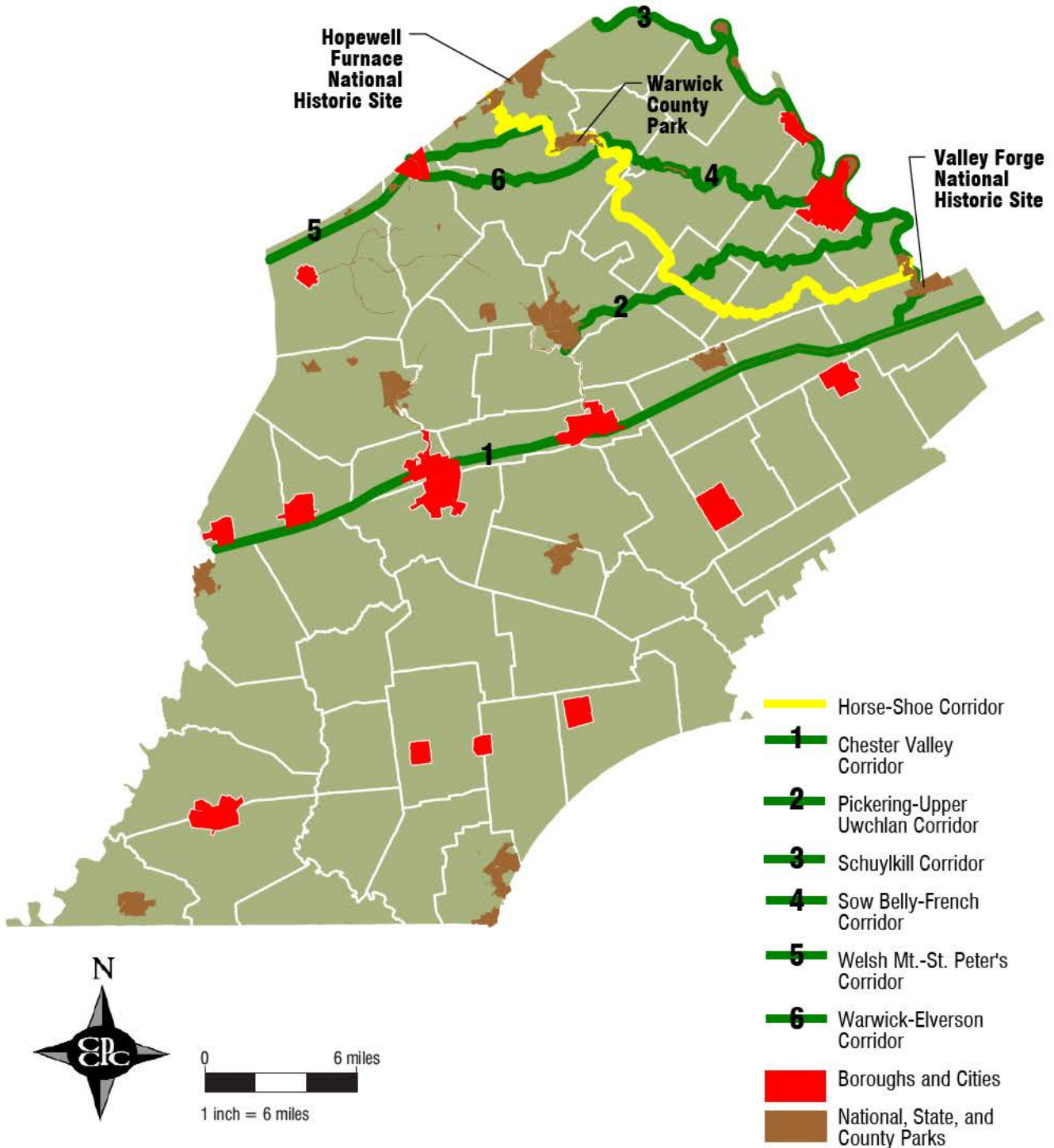
Inventory of Stakeholders

Governments	Natural Resource Groups	Significant Properties	Other
• Elk Twp. • Franklin Twp. • London Britain Twp. • New Garden Twp. • Kennett Twp. • Pennsbury Twp. • Cecil County, MD • New Castle County, DE	• Brandywine Valley Association • Elk Creeks Watershed Association • Red Clay Valley Association • White Clay Creek Bicycle Club • White Clay Creek Watershed Association	None	School Districts: • Avon Grove • Kennett Area • Oxford Area • Unionville-Chadds Ford

Inventory of Trail Destinations and Points of Interest

Trail Destinations	Points of Interest
• Potential trail links in New Castle County, DE • White Clay Creek Preserve State Park • Fair Hill Natural Area (MD)	• The Mason-Dixon Line

Figure 12.19: The Horse-Shoe Regional Recreation Corridor



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Source: CCPC, 2000.

■ **The Horse-Shoe Regional Recreation Corridor** This Corridor, illustrated in *Figure 12.19*, extends along the entire length of the “Horse-Shoe Trail” hiking route, from French Creek State Park east to Valley Forge National Historic Park. It links with five other corridors and is part of Potential Trail Loops “B” and “C” as presented in *Figure 12.30* of this chapter. The primary purpose of the Corridor is to provide the communities in Northern Chester County with access to French Creek State Park, Warwick County Park, Valley Forge National Historic Park, and the Villages of St. Peters, Knauertown and Yellow Springs.

Inventory of Parks and Municipal Open Spaces

Federal, State & County Parks	Municipal Recreation Parks	Municipal Non-recreational
Federal <ul style="list-style-type: none"> •Hopewell Furnace National Historic Park •Valley Forge National Historic Park State <ul style="list-style-type: none"> •French Creek State Park •State Game Lands No. 43 County <ul style="list-style-type: none"> •Warwick County Park 	None	Charlestown Twp. <ul style="list-style-type: none"> •Yellow Springs Road Open Space W. Pikeland Twp. <ul style="list-style-type: none"> •Dunsinane Hill Open Space

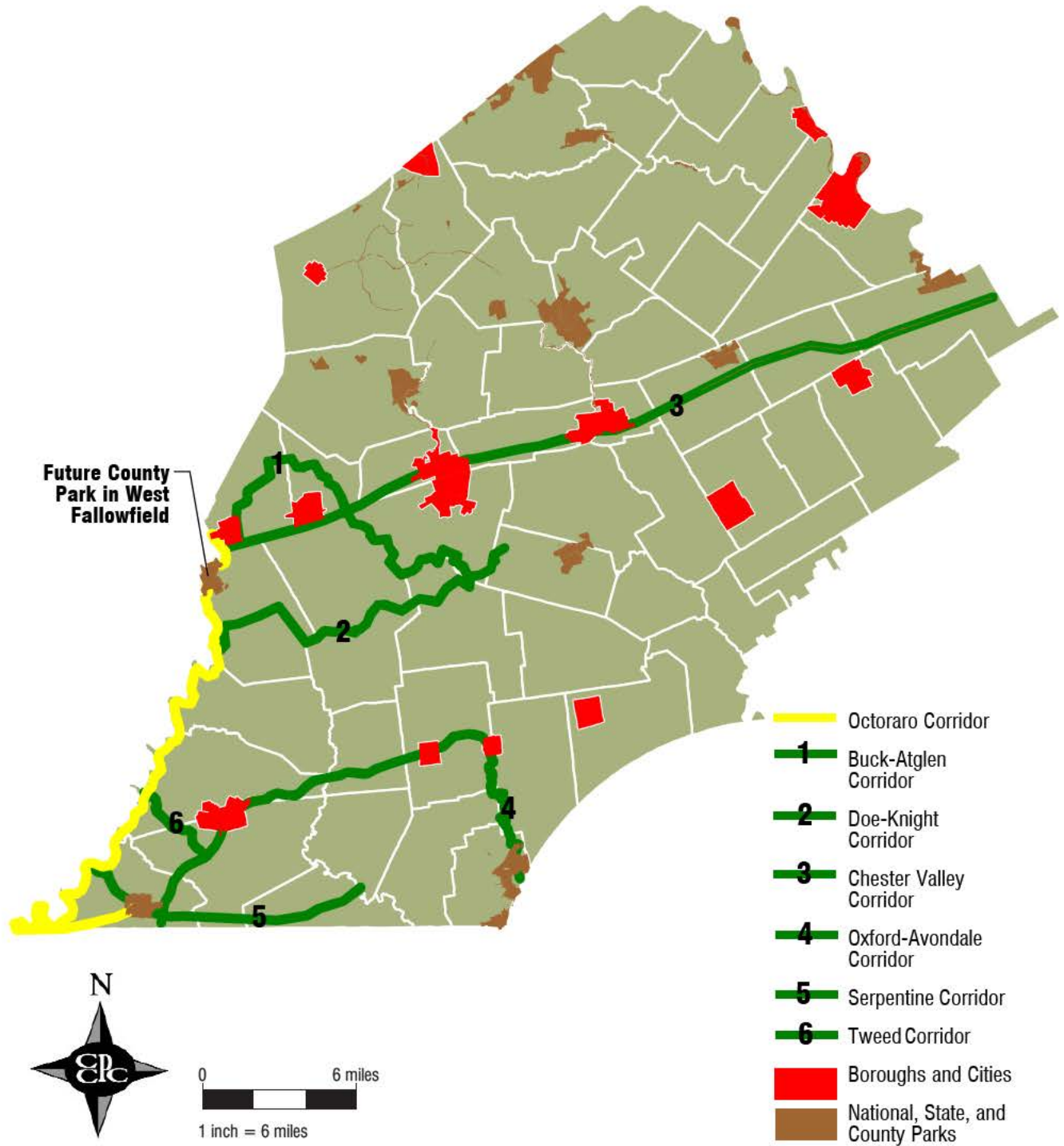
Inventory of Stakeholders

Governments	Natural Resource Groups	Significant Properties	Other
<ul style="list-style-type: none"> •Charlestown Twp. •E. Nantmeal Twp. •Schuylkill Twp. •S. Coventry Twp. •Tredyffrin Twp. •Warwick Twp. •W. Pikeland Twp. •W. Vincent Twp. •W. Whiteland Twp. 	<ul style="list-style-type: none"> •Green Valleys Association •Valley Creek Coalition •The Horse-Shoe Trail Club 	E. Nantmeal Twp. <ul style="list-style-type: none"> •Welkinwier 	Charlestown Twp. <ul style="list-style-type: none"> •Charlestown Elem. School S. Coventry Twp. <ul style="list-style-type: none"> •French Creek Elem. School •Warwick Elem. Sch. W. Pikeland Twp. <ul style="list-style-type: none"> •Montgomery Sch W. Vincent Twp. <ul style="list-style-type: none"> •Layman’s Home Missionary School Districts <ul style="list-style-type: none"> •Downingtown Area •Great Valley •Owen J. Roberts •Phoenixville Area •Tredyffrin–Easttown

Inventory of Trail Destinations and Points of Interest

Trail Destinations	Points of Interest
<ul style="list-style-type: none"> •St. Peters Village Center •Knauertown Village Center •Yellow Spring Village Center •Hopewell Furnace National Historic Park •Valley Forge National Historic Park •Warwick County Park 	<ul style="list-style-type: none"> •Coventry Historic District (S. Coventry & Warwick Twps.) •Wharton Esherick Museum (W. Whiteland Twp.)

Figure 12.20: The Octoraro Regional Recreation Corridor



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Source: CCPC, 2000.

■ **The Octoraro Regional Recreation Corridor** This Corridor, illustrated in *Figure 12.20*, extends from Nottingham County Park, west to the Pennsylvania-Maryland border and up the Octoraro Creek to Atglen Borough. It links with four other corridors and is part of Potential Trail Loops “I” and “J” as presented in *Figure 12.30* of this chapter. The primary purpose of the Corridor is to provide the communities in Southwestern Chester County with access to Valley Forge State Forest District 17, the Octoraro Reservoir, and the future County Park in West Fallowfield Township.

Inventory of Parks and Municipal Open Spaces

Federal, State & County Parks	Municipal Recreation Parks	Municipal Non-recreational
State <ul style="list-style-type: none"> Valley Forge State Forest District 17 County <ul style="list-style-type: none"> Future County Park in West Fallowfield Nottingham County Park 	None	Atglen Boro. <ul style="list-style-type: none"> Atglen Borough Park

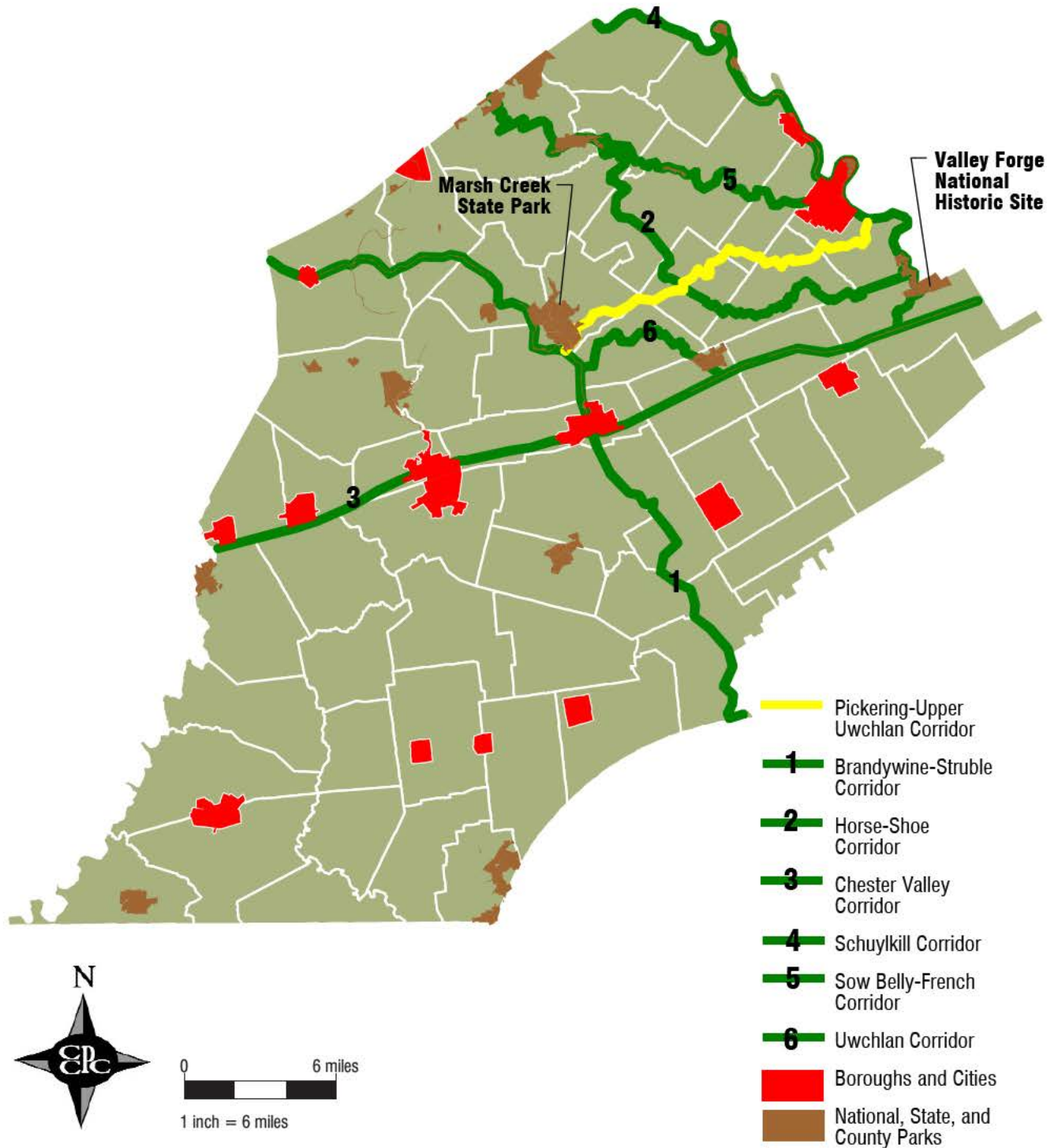
Inventory of Stakeholders

Governments	Natural Resource Groups	Significant Properties	Other
<ul style="list-style-type: none"> Atglen Boro. L. Oxford Twp. U. Oxford Twp. W. Fallowfield Twp. W. Nottingham Twp. W. Sadsbury Twp. 	<ul style="list-style-type: none"> Octoraro Watershed Association 	<ul style="list-style-type: none"> L. Oxford Boro. Camp Tweedale W. Nottingham Twp. Camp Horseshoe 	School Districts: <ul style="list-style-type: none"> Octoraro Oxford Area

Inventory of Trail Destinations and Points of Interest

Trail Destinations	Points of Interest
<ul style="list-style-type: none"> Atglen Boro. Valley Forge State Forest District 17 Future Octoraro County Park Nottingham County Park 	<ul style="list-style-type: none"> Octoraro Creek Octoraro Reservoir Mercer’s Mill Covered Bridge over Octoraro Creek (W. Fallowfield) Pine Grove Covered Bridge over Octoraro Creek (L. Oxford Twp.)

Figure 12.21: The Pickering-Upper Uwchlan Regional Recreation Corridor



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Source: CCPC, 2000.

■ The Pickering-Upper Uwchlan Regional Recreation Corridor

This Corridor, illustrated in *Figure 12.21*, extends from Marsh Creek State Park east to the headwaters of Pickering Creek, and from there down Pickering Creek to the Schuylkill River. It links with three other corridors and is part of Potential Trail Loop “C” as presented in *Figure 12.30* of this chapter. The primary purpose of the Corridor is to provide the communities in Northeastern Chester County with access to Marsh Creek State Park and the Schuylkill River.

Inventory of Parks and Municipal Open Spaces

Federal, State & County Parks	Municipal Recreation Parks	Municipal Non-recreational
State <ul style="list-style-type: none"> Marsh Creek State Park 	U. Uwchlan Twp. <ul style="list-style-type: none"> Hickory Park 	Charlestown Twp. <ul style="list-style-type: none"> Pickering Dam Rd. Open Space Route 29 Open Space E. Pikeland Twp. <ul style="list-style-type: none"> Pickering Rd. Park Open Space Schuylkill Twp. <ul style="list-style-type: none"> Pickering Creek Preserve Open Space W. Pikeland Twp. <ul style="list-style-type: none"> Meadow Creek Rd. Open Space Pickering Creek Open Space

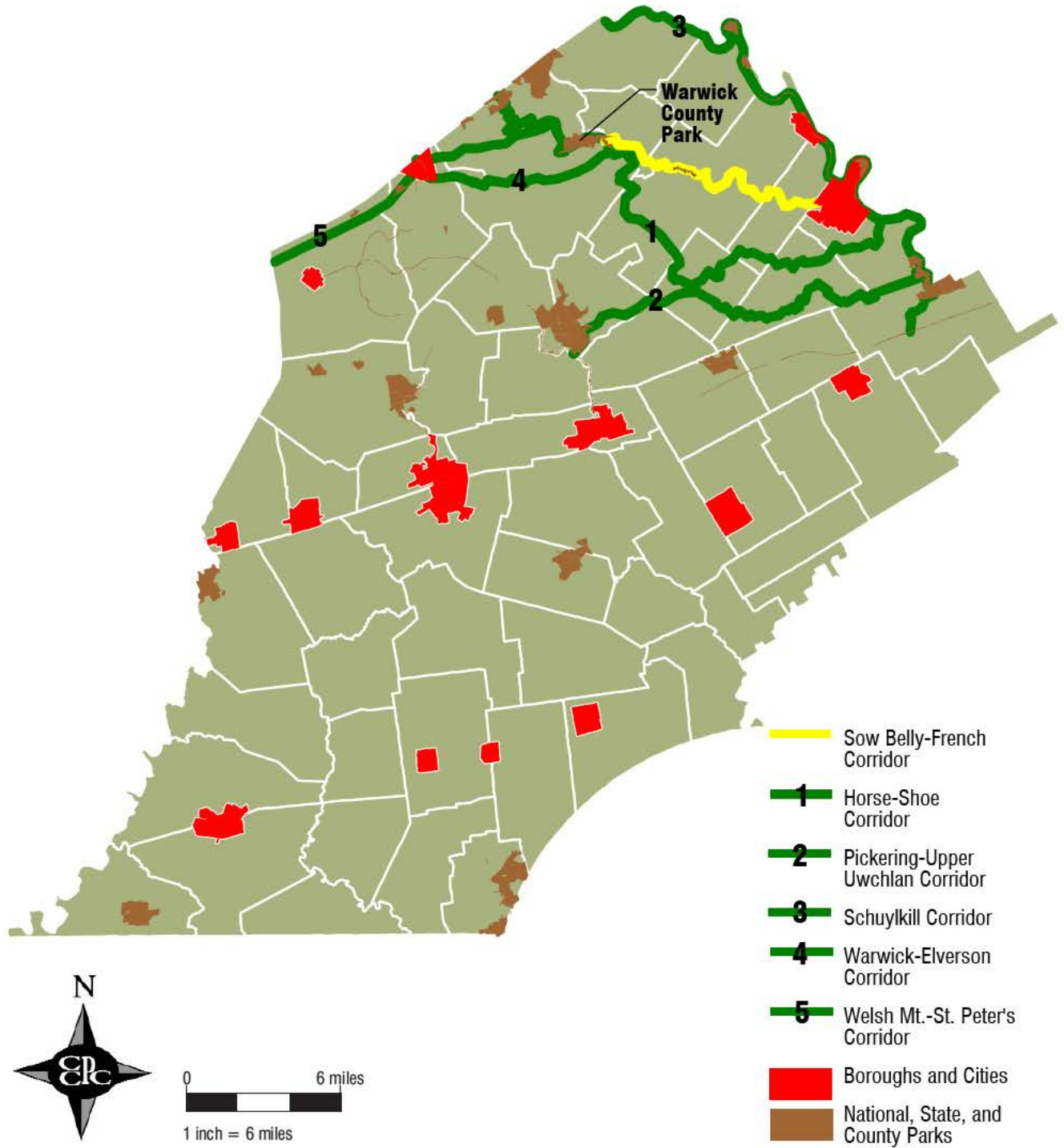
Inventory of Stakeholders

Governments	Natural Resource Groups	Significant Properties	Other
<ul style="list-style-type: none"> Charlestown Twp. E. Pikeland Twp. Schuylkill Twp. U. Uwchlan Twp. Uwchlan Twp. W. Pikeland Twp. 	<ul style="list-style-type: none"> Brandywine Valley Association Green Valleys Association Octoraro Watershed Association Schuylkill River Keeper Schuylkill River Trailway Association 	Schuylkill Twp. <ul style="list-style-type: none"> Philadelphia-Suburban Water Company U. Uwchlan Twp. <ul style="list-style-type: none"> Eagle Industrial Park Eagle Pointe Industrial Park 	Schuylkill Twp. <ul style="list-style-type: none"> Schuylkill Elementary School School Districts: <ul style="list-style-type: none"> Dowingtown Area Great Valley Phoenixville Area

Inventory of Trail Destinations and Points of Interest

Trail Destinations	Points of Interest
<ul style="list-style-type: none"> The Schuylkill Trail Corridor Marsh Creek State Park 	<ul style="list-style-type: none"> Pickering Creek Reservoir Charlestown Historic District (Charlestown Twp.)

Figure 12.22: The Sow Belly-French Regional Recreational Corridor



The data and files for maps in this document were digitally compiled by the Chester County Planning Commission (CCPC) of Chester County, PA. This information and data are provided for reference purposes only and should not be used for any detailed engineering purposes. The CCPC and Chester County make no claims as to the completeness, accuracy, or currency of the paper map or the digital data and files used to generate the map.

Source: CCPC, 2000.

■ **The Sow Belly-French Regional Recreation Corridor** This Corridor, illustrated in *Figure 12.22*, extends from Warwick County Park, down French Creek Main Stem to the Schuylkill River, roughly following the alignment of the old Sow Belly Railroad. It links with two other corridors and is part of Potential Trail Loop “B” as presented in *Figure 12.30* of this chapter. The primary purpose of this Corridor is to provide communities in Northern Chester County with access to French Creek State Park, Warwick County Park and the Schuylkill River.

Inventory of Parks and Municipal Open Spaces

Federal, State & County Parks	Municipal Recreation Parks	Municipal Non-recreational
Federal <ul style="list-style-type: none"> •Hopewell Village National Historic Park County <ul style="list-style-type: none"> •Black Rock Silt Basin •Warwick County Park •Wade-Francis Tracts 	E. Pikeland Twp. <ul style="list-style-type: none"> •Graham Tract Reserve •Rapps Dam Park Phoenixville Boro. <ul style="list-style-type: none"> •Civic Center Park •Richards Lane Park •Taylor Street Playground W. Vincent Twp. <ul style="list-style-type: none"> •East Pikeland Park 	E. Pikeland Twp. <ul style="list-style-type: none"> •French Creek Estates Open Space •Hares Hill Rd. Open Space Phoenixville Boro. <ul style="list-style-type: none"> •High Street Open Space W. Vincent Twp. <ul style="list-style-type: none"> •Wilsons Corner Park

Inventory of Stakeholders

Governments	Natural Resource Groups	Significant Properties	Other
<ul style="list-style-type: none"> •E. Pikeland Twp. •E. Vincent Twp. •Phoenixville Boro. •S. Coventry Twp. •Schuylkill Twp. •W. Vincent Twp. •Warwick Twp. 	<ul style="list-style-type: none"> •Green Valleys Association •Schuylkill River Keeper •Schuylkill River Trailway Association 	E. Vincent Twp. <ul style="list-style-type: none"> •Camp Inabah •Camp Sacinac 	E. Pikeland Twp. <ul style="list-style-type: none"> •East Pikeland Elementary School E. Vincent Twp. <ul style="list-style-type: none"> •Kimberton Waldorf School S. Coventry Twp. <ul style="list-style-type: none"> •French Creek Elementary School W. Vincent Twp. <ul style="list-style-type: none"> •Kimberton Fish & Game Association Warwick Twp. <ul style="list-style-type: none"> •Warwick Elem. Sch. School Districts: <ul style="list-style-type: none"> •Owen J. Roberts •Phoenixville Area

Inventory of Trail Destinations and Points of Interest

Trail Destinations	Points of Interest
<ul style="list-style-type: none"> •Phoenixville Boro. •Hopewell Village National Historic Park •Black Rock Silt Basin •Warwick County Park 	<ul style="list-style-type: none"> •French Creek •Coventry Historic District (S. Coventry & Warwick Twps.) •Phoenixville Historic District (Phoenixville Boro.) •Kennedy Covered Bridge over French Creek (E. Vincent Twp.) •Rapps Dam Covered Bridge over French Creek (Schuylkill Twp.) Sheeder’s (Hall’s) Covered Bridge over French Creek (E. Vincent & W. Vincent Twps.)

Evaluation of Informally Used Corridors

■ **The Brandywine-Hibernia Regional Recreation Corridor** The Brandywine-Hibernia Corridor includes three large abandoned rail segments north of Hibernia County Park, and one segment just south of the Park. The Chester County Parks and Recreation Department purchased Conrails's rights, title and interest to some of these segments through quit claim. The rest of the segments were purchased in-fee. These rail segments are not contiguous and are separated by privately owned parcels. The old Wilmington and Northern Rail Line tracks extend along the entire length of the Brandywine-Hibernia Corridor south of Coatesville City. These tracks are active below Modena Borough but only used periodically as an excursion line.

The Brandywine-Hibernia Corridor has a unique potential to utilize property that is already owned or eased by the County to link the urban centers of Coatesville City, South Coatesville Borough and Modena Borough with both Hibernia County Park and the future County Park in Newlin. Such a link would provide 1,595 acres of passive recreation to these three urban centers whose combined population in 2000 was 12,445. This Corridor is part of Potential Trail Loop "G" which has potential trailheads in these three municipalities. A trail leading from Hibernia County Park to the future County Park in Newlin would also bring trail users through these three urban centers creating the possibility for an expansion of recreation related businesses. This Corridor is also part of Potential Trail Loop "A," which could bring trail users through Honey Brook Borough creating the possibility for an expansion of recreation related businesses.

■ **The Delaware Arc Regional Recreation Corridor** The Delaware Arc Corridor could link to five other corridors that extend north into Chester County. The Corridor could therefore act as a collector linking all of these corridors to the White Clay Creek Preserve State Park. This Corridor is also part of Potential Trail Loop "L," which could bring trail users through Avondale and West Grove Boroughs creating the possibility for an expansion of recreation related businesses. It is also a part of Potential Trail Loop "H," which has a potential trailhead in Kennett Square Borough. To date, no property within the Delaware Arc Corridor has been acquired either in-fee or as an easement for the purpose of establishing a regional trail.

The Delaware Arc Corridor is crossed at a number of locations by a traditional hiking route commonly called the "Mason-Dixon Trail," which is regularly used by the Chester County Trail Club and other hiking clubs. The entire Mason-Dixon Trail hiking route extends west from the Delaware Arc, mostly through northern Maryland, for approximately 190 miles. In the past, members of the hiking clubs that used this route have made access agreements with landowners along the route.

The Delaware Arc Corridor links with five other corridors. It is also the only corridor in Southeastern Chester County that permits northeast-

southwest travel. Because of its unique location, trails established on this Corridor will provide an essential link in the countywide trail network. For this reason the Delaware Arc Regional Recreation Corridor is designated as a Regional Priority Trail Corridor in *Figure 12.32* of this chapter.

■ **The Horse-Shoe Regional Recreation Corridor** The Horse-Shoe Corridor follows an alignment that roughly corresponds to a traditional hiking route commonly called the “Horse-Shoe Trail.” The original alignment of “Horse-Shoe Trail” was established in 1935 by a group of hiking and equestrian enthusiasts. It extends through Chester, Berks, Lancaster, Lebanon and Dauphin Counties, more or less paralleling the Pennsylvania Turnpike. In Dauphin County, it links to the Appalachian Trail. The key feature of the Horse-Shoe Corridor is that it links Hopewell Village and Valley Forge National Historic Sites. To date, no property within the Horse-Shoe Corridor has been acquired in-fee for the purpose of establishing a regional trail with public access.

The “Horse-Shore Trail” is a traditional hiking route, maintained by the Horse-Shoe Trail Club, which periodically publishes a *Trail Guide*. This hiking route extends onto private lands and along roadways, and is constantly being changed. The *Trail Guide* provides a detailed map of the most recent alignment of the hiking route. The 21st edition of the *Trail Guide* was published in June 1999. The “Horse-Shoe Trail” has been used by the Club for over six decades. In the past, the Club had acquired some easements, and made informal access agreements with landowners along the route. These agreements allow club members and the general public to hike across private properties.

The Horse-Shoe Corridor links with five other corridors. This Corridor is also part of Potential Trail Loop “B” which could bring trail users through Elverson Borough creating the possibility for an expansion of recreation related businesses. This corridor is also Part of Potential Trail Loop “C” with a potential trailhead at Valley Forge National Historic Site. This is the only corridor in Northwestern Chester County that permits travel between both of the County’s National Historic Sites. Because of its unique location, trails established on this Corridor will provide an essential link in the countywide trail network. For this reason the Horse-Shoe Regional Recreation Corridor is designated as a Regional Priority Trail Corridor in *Figure 12.32* of this chapter.

■ **The Octoraro Regional Recreation Corridor** The northern terminus of the Octoraro Regional Trail Corridor is located in Atglen Borough and so this Corridor could link this urban center to the Octoraro Reservoir and Valley Forge State Forest District #17 region. The Corridor also links to the Chester Valley Regional Trail Corridor in Atglen Borough. If trails were constructed in the northern third of the Octoraro Corridor and the western third of the Chester Valley Corridor, the residents of Parkesburg Borough would have access to the future County Park in West Fallowfield via a six-mile trail. Similarly, the residents of Coatesville City would be linked to this Park via a ten-mile trail. This scenario could also

bring trail users through Atglen Borough creating the possibility for an expansion of recreation related businesses.

Much of the valley along the Octoraro Creek south of the Octoraro Reservoir is steep and not well suited for a wide multi-use trail. However, this area would be ideal for a hiking-only path that could also be used by boaters to access a Water Trail within the Octoraro Creek and Reservoir. The valley north of the Reservoir is less steep and may be better suited for multi-use trails.

The Octoraro Corridor links with four other corridors. It is also part of Potential Trail Loops “I” and “J” which both have a potential trailhead in Nottingham County Park. It is the only corridor in Western Chester County that permits north-south travel. Because of its unique location, trails established on this Corridor will provide an essential link in the countywide trail network. For this reason the Octoraro Regional Recreation Corridor is designated as a Regional Priority Trail Corridor in **Figure 12.32** of this chapter. This Corridor also includes both the Octoraro Creek and the Octoraro reservoir, both of which are suitable for non-motorized watercraft. For these reasons, the Corridor has also been designated as one of Chester County’s two Priority Water Trail Corridors.

■ **The Pickering-Upper Uwchlan Regional Recreation Corridor**

The Pickering-Upper Uwchlan Corridor extends from Marsh Creek State Park, east through Upper Uwchlan Township and east along Pickering Creek. The northern terminus of the Pickering-Upper Uwchlan Regional Trail Corridor extends along the Pickering Creek Reservoir, owned by Philadelphia Suburban Water Company (PSW). To date, only one mile of property within the Pickering-Upper Uwchlan Regional Trail Corridor has been acquired either in-fee or as an easement for the purpose of establishing a regional trail.

The portion of the Pickering-Upper Uwchlan Corridor that passes through Upper Uwchlan Township follows an alignment that extends across PA Route 100 near the Village of Eagle. Upper Uwchlan Township has located an alignment for a municipal trail that would extend across their Township and, is pursuing funding to construct a pedestrian bridge across PA Route 100 near the Village of Eagle. A trail with a pedestrian bridge at this location would provide the suburban communities within the Township west of PA Route 100 with trail access to Marsh Creek State Park.

■ **Sow Belly-French Regional Recreation Corridor** The Sow Belly-French Corridor includes a number of easements and properties that have been acquired in-fee or are in the process of being acquired by municipalities and the Chester County Parks and Recreation Department for the purpose of establishing a regional trail. The Sow Belly-French Regional Trail Corridor passes through Phoenixville Borough at its eastern end and so links this urban center to Hopewell Furnace National Historic Site, French Creek State Park and Warwick County Park. The Corridor also

links to the Schuylkill Corridor in Phoenixville Borough. The intersection of these two Corridors in Phoenixville Borough could bring trail users through the Borough creating the possibility for an expansion of recreation related businesses.

One of the key features of the Sow Belly-French Corridor is the “Foundry,” an historic foundry building once operated by the Phoenixville Iron Works. This large historic structure is located along the south bank of French Creek, near its confluence with the Schuylkill River in Phoenixville Borough. This abandoned industrial structure is currently undergoing renovation under the management of the Phoenixville Area Economic Development Corporation (PAEDCO). Funds for this project were provided by a variety of state and private sources. Once completed, the renovated structure will include a 1,000-square foot visitors center highlighting the history of the region. The Foundry Visitors Center will also serve as one of four major trailheads along the multi-county Schuylkill River Trail, which is presented in *Figure 12.27*.

In 2000, Phoenixville Borough adopted a strategic plan that included trail alignment within the Sow Belly-French Corridor. This plan recommended that a trail called the Phoenix Iron Trail should extend from the Foundry west along the north side of French Creek and then north along the Schuylkill River to Black Rock Dam. The Plan recommended that the Schuylkill River Trail should also extend from the Schuylkill River, up the French Creek, crossing it at the Paradise Street rail bridge, and then extend north to reconnect to the Schuylkill River at Cromy. The Plan calls for the High Street Trail to extend from High Street westward along the north side of French Creek, and for the French Creek Trail to extend along the south side of French Creek from the Paradise Street trailhead west.

■ Traditional Hiking Routes There are three major traditional hiking routes in Chester County, which are commonly known as the Brandywine Trail, the Mason Dixon Trail and the Horse-Shoe Trail. Although they may be called “trails,” they do not fit the *Linking Landscape* definition of trail, which requires multiple modes of transportation, and a permanent alignment. It is more accurate to describe these facilities as “traditional access hiking routes” that have no permanent alignment.

There are a number of well established hiking clubs in the County that use and maintain these traditional hiking routes. These clubs have made a variety of different types of agreements with private landowners to allow their respective hiking routes to pass through their property. These agreements may be formally documented easements, but many are informal “hand-shake” agreements. Some of these agreements allow any member of the general public to cross the landowner’s properties, but others permit access by club members. These clubs are listed on *Page 8* of this chapter.

The alignments of these traditional hiking routes were established over decades and are a unique cultural tradition within the County. When these routes were first established, Chester County was largely rural with a low population density, and as a result these hiking routes were not heavily traveled. As Chester County’s population increases, it is expected that the numbers of users of these three traditional hiking routes will increase. *Figure 12.23* shows the expected population increases in the municipalities currently crossed by these three alignments.

Figure 12.23: Population along Traditional Hiking Routes

Restricted Use Trail	Population of Municipalities Crossed			% Increase in Population of Municipalities Crossed	
	1970	2000	2025*	1970 – 2000	2000 – 2025
Brandywine Trail	19,585	41,697	61,150*	114.7%	46.7%*
Mason-Dixon Trail (Delaware Arc Communities)	11,965	27,166	35,000*	111.9%	28.8%*
Horse-Shoe Trail	39,997	53,032	60,350*	31.5%	13.8%*

Sources: 1970 and 2000 Census, CCPC April 2001.

Notes: * Population forecasts for 2025 that are based on the 2000 Census are not expected to be available until 2002. As a result the 2025 population estimates in Figure 12 23 were developed based on a combination of population estimate from the 1990s, and data from the 2000 Census and earlier censuses. These estimates have not been adopted for general use by Chester County government or any other government entity, and should not be used for any purpose other than the estimate presented in Figure 12.23.

Given this population increase, it is possible that some parts of these traditional hiking routes that are located on private properties will become developed and closed to hikers. Furthermore, property owners who have made informal access agreements with the various hiking clubs may withdraw from these agreements if the population of the users on these routes is increased. The only way to ensure that these hiking routes will continue to be used for recreation on a permanent basis is for a land trust or government agency to acquire the routes through easements or in-fee acquisition, and then manage them as public trails. Without such action, it is likely that sections of the Brandywine Trail, the Mason Dixon Trail and the Horse-Shoe Trail will become impassable over the next few decades.

Visions & Actions **for Informally Used Corridors**

Vision 12.6

Projects that establish multi-municipal public trails that link together along Informally Used Regional Recreation Corridors should be initiated at the federal, state, County and municipal level, and by community groups.

Action 12.6

The County will endorse federal, state, and municipal projects that establish multi-municipal public trails that link together along Informally Used Regional Recreation Corridors, and pursue such projects at the County level.

Vision 12.7

Municipalities and community groups should establish multi-municipal public trails that link together along Informally Used Regional Recreation Corridors.

Action 12.7

When reviewing applications for applicable County grants, the County will give additional credit to projects that establish multi-municipal public trails that link together along Informally Used Regional Recreation Corridors.

Vision 12.8

A non-governmental land trust should be established to acquire easements or property in fee along the Brandywine Trail, the Mason-Dixon Trail and the Horse-Shoe Trail, to permanently protect the traditional alignments of these trails.

Action 12.8

The County will study the feasibility of assisting interested citizens in developing non-profit land trusts whose goals are to acquire easements or property in-fee along the Brandywine Trail, the Mason-Dixon Trail and the Horse-Shoe Trail.

Vision 12.9

Municipalities should develop plans to provide links between their internal municipal trails and the trails in adjacent municipalities, and consider using Informally Used Regional Recreation Corridors as alignments for these multi-municipal links.

Action 12.9

The County will require that any Open Space, Recreation and Environmental Resource (OSRER) Plan written or updated using County funds must map trails outside the municipality within one mile; must evaluate the establishment of links between internal municipal trails and the trails in adjacent municipalities; and must consider using Informally Used Regional Recreation Corridors as alignments for multi-municipal links.

Vision 12.10

A Trail Feasibility and Recreation Master Plan Study should be completed for each of the Informally Used Regional Recreation Corridors in order to identify potential properties for right-of-way or in-fee acquisition, potential users, stakeholders, and funding opportunities.

Action 12.10

The County will either conduct a Trail Feasibility Study and Recreation Master Plan for each Informally Used Regional Recreation Corridor, or identify other qualified organizations that will agree to conduct such studies. These studies may be part of a larger regional recreation or planning study.

Vision 12.11

All parts of the Brandywine Trail, the Mason-Dixon Trail and the Horse-Shoe Trail should be open to the general public with no membership restrictions.

Action 12.11

Before endorsing a project or awarding a County grant for improvements to or maintenance of parts of the Brandywine Trail, the Mason-Dixon Trail and the Horse-Shoe Trail the County will require documentation that all parts of these trails are open to the general public with no membership restrictions.

Vision 12.12

Multi-municipal trails within or along an Informally Used Regional Recreation Corridor should be established as a joint planning effort involving all of the municipalities crossed by the trail.

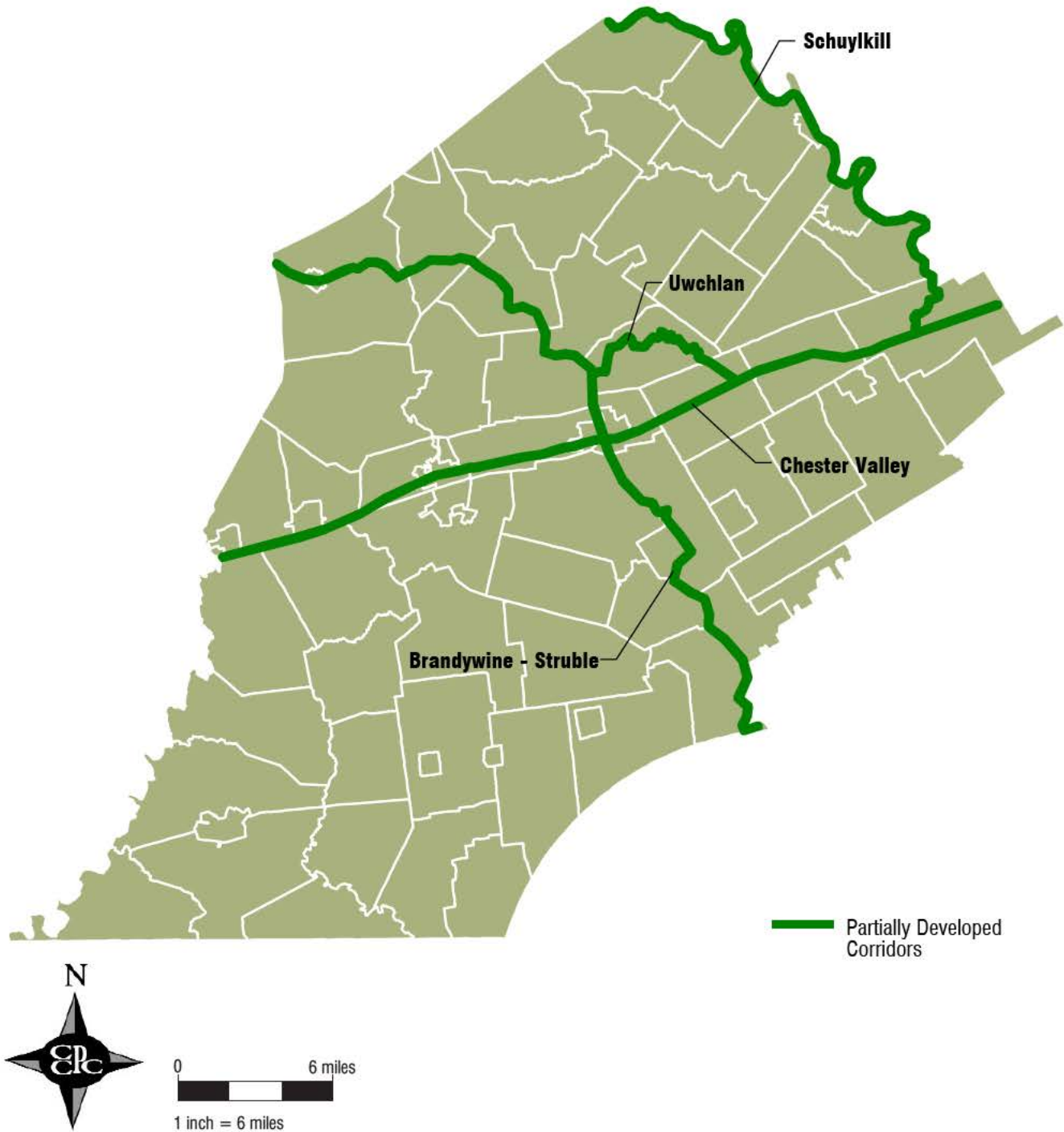
Action 12.12

Before endorsing a project or awarding a County grant for a multi-municipal recreational trail, the County will require documentation that the project was established through joint planning involving all of the municipalities crossed by the trail.

Partially Developed Corridors

Inventory of Partially Developed Corridors

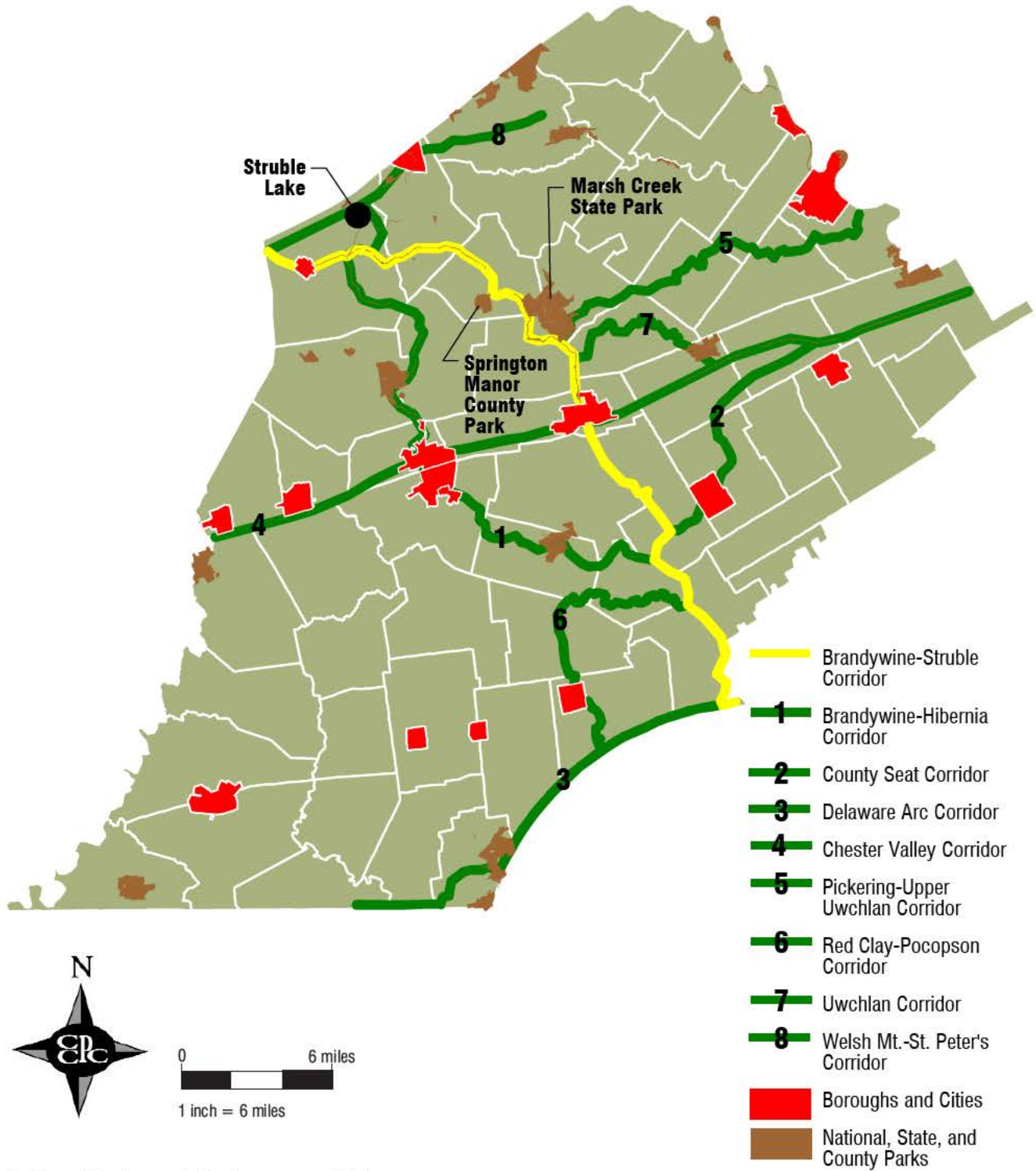
As stated in presented on *Page 12.7* of this chapter, a Partially Developed Corridor is one that includes existing County or municipal trails, or property that has been acquired for that purpose. The four Partially Developed Regional Recreation Corridors within the County are presented in *Figure 12.24* and described in detail in the following sections.

Figure 12.24: Partially Developed Corridors

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Source: CCPC, 2000.

Figure 12.25: The Brandywine-Struble Regional Recreation Corridor



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Source: CCPC, 2000.

■ **The Brandywine-Struble Regional Recreation Corridor** This Corridor, illustrated in *Figure 12.25*, extends from the Delaware state line, up the main stem of the Brandywine Creek, from there up the East Branch of Brandywine Creek to Struble Lake, from there to Honey Brook Borough, and from there west to the St. Peters-Welsh Mountain Corridor. It links with eight other corridors and is part of Potential Trail Loops “A, D” and H” as presented in *Figure 12.30* of this chapter. The primary purpose of the Corridor is to link the communities in Central Chester County with access to Marsh Creek State Park, Struble Lake and County Struble Trail.

Inventory of Parks and Municipal Open Spaces

Federal, State & County Parks	Municipal Recreation Parks	Municipal Non-recreational
State <ul style="list-style-type: none"> • Struble Lake • Marsh Creek State Park County <ul style="list-style-type: none"> • Barneston Dry Dam • Springton Manor County Park • County Struble Trail • Twin Valley Parcels County Rail	Downingtwn Boro. <ul style="list-style-type: none"> • Kardon Park • Kerr Park Honey Brook Boro. <ul style="list-style-type: none"> • James A. Umbel Memorial Park Wallace Twp. <ul style="list-style-type: none"> • Community Park • Wagonseller Park 	Downingtwn Boro. <ul style="list-style-type: none"> • Downingtwn Lakes Park E. Bradford Twp. <ul style="list-style-type: none"> • Creekside Open Space & Riverside Pk. E. Brandywine Twp. <ul style="list-style-type: none"> • Rt. 282 Open Space E. Caln Twp. <ul style="list-style-type: none"> • Township Park Site Pennsbury Twp. <ul style="list-style-type: none"> • Brintons Bridge Open Space U. Uwchlan Twp.: Dowlin Forge Pk., Jones Pond Park, & Struble Trail Preserve
Right-of –Way in: <ul style="list-style-type: none"> • Elverson Boro. • Honey Brook Twp. • Wallace Twp. • W. Nantmeal Twp. 		W. Bradford Twp. <ul style="list-style-type: none"> • Brandywine Meadows Wallace Twp.: Burgess Park & Howson Park

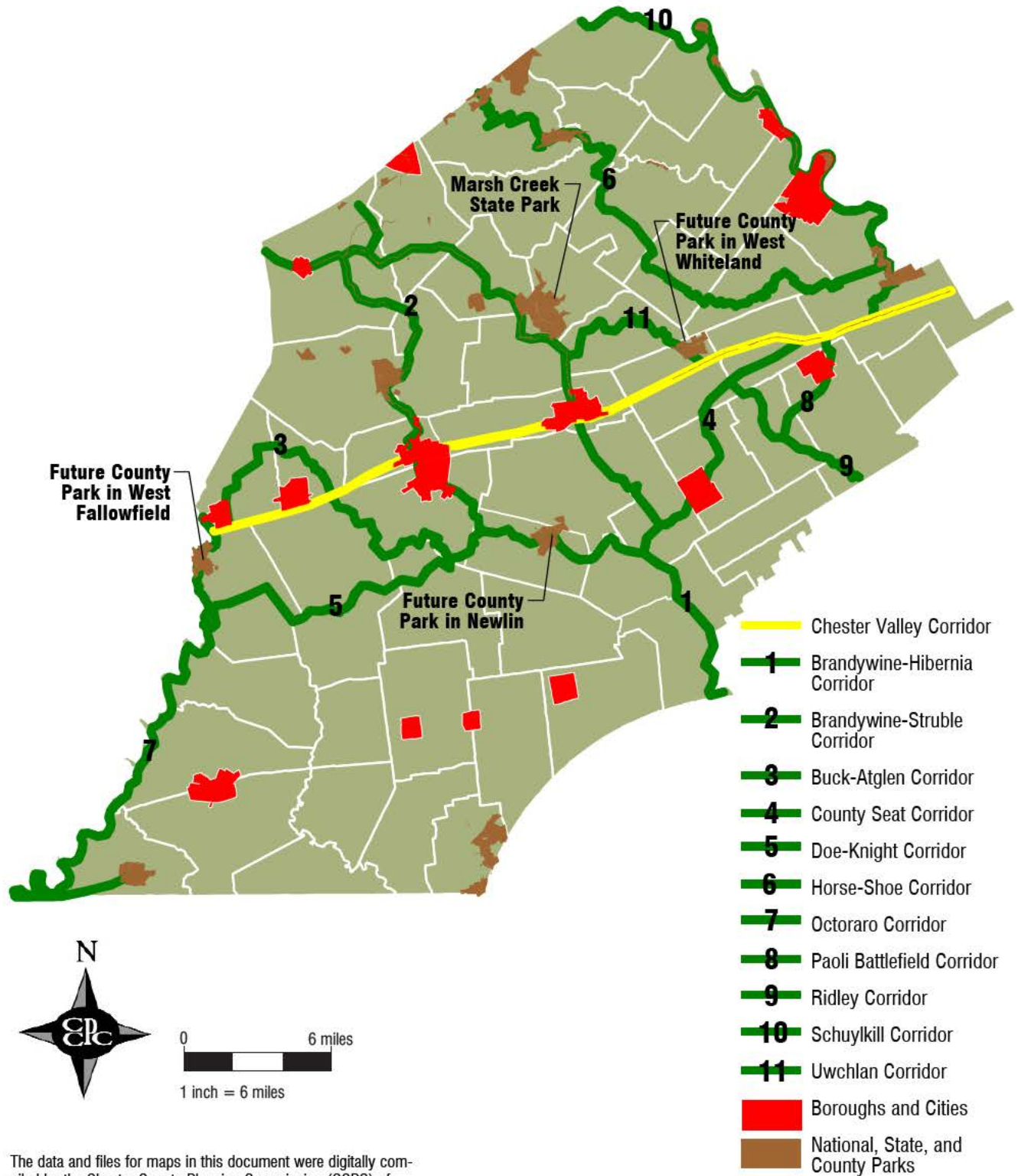
Inventory of Stakeholders

Governments	Natural Resource Groups	Significant Properties	Other
<ul style="list-style-type: none"> • Birmingham Twp. • Downingtwn Twp. • East Bradford Twp. • East Brandywine Twp. • East Caln Twp. • East Nantmeal Twp. • Elverson Boro. • Honey Brook Twp. • Pennsbury Twp. • Pocopson Twp. • Upper Uwchlan Twp. • Uwchlan Twp. • Wallace Twp. • West Bradford Twp. • West Caln Twp. 	<ul style="list-style-type: none"> • Brandywine Valley Association • Green Valleys Association 	Birmingham Twp. <ul style="list-style-type: none"> • Lenape Park • Radley Run G.C. Downingtwn Boro. <ul style="list-style-type: none"> • Downingtwn Industrial Park E. Bradford Twp. <ul style="list-style-type: none"> • West Chester Municipal Authority • Trestle Bridge Business Center Wallace Township <ul style="list-style-type: none"> • Devereaux Brandywine Campus 	Pennsbury Twp. <ul style="list-style-type: none"> • Chadds Ford Elementary School School Districts: <ul style="list-style-type: none"> • Downingtwn Area • Twin Valley • Unionville-Chadds Ford • West Chester Area

Inventory of Trail Destinations and Points of Interest

Trail Destinations	Points of Interest
<ul style="list-style-type: none"> • Downingtwn Boro. • Honey Brook Boro. • Struble Lake 	<ul style="list-style-type: none"> • W. Branch of Brandywine Creek, Brandywine Battlefield National Landmark (Birmingham & Pennsbury Twps.), Elverson Historic District (Elverson Boro.), Cope’s Bridge over E. Branch Brandywine Creek (E. Bradford & W. Bradford Twps.), East Lancaster Avenue Historic District (Downingtwn Boro.), Gibsons Covered Bridge over E. Branch Brandywine Creek (E. Bradford & W. Bradford Twps), Lenape Bridge over W. Branch Brandywine Creek (Birmingham & Pennsbury Twps.), & Taylor-Cope Historic District (E. Bradford & W. Bradford Twps.)

Figure 12.26: The Chester Valley Regional Recreation Corridor



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■ **The Chester Valley Regional Recreation Corridor** This Corridor, illustrated in *Figure 12.26*, extends from Atglen Borough east along PA Route 372 to Coatesville Borough, from there east along US Route 30 to the US Route 202 interchange, and from there east along US Route 202 to Montgomery County. It links with eight other corridors and is part of Potential Loop Trails “D, E, F” and “G” as presented in *Figure 12.30* of this chapter. The primary purpose of the Corridor is to provide the communities in the Chester Valley with access to the County Chester Valley Trail and the future County Park in West Whiteland Township.

Inventory of Parks and Municipal Open Spaces

Federal, State & County Parks	Municipal Recreation Parks	Municipal Non-recreational
County •County Chester Valley Trail •Future County Park in West Whiteland Twp.	Coatesville City •Abdala Memorial Park, Ash Park & Earl Q. Patton Park Downingtwn Boro. •Johnstown Park E. Whiteland Twp. •Bryn Erin Development Rec. Area & Winding Way Park Tredyffrin Twp. •Cedar Hollow Rd. & L.A.D. Parks	Coatesville City •Wagner Park Downingtwn Boro. •Prospect Ave. Open Space E. Whiteland Twp. •Conestoga Road Park •Ecology Park

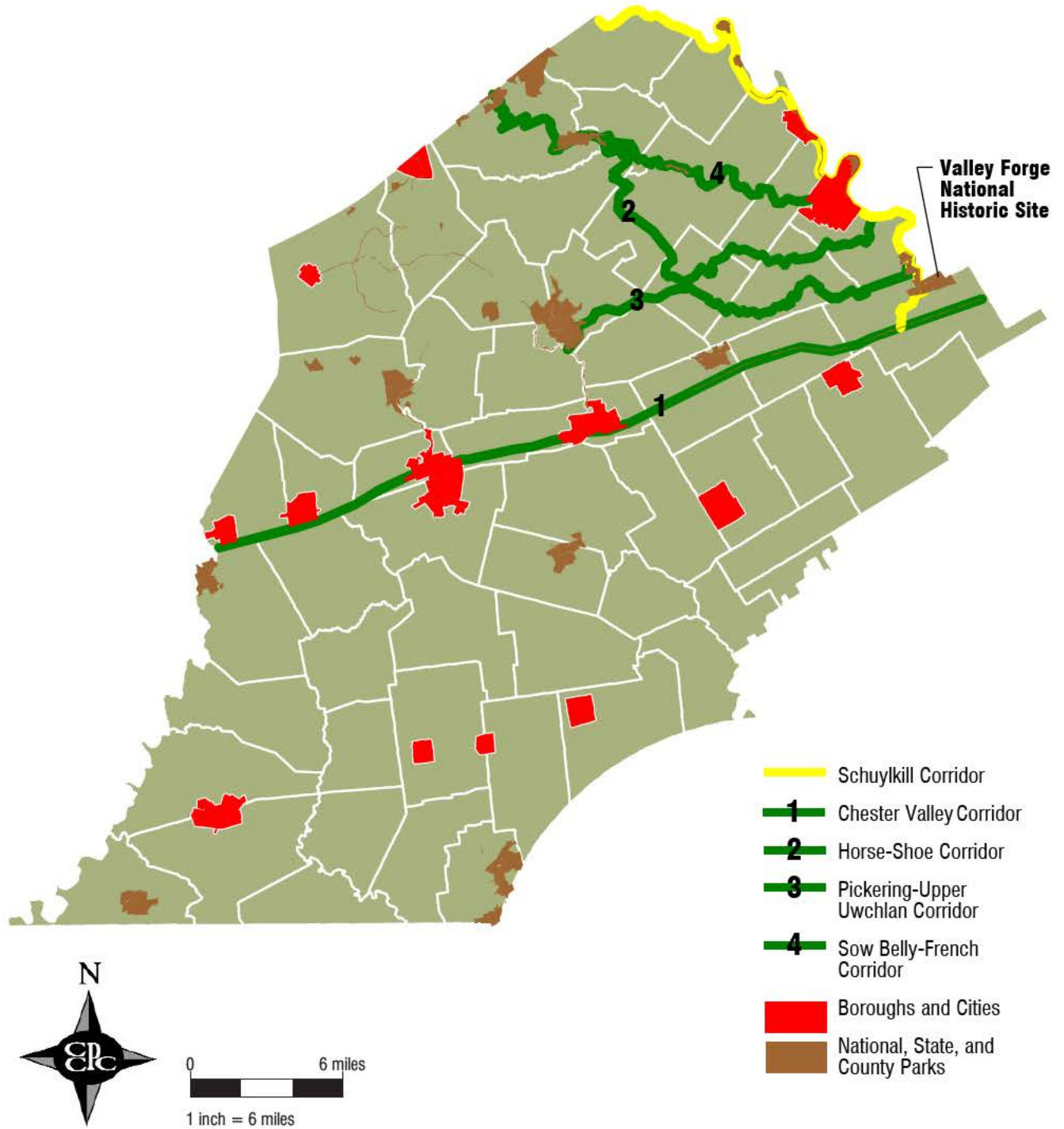
Inventory of Stakeholders

Governments	Natural Resource Groups	Significant Properties	Other
•Atglen Boro. •Caln Twp. •Coatesville City •Downingtwn Boro. •E. Fallowfield Twp. •E. Whiteland Twp. •East Caln Twp. •Highland Twp. •Parkesburg Boro. •Sadsbury Twp. •Tredyffrin Twp. •Valley Twp. •W. Fallowfield Twp. •W. Sadsbury Twp. •W. Whiteland Twp. •Montgomery Co., PA	•Brandywine Valley Association •Octoraro Watershed Association •Valley Creek Coalition	Downingtwn Boro. •Downingtwn Industrial Park Caln Twp. •Trestle Bridge Business Center Valley Twp. •Coatesville Center for the Arts and Technology W. Sadsbury •West Sadsbury Industrial Park	Caln Twp. •Caln Elem. Sch. Coatesville City •Benner Elem. Sch. •Coatesville Area Catholic Elem. Sch. Coatesville Area •Coatesville Area Catholic Mid. Sch. •Gordon Middle Sch. Valley Twp. •Coatesville Area H S School Districts •Coatesville Area •Downingtwn Area •Great Valley •Octoraro •Tredyffrin-Easttown •West Chester

Inventory of Trail Destinations and Points of Interest

Trail Destinations	Points of Interest
•Atglen Boro., Parkesburg Boro., Coatesville City, Downingtwn Boro.	•Church Farm School Historic District (W. Whiteland Twp.) •Coatesville Historic District (Coatesville City) •Lukens Historic District (Coatesville City) •The Log House (Downingtwn Boro.)

Figure 12.27: The Schuylkill Regional Recreation Corridor



The data and files for maps in this document were digitally compiled by the Chester County Planning Commission (CCPC) of Chester County, PA. This information and data are provided for reference purposes only and should not be used for any detailed engineering purposes. The CCPC and Chester County make no claims as to the completeness, accuracy, or currency of the paper map or the digital data and files used to generate the map.

Source: CCPC, 2000.

■ **The Schuylkill Regional Recreation Corridor** This Corridor, illustrated in *Figure 12.27*, extends from the Chester County-Berks County Border, down the Schuylkill River to Valley Creek, and from there up Valley Creek to the County Chester Valley Trail. It links with four other corridors and forms part of Potential Trail Loop “C” as presented in *Figure 12.30* of this chapter. Its primary purpose is to provide the communities in Northern Chester County with access to Thun Trail in Berks County, Valley Forge National Historic Site, and the Manayunk Canal Trail in Montgomery and Philadelphia Counties.

Inventory of Parks and Municipal Open Spaces

Federal, State & County Parks	Municipal Recreation Parks	Municipal Non-recreational
<p>Federal</p> <ul style="list-style-type: none"> •Valley Forge National Historic Park <p>County</p> <ul style="list-style-type: none"> •Black Rock Silt Basin •Chester Valley Trail •Linfield Silt Basin •Sanatoga Silt Basin <p>County Utility Right-of-Way in:</p> <ul style="list-style-type: none"> •E. Pikeland Twp. •E. Vincent Twp. •Spring City Boro. 	<p>E. Coventry Twp.</p> <ul style="list-style-type: none"> •Tow Path Park <p>N. Coventry Twp.</p> <ul style="list-style-type: none"> •Kenilworth Park •N. Coventry Athletic Fields <p>Phoenixville Boro.</p> <ul style="list-style-type: none"> •Civic Center Park •Reservoir Park •Richards Lane Park <p>Spring City Boro.</p> <ul style="list-style-type: none"> •Riverfront Park •Spring City Boat Ramp <p>Tredyffrin Twp.</p> <ul style="list-style-type: none"> •Cedar Hollow Rd. Park •Civic Center Park 	<p>E. Coventry Twp.</p> <ul style="list-style-type: none"> •Heyser Tract •Wade Tract <p>E. Vincent Twp.</p> <ul style="list-style-type: none"> •Schuylkill River Undeveloped Tract <p>N. Coventry Twp.</p> <ul style="list-style-type: none"> •S. Pottstown Green •Undeveloped Sites 1, 2, 3, 4, 5, 6, 11, 12, 16, 17, 19, 21, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, and 36. <p>Tredyffrin Twp.</p> <ul style="list-style-type: none"> •DuPortail South Side Open Space

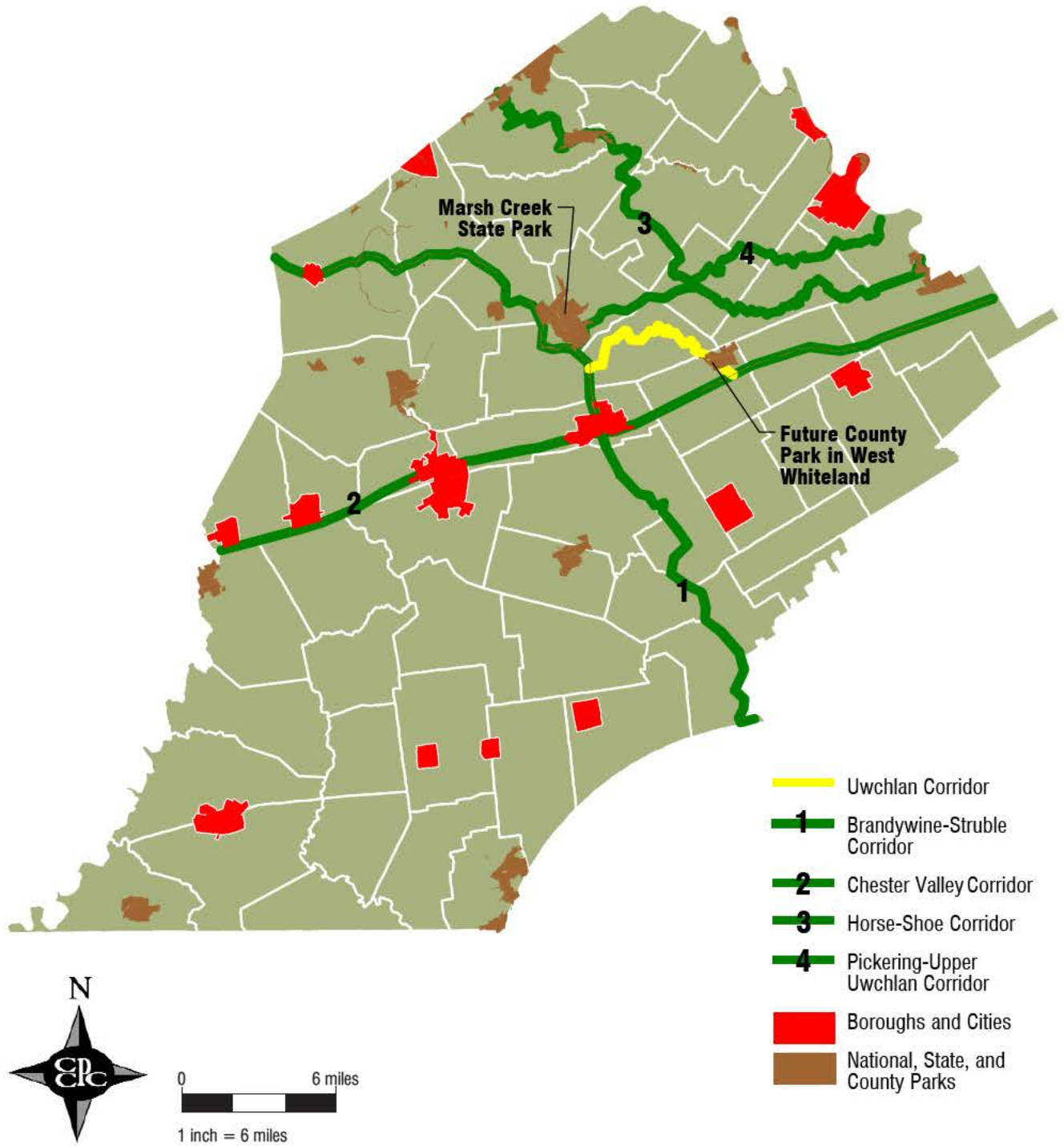
Inventory of Stakeholders

Governments	Natural Resource Groups	Significant Properties	Other
<ul style="list-style-type: none"> •E. Coventry Twp. •E. Pikeland Twp. •E. Vincent Twp. •N. Coventry Twp. •Phoenixville Boro. •Schuylkill Twp. •Spring City Boro. •Tredyffrin Twp. •Montgomery Co., PA 	<ul style="list-style-type: none"> •Green Valleys Association •Schuylkill River Keeper •Schuylkill River Trailway Association •Valley Creek Coalition 	<p>E. Coventry Twp.</p> <ul style="list-style-type: none"> •PECO Energy <p>E. Pikeland Twp.</p> <ul style="list-style-type: none"> •Cromby Industrial Pk. <p>E. Vincent Twp.</p> <ul style="list-style-type: none"> •SE Veterans Adm. <p>Schuylkill Twp.</p> <ul style="list-style-type: none"> •Philadelphia-Suburban Water Co. <p>Tredyffrin Twp.</p> <ul style="list-style-type: none"> •Paoli Industrial Park •Chesterbrook Corporate Center 	<p>Phoenixville Boro.</p> <ul style="list-style-type: none"> •Second Avenue Elementary School •Black Rock Cemetery <p>School Districts:</p> <ul style="list-style-type: none"> •Owen J Roberts •Phoenixville Area •Tredyffrin-Easttown

Inventory of Trail Destinations and Points of Interest

Trail Destinations	Points of Interest
<ul style="list-style-type: none"> •Trail links in Montgomery County, PA •Phoenixville Boro. •Spring City Boro 	<ul style="list-style-type: none"> •Schuylkill River •Valley Creek •General Frederick Von Steuben’s H. Q. at Valley Forge National Landmark (Schuylkill Twp.) •Knox-Valley Forge Dam Covered Bridge over Valley Creek (Tredyffrin Twp.)

Figure 12.28: The Uwchlan Regional Recreation Corridor



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Source: CCPC, 2000.

■ **The Uwchlan Regional Recreational Corridor** This Corridor, illustrated in *Figure 12.28*, extends from County Struble Trail east to the future County Park in West Whiteland Township and the County Chester Valley County Trail. It connects to two other corridors and is part of Potential Trail Loop “D” as presented in *Figure 12.30* of this chapter. The primary purpose of this Corridor is to provide the communities of Central Chester County with access to County Struble Trail, County Chester Valley Trail and the future County Park in West Whiteland Township.

Inventory of Parks and Municipal Open Spaces

Federal, State & County Parks	Municipal Recreation Parks	Municipal Non-recreational
County • Future County Park in West Whiteland Twp. • County Struble Trail	Uwchlan Twp. • Shamona Creek Park	Uwchlan Twp. • Dowling Forge Park • Jones Pond Park • Struble Trail Preserve • Brookwood Development Open Space • Baird Park

Inventory of Stakeholders

Governments	Natural Resource Groups	Significant Properties	Other
• W. Whiteland Twp. • Uwchlan Twp.	• Brandywine Valley Association • Green Valleys Association	Uwchlan Twp. • Eagleview Corporate Center • Marsh Creek Corporate Center • Pickering Creek Industrial Park	School Districts: • Downingtown Area • West Chester Area

Inventory of Trail Destinations and Points of Interest

Trail Destinations	Points of Interest
• Western terminus is within 2 miles of Marsh Creek State Park.	

Evaluation of Partially Developed Corridors

■ **The Brandywine-Struble Regional Recreation Corridor** To date, the only property within the Brandywine-Struble Corridor that has been constructed as a public trail is the County Struble Trail. Currently County Struble Trail does not connect with Marsh Creek State Park which is less than ½ mile to the north of the current northern terminus of the Trail. The Chester County Parks and Recreation Department has acquired a number of linear easements and property in-fee in this Corridor, and has committed to use these parcels to extend County Struble Trail north to Honey Brook Borough.

The Brandywine-Struble Corridor passes through many parcels that are owned by non-profit land trusts for natural resource or other conservation purposes. These privately owned parcels are located in East and West Bradford Townships and may not be open for public access. The Corridor also includes two large clusters of parcels that are eased by non-profit land trusts. These eased parcels are located primarily on private property in East and West Bradford Townships, and in Birmingham and Pennsbury Townships.

The alignment of the Brandywine-Struble Corridor south of Downingtown Borough roughly corresponds to a traditional hiking route commonly called the “Brandywine Trail.” This route is also called the “Beaver Road” or “Great Trail of the Minquas” because it was the route that the Susquehannock Indians, or Minquas, used to transport beaver pelts to Dutch and Swedish settlements along the lower reaches of the Schuylkill River prior to 1670. The Brandywine Trail traditional hiking route has been used by members of the Chester County Trail Club for decades and the Trail Club has made formal and informal access agreements with selected landowners along the route. There is currently no paved or graded trail along this hiking route. As shown previously in **Figure 12.23** of this chapter, the population along this traditional route has increased in past decades and is projected to continue to increase, which may lead to increased trail use and cause landowners to limit access to their property.

The Brandywine-Struble Corridor links with eight other corridors. This Corridor is also part of Trail Loop Corridors “A” and “H,” which include potential trailheads in Honey Brook and Kennett Square Boroughs, respectively. Such trailheads could create the possibility of an expansion of recreation related businesses in these boroughs. It is the only corridor in Chester County that permits north-south travel across the entire County. Because of its unique location, trails established on this Corridor will provide an essential link in the countywide trail network. For this reason the Brandywine-Struble Regional Recreation Corridor is designated as a Regional Priority Trail Corridor in **Figure 12.32** of this chapter.

■ **The Chester Valley Regional Recreation Corridor** To date, the only trail within Chester Valley Regional Recreation Corridor that has been constructed and opened to the public is a 1.4-mile segment of the

County Chester Valley Trail. This segment has been temporarily paved with gravel suitable for hiking and bicycling, and will be resurfaced at a later date. The Parks Department has committed to constructing the County Chester Valley Trail as a 16-mile long paved multi-use trail.

The central feature of the County Chester Valley Trail is a section of the old Chester Valley Rail Line that was abandoned by its owner in 1991. Soon after its abandonment, the Parks Department purchased the parcels containing the rail bed extending from the Exton Bypass eastward to PA Route 29 in East Whiteland Township. PennDOT also acquired the parcels containing the rail beds from PA Route 29 eastward to the Montgomery County Border at County Line Road in Tredyffrin Township. At about the same time, Montgomery County proposed to create the “Cross County Trail,” which would more or less follow the old Chester Valley Line through Upper Merion Township and connect to the eastern terminus of the County Chester Valley Trail.

Over the next few years, Chester County, Montgomery County and PennDOT coordinated their efforts to link the County Chester Valley County Trail with the proposed Cross County Trail in Upper Merion Township. PennDOT agreed to provide the Parks Department with a perpetual trail easement over all of the PennDOT-owned former rail parcels, except for a small section between Old Eagle Road and County Line Road in Tredyffrin Township. PennDOT also assisted Montgomery County in creating trail links at certain locations along their Cross County Trail Corridor.

Chester and Montgomery Counties then jointly applied for a variety of funds made available for trail projects as part of the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991. In 1996 the Chester Valley Trail Project was awarded \$2.7 million in ISTEA funding to finance environmental and engineering studies, and the construction of the trail. The Chester Valley Trail Project is currently listed in PennDOT’s 12-Year Transportation Improvement Plan. Environmental evaluation, and engineering studies have been initiated for this project. Although most of the Trail will follow the old rail bed, the exact location of the trail has not yet been determined, and it may be necessary to loop the trail north or south of the rail bed in some locations.

The Chester Valley Regional Recreation Corridor is one of the few trail corridors in Chester County that extends east to west. As a result, it creates perpendicular links with the numerous corridors that extend north to south. This Corridor also has the potential to become a corridor of statewide importance because it could serve as a link between to an east-west trail proposed by Lancaster County and an extensive network of trails planned for Montgomery County which link to Philadelphia and Bucks Counties. If all these trail projects were completed, a trail user could go from the shores of the Susquehanna River in Lancaster County east to either Center City Philadelphia or the banks of the Delaware River in Bucks County. Under this scenario, the Chester Valley Corridor would be the central link in this multi-county trail system.

The Chester Valley Corridor also extends through Coatesville City and Atglen, Parkesburg, and Downingtown Boroughs. The establishment of the Chester Valley Trail Corridor as a trail of statewide importance could bring trail users from throughout southeastern Pennsylvania through these urban centers creating the possibility for a major expansion of recreation related businesses. The Corridor is also part of Potential Trail Loops “D, E, F” and “G,” which could create the possibility of an expansion of recreation related businesses in the seven boroughs crossed by at least one of these loops.

The Chester Valley Corridor links with six other corridors. It is also the only corridor in Chester County that permits east-west travel across the entire County. Because of its unique location, trails established on this Corridor will provide an essential link in a potential countywide trail network. For these reasons, the Chester Valley Regional Recreation Corridor is designated as a Regional Priority Trail Corridor in **Figure 12.32** of this chapter.

■ **The Schuylkill Regional Recreation Corridor** Over the past few decades there has been a great number of trail planning projects initiated along the Schuylkill River from north of the City of Reading downstream to the City of Philadelphia. These projects have been spurred on by the growing public awareness that the Schuylkill River, with its navigable waters and scenic vistas, is well suited as a location for trail and water-based recreation. Although many recreation facilities along the River have been constructed and opened to the public in the past few years, the general public still does not yet regard the Schuylkill River as a regional recreational resource. This is largely due to that fact that the River was previously used for barge traffic and polluted by the many manufacturing mills that once operated along its shore. Currently the River is no longer a center for industrial manufacturing and its water quality has greatly improved, making it well suited for water based recreation. However there is still a public perception that the River is polluted, and even today cloudy tap water is colloquially referred to as “Schuylkill Punch.”

In 1995, the PA DCNR designated the Schuylkill River and all the land within three miles of the River as a Pennsylvania Heritage Corridor. The Schuylkill River Greenways Association (SRGA), which was founded in 1973, was then contracted by the DCNR to manage the Heritage Corridor. In October 2000, the federal government designated the entire Schuylkill River Watershed as a National Heritage Corridor. More information on the State and Federal Heritage Corridors along the Schuylkill River is presented in **Chapter 8**. Now that the watershed is designated as a National Heritage Area, the SRGA plans to petition the PA DCNR to widen the Pennsylvania Heritage Corridor boundaries to include the entire watershed.

Over the last decade, the SRGA has worked with county and municipal governments to plan, design and construct sections of the Schuylkill River Trail which is proposed to extend from the City of Philadelphia

north through Reading, and into Schuylkill County. This trail is actually a number of trails that have been, or will be linked together. As of April 2001, two major sections of this trail have been constructed and opened for public use. One section is the Thun Trail in Berks County, which extends from the Montgomery County line north for approximately ten miles. The other opened section is the Philadelphia to Valley Forge Bikeway, which extends from the Manayunk section of Philadelphia to Valley Forge National Historic Site. In April 2001, Montgomery County and the National Park Service announced plans to extend this Bikeway from Valley Forge NHS up the River to Pawlings Road in Schuylkill Township.

If the Thun Trail and the Manayunk Trail are to be linked, a trail will have to be constructed along the Schuylkill River where it forms the boundary between Chester and Montgomery Counties. This area is located within the Schuylkill River Regional Recreation Corridor. Over the last twenty years, both Chester and Montgomery County have been acquiring property in-fee and easements on property along the Schuylkill River, and the two counties have been working together to develop a trail system that will cross into both counties. Through this effort, both counties have developed similar conceptual plans for establishing a trail network that will extend north from Valley Forge National Historic Site in Montgomery County and then cross into Chester County at the Route 29 Bridge in Phoenixville Borough. From there it will roughly parallel the River and cross back into Montgomery County at the Route 422 Bridge South of Pottstown, where it will continue north and link to the Thun Trail.

In 1996, the Montgomery County Planning Commission adopted the *Montgomery County Trail Plan*, which recommended a trail along the Schuylkill River along the alignment presented in the previous paragraph. In October 1999, the Schuylkill River again became the focus of a study being conducted by the Montgomery County Planning Commission. This initiative, formally called the Schuylkill River Greenway Stewardship Study, is a fast-track effort that will be completed in late 2001. The goal of this study is to create an uninterrupted “green corridor” of protected open spaces or parcels whose zoning is consistent with resource preservation and recreation along the northern bank of the Schuylkill River. Although this corridor is outside Chester County, it will most likely be linked to the trail networks that have been proposed by some of Chester County’s northern municipalities.

In 1985, the Philadelphia Electric Company donated a recreation easement to the Chester County Parks and Recreation Department on a number of linear parcels along the Schuylkill River. In 1986 the Chester County Planning Commission published *Schuylkill River Greenway; Cromby to Parkersford Preliminary Design Concepts* which presented a vision for how this property could be used for recreation, and recommended a trail to link scenic and recreation areas. In the late 1990s, the State of Pennsylvania transferred three silt basins along the Schuylkill River to the

Chester County Parks and Recreation Department. The Parks Department is currently developing plans to establish Wildlife Conservation Area Special Purpose Parks on these silt basins, and to link these Parks by a network of trails that will become part of the larger Schuylkill River Trail.

In 2001, the Montgomery County Planning Commission, with assistance by the Chester County Parks and Recreation Department, identified a loop trail alignment that could run along both sides of the Schuylkill, with crossings at the PA Route 113 and PA Route 29 bridges. This loop trail, called the “Schuylkill Loop” could be constructed independently of the other larger projects along the River, but could easily be linked to the larger Schuylkill River Trail. The Schuylkill Corridor is also a part of Potential Trail Loop C, which has a potential trailhead in Valley Forge National Historic Site. A number of other small loops trails along the Schuylkill River have also been proposed at a conceptual level.

In 2000, Phoenixville Borough adopted a Strategic Plan that included parts of a trail system along the Schuylkill River at the confluence with French Creek. This municipal trail system included a number of trails, two of which extend along the Schuylkill River. The Borough’s “Schuylkill River Trail” would extend from the PA Route 29 Bridge north along the Schuylkill River to French Creek, up French Creek to the High Street Trailhead, and then northwest to Cromby Village. The Borough’s “Phoenix Iron Trail” would extend from Black Rock Dam south along the Schuylkill River and up French Creek, where it would cross over and link to the “Schuylkill River Trail” at the Phoenix Column Pedestrian Bridge. In 1999, PennDOT awarded Transportation Enhancement funds to be used to rehabilitate this bridge.

The status of projects along the Schuylkill Corridor, as of April 2001, are presented below:

- **The PA Route 29 Pedestrian Bridge** – A pedestrian walkway and two bike lanes have already been constructed across the PA Route 29 Bridge.
- **From PA Route 29 to Cromby** – This section of the Corridor passes primarily through Phoenixville Borough. The Borough began conceptual planning of portions of a trail along this corridor as part of its 2000 Strategic Plan, but no complete alignment has been officially adopted.
- **From Cromby to Parker Ford** – The Chester County Parks and Recreation Department has acquired recreation easements from PECO for a number of long thin properties in this region, and has been awarded CMAQ funds for trail design.

- **From Parker Ford to Route 422** – The Chester County Parks and Recreation Department is currently designing an alignment for this section in coordination with East Coventry Township, as a potential future County Trail, but no recreation easements or property in-fee have been acquired by the Parks Department.
- **The US Route 422 Pedestrian Bridge** – PennDOT is currently developing plans to re-deck and reconstruct the US Route 422 Bridge over the Schuylkill River. When this re-construction occurs PennDOT will also construct an attached pedestrian bridge. The Chester County Parks and Recreation Department is currently involved in a partnership with PennDOT to conduct design studies for this pedestrian bridge.

The Schuylkill Regional Recreation Corridor links with four other corridors. It is also the only corridor in Northern Chester County that will be included in the proposed Schuylkill River Trail, which is the centerpiece for recreation within both a State and National Heritage Corridor. Because of its unique location, trails established on this Corridor will provide an essential link in both a countywide and region-wide trail network. For these reasons, the Schuylkill Regional Recreation Corridor is designated as a Regional Priority Trail Corridor in **Figure 12.32** of this chapter. The Corridor also includes the Schuylkill River and a number of parallel canals, some of which are suitable for non-motorized watercraft. For these reasons, this Corridor is designated as one of Chester County's two Priority Water Trail Corridors.

■ **The Uwchlan Regional Recreation Corridor** Uwchlan Township has completed a plan for a municipal trail that extends through the Uwchlan Trail Regional Corridor. To date, less than half of this trail has been acquired either in-fee or as an easement for the purpose of establishing a regional trail, but a small portion of this trail has been constructed. In 2000 Uwchlan Township was awarded a TEA-21 grant for the construction of a pedestrian bridge over PA Route 100 near the Village of Lionville. The TEA-21 grant program is described at the end of this chapter. The construction of this pedestrian bridge is anticipated to occur by 2006.

The key feature of the Uwchlan Regional Trail Corridor is that it provides a link between the constructed segment of County Struble Trail and the future County Park in West Whiteland Township, which abuts the County Chester Valley Trail. Once completed, the Uwchlan Municipal Trail will provide the densely populated communities within Uwchlan Township and those along County Struble County Trail with access to the future County Park in West Whiteland Township. Furthermore, when County Struble County Trail is extended up to Marsh Creek State Park, the Uwchlan Municipal Trail would provide trail access to this State Park from Uwchlan Township.

Visions & Actions **for Partially Developed Corridors**

Vision 12.13

Projects that establish multi-municipal public trails that link together along Partially Developed Regional Recreation Corridors, should be initiated at the federal, state, County and municipal level, and initiated by community groups.

Action 12.13

The County will endorse federal, state and municipal projects that establish multi-municipal public trails that link together along Partially Developed Regional Recreation Corridors, and pursue such projects at the County level.

Vision 12.14

Municipalities and community groups should establish multi-municipal public trails that link together along Partially Developed Regional Recreation Corridors.

Action 12.14

When reviewing applications for appropriate County grants, the County will give additional credit to projects that establish multi-municipal public trails that link together along Partially Developed Regional Recreation Corridors.

Vision 12.15

The Uwchlan Municipal Trail should not be the only trail providing Downingtown Borough with access to the County Chester Valley Trail. There should be at least one more east-west trending link between the future County Park in West Whiteland and the Brandywine River corridor in the vicinity of Downingtown Borough.

Action 12.15

When reviewing applications for appropriate County grants, the County will give additional credit to projects that help establish an east-west trending link between the future County Park in West Whiteland Township and the Brandywine River corridor in the vicinity of Downingtown Borough, even if there is already a trail planned or developed connecting the County Chester Valley Trail and County Struble Trail.

Vision 12.16

Municipalities should develop plans to provide links between their internal municipal trails and the trails in adjacent municipalities, and consider using Partially Developed Regional Recreation Corridors as alignments for these multi-municipal links.

Action 12.16

The County will require that any Open Space, Recreation and Environmental Resource (OSRER) Plan written or updated using County funds must map trails outside the municipality within one mile; must evaluate the establishment of links between internal municipal trails and the trails in adjacent municipalities; and must consider using Partially Developed Regional Recreation Corridors as alignments for multi-municipal links.

Vision 12.17

County Trails and other linear recreation facilities should be constructed along the entire length of the Brandywine-Struble, Chester Valley and Schuylkill Regional Recreation Corridors.

Action 12.17

The County will continue to plan, design and construct County Trails and other linear recreation facilities within the Brandywine-Struble, Chester Valley and Schuylkill Regional Recreation Corridors for the purpose of establishing a multi-municipal trail along the entire length of these corridors.

Vision 12.18

Uwchlan and West Whiteland Townships should acquire right-of-way and property in-fee within or near the Uwchlan Regional Recreation Corridor for the purpose of establishing a multi-municipal trail along the entire length of this corridor.

Action 12.18

The County will endorse efforts taken by Uwchlan and West Whiteland Townships to acquire right-of-way and property in-fee within or near the Uwchlan Regional Recreation Corridor for the purpose of establishing a multi-municipal trail along this corridor, and also in their efforts to design and construct this trail.

Vision 12.19

A County Water Trail Feasibility Study should be completed for both the Schuylkill River and Octoraro Creek.

Action 12.19

The County will conduct a County Water Trail Feasibility Study that evaluates both the Schuylkill River and Octoraro Creek.

Vision 12.20

The Schuylkill Loop Trail and other loop trails along the Schuylkill River should be established through a cooperative effort of Chester and Montgomery Counties.

Action 12.20

The County will conduct a feasibility study that evaluates the establishment of Schuylkill Loop Trail and other loop trails along the Schuylkill River as a cooperative effort of Chester and Montgomery Counties.

Vision 12.21

A Trail Feasibility and Recreation Master Plan Study should be completed for each of the Partially Developed Regional Recreation Corridors in order to identify potential properties for right-of-way or in-fee acquisition, potential users, stakeholders, and funding opportunities.

Action 12.21

The County will either conduct a Trail Feasibility Study and Recreation Master Plan for each Partially Developed Regional Recreation Corridor, or identify other qualified organizations that will agree to conduct such studies. These studies may be part of a larger regional recreation or planning study.

Vision 12.22

Multi-municipal trails within or along a Partially Developed Regional Recreation Corridor should be established as a joint planning effort involving all of the municipalities crossed by the trail.

Action 12.22

Before endorsing a project or awarding a County grant for a multi-municipal recreational trail, the County will require documentation that the project was established through joint planning involving all of the municipalities crossed by the trail.

Bicycle Routes

Inventory of Bicycle Routes

As the first pages of this chapter explained, “trails” are non-motorized transportation facilities that are located away from roads used by motor vehicles. “Routes” however are located adjacent on the shoulder of roads or on the motor vehicle travel lanes of low volume roadways. As part of its ongoing transportation planning efforts, the Planning Commission has developed a map of bicycle routes called the Recommended Bikeway Network for Chester County, which is presented in **Figure 12.29**. These routes follow along roadways that are well suited to accommodate some form of bicycle use, ranging from “beginner level recreational” use to “experienced commuter” use. This map also shows the two state-designated Bicycle PA Routes in Chester County.

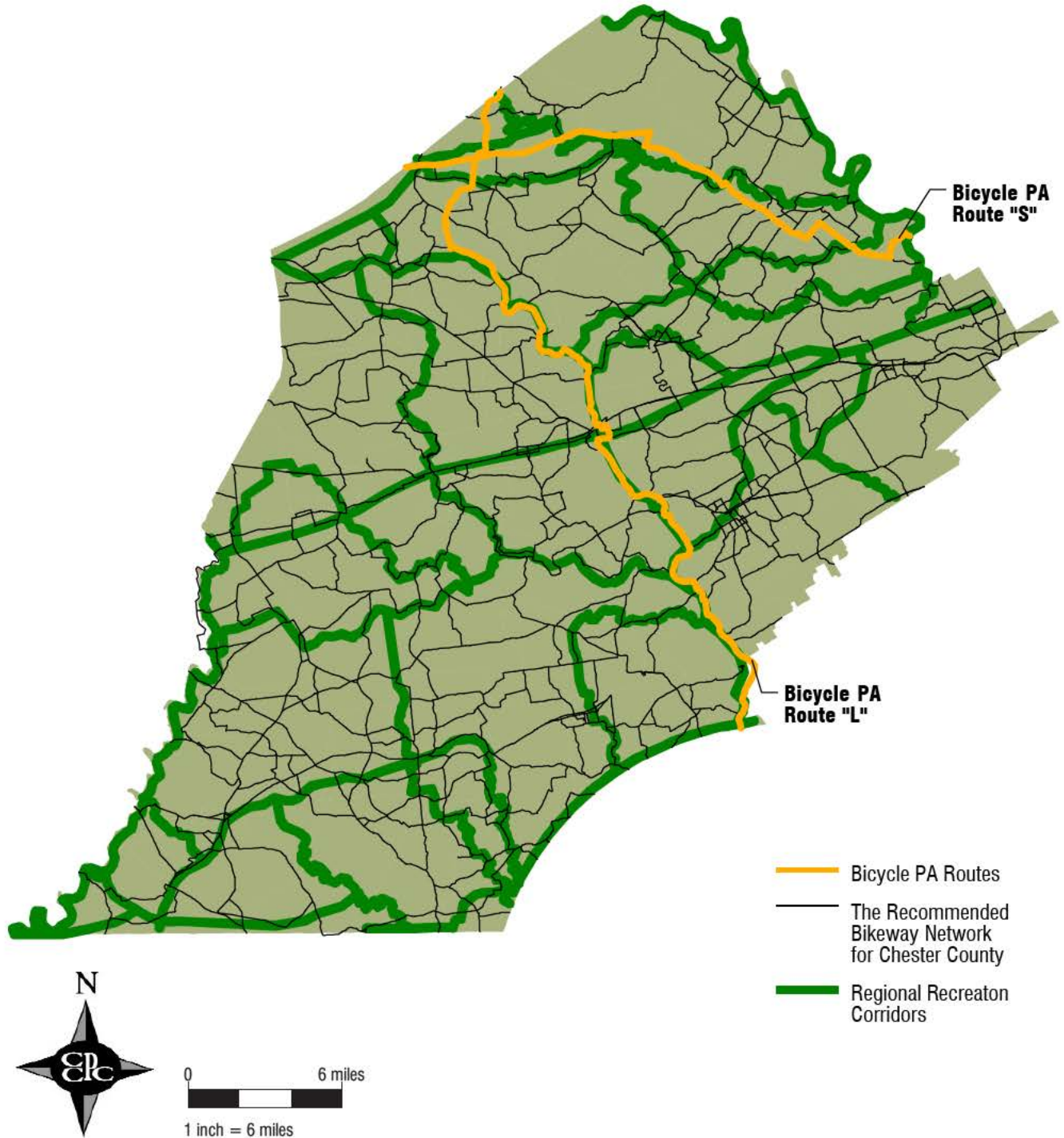
In the past few decades, the Federal Highway Administration and the Pennsylvania Department of Transportation (PennDOT) have taken a more active role in developing bicycle routes, and often include the construction of bicycle facilities as part of roadway construction or rehabilitation. As a result, the Chester County Planning Commission and the Parks and Recreation Department regard the establishment of bicycle routes as primarily a transportation issue, and so bicycle routes are not discussed in detail in *Linking Landscapes*. Bicycle routes will however, be discussed in detail in *Connecting Landscapes, the Transportation Element of the Chester County Comprehensive Plan*, which is currently being completed by the Planning Commission.

Evaluation of Bicycle Routes

The bicycle routes presented in **Figure 12.29** cross Regional Recreation Corridors at numerous locations. In many communities, it may be possible for multi-use trails to link up with bicycle routes or sidewalks. Municipal planners should be aware however that roadways and roadway shoulders are not designed for pedestrians or equestrians, although some can be utilized by bicyclists. A thorough evaluation of transportation issues is therefore necessary when determining what links are possible between mix-use trails and bicycle routes.

The DCNR and PennDOT are in the process of establishing a statewide network of bicycle routes called “Bicycle PA Routes.” These routes are located along roadways and are signed with small green signs. As **Figure 12.29** shows, Bicycle PA Route L and S both pass through Chester County. Most Counties in Pennsylvania are not crossed by even one Bicycle PA Route, and fewer than ten counties are crossed by two Routes. The DCNR has also mapped “Proposed Bicycle Touring Corridors,” through which future Bicycle PA Routes are planned. This DCNR mapping indicates that no additional Bicycle PA Routes are planned for Chester County.

Figure 12.29: Regional Recreation Corridors and the Recommended Bikeway Network for Chester County



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Source: CCPC, 2000.

Visions & Actions **for Bicycle Routes**

Vision 12.23

A network of bicycle routes should be established, signed and maintained in all Chester County municipalities.

Action 12.23

When reviewing land development plans, zoning and subdivision ordinances, open space and recreation plans, and comprehensive plans, the County will provide comments and recommendations on how well bicycle routes have been established, signed and maintained.

Vision 12.24

Projects that establish sections of a countywide network of bike routes along those routes identified by the Planning Commission as part of the County's overall transportation planning should be initiated at the federal, state, County, and municipal level, and by community groups.

Action 12.24

The County will endorse federal, state, and municipal projects that establish segments of countywide network of bike routes, and that are consistent with the County's overall transportation planning, and pursue such projects at the County level.

Vision 12.25

Planning policies that encourage the establishment of bicycle routes and bicycle parking facilities should be included in municipal comprehensive plans and implemented in municipal ordinances to the greatest extent possible.

Action 12.25

The County will work with municipalities through the VPP to develop policies that encourage the establishment of bicycle routes and bicycle parking facilities.

Vision 12.26

The state should distribute detailed mapping to the public showing the routes of Bicycle PA Routes and Proposed Bicycle Touring Corridors.

Action 12.26

The County will request that the state distribute detailed mapping to the public showing the routes of Bicycle PA Routes and Proposed Bicycle Touring Corridors.

Vision 12.27

Mapping of the Planning Commission Bike Routes should be regularly updated and provided to each municipality.

Action 12.27

The County will continue to provide mapping of the Planning Commission Bike Route Map to each municipality, and update the mapping based on input from municipalities.

Vision 12.28

The Chester County Conference and Visitors Bureau should use the Planning Commission Bike Route Map when developing information on bicycle recreation in the County.

Action 12.28

The County will continue to provide the Chester County Conference and Visitors Bureau with updates of the Planning Commission Bike Route Map.

Vision 12.29

Bicycle advocacy groups should be informed of bike route planning efforts conducted by the County.

Action 12.29

The County will continue to coordinate with bicycle advocacy groups.

Vision 12.30

Bike routes should be established on roadways built or reconstructed by PennDOT.

Action 12.30

When reviewing PennDOT projects for the building or reconstruction of roadways, including re-paving, the County will recommend that bike route be added or maintained where appropriate.

Vision 12.31

PennDOT and the DVRPC should be aware of proposed and potential bike route projects within the County.

Action 12.31

The County will continue to coordinate with PennDOT and the DVRPC regarding proposed and potential bike route projects within the County.

Public Stables and Public Equestrian Riding Lanes

Inventory of Public Stables and Public Equestrian Riding Lanes

Currently there are no public horse stables in Chester County. Public stables are usually found on publicly owned park property and so can be regarded as protected open space. There are also no riding lanes that are protected by easements of a riding lane association. A riding lane association is a non-profit organization that establishes easements on paths used for horseback riding called “riding lanes” or “bridal paths.” These associations either acquire easements themselves or arrange to have a conventional land trust ease the lanes. These lanes are commonly open to the general public for hiking or horseback riding, and no other uses. On these lanes, hikers must yield right of way to horses.

Chester County has a long tradition of recreation involving horseback riding and competitive equestrian sports such as dressage, steeplechase racing and coach riding. Equestrian trail riding is a popular activity in Chester County, and the Horse-Shoe Trail has been used as an equestrian path for decades. The County is especially well known as a center for fox hunting, and there are a number of fox hunting clubs that have been holding events for generations. These events are sponsored by private clubs, and participation in them is determined by a “hunt master.”

Many properties in Chester County are used for fox hunting and other equestrian sports are protected by land trust conservation easements. However, there are no equestrian clubs or organizations in the County that hold any easements and no properties within the County are eased specifically to protect fox hunting lands or equestrian trails. There is currently no single organization that represents or coordinates the activities of the equestrian sport clubs or riders in Chester County.

Evaluation of Public Stables and Public Equestrian Riding Lanes

Although Chester County has an active equestrian riding community, there are no public stables in the County. The City of Philadelphia has three publicly owned stables all located near the Wissahickon City Park. These stables are owned by the City but are managed by riding clubs. Ridley Creek State Park in Delaware County also has public stables that are the property of the state park, but are managed and operated by riding clubs.

Currently there are no equestrian riding trails or bridal paths that are owned or eased by a land trust, a non-profit bridal path organization or

County or municipal government. One of the few well-established bridal path associations in the eastern United States is the Bedford Riding Lanes Association (BRLA) in the Town of Bedford in Westchester County, NY. The BRLA manages a network of equestrian riding paths in and around the Town of Bedford, NY. These trails extend across public and private property and are open to the general public, but only for walking or horseback riding.

The BRLA was formed in the 1920s and has approximately 400 dues paying members. In recent decades the BRLA has secured easements on parts of their lanes either by acquiring easements, or arranging for easements to be acquired by the Westchester County Land Trust. The BRLA membership consists of riders, but also hikers who maintain the lanes. The BRLA has one paid trail manager, and coordinates with local realtors since access to a BRLA lane is regarded as a valuable amenity. The BRLA lanes are signed, and some sections only permit a horse to be walked. A similar association was recently founded in the Town of South Kingstown in Washington County, RI in coordination with the South Kingstown Land Trust.

Chester County is well suited to establish public stables. These stables and their surrounding meadows can be regarded as public open space if they are part of a recreation park system. Establishing such stables could also allow equestrian sports to be accessible by a greater number of users including people from the County's more urban and suburban communities. The County is also well suited to be the home to local Riding Lane Associations. By establishing easements or riding lanes, these organizations could promote recreational open space links and protect open space. Municipalities could also establish riding lanes as part of their recreational park systems.

Visions & Actions **for Public Stables and Public Equestrian Riding Lanes**

Vision 12.32

Public accessible stables should be established near public trails that permit equestrian use.

Action 12.32

The County will hold a meeting with federal, state, and municipal officials to evaluate the potential for establishing public accessible stables near trails that permit equestrian use.

Vision 12.33

Equestrian clubs and organizations within Chester County should work together establish Riding Lane Associations that can acquire conservation easement on riding lanes that are open to the public.

Action 12.33

The County will hold a meeting with equestrian clubs and organizations within Chester County that could establish Riding Lane Associations that can acquire conservation easement on riding lanes that are open to the public.

Vision 12.34

All parts of riding lanes established by non-profit Riding Lanes Associations in Chester County should be open to the general public with no membership restrictions.

Action 12.34

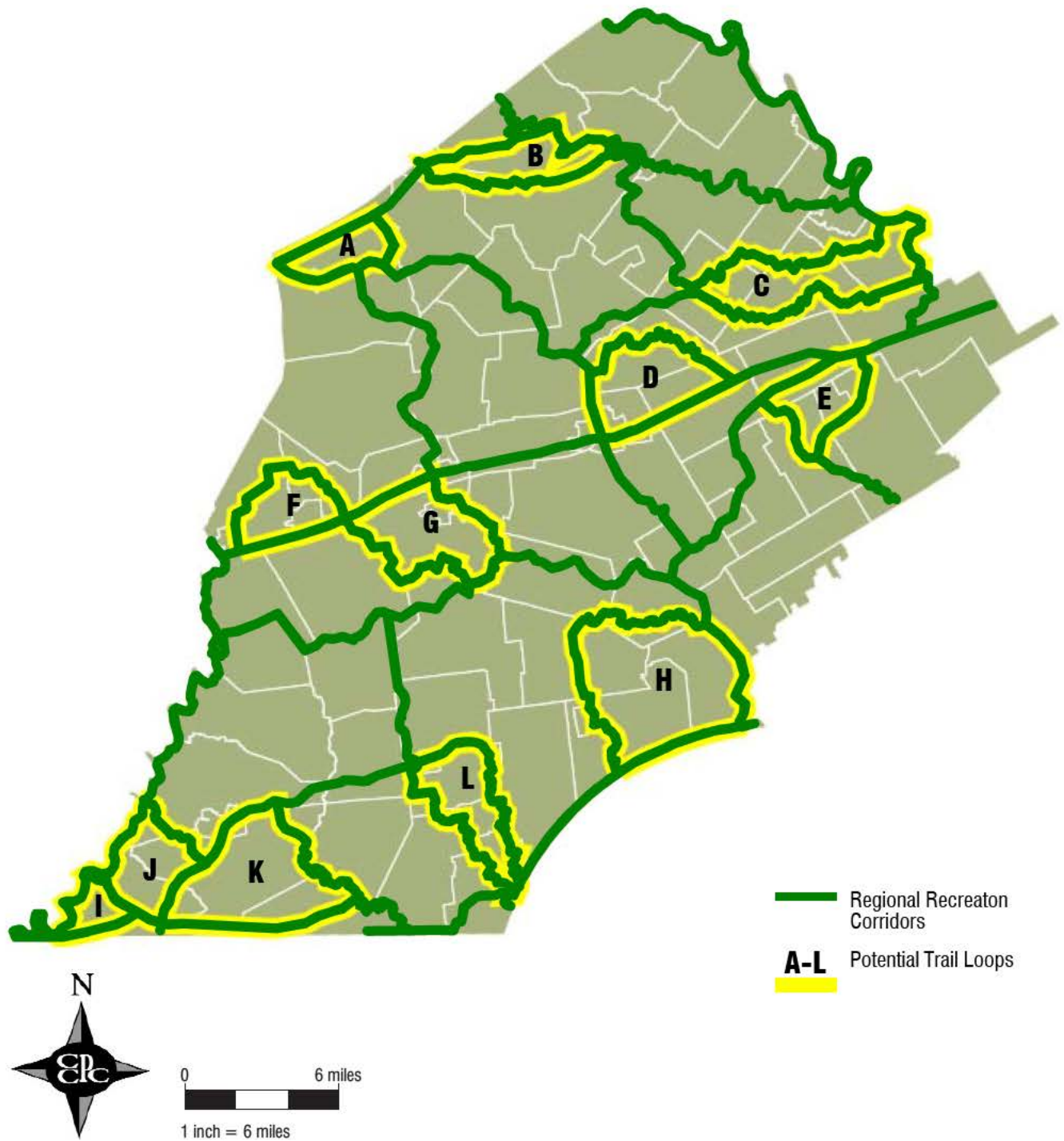
Before endorsing a project or awarding a County grant to establish a riding lane by a Riding Lane Association, the County will require documentation that all parts of these lanes are open to the general public with no membership restrictions.

Potential Trail Loops

Inventory of Potential Trail Loops

A “trail loop” is simply a trail that loops around forming a closed shape like a circle or an oval. Trail loops are valuable recreation resources because a user can access the trail at one location, and then bicycle or hike the entire length of the trail loop and return to the same access point without having to backtrack. The network formed by the recommended Regional Recreational Corridors shown previously in **Figure 12.1** forms 22 closed loops located entirely within Chester County. Many of these loops are so large that it is unlikely most users would travel their entire length. However, 12 of these loops are approximately 20 miles long or less, and would be well suited for use as a trail loop. A loop trail of 20 miles could be traveled in two hours by a bicyclist riding at a moderate speed of 10 miles per hour. These 12 potential trail loops are mapped in **Figure 12.30** and listed in **Figure 12.31**.

Figure 12.30 Potential Trail Loops



The data and files for maps in this document were digitally compiled by the Chester County Planning Commission (CCPC) of Chester County, PA. This information and data are provided for reference purposes only and should not be used for any detailed engineering purposes. The CCPC and Chester County make no claims as to the completeness, accuracy, or currency of the paper map or the digital data and files used to generate the map.

Source: CCPC, 2000.

Figure 12.31 Potential Trail Loops and Trail Heads

Potential Trail Loop	Approximate Length	Potential Trail Head
A	11	Honey Brook Borough
B	17	Elverson Borough
C	22	Valley Forge National Historic Site
D	15	Dowington Borough
E	13	Malvern Borough
F	12	Atglen or Parkesburg Borough
G	17	Coatesville City, South Coatesville Borough or Modena Borough
H	22	Kennett Square Borough
I	7	Nottingham County Park
J	14	Nottingham County Park
K	20	Oxford Borough
L	17	Avondale or West Grove Borough

Source: CCPC, April 2001

Evaluation of Potential Trail Loops

As *Figure 12.31* shows, nine of the 12 potential trail loops pass through boroughs or the City of Coatesville, and these urban centers could serve as loop trailheads. Establishing a trailhead in an urban center can result in urban revitalization in two ways. First a trailhead brings trail users into downtown businesses that can provide food and services, which can be as simple as a phone and a restroom, or as elaborate as a bed and breakfast. Secondly trailheads in boroughs and cities can provide trail access to their residents, improving the quality of life in these urban areas, and making their residential units more attractive and valuable to potential homeowners.

Visions & Actions for Potential Trail Loops

Vision 12.35

Projects that establish trail loops should be initiated at the federal, state, County, and municipal level, and by community groups.

Action 12.35

The County will endorse federal, state and municipal projects that establish trail loops, and pursue such projects at the County level.

Vision 12.36

Municipalities and community groups should establish multi-municipal trail loops.

Action 12.36

When reviewing applications for appropriate County grants, the County will give additional credit to projects that establish multi-municipal trail loops.

Vision 12.37

Multi-municipal trail loops should be developed as a joint planning effort involving all of the municipalities crossed by the trail.

Action 12.37

Before endorsing a project or awarding a County grant for a multi-municipal trail loop, the County will require documentation that the project was developed through joint planning involving all of the municipalities crossed by the trail.

Chester County Trail Network

Inventory of the Chester County Trail Network

■ **National Trails** The East Coast Greenway is a proposed 2,300-mile long trail that would extend from Maine to Florida. During the 1990s, the East Coast Greenway Alliance (ECGA) began working to establish this multi-state Greenway as a kind of “urban Appalachian Trail.” The Brandywine-Struble Regional Recreation Corridor south of Downingtown Borough and the future County Chester Valley Trail were previously considered for inclusion into the East Coast Greenway. Under this scenario the Greenway would have extended from Northern Delaware up the Brandywine Valley to Downingtown and east to Montgomery County, and then onto Bucks County and the Trenton New Jersey Area. In 1999, however the ECGA established a route that bypassed Chester County. This adopted route extended from northeastern New Castle County, DE through Delaware County, PA, Philadelphia County, PA, and Bucks County, PA before crossing into New Jersey near the City of Trenton.

■ **State Trails** There is currently no state trails system in Pennsylvania, nor is there any state agency whose mission is specifically to acquire, construct, manage and patrol trails. However the state’s Bicycle PA program is currently establishing a network of on-road bike routes throughout the state.

■ **County Trails** The Chester County Parks and Recreation Department currently maintains and patrols the County Struble Trail and the County Chester Valley Trail, and is continuing to design and construct planned extensions to these trails. The Parks Department has committed to completing trail construction on the entire length of the following trail facilities:

- **County Chester Valley Trail** from County Struble Trail in Downingtown Borough to Upper Merion Township, Montgomery County, at the location of the western terminus of the Cross County Trail.
- **Future County Octoraro Water Trail** from PA Route 272 south to the Maryland State Line.
- **Future Schuylkill River Trail** from Township Line Road west of Phoenixville Borough to US Route 422 in North Coventry Township.
- **County Struble Trail** from the northern terminus of the constructed section of County Struble Trail north to Honey Brook Borough.

■ **Municipal and Community Trails** There are many trail networks within Chester County that are constructed and managed by public and private organizations. These trails include internal trails within state and county parks, municipal trails, multi-municipal trails, and trails on privately owned properties such as nature preserves and industrial parks. These trails range from paved multi-use trails to dirt hiking paths or “primitive paths” whose alignments are regularly modified to accommodate new conditions such as fallen trees or eroded slopes.

There are so many minor trails in Chester County, many of which are constantly changing, that it may never be possible to map them all. Currently, many of these minor trails are mapped in each municipality’s Open Space Recreation and Environmental Resource (OSRER) Plan. Because these trails are addressed in detail in these plans, they have not been inventoried for this document.

Evaluation of the Chester County Trail Network

■ **National Trails** Although the ECGA has chosen not to extend the main stem of the East Coast Greenway through the County, it is still possible that the ECGA could establish a western bypass around Philadelphia that could pass through Chester County. This western bypass would provide rural scenery that would be an alternative to the more urban landscapes of Philadelphia and Delaware Counties. It would also link the East Coast Greenway to the future multi-county Schuylkill River Trail, and thus provide an intersection between the north-south trending East Coast Greenway, and the east-west trending Schuylkill River Trail.

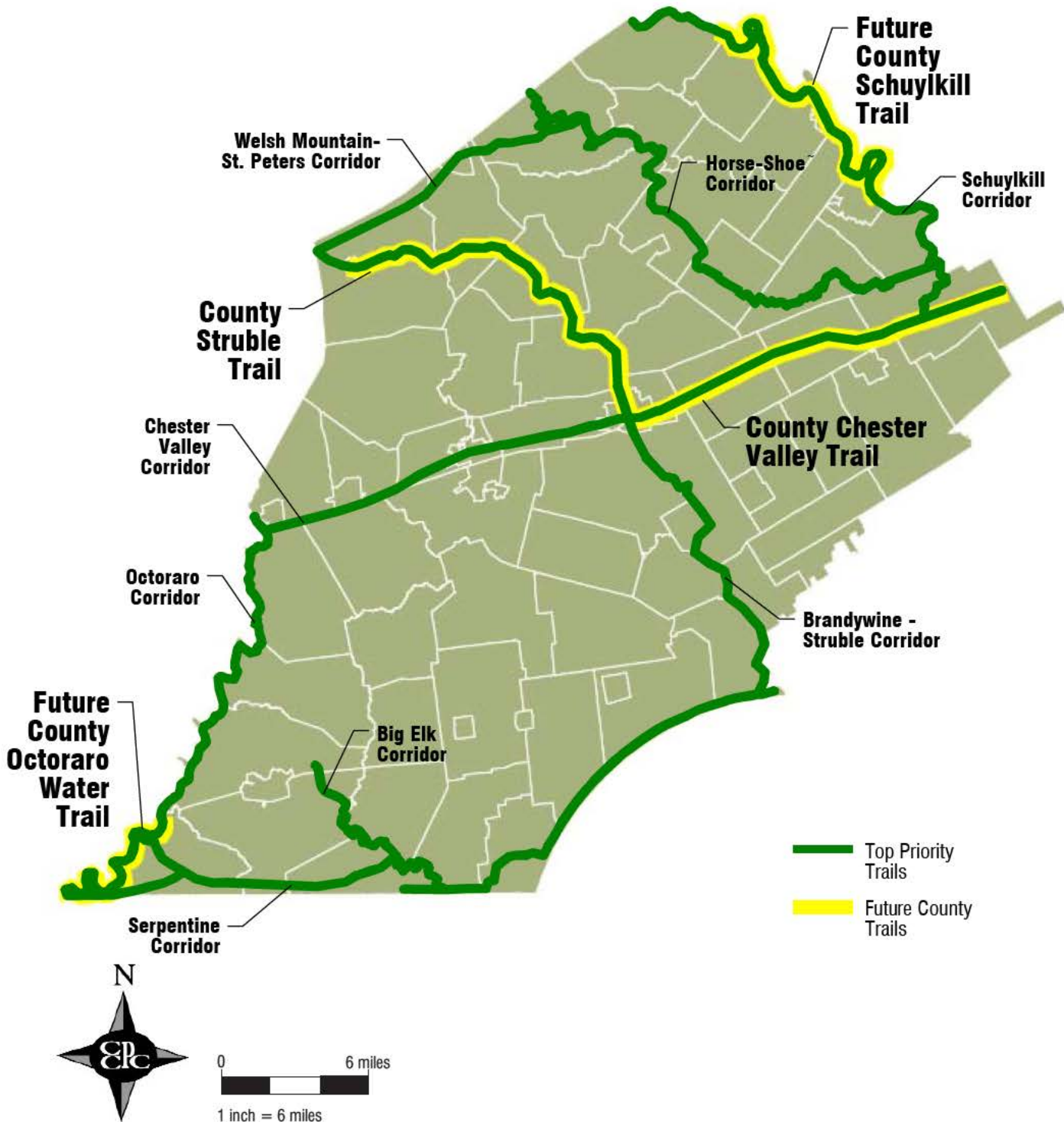
■ **State Trails** Although the Commonwealth of Pennsylvania does not administer a state trails system, such a system could benefit Chester County. The Chester Valley, Schuylkill and Horse-Shoe Regional Recreation Corridors all link to other Counties, and could be key elements of a multi-county trail system in southeastern Pennsylvania. If the state were to designate certain multi-county trails as a “state trail system,” Chester County would be well situated to be a part of this system.

■ **County Trails** The County Planning Commission and the Parks Department have also designated nine Regional Priority Trail Corridors, as shown on *Figure 12.32*. These nine corridors all have the greatest potential to link large areas of Chester County with trails that extend outside the County, and hence have a high regional value. When combined, these nine corridors create a basic foundation for a countywide trail network. These Regional Priority Corridors could serve as a basic infrastructure that could then be enlarged to create a more complex and comprehensive network of trails.

The Chester County Parks and Recreation Department has committed to constructing and managing four trails within the nine Regional Priority Trail Corridors. The trails within the remaining five Regional Top Priority Corridors may be constructed by state, County or municipal governments. Given the size of these facilities, it is likely that some will be established by a combination of municipal, state and federal governments, joint multi-municipal partnerships, or public-private partnerships. The Parks Department may also pursue establishing County Trails outside a Regional Priority Corridor if a unique opportunity arises.

Two of the nine Regional Priority Corridors are also Priority Water Trail Corridors. The Schuylkill and the Octoraro Regional Recreation Corridors have both been designated as Priority Water Trail Corridors because both contain waterways that are suitable for boating, and because the Parks Department has committed to constructing County Water Trails within them. Constructing a water trail involves determining a navigable route along a waterway, and then constructing boat ramps, access points with parking facilities, and other features that may include signs and streamside paths.

■ **Municipal and Community Trails** It will never be possible to map every minor municipal or community trail in Chester County because they are constantly changing. However municipal recreational and transportation planning efforts should inventory and evaluate as many existing trails as is possible. Municipal trails feed into multi-municipal trails and are collectively just as important to the Chester County Protected Open Space Network as the larger multi-municipal trails. A multi-municipal trail will only fully meet the recreation needs of its surrounding communities if it is linked to those communities by smaller municipal or other community trails.

Figure 12.32: Regional Priority Trail Corridors

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Source: CCPC, 2000.

Visions & Actions for the Chester County Trail Network

Vision 12.38

Internal loop trails on public property should be linked to multi-municipal trails.

Action 12.38

When reviewing land development plans, zoning and subdivision ordinances, open space and recreation plans, and comprehensive plans, the County will provide comments and recommendations on how well internal loop trails on public property are linked to multi-municipal trails.

Vision 12.39

Municipalities and community groups should link existing internal municipal trails to multi-municipal trails throughout all parts of the County.

Action 12.39

When reviewing applications for appropriate County grants, the County will give additional credit to projects that link existing internal municipal trails to multi-municipal trails.

Visions 12.40

Municipal and community trails should be mapped on a countywide basis.

Action 12.40

The County will study the feasibility of mapping and classifying municipal or community trails, or both, on a countywide basis.

Action 12.41

Municipalities should properly design, construct and maintain trails.

Action 12.41

The County will study the feasibility of establishing a program to assist municipalities in trail planning and design.

Vision 12.42

A spur of the East Coast Greenway should extend through Chester County through the Brandywine Valley and along the County Chester Valley Trail into Montgomery County.

Action 12.42

The County will request that the East Coast Greenway Alliance consider a bypass of the East Coast Greenway that would loop west of Delaware County and through Chester County. The County will also request that Montgomery County do likewise.

Vision 12.43

A state trail system should be established to manage or designate multi-county trails, and trails in Chester County should be considered for inclusion in this system.

Action 12.43

The County will request that the DCNR establish a state trail system.

Vision 12.44

The County should continue to acquire, construct, manage, and extend County Trails.

Action 12.44

The County will continue to acquire, construct and manage County Trails and extend the County Struble and Chester Valley Trails, and the future County Octoraro Water and Schuylkill River Trails.

Vision 12.45

The County should focus its trail construction efforts on the construction of trails within Regional Priority Trail Corridors.

Action 12.45

Relative to all other trail projects, the County will make it the highest priority to endorse projects that establish segments of multi-municipal trails on Regional Priority Trail Corridors.

Trail Corridor Stakeholders

Coordinating with Stakeholders can Reduce Trail Use Conflicts

Hiking, biking and equestrian trails are being used at an increasing rate throughout the United States. With this increase in users there has also been an increase in conflicts between the different types of trail users. For example, bicyclists and roller-bladers are sometimes criticized for traveling too fast on trails while equestrians are criticized for damaging trail surfaces and causing erosion. Local business groups and homeowners associations are also sometime impacted by trail users, and so should be included in any stakeholder coordination.

In order for a trail to be a successful recreation facility, it is necessary to ensure that all stakeholders and potential trail users are involved in the development or modification of any trail facility. Involving stakeholders is

just as important as acquiring funding or designing a trail facility, and stakeholder coordination should take place as early as possible in the planning of a trail facility.

The following sections provide a listing of organizations that could be impacted by trail planning or construction projects in Chester County. This list is not exhaustive and any trail project team should seek out other organizations that may be impacted by each specific project.

Bicycle, Hiking and Trail Organizations

Many of the organizations listed below are informal grass-roots volunteer groups with no professional staff or offices. As a result, some of the contacts presented below may have changed since the publication of this document.

Bicycle Coalition of the Delaware Valley

252 S. 11th St., 1st Floor
Philadelphia, PA 19107
Phone: 215-829-4188

Mason-Dixon Task Force/New Castle WRA

2701 Capitol Trail
Newark, DE 19711
Phone: 302-731-7670

Chester County Cycling Committee

116 Rosewood Court
Downingtown, PA 19335
Phone: 215-864-1105

Phoenix Iron Canal Trail Association

20 Manavon Street
Phoenixville, PA 19460
Phone: 610-933-2548

Chester County Trail Club

P. O. Box 2056
West Chester, PA 19380
Phone: 610-431-3433

Schuylkill River Trailway Association

970 Old Mill Road
Wyomissing, PA 19610
Phone: 610-372-3916

Chester County Trails Coalition

1512 Federal Street
Downingtown, PA 19335
Phone: Not available.

Trails Preservation Association

P.O. Box 422
Chester Springs, PA 19425
Phone: Not available.

The Horse – Shoe Trail Club

P. O. Box 182
Birchrunville, PA 19421-0182
Phone: 610-469-0114

White Clay Creek Bicycle Club

321 Indiantown
Landenburg , PA 19350
Phone: 610-255-0799

Chambers of Commerce and Tourist Bureaus**Brandywine Conference & Visitors Bureau**

200 East State Street, Suite 100
Media, PA 19063
Phone: 800-343-3983

Main Line Chamber of Commerce

175 Strafford Avenue, Suite 130
Wayne, PA 19087
Phone: 610-687-6232

Chester County Conference & Visitors Bureau

400 Exton Square Parkway
Exton, PA 19341
Phone: 610-344-6365

Oxford Area Chamber of Commerce

P. O. Box 4
Oxford, PA 19363
Phone: 610-932-0740

Chamber of Commerce of Greater West Chester

40 E. Gay Street
West Chester, PA 19380
Phone: 610-696-4046

Phoenixville Area Chamber of Commerce

P. O. Box 29
Phoenixville, PA 19460
Phone: 610-933-3070

Downingtown Area Chamber of Commerce

38 West Lancaster Avenue
Downingtown, PA 19335
Phone: 610-269-1523

Southern Chester Co. Chamber of Commerce
P. O. Box 395
Kennett Square, PA 19348
Phone: 610-444-0774

Exton Region Chamber of Commerce
P. O. Box 314
Exton, PA 19341
Phone: 610-363-7746

Tri County Chamber of Commerce
135 High Street
Pottstown, PA 19464
Phone: 610-326-2900

Great Valley Regional Chamber of Commerce
7 Great Valley Parkway, Suite 210
Malvern, PA 19355
Phone: 610-889-2069

Western Chester Co. Chamber of Commerce
50 South 1st Avenue, Suite 100
Coatesville, PA 19320
Phone: 610-384-9550

Programs that Provide Funding for Trail Projects

There are a number of key government programs that provide funding for trail related projects. These programs are described in detail in **Chapter 16** of this document. The following programs have provided, or are expected to provide, funding for major trail projects in Chester County.

- **ISTEA** refers to the **Intermodal Surface Transportation Efficiency Act of 1991**. ISTEA provided over \$155 billion in federal funding for highway, rail, bicycle and pedestrian trail projects nationwide between 1992 and 1997. These funds have been used to fund trail projects in Chester County.
- **TEA-21**, the acronym for the **Transportation Equity Act for the 21st Century**, was passed by the federal government in 1998. This Act provides \$218 billion in federal funding for highway, rail, bicycle and pedestrian trail projects nationwide between 1998 and 2003. The

County Parks and Recreation Department anticipates that some trail projects within Chester County will receive funding under TEA-21.

- **CMAQ** or the **Congestion Mitigation Air Quality** Program, funds projects that help reduce auto emissions, including some bike trails. The CMAQ program was established under ISTEA, and has been used to fund those trail projects in Chester County that met CMAQ's unique air quality enhancement criteria.
- **Community Conservation Partnership Program (CCPP)**, is administered by the DCNR and awards grants from the following funds: The Keystone Recreation, Park and Conservation Fund; the Recreational Trails Program; Pennsylvania Heritage Parks Funds; and the Environmental Stewardship and Watershed Protection Act (Growing Greener Funds).
- The **Chester County Trails Grant Program** of the Chester County Landscape 21st Century Fund provides funding to Chester County municipalities for the planning, construction and acquisition of trails.

Chapter 13



*Wildlife Biodiversity
Corridors*

Background

Introduction

Over the last half-century, federal, state, County and municipal governments have been actively protecting open space parcels containing undeveloped natural areas. As a result, the County has a number of protected open spaces that provide habitat for wildlife. Such protected properties include state game lands, County Parks and municipal open spaces. What are less common in the County are linear wildlife corridors along which animals can travel. These oblong open space features are called “greenways” in some publications.

Although there are few formally preserved wildlife corridors in Chester County, many of the municipal Open Space, Recreational and Environmental Resource (OSRER) Plans adopted by Chester County’s municipalities in the 1990s recommend some sort of municipal wildlife corridor or “greenway.” As these OSRER recommendations are implemented over the next few decades, it is anticipated that wildlife corridors will become a key element of the County’s protected open space network. Municipalities and wildlife preservation organizations should therefore include wildlife corridors when planning to protect open spaces in their municipality.

In June 2001, *Pennsylvania Greenways: An Action Plan for Creating Connections*, was published by the Pennsylvania Greenways Partnership Commission, which was established in 1998 by the Governor’s Executive Order 1998 – 3, and is chaired by the secretaries of the Pennsylvania DCNR and the Department of Transportation. In this document “greenways” were defined as narrow to wide corridors used for recreational or environmental protection. This Action Plan calls for the establishment of a network of greenways on public and private properties that connect “Pennsylvania’s open space, natural landscape features, scenic, cultural, historic and recreation sites, and urban and rural communities.” This Action Plan also recommends that all of the Commonwealth’s 67 counties complete and adopt a Greenway Plan by 2007. The following chapter, along with **Chapter 12**, will serve as Chester County’s Greenway Plan as recommended in *Pennsylvania Greenways*.

Wildlife Biodiversity Corridors Defined

Linking Landscapes uses the term “Wildlife Biodiversity Corridor” to describe a wildlife corridor or greenway that is composed of protected open spaces that link together other larger protected open spaces used for wildlife preservation. In other words, a Wildlife Biodiversity Corridor is a long strip of undeveloped or sparsely developed land that can be used by wildlife to pass from one wildlife preserve to another. These Corridors allow animals and plant seeds to spread beyond the confines of a single

isolated wildlife preserve, and thereby avoiding inbreeding. By reducing inbreeding, Wildlife Biodiversity Corridors enhance the biodiversity of wildlife throughout the entire County. (Biodiversity is discussed in detail in *Chapter 3*.) These Corridors also provide habitat for animals that naturally range over a great distance, and would not enter a small preserve even if it were well preserved.

Although the term “Wildlife Biodiversity Corridor” may sound similar to the “Regional Recreation Corridors” discussed in *Chapter 12*, the two terms refer to very different land uses. A Wildlife Biodiversity Corridor is specifically set aside for wildlife to move from one habitat area to another without being extensively exposed to contact with humans. As a result, the public is often discouraged from using Wildlife Biodiversity Corridors for active recreation. However active public recreation is strongly encouraged within Regional Recreation Corridors, which only promote wildlife as a secondary use. A detailed analysis of Regional Recreation Corridors is presented in *Chapter 12*.

Habitat Isolation is a Continuing Threat to Wildlife

Since the 1950s, many of Chester County’s unique native landscapes have been protected from development or cultivation either by government agencies, or by private non-profit land trusts. These protected areas contain habitat for numerous plants and animals that cannot survive in developed or cultivated areas. Unfortunately, most of the protected habitat in Chester County now exists as isolated properties, completely surrounded by development or farm fields. As a result, the plants and animals within the protected habitat are becoming inbred. This inbreeding produces plant and animal offspring that are more susceptible to disease and are less likely to survive extreme environmental conditions like a prolonged drought or an especially cold winter.

The County has become concerned that the protected natural habitats in Chester County may become so isolated over the next few decades that they will become little more than vacant lots populated by sick and inbred species, rather than the self regulating ecosystems that they originally were. Such conditions have already occurred in many of the parks in the more urbanized communities in and around the City of Philadelphia. In order to reverse the trend toward the isolation of wildlife habitat, the County is proposing to establish Wildlife Biodiversity Corridors.

The loss of wildlife biodiversity is a concern for Chester County because it can lead to higher maintenance costs for municipal governments and private landowners. Without enough predators, species such as deer, Canada geese, pigeons and mosquitoes can become overpopulated, resulting in overgrazing, the destruction of small trees and gardens, and other property damage. In biologically diverse habitats, predators such as foxes, bobcats, hawks and insectivorous bats help control potentially annoying

species. Optimizing wildlife diversity also provides more species to support recreational and tourist industries such as hunting, fishing, and bird watching.

Wildlife Biodiversity Corridors

Inventory of Wildlife Biodiversity Corridors

■ The Methodology Used to Locate Wildlife Biodiversity Corridors

A number of natural features were assessed when determining the alignment of the Wildlife Biodiversity Corridors. The primary consideration was that these corridors had to avoid centers of human activity. Most animals avoid human contact, and so it was necessary to ensure that these Corridors avoided urban centers or recreational facilities, whenever possible. The County also wanted to ensure that the Wildlife Biodiversity Corridors would link the existing natural habitats that would be most damaged by isolation. The following sections describe the natural resource features that were considered in establishing Wildlife Biodiversity Corridors for the County.

■ At Risk Habitats In 1994, the Nature Conservancy conducted a detailed analysis of the natural habitats within Chester County. The findings of this study were published in *Natural Areas Inventory of Chester County, PA*. This document also included maps showing each of the County's best known natural communities and the habitat of all animals and plants that are listed as "Species of Special Concern." Such species include state and federally threatened and endangered species. (A detailed discussion of Species of Special Concern within Chester County is presented in **Chapter 3**.)

The *Natural Areas Inventory* or "NAI," also classified Chester County's most at risk habitats as "Sites of Statewide Significance" and "Areas of Local Significance." A map of these at risk habitats is presented in **Figure 13.1**. This habitat mapping has been purposely obscured in **Figure 13.1** to discourage illegal poaching and species collection. The NAI also mapped areas that are protected and managed to optimize wildlife habitat, such as state game lands and state parks. These properties, which the NAI refers to as "Managed Sites," are also presented in **Figure 13.1**. Because At Risk Habitat and Managed Sites contain the County's most unique and well-protected habitats, Wildlife Biodiversity Corridors were extended through these sites whenever possible.

■ Larger Woodlands Chester County contains numerous forested landscapes ranging from Valley Forge State Forest District #17 to quarter acre wood lots. As the County has become more developed, its forests

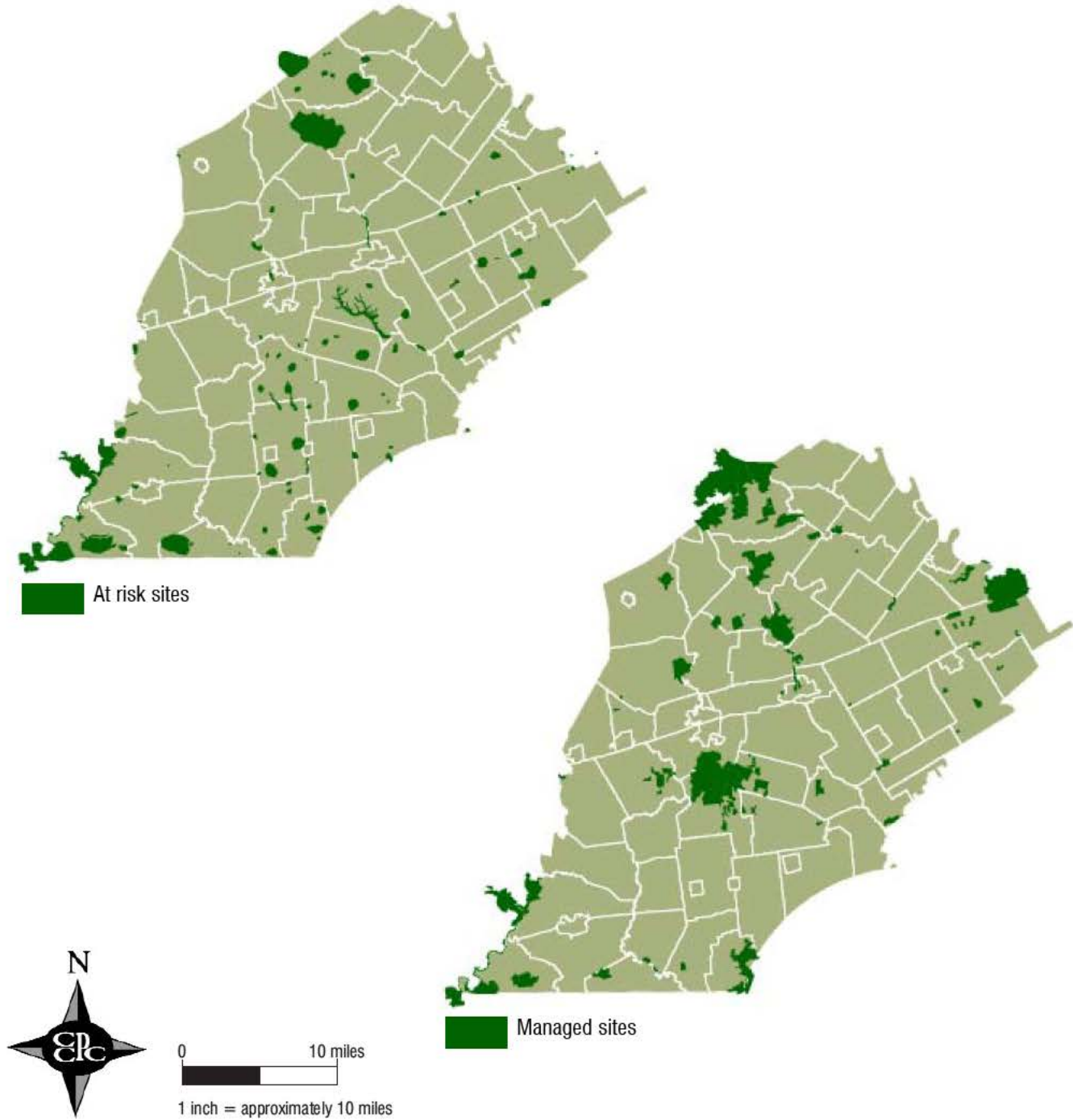
have become more isolated. Although all of the County's forests provide benefits, the greatest ecological benefits are derived from larger forests. Unlike smaller forests, larger forests provide habitat for large game species, large predators, and species that shun all contact with humans. In order to reduce isolation in larger forests, the Wildlife Biodiversity Corridors were extended through forests that cover 50 acres, wherever possible. These forests are presented in *Figure 13.2*.

■ **Water Features** Water features, such as streams and wetlands are important habitats for many species. *Figure 13.3* shows all the mapped streams in Chester County, including small un-named streams. Wetlands, which are a kind of habitat containing wet soils and wetland plants are mapped on *Figure 13.4*. This wetland mapping comes from Nation Wetland Inventory Maps prepared by the National Fish and Wildlife Service using aerial photographs. This mapping is not detailed and does not account for many of wetlands in the County. Any landowner who wishes to locate the wetlands on his or her property should conduct a detailed delineation on the property.

As the maps in *Figures 13.3* and *13.4* show, streams and wetlands within Chester County are numerous and scattered evenly across the entire County. These maps also show that wetlands in Chester County are usually small and found along stream banks. Because wetlands and streams are rather evenly distributed throughout the County, both were given a lower priority than larger woodlands or at NAI Sites, when developing the Wildlife Biodiversity Corridors. In fact, small streams and scattered wetlands are so common in Chester County that linking them all together would require that the entire County be covered with Wildlife Biodiversity Corridors, which would be impractical.

Floodplains, presented in *Figure 13.5*, were also considered as possible locations for Wildlife Biodiversity Corridors, but were given a low priority. Although floodplains are valuable from an ecological standpoint, they are also commonly located near or within urban areas. It was once common for towns, factories, roads and rail lines to be constructed in floodplains in Chester County, and many older structures still exist on them. This large-scale construction on floodplains no longer occurs, but floodplains are still used as the location of recreational trails and active recreational parks. Because there is so much human activity and recreation on or near many floodplain areas in Chester County, they are generally not well suited for use as Wildlife Biodiversity Corridors.

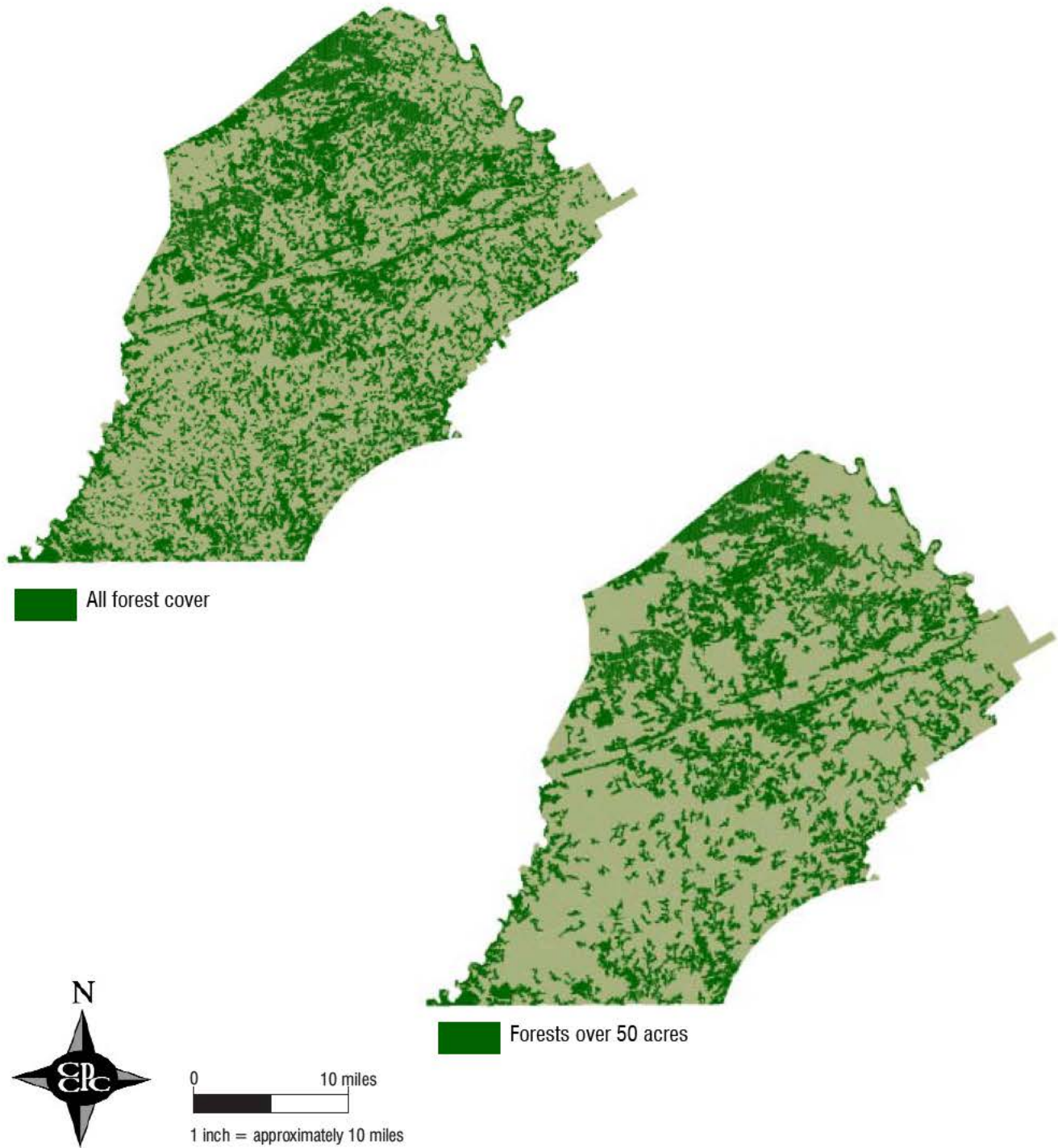
■ **Flyways** Chester County is located along the “flyway” for a variety of bird species. A “flyway” is the path that these migratory birds usually take when they travel south for the winter, or north for the summer. The Schuylkill River in Chester County is a significant resting point and gathering location for birds migrating along the Mid-Atlantic Coast. As a result, a Wildlife Biodiversity Corridor was extended through the Schuylkill River valley.

Figure 13.1: Natural Areas Inventory Sites

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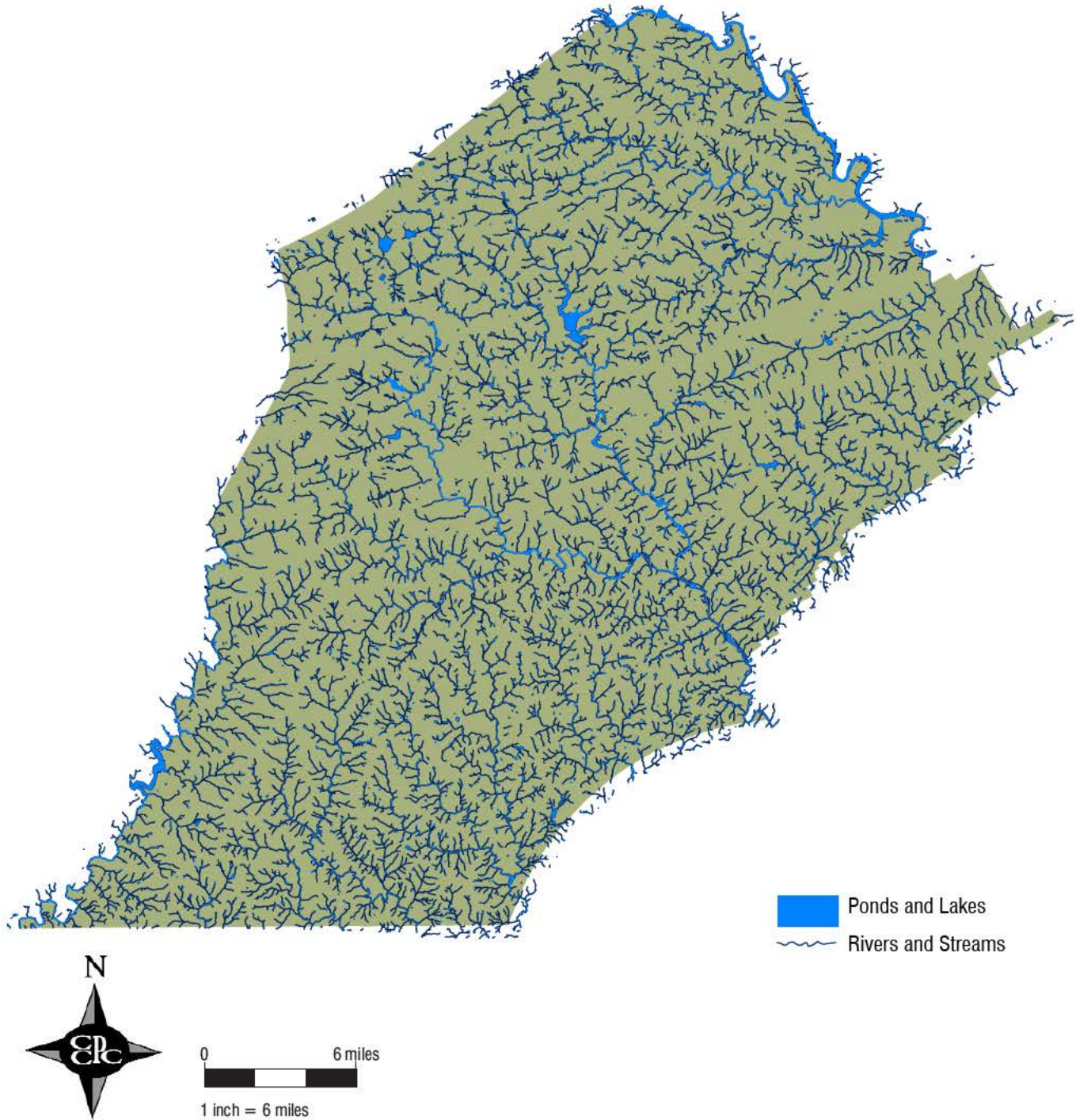
Source: CCPC, 2000.
The Nature Conservancy, 2000.

Figure 13.2: Forest Cover



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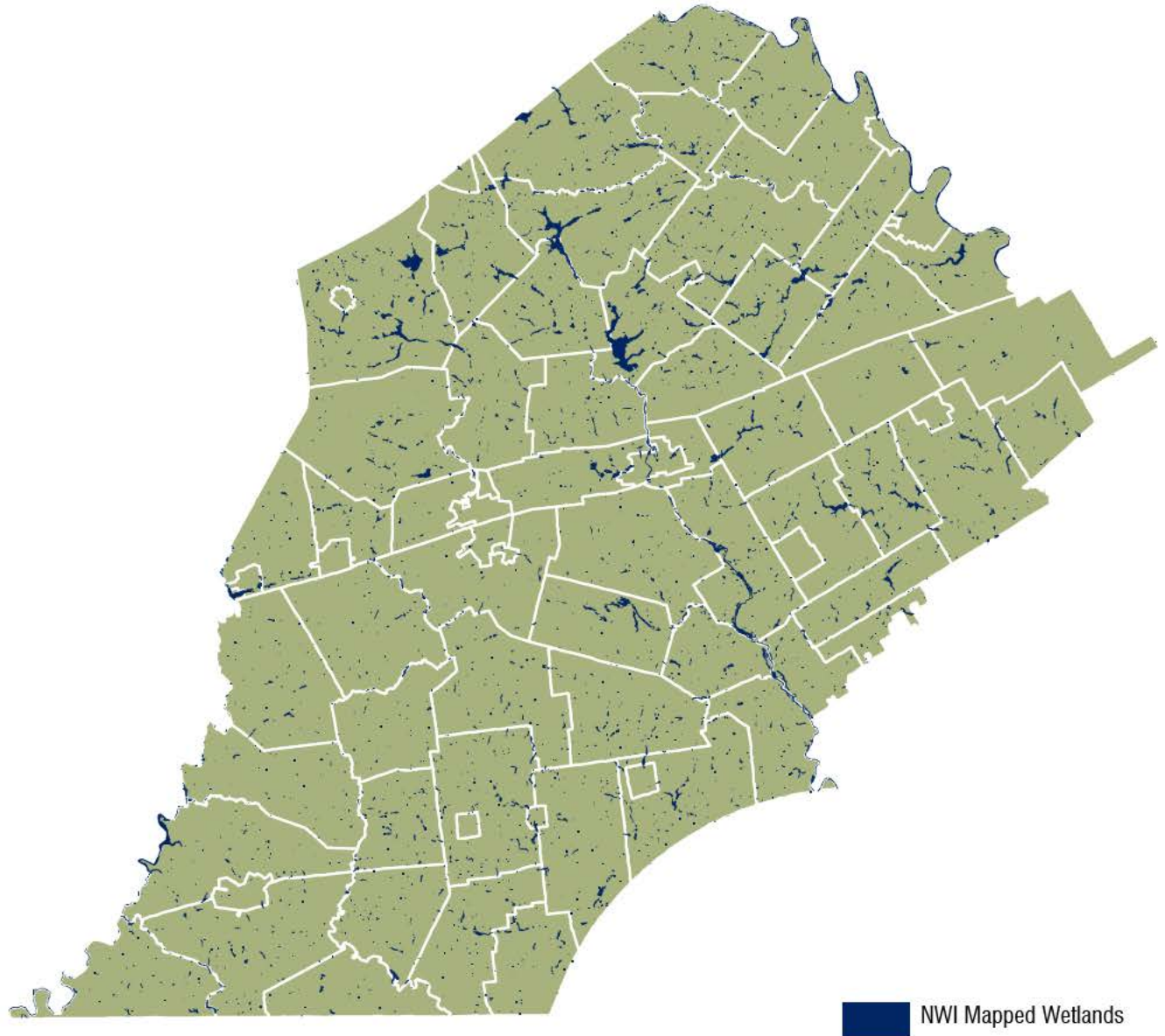
Source: DVRPC, 1997.

Figure 13.3: Streams and Water Bodies

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Source: Aerial Data Reduction Association, 1994.

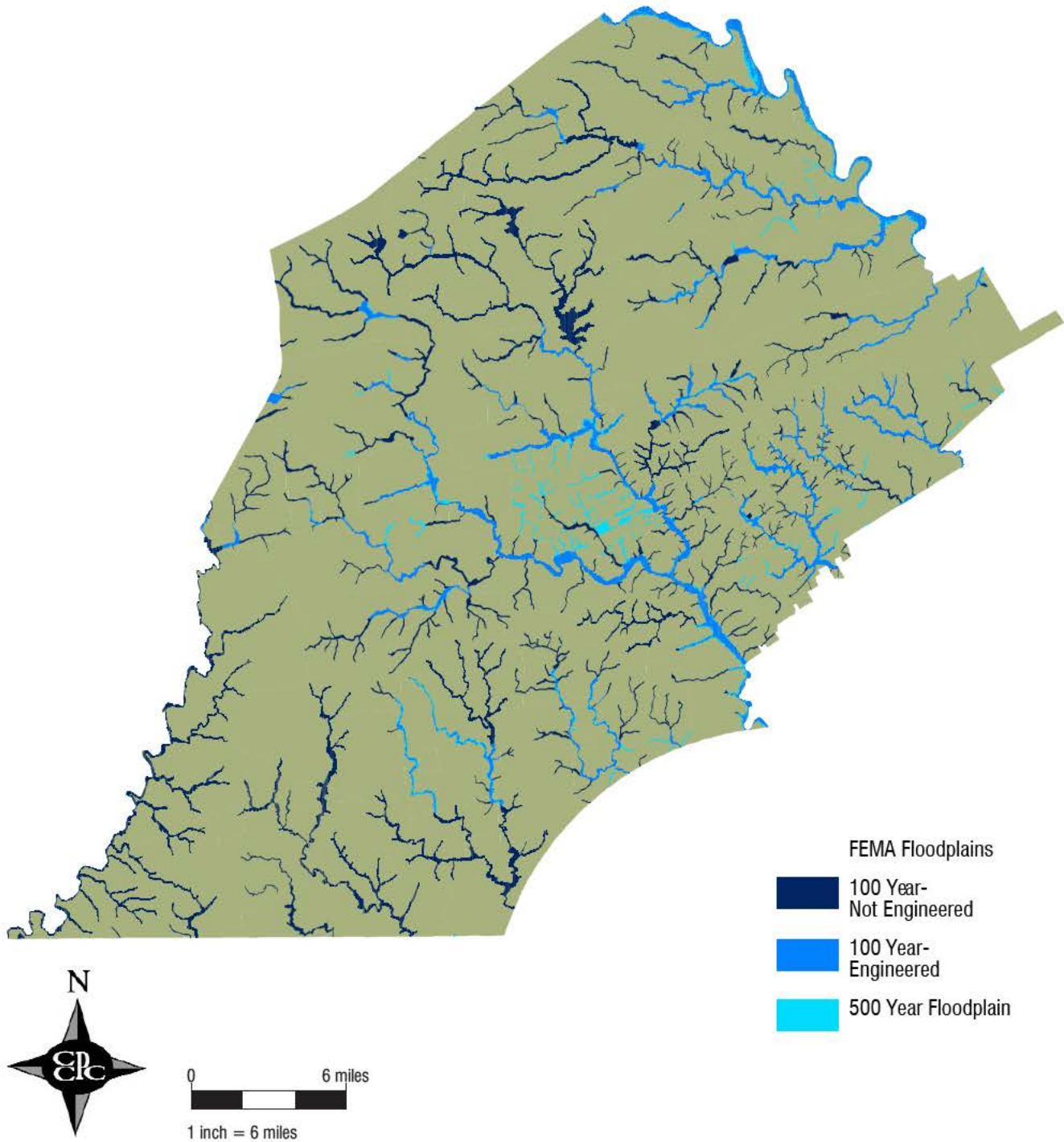
Figure 13.4: Wetlands



0 6 miles
1 inch = 6 miles

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Source: US Fish and Wildlife Service NWI Maps, 1996.

Figure 13.5: Floodplains

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Source: FEMA Q3 Flood Data, 1996.

Evaluation of Wildlife Biodiversity Corridors

■ The Two Step Development of Wildlife Biodiversity Corridors

The network of Wildlife Biodiversity Corridors for Chester County was developed using a two-step technique. There are many techniques that can be used to determine where wildlife corridors should be located, and any one of them might generate different results when applied to the County. The two-step technique used in this document is quite simple, however a more complex modeling approach to wildlife corridor planning is not currently possible because the detailed resource mapping required for such an evaluation is not yet available on a countywide basis.

In step one, a network of “Preliminary” Wildlife Biodiversity Corridors was developed based on the considerations presented previously in this chapter. This preliminary network, presented in *Figure 13.6* serves to link all the County’s NAI Sites together by creating a network of corridors that extend through woodlands of 50 acres or more. Each Preliminary Wildlife Biodiversity Corridor within the County’s network was mapped as a 2,000 foot wide band. There is currently no consensus within the scientific community as to how wide a wildlife corridor should be. The 2,000-foot width was used because it provides ample room for most small wildlife to travel, and it can easily be mapped on USGS quadrangles that all have a scale of one inch equaling 2,000 feet. USGS-based mapping is commonly used for ecological studies and in grant proposals.

In step two, each Preliminary Wildlife Biodiversity Corridor presented in *Figure 13.6* was examined to determine how well it linked with other corridors. Preliminary Corridors that came to dead ends and corridors that were redundant because they paralleled other nearby corridors were then removed. The result of this editing was the final Wildlife Biodiversity Corridor map presented in *Figure 13.7*.

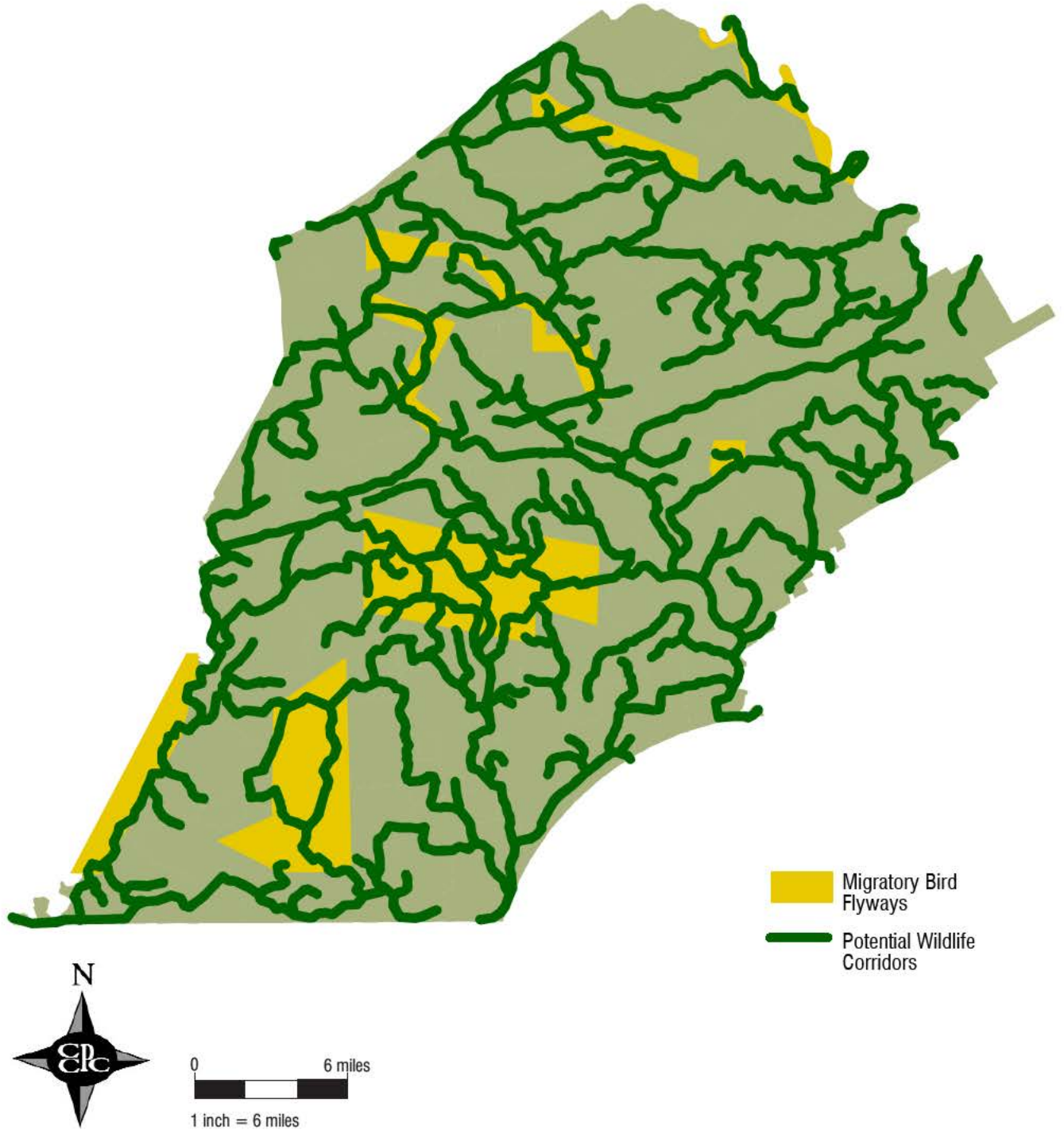
The elimination of many of the Preliminary Corridors was necessary because realistically, no government or private initiative will ever be able to fund the protection of all of the Preliminary Corridors. The County therefore designated only the most regionally significant links in this network for designation as “Wildlife Biodiversity Corridors.” The final Corridors, presented in *Figure 13.7*, cover a much smaller portion of the County than the Preliminary Corridors, but could still provide wildlife with the opportunity to cross the entire County without exposure to human activity. Furthermore these final Corridors could also provide links between the major NAI Sites, as shown in *Figure 13.8*.

■ **Municipal Wildlife Corridors** Many municipalities have established wildlife corridors as part of their Open Space Recreation and Environmental Resource (OSRER) plans. These corridors may be called “open spaces” or “greenways” and they may be designed for passive recreation, or set aside as non-recreational wildlife preserves. The County has not completed an inventory of these municipal wildlife corridors, and so these corridors were not considered when developing the County Wildlife Biodiversity Corridors. It is likely, however, that the Wildlife Biodiversity Corridors developed by the County coincide with municipal wildlife corridors in many instances. Many municipal wildlife corridors are located on heavily wooded valleys or ridge tops, and these large woodlands were given major consideration in the development of the County corridors.

■ **Government Planning for Wildlife Corridors** It is an unavoidable reality that efforts to protect wildlife corridors typically receive less public and financial support than the establishment of recreational facilities. Given that there are extremely limited resources for establishing wildlife corridors, it is especially important to focus protection efforts on key wildlife corridors. The Wildlife Biodiversity Corridors presented in **Figure 13.7**, have therefore been developed to provide a somewhat narrow focus for future efforts to protect wildlife habitat by the Chester County Planning Commission and the Parks and Recreation Department.

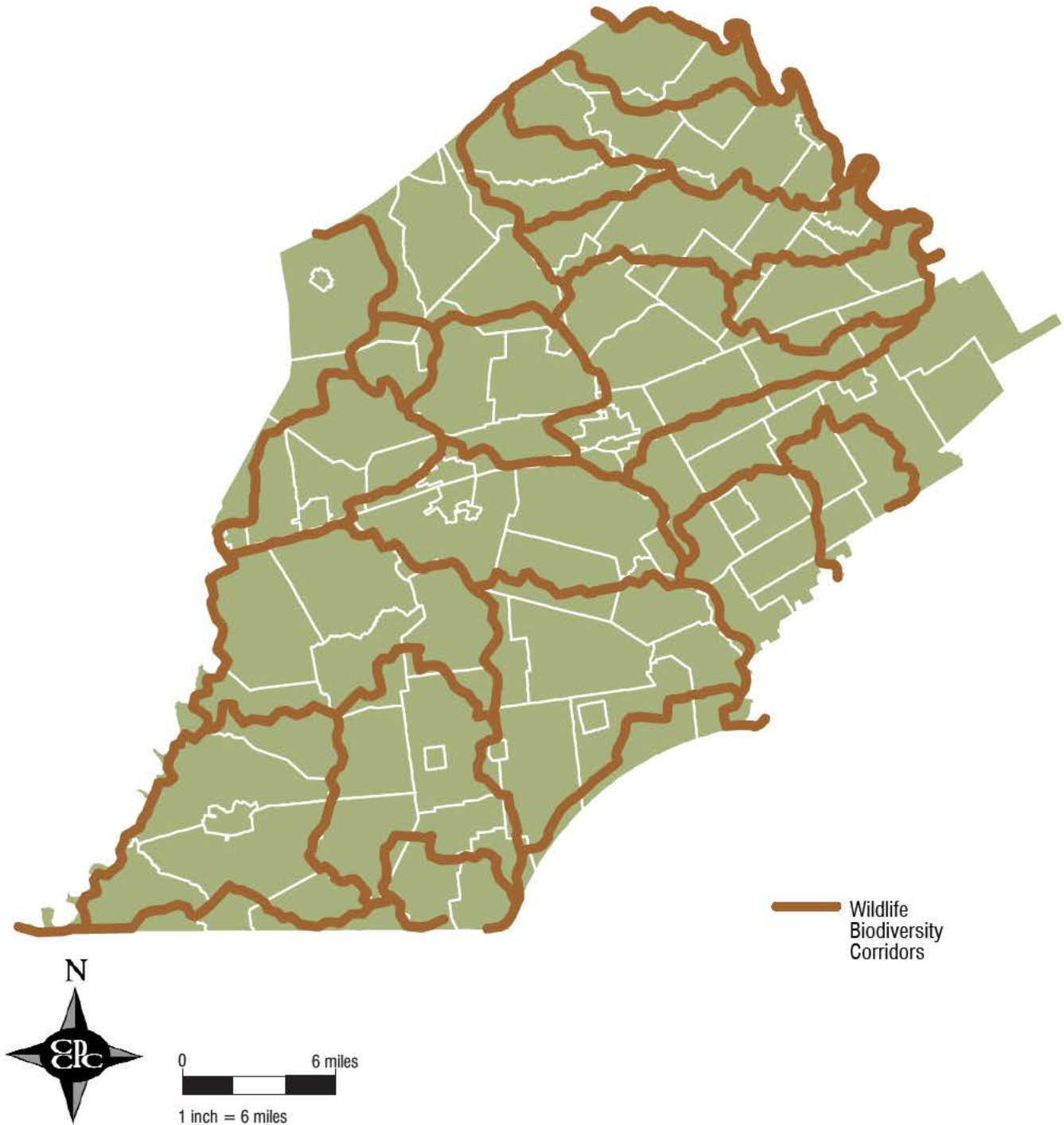
The Preliminary Wildlife Biodiversity Corridors presented in **Figure 13.6**, could be quite valuable, but realistically not all of them can be established on a countywide basis. Municipalities that wish to vigorously pursue the preservation of wildlife habitat may consider developing a network based on the Preliminary Corridors. Of course, any municipal or countywide plan to preserve wildlife habitat should be based on a sound ecological analysis and an understanding of the human community in the region. The use of Preliminary Wildlife Biodiversity Corridors in municipal planning should therefore be regarded as a first step that will ultimately establish a municipal network that is tailored to the biological and cultural needs of the community.

Figure 13.6: Wildlife Biodiversity Corridor Considerations



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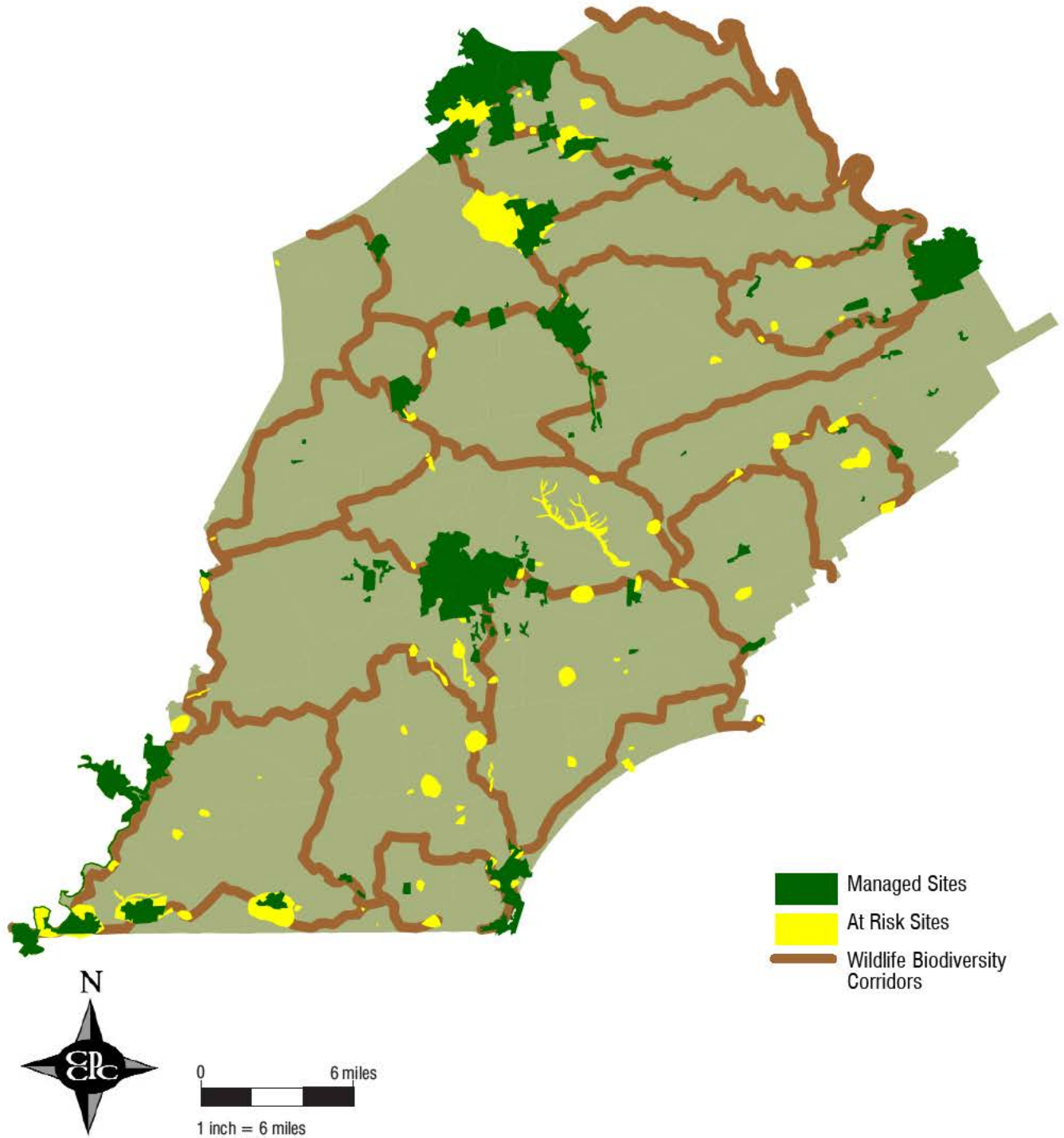
Source: CCPC, 2000.

Figure 13.7: Wildlife Biodiversity Corridors

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Source: CCPC, 2000.

Figure 13.8: Wildlife Biodiversity Corridors, Managed Sites and At Risk Sites



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Source: CCPC, 2000.

Visions & Actions **for Wildlife Biodiversity Corridors**

Vision 13.1

Projects that establish multi-municipal wildlife corridors that link together along Wildlife Biodiversity Corridors should be initiated at the federal, state, County and municipal levels, and by community groups.

Action 13.1

The County will endorse federal, state, and municipal projects that establish multi-municipal wildlife corridors along Wildlife Biodiversity Corridors, and pursue such projects at the County level.

Vision 13.2

Municipalities should consider establishing wildlife corridors within Wildlife Biodiversity Corridors.

Action 13.2

When reviewing applications for appropriate County Grants, the County will give additional credit to projects that establish wildlife corridors within Wildlife Biodiversity Corridors.

Vision 13.3

Municipalities should properly design, construct and maintain wildlife corridors.

Action 13.3

The County will study the feasibility of establishing a program to assist municipalities in wildlife corridor planning and design.

Vision 13.4

Wildlife corridors should be developed based on the most ecologically sound evaluation techniques and the most detailed resource mapping available.

Action 13.4

The County will study the feasibility of updating countywide Wildlife Biodiversity Corridors based on the most ecologically sound evaluation techniques and the most detailed resource mapping available.

Vision 13.5

The local wildlife preservation organizations in Chester County should coordinate their efforts.

Action 13.5

The County will hold a meeting with all of the local wildlife preservation organizations and request that they coordinate their efforts and consider forming a coalition.

Vision 13.6

Existing municipal-level wildlife corridors and greenways should be mapped and this information should be used to more clearly delineate the Wildlife Biodiversity Corridor network.

Action 13.6

The County will inventory municipal wildlife corridors and greenways using OSRER plans and other sources, and use this mapping when updating the Wildlife Biodiversity Corridor network.

Vision 13.7

Municipalities should develop plans to establish links between their internal wildlife corridors and wildlife corridors in adjacent municipalities, and consider using Wildlife Biodiversity Corridors as alignments for these multi-municipal links.

Action 13.7

The County will require that any Open Space, Recreation and Environmental Resource (OSRER) Plan written or updated using County funds must map wildlife corridors within one mile of the municipality; must evaluate the establishment of links between their internal wildlife corridors; and the wildlife corridors in adjacent municipalities, and consider locating these links within Wildlife Biodiversity Corridors.

Vision 13.8

Multi-municipal wildlife corridors should be established as a joint planning effort involving all of the municipalities crossed by the corridor.

Action 13.8

Before endorsing a project or awarding a County grant for multi-municipal wildlife corridor, the County will require documentation that the project was established through joint planning involving all of the municipalities crossed by the corridor.

Local Wildlife Preservation Associations

Over the past few decades, a number of local citizens groups have taken a major role in protecting wildlife habitat in Chester County. These groups are typically non-profit organizations that are run primarily by volunteers and funded by donations. Most of these groups are “watershed associations” that focus on a wide range of environmental issues within a given watershed. Any municipal or regional planning effort dealing with the protection of wildlife or Wildlife Biodiversity Corridors should involve coordination with these organizations. A listing of the most active watershed associations and wildlife groups in Chester County is presented below:

Chester Ridley Crum Watershed Association

P.O. Box 972
Edgemont, PA 19028
Phone: 610-353-2926

Darby Creek Valley Association

P. O. Box 732
Drexel Hill, PA 19026
Phone: 610-789-1814

Elk Creeks Watershed Association

316 Market Street, Box 93
Oxford, PA 19363
Phone: 610-998-9900

Green Valleys Association

1368 Prizer Road
Pottstown, PA 19465
Phone: 610-469-4900

Octoraro Watershed Association

389 Pine Grove Road
Nottingham, PA 19362
Phone: 717-529-2132

Red Clay Valley Association

1760 Unionville-Wawaset Road
West Chester, PA 19382
Phone: 610-793-1090

Schuylkill River Keeper

P. O. Box 459

St. Peters, PA 19470

Phone: 610-469-6005

Trout Unlimited – Valley Forge Chapter

152 Weedon Court

West Chester PA 19380

Phone: 610-692-2930

Valley Creek Coalition

1433 Gary Terrace

West Chester, PA 19380

Phone: 610-692-2930

West Chester Fish, Game and Wildlife Association

1085 Harmony Hill Road

Downingtown, PA 19335

Phone: 610-873-9062

White Clay Watershed Association

579 East Avondale Road

West Grove, PA 19390

Phone: 610-274-8499

Chapter 14



*Recycling Lands and
Infrastructure for
Open Space*

Background

Municipalities and other organizations that wish to establish protected open spaces should always consider restoring previously developed properties that have been abandoned, or consider using utility corridors that contain few structures. In the past few decades, many communities throughout the United States have created new open space by recycling former industrial sites. Usually such projects involve the conversion of previously developed properties that are no longer being used, such as abandoned rail beds or former industrial sites, commonly called “brownfields.”

Properties that have been developed for utility or transportation infrastructure can also be utilized for open space or recreation. In some cases these infrastructure corridors can be developed for recreation while still being used for their original purpose. For example, the largely undeveloped properties above buried pipelines can be utilized as wildlife or trail corridors. *Figure 14.1* below shows how the land beneath overhead transmission lines has been used as a trail corridor in nearby Montgomery County. Scenic highway programs are also a form of infrastructure reuse because they use existing roadways as scenic outlooks.

Figure 14.1: A Trail Beneath Overhead Utility Lines in Montgomery County, PA



In recent years, public utilities, railroad companies and public transportation agencies have recognized the role that they can play in rehabilitating wildlife habitat or creating recreational trails. As a result, these agencies have become willing to include open space protection as a feature of larger public works projects. Often, these organizations agree to protect open space only after they have been approached by municipal governments or other organizations. The following chapter provides an analysis of some of the opportunities that exist for creating open space in Chester County by recycling land or utilizing existing infrastructure. This analysis is not all encompassing and there may be other types of land recycling projects that are not discussed in this chapter.

Rail Corridors

Inventory of Rail Corridors

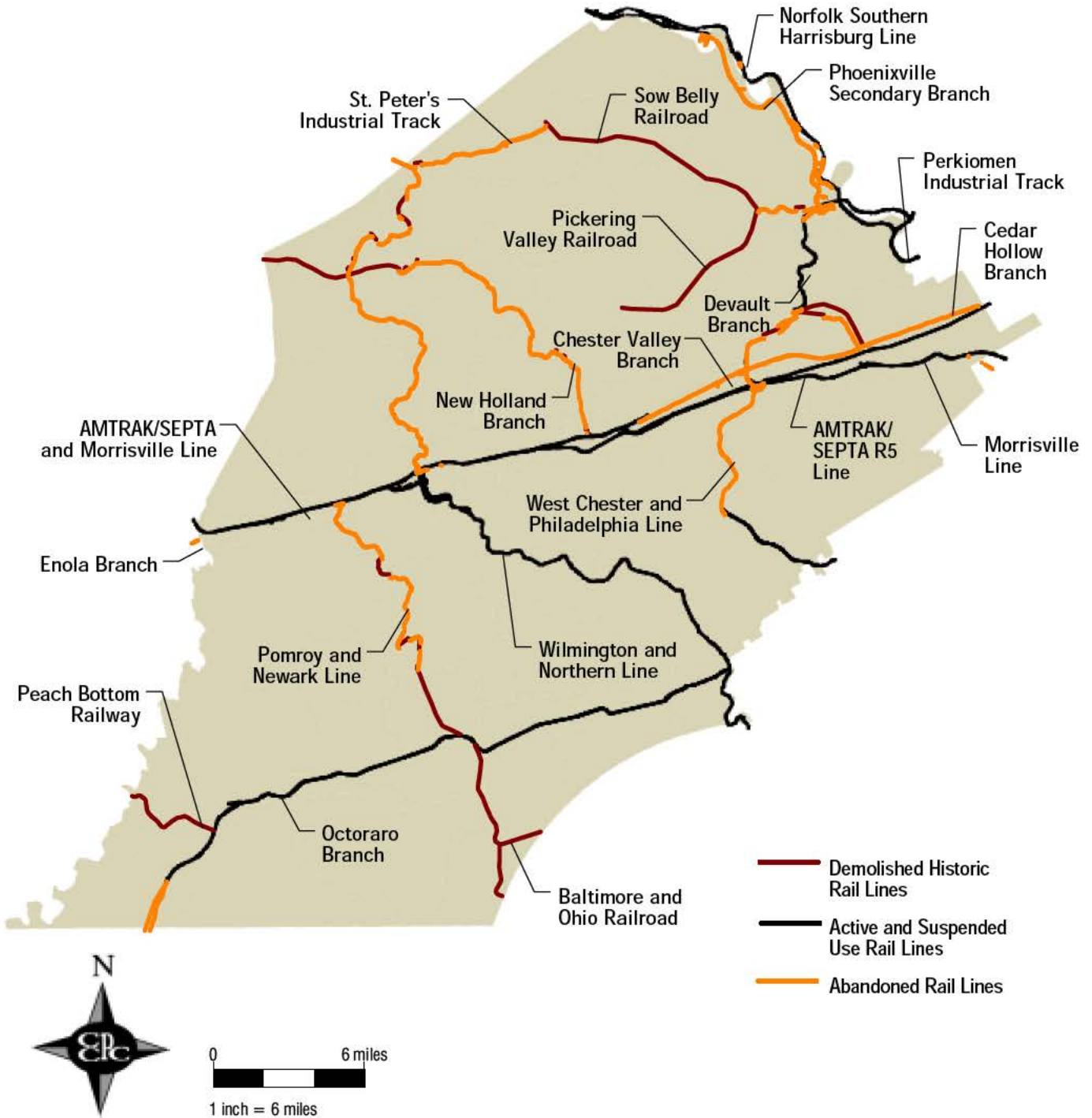
According to the DVRPC's 1997 *Abandoned Railroad Inventory and Policy Plan*, there was little regulation or long term planning when railroads were first constructed during the mid-19th century. As a result, many of these railroads were unprofitable or proved too expensive to maintain and so were abandoned. During the early 20th Century, many freight railroads were abandoned because they could not compete with the trucking industry, and many commuter lines lost ridership to private automobiles. In recent decades, government deregulation and competition from other freight carriers has forced many railroad companies to abandon unprofitable lines. Information on the history and possible re-use of rail corridors throughout the Delaware Valley is available in the DVRPC's 1997 *Plan*.

The rail corridors within Chester County are presented on **Figure 14.2**. These corridors include active, suspended use and abandoned rail lines. Active rail lines are currently used on a regular basis. Suspended lines are used periodically, for purposes such as supplying materials to manufacturing operation on an as-needed basis. Abandoned lines are not being used, but may still have tracks or ties still in place. Demolished historic alignments are abandoned lines where track, ties, and in some cases abutments have been removed. These corridors and their alternative names are listed in **Figure 14.3**. There are also a number of abandoned trolley lines in Chester County, but mapping of these lines is not available.

Evaluation of Rail Corridors

Chester County contains an extensive network of active, inactive and abandoned rail and trolley lines, and is well situated to pursue a number of rails-to-trails projects. The abandoned trolley lines have not yet been

Figure 14.2: Active, Inactive and Abandoned Rail Corridors



Source: Breous - Official Series of Farm Maps, Chester County, PA
 WH Kirk & Co., 1883.
 Presented in the Historical Atlas of Chester County, PA, CCPC, 1971 (reprinted 1998).
 Abandoned Railroad Inventory Plan, DVRPC, 1997.
 ChesCo LRS, Ortho Photography, 1992.

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mapped. The County has already acquired rail corridors for reuse as the County Chester Valley Trail and County Struble Trail, which was formerly the New Holland Branch. The County government has also acquired right-of-way near Hibernia County Park. In the past, County and municipal officials have considered establishing a trail along this right-of-way, but this proposal has been inactive for many years.

Many of the active railroads in Chester County are used infrequently for industrial freight or excursion rail rides. These low activity rail lines include the Octoraro Branch, the Wilmington and Northern Railroad south of Downingtown, and the West Chester and Philadelphia Line south of West Chester. If these lines were to be abandoned they would provide an ideal location for multi-municipal rail-trails. In general, a railroad is considered to be abandoned when its rail service is discontinued, when its tariffs (payment schedules) are cancelled, and when the U.S. Surface Transportation Board officially approves the abandonment. A rail corridor can be abandoned even if the rails and ties are in place, although they are usually sold for salvage. Conversely, in some cases a rail bed can still be regarded as active even if it has no rails or ties.

Information on railroads and trails in Pennsylvania is available at www.dcnr.state.pa.us/rails. A map of active and abandoned rail lines in Chester County is at www.dcnr.state.pa.us/rails/chester/html. A wide range of information on rails-to-trails projects is also available from the Rails-to-Trails Conservancy at www.railtrails.org. A fine example of a successful large-scale rails-to-trails project in Pennsylvania is the Allegheny Trail Alliance at www.atatrail.org. This web page provides details on the proposed Pittsburgh to Cumberland Trail extending from Pittsburgh PA to Washington, DC.

Figure 14.3: Rail Corridors and Alternative Names

Name	Previous or Alternative Name(s)	Status
AMTRAK/SEPTA & Morrisville Line	Philadelphia Harrisburg Main Line	Active line (freight on Morrisville & passenger on AMTRAK/SEPTA).
AMTRAK/SEPTA R-5 Line	The Main Line and Philadelphia Harrisburg Main Line	Active passenger line.
Baltimore & Ohio Railroad	Wilmington & Western; Delaware Western; and Baltimore & Philadelphia Railroads	Abandoned 1942.
Cedar Hollow Branch	Philadelphia & Chester Valley Railroad	Abandoned 1995.
Chester Valley Branch	Norristown & Valley and Philadelphia & Chester Valley	Abandoned in sections in 1976, 1981 and 1984.

Name	Previous or Alternative Name(s)	Status
Devault Branch	Phoenixville & West Chester and Schuylkill Valley Railroads	Active freight line. Abandoned south of Devault circa 1936.
Enola Branch		Abandoned 1993.
Morrisville Line	The Trenton Cut-off	Active freight line.
New Holland Branch	E. Brandywine; E. Brandywine & Waynesburg; and Downingtown & Lancaster Railroads	Abandoned in sections, 1955, 1963, 1970, 1981 and 1982.
Norfolk Southern Harrisburg Line	Harrisburg Line	Active freight line.
Octoraro Branch	Octoraro Railway	Active freight line.
Peach Bottom Railway	Lancaster, Oxford & Southern Railroad	Abandoned 1919.
Perkiomen Industrial Track		Active freight line.
Phoenixville Secondary Track	Pottstown Industrial Track and Royersford Branch	Sections abandoned in 1960s and 1982.
Pickering Valley Railroad	Valley Forge Scenic Railroad	Abandoned in sections in 1948, 1964, and 1982.
Pomeroy & Newark Line	PA & DE; Pomeroy & State Line; Phila., Balt., & Wash. Railroads	Abandoned in sections in 1936, 1945, 1964, and 1976.
Sow Belly Railroad	Delaware River & Lancaster Railroad	Abandoned 1895.
St Peters Industrial Track	CONRAIL, Joanna Industrial Track, French Creek Industrial Track	Abandoned in sections in 1970, 1977, and 1978.
West Chester & Philadelphia Line	West Chester Railroad	Active freight line. Abandoned north of West Chester in sections in 1859, 1969 and 1977.
Wilmington & Northern Line	Wilmington & Reading	Active freight line. Abandoned north of Coatesville in 1984.

Source: DVRPC. 1997. Abandoned Railway Inventory and Policy Plan.

Visions & Actions

for Rail Corridors

Vision 14.1

Projects that establish trails utilizing abandoned rail beds should be initiated at the federal, state, County and municipal level, and by community groups.

Action 14.1

The County will endorse federal, state and municipal projects that establish trails on appropriate abandoned rail beds, and pursue such projects at the County level.

Vision 14.2

Municipalities and community groups should be encouraged to establish trails on abandoned rail beds.

Action 14.2

When reviewing applications for appropriate County grants, the County will give additional credit to projects that establish trails on appropriate abandoned rail beds.

Vision 14.3

Planning policies that encourage the establishment of trails on abandoned rail beds should be included in local OSRER and comprehensive plans, and implemented in municipal ordinances to the greatest extent possible.

Action 14.3

The County will work with municipalities through the VPP to develop municipal planning policies for establishing trails on appropriate abandoned rail beds.

Vision 14.4

Abandoned trolley lines should be mapped on a countywide basis.

Action 14.4

The County will map abandoned trolley lines on a countywide basis.

Vision 14.5

Rail rights-of-way that are abandoned or for sale should be acquired for reuse as trails.

Action 14.5

The County will continue to monitor the status of rail rights-of-way that have been or are likely to be abandoned, and acquire appropriate rail rights-of-way for reuse as trails.

Major Utility Corridors

Inventory of Major Utility Corridors

The major utility corridors within Chester County are presented on **Figures 14.4** and **14.5**. **Figure 14.4** is based on paper maps dating to 1968, and may be somewhat outdated. These corridors include overhead and buried transmission lines, and buried and above ground sewer and water lines and pipelines. The only County trail that utilizes a utility right-of-way is the County Struble Trail. This trail follows both a rail corridor and a sewer line corridor. The County has also acquired right-of-way along a PECO transmission line corridor along the Schuylkill River in East Vincent and East Coventry Townships for the future County Schuylkill River Trail.

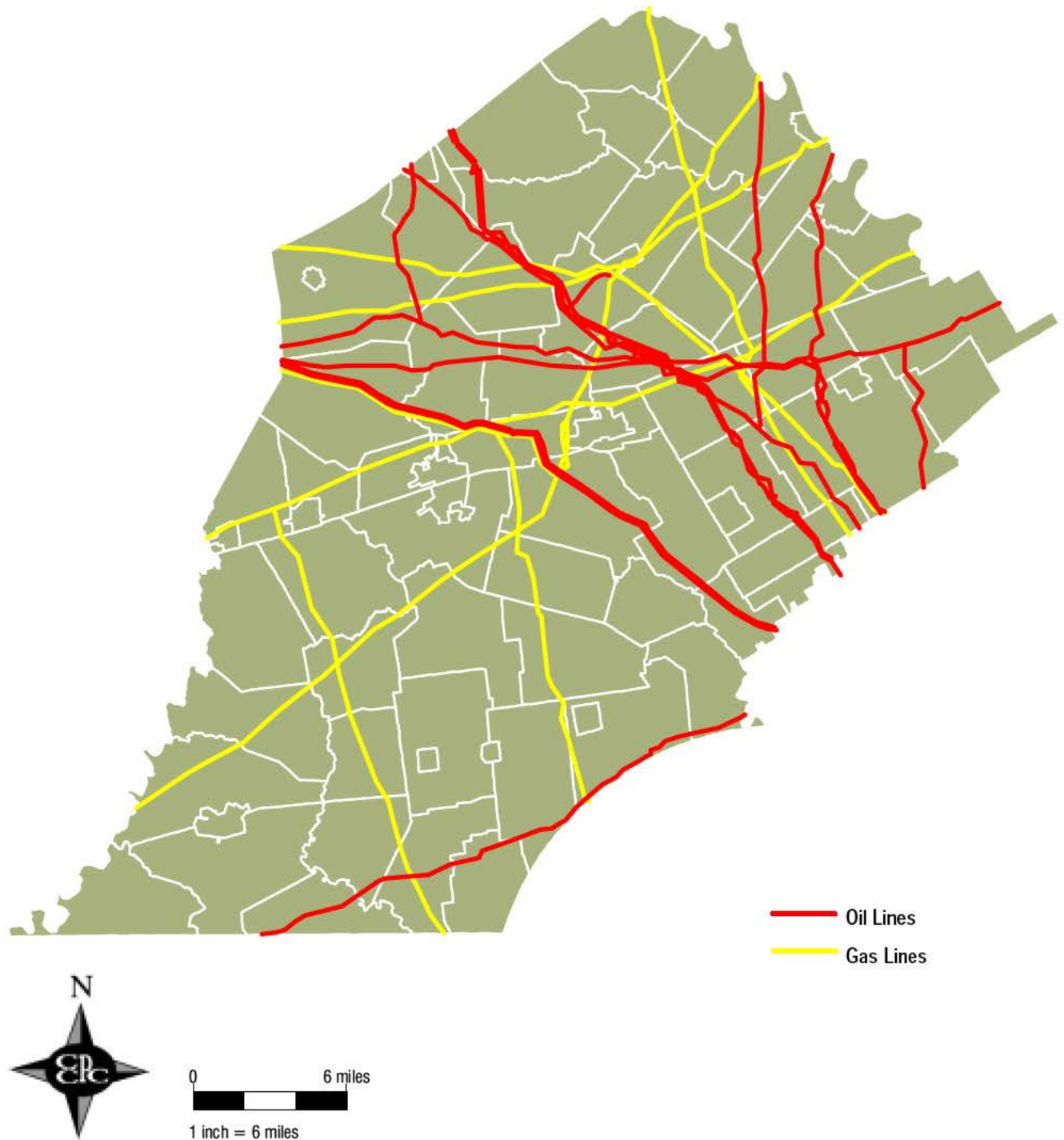
Evaluation of Major Utility Corridors

Major utility corridors are highly underutilized in Chester County, which is not unusual for the Mid-Atlantic region. The National Park Service and the National Parks and Conservation Association addressed this issue in their 1992 report *Toward a Regional Network of Trails for the Mid-Atlantic Region*. In this report they stated that, “right-of-way for public utilities such as power and natural gas transmission lines, and sewer and water pipelines are currently little-used for trail opportunities but... offer great potential.”

Not every utility corridor is well suited for development as recreational or wildlife habitat corridors. Utility companies have well-justified concerns with safety and liability issues along utility corridors. Utility companies actively discourage the climbing of utility towers and vandalism or unintentional damage to buried or exposed utility lines. Certain wildlife uses can also be incompatible with utility corridors. Detailed feasibility studies are therefore essential for all utility corridor reuse projects.

As **Figure 14.5** shows, Chester County's overhead utility corridors pass through or near eight of the County's largest parks, or future park sites. These passive recreation facilities are also some of the County's best wildlife habitats. The overhead utility corridors therefore have the potential to become significant wildlife corridors. Such a reuse would require the proper management of wildlife vegetation to promote wildlife. Such management could include the removal of non-native species and the establishment of warm season grasses. The use of overhead utility corridors for wildlife corridors would be a compatible reuse, because both uses discourage human access.

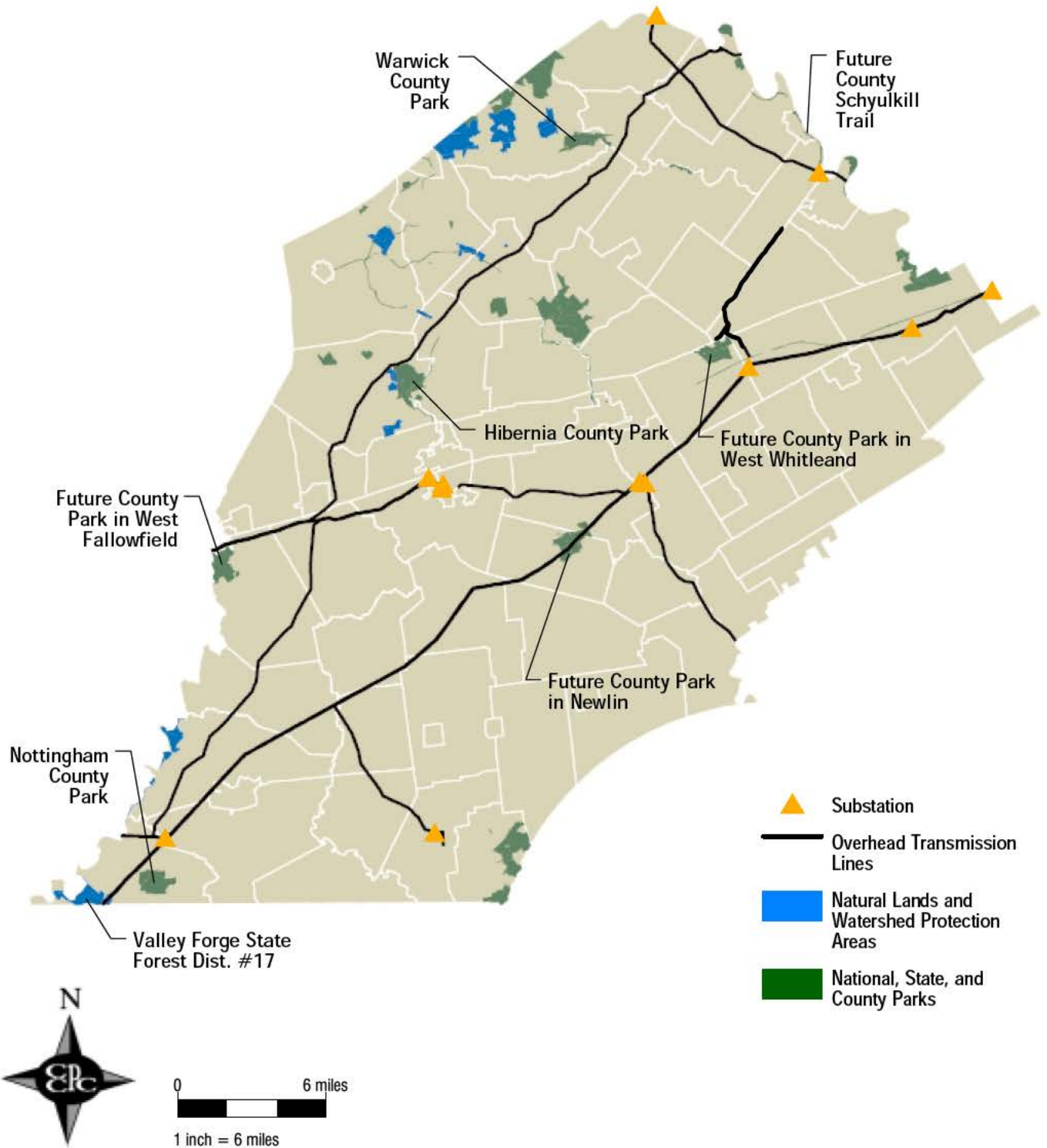
Figure 14.4: Major Underground Utility Corridors



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Source: Chester County Pipe Line Map, CCPC, 1968.

Figure 14.5: Major Overhead Utility Corridors



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Source: USGS Quadrangles for Chester County, various dates.

The planting of warm season grasses in utility corridors could serve to increase biodiversity in Chester County. Meadow habitat dominated by native warm season grasses has been greatly reduced in Chester County, since many of these naturally occurring grass meadows have been converted to agriculture or lawn turf, which is predominantly composed of cool season grasses. With the decline in warm season grass there has been a corresponding reduction in the animal species that rely in these grasses for food and forage. Utility corridors, which must be periodically mowed to eliminate tree growth, would be an ideal location for warm season grass meadows.

Visions & Actions

for Major Utility Corridors

Vision 14.6

Projects that establish trails and wildlife habitat corridors utilizing utility corridors should be initiated at the federal, state, County, and municipal level, and by community groups.

Action 14.6

The County will endorse federal, state and municipal projects that establish trails and wildlife habitat corridors utilizing appropriate utility corridors, and pursue such projects at the County level.

Vision 14.7

Municipalities and community groups should be encouraged to establish trails or wildlife habitat corridors on appropriate utility corridors.

Action 14.7

When reviewing applications for appropriate County grants, the County will give additional credit to projects that establish trails or wildlife habitat corridors on appropriate utility corridors.

Vision 14.8

Municipalities that can feasibly establish trails or wildlife corridors utilizing appropriate utility corridors should consider encouraging this land use in their comprehensive plans and ordinances.

Action 14.8

The County will work with municipalities through the VPP to update municipal comprehensive plans and ordinances so that they encourage the establishment of trails or wildlife corridors utilizing appropriate utility corridors, except where impractical.

Vision 14.9

County maps of oil and gas lines should be updated.

Action 14.9

The County will produce and updated map of oil and gas lines.

Vision 14.10

The owners of overhead utility corridors should manage the vegetation on their property to promote warm season grasses and other native vegetation and wildlife.

Action 14.10

The County will request that the owners of utility corridors manage the vegetation on their property to promote warm season grasses and other native vegetation and wildlife.

Vision 14.11

The County should continue to acquire utility corridor rights-of-way or easements for reuse as trails.

Action 14.11

The County will continue to assess utility rights-of-way that have been identified for possible use as a trail or wildlife habitat, with the goal of acquiring them for reuse as County owned and maintained trails.

Scenic Byways

Inventory of Scenic Byways

The term “scenic byways” describes roads, highways and other motor vehicle facilities that provide users with the opportunity to look out at scenic vistas, viewsheds or significant cultural resource features. The National Scenic Byways Program is administered by the Federal Highway Administration. In order to be listed as a National Scenic Byway, a road must possess significant archaeological, cultural, historic, natural, recreational or scenic qualities. Outstanding scenic qualities are not the only consideration. Roads included in this program are also eligible to receive certain federal funds, and billboards are restricted along roads listed with this program. In order to be considered for this national program, a road must first be designated as a State Scenic Byway and be evaluated by a Scenic Corridor Plan. Information on the National Scenic Byways Program is available at 800-4BYWAYS or at www.byways.org.

The Commonwealth of Pennsylvania recently established a State Scenic Byways program, although some roadways were previously designated as State Scenic Roadways by the State Legislature. Billboards are restricted along roads designated as State Scenic Byways. As of January 2000, the state has designated just the following four State Scenic Byways:

- **The Blue Route** (I-476) in Delaware and Montgomery Counties.
- **The National Highway** in Fayette and Washington Counties.
- **The Exton Bypass** in Chester County.
- **The Laurel Highlands Scenic Byway** in Fayette County.

Within Chester County, there are no National Scenic Byways, and only one State Scenic Byway, namely the Exton Bypass. There are no County Scenic Byways in Chester County, because County government does not administer a scenic road program. Most of Chester County's municipalities have included scenic road maps in their Open Space, Recreation and Environmental Resource (OSRER) Plans. These plans are available for review at most municipal offices or the Planning Commission office.

Evaluation of Scenic Byways

Chester County possesses many roads that provide scenic viewsheds. Many of the roads in the County are also scenic by themselves, or are historically or culturally significant to the region. A number of roads in Chester County could conceivably be included in the National Scenic Byways Program. Unfortunately there are few mechanisms in place at the state or municipal level that can effectively protect or enhance scenic or significant roads in Chester County. Currently there is no available mapping of scenic roadways on a countywide basis.

To date, the County's involvement with scenic highways has been limited to providing technical assistance to communities. In 1984, the Planning Commission published the *Scenic Roads Handbook*, which is available at the Planning Commission offices. This handbook provides assistance to municipalities that wish to address scenic highways in their planning and zoning documents. Scenic highways are also addressed in Tool #59: Scenic Road Overlay District which is included in the County Planning Commission's *Community Planning Handbook: A Toolbox for Managing Change in Chester County*.

There are a number of regional initiatives within Chester County that highlight its natural and cultural resources, including the White Clay Creek National Wild and Scenic River Corridor, the Schuylkill River State Heritage Corridor, and efforts to preserve the Brandywine Battlefield. These areas could be linked into a network of scenic byways. A fine example of such a network is the Laurel Highlands Scenic Byway along PA Routes 711 and 381 in Fayette County, PA, southeast of Pittsburgh.

This 68-mile corridor integrates Ohio State Park, Frank Lloyd Wright's "Fallingwater," and the Yough River Bicycle and Pedestrian Trail.

More information on Scenic Byways is available from Scenic America, a non-profit group that promotes scenic highways that operates a web site at www.scenic.org. Information on scenic improvements in more urbanized areas is available from the National Trust Main Streets Center at www.mainst.org.

Visions & Actions

for Scenic Byways

Vision 14.12

Existing scenic viewsheds and significant cultural resource sites seen from nearby roadways should be protected as open space to the greatest extent possible.

Action 14.12

When reviewing land development and subdivision plans, zoning and subdivision ordinances, open space and recreation plans, and comprehensive plans the County will provide comments and recommendations on how well existing scenic viewsheds and significant cultural resource sites seen from roadways are or will be protected.

Vision 14.13

Projects that designate scenic byway networks should be initiated at the federal, state, County and municipal level, and by community groups.

Action 14.13

The County will endorse federal, state and municipal projects that designate scenic byway networks, and pursue such projects on a County level.

Vision 14.14

Municipalities and community groups should be encouraged to establish protected open spaces that are parts of scenic viewsheds and significant cultural resource sites seen from roadways.

Action 14.14

When reviewing applications for appropriate County grants, the County will give additional credit to projects that establish protected open spaces that are part of scenic viewsheds and significant cultural resource sites seen from roadways.

Vision 14.15

Planning policies that encourage the protection of open spaces that are parts of scenic viewsheds and significant cultural resource sites seen from roadways should be included in municipal OSRER and comprehensive plans, and implemented in local ordinances to the greatest extent possible.

Action 14.15

The County will work with municipalities through the VPP to develop municipal planning policies that encourage the protection of open spaces that are parts of scenic viewsheds and significant cultural resource sites seen from roadways.

Vision 14.16

Regionally important sections of roadways with scenic viewsheds and cultural significance should be formally designated as a network of County Byways.

Action 14.16

The County will study the feasibility of establishing a County Byway program following the guidelines of the National Scenic Byways Program.

Vision 14.17

Municipally designated scenic and culturally significant byways should be mapped on a countywide level.

Action 14.17

The County will map municipally designated scenic and culturally significant byways based on OSRER plans.

Brownfields

Inventory of Brownfields

The Environmental Protection Agency (EPA) defines brownfields as, “abandoned, idle or under-used industrial and commercial facilities where expansion or redevelopment is complicated by real or perceived environmental contamination.” This definition includes a wide range of properties from small abandoned gas stations to multi-acre former industrial sites. This definition also dispels the common misperception that all brownfields contain hazardous wastes. Although some brownfields may

contain hazardous wastes, some brownfields are simply perceived to be contaminated because they contain deteriorating structures or are covered with unsightly garbage.

Although there is currently no map of brownfields in Chester County, the Pennsylvania DEP does maintain a list of properties within the County that were once brownfields but have been, or are being rehabilitated by the DEP's Land Recycling Program. This list, presented in **Figure 14.6**, illustrates the wide variety of brownfield properties within Chester County. More information on federal brownfields programs is available at www.epa.gov/swerosps/bf, while information on state programs can be found at www.dep.state.pa.us/info.htm.

Evaluation of Brownfields

Although there is currently no map of brownfields within Chester County, such a map may be available within the next few years. In August 1999 the Chester County Development Council was awarded a grant by the DEP to map brownfields within Chester County. The initial grant of \$1,000 may be augmented up to \$50,000 depending in the number of sites discovered. The Development Council is currently focusing on sites along rail lines and within the boroughs, which will be compiled into a draft listing.

Brownfield redevelopment is a relatively new approach to creating open spaces and so there are only a few examples of it in the Delaware Valley. One successful project is the Liberty Lands project, which rehabilitated the American Tannery property in Philadelphia. This property was a Superfund site that contained drums of toxic chemicals. After extensive study and cleanup this site was converted into a combination community park and garden. Groundbreaking began in 1997. Future plans call for the establishment of a bird sanctuary and farmers market.

Not all brownfields are suitable for restoration as open space. In already developed communities, it is often more appropriate to redevelop brownfields for residential, commercial or industrial uses. The reuse of brownfields should therefore be evaluated on a case-by-case basis, and should consider the needs of the surrounding community, and the limitations of, and opportunities provided by, the site in question.

Brownfield redevelopment for recreation has also been proposed for the abandoned industrial corridor along French Creek in Phoenixville Borough. This effort is discussed in more detail in **Chapter 12**. To date, the only part of this recreation revitalization effort that has revived funding is the Phoenix Column Pedestrian Bridge. This former industrial rail bridge, shown in **Figure 14.7** below, received PennDOT Transportation Enhancement funding in 1999 for its rehabilitation as a trail crossing.

Figure 14.6: DEP Land Recycling Program Properties as of March 2001

Avondale Borough

- Grosskopf Property*
- Peco Avondale MGP

Charlestown Township

- Chirix Technical Center, Inc.*

Coatesville City

- Friendship Automotive
- Diamond Oil Co.
- Devitt's Hardware Store Former Site*

Downingtown Borough

- Serena, Inc (Formerly O'Brien Machinery)*
- UNISYS Downingtown Facility*
- PECO Downingtown MGP Site
- Kardon Park*

East Coventry Township

- McDonald Residence*

East Fallowfield Township

- Strunk Farm Property*

East Marlborough Township

- Longwood Gardens Inc.
- Sears Paint and Hardware Store*

East Nottingham Township

- ACME 22 1764*
- Bliss Box Factory*

East Pikeland Township

- PECO energy Cromby Station*
- Murray Lincoln-Mercury Property

East Whiteland Township

- Whitford Corp.*
- Cedar Hollow Quarry*
- Jammers Spring And Wire Co.
- Mauger and Co. Inc.

Easttown Township

- Bufo Residence*
- Jackson Residence*
- Sharps Woods/Natural Lands Trust*
- Wellriver Residence*
- Mach Oil inc.*

Kennett Square Borough

- Keystone Financial Bank NA*

Malvern Borough

- Staats Oil*
- 184 PA Ave, Assoc.*

New Garden Township

- Landhope Farms Prop.*

New London Township

- Sunoco 0460 8898*

Nottingham Borough

- ACME Store #22-1764*

North Coventry Township

- Dick Residence*

Parkesburg Borough

- Parkesburg MGP PECO

Phoenixville Borough

- West Company*
- Dawson Prop.*
- Marcantonio Residence*
- PAEDCO Prop./Phoenix Steel Foundry*
- Melchiorre Const. Co.

Sadsbury Township

- Cimeo Tract*

Schuylkill Township

- Phoenixville Technical Center*
- John J. Hollingworth Co.
- Upper Nike Prop. Tank Area*

Spring City Borough

- Spring City Electronic Mfg. Co.

Tredyffrin Township

- Whitman Residence*
- Spinelli Estate*
- Braxtons Animal Works*
- UNISYS and former Lockheed-Martin Site*

Upper Uwchlan Township

- Sun Pipe Co.
- Herzong Farm*

Uwchlan Township

- First Industrial Pennsylvania, L.P.*

Valley Township

- Stolfus Estate*

Figure 14.6: DEP Land Recycling Program Properties as of March 2001 (continued)

West Bradford Township

- Stonegate Development*

West Chester Borough

- PECO Energy*
- Pizza Box Restaurant*
- Santos Auto Center*
- West Chester Laundry*
- Earls Amoco Service Station*
- Fermtech Fac.
- Mad Platter*
- Santos Auto Center*
- West Chester MFG GAS*

West Fallowfield Township

- Young Residence*

West Goshen Township

(listed as East Goshen Township)

- Schramm Inc.*

West Pikeland Township

- Kramer Property*

West Whiteland Township

- Exton Properties*
- Stephen Property
- Main Street at Exton

Westtown Township

- Yocum Residence*

Willistown Township

- Formal Affairs Inc.
 - Medders Residence*
-

Source: www.dep.state.pa.us/info.htm, Pa Land Recycling Program, March 2001.

Note: * Project completed according to the DEP source noted above.

Figure 14.7: The Phoenix Column Bridge across French Creek



Visions & Actions **for Brownfields**

Vision 14.18

Brownfields whose most appropriate reuse would be open space should be restored into and protected as open space to the greatest extent possible.

Action 14.18

When reviewing land development plans, zoning and subdivision ordinances, open space and recreation plans, and comprehensive plans the County will provide comments and recommendations on how well brownfields, whose most appropriate reuse would be open space, are or will be restored and protected.

Vision 14.19

Projects that restore suitable brownfields into protected open space should be initiated at the federal, state, County and municipal level, and by community groups.

Action 14.19

The County will endorse federal, state and municipal projects that restore suitable brownfields into protected open space, and pursue such projects on a County level.

Vision 14.20

Municipalities and community groups should be encouraged to restore suitable brownfields into protected open space.

Action 14.20

When reviewing applications for appropriate County grants, the County will give additional credit to projects that restore suitable brownfields into protected open space.

Vision 14.21

Brownfields should be mapped on a countywide basis.

Action 14.21

The County will map brownfields on a countywide basis using data gathered by the County Development Council.

Chapter 15



Open Space Preservation Techniques

Background

During the last few decades, the municipalities, civic groups and residents of Chester County have consistently expressed their desire to protect the County's open spaces. However, most communities do not have a great deal of experience with the techniques that can be used to protect open space. If an open space network is to be established in Chester County, it is essential for the County's municipal officials, landowners, lending institutions and homebuilders to better understand the techniques currently available for protecting open space.

The general lack of experience in protecting open space in the County is largely due to the fact that open space protection is a relatively new field of planning. Throughout much of the 20th Century, the protection of open space was not a priority anywhere in the United States, and Chester County was no exception. Most of the non-profit land trusts within the County were founded in the 1960s, and it has only been in the last ten years that County and municipal governments have provided consistent funding for the acquisition and protection of open space. In many ways, open space protection in Chester County is just in its infancy.

The following chapter provides a brief overview of some of the new techniques that are now available for protecting open spaces. This chapter focuses on techniques that can be used by municipalities, community groups and even private landowners. There are many other techniques that can be used in addition to those presented below. Interested individuals will find more information on open space preservation techniques at the following web sites:

The American Farmland Trust: www.farmland.org

The Land Trust Alliance: www.lta.org

The Trust for Public Land: www.tpl.org

Land Stewardship

What Land Stewardship Means Today

In the past, the term "land stewardship" was used to describe the way a landowner managed and maintained his or her land. It usually referred to the physical efforts such as mowing fields and repairing fences that are required to properly care for a property. In recent years however, the concept of land stewardship has broadened. Today the landowner who wishes

to be a good “land steward” must not only maintain the physical features of a landscape, but also ensure that the land will be either protected from development or responsibly developed, whichever is most appropriate.

The following three sections present techniques that municipal governments and private landowners can use to direct or limit the development of privately owned properties in way that will promote sound land stewardship. These three sections provide only a generalized discussion and any landowner who is considering developing or protecting his or her property using techniques presented in this chapter must first seek assistance from a professional specializing in land preservation. Information on law firms that specialize in land preservation is available by contacting the lawyer referral service of the Chester County Bar Association, at 610-429-1500 or www.chescobar.org. Assistance is also sometimes available from the non-profit land trusts active in Chester County, which are listed in *Chapter 6*.

The Importance of Maintaining Large Properties Intact

Most of the properties that are acquired for open space protection are purchased from individuals who own large tracts of land. The reasons are quite simple. First, it is easier for a land trust or government agency to purchase a large property from one seller rather than buying a number of small parcels from a number of sellers. It is also more cost effective for a land trust or government agency to manage one large property rather than a number of smaller parcels dispersed throughout a community.

There are no standards in the legal or planning profession that determine when a property is “large.” In terms of open space planning, a parcel is generally considered large when it is large enough to be protected by an easement or in-fee acquisition. In Chester County a parcel of 50 acres or more can, in general, be described as “large.” Research conducted for *Chapter 19* showed that roughly seven out of 10 parcels in Chester County that were protected by a land trust or by the County and state funded agricultural easement program were 50 acres or larger. Likewise there is no one size that make as a property “small,” although the rule of thumb is that a property that is under ten acres are often too small to be protected as open space. This is partly due to the fact that a parcel of land must be over ten acres to be enrolled in Act 319 or 515, as described in *Chapter 9*.

The majority of properties within Chester County that are currently protected open space were once large privately held farms and estates. For example, the Brandywine Valley Association owns hundreds of acres of protected open space in Chester County, and all of these parcels are larger than 50 acres. In fact, the three recently acquired future County park properties in Newlin, West Fallowfield and West Whiteland Townships were all once large private properties.

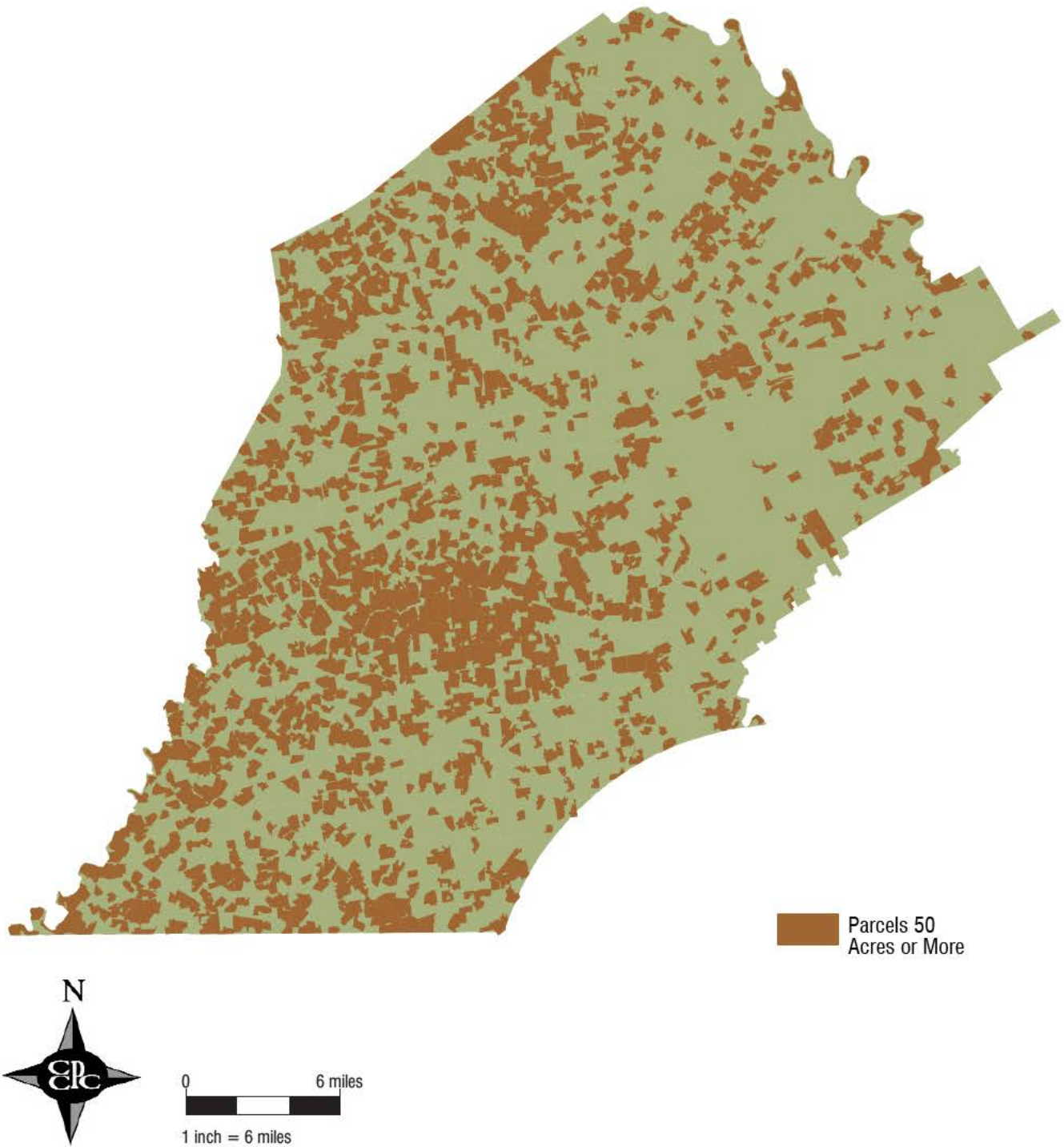
Once a privately held large parcel is subdivided, it is less likely that the property will be protected as open space. Municipalities and community groups that wish to protect open space should therefore consider promoting the preservation of large privately-owned parcels in tact. Once municipalities lose their large properties, they greatly diminish their ability to protect open space in the future. **Figure 15.1** shows the locations of parcels in Chester County that measure 50 acres or more. There are 1,682 of these parcels which together cover 31% of the County. The great majority of the parcels do not have any permanent protection from future development. Even parcels within Agricultural Security Areas or those enrolled in Act 319 or 515 can be developed if their owners see fit.

Donating Conservation Easements Can Have Tax Advantages

In certain instances it is possible for a landowner to donate a conservation easement to a non-profit land trust and as a result substantially reduce his or her income tax burden, or the tax paid by his or her heirs when the land is passed onto them. (A detailed discussion of conservation easements and the non-profit land trusts that are active in Chester County is presented in **Chapter 6**.) Property taxes can also be affected by an easement. A summary of these tax benefits, written in laymen's terms is presented in *Taking Control of Your Land: A Stewardship Guidebook for Landowners*, published by the Planning Commission in 2000 and is available from their office.

The techniques used to realize these tax reductions can be extremely complex, and landowners who wish to pursue them should consult experienced professional assistance. In recent years, some of the laws that deal with these tax reductions have been changed, and many professionals in the planning, development and legal fields are still not familiar with these changes. The landowner should therefore hire those professionals who have specialized training and experience in protecting land. Individuals interested in these tax benefits should also educate themselves. An excellent discussion of the financial implications of protecting open space as a part of overall estate planning is presented in *Preserving Family Lands: Book I and II* by Stephen J. Small. A thorough introduction to conservation easements and the role of land trusts is in the *Conservation Easement Handbook* by Janet Diehl and Thomas Barrett. Both books are available from the Land Trust Alliance at 202-638-4725, or can be ordered through major book dealers.

Landowners who wish to preserve their lands should keep in mind that land trusts do not accept all donations of conservation easements or land in-fee. Land trusts are very careful about what lands they choose to accept, because if they acquire the wrong type of property they risk losing their tax-exempt status from the Internal Revenue Service (IRS). A land trust may also turn down a land or easement donation because a property is too small or has an odd shape, or any number of reasons. This is why a

Figure 15.1: Parcels of 50 Acres or More

This paper map was generated from data compiled by the Chester County Planning Commission (CCPC) of Chester County, PA. This paper map is provided for reference purposes only and should not be used for any detailed engineering purposes. The CCPC and Chester County make no claims as to the completeness, accuracy, or currency of the paper map or the digital data and files used to generate the map.

Source: CCPC, 2000.

landowner who wishes to protect a property should contact a number of land trusts, and not give up if the first land trust he or she contacts is not interested. The land trusts that are active in Chester County are listed in **Chapter 6**, and interested landowners should feel free to contact them directly.

Protecting Open Space Properties Using Wills

A significant portion of the individuals who own large properties in Chester County are elderly retirees, who intend to pass their family lands onto their children. Commonly it is a landowner's will that determines how family lands are distributed to the landowner's heirs. When a will is properly written, the landowner's heirs receive the land and are able to own it without paying an excessive inheritance tax. (Most people use the term "inheritance tax" to describe what legal professionals technically refer to as an "estate tax.")

Unfortunately, too many landowners have poorly written wills, or no will at all. In these situations, the heirs find themselves owning a piece of land they cannot afford to maintain, or with an inheritance tax bill they cannot afford. The only option that these financially burdened heirs usually have is to sell the family lands to developers. The ultimate result is that the undeveloped land is developed simply because the landowner did not have a properly executed will.

Some landowners who discuss their land in their wills make the common mistake of dividing their lands up evenly between their children. Unfortunately this breaks up large parcels making them more attractive for development. This approach also allows any one of the children to sell his or her portion of the original property for development, even if the other children wish to keep the original family property as undeveloped land. It is ironic that we Americans commonly accept that land will be broken up when the owner moves away or dies, but we never expect a business, especially a family business, to be broken up when its owner retires or dies.

Landowners who wish to pass their family lands on to their heirs should therefore consider retaining an accountant or legal council to assist with the execution of a will that minimizes inheritance taxes, and allows the heirs to have the option of leaving the land in its undeveloped state. Of course, land is only one part of a landowners total estate, and so other sources of income should also be considered when executing a will.

Many people inherit land after a parent or older relative dies unexpectedly, and so do not have time to develop a plan for preserving a family-owned property. Fortunately, the IRS now allows a landowner's will to be amended by the estate soon after death – but before the inheritance tax is submitted – to add an easement and reduce the inheritance tax burden. This option has only been available to landowners since 1997 when the Taxpayer Relief Act that amended IRS Code Section 2031(c) was signed

into law. This option is new and has many limitations, so it may not be applicable to all landowners. Individuals who believe that they might benefit from this option should seek out experienced professional legal advice.

In the past few years, there has been a great deal of discussion among elected officials about modifying the federal inheritance tax. In 2000, the President of United States vetoed a bill that would have changed the inheritance tax, and the issue was prominent in the 2000 presidential campaign. In 2001, the U.S. Congress began the process of re-writing the inheritance tax laws, and these changes were signed into law later that year. Municipal officials and landowners should therefore become familiar with any recent changes to the inheritance tax laws.

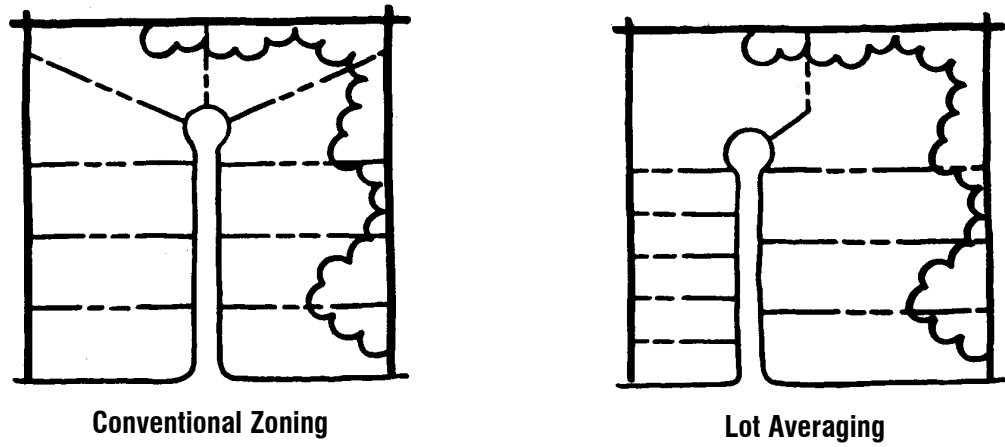
Protecting Open Space through Zoning

The Municipalities Planning Code

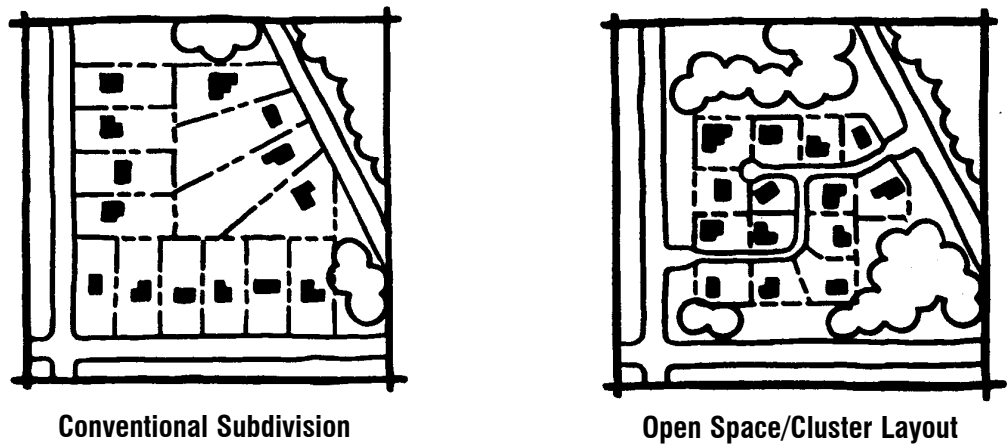
The Municipalities Planning Code (PA Act 247 of 1968) gives each of Pennsylvania's municipalities the authority to create and enforce a zoning ordinance. Zoning was originally established to help municipal governments protect the value of individual properties by directing the patterns of land use within their communities. In the last few decades, zoning has also evolved into a tool for protecting property values by protecting open space. Of course, it is important to remember that zoning can be changed, and so zoning by itself does not permanently protect open space.

Lot Averaging

Lot averaging is a technique used in some municipal zoning ordinances to protect open space. With lot averaging, the zoning ordinance requires a minimum lot size – usually 0.25 acres – but allows a variety of lot sizes. The only requirement is that the average size of the lots must equal a number established in the ordinance. Lot averaging gives a landowner the opportunity to subdivide and sell off a portion of his or her land and still retain the majority of the land, which can then be covered with a conservation easement. *Figure 15.2* shows how lot averaging works. The properties depicted in the figure are of equal size, and both are divided into 10 parcels. The two properties depicted in *Figure 15.2* have the same average parcel size, but the property on the right has different sized parcels.

Figure 15.2: Conventional Zoning versus Lot Averaging

Source: CCPC, 2001.

Figure 15.3 Conventional Subdivision versus Open Space/Cluster Layout

Source: CCPC, 2001.

Open Space/Cluster Zoning

Open space or “cluster” zoning is another important zoning tool used to preserve undeveloped lands. Cluster zoning permits houses, townhouses or apartments to be grouped together on a portion of a property, leaving the rest as undeveloped open space. Usually the open space part of the property covers 50 percent of the property or more. In some instances, the remaining open space is owned by a homeowner’s association or is covered by a conservation easement. **Figure 15.3** shows an example of how 14 units can be clustered to preserve open space. Landowners that are considering developing their property might consider visiting a few of the cluster developments that have already been built in and around Chester County. These developments include:

Deerfield Knoll

Dutton Mill Road north of PA Route 3
Willistown Township
Cluster development

Garnet Oaks Subdivision

Foulk Road and Route 322
Bethel Township, Delaware County
Cluster development with woodlands

Ponds at Woodward

PA Route 52 south of Hillendale Road
Kennett Township
Example of development with an orchard

Southridge

Marshall Bridge Road west of PA Route 82
Kennett Township
Cluster development

Summerfield

PA Route 401 and Steeplechase Drive
Elverson Borough
Cluster development with horse pasture

Tullamore

PA Route 926 and Denton Hollow Road
Pocopson Township
Cluster development with open space

Effective Agricultural Zoning

Some communities in Chester County have amended their zoning ordinances to create what is known as “Effective Agricultural Zoning.” This type of zoning not only allows agriculture but also discourages the non-agricultural development of farm fields. Effective Agricultural Zoning also discourages the establishment of land uses that are incompatible with

agriculture, such as some kinds of residential, commercial or recreational land uses. To date, West Fallowfield and West Marlborough Townships were the only municipalities in Chester County that had adopted Effective Agricultural Zoning.

Effective Agricultural Zoning limits the development potential of a property, thus lowering its value and its owner's tax burden. The lower land value may also provide tax advantages for the farmer and reduce the cost of an agricultural conservation easement, making it easier for a farmer to protect his or her land in perpetuity. Although Effective Agricultural Zoning places limitations on development, it does not eliminate development. As a result, the farmer still retains the opportunity to develop his or her land, or just a part of it. More information on Effective Agricultural Zoning is presented in *Zoning for Farming* available from:

The Center for Rural Pennsylvania
200 North 3rd Street, Suite 600
Harrisburg, PA 17101
717-787-9555
www.ruralpa.org

Transfer of Development Rights

Some municipalities in Chester County have amended their zoning ordinances to allow the Transfer of Development Rights, commonly called TDRs. The process of transferring development rights is somewhat new and can be complex, but it is becoming more and more common.

With a TDR, a property owner is allowed to keep his or her land, while selling the development rights from that land to another property owner who could use those rights to build additional units on another property. For example, "Farmer Brown" has a 50-acre farm, and the zoning in his municipality gives him the right to build 50 residential units. Two miles away, the ACME Development Company owns a 300-acre property, which can accommodate 300 units, however this 300-acre property is in a special zoning district called a "Receiving Zone." In this special district, it is legal for a developer to buy (or receive) the development rights from other landowners in "Sending Zones," and use these rights to build more units. As a result, the ACME Development Company buys the Development Rights (for 50 units) from Farmer Brown. ACME Development can then build a total of 350 units on its 300-acre site

TDR has two results. First, it allows large landowners to earn income from their land without developing it. Second, it allows developers to build more units per acre but only if they locate their development in the Receiving Zone. By establishing a Receiving Zone, the municipality can direct where more dense development will occur. Often Receiving Zones are located around the fringes of existing villages or in areas already served by sewer and water lines.

Municipalities must also establish “Sending Zones,” which are very large and typically consist of farm fields and woodlands. Landowners who wish to sell their development rights under the TDR program must own land that is located within a Sending Zone. In the example above, Farmer Brown would only be permitted to sell his development rights if his farm was in a Sending Zone.

In order for a TDR to function, the municipality must first amend its zoning ordinance to allow TDR and then establish Receiving and Sending Zones. The landowner must then coordinate with a developer to transfer the development rights. Although TDRs can be quite complex to implement, they have been used successfully in New Jersey, and are allowed in Birmingham, East Nantmeal, London Grove and West Bradford Townships.

Open Space Zoning Resources

There are a number of planning techniques that are available to those municipalities that choose to use their zoning ordinances to protect large properties. Those techniques mentioned in the previous pages, as well as other related information have been summarized in the Community Planning Handbook: A Toolbox for Managing Change in Chester County, commonly called “Tool Box.” Copies of the Tool Box are available for review or purchase at the Planning Commission. Each section of this two-volume document is referred to as a “tool,” and those tools that deal with open space and zoning are:

Tool #4 – Open Space/Cluster Development

Tool #10 – Transferable Development Rights

Tool #27 – Conservation Easements and Local Land Trusts

Tool #29 – Lot Averaging to Protect Resources

Tool #40 – Effective Agricultural Zoning.

The Chester County Planning Commission also periodically publishes “Subdivisions Notes,” that address a variety of subdivision and land development issues. These are small documents, most of which cost a few dollars. The “Subdivision Notes” that relate to open space and zoning are:

Subdivision Note #2 – The Sketch Plan

Subdivision Note #3 – Cluster/Lot Averaging

Subdivision Note #4 – Open Space

Subdivision Note #7 – TDRs for ROW Acquisition

Subdivision Note #9 – Residential Lot Design

Subdivision Note #10 – Subdivision and Land Development Plan:
Essential Information

Using Development to Protect Open Space

Introduction

In many instances, it is impossible or inappropriate for a landowner to protect all of his or her undeveloped property intact. Fortunately, a landowner who cannot protect all of his or her property still has many opportunities to retain some of it. There are a number of techniques that allow part of a large property to be developed while protecting the rest of it as open space. These techniques may be called limited development, cluster development, open space development, site sensitive development, sensitive development or conservation development, but they all are quite similar. Each of these techniques can provide development income for the landowner while still allowing him or her to retain part of the former property in an open state. A more detailed discussion of limited development is presented in *Taking Control of Your Land: A Land Stewardship Guidebook for Landowners*, published in 2000 by the Planning Commission and available on line at www.chesco.org.

Because these techniques are relatively new, many municipal officials and developers do not have experience with them. As a result, a landowner who is interested in building an innovative development may have to do a little research to find a suitable developer. Many people assume that all developers are the same, but this is simply not true. Some developers have a great deal of experience in creating developments that retain part of the original property, while others do not. Just as with any other purchase, the consumer who does some comparison shopping will get the best deal.

All of these techniques provide an alternative to conventional development, sometimes called “cookie cutter” development. Conventional development occurs when most or all of an original property is subdivided into similarly sized lots, and infrastructure such as roads. In these developments, there is little if any land that is set aside as common open space or to protect natural features, cultural resources, or productive agricultural soils. In general, it is quite difficult to protect open space within a conventional development.

Limited Development

Limited development occurs when a landowner develops only a portion of his or her land, and retains the rest as undeveloped open space. In some municipalities, zoning regulations limit or forbid limited development, but other municipalities may have it as an option or a requirement in some zones. Limited development is sometimes called “open space development” because it can be used to retain open space. Often the areas that are not developed within a limited development are sensitive natural features like steep slopes, floodplains or woodlands. For this reason, limited development is sometimes called “site sensitive development” or just “sensitive development.”

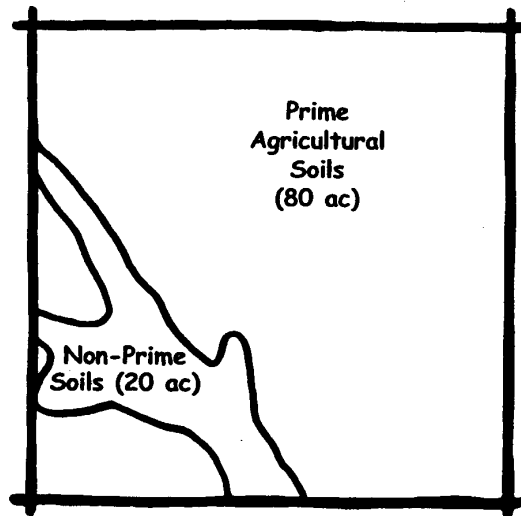
A limited development might be built by a landowner who wishes to protect a natural feature or historic landscapes, or by a landowner who limits development for economic reasons. For example a farmer may wish to develop a small portion of his or her land, and then use the profits to finance improvements to the remainder of the original farm property. A landowner with an expansive property may wish to develop a portion of it and then use the proceeds to finance the protection and perpetual management of the remaining part.

Limited development is most effective when the landowner develops a long-term plan for the property that considers both the natural resources on the land, and the financial and personal needs of the landowner. **Figure 15.4** presents a hypothetical farm that comprises 100 acres and is located entirely on one parcel. As this figure shows, Prime Agricultural Soils covered about 80 acres. A farmer who needs cash to finance his or her operations could develop a plan for limited development that would set aside these more productive 80 acres and develop the rest. The result of this limited development could be the plan presented in **Figure 15.5**.

Limited development is a commonly used alternative to conventional development, but in the long run, it does not always protect the land from future development. If a landowner limits development on his or her property, but then moves away or dies, the new owner may choose to develop the remaining open land. In theory, a landowner can put a deed restriction on the undeveloped portion of a property that will limit how that open space will be used after it is sold to a new owner. However, a deed restriction is only worthwhile if there is someone there who will enforce it. Sometimes, new landowners simply ignore deed restrictions because they know that there is no outside party to monitor the property and enforce the deed restriction created by the previous owner.

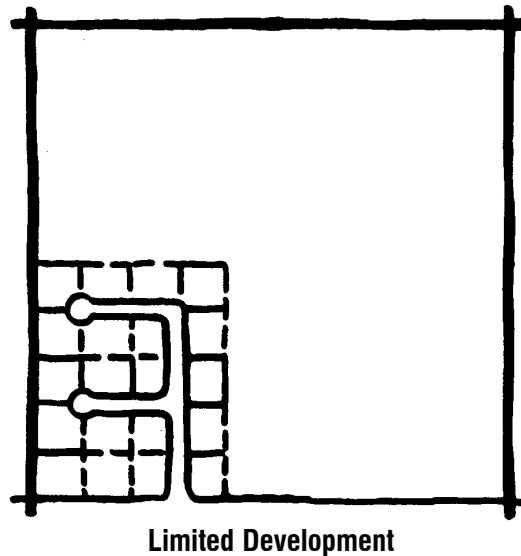
It is also possible that a landowner may choose to develop all of the open space that he or she initially set aside on a limited development property. Landowners sometimes need to develop the land they previously set aside in order to raise money to pay for an unforeseen financial crisis such as the sudden devaluation of retirement investments, or medical costs for a family member. In order to ensure that the open space portion of a

Figure 15.4: Hypothetical Farm Property with no Development



Source: CCPC, 2001.

Figure 15.5: Hypothetical Farm Property with Limited Development



Source: CCPC, 2001.

limited development is rigorously protected on a long-term basis, the undeveloped land must be protected by a land trust conservation easement such as described in *Chapter 6*, or a Pennsylvania Agricultural Conservation Easement as described in *Chapter 9*. Simply put, a limited development in which the open space portion is not eased by a third party, or managed by a homeowners association, does not rigorously protect open space in the long run.

Cluster Development

The term cluster development is also sometime used to describe limited development, because the development is “clustered” on a portion of the property. Cluster development is often used to describe a development in which detached houses, townhouses or apartments are grouped together on a portion of a property, leaving the rest as undeveloped open space. If a farmer were to develop eight acres of a 100-acre property, the result would be a limited development, but it would not likely be called a cluster development.

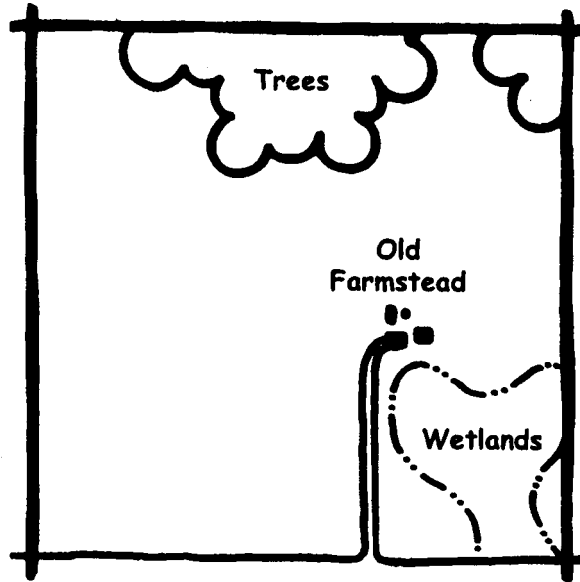
In some instances, the land that is developed using cluster development has a greater number of units than would be permitted on the property using a conventional development plan. As a result, the units are grouped on smaller lots thus maintaining open spaces elsewhere on the property. Such as scenario is presented in *Figure 15.6*.

Figure 15.6 shows a hypothetical family estate that covers 100 acres and is located entirely on one parcel. The municipality where the family estate is located amended their zoning ordinance to allow cluster development that allows residential units to be grouped together on a relatively small portion of a parcel, leaving the remainder in permanent open space. The newly amended zoning ordinance allows the construction of one unit per acre, but it also allows 1.15 units per acre, but only if 50 percent or more of the parcel is protected as open space. The municipality allows more units per acre as a bonus to reward people who preserve open space.

The owners of this hypothetical estate are a man and wife who wish to permanently protect the wetlands, woods and the old family farmhouse, but also want to be able to build another house for one of their grown children. To achieve this goal, the landowners contact a land trust and hire a developer who specializes in cluster development. The owners, the developer and the land trust all coordinate with the landowners’ lawyer and accountant, and develop a plan for a cluster development, which is shown in *Figure 15.7*.

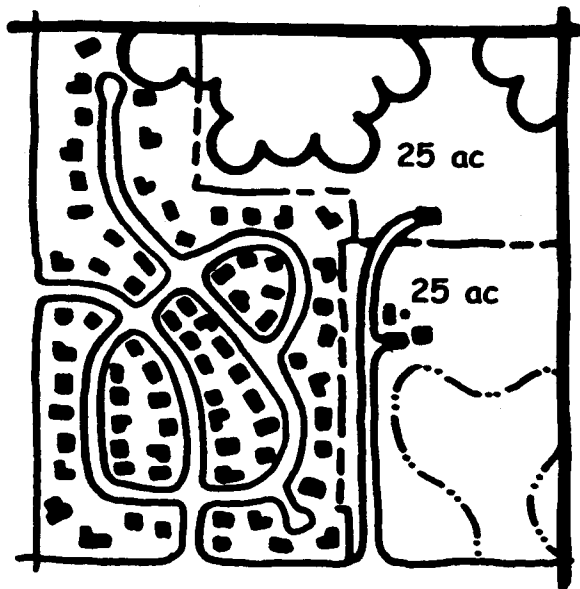
The cluster development plan for the 100-acre family estate includes the permanent protection of 50 acres of open space including woods and wetlands. A conservation easement for the undeveloped 50-acre parcel is donated to a land trust, but the land itself is still owned by landowners. The remaining 50 acres are sold to the developer, and some of the cash

Figure 15.6: Hypothetical Estate Property without Development



Source: CCPC, 2001.

Figure 15.7: Hypothetical Estate Property with Cluster Development



Source: CCPC, 2001.

from this sale is used to finance the future protection and maintenance of the eased parcels.

The final plan also calls for the construction of 113 new residential units- 115 unit minus the two units for the landowner's family – on the remaining 50 acres. The average new unit will be located on a 0.4-acre lot. Two lots will be created from the 50-acre preserved area, one for the old family farmhouse and another for a house to be built later. As a result, the developer will sell the 113 new units, more than would be allowed under non-cluster development. The developer is also able to promise many of the new homebuyers in the new development that they will have a view of 50 undeveloped acres that will never be developed. As a result, the developer may be able to use the protected open space as a marketing tool, making it easier to quickly sell the houses within the development.

Of course, this example is only hypothetical, and in reality the process of creating a cluster development can be extremely complicated. Nonetheless, more and more landowners and developers are finding that they can earn substantial income by using cluster development instead of conventional development. Usually this occurs when the landowner, the developer and the lending institution financing the project are willing to think creatively, and the municipality is willing to employ some innovative techniques in their zoning and subdivision regulations.

A Linking Landscapes Conservation Development

The term “conservation development” is sometimes used to describe a limited development. Usually the term conservation development is used to describe a limited development in which a specific resource, such as a wetland complex or a scenic farm field is left open and free of development. There is no universally recognized definition for the term “conservation development,” and the term can be used to describe a wide range of developments that retain some open space. This open space may be protected from future development with an easement, or it may be unprotected.

There are many terms, such as “limited development” or “cluster development” that can be used to describe developments that limit development and retain open space. Each municipality has the authority to define the terms it uses to describe such developments, and so it is common for identical terms, such as “conservation development,” to have somewhat different meanings in different municipalities. It is essential for municipalities to have flexibility when it comes to land use issues given the constantly changing nature of Chester County. However, it is also important to have some sort of standard throughout the County, that can be used to evaluate how one development compares with another in terms of protecting and maintaining open space.

For this reason, *Linking Landscapes* presents a unique definition for “conservation development,” which can be used in all parts of the county. This “*Linking Landscapes* Conservation Development” is an idealized standard that optimizes open space protection and ensures environmentally sensitive land management in a way that is consistent with *Landscapes* and practical from a market standpoint. According to this definition, a *Linking Landscapes* Conservation Development is a limited development that must also meet all of the following three criteria:

- The development must permanently protect 60 percent or more of the original property from future development as homeowner association open space or through a conservation easement or some other permanent protection mechanism.
- The development must manage and maintain the portion of the property that is protected as open space for recreation or natural resource preservation or restoration, according to a management plan. Off-lot sewage disposal and water supply systems may be included in the protected open space.
- If the development is residential, it must have an average lot size of one-third of acre or less on that portion of the original property that is developed into residential units.

This definition has three elements. First, it calls for the protection of at least 60 percent of the original property as open space in perpetuity. Enforcing this protection may be the responsibility of a homeowners association, or a land trust or agricultural easement program that holds a conservation easement on the open space. Some municipalities also acquire open space parcels within a development, and manage these lands as part of a municipal open space network. A development that protects less than 60 percent of the original property as open space does not meet the *Linking Landscapes* Conservation Development. Furthermore, a limited development that simply sets aside 60 percent or more of the original property as open space without protecting it through a homeowners association, a land trust easement or some other rigorous open space protection technique, does not meet the definition.

The justification behind protecting 60 percent of a property is based on a number of factors. First, it is assumed that Naturally Sensitive Areas, such as floodplain, and steep slopes, will cover 15 percent of any large property. Thus, only 85 percent of a large property will be suitable for construction. If one-half of this “buildable land” were protected as open space, then only 42.5 percent of the land would be built up, which would leave 57.5 percent of the land, or approximately 60 percent of the property as protected open space.

The second part of the definition requires that the open space in a conservation development must be properly managed according to a resource management plan. Open space areas within a *Linking Landscapes*

Conservation Development should be designed and constructed to provide recreation opportunities for its community, such as trails and playground, or else they should be managed as a natural resource preserve. Such natural resource management might include stream bank restoration and native plant re-vegetation, re-grading to restore wetland hydrology, or managing woodlands to ensure that they are not invaded by exotic species. A development that protects 60 percent or more of the original property and has an average lot size of one third of an acre or less, but maintains its protected open space as conventional mowed lawn and ornamental trees, with no recreational or natural resource management, does not meet the *Linking Landscapes* definition.

The second part of the definition also permits protected open space within the development to be used as an off-lot septic field for residential units that have individual septic systems. Septic fields help improve groundwater recharge, and they can be covered with native grasses and wildflowers that can provide valuable habitat when they are mowed seasonally, if at all. More information on dual uses for septic fields is presented in Chester County Planning Bulletin #54 *Individual Off-Lot Sewer Systems*, which is available at the Planning Commission office.

The third part of this definition is consistent with the policies set forth in *Landscapes*, which recognizes that Chester County cannot protect open space while at the same time accommodating highly land consumptive large-lot residential developments. As a result, it states that the average lot size of the residential units built in the development must be less than what would be permitted under conventional one-acre zoning. For this reason an average lot size of one third of an acre or less was included in the definition. A lot of this size is small enough to be environmentally sensitive, but large enough to accommodate architectural housing designs that are popular with Chester County homebuyers. Of course, a *Linking Landscapes* Conservation Development may include some lots that are larger than one third of an acre, but only if the average lot size, not including the protected open space, is one third of an acre or less. A development that protects 60 percent or more of the original property but only contains large lots, whose average size exceeds one third of an acre, does not meet the criteria.

An area of land covering approximately 40,000 square feet is required to accommodate on-lot sewage disposal and water supply systems for a detached house. Because one acre measures 43,560 square feet, there is a general rule that lots encompassing less one acre must be served by a community sewer and water system. At first glance, it might appear that a *Linking Landscapes* Conservation Development, with an average lot size of 1/3 of an acre, would not support on-lot sewage disposal and water systems. However, the second part of the definition permits sewage disposal and water systems to extend out from the housing unit into the protected open space. This design approach is called “off-lot” and allows lots measuring less than an acre to use the surrounding protected open space for

sewer disposal and water systems. With an off-lot system, there must be an agreement between the lot owner, the municipality and the land trust or homeowners association that permits the protected open space to be used for such an off-lot system. Detailed regulations regarding sewage disposal and water supply systems can be found in 25 PA Code Chapter 73 Section 13, as revised and amended.

A *Linking Landscapes* Conservation Development could accommodate population growth while still protecting open space. For example, a 100-acre parcel with conventional one-acre zoning, could hypothetically be developed into 100 lots. If that same 100-acre parcel employed a *Linking Landscapes* Conservation Development, 60 acres would be permanently protected, and the remaining 40 acres would contain an average of three units per acre, resulting in the construction of 120 units. The result is an increase of 20 units, which would provide a market-based incentive for developers, and the lending institutions and municipalities who influence the way they operate. This hypothetical example is a gross oversimplification of a complex process that should be tailored to the needs of each municipality. Nonetheless, the 20-unit bonus is similar in scale to that which occurs when employing the Transfer of Development Rights as discussed previously in this chapter.

The *Linking Landscapes* Conservation Development sets a high standard in terms of environmental sensitivity and presents a target of excellence that is feasible and practical. Currently few developments completely fulfill all the requirements of a *Linking Landscapes* Conservation Development, although many meet one or more of the three criteria. In some municipalities, current zoning would not permit a *Linking Landscapes* Conservation Development to be built. Furthermore, in some intensely built-up communities with no remaining large open properties, a *Linking Landscapes* Conservation Development would be physically impossible. In parts of the County, where in-fill development is needed, a *Linking Landscapes* Conservation Development would be entirely inappropriate. Clearly, this highly sensitive form of development should not be considered for all parts of the County. Nonetheless, the criteria of a *Linking Landscapes* Conservation Development provides one standard of excellence that can be used to compare new developments throughout the County.

Protecting Open Space and Urban Renewal

Downtown Revitalization

Many of Chester County's older commercial downtown centers have been in economic decline since the 1960's and 1970's. During these decades many of the large industrial employers that supported these communities either closed or scaled back their operations, and newer housing in surrounding suburbs attracted residents away from these urban centers. Both state and County government have recognized that there is a need to revitalize these downtown areas by bringing back a diversity of residents and employers. The Commonwealth's 1998 *Report of the Pennsylvania 21st Century Environment Commission* states that keeping cities and boroughs, "economically and environmentally healthy and desirable places to live is critically important to ensuring that all Pennsylvania's citizens enjoy a high quality of life."

Downtown revitalization has long been championed by planners as a way to improve economic and social conditions in urban communities. However, it has only been in the last few years that proponents of open space protection have come to realize that downtown revitalization helps to protect open space. When downtown revitalization improves the quality of life in urban areas, urban residents are more likely to remain in their urban communities and less likely to migrate out into undeveloped areas thus eliminating open space. Revitalized urban centers can also attract suburbanites such as the elderly who may wish to have better pedestrian facilities, and young families in search of affordable housing.

Municipal planners and community groups should recognize that downtown revitalization is a significant technique for protecting open space. It should be regarded as being just as important as preserving prime farmland, wetlands or ecologically sensitive habitat. Any regional plan for protecting open space in Chester County must consider downtown revitalization as a means for protecting open space. Furthermore, traditional downtown centers can also be valuable as trailheads for regional trails, providing food and recreational supplies to trail users.

Downtown revitalization is often a very complex process, which can be quite expensive and labor intensive. It requires strong political and community support and commonly takes many years of hard work. A discussion of the many forms of downtown revitalization can be found in the *Community Planning Handbook: A Toolbox for Managing Change in Chester County*, which is available for review or purchase at municipal offices and the Planning Commission Office. The sections within the *Toolbox* that relate to downtown revitalization include:

Tool #46 – Village Protection Program

Tool #50 – Main Street Program

Tool #51 – Strategies for In-fill Development

Tool #52 – Adaptive Re-use of Older Buildings

Tool #69 – Residential Conversions

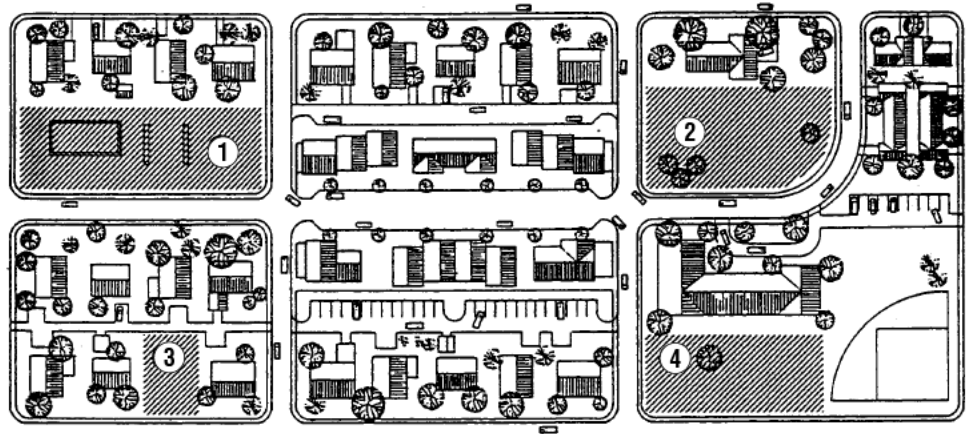
Vacant Lot In-fill Development

One of the key elements of most downtown revitalization efforts is the re-development of vacant lots, commonly known as “in-fill development.” Nearly all communities contain vacant or underused lots that have not been developed because they are small or oddly shaped, or because they contain contaminants or are not accessible by utilities. Many of these sites were once occupied by buildings, which have since been abandoned and left to deteriorate. Some of these sites, however, are just undeveloped sites that were simply bypassed by development. **Figure 15.8** provides a few examples of the type of in-fill development areas commonly found in Chester County.

Vacant lots can degrade the surrounding community in a number of ways. These lots can be eyesores that can ruin the scenic value of an otherwise attractive streetscape. Vacant lots are commonly used as “midnight dumps” where trash, and in some cases hazardous wastes, are illegally dumped. In the worst cases, vacant lots are used for criminal activity including the sale and use of illegal drugs. For all these reasons, properties adjacent to vacant lots have a reduced value. As a result, one vacant lot – if ignored – can reduce the economic viability and quality of life for the surrounding community. Conversely, a vacant lot that is developed into a residence, business or urban park open space can enhance the surrounding community.

In-fill development quite literally “fills in” vacant lots either by erecting new parks or buildings, or by rehabilitating existing buildings so that they can once again be occupied. In-fill not only eliminates the problems that arise in vacant lots, it contributes to the local economy either by creating businesses or tax-generating residential units, or by creating parks that raise the value of nearby properties. A more detailed discussion of in-fill development can be found in Tool #51-2 in the *Landscapes Community Planning Handbook: A Toolbox for Managing Change in Chester County*, which is available for review or purchase at municipal offices and the Planning Commission Office.

Figure 15.8 Examples of In-fill Development Areas

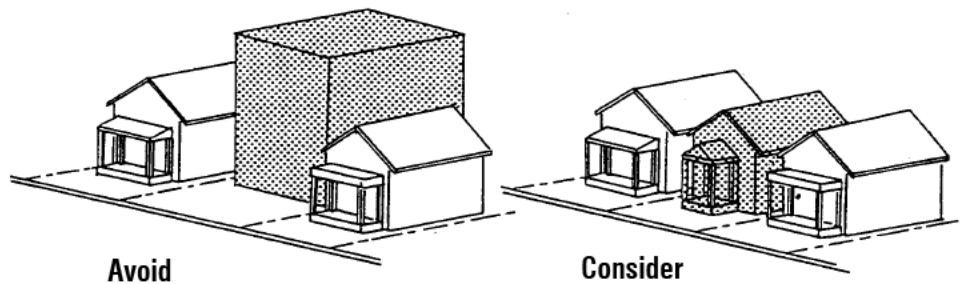


- ① Underused parcel, formerly a commercial use
- ② Undeveloped portion of large residential lot
- ③ Undeveloped residential lot
- ④ Undeveloped area adjacent to an educational facility

Source: CCPC, 1997.

In-fill development is different from most other forms of development because it must be architecturally compatible with the existing development in the surrounding area. *Figure 15.9* illustrates the importance that architectural design plays in effective in-fill development. In-fill development can also include the development of recreational or open space facilities including playgrounds, formal public gardens or community vegetable gardens. Recreational in-fill development has not been used extensively in Chester County. Nonetheless, it is an important tool for enhancing densely populated suburbs and urban communities in need of revitalization.

Figure 15.9: Compatible versus Incompatible In-fill Development



Source: CCPC, 1997.

Municipal officials and community groups must carefully consider what kind of in-fill is appropriate when preparing plans for vacant lot re-use. In-fill projects should include an assessment of the needs of the community early on in the project development in order to determine what kind of in-fill will provide the best benefit. Some urban areas may need residential units or new businesses, while others may benefit more from a public garden or a community sports facility.

Within the Delaware Valley Region, it is the Pennsylvania Horticultural Society (PHS) that has taken the lead in pursuing recreational in-fill projects for the last few decades. PHS has provided technical assistance to communities throughout southeastern Pennsylvania, and is currently conducting a Vacant Land Management Study for the City of Philadelphia. Individuals interested in vacant lot in-fill projects should contact the PHS at 215-988-8800 or view their web page at: www.pennsylvaniahorticulturalsociety.org.

Chapter 16



Open Space Funding Programs

Background

This chapter presents a list of funding programs that can be used by municipal governments, non-profit land trusts, trail groups or local civic groups to fund the design, acquisition, or rehabilitation of open space and recreation facilities throughout Chester County. Most of these programs provide matching grants, which award funds only if the grant applicant has agreed to provide partial funding. This chapter is meant to be an introduction to open space funding, and only discusses those funding sources that are most commonly used by municipalities and other organizations in Chester County.

It is possible for a municipality or community organization to apply to a number of matching grant programs and use one grant as a match for another grant. For example, a municipality might fund a \$100,000 park project by providing \$25,000 in municipal revenues and matching those funds with a County grant for a total of \$50,000. This \$50,000 could then be matched by a state grant for a total of \$100,000. Through this process, \$25,000 of local funds could be leveraged to generate a total of \$100,000.

Pursuing grants can be both complicated and time consuming. The following chapter provides only a cursory introduction to grantsmanship. Individuals who wish to pursue any of the funding sources presented in this chapter should contact the grant providers directly for instructions and application manuals a few months in advance of the application deadline. Neither the Planning Commission nor the Parks and Recreation Department provide applications or manuals for federal, state, or private funding programs.

Of course, most grants involving the protection or restoration of open space are matching grants which require that a municipality or other organization provide partial funding, usually 50 percent. Matching grants are popular with government agencies and charitable funds because they require that a grant applicant make a commitment to spending some of their own funds, which is a good way to measure the overall commitment of a grant applicant. In Chester County, a number of municipalities raise funds for the protection or restoration of open space through a dedicated income tax, or a municipal bond, as shown on **Figure 16.1**. Funds gathered in this manner can typically be used as the municipal match for federal, state, County or private grants.

Federal Highway Administration Funding Programs

Background

In 1991, the US Congress passed the Intermodal Surface Transportation Efficiency Act (ISTEA) which provided about \$155 billion of federal funding for highway, highway safety and mass transportation projects throughout the nation. Under ISTEA these funds were to be made available from fiscal year 1991 to 1997. ISTEA also included funding for non-motorized transportation facilities such as bicycle and pedestrian trails.

In June 1998, the Transportation Equity Act for the 21st Century (TEA-21) was passed by the US Congress. TEA-21 provides \$198 billion to be distributed during fiscal years 1998 to 2003 for the purpose of continuing and expanding the programs established by ISTEA. The Act also allows additional funds to be spent if certain criteria are met, which would increase the total TEA-21 funding to \$218 billion. Information on TEA-21 is available at www.fhwa.dot.gov/tea21.

TEA-21 includes three programs that are commonly used to fund non-motorized transportation projects. These programs are:

- The Transportation Enhancements (TE) Program
- The Congestion Mitigation and Air Quality (CMAQ) Improvement Program
- Recreational Trails Program

In Pennsylvania, the DCNR administers and distributes Recreational Trails Program funds. This Program is described on **Page 16.8** of this chapter. The TE and CMAQ Programs are discussed in the following sections.

Transportation Enhancements (TE)

Under TEA-21, a total of 10% of the federal funding provided to each state for surface transportation is authorized to be distributed through the Transportation Enhancement (TE) Program. The TE Program is not a grant but rather a reimbursement program in which the federal government will fund a maximum of 80 percent of a project cost, once the project is completed. Information on the TE Programs is available at the National Transportation Enhancement Clearinghouse at 888-388-6832 or www.railtrails.org.

In Pennsylvania the TE Program is administered by the Pennsylvania Department of Transportation (PennDOT), but funds are awarded through a collaborative process involving PennDOT, the Delaware Valley

Regional Planning Commission, and the Pennsylvania Transportation Enhancements Advisory Committee. The TE Program provides funds for twelve different categories of surface transportation projects ranging from reducing pollution generated by highway run off to establishing transportation museums. Only two of these categories provide funds for bicycle or pedestrian trails.

The TE fund category called "*Provision of facilities for pedestrians and bicycles*" provides funding for the acquisition, development and construction of new facilities for pedestrian or bicycle use, or improvements to existing trail facilities. This provision does not include sidewalks or required curb ramps. The TE fund category called "*Preservation of abandoned railway corridors (including the conversion and use thereof for pedestrian or bicycle trails)*" provides funding for the planning, acquisition, rehabilitation and development of active and abandoned corridors for public uses including pedestrian and bicycle trails.

Eligibility requirements allow funds to be awarded to any state agency, county or municipal government or non-profit organization. Successful applicants are required to work with PennDOT to secure all applicable environmental approvals. The application deadline is usually in mid-Fall. The application process can be quite complicated, and it is recommended that applicants begin gathering information for the application a few months in advance. For more information on the program and application forms contact:

PennDOT Engineering District 6-0
Transportation Enhancements Coordinator
7000 Geerdes Boulevard
King of Prussia, PA 19406
610-205-6950

Congestion Mitigation and Air Quality (CMAQ) Improvement Program Grants

The Congestion Mitigation and Air Quality (CMAQ) Improvement Program of TEA-21 provides Federal funding for projects that serve the general public and produce a reduction of harmful emissions related to transportation. The CMAQ Program is not a grant but rather a reimbursement program in which the federal government will fund a maximum of 80 percent of a project cost, once the project is completed. This program is competitive and has limited funds. As a result, municipally sponsored projects must compete with county and state sponsored projects.

In Southeastern Pennsylvania, the Delaware Valley Regional Planning Commission administers the CMAQ program, but funds are awarded through a collaborative process involving PennDOT and the Federal Highway Administration. The CMAQ Program provides funds for sixteen different categories of projects ranging from public education campaigns

to constructing park and ride lots. Only one of these categories provides funds for the establishment of bicycle or pedestrian trails.

The CMAQ fund category called “*Bicycle and pedestrian projects*” provides funding for a wide variety of activities including the designation of bike lanes on roadways and the construction or reconstruction of paths tracks or areas only for the use of pedestrian or other non-motorized modes of transportation.

Eligibility requirements allow funds to be awarded to any public agency or incorporated private firm or non-profit entity. All applicants are advised to contact the County and municipal governments in which the project is proposed. The application deadline is usually in mid-Fall. The application process can be quite complicated and it is recommended that applicants begin gathering information for the application a few months in advance. For more information on the program and applications contact:

Transportation Planning Division Director
DVRPC
111 South Independence Mall East
Philadelphia, PA 19106
215-238-2863

Pennsylvania DCNR Grants

Background

Over the last few decades, the Commonwealth of Pennsylvania established a number of open space and recreation grants that are administered by the Department of Conservation and Natural Resources (DCNR). Throughout the 1990s, these grants were collectively known as “Keystone Grants.” However, in 2000 the DCNR reorganized all their grants into the Community Conservation Partnership Program (CCPP), and increased the total amount they awarded using monies provided by the Environmental Stewardship and Watershed Protection Act, commonly called “Growing Greener Funds.” The CCPP awards grants from the following funds:

- The Keystone Recreation, Park and Conservation Fund
- Recreational Trails Program
- Pennsylvania Heritage Parks Funds
- Environmental Stewardship and Watershed Protection Act (Growing Greener Funds)

The following sections provide a brief summary of grants awarded through these funding sources. These grants and their application procedures are periodically revised, and recent changes may not be included in the text below. Interested individuals should therefore always contact the DCNR a few months in advance of grant deadlines to ensure that grant application procedures have not been changed. For more information contact:

PA DCNR

Bureau of Recreation and Conservation
6th Floor, Rachel Carson State Office Building
Box 8475
Harrisburg, PA 17105
717-787-7672
www.dcnr.state.pa.us.

There is one grant manual and application for all CCPP grants, which is available at www.dcnr.state.pa.us/grants.htm. Applicants for Heritage Parks Grants must first apply to the Schuylkill River Greenway Association as described below. As of August 2000, all grant applicants are required to contact the local DCNR Recreation and Park Advisor before submitting an application. Any municipality or organization considering applying for a grant should also call the advisor to determine what state grant best suits the character and funding requirements of the project. The Advisor for Chester County can be reached at:

Recreational and Park Advisor

DCNR, Bureau of Recreation and Conservation
Southeast Regional Office
1400 Spring Garden Street, Suite 908
Philadelphia, PA 19130
215-560-1183

Keystone Recreation, Park and Conservation Fund

The Keystone Recreation, Park and Conservation Funds were established by PA Act 1993-50, and award funds for open space and recreation projects through the following four grant programs:

- Community Recreation Grants
- Rails-to-Trails Grants
- Land Trust Grants
- Rivers Conservation Grants

These grants are awarded annually, and the application deadlines are usually mid-Fall. Applications and updated manuals are usually available by mid-Summer from the DCNR.

■ **Community Recreation Grants** Municipal governments, councils-of-government and municipal agencies are eligible to receive Community Recreation Grants. These grants award up to 50 percent of a project cost, except small communities' grants, circuit rider and pier grants. The purpose of these grants is to provide funds for:

Planning and Technical Assistance	Acquisition	Development
Comprehensive recreation and park planning	Acquisition of land for park and recreation purposes	Rehabilitation and development of park and recreation facilities
Conservation plans		Small communities development (For communities with a population of 5,000 and below.)
County natural areas inventories		
Feasibility studies		
Greenways and trails		
Master site development planning		
Circuit rider and peer-to-peer technical assistance grants		

■ **Rails-to-Trails Grants** Municipal governments, councils-of-government, municipal agencies and appropriate non-profit organizations are eligible to receive Rails-to-Trails Grants. These grants award up to 50 percent of a project cost. The purpose of these grants is to provide funds to be used for:

Planning and Technical Assistance	Acquisition	Development
Feasibility studies	Acquisition of abandoned railroad r-o-w for trails and adjacent land necessary for access and support facilities for trails	Renovation and development of abandoned railroad r-o-w for trails
Master site development plans		
Special purpose studies of abandoned railroad r-o-w for trails and adjacent land necessary for access and support facilities for trails		

■ **Land Trust Grants** Pre-qualified non-profit land trusts and conservancies are eligible to receive Land Trust Grants. These grants award up to 50 percent of a project cost. The purpose of these grants is to provide funds to be used for the acquisition and planning of open space and natural areas that face imminent loss. The lands must be open to public use and priority is given to habitat for threatened species.

■ **Rivers Conservation Grants** Municipal governments, councils-of-government, municipal agencies and appropriate non-profit organizations are eligible to receive Rivers Conservation Grants. These grants award up to 50 percent of a project cost. The purpose of these grants is to provide funds to be used for:

Planning and Technical Assistance

Acquisition

Development

River conservation and watershed plans

Land acquisition

Development of river conservation projects

Special purpose projects such as preparing zoning and subdivision ordinances

River area access studies

Water quality monitoring

Other projects

Recreational Trails Fund

The Recreational Trails Fund receives funding through TEA-21 and award funds for trail projects through the Pennsylvania Recreational Trails Grants program. These grants are awarded annually, and the application deadline is usually mid-Fall. Applications and updated manuals are usually available by mid-Summer from the DCNR. Although these grants receive federal transportation funding, they are administered by the Pennsylvania DCNR.

Municipal governments, private individuals and private organizations are eligible to receive Pennsylvania Recreational Trails Grants. These grants award up to 80 percent of a project cost, except for acquisition projects that receive up to 50 percent. The purpose of these grants is to provide funds to be used for the acquisition, development and maintenance of motorized and non-motorized trails.

Pennsylvania Heritage Park Program Funds

The Pennsylvania Heritage Parks Program is funded as part of the state budget, and awards funds to projects that relate to State Heritage Parks. Applications for Heritage Parks Grants must be submitted to the Schuylkill River Greenway Association (SRGA), and applicants must contact the SRGA before applying. The SRGA will then submit the applications to the DCNR. These grants are awarded annually, and the application deadline is usually mid-winter. Applications and an updated manual are usually available in mid-fall from:

Schuylkill River Greenway Association

140 College Drive
Pottstown, PA 19464
484-945-0200

Municipalities, non-profit organizations or federally designated commissions acting on behalf of the municipalities in a State Heritage Park Area are eligible to receive Heritage Park Fund Grants. Currently the SRGA priority is to fund grants from municipalities within 3 miles of the Schuylkill River, which define the limits of the Schuylkill River State Heritage Corridor. Projects outside this limit along French and Pickering Creeks have also been considered. More information on the Schuylkill River State Heritage Corridor is presented in **Chapter 8**. A long-range goal of the SRGA is to enlarge this Corridor to include the entire Schuylkill River Watershed. If this occurs in the next few years, priority will be extended to projects in all the municipalities within the watershed.

These grants award from 25 to 50 percent of a project cost. These grants may be used for cultural resource preservation. In the past these grants provided funding for the restoration of Fricks Lock in East Coventry Township and the Foundry Building in Phoenixville Borough. The purpose of these grants includes:

- Feasibility studies
- Development of management action plans for heritage park areas
- Specialized studies
- Implementation projects
- Management grant
- Other studies

Other Pennsylvania Commonwealth Grants

Background

There are a number of grants administered by state agencies that can be used to improve the quality of open spaces or to help communities improve their planning for open space. Two of the grants programs are discussed below. There may be other grants administered by the state that also have an application to open space protection or restoration. Individuals wishing to fund such projects should always investigate any state grant that could be applicable to their project, even if that grant is not used exclusively for open space projects.

Pennsylvania DEP Grants

The Commonwealth of Pennsylvania awards a wide variety of grants that are administered by the Pennsylvania Department of Environmental Protection (DEP). Most of these grants deal with projects such as the improvement of sewer and water infrastructure and the reclamation of abandoned mines and wells. The DEP does however award grants for wetland and stream bank restoration and protection, which can be used to restore protected open spaces. These grants are funded from the Watershed Protection and Environmental Stewardship Fund, commonly known as the Growing Greener Funds.

Applicants are not required to provide matching funds, however, proposed projects that provide opportunities for gathering additional funds or services, and projects involving partnerships are encouraged. Applications for these grants are usually due in mid-Summer. Potential applicants should request applications and grant manuals two to three months in advance at www.dep.state.pa.us or from:

DEP Grants Center

15th Floor, Rachel Carson State Office Building
400 Market Street
P.O. Box 8776
Harrisburg, PA 17105
717-705-5400

Interested applicants should also contact the local DEP office when first considering a project to determine if it fits the DEP's criteria and funding guidelines. For Chester County this office is:

DEP Southeastern Regional Office

Lee Park, Suite 6010
555 North Lane
Conshohocken, PA 19428
610-832-6000

Eligible applicants include:

- Counties and municipalities.
- County conservation districts.
- Watershed organizations recognized by the DEP and established to promote local watershed conservation efforts in an identified watershed.
- Other authorized organizations, including non-profit entities involved in research, restoration, rehabilitation, planning, acquisition, development, education or other activities, which further the protection, enhancement, conservation, preservation or enjoyment of Pennsylvania's environmental, conservation, recreation or similar resources.

Pennsylvania DCED Grants

The Pennsylvania Department of Community and Economic Development (DCED) administers two grants programs that can be used for county, municipal or multi-municipal open space and recreational planning. These grants are:

- **Land Use Planning and Technical Assistance Program Grants** – which can be used to fund open space planning as part of a comprehensive plan.
- **Shared Municipal Service Program Grants** – which can be used to fund regional recreation activities, shared public works operation, and municipal insurance pooling.

Applicants are required to provide matching funds, usually 50 percent. Applications for either of these grants can be submitted at any time. Potential applicants should request applications and grant manuals at www.inventpa.org or from:

Governor's Center for Local Government Services

Southeast Regional Office
200 South Broad Street, 11th Floor
Philadelphia, PA 19102
215-560-2374 or 610-530-5718 or 717-720-7356

County of Chester Grants

Background

In November 1989, the Chester County Commissioners placed a \$50 million Open Space Bond Referendum on the ballot for approval by Chester County's residents. This referendum passed with 81% of the vote. This money was used for a wide variety of projects including the acquisition of County park facilities and the purchase of agricultural easements. It was also used to fund grants that were made available to municipalities, regional planning commissions or qualified non-profit organizations. Municipal authorities may also receive funds, but these funds must be awarded to a municipality and then passed on to the authority.

In October 1999, the Chester County Commissioners announced the creation of the Landscapes 21st Century Fund which would provide \$75 million of funding to continue open space preservation programs and create new funding programs to further implement *Landscapes*. This Fund provides financing to continue the grants that were established by the 1987 Open Space Bond. Landscapes 21st Century Funds were also used to establish two new grant programs in the Spring and Summer of 2000.

The County programs that provide grants for the protection or restoration of open space or recreation facilities are administered by either the Planning Commission, as shown on *Figure 16.2*, or the Parks and Recreation Department, as shown on *Figure 16.3*.

Figure 16.2: Grants Administered by the Planning Commission

Grant	Grants Awarded to
Vision Partnership Program Tier 1 – Plan Consistency Grant	Municipalities and Regional Planning Commissions
The Vision Partnership Program Tier 2 – Plan Implementation Grants	Municipalities and Regional Planning Commissions
OSRER Plan Grant	Municipalities that have not yet applied to this one-time grant program
Spray/Drip Irrigation Grant	Municipalities

Figure 16.3: Grants Administered by the Parks and Recreation Department

Grant	Grants Awarded to
Park Land and Open Space Acquisition Grant	Municipalities and Land Owning Municipal Authorities
Park Facilities Grant	Municipalities and Land Owning Municipal Recreation Authorities
Trails Grant	Municipalities, Land Owning Municipal Recreation Authorities and Qualifying Non-profit Organizations
Greenways Grant	Municipalities, Land Owning Municipal Recreation Authorities and Qualifying Non-profit Organizations
Preservation Partnership Program Acquisition Grant	Qualifying Non-profit Organizations

The following sections provide a brief summary of purpose, eligibility requirements, application process of each of the grants presented above in *Figures 16.2* and *16.3*.

VPP Tier 1- Plan Consistency Grants

The purpose of the Vision Partnership Program (VPP) Tier 1 – Plan Consistency Grants is to promote consistency between municipal plans and ordinances, and the policies established within *Landscapes*. These grants provide funds to municipalities or regional planning commissions. The VPP Tier 1 grants are not used exclusively for open space protection, but some can be used to update comprehensive plans and zoning ordinances so as to better protect and restore open spaces, and natural and cultural resources.

Projects that relate to open space protection and restoration, and that are eligible for funding under the VPP Tier 1 grants include, but are not limited to:

- Updating an Open Space, Recreation and Environmental Resource (OSRER) Plan element of a Comprehensive Plan Update.
- Updating a Historic Preservation Plan element of a Comprehensive Plan Update.
- Conducting a Municipal “Build-out” Study as part of a Comprehensive Plan Update.
- Updating zoning ordinances, subdivision and land development ordinances, and official map.

Grant applications and instructions are included in the program manual, which is available from the Planning Commission. Grant applications must be submitted to the Planning Commission. Submissions can be made at any time. The Planning Commission reviews all applications and forwards a funding recommendation to the County Board of Commissioners for approval.

VPP Tier 2 – Plan Implementation Grants

The purpose of the Vision Partnership Program (VPP) Tier 2 – Plan Implementation Grants is to provide funding to municipalities that are consistent with the principles of *Landscapes*, to establish programs that will implement the policies of *Landscapes*. This program is primarily oriented toward the revitalization of urban centers. Projects that relate to open space protection and preservation, and that are eligible for funding under the VPP Tier 2 grants include, but are not limited to:

- Downtown Streetscape and Facade Plans.
- Streetscape Enhancements.
- Village Plans.
- Transportation Improvement Programs.
- Greenway Corridor Plans.
- Community Design Guides.
- Multi-municipal and regional studies designed to address issues that transcend municipal boundaries.
- Conducting special projects such as historic resource design standards and village protection programs.

Grant applications and instructions are included in the program manual, which is available from the Planning Commission. Grant applications must be submitted to the Planning Commission. Submissions can be made at any time. The Planning Commission reviews all applications and forwards a funding recommendation to the County Board of Commissioners for approval.

OSRER Planning Grants

This grant program provides funds on a one-time basis to municipalities for the completion of Municipal Open Space, Recreation, and Environmental Resources (OSRER) Plans. OSRER Plans have been completed by 66 of the County's 73 municipalities and two municipalities are currently completing OSRER Plans. Grants are still available to the five municipalities which do not have OSRER Plans, namely: Atglen Borough, Highland Township, Modena Borough, West Fallowfield Township, and West Marlborough Township.

Grant recipients are currently limited to those municipalities that have signed a VPP Memorandum of Understanding. Municipalities are required to provide 10% of the total project cost. This program designates specific open space planning issues that each OSRER must address. This program will not provide funds to update OSRER plans that were previously funded under this program. Municipalities that wish to update their OSRER plans can apply for funding to do so under the VPP Tier 1 – Plan Consistency Grants described previously in of this chapter.

Grant applications and instructions are included in the program manual, which is available from the Planning Commission. Grant applications must be submitted to the Planning Commission. Submissions can be made at any time. The Planning Commission reviews all applications and forwards a funding recommendation to the County Board of Commissioners for approval.

Spray/Drip Irrigation Grants

The Spray/Drip Irrigation Grant Program provides funds for the acquisition of land to support wastewater treatment systems that use spray or drip land application techniques to dispose of treated effluent. Property in-fee or easements may be acquired using these funds. Spray and drip irrigation systems are discussed in *Chapter 7* of this document.

The acquired property does not need to provide public access. However, when evaluating grants applications, the County will give favorable consideration to projects that integrate the sites into their municipal park and open space systems for use as scenic view sheds, wildlife habitat, trail buffers or other uses. The maximum grants available for eligible projects are:

- **Single municipality projects** – a maximum of \$250,000
- **Multi-municipal projects** – a maximum of \$600,000

Grant recipients are limited to municipalities that have signed a VPP Memorandum of Understanding, however funds awarded to a municipality may be passed on to its municipal authority. Projects must be consistent with Act 537 Sewage Facilities Plan adopted by the municipality and approved by the PA DEP, including revisions.

The application process for this program requires a number of steps. First, the municipality must submit a 537 Plan revision to the appropriate County agencies for review, and have the property appraised by a qualified appraiser. The municipality then submits a grant application form with appraisal to the Planning Commission. The Project Review Committee, composed of staff from the County Health Department, Planning Commission and Parks and Recreation Department, then reviews the application. Those applications that are complete and comply with the program's requirements are then submitted to the County Board of Commissioners for approval. All projects must receive planning and construction approval from PA DEP before the grant is awarded.

Park Land and Open Space Acquisition Grants

The Park Land and Open Space Acquisition Grant program provides funds to municipalities or land-owning municipal recreation authorities for the acquisition of easements or property in-fee. Acquisitions funded by this grant must be used for natural, historic or open space protection, or recreation. No structures of monetary value can be acquired with this grant. The maximum grants available for eligible projects are:

- **Single municipality projects** – 50 percent of project costs, with a maximum of \$350,000.
- **Multi-municipal projects** – 60 percent of project costs, with a maximum of \$500,000.
- **Single or multi municipal projects that meet additional criteria specified in the grant manual** – 65 percent of project cost, with a maximum of \$650,000.

This grant is limited to projects located within municipalities that have signed a VPP Memorandum of Understanding and have completed, or have committed to producing a County-approved Open Space, Recreation and Environmental Resources (OSRER) Plan. All municipalities involved in multi-municipal projects must meet these requirements.

Grant applications, instructions and the grant submission date are included in the program manual, which is available from the Parks and Recreation Department. Grant applications must be submitted to the Parks and Recreation Department. The deadline for submission is usually in mid-May. The Parks and Recreation Department reviews all applications, and conducts a field inspection of grant sites. Those applications that are complete and meet the program goals are then submitted to the County Board of Commissioners for approval.

Park Facilities Grants

The Park Facilities Grant program provides funds to municipalities or land-owning municipal recreation authorities for the construction or rehabilitation of recreation facilities such as ball fields, playgrounds, nature trails and swimming pools. The maximum grants available for eligible projects are:

- **Single municipality projects** – 50 percent of project costs, with a maximum of \$250,000.
- **Multi-municipal projects** – 60 percent of project costs, with a maximum of \$250,000.
- **Single or multi municipal projects that meet additional criteria specified in the grant manual** – 65 percent of project cost, with a maximum of \$250,000.

This grant is limited to projects located within municipalities that have signed a VPP Memorandum of Understanding and have completed, or have committed to producing a County-approved Open Space, Recreation and Environmental Resources (OSRER) Plan. All municipalities involved in multi-municipal projects must meet these requirements.

Grant applications, instructions and the grant submission date are included in the program manual, which is available from the Parks and Recreation Department. Grant applications must be submitted to the Parks and Recreation Department. The deadline for submission is usually in mid-May. The Parks and Recreation Department reviews all applications. Those applications that are complete and meet the program goals are then submitted to the County Board of Commissioners for approval.

Trails Grants

The Trails Grant Program provides funds to municipalities, land-owning municipal recreation authorities or qualifying non-profit organizations for trail corridor acquisition, the development of new trails, or the rehabilitation of an existing trail. The maximum grants available for eligible projects are:

- **Single municipality projects** – 50 percent of project costs, with a maximum of \$250,000.
- **Multi-municipal projects** – 60 percent of project costs, with a maximum of \$350,000.
- **Single or multi municipal projects that meet additional criteria specified in the grant manual** – 65 percent of project cost, with a maximum of \$400,000.

This grant is limited to projects located within municipalities that have signed a VPP Memorandum of Understanding and have completed, or have committed to producing a County-approved Open Space, Recreation and Environmental Resources (OSRER) Plan. All municipalities involved in multi-municipal projects must meet these requirements.

Grant applications, instructions and the grant submission date are included in the program manual, which is available from the Parks and Recreation Department. Grant applications must be submitted to the Parks and Recreation Department. The deadline for submission is usually in mid-May. The Parks and Recreation Department reviews all applications. Those applications that are complete and meet the program goals are then submitted to the County Board of Commissioners for approval.

Greenways Grants

The Greenways Grant program provides funds to municipalities, land-owning municipal recreation authorities, or qualifying non-profit organizations for the acquisition of easements or property in-fee for the

preservation or rehabilitation of forest, wetland complexes, wildlife habitat, or other unique natural resources. No structures of monetary value can be acquired with this grant. The maximum grants available for eligible projects are:

- **Single municipality projects** – 50 percent of project costs, with a maximum of \$250,000.
- **Multi-municipal projects** – 60 percent of project costs, with a maximum of \$350,000.
- **Single or multi municipal projects that meet additional criteria specified in the grant manual** – 65 percent of project cost, with a maximum of \$400,000.

This grant is limited to projects located within municipalities that have signed a VPP Memorandum of Understanding and have completed, or have committed to producing a County-approved Open Space, Recreation and Environmental Resources (OSRER) Plan. All municipalities involved in multi-municipal projects must meet these requirements.

Grant applications, instructions and the grant submission date are included in the program manual, which is available from the Parks and Recreation Department. Grant applications must be submitted to the Parks and Recreation Department. The deadline for submission is usually in mid-May. The Parks and Recreation Department reviews all applications. Those applications that are complete and meet the program goals are then submitted to the County Board of Commissioners for approval.

Preservation Partnership Program Acquisition Grant

The Preservation Partnership Program (PPP) provides funds for the acquisition of property containing significant natural and cultural land resources. PPP funding can be used to acquire either conservation easements or parcels in-fee. Grant recipients are limited to non-profit land trusts as described by Section 501(c)(3) of the IRS Code of 1986, which are registered with the Commission on Charitable Organizations.

Property acquired using PPP grants must provide a public benefit, and public access is usually required. The acquisition of property using PPP grants must also implement recommendations of the County Comprehensive Plan, the County Open Space Plan, and any municipal open space plan – or plans – whose jurisdiction extend into the property. The maximum grants available for eligible projects are:

- **Single or multi-municipality projects** – 50 percent of the appraised market value of the property to be acquired, with a maximum of \$350,000.
- **Single or multi-municipal projects that meet additional criteria specified in the grant manual** – 65 percent of the appraised market value of the property to be acquired, with a maximum of \$500,000.

Grant applications, instructions and the grant submission date are included in the program manual, which is available from the Parks and Recreation Department. Grant applications must be submitted to the Parks and Recreation Department. The deadline for submission is usually in mid-May. The Parks and Recreation Department reviews all applications. Those applications that are complete and meet the program goals are then submitted to the County Board of Commissioners for approval.

Other Small Grants

Background

There are a number of small grants ranging from \$2,000 to \$10,000 that are awarded by governments and private foundations to community groups or municipalities for the protection or rehabilitation of open spaces and recreation areas. The following sections describe a number of these “mini-grants,” however this inventory is not exhaustive and there may be other grants available.

American Forest Global ReLeaf Grants

The purpose of this grant is to provide funding for projects that plant a diversity of native trees on properties of 20 acres or more. The eligibility requirements allow grants to be awarded to a range of organizations, but projects must be located on land owned by a public entity or publicly assisted private entity. Applications are available at the American Forest web site. The application deadlines are usually January 1 and July 1, but may vary. For more details contact:

American Forests

Box 2000
Washington, DC 20013
202-955-4500
www.amfor.org

Chesapeake Bay Program Small Watershed Grants

The purpose of this grant is to provide funding for small-scale projects that implement the goals of the Chesapeake Bay Program, which fund the program. These goals include restoring riparian forest buffers, restoring underwater grasses, providing access to Chesapeake Bay tributaries and encouraging community-based activities. The maximum grant awarded is \$35,000. Information on the grant is available from the Center for Chesapeake Communities at www.chesapeakecommunities.org, or the Alliance for the Chesapeake Bay at www.acb-online.org.

The eligibility requirements require that applicants be formally organized. These organizations may include non-profit 501(c) organizations, county or municipal governments, or government agencies. Applicants in Chester County would be limited to communities that drain into the Chesapeake Bay. In 1998 the City of York, PA and the City of Bowie MD, were each awarded approximately \$10,000 for stream restoration projects. Applications are usually distributed in early spring and with an application deadline in late spring. For details contact:

The Center for Chesapeake Communities

209 West Street, Suite 201
Annapolis, MD 21401
410-267-8595
www.chesapeakecommunities.org

Kodak American Greenways Grants

The purpose of this grant is to develop and assist in the development of greenway projects. The grant is funded and administered through a partnership of the Kodak Corporation, the Conservation Fund and the National Geographic Society. Grants may be used for a range of activities including mapping, ecological assessments, design activities, hiring consultants or planning bike paths. The maximum award is \$2,500 but most grants range from \$500 to \$1,000. Information on the grant and grant applications are available from www.conservationfund.org.

The eligibility requirements are such that grants are awarded predominantly to local, regional and statewide non-profit organizations. Although public agencies may apply, community organizations receive preference. In 1999 grants were awarded to Delaware Greenways of Wilmington DE and the Wildlands Conservancy of Emmaus PA, who used the funds to construct a footbridge on a heavily used trail in Lehigh County. The application deadline is in early summer. For details contact:

American Greenways Program

The Conservation Fund
1800 North Kent St., Suite 1120
Arlington, VA 22209
703-525-6300
www.conservationfund.org

National Tree Trust Community Tree Planting Program

The purpose of this grant is to provide tree seedlings, tree planting materials and a cash subsidy to cover the cost of potting medium for projects that facilitate tree planting on public lands and along roadsides. The National Tree Trust was created under the America the Beautiful Act of 1990 and endowed with a one-time only grant by Congress. The minimum order is

100 seedlings. Funds granted must be matched equally by the applicant with non-federal funds.

The eligibility requirements allow grants to be awarded to volunteer organizations including those sponsored by schools or municipal parks and recreation departments. The application process is on a two-year cycle. Tree seedling order forms are due by late Spring. Following receipt of the order form, applicants are sent an application that is due in mid-Fall. Information on the grant is available from:

The National Tree Trust

1120 G Street, NW, Suite 770
Washington, DC 20005
800-846-8733
www.nationaltreetrust.org

Pennsylvania Urban and Community Forestry Council Grants

The purpose of the Pennsylvania Urban and Community Forestry Council Community Improvement Grants are to provide funding for planting and maintaining trees. The grants are funded by the PA Bureau of Forestry, the PA Urban and Community Forestry Council, and the USDA Forest Service. Two grants are awarded by this program. Municipal Challenge Grants provide \$1,000 to \$5,000 for projects in public spaces and rights-of-way, and street tree projects. Community Improvement Grants provide \$500 to \$3,000 for projects in parks, greenbelts, schools and community public spaces.

The eligibility requirements allow grants to be awarded to organizations or partnerships including municipalities, government authorities, schools, youth volunteer groups, “friends of” groups, church groups, and local businesses. Applications are due in early Spring and mid-Fall, but may vary. Information on the grant is available from:

Pennsylvania Urban Forestry Coordinator

DCNR – Forestry Advisory Services
Box 8552
Harrisburg, PA 17105-8552
717-705-2825 or the Southeast PA Urban Forester at 610-489-4315

Chapter 17



*Open Space in
Adjacent Counties*

Background

Municipalities and other organizations that wish to establish a network of protected open space must always consider how such a network will link to protected open spaces outside of their local community. Chester County has 73 municipalities, 31 of which are adjacent to a different county and eight of which are adjacent to a different state. It is important for these border municipalities to be aware of open space protection efforts in adjacent counties. Any municipality along a multi-county trail, like the County Chester Valley Trail that extends into Montgomery County, should also take an interest in open space planning outside of Chester County.

This chapter inventories the major recreation and open space features in the six counties that surround Chester County, and examines the opportunities to link Chester County's open spaces with those just outside its borders. As **Figure 17.1** shows, all of the surrounding Counties contain state or county parks, and a variety of other public lands used for recreation or preserving wildlife. Of these six counties, Montgomery County has the largest concentration of parks and recreation areas close to Chester County.

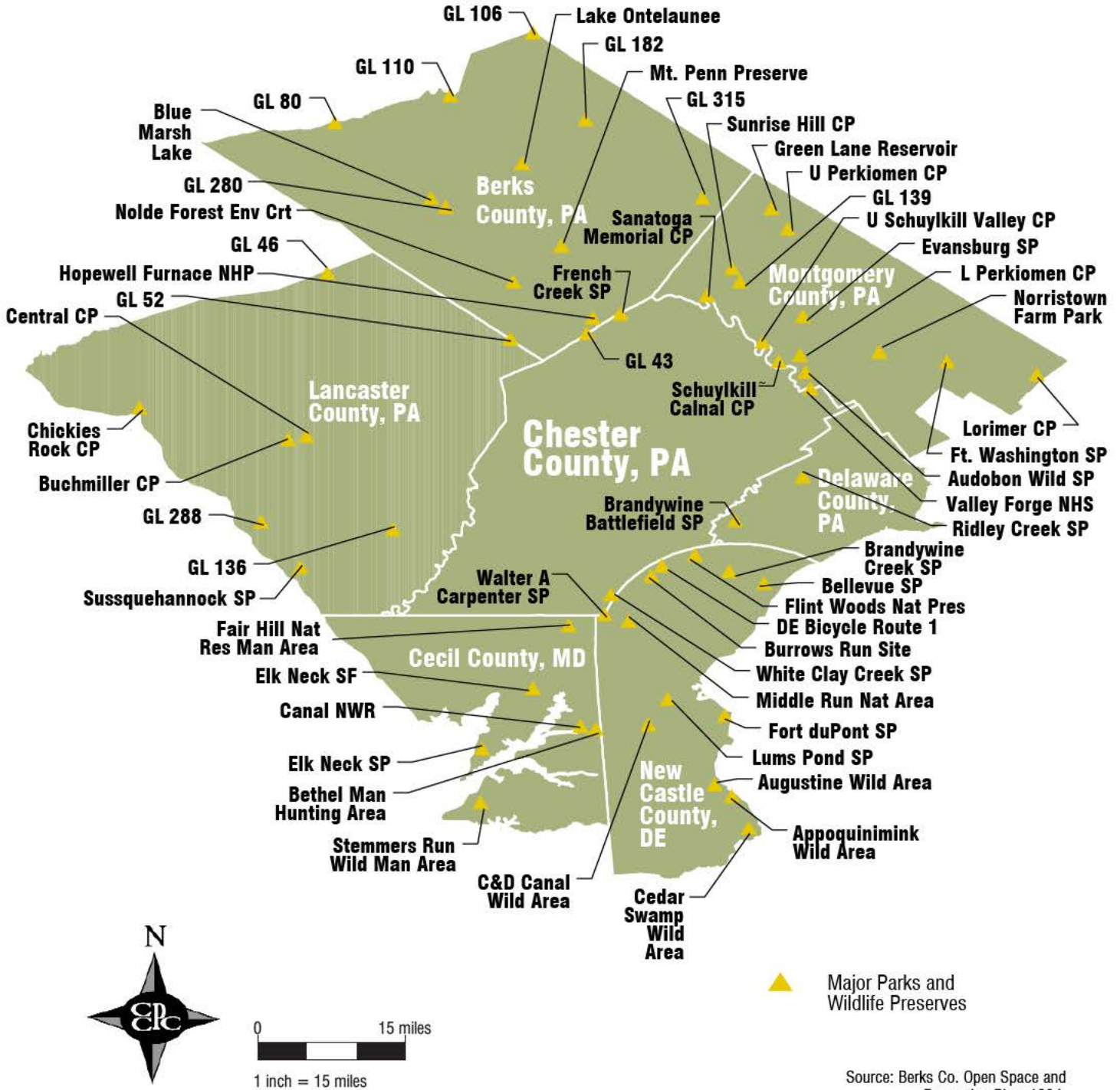
Most of the six adjacent counties have also established or proposed a network of linear open spaces including recreational trails or wildlife corridors. These corridors, which are presented in **Figure 17.2**, may be called trails, greenways or corridors, and each county defines these terms differently. The following sections provide an overview of parks, greenways and other protected open spaces in adjacent counties. Individuals who want more detailed information on these facilities should contact each county directly.

Adjacent Counties

Inventory of Adjacent Counties

■ **Berks County, PA** The Berks County Planning Commission completed the *Berks County Open Space and Recreation Plan* in January 1994, and copies are available from their office. The Berks County Planning Commission is responsible for long-range and regional open space planning in Berks County. There are two divisions of the County Parks and Recreation Department that deal with park and recreation issues. The Parks Division is responsible for the ongoing maintenance of each County facility. The Recreation and Interpretive Services Division offers a variety

Figure 17.1: Major Parks and Wildlife Preserves in Adjacent Counties

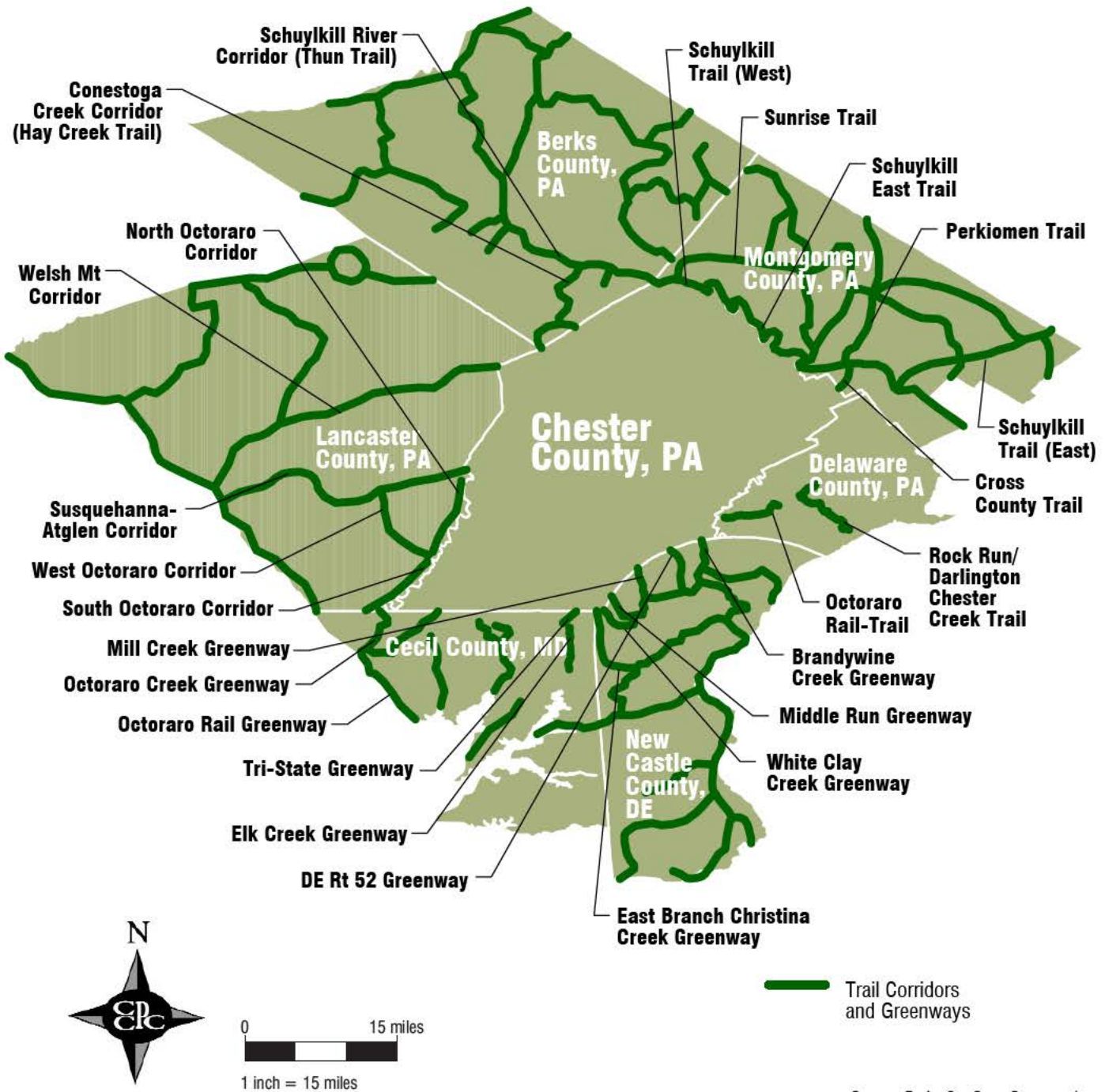


The data and files for maps in this document were digitally compiled by the Chester County Planning Commission (CCPC) of Chester County, PA. This information and data are provided for reference purposes only and should not be used for any detailed engineering purposes. The CCPC and Chester County make no claims as to the completeness, accuracy, or currency of the paper map or the digital data and files used to generate the map.

Note:
 CP = County Park
 GL = Game Land
 NHS = National Historic Site
 NWR = National Wildlife Refuge
 SF = State Forest
 SP = State Park

Source: Berks Co. Open Space and Recreation Plan, 1994.
 The Cecil Co. 1998 Land Preservation and Recreation Plan, 1998.
 Lancaster Co. Regional Open Space Plan, 1992.
 Montgomery Co. Open Space Plan, 1996.
 Delaware's Open Space Program: A Five Year Report, 1996.

Figure 17.2: Existing and Proposed Trail Corridors and Greenways in Adjacent Counties



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Source: Berks Co. Open Space and Recreation Plan, 1994.
 The Cecil Co. 1998 Land Preservation and Recreation Plan, 1998.
 Lancaster Co. Regional Open Space Plan, 1992.
 Montgomery Co. Open Space Plan, 1996.
 Delaware's Open Space Program: A Five Year Report, 1996.

of year-round programming. To date, a small number of municipalities in Berks County have adopted Open Space and Recreation Plans.

The following protected open spaces in Berks County are within one mile of Chester County:

- **French Creek State Park and Hopewell Furnace National Historic Site.**
- The **Horse-Shoe Trail** traditional hiking route, Berks County Segment through French Creek State Park.
- The **Caernarvon Township Tennis Courts** at PA Route 23 and PA Route 10.

Berks County has developed a “Recommended Open Space System” that includes the following Corridors near Chester County:

- **The Schuylkill River Open Space Corridor**, including **Thun Trail**, that extends along the entire length of the Schuylkill River in Berks County and terminates at the Chester County border.
- **The Conestoga Creek Open Space Corridor**, that extends north from the Berks/Lancaster border near Morgantown and then east into Elverston Borough. This corridor connects with the **Hay Creek Corridor** that extends to the north where it links with the Schuylkill Corridor.

■ **Cecil County, MD** The Cecil County Office of Planning, Zoning and Parks completed *The Cecil County 1998 Land Preservation and Recreation Plan* in April 1998, and copies are available from their office. Maryland State Law requires each county to prepare a County Land Preservation and Recreation Plan every five years. Historically, Cecil County government has not played an extensive role in coordinating or facilitating recreational facilities. In 1996, the Cecil County Parks and Recreation Department was absorbed into the Office of Planning and Zoning. Some of the incorporated towns in Cecil County have park and recreation staff. In general, it is municipally operated facilities that meet most of the County’s recreational needs.

The following protected open space in Cecil County is within one mile of Chester County:

- **Fair Hill Natural Resource Area** at MD Route 273 near Lewisville Road and New Egypt Road.

Cecil County has developed a “Land Preservation and Recreation Plan” that include the following “Potential Greenway Corridors” near Chester County:

- **The Octoraro Creek Greenway Corridor**, that extends along the entire length of Octoraro Creek in Cecil County, from the Susquehanna River to the Chester County Line.

- **The Octoraro Rail Greenway Corridor**, that extends along the abandoned Octoraro Rail Line from Basin Run near Susquehanna State Park, northward to the Chester County Line at Sylmar Road.
- **The Tri-State Greenway**, that extends through the Fair Hill Natural Resource Area from near the MD Route 273 bridge over Big Elk Creek to near where the Christina River crosses the Chester County Line.

Cecil County also includes a section of the “Mason Dixon Trail” hiking route that extends from New Castle County west across Cecil County and into Harford County, MD.

■ **Delaware County, PA** The *Delaware County Open Space, Parks and Recreation Study* was completed by the Delaware County Planning Department in August 1978, and is the most recent County open space planning document. The Delaware County Planning Department is responsible for long-range and regional open space planning in Delaware County. The County Parks and Recreation Department is responsible for ongoing maintenance of each County facility. To date, only a small number of municipalities in the County have adopted open space and recreation plans, and most of these are in the western part of the County.

The following protected open spaces in Delaware County are within one mile of Chester County:

- **Ridley Creek State Park** south of PA Route 3 near Willistown Township.
- **Brandywine Battlefield State Park** north of US Route 1 near Birmingham Township.

Delaware County has not formally designated any trails or greenway corridors as part of their comprehensive planning, although a trails study was completed in 1972. There are, however, three proposed trail projects underway in Delaware County, that could possibly link to Chester County. These projects are:

- **The Chester Creek Rail-Trail Project**, that extends along an abandoned rail line from just west of I-95 in Chester Township to the old Wawa train station east of US Route 1 in Middletown Township. This trail is currently in the planning phase.
- **The Rocky Run Trail** and the **Darlington Trail**, that have already been constructed and extend from north of US Route 1 near Chester Creek northeast to Tyler Arboretum and adjacent Ridley Creek State Park. These trails could be extended to link with the Chester Creek Rail-Trial Project.
- **The Octoraro Branch Rail-Trail Project**, which is a conceptual plan to create a trail on an abandoned rail line that extends from Newlin Mill Park at US Route 1 and Cheyney Road, southeast to the Village of Chadds Ford east of PA Route 100.

■ **Lancaster County, PA** The Lancaster County Planning Commission completed the *Lancaster County Regional Open Space Plan* in August 1992, and copies are available from their office. The Lancaster County Planning Commission is responsible for long-range and regional open space planning in Lancaster County. The County Parks and Recreation Department is responsible for the acquisition, development and maintenance of each County facility. Roughly one-fourth of the municipalities in the County have adopted Open Space and Recreation Plans. Most of the County's municipalities include open space planning as an element in their comprehensive plans.

The Lancaster County Planning Commission also distributes grants to municipalities and non-profit organizations through its Community Park Initiative Grant Program. This program provides 50 percent of funding for projects that acquire or develop recreational or non-recreational open space. Non-profit organizations only receive grants for projects that are consistent with the County Open Space Plan. Municipal grants are awarded with the goal of providing municipally owned or school district-owned open space with a ratio of 10 acres for every 10,000 residents.

There are no public open spaces in Lancaster County within one mile of Chester County, however the Chester Water Authority owns much of the land around the western banks of Octoraro Lake.

Lancaster County has proposed a "Regional Open Space System" that includes the following corridors near Chester County:

- **The Welsh Mountain Greenway Corridor**, that extends along the Welsh Mountain ridgeline in southern East Earl and Caernarvon Townships.
- **The Atglen-Susquehanna Greenway Corridor**, that extends from the Susquehanna River south of Lancaster City, eastward through Quarryville Borough and northeast to Christiana Borough, just west of Atglen Borough.
- **Octoraro Creek Greenway Corridor**, that extends along the Octoraro Creek from the Maryland State Line, northward to Christiana Borough. This Corridor is divided into a south and north section, with the Octoraro Reservoir serving as the dividing element.

■ **Montgomery County, PA** The Montgomery County Planning Commission completed *Creating an Open Space Legacy, Montgomery County Open Space Plan* in February 1996, and copies are available from their office. The Montgomery County Planning Commission is responsible for long-range and regional open space planning, as well as recreation facility planning and design. The County Parks and Recreation Department is responsible for ongoing maintenance of each County facility. All of the municipalities in Montgomery County have adopted open space plans.

The Montgomery County Planning Commission also distributes grants to municipalities through its Municipal Open Space Acquisition Grant Program. This program, begun in 1993, provides grants of 90 percent of the funding for projects that acquire or develop municipal open space.

The following protected open spaces in Montgomery County are within one mile of Chester County:

- **Sanatoga Memorial Park**, along Sanatoga Creek at the US Route 422 Bypass.
- **Upper Schuylkill Valley Park**, along the Schuylkill River west of Phoenixville Borough.
- **Schuylkill Canal Park**, along the Schuylkill River from Black Rock Dam to Perkiomen Creek.
- **Lower Perkiomen County Park**, along Perkiomen Creek south of Egypt Road.
- **Audubon Wildlife Sanctuary/the Home of John Audubon**, along Pickering Creek at Egypt Road.
- **Valley Forge National Historical Park**.

Montgomery County has developed a countywide network of “Proposed County Greenways” and also a countywide network of “Proposed Trail Recommendations.” Some of these trails pass through greenways so that the general alignment of the greenway and the trail corridor are the same. Four of the proposed trails cross into, or are located near, Chester County.

The Cross County Trail passes through Upper Merion Township in Montgomery County and ties-in directly to the eastern terminus of the County Chester Valley Trail in Tredyffrin Township. The two sections of the Schuylkill River Trail and the Schuylkill East Trail also cross into Chester County. These two trails are located within the Schuylkill River Greenway, which extends along the north side of the Schuylkill River along the entire northern boarder of Chester County. The proposed trails within this greenway are:

- **The Schuylkill River Trail (West Section)**, that extends along the north side of the Schuylkill River from Berks County to the US Route 422 Bridge where it ties-in directly with the western terminus of the proposed County Schuylkill River Trail in Chester County.
- **The Schuylkill River Trail (East Section)**, that extends along the north side of the Schuylkill River from Philadelphia County to the PA Route 29 Bridge where it ties-in directly with the eastern terminus of the proposed County Schuylkill River Trail in Chester County.

- **The Schuylkill East Trail**, that extends along the north side of the Schuylkill River from the PA Route 29 Bridge area to a proposed crossing of the Schuylkill River near the Black Rock Dam. This trail would connect the eastern terminus of the proposed Schuylkill River Trail in Montgomery County with the western end of the proposed County Schuylkill River Trail in Chester County.

There are also two proposed trails that terminate at the Schuylkill River near Chester County. One is the Sunrise Trail, which terminates at the Schuylkill River in Pottstown Borough in Montgomery County. The other is the Perkiomen Trail, which passes through Upper and Lower Providence Townships in Montgomery County, and connects to the Schuylkill Trail (East Section). This trail is located within the Perkiomen Greenway and extends along Perkiomen Creek, a major tributary of the Schuylkill River.

■ **New Castle County, DE** In New Castle County, both the state and the County government are involved in open space planning and protection. The state is primarily involved in protecting open spaces for passive recreation and habitat preservation. In 1990 the Delaware State Legislature established the “Open Space Program” for the state of Delaware. This act provides funding for open space acquisition and planning in New Castle County.

In May 1996 the state presented their open space protection plan in *Delaware’s Open Space Program: A Five Year Report* published by the Department of Natural Resources and Environmental Control (DNERC), Division of Parks and Recreation. The New Castle County Department of Special Services also maintains, and occasionally acquires, recreational open space. Both the County and the state coordinate their efforts in New Castle County

The following protected open spaces in New Castle County are within one mile of Chester County:

- **Flint Woods Nature Preserve** at Twaddell Mill Road, adjacent to Pennsbury Township.
- **White Clay Creek State Park** on the White Clay Creek, adjacent to London Britain Township.
- **Walter S. Carpenter State Park** at DE Route 896, adjacent to London Britain Township.
- **The Delaware Nature Society/Burrows Run Site** of the Red Clay Creek Valley Nature Preserve at Ashland-Clinton School Road and Old Kennett Pike.
- **“Delaware Bicycle Route 1,”** at DE Route 82 (Yorklyn Road) near Kennett Township. It is Delaware’s longest designated bike trail and extends south to Ocean City Maryland.

The DNREC, Division of Parks and Recreation, in cooperation with the Delaware General Assembly's Council on Greenways and Trails, has established the "Delaware Greenways and Trails System," throughout the state. The part of this system near the Chester County line has been designated as the "Northern Delaware Greenway," and includes the following segments.

- **Along the East Branch of Christina Creek** from western Newark north to the Chester County line just west of DE Route 896.
- **From Newark to the Chester County Line** between DE Route 896 and White Clay Creek.
- **From the University of Delaware through Middle Run Natural Area** and northwest to where the White Clay Creek crosses into Chester County.
- **Mill Creek** from north of White Clay Creek to the Chester County Line.
- **Along DE Route 52** from north of Wilmington north to the Chester County Line.
- **Along the Brandywine Creek** from north of Wilmington to the Chester County Line.

New Castle County also includes a section of the "Mason Dixon Trail" hiking route that extends from New Castle County north into London Britain and New Garden Townships; then south into New Castle County; and then north again into Kennett Township.

Evaluation of Adjacent Counties

■ **Berks County, PA** Berks County has proposed a protected open space network that extends to the Chester County line. With the exception of the French Creek State Park/Hopewell Furnace area, there are few recreational facilities within Berks County that are within close proximity to Chester County, and therefore there are few new opportunities to link its protected open spaces to ones in Chester County. There are however some opportunities for projects that link the greenways in Berks County with protected open spaces in Chester County, especially in the vicinity of Elverson Borough.

■ **Cecil County, MD** Cecil County has proposed a protected open space network that extends to the Chester County line. There are many opportunities for projects that link the greenways in Cecil County with protected open spaces in Chester County.

■ **Delaware County, PA** Delaware County has not proposed a protected open space network, and only one proposed trail extends to the Chester County line. There are few recreational facilities within Delaware County that are within close proximity to Chester County. There are

however some opportunities to link proposed trails in western Delaware County to ones in Chester County.

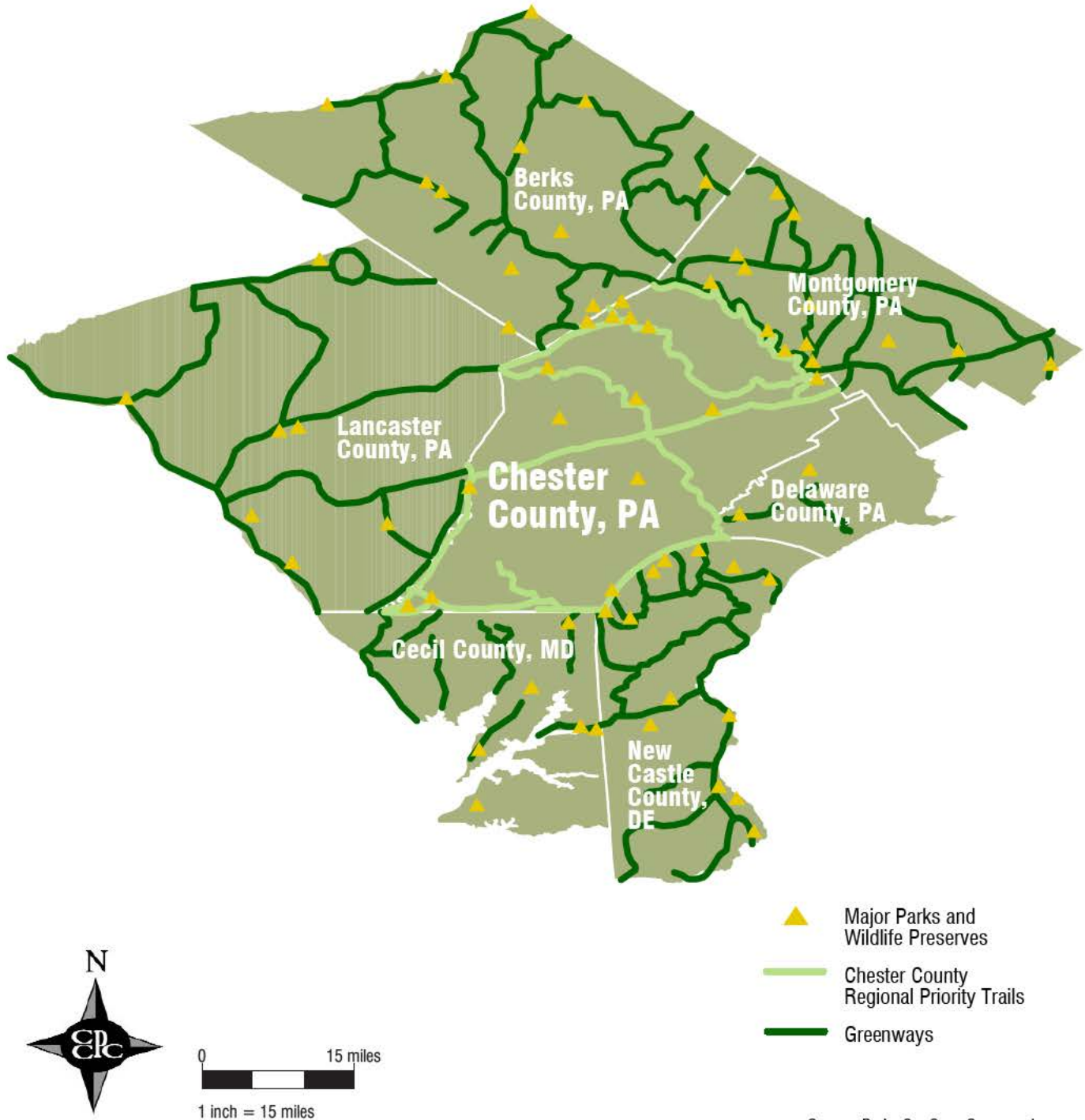
■ **Lancaster County, PA** Lancaster County has proposed a protected open space network that extends to the Chester County line. There are few recreational facilities within Lancaster County that are within close proximity to Chester County, and so there are few opportunities to link these facilities to ones in Chester County. However, there are some opportunities for projects that link the trails corridors in Lancaster County with protected open spaces in Chester County, especially along the Octoraro River.

■ **Montgomery County, PA** Montgomery County has begun to establish a protected open space network that extends to the Chester County line. There are many opportunities for projects that link the greenways, trails and parks in Montgomery County with protected open spaces in Chester County. The Schuylkill River Corridor is the most feasible location for a multi-county open space corridor involving Chester County.

■ **New Castle County, PA** New Castle County has begun to establish a protected open space network that extends to the Chester County line. There are many opportunities for projects that link the greenways in New Castle County with protected open spaces in Chester County.

■ **A Potential Multi-county Open Space Network** Chester County has the potential to become the center of a multi-county regional open space network composed of parks and wildlife preserves linked by greenways, trail and recreation corridors within and outside Chester County. *Figure 17.3* shows how trails, greenways and other linear open spaces outside Chester County could link with the proposed Top Priority Trails within Chester County, which are described in **Chapter 13**. This multi-county network could provide trail links and wildlife passage between the major recreation and habitat centers of the tri-state area.

Figure 17.3: A Potential Multi-county Open Space Network



The data and files for maps in this document were digitally compiled by the Chester County Planning Commission (CCPC) of Chester County, PA. This information and data are provided for reference purposes only and should not be used for any detailed engineering purposes. The CCPC and Chester County make no claims as to the completeness, accuracy, or currency of the paper map or the digital data and files used to generate the map.

Source: Berks Co. Open Space and Recreation Plan, 1994.
 The Cecil Co. 1998 Land Preservation and Recreation Plan, 1998.
 Lancaster Co. Regional Open Space Plan, 1992.
 Montgomery Co. Open Space Plan, 1996.
 Delaware's Open Space Program: A Five Year Report, 1996.

Visions & Actions **for Adjacent Counties**

Vision 17.1

Multi-county trail and wildlife corridors, and multi-county clusters of protected open space properties should link together protected open spaces in Chester County's border municipalities to protected open space in surrounding Counties.

Action 17.1

When reviewing land development plans, zoning and subdivision ordinances, open space and recreation plans, and comprehensive plans, the County will provide comments on how well multi-county trail and wildlife corridors, and multi-county clusters of protected open space properties link together protected open spaces in Chester County's border municipalities to protected open space in surrounding Counties.

Vision 17.2

Projects that establish multi-county trail and wildlife corridor links, and multi-county clusters of protected open space parcels should be initiated at the Federal, State and municipal level, and by community groups.

Action 17.2

The County will endorse federal, state and municipal projects that establish multi-county trail and wildlife corridor links, and multi-county clusters of protected open space properties, and pursue such projects on a County level.

Vision 17.3

Municipalities and community groups should be encouraged to establish multi-county trail and wildlife corridor links, and multi-county clusters of protected open space properties.

Action 17.3

When reviewing applications for appropriate County grants, the County will give additional credit to projects that establish multi-county trail and wildlife corridor links, and multi-county clusters of protected open space properties.

Vision 17.4

Planning policies that encourage the establishment of multi-county trail and wildlife corridor links, and multi-county clusters of protected open space parcels should be included in municipal comprehensive plans, and implemented in municipal ordinances to the greatest extent possible.

Action 17.4

The County will work with municipalities through the VPP to develop municipal planning policies that encourage the establishment of multi-county trail and wildlife corridor links, and multi-county clusters of protected open space parcels.

Vision 17.5

A bike route should extend from Kennett Township to Delaware Bike Route 1 at DE Route 82 or Yorklyn Road.

Action 17.5

The County will study the feasibility of establishing a bike route from Kennett Township to Delaware Bike Route 1 at DE Route 82 or Yorklyn Road, and share the results of this study with Kennett Township, London Britain Township and New Castle County.

Vision 17.6

The Mason Dixon Trail hiking route in Chester and New Castle Counties should follow a permanent alignment and the land along that alignment should be permanently protected for unrestricted public use.

Action 17.6

The County will study the feasibility of assisting interested citizens in developing a non-profit multi-state land trust, whose focus will be acquiring easements or property in fee along the Mason-Dixon Trail, and share the results of this study with New Castle County and land trusts with easements in the area.

Vision 17.7

Chester County should coordinate with surrounding counties to plan, design and construct multi-county trails, wildlife corridors and water trails.

Action 17.7

Chester County will continue to coordinate with surrounding counties to plan, design and construct multi-county trails, wildlife corridors and water trails. Priority will be given to the Chester Valley/Cross County Trail, multi-county trails along the Schuylkill River, and the County Octoraro Water Trail.

Adjacent County and Municipal Government Contacts

The following list provides addresses and phone numbers of the planning departments for the six counties surrounding Chester County, and the phone numbers for the townships adjacent to Chester County.

County Open Space Planning Office	Municipalities Adjacent to Chester Co.
<p>Berks County, PA Berks County Planning Commission Berks County Services Center 633 Court Street, 14th Floor Reading, PA 19601 Phone: 610-478-6300 www.berks.net</p>	<p>Caernarvon Township: 610-286-1010 Douglas Township: 610-367-8500 Robeson Township: 610-582-4636 Union Township: 610-582-3769</p>
<p>Cecil County, MD Cecil County Office of Planning, Zoning and Parks 129 East Main St., Room 300 Elkton, MD 21921 Phone: 410-996-5220 www.ccgov.org</p>	<p>Only unincorporated Cecil County land is adjacent to Chester County</p>
<p>Delaware County, PA Delaware County Planning Department Courthouse & Government Center Building 201 West Front Street Media, PA 19063 Phone: 610-891-5200 www.co.delaware.pa.us</p>	<p>Chadds Ford Township: 610-388-6368 Edgemont Township: 610-459-1662 Newtown Township: 610-356-0200 Radnor Township: 610-688-5600 Thornbury Township: 610-399-8383</p>
<p>Lancaster County, PA Lancaster County Planning Commission 50 North Duke Street Box 83480 Lancaster, PA 17608 Phone: 717-299-8333 www.co.lancaster.pa.us</p>	<p>Caernarvon Township: 717-445-4244 Christiana Borough: 610-593-5199 Colerain Township: 717-529-2570 Fulton Township: 717-548-3514 Little Britain Township: 717-529-2373 Sadsbury Township: 610-593-6796 Salisbury Township: 717-768-8059</p>
<p>Montgomery County, PA Montgomery County Planning Commission P.O. Box 311 Norristown, PA 19404 Phone: 610-278-3722 www.montcopa.org</p>	<p>Limerick Township: 610-495-6432 Lower Pottsgrove Township: 610-323-0436 Lower Providence Township: 610-539-8020 Pottstown Township: 610-970-6500 Royersford Borough: 610-948-3737 Upper Merion Township: 610-265-2600 Upper Pottsgrove Township: 610-323-8675 Upper Providence Township: 610-933-9179</p>
<p>New Castle County, DE DNREC, Division of Parks and Recreation 89 Kings Highway Dover, DE 19901 Phone: 302-739-4401 www.destateparks.com</p>	<p>Only unincorporated New Castle County land is adjacent to Chester County.</p>

Chapter 18



*Extending the Open Space
Network into the Built
Environment*

Background

According to the Delaware Valley Regional Planning Commission (DVRPC), 25.0 percent of Chester County was developed in 1995 and 41.6 percent was in use as farmland, leaving 33.4 percent undeveloped or uncultivated. These figures indicate that over the past 300 years, two thirds of the County has been cleared of its original vegetation and transformed into farms, residences and commercial developments.

The urbanization of Chester County has been a gradual process that began in the 17th Century and is still continuing today. Farmers, homeowners, developers, business and all levels of government have each played a role in developing Chester County, and each will have to play a role in protecting the County's open spaces. No one government program, community initiative or development technique can single-handedly protect the County's open spaces. A joint effort will be required if Chester County is to protect and restore its remaining open spaces, and private landowners will have to play a key role.

The majority of Chester County has already been converted to privately owned farms or development, and there is no way to fully return these properties to their native conditions. However, it is possible, practical, and in some cases more cost efficient to improve the environmental conditions on these already developed or farmed properties. There are a variety of actions that individual landowners can take to improve the environmental condition and aesthetic appearance of their land. These techniques can be used on a wide range of properties from small quarter acre lots to multi-acre properties and farms. Businesses, industrial parks and facilities such as school and hospitals can also use these techniques.

The following chapter provides a general introduction to some of the ways that private landowners and public agencies can improve the environmental quality within properties that have already been developed. These land management techniques can be used to promote native vegetation, increase wildlife populations, improve groundwater quality and reduce flooding and stormwater erosion. Most of these techniques are simple and many of them, such as not mowing within 15 feet of a stream can actually save property owners time and money. These techniques are especially valuable to individuals who own property adjacent to protected open space.

For example, a private land owner next to a forest preserve who allows trees and native shrubs to grow on his or her property, is more likely to experience the diverse wildlife, reduced noise and the cooler summer temperatures that are common in the nearby woodlands. By using environmentally sensitive land management, this landowner would be able to extend the open space features from the forest preserve onto his or her property. This approach provides potentially valuable real estate amenities

to the private landowner while increasing the habitat and groundwater recharge area of the open space. Conversely, a landowner adjacent to a forest preserve who plants only one species of grass and mows down all woody vegetation, would gain none of these benefits and do little to improve the ecology of the region.

These techniques can also be used on public land and municipal properties. Public land management practices such as re-establishing hedgerows can reduce seeding and mowing, and help preserve the rustic viewsheds that have traditionally been a distinguishing feature of the County. Municipalities that plant or maintain street trees in urban areas, add an amenity to these densely populated communities, which can potentially result in increased real estate values. County agencies and municipal governments that do not employ these techniques on their parks and open spaces set a poor example for private landowners. They may also be missing an opportunity to reduce taxpayers dollars by reducing public land maintenance costs.

Improving Existing Developments

Residential and Backyard Greening

Data gathered by the DVRPC indicates that 14.7 percent of the land in Chester County had been developed as single family detached units as of 1995. Much of this land consists of the yards that surround houses. Commonly these yards are covered with regularly mowed turf lawn and a few trees or shrubs. Although turf lawns are attractive and ideal for many kinds of recreation, they have been planted over so much land surface that they have eliminated the habitat for many species of native wildflowers and grasses that once filled the region's meadows. The formal shrubs and trees that fill the lawns of Chester County are pleasant to look at, but many of them such as English yews, Norway maples and Japanese cherry trees are not native and provide limited habitat to native wildlife.

The yards surrounding residential units can support a wild variety of wildlife if they are properly managed. Even animals that avoid contact with humans will access residential areas at night or during mid-day when most people are at work or school. Simply planting native trees and shrubs can increase habitat and forage for songbirds that eat annoying insects such as mosquitoes. Certain varieties of shrubs and wildflowers will actually attract birds and migratory butterflies to a property, and many garden shops now provide tips on plants that can be used to attract songbirds or to create a "Butterfly Garden."

Wetlands contain unique and often attractive water tolerant plants, and can be established on small plots of land or drainage ditches, as long as the soil remains wet for about two weeks during the growing season. Backyard wetlands can be planted with ferns, rushes, wildflowers and a variety of small flowering trees such as shad bush and red osier dogwood. These wetland plants thrive in the wet soils that commonly kill off conventional turf lawn grasses. Wetland plants also slow stormwater runoff that can erode and damage backyard soils during heavy storm events. Although some created wetlands increase the number of insects on a property, they also increase the number of birds and mammals that eat those insects.

Over the past few years a number of conservation organizations and government agencies have begun programs to encourage private residential land owners to create or rehabilitate wildlife habitat in their own backyard. The National Wildlife Federation has established a “Backyard Wildlife Habitat” program that provides training and a certification program for individuals interested in converting their yards into wildlife habitat. More information on this program is available at www.nwf.org/habitats. Audubon International has a similar program called the Audubon Cooperative Sanctuary System that is detailed at www.audubonintl.org.

The USDA Natural Resource Conservation Service and the National Association of Conservation Districts Wildlife Habitat Council jointly administer their “Backyard Conservation” program that provides technical information on ways to convert or rehabilitate wildlife habitat in backyards. This program also provides technical assistance regarding the proper techniques for composting, mulching, terracing, managing pests, conserving water and creating backyard ponds. The USDA has published a series of “tip sheets” on various Backyard Conservation topics that are available at:

The Chester County Conservation District

Government Services Center

Suite 240

601 Westtown Road

West Chester, PA 19382

610-696-5126 or 610-436-9182

Parking Lot Greening

Large asphalt parking facilities are a common sight throughout much of Chester County. They surround schools, office buildings, apartments and shopping centers. As anyone who has walked barefoot across asphalt on a clear summer day knows, the black surface of this material becomes quite hot in the sun. The heat that radiates off large parking lots is so great that it warms the air above it causing it to rise. It is not unusual to see hawks and other large birds spiraling upward above large parking lots in Chester County to take advantage of the thermals of rising warm air.

The heat generated from parking lots and other paved surfaces has caused ambient temperatures to rise in cities throughout the United States. Recently, rising temperatures and other environmental concerns in the City of Atlanta in Fulton County Georgia have prompted this County government to initiate a campaign to increase tree cover in the City. As part of this effort, Fulton County, Georgia has developed land use regulations requiring parking lots to be landscaped with trees.

Including trees in parking lot landscaping provides a number of benefits. The trees shade the asphalt, cooling its temperature. Trees also clean the air and generate oxygen, an especially valuable feature in parking lots where car emissions can locally lower air quality. Trees also intercept dust particles, slow storm water runoff, increase groundwater infiltration and reduce winds, noise and headlight glare. Shopping centers with vegetated parking lots also provide shoppers with a physical environment that is aesthetically pleasing and more consistent with the County's rural heritage.

A number of environmentally sensitive parking facilities have already been constructed in Chester County. **Figure 18.1** shows a shopping mall parking lot that has few trees, while **Figure 18.2** shows a shopping center along the US Route 30 corridor that has been broken up with trees. Tree lined facilities are not appropriate for all locations, but many large parking lots can be modified to include trees. It is important to install trees that are pollution tolerant and can withstand root compaction when landscaping parking lots. Trees with small leaves are also preferred because their fallen leaves can be swept away rather than being raked and bagged.

Certainly, adding trees to existing parking lots requires an added expense for property owners. However, communities all over the country are coming to realize that large areas of non-vegetated asphalt can degrade environmental conditions throughout the community. Although Chester County is not as urbanized as the Atlanta metropolitan area, it still needs to mitigate the environmental effects that occur when vegetation is removed and replaced by asphalt.

Figure 18.1: A Large Parking Lot with Few Trees



Source: CCPC, 2001.

Figure 18.2: A Large Parking Lot with Many Trees



Source: CCPC, 2001.

Industrial Park and Campus Greening

In 1999, a total of 40 major industrial parks and corporate campuses were identified in Chester County that all together covered 4,561 acres. These corporate centers usually include parking facilities, large mowed turf lawns, and in many cases stream corridors and wetlands. Most of the colleges, secondary schools and other institutions in Chester County are located on campuses that have similar attributes. All of the techniques presented previously regarding backyard and parking lot greening, are applicable to industrial parks and campuses.

A number of organizations provide technical assistance to corporations that wish to improve environmental conditions on their properties. Audubon International, a conservation organization not affiliated with the National Audubon Society, administers the Audubon Cooperative Sanctuary Program for businesses, which promotes ecologically sound land management and the conservation of natural resources on corporate land holdings. Information on this program is available at their web page at www.audubonintl.org. Audubon International also administers a similar program oriented toward school campuses. The Wildlife Habitat Council is a non-profit group of corporations, conservation organizations and individuals that assist corporations in managing their unused lands so as to benefit wildlife. Information about this organization can be found at www.wildlifehc.org.

Golf Course Greening

Currently there are 28 golf courses in Chester County, which together cover an estimated 3,299 acres. Golf courses typically cover at least 50 acres, only a portion of which is actually used for play. Until recently, most golf courses were vegetated primarily with non-native or ornamental vegetation that had limited wildlife value. However, in the last few decades many golf courses, including some in Chester County, have begun to manage their grounds so as to provide wildlife habitat. Golf courses are also beginning to change the way they manage their ponds and the streams on their property in an effort to reduce erosion and improve water quality.

In March 1996, a number of golfing and environmental organizations including the US EPA, the National Wildlife Federation, and the United State Golf Association formed a consortium called "Golf and the Environment." This consortium developed a document entitled *Environmental Principles for Golf Courses in the United States* which provides general guidelines for managing golf courses in an environmentally sensitive manner. The consortium's recommendations included using native, naturalized or specialized drought tolerant plant materials wherever possible, and also using plant materials that are well adapted to local environmental conditions.

In 1999 the American Association of Golf Course Architects published *An Environmental Approach to Golf Course Development*, which provides case studies of successful golf courses that have used conservation management on their properties. More information about environmental considerations in golf course design is available at www.golfdesign.org. Information on environmental golf course maintenance is also available from the Golf Course Superintendents Association of America at www.gcsaa.org.

Audubon International, a conservation organization not affiliated with the National Audubon Society, administers the Audubon Cooperative Sanctuary Program for Golf, which promotes ecologically sound land management and the conservation of natural resources on golf courses. This program, sponsored by the US Golf Association, provides technical assistance to golf courses that enroll in the program. The following courses in Chester County are currently enrolled in the program:

- **Chester Valley Golf Club**, East Whiteland Township
- **Downingtown Golf Club**, East Caln Township
- **Hershey's Mill Golf Club**, East Goshen Township
- **Kennett Square Golf and Country Club**, East Marlborough Township
- **Penn Oaks Golf Club**, West Chester Borough and East Goshen Township
- **Stonewall Links, L. P.**, East Nantmeal Township
- **White Manor Country Club**, Willistown Township
- **Wyncote Golf Club**, Lower Oxford Township

Information on this program is available from:

The Audubon Cooperative Sanctuary System

46 Rarick Road
Selkirk, NY 12158
518-767-9051
www.audubonintl.org

Urban Greening

Until the middle of the 1800s, most American cities and urban centers did not have public parks or municipal gardens, and most street trees were "volunteers" that grew up from seeds or roots that just happened to be near the roadway. During the Victorian Era however, public gardens and tree line boulevards became fashionable among wealthy urban dwellers, and the presence of street trees became a sign of wealth and prosperity. Since that time, stately street trees have remained a symbol of economic prosperity and are generally viewed as an amenity that adds value to the real estate they surround. Conversely, communities with no

trees or trees in ill health are more likely to be perceived as neglected by potential homebuyers.

Figure 18.3 shows a commonly traveled street in a high-density residential area in central Chester County. The street in this photo does not have any street trees and gives a very urban appearance. Conversely the central Chester County residential street pictured in **Figure 18.4** has street trees and therefore has more of a small town appearance, despite the fact that it is high-density and even has on-street parking. The older compact housing stock and the traffic conditions on both of these streets is similar, and yet they exhibit very different viewsheds simply because of the presence of street trees.

Park rehabilitation and street tree restoration projects can sometime serve as the centerpiece of a neighborhood's revitalization. The rehabilitation of Bryant Park in New York City is a prime example. This park, initially built in 1884, fell into disrepair in the 1960s. As a result of poor maintenance, its shrubs became overgrown, screening it from the street and making it an ideal location for drug users. During the 1980s a citizens group developed a new design for the park that included removing the old gate that surrounded the park and improving nearby sidewalks. The renovation was completed in 1992, and it proved so popular that real estate brokers used the park as a marketing tool for nearby properties. During the first eight months of 1994, leasing activities in nearby buildings rose 60 percent compared to the same period in 1993.

Until the 1960s most of Chester County was farm fields. Since then many of the County's formerly rural municipalities have undergone suburban development. As a result, the County as a whole has limited experience with maintaining street trees or revitalizing old parks. However, many communities in and around the City of Philadelphia have a great deal of experience with urban greening, and there a number of urban forestry centers in the Delaware Valley that can provide guidance for cultivating street trees.

The Morris Arboretum, located on the Philadelphia and Montgomery County border, is a branch of the University of Pennsylvania and is the official Arboretum of the Commonwealth of Pennsylvania. It is also the Mid-Atlantic Center for Excellence with the USDA Forestry Service. The Arboretum administers an "Urban Outreach Forestry Program" that provides technical assistance on wide range of forestry topics. They can be reached at:

The Morris Arboretum

100 Northwestern Ave.

Philadelphia, PA 19118

215-247-5777

www.upenn.edu/morris/uf

Figure 18.3: An Urban Street without Street Trees



Source: CCPC, 2001.

Figure 18.4: An Urban Street with Street Trees



Source: CCPC, 2001.

Information and technical assistance regarding urban forestry is also available from a number of sources including:

- **The US Forest Service** Northeast Area State and Private Forestry Program at www.na.fs.fed.us.
- **The PA DCNR Urban Forestry Section** at 717-783-0385
- **The Pennsylvania Urban and Community Forestry Council** at 610-942-4696

Urban Greening is not simply limited to planting trees. It also includes establishing playgrounds, small urban parks and community gardens. Many cities throughout the United States have created small “pocket parks” and community vegetable gardens on urban properties that were previously vacant lots or even brownfields. Such projects would be ideal for Chester County’s more densely populated eastern suburbs, its older boroughs, and the City of Coatesville.

The Delaware Valley is fortunate in that it is home to one of the nation’s leading park restoration organizations, the Pennsylvania Horticultural Society or PHS. The PHS, which is best known as the sponsor of the Philadelphia Flower Show, also operates the Philadelphia Green Program which has successfully completed a number of urban park restoration projects including New Kensington and Norris Square Park in North Philadelphia. PHS provides technical assistance to projects throughout southeastern Pennsylvania and can be contacted at:

The Pennsylvania Horticultural Society
 100 North 20th Street, 5th Floor
 Philadelphia, PA 19103
 215-988-8800
www.pennsylvaniahorticulturalsociety.org

Permanent Stormwater Management Facilities

Most large residential and commercial developments built since 1970 include permanent stormwater management facilities, which include large man-made basins that are constructed next to parking lots or large lawn areas. These basins, commonly called stormwater retention basins, are designed to fill up with stormwater run off during heavy rain events. Technically speaking, these basins are called Retention or Detention Impoundment Basins. A Retention Impoundment Basin holds stormwater and allows it to percolate through the bottom of the basin into the soil below. A Detention Impoundment Basin accumulates stormwater and then releases it into a downstream channel at a controlled rate.

Retention and Detention Impoundment Basins are both called Dry Ponds because they are usually dry, except after a storm event when they quickly fill and then slowly drain. Dry Ponds must be mowed and kept clear of shrubs and trees, because the fallen leaves from these plants will

eventually fill up the basins. Dry Ponds usually cover less than an acre and can be easily seen in many developments. Because no tall vegetation is permitted in these basins, they provide minimal wildlife habitat and are often regarded as an eyesore. **Figure 18.5** shows a mowed Dry Pond.

An alternative to a Dry Pond is a Wet Pond, which is similar to a dry pond except it is designed to contain a wetland with saturated soils and wetland vegetation. **Figure 18.6** shows a Wet Pond. Both Dry Ponds and Wet Ponds have their benefits and drawbacks, and both require ongoing maintenance. The Wet Pond, however, provides wildlife habitat that the Dry Pond does not. Plants in Wet Ponds such as low growing wild dogwoods and wildflowers bloom in the spring and provide fall colors in the spring, and so add an aesthetic value to the landscape. The birds that nest in these Wet Ponds also eat annoying insects such as mosquitoes, and many small wetland animals are eaten by birds of prey and foxes.

The use of Wet Ponds is a somewhat new approach for control of storm water run off, and most of the Storm Water Impoundment Basins in Chester County are older Dry Ponds. Because Wet Ponds provide so many benefits that Dry Ponds do not, the Chester County Conservation District (CCCD) is promoting their use in new developments. The CCCD is also promoting the conversion of existing Dry Ponds into Wet Ponds, where feasible. Individuals, corporations or homeowner associations that wish to convert existing Dry Ponds to Wet Ponds should contact the CCCD at 610-696-5126.

Rehabilitating Riparian Corridors

Storm Water and Erosion Control Best Management Practices

Riparian corridors consist of streams, lakes, ponds, and the landscapes that surround them. The quality of water flowing within a stream channel is greatly affected by the storm water runoff that flows over the landscapes within a riparian corridor. When rainwater falls to the ground it is initially absorbed into the soil. When rain falls onto a paved surface or there is a large rainfall, the water collects on the surface and flows to lower elevations, eventually entering streams or ponds. This above ground flow is known as storm water run off. When storm water flows across the land it sometime picks up particles and chemicals such as fertilizer, which lowers the quality of the water.

Figure 18.5: A Dry Pond



Source: CCPC, 2001.

Figure 18.6: A Wet Pond



Source: CCPC, 2001.

The water quality of a stream is affected by both the quality of stormwater that feeds it, and the quantity of runoff. When a large amount of runoff reaches a stream it can erode the banks of the stream stirring up sedimentation and making the water cloudy. Water that has a high level of suspended sediments shades out underwater plants and makes breathing difficult for aquatic wildlife. This churned up sediment eventually settles in the bottom of the stream. In extreme cases the settled particles form a layer that covers aquatic plants and animals. This situation is even more damaging when the sediments include chemicals that are harmful to aquatic organisms.

Up until the middle 1900s most landowners and government officials regarded stormwater runoff as a nuisance that should be drained from farm fields and communities, and piped directly into large streams and lakes. In the past few decades, stormwater has come to be regarded not as a nuisance but rather as a valuable resource. As stormwater flows across the land, it soaks into the ground and eventually into the groundwater. If stormwater is piped away or channeled into a fast moving channel, it is unable to fully recharge underground water reservoirs, which in turn causes the water table to drop. When stormwater is allowed to slowly flow toward streams, more of it can be absorbed into the soil. The slow moving stormwater that is not absorbed flows into streams. Commonly, this slow flowing surface flow goes through a filtering process as it passes over land and vegetation. As a result, it contains fewer particles and pollutants than faster moving stormwater.

Over the past few decades, engineers, ecologists and government agencies have developed Best Management Practices, or BMPs, that farmers, property managers and residential landowners can use to slow storm water runoff and reduce sedimentation along riparian corridors. In 1998, a coalition of government agencies including the USDA Natural Resource Conservation Service and the PA DEP published the *Pennsylvania Handbook of Best Management Practices for Developing Areas*. This document includes an entire chapter on the techniques that can be used to retrofit stormwater management devices that have already been built as part of a development, but are failing to function either due to disrepair or poor initial design. Copies of this guidebook can be purchased from the Chester County Conservation District or from:

The Pennsylvania Association of Conservation Districts

4999 Jonestown Road

Suite 203

Harrisburg, PA 17109

717-545-8878

www.pacd.org

Private land owners typically need to consult professionals to repair poorly functioning stormwater management devices. However, there are a number of simple techniques landowners can use on their own to disperse runoff and improve stormwater quality. Most of these techniques involve

adding or better managing naturally occurring vegetation along riparian corridors. The following two sections provide a basic introduction to some of these techniques.

More information on BMPs is available from the Chester County Conservation district at 610-696-5126. Stormwater management, BMPs and erosion control is also addressed in Tool #32 of *The Chester County Community Planning Handbook: Volume II*, which is available at the CCPC office. A more technical resource on this topic is *Conservation Design for Stormwater Management* published in 1997 by the Delaware Department of Natural Resources and Environmental Control and the Brandywine Conservancy that can be reached at 610-388-2700.

Riparian Buffers

A riparian buffer is a corridor of non-mowed vegetation along a stream bank or the shores of a lake or a pond. The roots of these plants stabilize shorelines and stream banks, reducing erosion and sedimentation, and improving water quality. The plants within a riparian buffer also filter out nutrients and chemicals from runoff before it enters a stream or water body. Streamside buffers also provide food, habitat and protection from extreme temperatures for fish and aquatic wildlife.

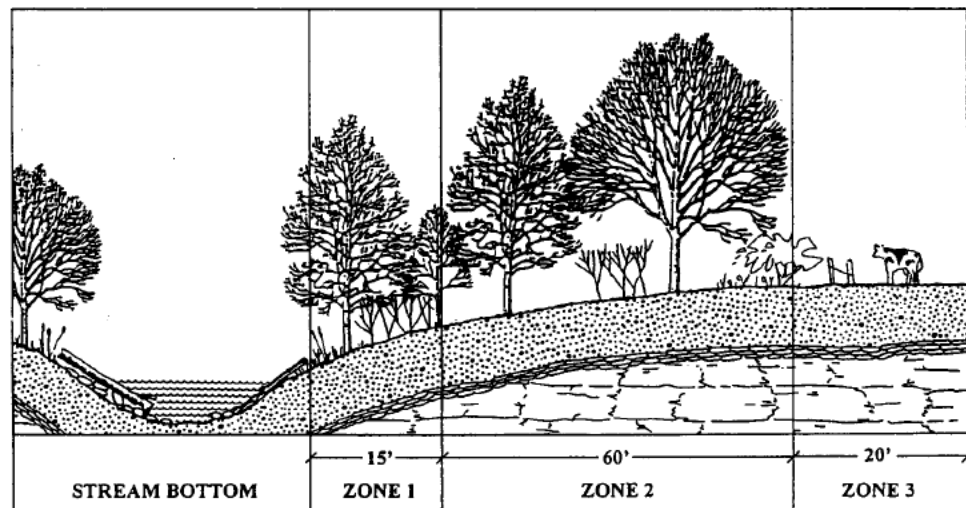
Riparian buffers on private property can greatly enhance the environmental quality of protected open spaces within Chester County. Buffers upstream from preserved habitat improve the quality of the water that flows through these protected open spaces. Buffers also create corridors that allow mammals, birds and reptiles to pass between protected open spaces, thereby increasing biodiversity and decreasing inbreeding. Landowners adjacent to protected open spaces who establish riparian buffers also enlarge the aquatic habitat of the nearby protected property.

The Chester County Community Planning Handbook: Volume II addresses this issue in Tool #21: Riparian Buffers. This Tool recommends that property owners follow at least the “three-zone” buffer concept developed by the United States Forest Service. This three-zone buffer is 85 feet wide and is regarded as a minimum width. Tool #21 encourages buffers of 100 feet or more provide even better stream protection where possible. The three-zone buffer is illustrated in **Figure 18.7** and consists of:

- **Zone 1: Undisturbed Forest** – a 15-foot zone in which no vegetation is cut or removed.
- **Zone 2: Managed Forests** – a 60-foot zone upslope from Zone 1 in which periodic tree harvesting is recommended to remove nutrients sequestered in stems and branches, and to maintain nutrient uptake through vigorous young tree growth.
- **Zone 3: Runoff Control** – a zone 20-foot or wider, upslope from Zone 2 consisting of herbaceous plants that helps protect the forest buffer and slow runoff.

The Chester County Water Authority is currently preparing a water resources management plan for all the watersheds in Chester County. This document, entitled *Watersheds*, is scheduled to be completed in 2002. This document recommends that new developments in Chester County should have a 100-foot buffer on both sides of all streams measured from the water's edge, or 50 feet beyond the 100-year floodplain, whichever is greater. *Watersheds* based this recommendation on a substantial body of scientific research documents that indicate that a buffer of 30 meters (approximately 100 feet) is required to thoroughly filter pollutants and sediments that are commonly found in storm water run off.

Figure 18.7: The U.S. Forest Service Three-Zone Riparian Buffer



Source: *Riparian Forest Buffers*, United States Department of Agriculture, 1991.

The Chesapeake Bay Program, a non-profit coalition that includes a variety of state and federal agencies, has established a goal of establishing 2,010 miles of riparian buffers within the Chesapeake Watershed by the year 2010. The Program has a web site that discusses riparian buffers at www.chesapeakebay.net and can be reached at 800-YOUR-BAY. The Chesapeake Bay Program has also has a number of publications about the benefits of riparian buffers and techniques for creating them.

In 1998, the PA DEP published *Pennsylvania Stream ReLeaf; A Plan for Restoring and Conserving Buffers along Pennsylvania Streams*, which presented a statewide plan for preserving streamside habitat, including protecting 600 miles of riparian buffer within the Pennsylvania portion of the Chesapeake Bay Watershed by the year 2010. This document and the DEP's Forest Buffer Toolkit are available from the DEP at www.dep.stste.pa.us under "Subjects" and "Stream ReLeaf," or by calling 717-787-5267.

Many properties in Chester County are too small for their owners to establish the 85-foot forested riparian buffer recommended in the *Planning Handbook*. However, the vast majority of landowners could easily establish a 5 to 15-foot “no mow” zone. *Watersheds* recommends this buffer for smaller lots, along with a management plan to promote native plants and discourage invasive species. Wetlands, intermittent stream channels and drainage ditches could benefit from such a buffer. If Chester County’s landowners would establish just this 5 to 15-foot wide corridor along both sides of the County’s estimated 1,500 miles of streams and around the County’s estimated 500 miles of pond shorelines, a total of roughly 1,200 to 3,600 acres of buffers, would be restored. It is unlikely that such a conservation effort could ever be legislated and enforced, but it could succeed if private landowners voluntarily choose to establish no mow buffers on their own.

Some of Chester County’s municipalities have included riparian buffer restoration as part of their zoning or land use ordinances. For example, London Grove Township’s Stormwater Management Ordinance requires a 15-foot setback zone of restored or existing woodlands along bodies of water, and a 60-foot manage forest zone adjacent to the 15-foot zone. This ordinance also requires a 25-foot drainage easement along intermittent streams and swales. Willistown Township has taken a somewhat different approach. They have created a Riparian Buffer Area Conservation District overlay district in its zoning ordinance. Within this District is a 25-foot wide zone that is protected and managed more rigorously than the remainder of the District.

Floodplain and Wetland Protection

Chapter 1 of this document provides a description of the floodplains and floodplain protection programs within Chester County, and **Chapter 1**, also discusses wetlands. These sections clearly show that most of the County’s floodplains and a significant number of wetlands are found along stream corridors. As a result, most riparian corridor rehabilitation projects in Chester County are likely to involve the naturalization of floodplains or the rehabilitation of wetlands.

Over the past 300 years, many of the County’s floodplains were cleared of vegetation and used for agriculture, until repeated flooding made cultivating the land impractical. Many of these cleared but unused floodplains are still regularly mowed and so contain few trees or shrubs. As a result there is a need for landowners to help naturalize floodplains by planting water tolerant trees and shrubs whose roots will stabilize the soil during flood events. Such efforts are possible on even the smallest properties, and can save property owners the cost of having to add fill to replace un-vegetated soils that erode away during flood events.

Rehabilitating wetlands is also an activity that can take place on all type of properties of all sizes. Many of Chester County’s farms and developed

properties contain areas that were once wetlands but were drained. Often homeowners will find a small “wet spot” on their lawn that never seems to completely dry out. In many cases these wet areas were previously wetlands that were drained long ago, and have never completely converted to dry uplands. Such locations may be low areas that collect runoff or even buried springs fed by groundwater.

Re-establishing a wetland from a “wet spot” is relatively simple and is becoming a popular practice among backyard gardeners. Wetlands can often be created simply by digging out a few inches of soil from a wet area and installing plants such as ferns, rushes and trees that flourish under these wet soil conditions as shown in *Figure 18.8*. Most commercial garden centers and plant suppliers can assist landowners who wish to re-establish wetlands on their property. The Chester County Planning Commission has also published *Planning Bulletin #46: Water Conserving Landscapes*, which provides more detailed information of the benefits of wetlands and the techniques used to establish them.

In 1994, a homeowners guide for creating environmentally sound landscapes in the Christina Basin was developed by the Chester County Conservation District (CCCD), the Water Resources Agency for New Castle County, and the Brandywine Valley Association (BVA). This guide, called *BasinScapes*, discusses beneficial plants, water conservation, integrated pest management and other topics relating to restoring habitat in existing developments. Copies of *BasinScapes* are available from the CCCD at 610-436-9182 or BVA at 610-793-1090.

Figure 18.8: A Created Backyard Wetland in a Suburban Development



Source: CCPC, 2001.

In 1999, a disease called West Nile Encephalitis began infecting people and birds in New York City, and it has since spread to southeastern Pennsylvania including Chester County. The disease is transmitted through the bite of the northern house mosquito (*Culex pipens*) that breeds in shallow stagnant water, and some people are concerned that creating wetlands in residential areas will promote this disease. Neither the state nor the County recommends eliminating functioning natural wetlands to control mosquitoes. In functioning wetlands, water typically collects and drains out, but shallow stagnant puddles are possible. Functioning wetlands can produce mosquitoes, but these wetlands also attract birds and bats that eat mosquitoes in large numbers. If mosquitoes are found to be breeding profusely in a wetland, the landowner should contact the Chester County Health Department, which can provide guidance on their control.

The Pennsylvania Department of Health has established a hotline at 1-877-PA-HEALTH, and a web page at www.westnile.state.pa.us, to provide tips for reducing habitat for the Northern mosquito, and the Chester County Health department also provides information at 610-344-6409. Both the state and County Departments of Health recommend that homeowners make sure to drain or turn over any wheelbarrows, plastic containers or metal cans, and clean clogged roof gutters. Ornamental pools should be aerated or stocked with mosquito eating fish. Unused tires should be drained or discarded since they are the primary breeding habitat for mosquitoes. Birdbaths or any other location where water remains stagnant should be changed regularly since the Northern house mosquito requires four days in stagnant water to reproduce.

Habitat Rehabilitation

Lawn Size Reduction and Naturalization

Under natural conditions, meadows and grasslands in Chester County include a variety of different grass species and various wildflowers. Some of these grass species grow well in the warm summer months, and so are called warm season grasses. Other grass species, such as Kentucky blue grass (*Poa pratensis*), are called cold season grasses because they grow during the wetter and cooler months of spring and fall. During the summer months, cold season grasses turn brown unless they are regularly watered.

As more and more of the Delaware Valley has become developed into suburban style housing and industrial parks, there has been an increase in the acreage of land covered with manicured lawns. As these cold season turf lawns have increased, there has been a corresponding decline of warm season grasses, which are commonly regarded as weeds. Unfortunately, the decline of warm season grasses has also led to a reduction of

the birds and small mammals that feed on these grasses, and the predators that feed on these small herbivores.

In recent years, concerns about the over planting of domesticated warm season grasses have led some landowners and turf management companies to plant “natural” or “ecological” seed mixes. These natural seed mixes include both warm and cold season grasses as well as other herbaceous species such as clover. Lawns seeded with these mixes provide a soft green lawn that is closer in composition to natural meadows and is less likely to turn brown during dry summer months. Many lawn care services and garden centers now offer natural seed mixes.

Warm season grasses are typically sowed as meadows, which are mowed once a year. *Figure 18.9* shows the warm season grass meadow maintained by the County in Hibernia County Park. This meadow requires less mowing and watering than cool season grass, and provides food and habitat for wildlife. Commonly available native warm season grasses that are suitable for cultivation in Chester County include:

- **Big bluestem** (*Andropogon gerardii*)
- **Broomsedge** (*Andropogon virginicus*)
- **Eastern gamma grass** (*Tripsacum dactyloides*)
- **Indian grass** (*Sorghastrum nutans*)
- **Little bluestem** (*Andropogon scoparius*)

Figure 18.9: A Meadow of Warm Season Grass at Hibernia County Park



The United States Department of Agriculture (USDA) has supported efforts to increase the cultivation of warm season grasses by educating landowners and providing assistance to individual who wish to plant them on their property. A part of the USDA's effort focuses on hay farmers who can sometimes increase yields and decrease maintenance costs by planting warm season grasses. Information and technical assistance on planting warm season grasses in Chester County is available from the Penn State Cooperative Extension of Chester County at 610-696-3500.

The explosion of lawns in the last 50 years has also become a concern in terms of water quality. The National Academy of Sciences conducted a study in 1989 that concluded that American homeowners use 10 times more chemicals on their lawns than our nation's farmers use on their fields. In 1984, the EPA found that Americans use more chemical fertilizers on their lawns than the entire nation of India uses on its crops. Cold season turf lawns require constant watering to remain green in the summer, and it is estimated 30 percent of urban water used in the Eastern United States is used for lawns. This combination of heavy fertilization and constant watering can result in chemically laden runoff that can enter streams and degrade local groundwater supplies.

Montgomery County Maryland became so concerned with the estimated 36,000 tons of grass clippings that were entering their landfills that they instituted a grass-recycling program, which is described at www.dpwt.com under "Solid Waste Services" and "Grass." The City of Issaquah, Washington conducted a demonstration project with eight volunteer homeowners to reduce lawn size and improve landscaping on properties near water features as presented at www.ci.issaquah.wa.us under "Resource Conservation Office" and "Lawn and Garden". The result was a reduction in pesticides and fertilizers, and reduced maintenance time and water bills.

Turf lawns consisting of domesticated warm season grasses are attractive and well suited for backyard use and children's play. Unfortunately, the over planting of turf grass over large areas can be damaging to the environment and reduce biodiversity. For example, Kentucky bluegrass is a major component of turf lawns, but it originated in Europe and is not native to North America despite its well-known association with the State of Kentucky. A more environmentally sensitive approach to property management is for homeowners and groundskeepers to establish and maintain turf lawns only in those areas that are regularly used. The residential lawn shown in **Figure 18.10** has been mowed on a hill leading down to a roadway, which is an area that is not well suited for recreation. Planting trees or shrubs in the unused fringe of this property would reduce mowing and watering, create a visual and noise screen from nearby traffic, and increase groundwater recharge and wildlife habitat.

Unused lawn areas can also be planted with groundcover, such as periwinkle, ferns and English Ivy, which never need mowing. **Figure 18.11**

Figure 18.10: A Residential Property with Lawn Covering Unused Areas



Source: CCPC, 2001.

Figure 18.11: A Residential Property Using Trees and Groundcover



Source: CCPC, 2001.

shows a residence in which groundcover and trees are used to reduce mowing and to create pleasant view screens. Properties with areas of unused lawn can also be easily converted into formal meadows that are seeded with wildflowers and native grasses and mowed only seasonally. This approach can create an aesthetically pleasing landscape with a variety of plants blooming and growing during spring, summer and fall. Steep slopes that are difficult and sometimes dangerous to mow, are ideal locations for such formal meadows or wildflower plots.

Many communities do not permit tall grass to grow on residential properties, and landowners who wish to install formal meadows should consult local zoning regulations. There is also a common misperception that meadows are unsafe because they harbor rats and mice that can infest nearby houses. In reality, the rodents that flourish in meadows consist of native species such as voles, chipmunks and field mice. These wild meadow rodents are afraid of humans and stay away from residences. The rodents that do invade houses are the Norway rat (*Rattus norvegicus*) and the house mouse (*Mus musculus*), both of which are of European origin. These two species have evolved to live in man-made environments such as buildings, and rely primarily on human generated garbage for food. These species cannot live in open meadows for prolonged periods because they have no food source.

Forest Rehabilitation and Open Land Reforestation

In 1998, a non-profit tree conservation organization called “American Forests” conducted a study of forests in the Chesapeake Bay Watershed, including southwestern Chester County. This study found that areas with high vegetation and tree cover (over half of the property still vegetated), covered 55 percent of the Watershed in 1973, but only 35 percent in 1997. This lost tree canopy would have removed about 9.3 million pounds of pollutants from the atmosphere annually, at a value of \$24 million per year. The storm water retention value of the trees still standing in the Watershed in 1997 was estimated at \$4.68 billion.

This study recommended that urban areas within the Chesapeake Bay Watershed should aim for at least 40 percent tree coverage. The Chesapeake Bay and Delaware Bay watersheds are quite similar in terms of climate, ecology and the amount of urban development. It is therefore reasonable to assume that the 40 percent coverage recommendation developed for the Chesapeake Bay Watershed would also apply to all of Chester County.

Forests may appear to be self-sustaining natural features that require no management, but such is not the case. For thousands of years before William Penn's colonists settled Chester County, its native inhabitants regularly burned undergrowth to manage the forests resources. Forests are subject to many diseases and invasion by aggressive non-native species, which can do as much damage as any bulldozer. It is therefore important to manage all forests, including those on small properties. Establishing a forest on land that has been cleared also requires management to remove non-native saplings and promote a healthy diversity of plants.

Reforestation and forest rehabilitation are especially valuable on steep slopes, floodplains or on properties that are not well suited for agriculture or development. Forests stands provide wind breaks and protect dwellings from cold winter winds, thereby reducing heating costs. Trees also provide shade in the summer, which can reduce air conditioning costs. Forests are often regarded as an amenity by real estate brokers, and in many instances a nearby forest will generate higher real estate values for residential or office properties.

The PA DCNR administers a number of state and federally funded programs that provide assistance to private landowners who are interested in restoring or establishing forests. These programs include the "Land Stewardship Program" and the "Forest Legacy Program." Some of these programs include timber management but some focus only on conservation. The DCNR is also developing the "Forestry Legacy Program," which will provide a mechanism for purchasing easements on forested land. To date no easements have been purchased under this program. A variety of grants that are available for forest protection of reforestation are discussed in **Chapter 16**. Individuals interested in these programs or general technical assistant regarding forestry should contact:

PA DCNR
Bureau of Forestry
845 Park Road
Elverson, PA 19520
610-582-9660

Hedgerow Rehabilitation

The first intensive agricultural operations in Chester County were established by British and German settlers during the proprietorship of William Penn over 300 years ago. These experienced farmers established hedgerows along their fields as a simple but effective land management technology. A hedgerow is a row of vegetation including trees, shrubs and grasses that are planted along the edges of fields or other unused areas. Hedgerows were a common sight in Chester County during the 18th and 19th centuries, and today many residents regard them as a key element of the quintessential Chester County landscape.

Hedgerows have been used for thousands of years in Europe because they provide wind protection, slow runoff, reduce soil erosion, and are easier to maintain than fences. Ecologists have also found that hedgerows composed of native vegetation support a diversity of wildlife, and the roots of hedgerows increase water permeability and filter runoff. Some hedgerows in Chester County have been in existence for centuries, and so can be regarded as a kind of “living historic structure.” **Figure 18.12** shows a farm that has used a hedgerow as a screen against a nearby roadway. The farm pictured in **Figure 18.13** has only mowed lawn, which provides no windbreak and only minimal wildlife habitat.

Unfortunately, hedgerows have been on the decline in Chester County throughout the 20th century. Most of the farms that were converted to residential or commercial developments during the last 50-years removed the original hedgerows. Technological advances in agriculture also made it possible for farmers to obtain high yields without hedgerows, and many hedgerows were plowed under. As a result, the use of hedgerows has declined to such an extent that many of the County’s farmers no longer know how to properly maintain them, and many County residents do not even know what they are.

Chester County’s situation is similar to England and Wales, which once possessed around 400,000 miles of hedgerows. According to the September 16, 1997 edition of the *Christian Science Monitor*, England and Wales have lost half of their traditional hedgerows. Recently, British agronomists and environmental scientists have proposed to re-establish hedgerows as a means to reduce soil erosion and promoted wildlife diversity. Some communities in the United States are also promoting the re-establishment of hedgerows. The USDA Yolo Resource Conservation District in Woodland California has established a program to use hedgerows for pest control and wildlife protection. The program is described at www.yolorcd.ca.gov under “Programs.”

Within Chester County, a very few municipalities and development corporations have also recognized the value of hedgerows. The 1993 comprehensive plan of West Fallowfield Township promotes the preservation and re-establishment of hedgerows in residential and agricultural landscapes because of their ecological value and their historic significance. In January 2000, Hillcrest Associates began the construction of the Fallbrooke Development, which uses hedgerows to surround the housing clusters in this residential development. The developer worked with Kennett Township to preserve existing hedgerows on this former farm property, and then added new hedgerows where needed. According to the Project Engineer, the hedgerows on this site were regarded as an amenity that warranted preserving. Hillcrest Associates expect the units to sell quickly.

Figure 18.12: A Farm with a Hedgerow



Source: CCPC, 2001.

Figure 18.13: A Farm without a Hedgerow



Source: CCPC, 2001.

In many respects, establishing and maintaining hedgerows is a lost art, but there are still ample opportunities for hedgerows to be reintroduced into Chester County. Hedgerows can add wildlife habitat and create a more rural atmosphere in private residential properties or industrial parks. Hedgerows are ideal for vegetating steep slopes and other areas that are difficult or dangerous to mow. They are easier to maintain than lawn and do not require continual mowing, watering, or fertilizer. When leafed out, hedgerows also provide privacy screens and reduce ambient noise level. From an environmental, economic and aesthetic perspective, the re-establishment of hedgerows could greatly improve the conditions of the built environment within Chester County.

Serpentine Barrens Rehabilitation

Parts of eastern Chester County and many communities along the Maryland border are home to a number of unique habitats known as “serpentine barrens.” Serpentine barrens get their name because they form on geological formations that contain large amounts of serpentine rock. The minerals in this rock produce soils that are inhospitable to many plants and are unsuitable for farming. As a result, early settlers referred to these unproductive lands as “barrens.” Detailed information on serpentine barrens in Chester County was published by the DCNR in 1998 in *The Geology of Nottingham County Park*, Open File Report 98-12, which is available at the CCPRD.

Serpentine barrens are not common in the Eastern United States, and many of the plants that grow on them are similar to those that grow in the western prairie states. A number of the plants that grow in Chester County’s serpentine barrens are specially adapted to grow only in these eastern barrens, and are found nowhere else. Chester County’s serpentine barrens also provide habitat for a number of threatened and endangered species such as the serpentine aster, which occurs at less than 30 locations worldwide. The Nature Conservancy regards the barrens along the Pennsylvania-Maryland border as a habitat of global significance.

Under natural conditions, serpentine barrens are prone to forest fires, and many of the plants that grow on these barrens need to be periodically burned in order to thrive and reproduce. Without burning, fire intolerant trees such as Virginia pine invade barrens habitat and cover the ground with pine needles creating an organic soil layer that will not support the rare plants found on burned barrens. Within the last few years, the Nature Conservancy has assisted CCPRD in regular controlled burns of the serpentine barrens within Nottingham County Park.

Landowners who wish to preserve unique serpentine barrens are often forbidden to burn them by local laws. There are however other means of managing serpentine barrens to promote the growth of unique species. Individuals who wish to preserve serpentine barrens on private property

can receive technical assistance from the Nature Conservancy, which has an office in Oxford Borough that can be contacted at:

TNC – Harrisburg
500 North 3rd Street
Harrisburg, PA 17101
717-232-6001

The Chester County Landscape Style

For most of Chester County's history, the landscapes of its farms and urban communities were a reflection of the local ecology. Areas of good soils were used as farmland, while properties along streams were used for shipping or water powered mills. Roads were typically established on flat land along ridges or in valleys, and towns developed where streams or highways met. Farmers grew hedgerows using inexpensive local native plants and houses were built out of local stone. As a result a unique style of landscaping and architecture developed in Chester County, which can be called the Chester County Landscape Style.

The Chester County Landscape Style uses a mixture of farming, land management and folk architecture techniques that were developed in Germany and the British Isles, but were combined in Pennsylvania when it was settled by William Penn. What makes the Chester County Landscape Style unique is that it combines these Old World traditions with the native rocks, plants and topography of Chester County. This style developed slowly through local folk traditions, and cannot be quantitatively defined. The Chester County Landscape Style is perhaps best typified in the landscape paintings of the Wyeth Family, such as the one shown in **Figure 18.14**.

As Chester County has become more and more developed, its traditional landscapes have been replaced by mainstream suburban style development, with paved roads, well-manicured lawns and shopping centers. These communities are fine places to live and they can be developed to be sensitive to the environment, but they have no distinctive features that are unique to Chester County. Conventional suburban subdivisions look very similar and are often called "cookie cutter" because one in Chester County looks the same as one in South Jersey or Missouri or California. As these conventional developments have increased in Chester

County, the properties that still possess the Chester County Landscape Style have become less common.

Chadds Ford Landscape (1909) by N. C. Wyeth is indicative of the type of traditional landscapes commonly associated with Chester County. The trees in the background are native species that have not been pruned or shaped. The vegetation along the fence is a mixture of common herbaceous plants and small shrub plants instead of one species of mowed grass. This distinctive style of landscape management is aesthetically pleasing, cost effective and environmentally sensitive.

If nothing is done to alter the current growth pattern in Chester County, the landscapes made famous by the Wyeth Family will look the same as all the other urbanized communities surrounding Philadelphia and Wilmington.

Figure 18.14: Chadds Ford Landscape (1909)



N.C. Wyeth (1882-1945), Chadds Ford Landscape (1909), Oil on canvas, Permanent collection of the Brandywine River Museum, Gift of Mrs. Andrew Wyeth. The Brandywine River Museum is operated by the Brandywine Conservancy, a nonprofit organization that seeks to preserve, conserve and restore the Brandywine Valley's natural, historic and artistic heritage. The Conservancy preserves this heritage through its Environmental Management Center and Brandywine River Museum. Used by permission.

The Public Works Department of Santa Barbara County in California recognized that a similar trend was altering their community. Santa Barbara County is located in a semi-arid climate where efficient water use is a key concern. As a result, this county has been encouraging its residents to use local native trees and grasses which require less watering than conventional lawns through a program, known as “Landscape Santa Barbara Style.”

Some Chester County residents are already managing properties in what could be identified as the Chester County Landscape Style. The residence shown in **Figure 18.15** is using Chester County’s natural resources to create a unique landscape. This property owner has chosen to mow only a portion of the property leaving the nearby floodplain and streams in high grass. The native shrubs and wooded part of the property have been left to grow on their own onto rough-textured organic shapes. Likewise the farm in **Figure 18.16** has employed hedgerows and trees that create a windbreak and reduce time and money spent mowing.

Someone who is accustomed to living in a well-manicured urban development might regard the properties shown in **Figures 18.15** and **18.16** as “weedy” or “overgrown.” However, it is important to remember that a “weed” is simply any plant that you do not wish to grow, and that an overgrown landscape can also be described as naturalized or a lush wildflower meadow. For three centuries, Chester County’s residents have developed a style of land management that uses native plants that others might call weeds, and promoted rough textures that others might call overgrown. This style may not be popular with everyone, but it is what defines Chester County, just as prairies define Kansas and skyscrapers define New York City.

The Chester County Landscape Style can be applied to any setting. Small urban plots or mainstream suburban lots can all be managed in the Chester County Landscape Style. Even industrial parks and factories can convert their highly manicure lawns into meadows and wood lots that are more in keeping with the County’s traditional landscapes. By adopting the Chester County Landscape Style, landowners keep alive a longstanding tradition. This style of land management can also help to improve environmental conditions. Using native plants promotes wildlife, while establishing forests and coarsely manicured meadows improves ground water infiltration and reduces erosion.

Figure 18.15: A Distinctive Chester County Rural Residential Landscape



Source: CCPC, 2001.

Figure 18.16: A Distinctive Chester County Farm Landscape



Source: CCPC, 2001.

Chapter 19



*Planning a Protected Open
Space Network*

Background

This chapter describes the type of planning efforts that will be required to establish a protected open space network in Chester County. In order for such a countywide network to be created, different types of open spaces must be linked together. **Figure 19.1** provides an example of a corridor along Pickering Creek, where there are a number of different kinds of protected open spaces that are linked together to form the semblance of a partial network. These linked open spaces include municipal parks, privately owned properties with land trust easements and homeowner association open spaces, all of which are discussed in **Chapters 4, 6 and 10**, respectively. As **Figure 19.1** shows, some of the protected open space parcels along this section of Pickering Creek are clustered together, but there are also gaps that could be filled to enlarge this local network. With proper planning, the protected open spaces along this waterway could also be linked by trails or wildlife corridors.

Each of the sections presented in this chapter evaluates potential parts of a protected open space network in Chester County in much the same way as the above example, except at a countywide scale. Each section shows how the open space features discussed in the previous 18 chapters relate to each other as part of a network. The maps in this chapter consist entirely of overlays, in which mapping from one of the previous chapters is overlaid on mapping from another chapter. The goal of these overlay maps is to show how different types of protected open space could be – or have been – combined to create links in a countywide network. Likewise many of the tables presented in this chapter combine data presented in previous chapters of this document.

Not all protected open spaces are used for the same purposes, and protected open space parcels with incompatible uses should not be established near each other. For example, a noisy playground should not be built next to a sanctuary for migratory birds. Most migratory birds nest in the spring and molt in the late summer, and during these periods are easily frightened by the sound and activity of humans. In order to avoid such conflicts, each protected open space parcel with the potential to be an element of a larger network must be well planned.

Before protecting a parcel of land as open space, municipalities and other organizations should be able to answer the following key questions:

- For what purpose will the protected open space be used?
- Will its use be compatible with that of adjacent protected open spaces?
- What kinds of activities will be permitted, limited or forbidden on the protected open space?
- How will it link to other protected open spaces?

- How will the protected open space be managed in perpetuity, and how will that management be funded?

Of course, there are a myriad of other issues that must also be addressed when protecting open space. Municipalities and other organizations should also consider how much open space is desired by the residents of their communities. The funding of open space protection is also a major concern. In some communities, residents are willing to expend tax revenues to acquire or maintain protected open spaces, while in other communities it is up to private entities to finance the protection of open space.

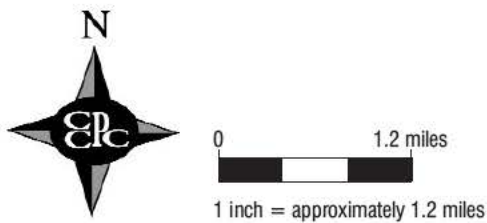
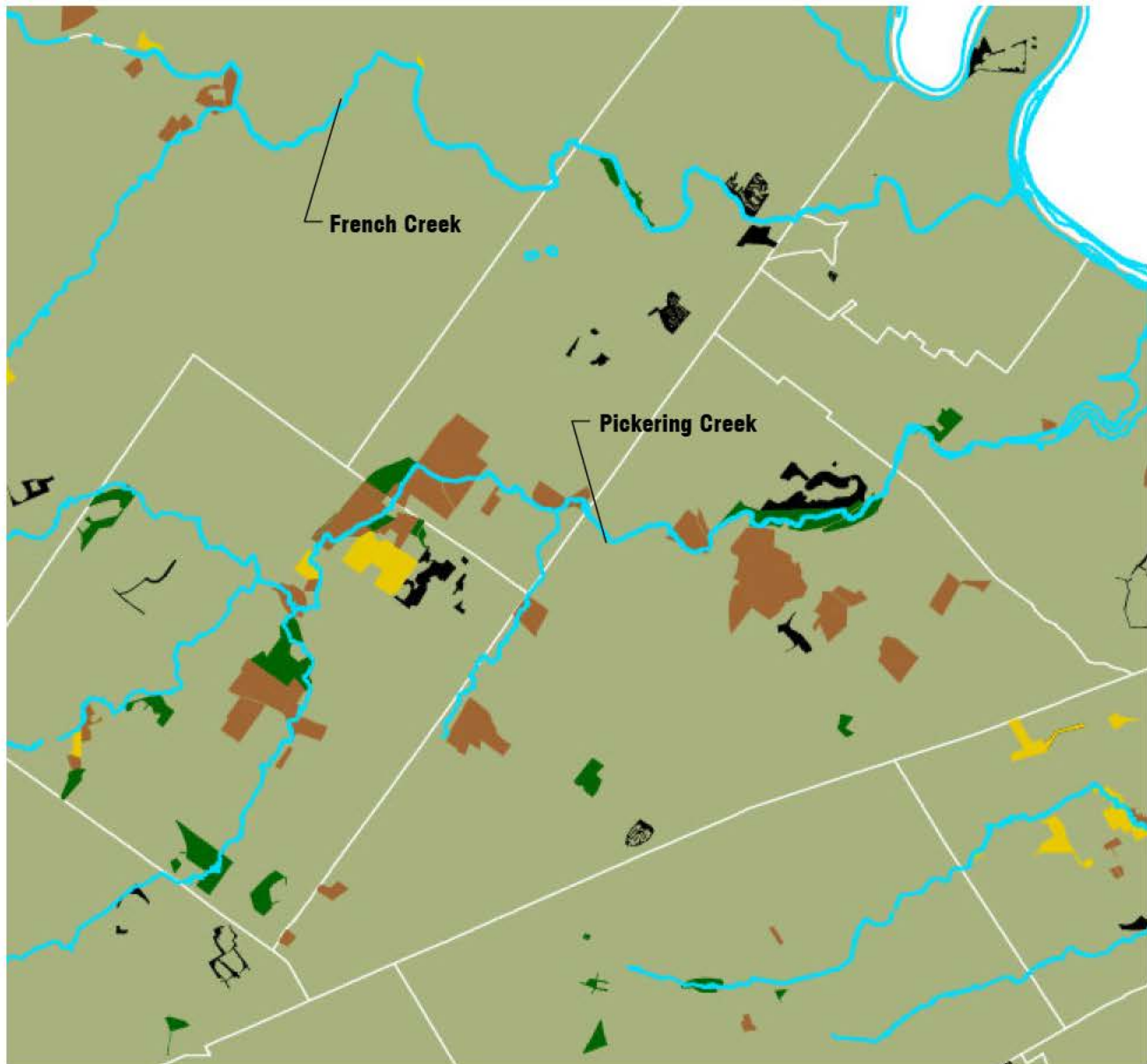
In order for a protected open space network to be established in Chester County, each individual protected open space included in the network must be properly planned. This planning should include a management plan to ensure that each protected parcel functions properly as open space on its own, and as part of a greater network. The following chapter provides a discussion of a number of the key planning issues that must be addressed by municipalities, community groups and County government in order to establish a protected open space network throughout Chester County.

The Distribution of Recreational Parks

Inventory of the Distribution of Recreational Parks

Recreational parks, such as playgrounds, sports fields or naturalized areas used for passive recreation, are one of the few varieties of protected open space that can be established in every type of community, from low density rural regions to high density urban centers. Ideally these recreation facilities should be located throughout all parts of Chester County, and serve as key elements of a countywide protected open space network. The following section evaluates how well recreational facilities are currently distributed throughout the County.

Figure 19.2 shows the location of all federal, state, County and municipal parks, although technically speaking the federal parks in Chester County are “historic sites.” The various types of parks located within the County are discussed separately in *Chapter 4*. All of these parks are used for some form of recreation. The larger state and County parks are used primarily for passive recreation, while the smaller and more numerous municipal recreation parks are used for active recreation. All of the

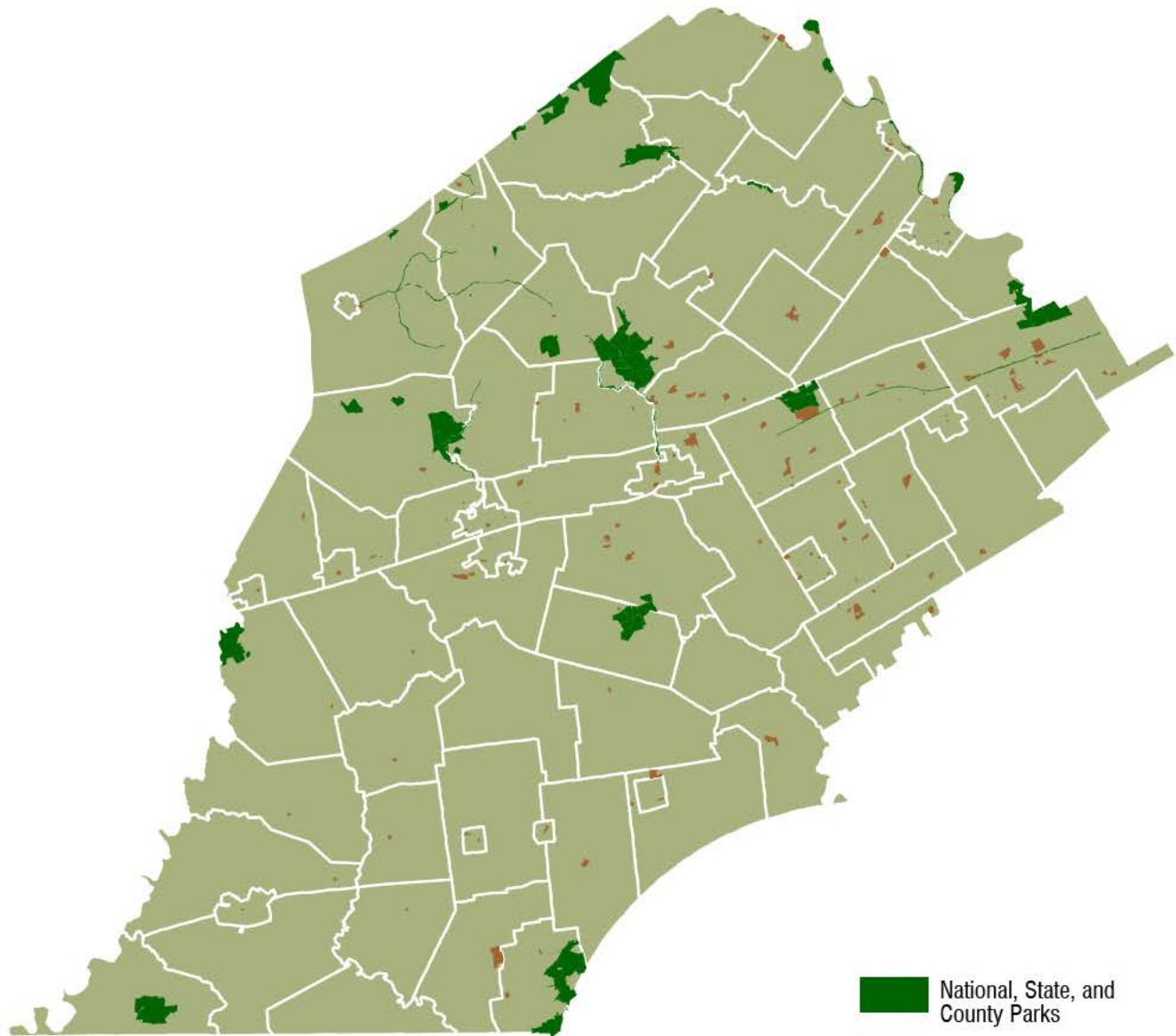
Figure 19.1: Protected Open Space Links along Pickering Creek

-  Major Streams
-  Municipal Non-Recreational
-  Properties Eased by Land Trusts
-  Properties Owned by Land Trusts
-  Homeowner Association Open Space

The data and files for maps in this document were digitally compiled by the Chester County Planning Commission (CCPC) of Chester County, PA. This information and data are provided for reference purposes only and should not be used for any detailed engineering purposes. The CCPC and Chester County make no claims as to the completeness, accuracy, or currency of the paper map or the digital data and files used to generate the map.

Source: CCPC, 2000.

Figure 19.2: National, State, County and Municipal Recreational Parks



0 6 miles
1 inch = 6 miles

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Source: CCPC, 2000.

parcels presented in *Figure 19.2* are publicly owned recreation facilities that provide public access. They should not be confused with publicly owned non-recreational open space that may have limited public access. The parcels mapped in *Figure 19.2* should also not be confused with privately owned lands that have a non-profit land trust or agricultural conservation easement. These privately owned lands are usually closed to public access, and can only be accessed if the landowner specifically provides permission.

Evaluation of the Distribution of Recreational Parks

As *Figure 19.2* shows, most of the large passive recreation facilities, such as state and County parks, are located in the western half of the County. Conversely, there is a higher concentration of active recreation municipal parks in the more populated eastern half of the County. This map indicates that Chester County has a small number of large-scale facilities in its less populated areas, and a great number of small-scale facilities in its higher population areas. Clearly there is an uneven distribution of parks within the County both in terms of size and variety. The residents of the eastern half of the County are lacking access to passive recreation facilities, while the residents of the western half lack active recreational facilities.

The lack of large passive recreation facilities – such as state and County parks – in the eastern half of the County is due to many factors. One factor is that the eastern part of the County has fewer large open space properties suitable for conversion into large recreational parks. Another factor is that land prices in the eastern part of the County tend to be higher, relative to the rest of the County. Furthermore, large passive recreation facilities are usually created around undeveloped and unique environmental features such as a pristine forest, a reservoir or a preserved serpentine barren. These unique features are less common in the more developed eastern half of the County.

Much of eastern Chester County is currently within the service area of Ridley Creek State Park in Delaware County, and so there is a common misconception that no more large parks are needed in this region. Ridley Creek State Park is a state facility that does not provide the same services that are provided by parks owned and managed by the Chester County Parks and Recreation Department. It would be inappropriate for Chester County to rely on a facility in another County to meet the recreation needs of Chester County's residents.

The lack of large recreational parks in the eastern part of the County is also due in part to County government policy. Currently it is County government policy to establish County Parks on properties that are both large and have unique natural or historical significance. As eastern Chester County has become more developed and subdivided, properties in this part of the County that meet both of these criteria have become harder

to find. Compliance with this policy has made it more difficult for large passive recreation facilities to be established by the County Parks and Recreation Department in the eastern parts of the County.

The lack of active recreation facilities – primarily municipal parks – in the western half of the County is also the result of many factors. Some municipalities in the western half of the County have not yet developed sizable municipal parks systems because they are rural communities where there is no strong public demand for parks. Rural communities may believe they have little need to develop active recreation facilities because they have low population densities and an abundance of open private lands that are used for recreation by their owners. However, many of the rural parts of Chester County are rapidly developing into residential areas, and as farmland is converted to developments, there will soon be a need to provide municipal parks. Municipal planners in rural areas should always keep future growth in mind and plan for the establishment municipal park facilities to accommodate this growth.

Some municipalities in western Chester County have established only minimal recreation facilities because they already have state or County parks nearby. Unfortunately, state and County parks have been designed for passive recreation, and do not provide the full variety of active recreation facilities needed within a municipality. A municipality should not rely on passive recreation facilities or facilities built by other municipalities to meet the active recreation needs of its community. A municipality that is unable to provide its residents with active recreational facilities on their own should consider joining in a cooperative effort with another municipality, or a state or County agency.

The residents and governments of Chester County should evaluate recreational open space in terms of active versus passive use. In order for a community to fully meet the recreational need of its residents, it should provide as many options for both passive and active recreation as is practical. In discussing this issue the 1995 *Park, Recreation, Open Space and Greenway Guidelines*, published jointly by the National Recreation and Park Association and the American Academy for Park and Recreation Administration states:

“Geographic location, demographics, economic base, and history are important variables that influence the availability of resource patterns and opportunities... Clearly these are important, but should not outweigh the primary need to meet the basic needs of all citizens.

The important point to be considered, however, is that the [park planning] agency should have a number of different types of parks. In too many instances, communities have “met the standard” in terms of acreage, but have met it through the provision of a single large park. In other words, the number of areas was totally inappropriate.”

Visions & Actions **for the Distribution of Recreational Parks**

Vision 19.1

A municipality should fulfill the active recreation needs of its residents with recreational parks fully or partially owned and operated by the municipality, and not rely on federal, state or County parks, or parks wholly owned and operated by another municipality.

Action 19.1

The County will not endorse planning studies that propose that a municipality should fulfill the active recreation needs of its residents with federal, state or County parks, or parks wholly owned and operated by another municipality.

Vision 19.2

Large passive recreation parks should be more evenly distributed throughout the County.

Action 19.2

The County will endorse state and federal projects that help to establish or enlarge large passive recreation parks in unserved parts of the County, and pursue such projects at the County level.

Vision 19.3

Large undeveloped parcels, including vacant formerly developed parcels, that have a potential to be developed into passive recreation parks and are within or near Urban and Suburban Landscapes, should be mapped.

Action 19.3

The County will map large undeveloped parcels, including vacant formerly developed parcels that have a potential to be developed into passive recreation parks and are within or near Urban and Suburban Landscapes.

Trail Links Between Recreational Parks

Inventory of Trail Links Between Recreational Parks

A protected open space network is not simply a collection of nearby undeveloped properties, rather it is a purposefully inter-linked system of protected open spaces. It is the links in a protected open space network that allow the network to function. It is therefore necessary when planning to establish a protected open space network, to give special consideration to protected open spaces that serve as links.

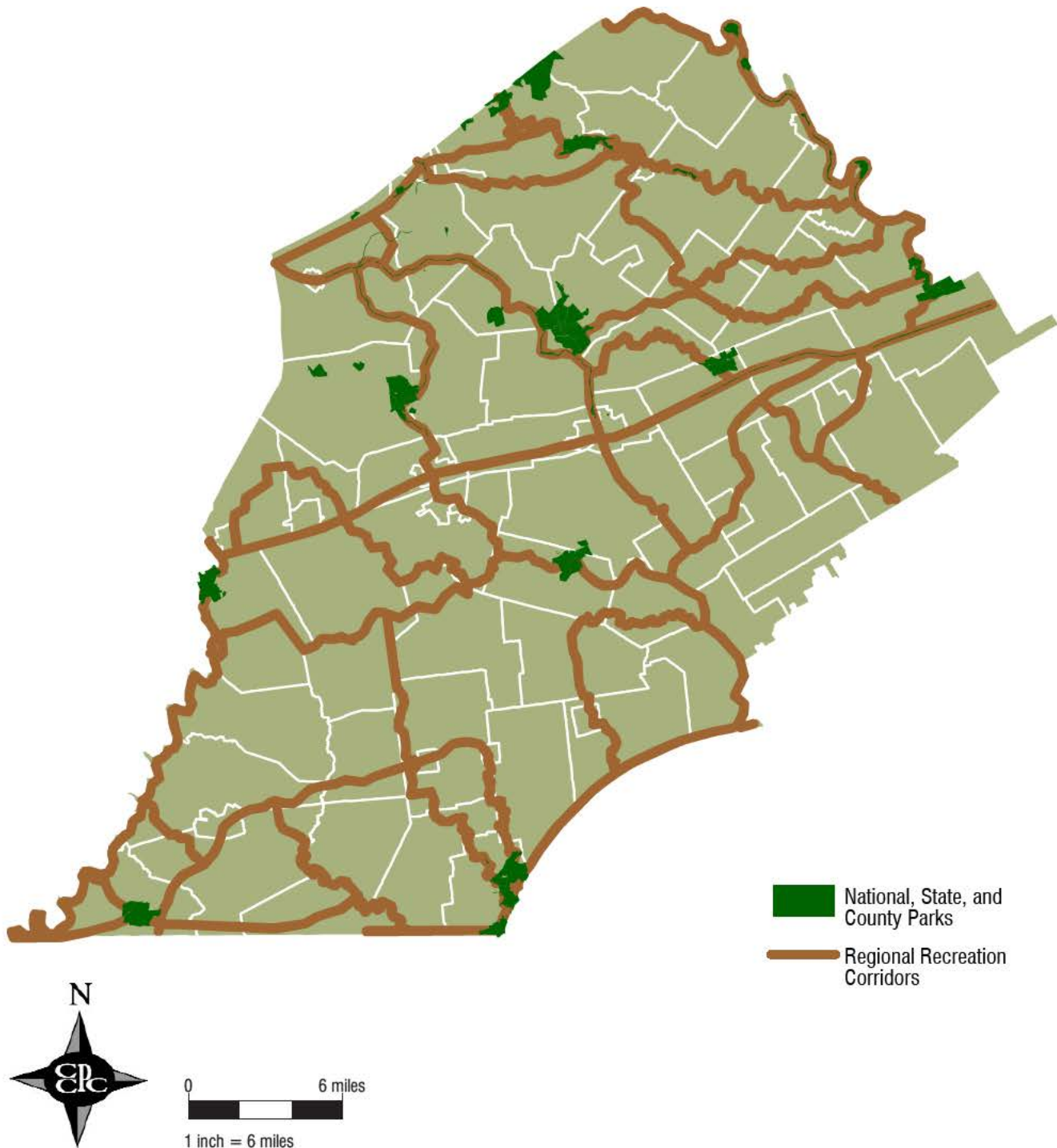
In an ideal situation, a network of protected open space would consist of inter-linked clusters of open space parcels creating a broad corridor of undeveloped land. In reality such a broad corridor is impractical, and many protected open space parcels can only be linked together by thin linear corridors. Although either recreational trails or non-recreational wildlife corridors can be used to link protected open spaces, trails are much more common.

Trails are especially valuable in establishing a protected open space network because they link together recreational facilities that can be found in all types of communities. Of course, recreational trail corridors often pass through non-recreational facilities such as wildlife preserves or reservoir buffer areas, and at night these recreational trail corridors may serve as animal migration corridors. However, the primary function of recreational trails is to link together active recreational facilities. *Figure 19.3* shows how the Regional Recreation Corridors presented in *Chapter 12* could link many, but not all of the County's federal, state, County, and municipal recreational parks, as discussed in *Chapter 4*.

Evaluation of Trail Links Between Recreational Parks

Chapter 12 clearly documents that there are only two regional trails in Chester County that currently link to recreational facilities. The opened section of the County Chester Valley Trail passes through the Future County Park Site in West Whiteland, and the opened section of the County Struble Trail passes through municipal parkland in Downingtown Borough. This countywide lack of trail-to-park linkages came to be because in the past, recreational parks in Chester County were not designed and constructed to be part of a network linked by trails. As a result, the vast majority of the County's major recreational parks are currently isolated from the County's densely populated boroughs and city, as shown in *Figure 19.4*.

Figure 19.3: Recreational Parks and Regional Recreation Corridors



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Source: CCPC, 2000.

Figure 19.4: Major Parks within Five Miles of Boroughs and Cities

Major Parks Not Linked by Trails to Major Population Centers	Boroughs and Cities within Five Miles
French Creek State Park	Honey Brook Borough
Future County Park in Newlin	Downingtown, Modena, South Coatesville, and West Chester Boroughs, and the City of Coatesville
Future County Park in West Fallowfield	Parkesburg and Atglen Boroughs
Future County Park in West Whiteland	Downingtown, Malvern and West Chester Boroughs
Hibernia County Park	South Coatesville and Modena Boroughs, and the City of Coatesville
Hopewell Village National Historic Site	Honey Brook Borough
Nottingham County Park	Oxford Borough
Valley Forge National Historic Site	Malvern and Phoenixville Boroughs
White Clay Creek Preserve State Park	Avondale and West Grove Boroughs

Source: CCPC, August 2001

Figure 19.4 shows boroughs and city in Chester County that are within five miles of selected parks within County. The five-mile distance was chosen because a bicyclist can travel on a five mile trail at ten miles per hour (mph) in one half hour. A bicyclist can therefore travel the entire length of a five-mile trail, and then return to his or her starting point within an hour. This speed is a moderately slow speed for bicycles and would not be excessive on a mixed-use trail with pedestrians. The City of Huntington Beach, CA is one of a few municipalities in the nation that posts bicycle speed limits. They post various bike speeds on roadways and require bicyclists to travel a maximum of 10 mph on mixed-use recreational trails. Cyclists must slow to 5 mph in the presence of pedestrians. The campus of the University of California at Berkeley has a similar bike speed limit on internal campus trails, but they post a uniform speed of 25 mph on roadways.

Linking the County's older boroughs and Coatesville City to recreational parks will assist in their economic development, and improve their quality of life, real estate values and tax base. Existing urban centers with a good quality of life also attract new residents away from newly constructed residential units in rural areas, thus reducing the conversion of rural landscapes into development. As *Chapter 17* notes, nearby Montgomery County, PA and New Castle County, DE have been actively planning and constructing trail links to promote all the positive social and economic benefits these trails provide. Chester County has, unfortunately, lagged

behind in trail planning and development, and so it is at a competitive disadvantage to these two other counties. If Chester County is to maintain quality of life and the economic benefits associated with trails, it must develop an inter-linked network of trails and recreational parks that can compete with its nearby counties.

Visions & Actions **for Trail Links Between Recreational Parks**

Vision 19.4

Recreational parks should connect to any other recreational park, borough, city or major population center within five miles via a trail.

Actions 19.4

When reviewing land development plans, zoning and subdivision ordinances, open space and recreation plans and comprehensive plans, the County will provide comments and recommendations on how well proposed recreational parks are linked to any other recreational park, borough, city or major population center within five miles.

Vision 19.5

The master plan, master plan update, design or redesign for any existing recreational park should identify feasible trail links that would connect the recreational park to any other recreational park, borough, city or major population center within five miles.

Vision 19.5

When reviewing a master plan, master plan update, design or redesign for any existing recreational park, the County will provide comments and recommendations on how well existing recreational parks are linked to any other recreational park, borough, city or major population center within five miles.

Vision 19.6

County parks should be linked to or extended out to any other recreational park, borough, city or major population center within five miles, except where it is documented to be impractical.

Vision 19.6

The County will study the feasibility of linking or extending County Parks out to any other recreational park, borough, city or major population center within five miles.

Vision 19.7

Federal and state park managers should identify and document possible locations for trail links that would connect their respective recreational parks to any other recreational park, borough, city or major population center within five miles.

Action 19.7

The County will request that the National Park Service and the DCNR Bureau of State Parks identify and document possible locations for trail links that would connect their respective recreational parks to any other recreational park, borough, city or major population center within five miles.

Terms Used in Open Space Planning

Inventory of Terms Used in Open Space Planning

Currently there are no nationally accepted definitions for the terms commonly used when discussing open space issues. This is largely due to the fact that open space planning is still a relatively new endeavor. Even professional planners cannot agree on definitions for such basic terms as “active recreation” or “greenway.” Among the general public the very words “open space” can be defined quite differently from one person to the next. If a protected open space network is to be established in Chester County there must be consistency in the terminology used in discussing open space issues.

For example, if two or more municipalities wish to cooperate in a regional open space planning effort, it may be necessary to make sure that they both use the same definitions for the open space planning terms in their zoning and subdivision ordinances or comprehensive plans. Likewise a partnership between a municipality and the County government, or the County government and the state may require that both parties use the same terminology.

This lack of consistency with terms used in open space planning has also been known to lead to conflicts between various users of open space. It is not unusual for people who use one open space facility to have different perceptions of what that open space is, and how it should be used. For example, in 1999 one community in eastern Chester County acquired a floodplain area as open space with broad support from the parcel’s nearby

neighbors, who wanted a quiet viewshed. However, when this open space was used as a practice field by a little league team on weekends, the neighbors complained to their municipal officials about the early morning noise of the children and the traffic generated by their parents. A conflict then arose because the neighbors perceived this open space to be a natural resource preserve, while the parents of the baseball team perceived it to be a facility for community sports.

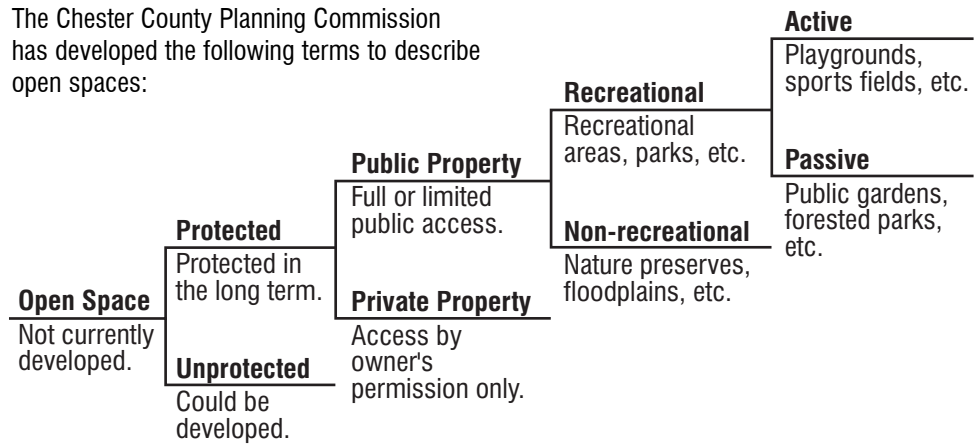
Fortunately, the municipality in question had prepared a planning document that clearly stated that the floodplain open space was developed for flood control and for passive recreation only. This municipality also defined “passive recreation” in detail, and according to that definition, passive recreation did not include team sports play. As a result, the little league team had to practice elsewhere and the conflict was resolved. In 2000, a nearly identical conflict arose in a northern Chester County community, but this time nearby neighbors had to accept the presence of a sports team because municipal planning documents clearly stated that the open space facility could be used for active recreation.

In both of the above examples a conflict was resolved because the municipalities clearly documented how their open space facilities were to be used, and also used well-defined terms to describe open spaces and open space uses. Any open space manager, from a farmer with conservation easements to a park superintendent, should determine and document how the open space he or she manages is to be used. Open space managers responsible for lands that are open to the public, should also clearly publicize and post what types of activities are permitted on the properties they manage.

Evaluation of Terms Used in Open Space Planning

The term “open space” has no one definition, which can cause conflicts to arise between the people who live near or use open spaces. In the past, some governments and private entities have created open space facilities without sufficiently planning for how they would be used, or without adequately informing the public about how they are to be used. In order to avoid future user conflicts, governments and other open space property owners should clearly document, publicize and post how their land is to be used, or how their proposed facilities are to be used.

The Chester County Planning Commission has developed the following terms to describe open spaces:

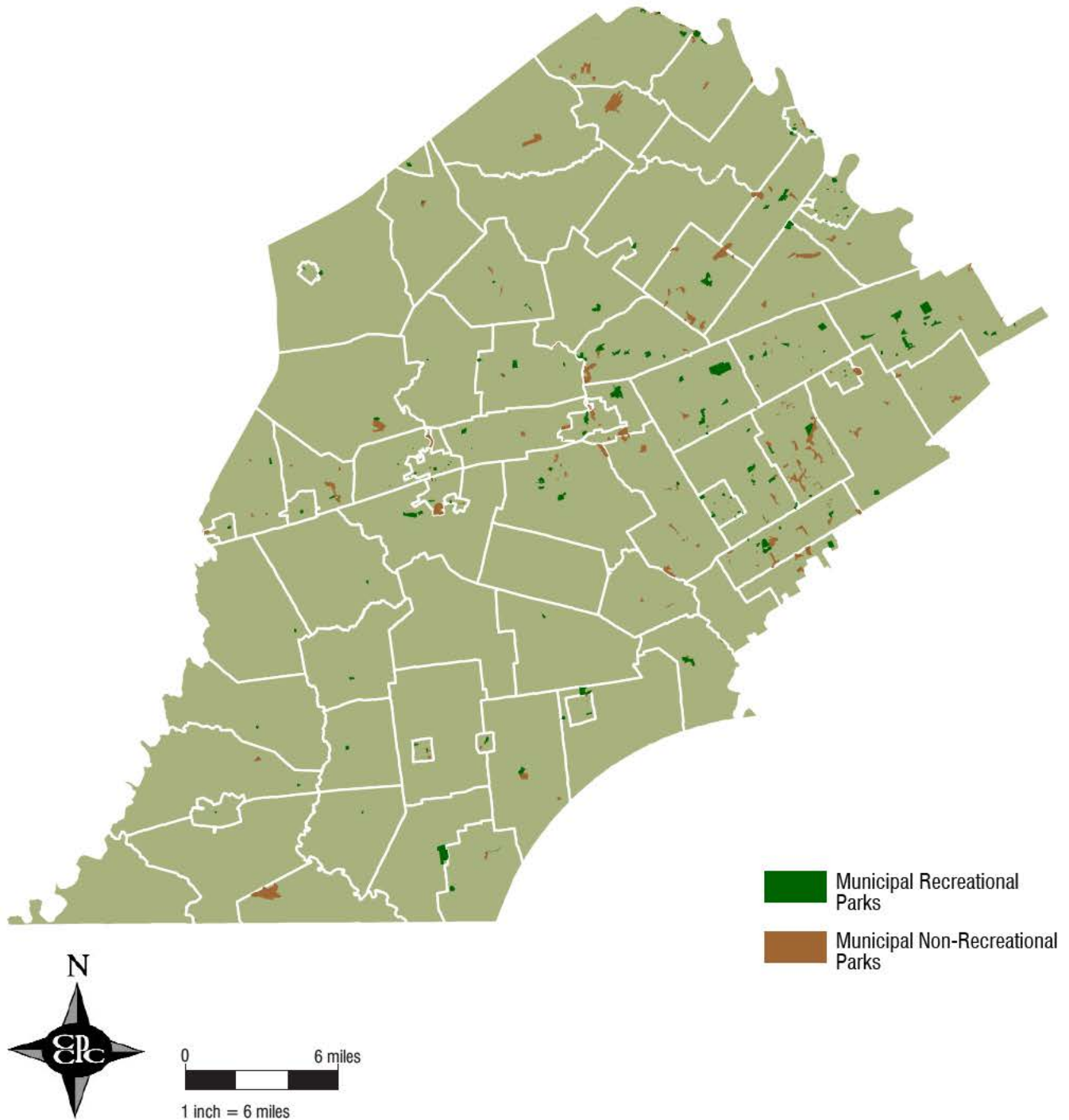


These terms are defined in more detail in the glossary at the end of *Linking Landscapes*, and municipalities may use these definitions or variations of these definitions in their planning documents. Municipalities that wish to avoid user conflicts should document how each municipal open space is to be used as either an active or a passive recreational facility, or both. If a large recreational facility allows both active and passive recreation, it may be necessary to designate what areas are set aside for only passive recreation, and what areas permit active recreation. Municipalities should also include a definition of active recreation and passive recreation in their planning documents.

Municipalities should also clearly document if an open space facility is intended to become a permanent feature, or if the open space may be developed as a building site or used for a different open space purpose in the future. For a example, a municipality should state if a non-recreational open space, such as a wildlife preserve, is intended to remain in that use in perpetuity, or whether it may someday be converted into a recreational facility such as a soccer field. It is not always appropriate to maintain an open space exclusively for one use in-perpetuity, in which case the municipality should document that the open space in question may be converted to some other use at a future date. By documenting what the intended future use of an open space property is, residents can have more realistic expectations of future conditions in their community.

Most of Chester County’s municipalities own both recreational open space and non-recreational open space. **Figure 19.5** shows all the municipal recreational open space in Chester County as presented in **Chapter 4**, along with the non-recreational open spaces and undeveloped future open space sites presented in **Chapter 5**. As stated in both **Chapters 4** and **5**, the recreational open spaces within a municipality should be developed based on the existing and projected population of a municipality, while non-recreational open space should be developed to protect natural or cultural resources. These two types of municipal open spaces should be linked wherever practical, but it should be recognized that each serves a very different function. **Figure 19.6** lists the acreage of both recreational and non-recreational open space in Chester County.

Figure 19.5: Municipal Recreational Parks and Non-recreational Open Spaces



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Source: CCPC, 2000.

Figure 19.6: Municipal Recreational Parks and Non-recreational Open Space Acreage

Municip.	Rec. (acres)	Non-rec. (acres)	Total (acres)	Municip.	Rec. (acres)	Non-rec. (acres)	Total (acres)
Atglen	4.8	14.7	19.5	N. Coventry	32.6	101.1	133.7
Avondale	11.3	6.9	18.2	Oxford	2.3	0	2.3
Birmingham	0	0	0	Parkesburg	9.5	0.7	10.2
Caln	21.4	47.1	68.5	Penn	9.9	0	9.9
Charlestown	41.1	120.2	161.3	Pennsbury	52.4	10	62.4
Coatesville	13.4	30.9	44.3	Phoenixville	35.1	0.1	35.2
Downingtown	45.7	37.3	83	Pocopson	0	12.7	12.7
East Bradford	7.2	154.2	161.4	Sadsbury	8	76.3	84.3
E. Brandywine	44.6	15.5	60.1	Schuylkill	0	30.6	30.6
East Caln	86.4	64.4	150.8	S. Coatesville	5.3	87.6	92.9
East Coventry	39.4	36.5	75.9	South Coventry	0	203	203
East Fallowfield	59.1	0	59.1	Spring City	15.6	10.5	26.1
East Goshen	65.1	322.3	387.4	Thornbury	28	83.8	111.8
E. Marlborough	6.9	0	6.9	Tredyffrin	312.5	21.9	334.4
East Nantmeal	0	0	0	Upper Oxford	4.8	0	4.8
East Nottingham	0	0	0	Upper Uwchlan	39.5	0	39.5
East Pikeland	63.4	104	167.4	Uwchlan	127	116.6	243.6
Easttown	0	47.5	47.5	Valley	2.8	0	2.8
East Vincent	10.2	0	10.2	Wallace	11.6	19.5	31.1
E. Whiteland	81.4	18.5	99.9	Warwick	0	88	88
Elk	0	232.5	232.5	West Bradford	76.2	82.7	158.9
Elverson	12.1	0	12.1	West Brandywine	2.3	0	2.3
Franklin	130.5	0	130.5	West Caln	15.4	88.2	103.6
Highland	5.8	0	5.8	West Chester	42.3	0	42.3
Honeybrook Boro.	3.7	0	3.7	West Fallowfield	4.8	0	4.8
Honeybrook Twp.	10.6	0	10.6	West Goshen	76.8	31.2	108
Kennett	64.8	0	64.8	West Grove	13.1	9.1	22.2
Kennett Square	5.1	4.1	9.2	West Marlborough	0	0	0

Municip.	Rec. (acres)	Non-rec. (acres)	Total (acres)	Municip.	Rec. (acres)	Non-rec. (acres)	Total (acres)
London Britain	19.4	15.9	35.3	West Nantmeal	1.8	16.7	18.5
London Grove	0	0	0	West Nottingham	0	0	0
Londonderry	9.8	0	9.8	West Pikeland	71.1	235.8	306.9
Lower Oxford	0	16.8	16.8	West Sadsbury	9.8	10.8	20.6
Malvern	3.4	45.5	48.9	Westtown	97.9	163.3	261.2
Modena	4	4.6	8.6	West Vincent	12	21.5	33.5
New Garden	27.7	48.5	76.2	W. Whiteland	278.7	27.1	305.8
Newlin	0	0	0	Willistown	18	36.8	54.8
New London	3.7	0	3.7	Chester Co.	2319.1	2,973.5	5,292.6

Source: CCPC, April 2001, based on municipal surveys conducted in 2001.

Municipalities and other organizations should be aware that there is no universally accepted definition for “active recreation” or “passive recreation” and that some activities such as hiking, bicycling, child’s play and picnicking do not always fit neatly into either category. It is therefore up to each municipality or organization to define these terms by considering both local community standards and definitions commonly used by professional park planners. In Chester County, all County parks are developed primarily for passive recreation, while it is the municipalities that are responsible for establishing active recreation facilities.

It is also important for the recreational uses permitted on public trails, water trails, bike routes and paths to be clearly designated during the planning phase, and then publicized and marked by signs during the construction phase. The uses permitted on these linear facilities should be listed and defined in planning documents. Such uses may include:

- Walking
- Bicycling
- Tubing
- Rollerblading
- Horse and Buggy
- Skateboarding
- Swimming
- Hiking
- Horseback Riding
- Leashed Dog Walking
- Mountain Biking
- Canoeing Running
- Motor Biking
- Motorized Boating

Visions & Actions **for Terms Used in Open Space Planning**

Vision 19.8

All public entities should inform the public of the proposed uses of a proposed open space project during the planning stages of the project. They should also inform the public of any limitation on public access proposed for the project.

Action 19.8

When reviewing land development plans for proposed publicly owned open spaces, the County will provide comments and recommendations on how clearly the proposed open space use and access have been documented and publicized.

Vision 19.9

Municipalities should document the type of uses that are permitted on their publicly owned open spaces, or on properties proposed to be developed as publicly owned open spaces, and this documentation should be included in land development plans, zoning and subdivision ordinances, open space and recreation plans and comprehensive plans.

Action 19.9

When reviewing land development plans, zoning and subdivision ordinances, open space and recreation plans and comprehensive plans, the County will provide comments and recommendations on how clearly the uses and access limitations of existing and proposed publicly owned open spaces are described.

Vision 19.10

Municipalities should use clear and specific definitions for active recreation, passive recreation, non-recreational open space and other terms relating to open space and recreation facility development and use. These definitions should be consistent through the County to facilitate multi-municipal projects.

Action 19.10

The County will provide examples of ordinance language that describes active recreation, passive recreation, non-recreational open space and other terms relating to open space and recreation facility development and use.

Vision 19.11

OSRER Plans that do not document the type of uses that are permitted on their publicly owned open spaces, or on properties proposed to be established as publicly owned open spaces should be updated to include this information.

Action 19.11

The County will work with municipalities through the VPP to update OSRER Plans that do not document the type of uses that are permitted on their publicly owned open spaces, or on properties proposed to be established as publicly owned open spaces.

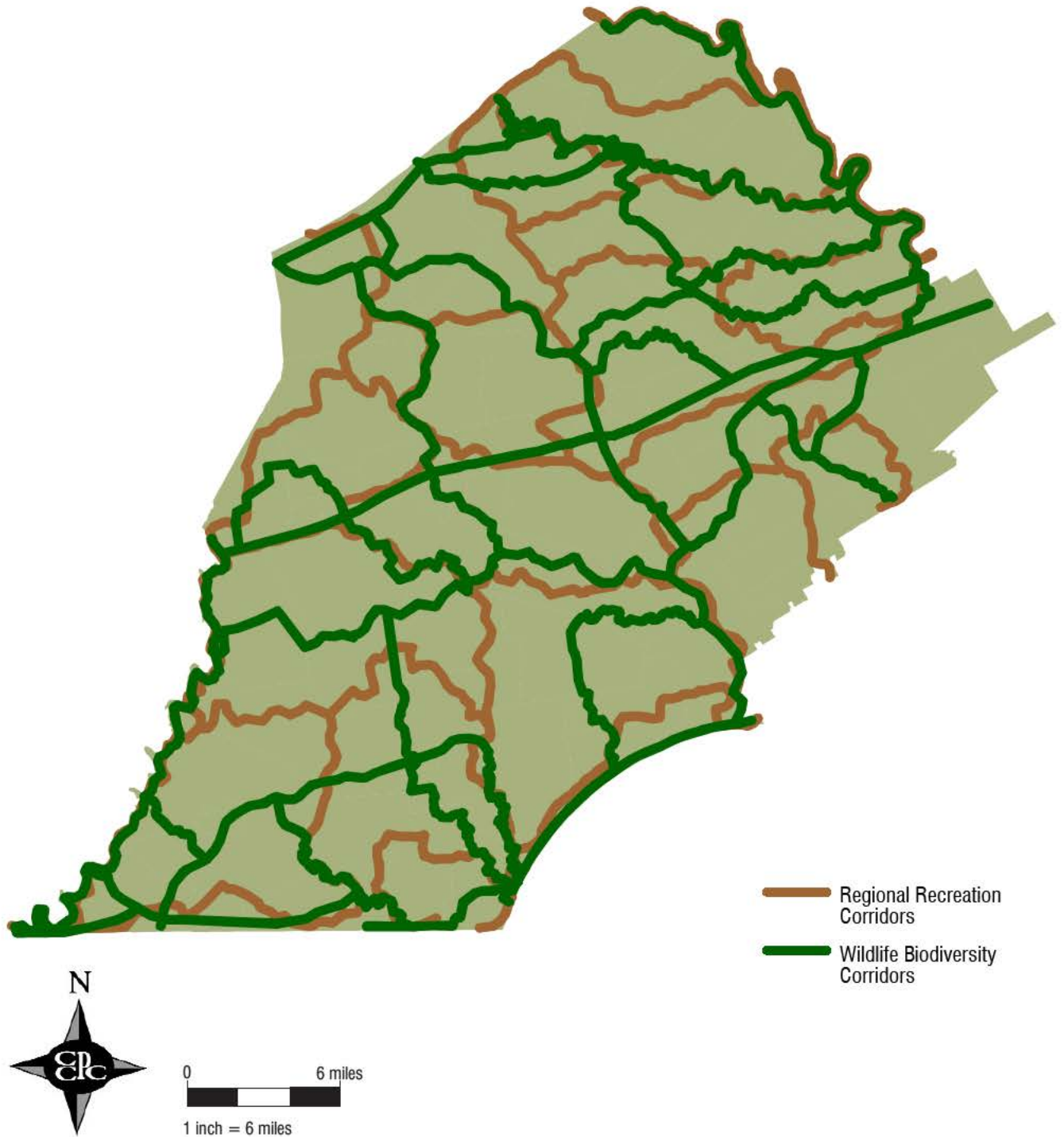
Distinguishing Trails from Wildlife Corridors

Inventory for Distinguishing Trails from Wildlife Corridors

Both trails and wildlife corridors are long linear features that link together protected open spaces within an open space network. Although they are similar in appearance, these two types of linear features have very different characteristics. Wildlife corridors are commonly located along streams, in pristine woodlands or along steep slopes. These sensitive areas are not well suited for trail use, and in some instances the ecology of these areas can be degraded by recreational use. Trails on the other hand, should be located on flat dry terrain, and should be designed to accommodate recreational users including hikers, bicyclists, and equestrians.

Because trails and wildlife corridors are so different, the Planning Commission and the Parks and Recreation Department regard them as two overlapping open space corridor networks in Chester County. *Figure 19.7* shows the Regional Recreation Corridors described in *Chapter 12*, and the Wildlife Biodiversity Corridors, described in *Chapter 13*. The Regional Recreation Corridors were primarily designed to serve the recreation needs of the County's human population, while the Wildlife Biodiversity Corridors were primarily designed to better protect natural resources or facilitate wildlife migration.

Figure 19.7: Regional Recreation Corridors and Wildlife Biodiversity Corridors



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Source: CCPC, 2000.

Evaluation of Distinguishing Trails from Wildlife Corridors

It is important to make sure that trails and wildlife corridors are separated whenever possible. Trails are used for human recreation, and popular trails can be quite heavily used. Such heavy recreational use would be inappropriate in a corridor set aside for natural resource protection or wildlife migration. To ensure this separation, it is necessary to clearly plan, publicize and post wildlife corridors as limited public access facilities whose primary purpose is natural resource protection. Municipalities should document whether a planned or existing linear open space feature is to be used as a recreational trail or a wildlife corridor. In certain wildlife corridors, some sort of recreational path, such as a dirt hiking path, may be appropriate as long as the permitted uses of the path are clearly posted.

Currently, many public officials and persons in the general public are not aware that trails and wildlife corridors serve different functions. Many programs and publications do not distinguish between the types of linear open space features and simply refer to all of them as “greenways.” This term, like “open space,” has no one definition.

Linking Landscapes defines a trail as an off-road transportation facility used for multiple forms of non-motorized transportation such as hiking, bicycling and roller blading. A path is like a trail, except it is only used for one mode of transportation, like a hiking path or a bicycle path. A “route” is a section of roadway or a roadway shoulder used for bicycles. These terms are discussed in detail in *Chapter 12* and are listed in the glossary at the end of *Linking Landscapes*.

Municipalities may use these definitions or variations of these definitions in their planning documents. Municipalities that wish to partner with neighboring municipalities to create a multi-municipal network of trails or wildlife corridors should also coordinate to ensure that the terminology used to define these linear open space features is consistent in all municipalities involved. Municipalities should also document what activities are permitted on trails or within wildlife corridors, just as they should document what activities are permitted on any municipal open space.

By clearly distinguishing between trails and wildlife corridors, municipalities also provide their residents with more than one option for protecting linear open spaces. In some communities, residents may have a strong desire to protect natural areas, and so would be supportive of a wildlife corridor. In other communities, providing trail oriented recreation may be a higher priority, and so a trail project would be more popular. When recreational trails and wildlife corridors are combined there is less clarity about how these linear protected open spaces are to be used.

Visions & Actions

for Distinguishing Trails from Wildlife Corridors

Vision 19.12

All public entities should inform the public of the proposed uses of a proposed trail or wildlife corridor during the planning stages of the project. They should also inform the public of any limitation on public access proposed for the project.

Action 19.12

When reviewing land development plans for proposed publicly owned trails or wildlife corridors, the County will provide comments and recommendations on how clearly the proposed open space use and access have been documented and publicized.

Vision 19.13

Municipalities should document the type of uses that are permitted on their publicly owned trails or wildlife corridors, or on properties proposed to be developed as publicly-owned trails or wildlife corridors, and this documentation should be included in land development plans, zoning and subdivision ordinances, open space and recreation plans and comprehensive plans.

Action 19.13

When reviewing land development plans, zoning and subdivision ordinances, open space and recreation plans and comprehensive plans, the County will provide comments and recommendations on how clearly the uses and access limitations of existing and proposed publicly owned trails or wildlife corridors are described.

Vision 19.14

Municipalities should use clear and specific definitions for trails and wildlife corridors and other terms relating to linear open space facility development and use. These definitions should be consistent throughout the County to facilitate multi-municipal projects.

Action 19.14

The County will provide examples of ordinance language that describes trail and wildlife corridors and other terms relating to linear open space facility construction and use.

Vision 19.15

OSRER Plans that do not document the type of uses that are permitted on their publicly owned trails or wildlife corridors, or on properties proposed to be established as publicly owned trails or wildlife corridors should be updated to include this information.

Action 19.15

The County will work with municipalities through the VPP Program to update OSRER Plans that do not document the type of uses that are permitted on their publicly owned trails or wildlife corridors, or on properties proposed to be established as publicly-owned trails or corridors.

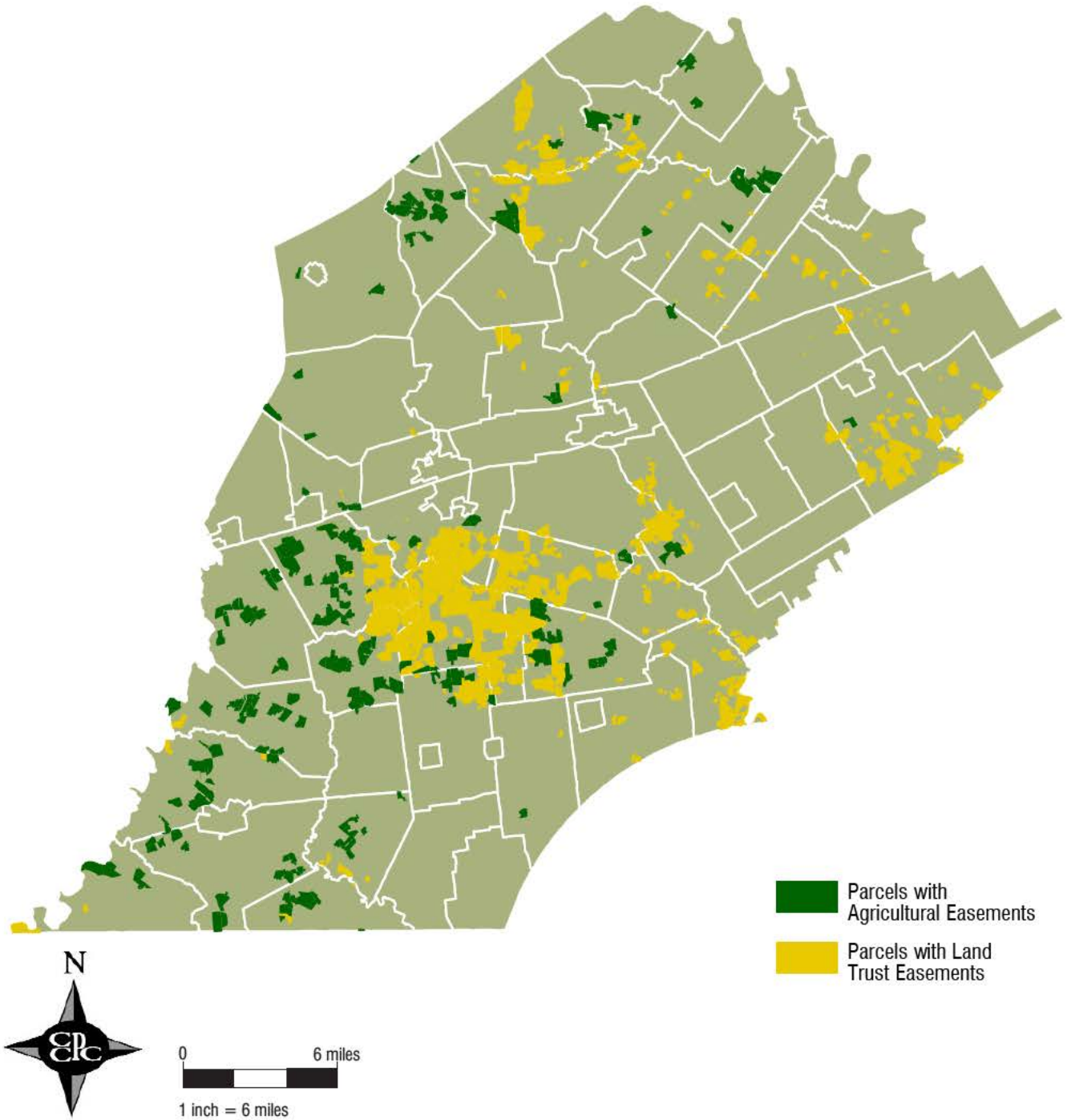
Open Space that is Not Open to the Public

Inventory of Open Space that is Not Open to the Public

A protected open space network includes many protected open space properties that are open to the public and used for recreation, and as a result some people assume that all protected open space properties are open for public use. This assumption is not correct. In fact, most of the protected open space in Chester County is on private property that has not been established to provide public recreation and is not open for public access. These protected open spaces on private properties include farms that have an agricultural conservation easement or privately owned undeveloped landscapes whose owners have sold or donated their developments rights to a non-profit land trust. If a protected open space network is to be established in Chester County, it must include these private properties.

Figure 19.8 shows all of the private properties within Chester County that have some sort of conservation easement. In June of 2001, the Planning Commission estimated that over 75,300 acres of Chester County was protected open space. Of this protected land, over 33,300 acres was privately owned land that was protected with a non-profit land trust conservation easement. Parcels with non-profit land trust easements are discussed in more detail in **Chapter 6**. The June 2001 inventory also found that parcels in Chester County that were partially or fully eased by an agricultural conservation easement covered over 14,400 acres. Farms with agricultural conservation easements are discussed in **Chapter 9**.

Figure 19.8: Parcels with Agricultural Conservation Easements and Land Trust Easements



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Source: CCPC, 2000.

When added together, parcels eased by agricultural conservation or land trust easements make up roughly 64 percent of the total protected open space in Chester County.

Farmers and other landowners who put easements on their properties are providing Chester County residents with a valuable service. When a landowner donates or sells the development right for a parcel of land, the landowner gives up the opportunity to develop the land or sell the land to a developer. Landowners who protect their land as open space provide the County as a whole with the open space benefits their undeveloped land provides. These landowners also take care of the land on their own, and so save taxpayers the land management costs that are always required to maintain public lands.

Chester County and the state both provide funds that are used to purchase agricultural conservation easements. From 1990 to 2000 the state provided over \$27 million, while the County provided over \$17 million. Because these farmers receive public funds, there are some people who argue that their land should be open to the public, much like public parks. This is not likely to ever occur, because once land is open to the public, it must be carefully managed to provide a safe environment for public recreation. During the late 1990s, the operating budget for the Chester County Parks and Recreation Department has been roughly \$3.5 million dollars per year. This expenditure represents the cost required to manage the County Park holdings that cover approximately 5,000 acres.

If eased farms were open to the public, they would have to be managed to accommodate safe public recreation, and that would require additional costs. If the farmers themselves were required to pay these costs, it would make the farms less profitable, and perhaps unusable, which would discourage farmers from easing their land and encourage them to develop their land. If the County government or municipalities were required to pay these costs, it would be a major expenditure that would continue every year in perpetuity. In the long run, allowing farmers to manage their lands on their own, which requires that these lands be closed to the public, promotes the protection of open space and eliminates the need for the costly public funding that is essential to properly maintain open spaces with public access.

Evaluation of Open Space that is Not Open to the Public

Currently, privately owned protected open spaces already form local networks of protected open space in some parts of Chester County. In order to expand these local networks, the various farmers, land trusts and public agencies that manage these lands must coordinate their efforts and share information on what properties they own and ease. Unfortunately it can be difficult to gather information on parcels that have conservation easements. It is common for property owners to give a conservation

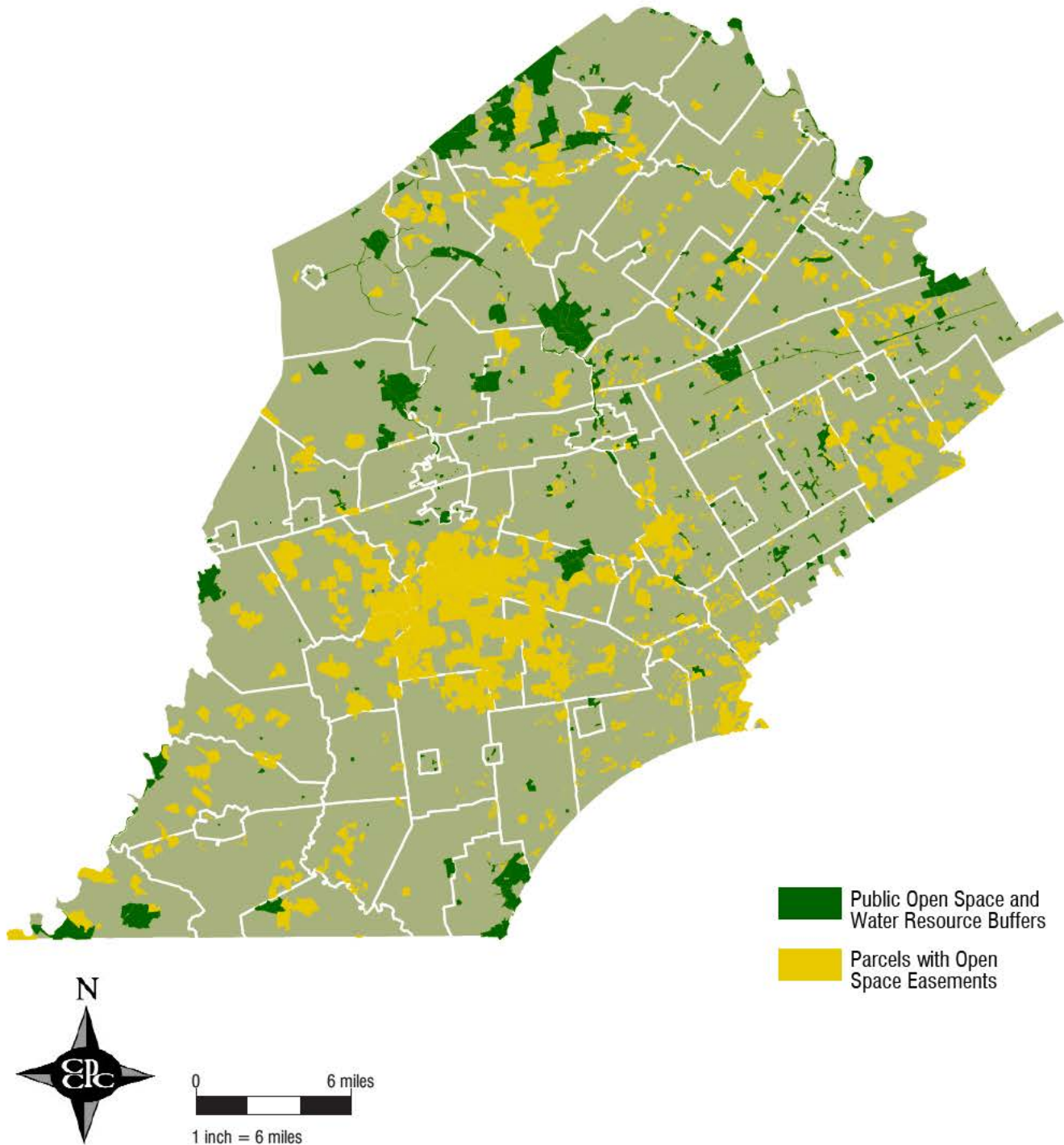
easement to a land trust as a charitable donation. Although it is impossible to donate a land easement with complete anonymity, many landowners do so with the understanding that there will be minimal publicity. These landowners wish to protect their privacy, and are not eager to see maps distributed that depict their land holdings. If Chester County is to continue to benefit from charitable donations of land easements, landowner privacy concerns must be respected.

Protected open spaces on private property form a number of large clusters in various parts of Chester County, especially the King Ranch area south of South Coatesville Borough, the French Creek headwaters area, the lower Brandywine Creek watershed and southern Willistown Township. These clusters have begun to form multi-municipal networks of protected open space. Much of this land has been linked together without government assistance, and has been protected entirely through the planning efforts of the many non-profit land trusts active in the County. However, many of these private properties are directly adjacent to protected open spaces that are publicly owned and open to the public.

Figure 19.9 shows how private property with conservation easements is commonly situated next to public parks, managed lands and homeowner association property. In many places the combination of private property and public property form especially large and valuable clusters of protected open space. In the French Creek area, properties with land trust easements and farms with agricultural conservation easements are clustered together with state game lands – and state and County parks – to form one of the largest open space clusters in the County. In the eastern part of the County, homeowner association open spaces and parcels eased by land trusts create an open space network with a twisting gerrymander shape. These eastern clusters are not as large as some of the western open spaces, but they are still of great value because they protect land in highly developed areas.

Figure 19.9 classifies Chester County's protected open spaces into two categories in order to show how different types of open space are often part of the same overall cluster. In practice, many protected open spaces are difficult to classify. For example, parcels owned by the Chester County Water Resources Authority or the Chester Water Authority are sometimes called "quasi-public," because these properties are not open to the public but are owned by organizations that serve the public. Likewise, homeowner association lands are jointly owned by the residents of the development, but may contain playgrounds and sidewalks that are used by residents from outside the development. Indeed, the issues of public versus private ownership – and what kind of public access is permitted on an open space parcel – are unique to each parcel. For this reason it is important to plan, publicize and post whether or not a protected open space is private property, and if public access is limited or forbidden. If a protected open space is private property, it will ultimately be up to the owner to determine how it is to be used and accessed.

Figure 19.9: Eased Private Property and Publicly Owned Protected Open Space



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Source: CCPC, 2000.

Visions & Actions

for Open Space that is Not Open to the Public

Vision 19.16

The public should not trespass on protected open space that is on private property, even if the protection effort for the property received full or partial financing through public funds, unless the public funding specifically requires public access.

Action 19.16

The County will work with municipalities through the VPP to include language into municipal planning documents that explains that the public should not trespass on protected open space that is on private property, even if the protection effort for the property received full or partial financing through public funds, unless the public funding specifically requires public access.

Vision 19.17

Private property surrounding properties owned and managed by the Parks and Recreation Department should be protected from further development by conservation easements.

Action 19.17

The County will study the feasibility of purchasing or accepting donations of conservation easements on private properties surrounding properties owned and managed by the Parks and Recreation Department.

Vision 19.18

Land trusts and government entities should coordinate their land preservation efforts on private property.

Action 19.18

The County will hold a meeting to coordinate with land trusts that own easements on private properties in Chester County at least every year.

Vision 19.19

Land trusts and government entities should share information on private properties with natural resource or agricultural conservation easements.

Action 19.19

The County will continue to share information on private property with natural resource or agricultural conservation easements with the public.

Vision 19.20

The property rights and privacy concerns of landowners should be respected by all public and private open space protection activities within the County.

Action 19.20

When publishing information that will be available to the public, the County will continue to respect the property rights and privacy concerns of private landowners.

The Current Status of the Open Space Network

Inventory of the Current Status of the Open Space Network

As the previous chapters have shown, there are numerous protected open space properties in Chester County, which could be linked together to create a countywide network. These chapters also show how parts of the County contain large and small clusters of protected open space ranging from privately owned wildlife habitat to publicly owned sports facilities. In order for a countywide network to be established, it is first necessary to inventory and map all protected open spaces, of all varieties, so as to determine how much of the network has already been established and to focus where future preservation efforts should be directed.

Over the last few decades there have been a number of studies that attempted to inventory and measure the amount of open space in Chester County. Each of these studies used different methods for evaluating open space, and each defined open space using different terminology. Not surprisingly, they each came up with differing results, which are presented in *Figure 19.10*.

In June of 2001, the Chester County Planning Commission conducted a detailed inventory of “protected open space” which is defined in *Chapter 1* as:

“Land and water areas that have little or no development; are used for recreation or preserving cultural or natural resources including productive agricultural soils; and are protected either permanently or on a long term basis.”

The results of this inventory are presented in *Figure 19.11*. This inventory is presented in map form in *Figure 19.12*. This map is a composite of all the types of protected open space identified in *Figure 19.11* and presented in the maps included in the previous chapters of this document.

Figure 19.10: Past Open Space Inventories

Study	Terms Use to Describe Open Space	Percent of the County Described as Open Space
DVRPC 1970	"Recreation"	1.7%
1982 Open Space and Recreation Study	"Permanent Open Space"	4.1%
DVRPC 1990	"Recreation"	0.9%
DVRPC 1995	"Existing Parks" + "Preservation Areas"	2.9% + 2.5% = 5.4%

Sources: CCPC, 1989
DVRPC, 1994, Land Use in the Delaware Valley 1970-1990.

In total, over 3,400 tax parcels were identified as protected open space, and so there are that many tax parcel records. All of these data have been double-checked, but given the nature of the data, errors will always be present. The submerged lands beneath streams and rivers were never assigned tax parcels and their area had to be estimated. Because of these complications, the measurements of area presented in both the table in *Figure 19.11* and the map in *Figure 19.12* should always be regarded as estimates.

The total acreage for Chester County is 485,845, of which 15.5 percent is estimated to be protected open space. Some of parcels that were measured to generate *Figure 19.11* are covered by more than one type of open space protection mechanism. For example, some parks and eased farms are also covered by a land trust easement. Currently 2,830 acres of protected open space are covered by two forms of protection. This amount was subtracted from the total presented in *Figure 19.11*, so that these parcels would not be counted twice.

The area covered by protected open space presented in *Figure 19.11* was generated by measuring only complete parcels, because it was not practical to measure fractions of parcels for such a large database. It is quite common for a land trust to protect only part of a land parcel, and agricultural conservation easements are often purchased for only part of a parcel. As a result of the parcel based mapping methodology, the entire area of a parcel was calculated as protected open space, even if that parcel was

only partially protected. The actual acreage of protected open space is therefore somewhat lower than the estimates presented in *Figures 19.11* and *19.12*. For example, the Agricultural Lands Preservation Board acquired easements of 1,775 acres of land in 2000. Most of these easements only covered portions of a parcel. The total area of all the parcels that were eased was 4,203 acres as shown in *Figure 19.11*.

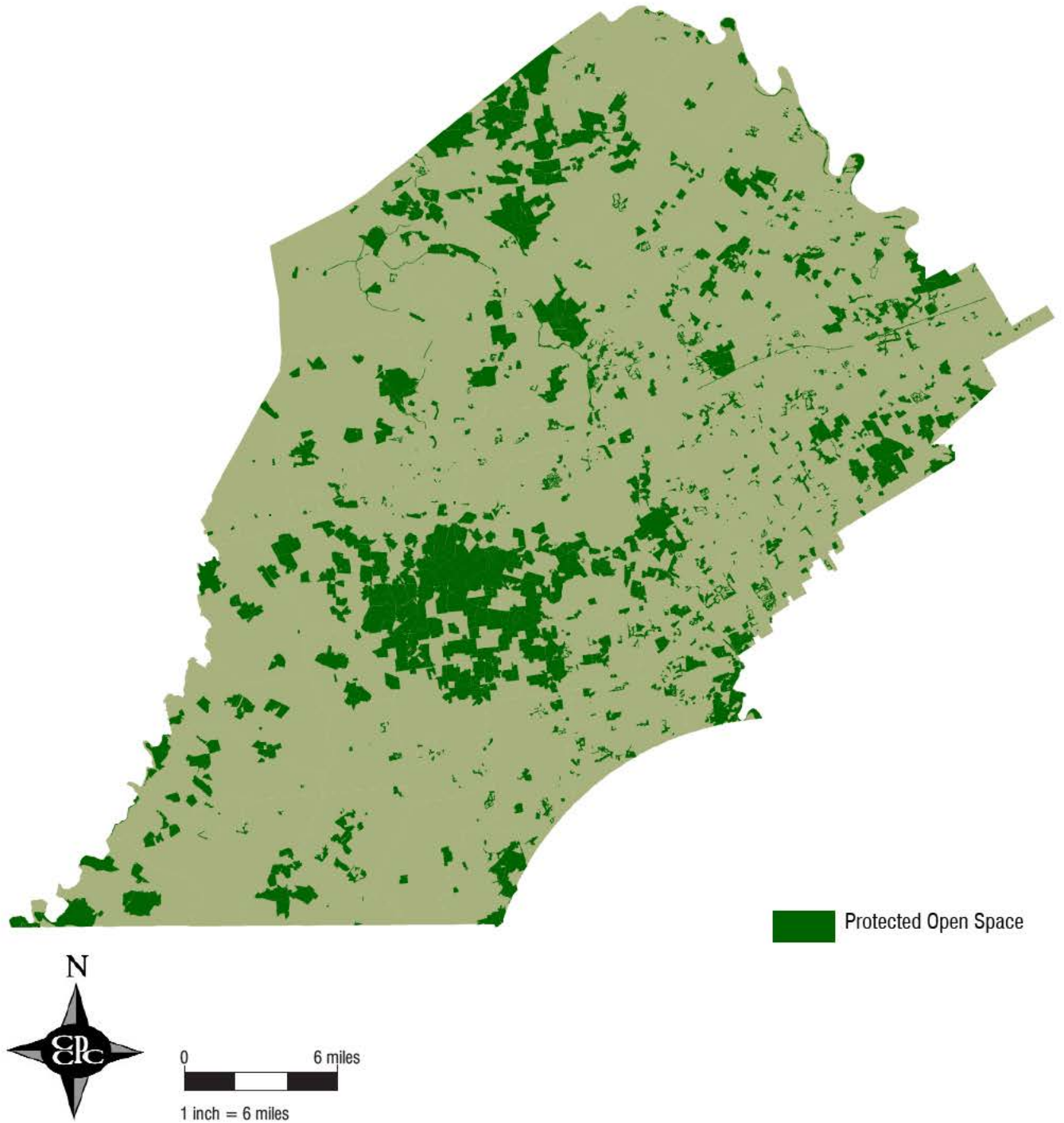
Figure 19.11: Estimated Protected Open Space in Chester County as of 2001

Type of Protected Open Space	Estimated Acreage	% of Total County Area	Change 2000-2001
National Historic Sites	1,182 acres	0.2%	0 acres
State Parks	3,752 acres	0.8%	0 acres
County Parks and Trails (Existing and Future)	4,953 acres	1.0%	0 acres
Municipal Recreation (Active and Passive)	2,326 acres	0.5%	500 acres
Managed Lands (State Game Lands, Forests and Preserves, and Water Resource Protection)	4,604 acres	0.9%	179 acres
Municipal Non-recreational Open Space	2,974 acres	0.6%	-282 acres
Parcels Owned In-fee by Land Trusts	4,997 acres	1.0%	187 acres
Parcels Eased by Land Trusts	33,381 acres	6.9%	2,476 acres
Parcels with Agricultural Conservation Easements	14,431 acres	3.0%	4,203 acres
County Funded Protected Spray or Drip Irrigation Fields	144 acres	< 0.01%	0 acres
Homeowner Association Open Space	5,114 acres	1.1%	1,985 acres
Submerged State Lands	280 acres	0.1%	0 acres
TOTAL	75,308 acres *	15.5%*	8,596 acres

Source: CCPC April 2001

Note: * 2,830 acres fall into more than one category and so were subtracted from the total to eliminate double counting.

Figure 19.12: Protected Open Space in Chester County



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Source: CCPC, 2000.

The third column of *Figure 19.11* shows how much open space was protected by acquisition or easement during the year 2000. This column shows an increase in managed lands and properties eased by land trusts. In fact, there were few new acquisitions of managed lands. However, improved mapping of managed lands was produced in 2001, and as a result it appears that more land was protected than was previously mapped. Improved mapping by the land trusts was also produced which located approximately 300 acres that had been eased in the 1990's but had not been mapped. The reduction of municipally owned non-recreational open space during 2000 was due to that fact that many acres of municipally owned vacant land, including the multi-acre former Church Farm School property, were converted to recreational use.

Evaluation of the Current Status of the Open Space Network

Until 2000, there had never been a complete inventory of protected open space in Chester County. Such an inventory is an essential tool for coordinating open space protection in Chester County. With Geographic Information System (GIS) technology this information can be updated continuously, but it must be updated in a regular and organized fashion if it is to be useful. If an electronic database is created but there is no plan established for updating this data, the information will become outdated and useless.

Visions & Actions **for the Current Status of the Open Space Network**

Vision 19.21

An inventory of information on protected open space within Chester County should be updated to maintain currency.

Action 19.21

The County will continue to gather updated information on protected open space, and produce a countywide inventory of this information on an annual basis.

Vision 19.22

Mapping of protected open space parcels within Chester County should be updated to maintain currency.

Action 19.22

The County will continue to gather updated mapping of protected open space parcels on an annual basis, and produce a countywide map of these parcels on an annual basis.

The 5,000-Acre Protected Open Space Benchmark

Inventory for the 5,000-Acre Protected Open Space Benchmark

Historically, no public or private organization has set a predetermined target for how much open space should be protected by easements or in-fee acquisitions in Chester County on an annual basis. Establishing such a target could be valuable because it would establish a benchmark that could be used to physically measure the success of the various organizations within the County that protect open space by placing conservation easements on parcels of land or by acquiring the land in-fee. Easements or in-fee acquisitions can either be sold or donated by the landowner. Such a benchmark would provide the County's residents, governments and civic organizations with one well-publicized standard amount of acres that they could all work toward, much like a charitable campaign that focuses donors to help in raising a specific amount of money.

Establishing such an open space protection benchmark could also help individuals and organizations applying for grants to protect open space in Chester County. There are currently many more open space grant opportunities offered than there were in the past. The state and federal government, as well as private philanthropic organizations have been increasing funding for open space protection over the last few years. Chester County municipalities, land trusts and community groups will improve their chances of being awarded funds for protecting open space if they can document that their projects will help to realize an officially designated benchmark for protecting a specific percentage of the County as eased or in-fee protected open space.

Very few communities throughout the United States have set an annual benchmark for protecting open space, and there is no established methodology for determining how much open space should be protected each year in a given community. *Figure 19.13* lists how a number of states and other planning organizations have established some type of goal for protecting open space. This list does not include any counties because no information was available on any county in the United States that set its own annual open space protection benchmark.

Figure 19.13 illustrates the different approaches that have been taken to protect open space. In New Jersey, the target is to protect 40 percent of the entire area of the state. Massachusetts proposed to protect 3/4^{ths} of only that land which was currently undeveloped. The State of Florida did not set a percentage-based target, but instead identified specific natural resources, such as the Everglades, that would be targeted for protection. Similarly the State of Maryland identified a network of natural areas

including beachfront and existing undeveloped areas that warranted protection. California took a different approach by establishing Open Space Districts, which are similar to School Districts, and are allowed to pursue unique management techniques for each district. The Cities of Portland and Cleveland focused their open space efforts on establishing a network of trails connecting their urban centers to recreational and natural areas.

In recent years, regional planners in Southeast Pennsylvania have also proposed open space targets. In 1995, the DVRPC published *Guiding Regional Growth, Land Use Element of the DVRPC Year 2020 Plan*. In this document, the DVRPC determined the open space needs for the Delaware Valley and Chester County, using a variation of the New Jersey Balanced Land Use Guidelines developed in the mid 1990s by the New Jersey Bureau of Recreation and Open Space Planning. These “Adjusted Balanced Land Use Guidelines” suggested that municipal and county open space should be a portion of only remaining developable lands, and not the entire area of the state. Using the 1995 DVRPC Adjusted Balanced Land Use Guidelines, a total of 114,560 acres, or 23 percent of the Chester County would be set aside for protection.

In December 2000, the DVRPC published *Horizons: The Year 2025 Plan for the Delaware Valley, Report #3 – The Preliminary Land Use Plan*, in which they recommend that 37 percent of the nine County Delaware Valley Region should “remain open for natural resource protection and recreation” by the year 2025. In 2001 the DVRPC revised their Adjusted Balanced Land Use Guidelines, and as a result of the DVRPC recommend that more than 23 percent of Chester County should be protected as open space. Of course it is essential to keep in mind that the DVRPC’s definition of open space may be different from the *Linking Landscapes* definition, and any benchmark set by the DVRPC may not be comparable to those recommended in this document.

Chester County has not established an annual protected open space benchmark in any previous publications or policy statement. In 1996 however, the County Commissioners adopted *Landscapes*, which designated that over 123,800 acres or 26 percent of the County should be maintained as “Natural” Landscapes. “Natural” Landscapes were defined as woodlands, stream corridors, steep hillsides, ridge tops, wetlands and marshes. According to *Landscapes*, “these resources are permanent and essential elements of the physical environment, and are the foundation for the livability of all landscapes.” *Landscapes* does not go so far as to suggest that all of the “Natural” Landscapes should be protected open space, and it does not recommend that “Natural” Landscapes be entirely free of development. Simply put, *Landscapes* does not set an open space protection benchmark.

Figure 19.13: Open Space Protection Targets Throughout the United States

California - California Law permits open space boards to be established and administered much like a school board. Each District Board can then set goals and manage each district. For example, in 1997 the Mid-Peninsula Regional Open Space District south of San Francisco, California conducted a Regional Open Space Study that proposed a future greenbelt of trails and natural areas throughout a district that covers much of two adjacent counties. The Mid-Peninsula Open Space District Board adopted this study in 1999.

Cleveland, Ohio - In 1917, the State of Ohio established Cleveland Metroparks that links together natural areas and recreation facilities within the City of Cleveland with those in the surrounding suburbs, including some communities in adjacent counties.

Florida - In October 1997 the Florida Land Acquisition and Management Advisory Council prepared a report for the state legislature entitled Florida Preservation Program Remaining Needs and Priorities. In this document the Council identified 2.3 million acres of open space in need of protection and designated the Green Swamp and the Florida Keys as areas of "Critical State Concern."

Maryland - The Maryland Greenways Commission was established in 1990 by a governor's executive order and is co-chaired by the secretaries of the Department of Natural Resources and the Department of Transportation. The Commission is currently preparing a statewide master plan called the Greenprint Plan to establish a network of trails and greenways connecting the state's interior forests, beaches and wetlands.

Massachusetts - In October 1998, this Commonwealth announced that it intended to preserve 3 acres of open space for every acre developed, or 3/4ths of the remaining developable area of the Commonwealth. This goal was set forth in The View from Borderland, Preserving the Images and Essence of Our Common Wealth through Land Protection published by the Governor's Blue Ribbon Panel on Land Protection.

Portland, Oregon - Metro Regional Services was founded in 1979 to provide regional planning for three counties and 24 cities in the Portland area. A branch of this organization called Metro Regional Parks and Greenspaces adopted a Metropolitan Greenspaces Master Plan in 1992, whose primary goal was to establish a network of greenways and trails to connect residents to wilderness areas.

New Jersey - In February 1998, this State announced that it intended to preserve two-fifths or 40 percent of the entire State as open space. This goal, set forth in the Governor's Council on New Jersey Outdoors, Final Report - Summary of Findings, called for the preservation of farmlands, wildlife areas and public parks and recreation areas, either through the acquisition of property in-fee or conservation easements.

Evaluation of the 5,000-Acre Protected Open Space Benchmark

■ **Introduction** There is no one standard technique for determining how much open space should be protected in Chester County. According to the 1995 *Park, Recreation, Open Space and Greenway Guideline*, published jointly by the National Recreation and Park Association and the American Academy for Park and Recreation Administration, there are no set criteria for determining how much land should be set aside for the preservation of significant natural resources, remnant landscapes or open spaces. These guidelines state that, “The practical limit of acreage set aside under this classification lies in resource quality, availability, community development and acquisition costs.” Because there is no standard technique for evaluating how much open space should be protected in Chester County, the Chester County Planning Commission and Parks and Recreation Department have conducted the evaluation presented below.

In summary, the evaluation presented below suggests that 5,000 acres of open space, or 1.03 percent of the County, should be rigorously protected each year through conservation easements or in-fee acquisition. By protecting 5,000 acres each year, the amount of open space protected in the County, which is currently just over 15 percent of the County, could roughly double in size by the year 2015. Because the historically determined rate of development in Chester County is estimated to be roughly 5,000 acres developed each year, the protection of an additional 5,000 acres of open space per year will result on one acre of open space being protected for every acre developed. If the 5,000-acre Protected Open Space Benchmark is achieved each year starting in 2001, the ultimate result will be that 50 percent of the currently undeveloped land in Chester County will become protected open space, and remain undeveloped forever.

Any organization or government that recommends how much open space should be protected each year runs the risk of creating a standard that cannot be realistically meet. For this reason the following section provides a detailed evaluation that demonstrates why the 5,000-Acre Protected Open Space Benchmark is reasonable and practicable. It is important to recognize the 5,000-Acre Benchmark is both a short term and long term measuring tool. If Chester County only protects 2,000 acres in any given year, it is not an indication the County has somehow “failed,” because during the next year, the County could protect 8,000 acres, so that the combined two-year total would exceed the 10,000-acre two-year cumulative benchmark.

■ **Currently it is Estimated that 40 Percent of Chester County is Ideally Suited for Protection as Open Space** In setting a benchmark for protecting open space, it is essential to know how much open space has been protected and how much open space is available for protection. According to an analysis of tax assessment records for parcels in Chester County conducted by the Planning Commission, approximately

35 to 45 percent of the County consisted of developed parcels as of 2001. This evaluation, which is the most recent evaluation of its kind, is discussed in **Chapter 1**, and mapped in **Figure 1.4**. The variation from 35 to 45 percent is due to that fact that there are a number of different ways to measure development, all of which are based on different assumptions. There is no one definitive method for measuring development recognized by the planning profession, nonetheless it appears reasonable to assume that 40 percent of Chester County is currently developed, and that 60 percent of the County is either protected open space, farmland or other undeveloped land.

In an ideal world, all undeveloped parcels could be protected as open space, however past experience has shown that it is only parcels of 50 acres or more that are ideally suited for protection. In general, non-profit land trusts and government agencies prefer to protect parcels that are over 50 acres. Such large parcels are substantially easier to acquire or ease. Simply put, land trusts and government agencies benefit from the cost and time savings they realize when they buy or ease one 50 acre parcel from one owner, versus having to negotiate with multiple owners. Furthermore, the state and County funded Agricultural Easement Program will only purchase easements of parcels of 50 acres, unless the parcel is at least ten acres and is adjacent to a 50 acre parcel that is already eased, or it supports unique agricultural production.

Figure 6.5 in **Chapter 6** shows the location of all of the vacant or farmland parcels in Chester County that are 50 acres or more, and are currently not protected, but that are ideally suitable for protection. These parcels are all located in “Natural” or “Rural” Landscapes as designated by **Landscapes**. Altogether, these large unprotected open parcels cover about 71,500 acres or 14.7 percent of Chester County.

Of course not all of the open spaces currently protected in Chester County are located on parcels of 50 acres or more. Although land trusts and government agencies prefer to acquire or ease these large parcels, they also have acquired or eased smaller parcels under certain circumstances. The effect of this preference for large parcels is evident in **Figure 19.14**. This table shows the amount of open space protected in Chester County that is found on small parcels, versus that which is located on parcels of 50 acres or more. This table does not account for all types of protected open space, however over 80 percent of Chester County’s protected open spaces are accounted for in this table. In summary, this table shows that for every seven acres protected on a parcel of 50 acres or more, there are three acres that are protected on smaller parcels.

Figure 19.14: A Comparison of Estimated Protected Open Space Based on Parcel Size

Open Space Protection Organizations	Estimated Total Acres Eased or Owned In-fee	Est. Acres on Parcels Under 50 Acres (% of Total)	Est. Acres on Parcels of 50 Acres or More (% of Total)
National Historic Sites Parcels	1,182 acres	197 acres (17%)	985 acres (83%)
State Park Parcels	3,751 acres	888 acres (24%)	2,863 acres (76%)
Chester County Parks and Recreation Department Parcels	4,953 acres	1,127 acres (23%)	3,826 acres (77%)
Land Trust Parcels Owned in-Fee	4,997 acres	2,137 acres (43%)	2,860 acres (57%)
Private Parcels with Land Trust Easements	33,381 acres	12,060 acres (36%)	21,321 acres (64%)
Farms with Agricultural Conservation Easements	14,431 acres	3,549 acres (25%)	10,882 acres (75%)
Total Estimates	62,688 acres	18,858 acres (32%)	47,730 acres (68%)

The current ratio of acres of protected open space on large versus small parcels is approximately 7 to 3, and over 71,500 acres of Chester County are large open space parcels that are suitable for protection. It is therefore reasonable to assume that another 30,600 acres of smaller parcels could be protected as well. When these smaller parcels with protection potential are combined with the larger parcels that are suitable for protection, and also with open space parcels that are already protected, the following calculation is generated:

75,300	acres in the County currently protected as open space
71,500	acres in the County on parcels of 50 acres or more that are suitable for protection
+ 30,600	acres in the County on parcels smaller than 50 acres that are suitable for protection
177,400	acres in the County that could be protected through acquisition or easements

This calculation shows approximately 177,400 acres, or that 36.5 percent of the County could ultimately be protected as open space by land trusts or the state and County funded agricultural easement program through the acquisition of parcels in-fee or conservation easements. These two techniques are described in detail in *Chapter 6*.

Not all open spaces are protected by land trust or agriculture conservation easement or in-fee acquisition. Some parcels are protected by federal, state, County or municipal governments as recreational parks or non-recreational open space. As noted *Chapter 4*, neither the federal government nor the state are expected to acquire more parkland in Chester County, and the County Park System has a need to increase its passive recreation holdings by 1,800 acres. Similarly the total estimated 2025 needs for municipal active recreation parks in Chester County is nearly 2,900 acres. *Chapter 4* notes that Chester County municipalities have protected nearly 3,000 acres as non-recreational open space over the past few decades, and this rate of open space acquisition is likely to continue. Altogether, it is reasonable to assume that governments will protect 7,700 acres of open space, or 1.6 percent of the County, over the next few decades.

If 36.5 percent of the County could be protected as open space through easements and in-fee acquisition, and 1.6 percent could be protected by government acquisition, then a total of 38.1 percent, or nearly 40 percent of the County has the potential to be protected. It is important to note that this estimate only considers the open space protection techniques that are currently employed by Local and Regional Land Trusts, the Agricultural Land Preservation Board and governments. In the coming decades it is possible that land trusts and governments could change their open space protection policies and practices, and as a result protect open spaces on parcels of land that are not currently the focus of protection efforts.

■ Over the Last 20 Years, Open Space has been Protected at a Rate of Approximately 3,000 Acres Per Year When setting a benchmark for how much open space should be protected each year, it is essential to know how much open space has been protected in the past on an annual basis. Unfortunately, open spaces were not mapped in Chester County on a countywide basis until 2000. As a result there is no older mapping that can be used to determine how quickly open space has been protected. However it is possible to get a rough idea of how much open space has been protected since the early 1980s based on information published in the *Chester County Open Space and Recreation Study* of 1982. This document suggests that in the early 1980s approximately 15,800 acres, or 3.2 percent of the County, was protected open space as defined by *Linking Landscapes*.

An inventory of estimated open space in Chester County for 2001 is presented above in *Figure 19.11*. This inventory shows that an estimated 15.5 percent of Chester County is currently protected open space. In

2000, an inventory was conducted which determined that 13.7 percent of the County was protected open space. These two inventories indicate that roughly 8,600 acres, or 1.8 percent of Chester County was protected by open space during the year 2000. In reality, the increase in open space in 2000 was probably somewhat lower than 1.8 percent. During the year 2000, the system used by the Planning Commission to map open space was improved, and some of the growth that appeared to occur during the year 2000 was actually the result of parcels that had been eased years before, but had never been properly mapped.

Because the 1982 *Open Space Study* showed that 3.2 percent of the County was protected as open space, it is likely that a similar amount was protected in 1981, which was twenty years ago. As of 2001, 15.5 percent of the County was protected open space, which means that from 1981 to 2001, open space was protected at a rate of just over 3,100 acres per year, which is 0.6 percent of the County. This annual rate is much lower than the 8,600 acres, or 1.8 percent, increase that was measured from 2000 to 2001 on **Figure 19.11**. Even if the rate measure from 2000 to 2001 is somewhat high, it is clear that open space is now being protected at a higher rate than in the past. This conclusion is supported by the fact that there are now many more organizations that are protecting open space in Chester County than ever before. Most of these organizations were established after 1960, as shown in the time line below:

Year	Event
1939	The Open Land Conservancy of Chester County founded
1945	The Brandywine Valley Association founded
1961	The Natural Lands Trust founded
1963	Hibernia County Park is dedicated as the first County Park
1967	The Brandywine Conservancy founded
1967	The French and Pickering Creeks Conservation Trust founded
1975	The Nature Conservancy: Pennsylvania Chapter founded
1990	ALPB's first agricultural easement purchase
1996	Willistown Conservation Trust founded
1990s	Local Land Trusts founded in East Marlborough, Kennett, London Britain, Pennsbury, Wallace and West Vincent Townships.

The absence of comparable data makes it impossible to rigorously determine the rate at which Chester County has historically protected open space. However the available historical records suggest that the combined efforts of government and private organizations have protected somewhere between 3,000 and 8,000 acres of open space per year during the last decades. It would therefore be reasonable to set a benchmark that

called for the protection of 5,000 acres a year. This benchmark would represent a 166 percent increase over the 3,000 acres of open space that has been protected annually over the last two decades, and would result in a two-thirds increase in the acreage of protected open space every year.

■ The Role Open Space Protection Organizations Would Have in Protecting 5,000 Acres Annually Setting a benchmark of protecting 5,000 acres of open space each year would be reasonable given the amount of open space that has recently been protected by the various organizations that protect open space. Over the last 40 years, the larger Regional Land Trusts in Chester County took the lead role in protecting open space either by purchasing or accepting donated land or easements. Currently, over 38,300 acres of protected open spaces in Chester County have been purchased or eased by Regional Land Trusts. Since 1981, these Regional Land Trusts protected an average of approximately 1,600 acres a year. In the year 2000, Regional Land Trusts acquired or eased over 2,000 acres of open space, but this was an especially good year. An average open space protection rate of 1,000 to 2,000 for the Regional Land Trusts is expected to remain over the next few decades. It has only been in the last few years that Local Land Trusts have become active in the County, and because they are so new, there is no way to judge what their capacity for protecting open space will be.

Since 1990, the Chester County Agricultural Lands Preservation Board has been acquiring agricultural conservation easements on farms in Chester County. From 1990 through 2000, this program protected over 11,700 acres of farmland, at an average of roughly 1,000 acres per year. This program protected over 1,700 acres of farmland in 2000, which was its best year ever. According to the DVRPC, 41.6 percent of Chester County was used for agriculture in 1995. This 1995 data suggests that Chester County still has the potential to continue to protect additional farmland. It is therefore reasonable to assume that 1,000 to 2,000 acres of farmland will be protected each year by agricultural conservation easements well into the 21st century.

During the last forty years, the federal, state and County governments have also been quite active in acquiring large park facilities. Over the last four decades these three entities acquired approximately 9,800 acres of park facilities and historically important landscapes. Neither the federal government nor the state is anticipated to significantly increase their park holdings in Chester County over the next few decades, and neither state game lands or state forests are anticipated to be enlarged. However, state and federal agencies are anticipated to stay active in facilitating and providing funding for major acquisitions, such as the recent preservation of the Paoli Massacre site. As *Chapter 4* notes, the County Parks and Recreation Department has a need to increase their park system by 1,800 acres.

Municipalities have only recently begun to acquire non-recreational open space and so their potential is not known. To date, municipalities have protected over 2,300 acres of recreational open space, and roughly 2,900

acres of non-recreational open space or properties that are under construction as recreational parks. All together this amounts to approximately 5,200 acres. Most of this land was acquired during the last 20 years, which would generate an annual rate of just over 260 acres per year. In future decades, municipalities are likely to continue to protect open space, although it is difficult to estimate if they will do so at an increased rate. Nonetheless, it is reasonable to assume that municipalities should be able to acquire between 200 and 300 acres of open space annually.

In the past, homeowner association open spaces have only played a minor role in protecting open space on a countywide basis. As of 1999, homeowner associations had only protected around 3,100 acres of open space but in 2000, they protected over 5,100 acres, an increase of some 1,900 acres. This jump in acreage is likely due to the fact that more municipalities are offering homebuilders the option to set aside Naturally Sensitive Areas as homeowner open spaces. As a result more homebuilders are using cluster design and open space preservation as part of the developments they construct. This increase also reflects the boom in construction starts during the mid-1990s, which was itself a result in the economic growth during that decade. Although the economy will change over the next few decades, it is still likely that new development will continue to protect Naturally Sensitive Areas and that homeowner association lands will protect between 1,000 and 2,000 acres of land per year.

Given the rates with which the different types of open space protection organizations have protected open space in Chester County, it would be reasonable to set the following roles to fulfill a goal of protecting 5,000 acres of open space each year:

1,700 acres	Farmers with Agricultural Lands Preservation Board Easements
1,500 acres	Developers and Homeowner Associations
1,500 acres	Land Trusts
+ 300 acres	National, State, County and Municipal Parks Departments and Authorities

Total 5,000 acres

These protection rates are only estimates based on the data that is currently available. It would be no cause for alarm if these protection rates were not met in a given year, because there is always the possibility that they might be exceeded in the following year. These rates should never be regarded as a standard that shows success or failure in the short term, but rather a way to measure if the organizations involved in protecting open space are maintaining a consistent pace over the long term. In the final analysis, it does not matter who protects open space, just as long as it is

protected by whatever organization is determined to protect the County's open lands and fortunate enough to gather the funding to do it.

■ Protecting 5,000 Acres Annually could Double the County's Protected Open Space by 2015 Currently, just over 75,300 acres, or 15.5 percent of Chester County is protected open space that is protected by acquisition or easement. At a rate of 5,000 acres protected each year, the amount of open space protected by acquisition or easement in Chester County could roughly double to over 150,000 or about 30 percent of the County some time in the year 2015. Of course, this doubling of open space can only occur if there is still open land available in Chester County in the year 2015. In order to determine how much open land will be undeveloped in 2015, it is necessary to determine how much land will be developed by 2015, and that requires determining what the annual rate of development will be over the next two decades.

It is exceedingly difficult to estimate the rate of future development in Chester County, or any large region for that matter. Development rates change based on the economy, which is nearly impossible to predict, especially over a period of decades. Despite the uncertainties inherent in projecting development, the Planning Commission estimates that Chester County is developing at a rate of roughly 5,000 acres per year, which is just under 1 percent of the total County, and that this rate will continue into the foreseeable future.

This rate of development is based on data presented in recent and historical studies. In 1962, T. A. Pitt prepared a report for the County Commissioners entitled *History and Progress of Chester County*, which stated that 7.0 percent of the County was "industrial and residential." If the County was approximately 7.0 percent developed in 1960, then the rate of development in Chester County over the last forty years would be roughly:

- 3,400 acres per year, assuming that the County was 35 percent developed as of 2000, or
- 4,600 acres per year, assuming that the County was 45 percent developed as of 2000.

This evaluation is supported by the measurement of "Land in Farms" for Chester County conducted as part of the Census of Agriculture. As shown in **Chapter 9**, the "Land in Farms" in Chester County decreased by 4,334 acres from 1982 to 1992. "Land in Farms" acreage from the more recent 1997 Census of Agriculture could not be compared with previous data because during that year the statistical definition of "Land in Farms" was changed. The technique of estimating development rates using the Census of Agriculture data is dramatically different from the technique used by the Planning Commission, and yet both indicate a development rate of between 4,000 and 5,000 acres each year. Based on these two independent evaluations, a conservative development rate of 5,000 acres each year is reasonable.

Given the amount of existing development and protected open space in Chester County, and assuming that development will consume 5,000 acres (roughly 1 percent of the County) each year, the following best case scenario could occur if the 5,000-Acre Protected Open Space Benchmark is realized:

	2000	2015	2022	Change '00 to '22
% of County as Protected Open Space	15%	30%	37%	+22%
% of County as Development	40%	55%	62%	+22%
% of County as Unprotected Open Space	45%	15%	1%	-44%

The above scenario indicates that by the year 2015, it is anticipated that there will still be unprotected open space that is available to be protected, but that by the 2020s, almost all of Chester County's landscapes will either be developed or protected as open space. It is important to remember that this is a rough estimate based on many assumptions, which may not apply to the conditions that develop ten or twenty years in the future. Nonetheless, this estimate suggests that given the limited data that is currently available, it appears that it will be possible to protect 5,000 acres of open space well into the 21st Century.

■ Funding Required to Protect 5,000 Acres of Open Space Per Year

It is impossible to accurately predict how much it would cost to protect 5,000 acres per year as open space over the next 25 years.

Experience has shown that the cost of acquiring protected open space in-fee varies widely from project to project based on local land values. For example, in the late 1990s, the Chester County Parks and Recreation Department acquired the future County Park in West Fallowfield Township for over \$6.5 million, which included 559 acres and a number of buildings on the property. However when the much smaller 40-acre Paoli Battlefield site was purchased in the late 1990s with federal, state, County and other funding, the cost was approximately \$2.5 million. Clearly there are wide differences in land prices in different parts of the County.

Many open space parcels are protected through conservation easements that limit development, rather than through in-fee acquisition. In some cases, these open space parcels have been protected because their owners donated an easement to a non-profit land trust for free, and so this protection does not require any expenditure by the land trust. There are no figures available detailing how much money a non-profit land trust typically spends when they acquire an easement. However, records from the

Agricultural Land Preservation Board indicate that over the last ten years, the average agricultural conservation easement in Chester County cost about \$4,000 acre. The state agricultural easement program does not allow an easement to be purchased for more than \$10,000 per acre.

There are a number of options for protecting open space, each of which involves different costs. *Figure 19.15* presents a range of possible scenarios that can be used to estimate the possible cost of protecting 5,000 acres a year as open space.

Figure 19.15: Alternatives for Funding the Annual Protection of 5,000 Acres of Open Space

Possible Alternatives for Acquiring 5000 Acres of Protected Open Space	Estimated Annual Cost	Estimated Cost Over a 25-Year Period
Purchase easements on 2,500 acres for \$4000 per acre. Accept donated easements 2,500 acres.	\$10.0 million	\$250 million
Purchase easements on 5,000 acres for \$6,000 per acre.	\$30.0 million	\$750 million
Purchase easements on 2,500 acres for \$6,000 per acre. Purchase easements on 2,500 acres for \$10,000 per acre.	\$40.0 million	\$1.00 billion
Purchase easements on 5,000 acres for \$10,000 per acre.	\$50.0 million	\$1.25 billion
Purchase easements on 2,500 acres for \$10,000 per acre. Purchase 2,500 acres in-fee for \$25,000 per acre.	\$87.5 million	\$2.19 billion
Purchase 5,000 acres in-fee for \$25,000 per acre.	\$125 million	\$3.13 billion
Purchase 5,000 acres in-fee for \$50,000 per acre.	\$250 million	\$6.25 billion

Source: CCPC, April 2001.

Figure 19.15 is only a rough estimate in year 2001 dollars that does not include the value of donations or tax breaks owners may receive when they make donations. . Furthermore, this table does not address the fact that land prices vary in different parts of the County. Nonetheless this table suggests that significant and ongoing funding will be required on a long-term basis. This funding is not expected to come entirely from public

funds, but instead represents the investment required from all sectors including businesses and charitable donations. It is also important to remember that *Figure 19.15* only estimates the initial cost of acquiring property in-fee or easements. The cost of maintaining protected open space is ongoing and varies widely depending on the way the open space is used.

Visions & Actions **for the 5,000-Acre Protected Open Space Benchmark**

Vision 19.23

5,000 acres of open space should be protected annually in Chester County.

Action 19.23

The County will complete an annual memorandum measuring how much open space has been protected and recommending actions that will facilitate the protection of 5,000 acres of open space annually.

Vision 19.24

County grants should continue to fund the protection of open space.

Action 19.24

The County will continue to fund the protection of open space through grants to municipalities, municipal authorities and qualified non-profit organizations.

Vision 19.25

The general public, landowners and the business community should be involved in a countywide effort to protect 5,000 acres of open space annually.

Action 19.25

The County will publicize the protection of 5,000 acres of open space annually to the general public, landowners and the business community.

Vision 19.26

The Chester County ALPB should increase the amount of farmland protected annually by agricultural conservation easements.

Action 19.26

The County will request that the ALPB develop annual and long term targets for how much farmland they plan to protect.

Vision 19.27

The Regional Land Trusts active in Chester County should increase the amount of open space protected annually by natural resource conservation easements and increase cooperative preservation efforts with Local Land Trusts.

Action 19.27

The County will request that the Regional Land Trusts active in Chester County develop annual and long term targets for how much land they plan to protect individually and in cooperation with Local Land Trusts.

Vision 19.28

Local Land Trusts should increase the amount of open space protected annually by natural resource conservation easements.

Action 19.28

The County will request that the Local Land Trusts develop annual and long term targets for how much open space they plan to protect.

Vision 19.29

Local Lands Trusts that have support agreements with Regional Land Trusts should be established in all municipalities that have locally significant undeveloped parcels that are not suitable for protection by the Regional Land Trusts.

Action 19.29

The County will continue to publicize the benefits of Local Land Trusts that have support agreements with Regional Land Trusts, and study the feasibility of establishing an initiative to assist municipalities in establishing Local Land Trusts.

Limiting Development on All Naturally Sensitive Areas

Inventory of Limiting Development on All Naturally Sensitive Areas

A protected open space network is more than the sum total of all the open space parcels that are protected by in-fee acquisition and conservation easements. It is also a landscape that is integrated into its surrounding human and natural community. As a result, the environmental quality of the network is impacted by streams and groundwaters that flow into it, the seeds that are blown into it, and the people and animals that pass through it.

As noted in *Chapter 1*, any protected open space network in Chester County is going to impact, and be impacted by, the County's Naturally Sensitive Areas or "NSAs. These areas are mapped in *Figure 1.5*, and they include floodplains, wetlands, hydric soils, and steep slopes, which cover an estimated 16 percent of the County. Some municipalities limit development on NSA through their zoning or subdivision and land development ordinances. Currently there is no mapping available which depicts what NSAs in Chester County cannot be developed as a result of municipal ordinances, although all of the 100-year floodplains in Chester County are currently protected from development. Creating such a map would require an extensive evaluation of the municipal ordinances for each of the County's 73 municipalities, each of which define NSAs differently and use a unique technique for limiting development on them.

Evaluation of Limiting Development on All Naturally Sensitive Areas

All of the NSAs in Chester County are especially sensitive to disturbance and are unsuitable sites for most development. As a result, municipal zoning or subdivision and land development ordinances should protect all NSAs, to enhance the ecology of the County and to ensure that developments are built on safe and stable ground. When they are protected, NSAs provide valuable open space benefits and help to enhance the quality of the overall protected open space network. Furthermore, since NSAs are physically unsuitable for development, keeping them free from development will not have a negative economic impact. It is therefore reasonable for Chester County's governments, land trusts, corporations and private landowners to work toward protecting all of the County's NSAs through ordinances, including those NSAs that are on property that is already protected by conservation easements or in-fee acquisition.

Visions & Actions **for Limiting Development on All Naturally Sensitive Areas**

Vision 19.30

Municipalities should develop standards for protecting Naturally Sensitive Areas in their land development plans, zoning and subdivision ordinances, open space and recreation plans and comprehensive plans.

Action 19.30

When reviewing municipal land development plans, zoning and subdivision ordinances, open space and recreation plans and comprehensive plans, the County will provide comments and recommendations on how well Naturally Sensitive Areas are protected.

Vision 19.31

Municipalities should use clear and specific terminology in zoning or subdivision ordinances that protect Naturally Sensitive Areas, that define what types of natural features are considered as Naturally Sensitive Areas, that set specific buffers around these areas, and that detail the amount of these areas that can be disturbed by development.

Action 19.31

The County will provide examples of ordinance language relating to the protection Naturally Sensitive Areas, that define what types of natural features are considered as Naturally Sensitive Areas, that set specific buffers around these areas, and that detail the amount of these areas that can be disturbed by development.

Vision 19.32

Municipalities should develop zoning or subdivision ordinances that protect Naturally Sensitive Areas, that define what types of natural features are considered as Naturally Sensitive Areas, that set specific buffers around these areas, and that detail the amount of these areas that can be disturbed by development.

Action 19.32

The County will work with municipalities through the VPP to include language into municipal planning documents that protects Naturally Sensitive Areas, that defines what types of natural features are considered as Naturally Sensitive Areas, that sets specific buffers around these areas, and that details the amount of these areas that can be disturbed by development.

Vision 19.33

All of Chester County's Naturally Sensitive Areas should be protected by municipal zoning or land development ordinances.

Action 19.33

The County will complete an annual memorandum describing progress toward the protection of all of Chester County's Naturally Sensitive Areas by municipal zoning or land development ordinances.

Vision 19.34

Naturally Sensitive Areas should be mapped and inventoried on a countywide basis.

Action 19.34

The County will map and inventory all Naturally Sensitive Areas as part of a County Natural Resource Plan.

Vision 19.35

The general public, landowners and the business community should be involved in a Countywide effort to protect all of Chester County's Naturally Sensitive Areas by municipal zoning or land development ordinances.

Action 19.35

The County will publicize to the general public, landowners and the business community the value of protecting all of Chester County's Naturally Sensitive Areas by municipal zoning or land development ordinances.

The Network Potential for Chester County

Inventory of the Network Potential for Chester County

In order to establish an open space network, there must be enough undeveloped parcels to create an open space network, and that land must be distributed in a way that will allow these parcels to be linked together. Earlier in this chapter it was noted that over 75,300 acres, or 15.5 percent of the County is currently protected as open space, and that nearly 71,500 acres, or 14.7 percent of the County is composed of large parcels that are suitable for protection. **Figure 19.16** shows both existing

protected open space, and the location of large parcels that are well suited for protection as open space.

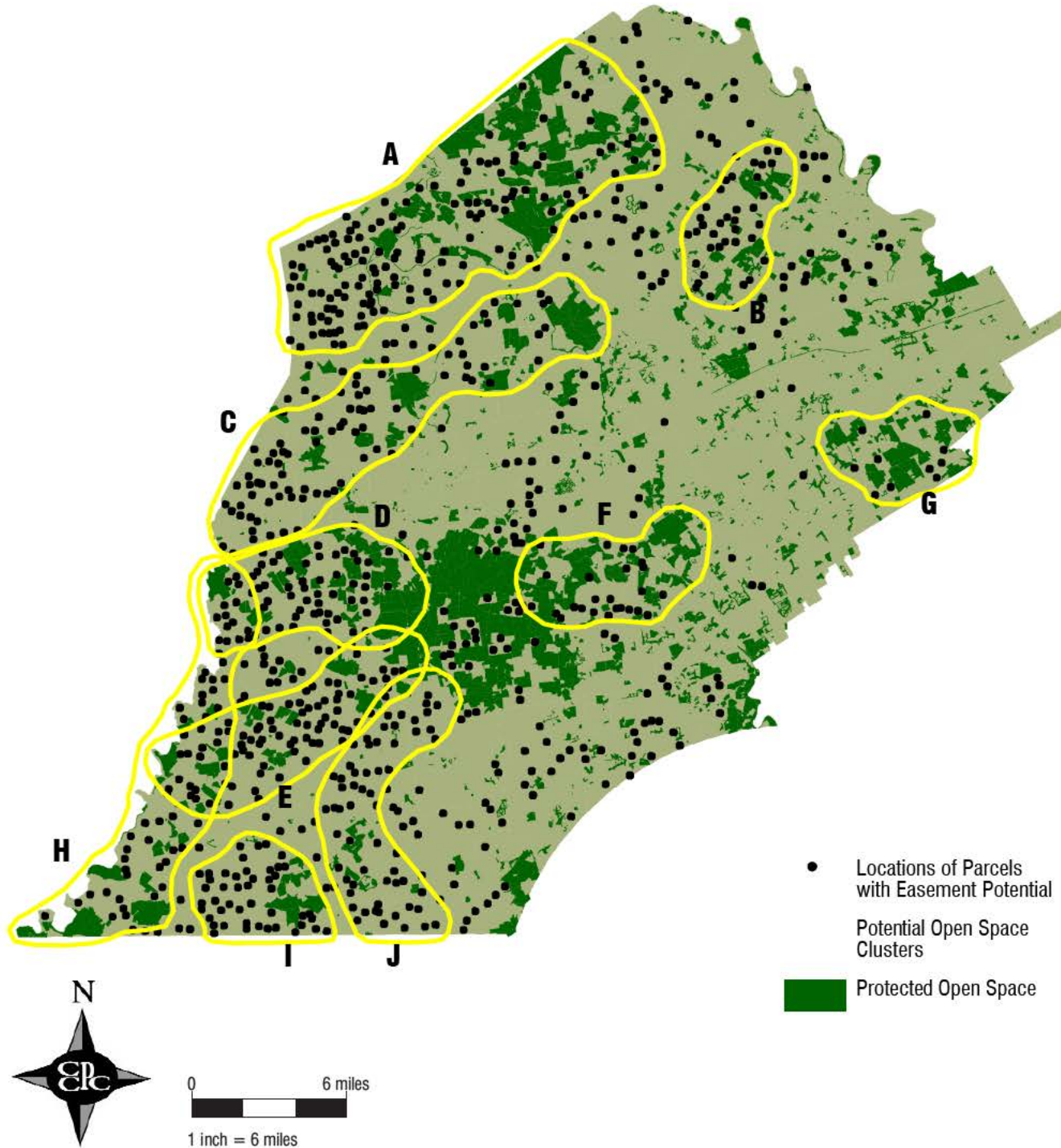
Evaluation of the Network Potential for Chester County

As *Figure 19.16* shows, there are clusters formed by existing protected open space parcels and those unprotected open space parcels that are suitable for protection. The ten major potential clusters are identified on *Figure 19.16*, and are described in *Figure 19.17*. These two figures indicate that the western half of the County has a much higher potential for the establishment of clusters of protected open space than the eastern half. This is not surprising given that there is more existing development in the east. These figures also show how the King Ranch area and the Octoraro Valley serve as major hubs, where large clusters of protected open space meet like the spokes on a wheel. Of course this mapping is on a countywide scale, and does not account for the many municipal-level opportunities to create smaller clusters of protected open space or recreational trails that can link them.

In order for an inter-linked network of protected open space to be established in Chester County, such a network must be consistent with *Landscapes*. *Figure 19.18* shows the potential protected open space clusters and the location of parcels that are suitable for protection overlaid on top of “Rural” and “Natural” Landscapes as recommended in *Landscapes*. This map shows that expanding the County’s existing open spaces into a countywide network would be consistent with *Landscapes*.

No parcels can be protected from development if their owners fail to take any action to sell or donate either their land in-fee or a conservation easement. To make landowners more aware of options that they have for protecting their land from development, or developing their land using limited development techniques as described in *Chapter 15*, the Planning Commission prepared a document entitled *Taking Control of Your Land; A Land Stewardship Guidebook for Landowners*. In the Fall of 2000 this publication was distributed to each individual or corporation that owned a parcel of 50 acres or more in Chester County to promote open space protection and conservation development.

The federal and state government, and institutions such as colleges, hospitals and horticultural organizations own many parcels of undeveloped or largely undeveloped land in Chester County. These parcels have many of the same qualities as protected open spaces, and so would be easier to convert to protected open spaces if their owners chose to dispose of them through the sale, or through donation of a conservation easement or property in-fee. Currently there is no countywide inventory of these properties, but such an inventory would be a valuable tool for directing future open space protection efforts.

Figure 19.16: Potential Protected Open Space Clusters

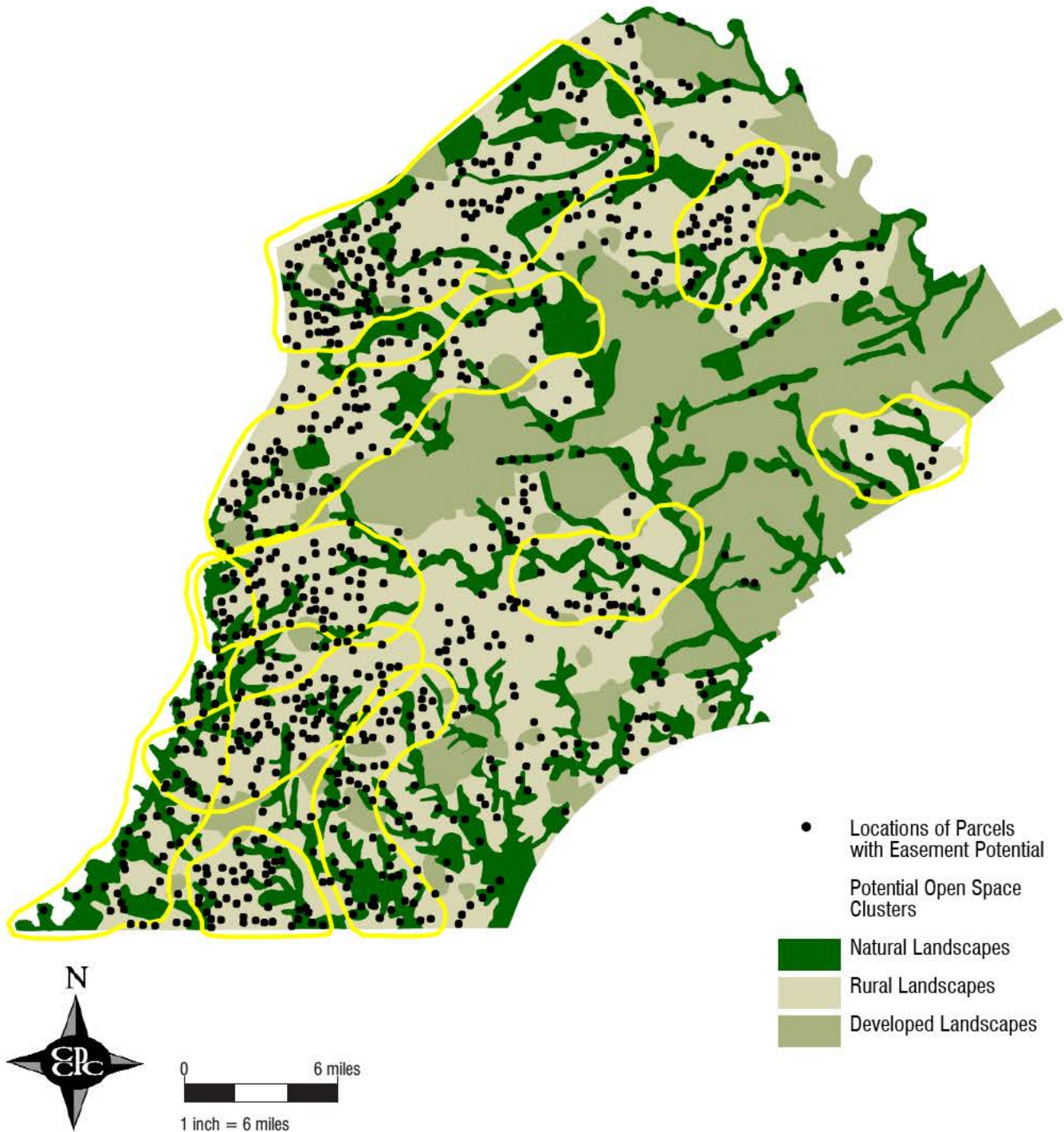
The data and files for maps in this document were digitally compiled by the Chester County Planning Commission (CCPC) of Chester County, PA. This information and data are provided for reference purposes only and should not be used for any detailed engineering purposes. The CCPC and Chester County make no claims as to the completeness, accuracy, or currency of the paper map or the digital data and files used to generate the map.

Source: CCPC, 2000.

Figure 19.17: Potential Protected Open Space Clusters

Potential Protected Open Space Cluster	Features
A Honey Brook to Warwick Area Cluster	This cluster has a strong potential to link farmlands in the area of Honeybrook and West Nantmeal Townships together with forested lands and state and County parks in the upper French Creek watershed.
B East and West Pikeland and Charlestown Area Cluster	This cluster has a potential to link eased parcels mostly around Pickering Creek. This cluster is rather isolated from the other ten potential clusters.
C West Sadsbury to Marsh Creek Area Cluster	This cluster has a potential to link farmlands together with state and County parks, but there are many gaps.
D West Fallowfield to King Ranch Area Cluster	This cluster has a strong potential to link the future County Park in West Fallowfield Township together with the King Ranch area.
E Octoraro Reservoir to King Ranch Area	This cluster has a strong potential to link farmlands along the Octoraro Reservoir together with the King Ranch Area.
F King Ranch to East Bradford Area Cluster	This cluster has a strong potential to link the King Ranch area together with protected open space all along the Brandywine Creek West Branch.
G Willistown Area Cluster	This cluster has a strong potential to link parcels around the Willistown Township area. This cluster is isolated from other clusters in Chester County, but could possibly link to Ridley Creek State Park.
H Octoraro Valley Area Cluster	This cluster has a potential to link the entire Octoraro Valley in Chester County, but there are some gaps.
I Elk and East Nottingham Area	This cluster has a strong potential to link farms and serpentine barren lands in Elk and East Nottingham Townships, but it is isolated from the other ten clusters.
J Big Elk Creek to King Ranch Area	This cluster has a potential to link the farmlands along the Big Elk Creek together with the King Ranch Area, but there are many gaps.

Figure 19.18: Rural and Natural Landscapes and Potential Protected Open Space Clusters



The data and files for maps in this document were digitally compiled by the Chester County Planning Commission (CCPC) of Chester County, PA. This information and data are provided for reference purposes only and should not be used for any detailed engineering purposes. The CCPC and Chester County make no claims as to the completeness, accuracy, or currency of the paper map or the digital data and files used to generate the map.

Visions & Actions **for the Network Potential for Chester County**

Vision 19.36

Landowners who own large undeveloped properties or farms adjacent to existing protected open spaces should be informed about land preservation and conservation development techniques.

Action 19.36

The County will continue to publicize land preservation and conservation development techniques to landowners that own large undeveloped properties or undeveloped parcels adjacent to existing protected open spaces.

Vision 19.37

Unprotected open space parcels that are undeveloped or farmed, and have the potential to be protected and fill gaps in the protected open space network should be mapped and evaluated to determine how they can be protected.

Action 19.37

The County will map and evaluate unprotected open space parcels in Chester County to determine which are undeveloped and have the potential to be protected and fill gaps in the protected open space network. This evaluation will include preliminary recommendations of how eligible parcels can be protected.

Vision 19.38

Unprotected parcels that are undeveloped or farmed, and have the potential to be protected with agricultural easements should be mapped.

Action 19.38

The County will inventory and map unprotected parcels of 50 acres or more to determine which of them meets the basic requirements of the state and County Agricultural Conservation Easement Program.

Vision 19.39

Unprotected and largely undeveloped parcels owned by the federal and state government, or institutions such as colleges, hospitals, and horticultural organizations should be mapped.

Action 19.39

The County will inventory and map unprotected and largely undeveloped parcels owned by the federal and state government, or institutions, such as colleges, hospitals, and horticultural organizations.

Vision 19.40

Vegetative Best Management Practices, such as meadow, wetland or forest restoration or management, that improve the environmental quality of open spaces, should be implemented even within existing developments.

Action 19.40

When reviewing land development plans, zoning and subdivision ordinances, open space and recreation plans and comprehensive plans, the County will provide comments and recommendations on how well vegetative Best Management Practices, such as meadow, wetland or forest restoration or management, are included.

Vision 19.41

Municipalities should consider permitting vegetative Best Management Practices, such as meadow, wetland or forest restoration or management, that improve the environmental quality of open spaces, should be implemented even within existing developments.

Action 19.41

The County will work with municipalities through the VPP to update comprehensive plans and ordinances so that they address vegetative Best Management Practices, such as meadow, wetland or forest restoration or management, that improve the environmental quality of open spaces, even within existing developments.

Vision 19.42

The policies and procedures of the County Tax Assessment Office, and taxing entities at other levels of government, should encourage and facilitate the protection of open space.

Action 19.42

The County will coordinate with the County Tax Assessment Office and other taxing entities to make them aware of the role their policies and procedures can play in protecting open space.

Vision 19.43

The policies and regulations of state agencies, and the planning and expansion of infrastructure by water and wastewater utilities, should encourage and facilitate the protection of open space.

Action 19.43

County will coordinate with the state agencies, and water and wastewater utilities and make them aware of the role they can play in protecting open space.

Vision 19.44

Lending institutions should provide financing for open space protection or cluster developments that protect open space.

Action 19.44

The County will coordinate with lending institutions and make them aware of the role their policies and procedures can play in protecting open space.

Vision 19.45

Changes to the tax structure within Chester County should be made with consideration of how such changes will promote or discourage the protection of open space.

Action 19.45

If the County should consider changes to the tax structure within Chester County, the way in which such changes will promote or discourage the protection of open space will be considered.

Vision 19.46

Municipal officials and employees should be informed about the various techniques available for protecting open space, and restoring and maintaining the quality of open space.

Action 19.46

The County will coordinate with civic groups that focus on land use and environmental education to determine what kind of municipal official and employee education partnerships might be available.

Vision 19.47

Landowners and the general public should be informed about the various techniques available for protecting open space, and restoring and maintaining the quality of open space.

Action 19.47

The County will coordinate with the Conservation District to determine what kind of landowner and general public education partnerships might be available.

The Linking Landscapes Challenge: Protect 50 Percent of Existing Open Space

Landscapes, the Policy Element of the Chester County Comprehensive Plan was adopted in 1996 and assumed that the majority of Chester County could remain unprotected open space, as it has for the last 300 years. The “Livable Landscapes” map presented in *Landscapes* recommended that roughly 70 percent of the County should remain largely undeveloped as “Rural” or “Natural” Landscapes. However, since 1996 it has become clear that development pressures are showing no signs of stopping. As **Chapter 1** shows, Chester County, and all of southeastern Pennsylvania, is now gaining new population moving in from both older urban centers, and rural areas such as central Pennsylvania. Although it is always difficult to predict future trends, there is a genuine possibility that within the coming decades, the vast majority of open spaces present in Chester County will be those that are protected by acquisition or easement. In other words, unprotected open spaces, will for all practical purposes, cease to exist.

The research conducted for *Linking Landscapes* strongly suggests that under a best case scenario – and only under a best case scenario – approximately 40 percent of the entire County could be protected using the current methods of protecting parcels through easement or in-fee acquisition. This is the case in spite of the fact that Chester County is now 60 percent open space. For many people who now live in Chester County, the notion that Chester County could even lose half of its open land to development is shocking, let alone 60 percent or more. After all, Chester County is one of the state’s leading counties in terms of protecting farmlands, and has some of the most active and successful land trusts in the nation. It may be difficult for many long-time residents to conceive of Chester County as a place where most of the land is developed. Nonetheless, the preponderance of the data gathered for this document suggests that this scale of development will occur if no changes occur in the way open space is currently protected and managed.

If the quality of life, ecology and economy of Chester County is to be maintained over the next few decades, there must be changes in the way that developments are planned, financed and constructed, and also in the attitudes of homebuyers, homebuilders, and government officials. The land use ordinances, financing practices and development techniques that are prevalent today and the current cultural mindset which accepts large-lot development as an inevitability simply will not permit the County’s

existing open spaces to be sufficiently protected. We must either change, or accept the massive conversion of the County to development, because unlike previous generations of Americans, the option of leaving the County for “greener pastures” is no longer economically viable. Whatever any one of us now builds in Chester County, we must all live with forever.

Changes that might permit the County to maintain its current character and protected 50 percent of its currently unprotected open spaces include:

- The continued acquisition of open space conservation easements or protected properties in-fee by the federal government and the state.
- The continued acquisition of open space conservation easements or properties in-fee by the County and a broadening of the type of land the Parks and Recreation Department is permitted to acquire.
- Municipal governments raising funds for the acquisition of locally important open spaces, including non-recreational open spaces, and adopting ordinances that protect all Naturally Sensitive Areas.
- Land trusts accepting or purchasing easements on parcels less than 50 acres, and on the open parts of built landscapes such as golf courses, homeowner association lands, and naturally sensitive parts of corporate or other campuses.
- The County Tax Assessors Office, and taxing entities at other levels of government, establishing policies and procedures that encourage and facilitate the protection of open space.
- The establishment of municipally oriented Local Land Trusts throughout Chester County.
- Developers constructing cluster developments or conservation developments as defined by *Linking Landscapes* in which over 60 percent of the development is open space protected by a homeowners association or a land trust, and the average lot size is 1/3 of an acre or less.
- Homebuyers conscientiously choosing to purchase homes in existing high density communities or in cluster developments with protected open space, such as those with an average lots size of 1/3 of an acre or less.
- Business owners conscientiously choosing to purchase or lease facilities in existing high-density communities or in cluster developments.
- Municipal governments modifying zoning and subdivision ordinances to permit smaller lots, so that cluster developments with protected open space, such as those with an average lot size of 1/3 acre can be constructed.

- Lending institutions financing the construction or restoration of homes in existing high density communities or in cluster developments with protected open space, such as those with an average lots size of 1/3 of an acre or less.
- Public water and wastewater utilities (including municipal, municipal authorities, private and investor owned systems) conducting joint planning for system expansion with municipalities to focus infrastructure in areas designated for growth, to support the protection of open space, and to maintain consistency with *Landscapes*, *Watersheds* and municipal planning and zoning.

Linking Landscapes presents an extensive inventory of the techniques that are currently being employed to protect open spaces in Chester County. Based on this evaluation, it appears that the most underutilized open space protection techniques are the inclusion of clustering and open space protection in new developments, and the protection of Naturally Sensitive Areas in municipal ordinances. Simply put, there are not enough municipalities in the County that have adopted ordinances that can adequately guide development in a way that promotes clustering and open space protection. Currently, there is a pressing need for municipalities throughout Chester County to update or improve their ordinances to permit or further encourage cluster development and other environmentally sensitive land uses. Municipalities must realize that they alone have the unique opportunity to stop “sprawl” simply by creating a healthy planning climate where developers have a market-based incentive to construct conservation developments.

However, municipal governments cannot be, and should not be expected to resolve this situation by them selves. The homebuilders active in Chester County must also be willing and eager to design and market units on developments that are clustered and surrounded by protected homeowner association open space. Homebuilders must begin to view homeowner association open space a normal and integral part of the developments they build, just like roads, sewers and other essential infrastructure. Furthermore, these open areas cannot be ignored once the units around them are built. As part of the land development process, developers should formulate plans to maintain these open areas in perpetuity, as well as establishing a plan to finance this maintenance. Homeowner open space should not simply be mowed lawn with no recreational or natural resource value. This is especially true when homeowner open spaces include Naturally Sensitive Areas, which they often do.

Homebuyers and the voting public must also change their attitudes regarding development and the way that the open land on private property is managed. Municipalities have the authority and the ability to change their zoning ordinances to promote cluster development and the protection of open space within new development. However, in order for municipal officials to take such measures, the voting public must call for them to do so. Homebuyers must also call on developers to construct more

environmentally sensitive developments, and for lending institutions to provide them with financing. Developers and funding institutions will continue to fund and build highly land-consumptive large-lot developments as long as homebuyers are willing to purchase them. If the public chooses to spend their money only on units in environmentally sensitive developments, any developer who wishes to stay in business will find a way to build them.

Homebuyers must therefore make a conscious decision to purchase units in existing or redeveloped communities or on conservation developments with over 60 percent protected open space and an average lot size of 1/3 of an acre or less. If individuals wish to stop “sprawl” in their communities, they can take decisive action on their own simply by moving into older neighborhoods with traditional clustered housing units or by refusing to purchase houses located on large lots. Lastly, landowners must recognize that open space restoration begins on their own properties, and begin planting more trees, shrubs, hedgerows, wildflowers, and native grasses, while simultaneously reducing mowed lawn to only those areas that are well drained, level and used for personal recreation.

Ideally, Chester County should protect more land than it develops. However, it would be wholly inappropriate to make such a recommendation, because currently the mechanisms are not in place to protect that much land. Even with this limitation, all of the evidence suggests that it still may be possible for Chester County to protect enough of its open spaces to retain the distinctive character that it currently enjoys. What is needed to realize this effort is for the County’s residents, developers, lending institutions, farmers, businesses, land trusts and governments to formulate new alternatives for protecting its remaining open spaces. For this reason, *Linking Landscapes* challenges the County as a whole to find a way to rigorously and permanently protect 50 percent of its existing undeveloped open spaces by protecting not only undeveloped properties but also the open portions of already developed communities. This is not simply a target that can be met or missed, rather it is a challenge the County must pursue even if there is no guarantee of success.

If the people of Chester County are willing to accept the challenges posed by *Linking Landscapes*, 5,000 acres of open space could be protected through easements or in-fee acquisitions each year. Under this scenario, 50 percent of the existing undeveloped open space in Chester County would be protected, and the rate of open space protection would match the current land development rate, which is estimated to be roughly 5,000 acres annually. Meeting this challenge will require planning, funding and a lot of hard work. But it can happen, if everyone who works or lives in Chester County is willing to change not only the way they purchase, develop and care for their property, but also the way they think about it. Protecting open space is a process that never ends, not a product that can be completed according to a scientifically engineered schedule.

In 1683, William Penn, a man who lived in a land where kings ruled peasants, and where cities consisted of dark narrow lanes lined with cramped smoke filled dwellings, conceived of a community where free people of equal standing could live and prosper together in a clean and pleasant “greene countrie towne.” He made this challenge over three hundred years ago, even though he knew that the world of the 17th century did not possess the political or cultural mechanisms to realize his dream. His concept for a better way of living was, and still is, both visionary and courageous. It is now our time to decide if we in Chester County have the vision and courage to take it up this challenge.

Chapter 20



*Establishing the Protected
Open Space Network*

Introduction

The previous 19 chapters identified 292 actions that the County government will pursue to establish a protected open space network in Chester County. These actions represent the activities that various departments of County government intend to undertake, although implementing many of these actions may also require the active involvement of municipalities or other organizations. Each of these 292 actions is listed in the tables at the end of this chapter.

Of course, compiling a listing of actions is a meaningless exercise if there is no attempt to implement these actions. For this reason an “Initial Implementation Activity” has been proposed for each of the 292 actions. The Planning Commission and the Parks and Recreation Department regards these Initial Implementation Activities as the first practical steps County government must take to begin the process that will ultimately establish a protected open space network in Chester County. These “Initial Implementation Activities” are also presented in the table at the end of this chapter and in *Appendix A*.

County government will take three key steps in order to make sure that the 292 actions listed at the end of this chapter will be initiated in an efficient and coordinated manner. First, the various departments of County government involved in open space and recreation projects, such as the Planning Commission, the Parks and Recreation Department and the Department of Community Development, will hold regular Interdepartmental Open Space Technical Meetings. Second the existing Planning Commission and Parks and Recreation Joint County Open Space Committee will be enhanced. Lastly the Planning Commission will publish a Protected Open Space Network 12-Year Program in close coordination with the Parks and Recreation Department. These three steps are all discussed in the following sections.

Interdepartmental Open Space Technical Meeting

Currently, the various departments within County government meet on an as-needed basis to coordinate the preparation of open space grant applications and feasibility studies, or to gather technical data on open space issues. As the County moves forward to establish a countywide

protected open space network, there will be a need for increased coordination between County government departments. For this reason, Interdepartmental Open Space Technical Meetings will be held on a regular basis.

The primary focus of the Interdepartmental Open Space Technical Meetings will be open space grants. Every year, various departments of County government apply for grants from state, federal and private grant programs. The Interdepartmental Meetings will help to ensure that the various County government departments that apply for these grants do so in a coordinated effort. During these meetings, departments will have the opportunity to request endorsement letters, technical data or other support materials from other departments. Multi-department partnerships or potential redundancies will also be identified. The Open Space Planner with the Planning Commission will serve as the coordinator for these meetings.

Because the Interdepartmental Open Space Technical Meetings will focus on open space grants, they will be held twice a year, well in advance of the mid-Fall and late-Spring deadlines for most federal and state grants. These Interdepartmental Meetings will also be used to identify if the County government should pursue a grant in partnership with a municipality or another non-County organization. An additional purpose of these meetings will be to identify open space issues for which more data needs to be gathered, or for which a feasibility study is warranted. These meetings may also be used to gather input on other technical issues including the use of GIS and the Internet, and to discuss future work activities and projects that focus on open space protection and the establishment of a protected open space network.

The Protected Open Space Network Committee

Currently, the Planning Commission administers the “Joint Open Space Committee,” which is composed of four members of the Planning Commission Board and two members of the Parks and Recreation Board. In the past, this Committee has met on an as-needed basis. As the County moves forward to establish a countywide protected open space network, there will be a need for increased involvement by such a Committee. Furthermore there will be a need for more input from stakeholders outside of County government.

Henceforth, the Joint Open Space Committee will be renamed the Protected Open Space Network Committee and they will meet twice a year. The Committee will retain its current membership of four members of the Planning Commission Board, including the Chair, and two members of the Parks and Recreation Board. A staff member with the Planning Commission will administer the committee and serve as the recording secretary. A staff member of the Parks and Recreation Department will also attend each meeting.

Each of the six Committee members may also invite a guest representative of an open space stakeholders group to attend the meeting. Invited guests may give a presentation or simply observe the proceedings. Through this technique the Committee will be provided with a range of viewpoints regarding open space issues, and yet remain a small enough group to allow meaningful in-depth discussions. Guests of the board may include representatives from municipalities, the farm community, non-profit land trusts, the homebuilder's industry, environmental organizations, the business community, or community groups.

The purpose of the Committee will be twofold. It will serve as a means to maintain a unified focus for the open space planning efforts of the Planning Commission and the open space design and construction efforts of the Parks and Recreation Department. It will also serve as an outreach organization to help improve communication and coordination between County government and potential stakeholders.

The Protected Open Space Network 12-Year Program

Currently there is no listing of all of the existing or proposed open space protection initiatives in Chester County that are managed and funded by the various departments of County government. Such a listing would be a valuable tool for helping to coordinate and publicize the many open space projects initiated by County government. This listing could also be used to further cooperation between the County government, municipalities and other open space protection organizations that might benefit from a joint effort. Currently the Pennsylvania Department of Transportation uses a 12-year time frame programming for planning, designing and constructing transportation projects and this time frame is appropriate for major open space projects as well.

The Planning Commission will therefore compile and publish a *Protected Open Space Network 12-Year Program* in close Coordination with the Parks and Recreation Department. The *12-Year Program* will be a technical report listing the major existing open space facility planning, design or construction projects that are both funded and managed by County government. Projects that are partially funded and managed by the County government will also be included. Projects that are proposed but have not yet secured funding will not be included in the Program.

The *12-Year Program* will deal with features that could become part of an open space network, but it will not include information on the status of planning studies or updates to municipal or regional comprehensive studies. The *12-Year Program* will not be an action plan with goals and objectives, since these are already presented in *Linking Landscapes*. Likewise the *12-Year Program* will not provide policy statements, since these are already provided in *Landscapes*, the Policy Element of the Chester County Comprehensive Plan.

The *12-Year Program* will include each County funded open space project that is proposed or planned for the next 12 years. It will summarize the steps needed over the next 12 years that will help to implement each project. Of course some projects will be completed in fewer than 12 years, but they will also be listed. The status of each project will be described as being in phases such as:

- Preliminary planning and acquisition phase
- Planning phase
- Design phase
- Construction phase

The *12-Year Program* will identify what branch of County government may be involved in completing each step. It will also identify those municipalities or other non-County organizations that may be involved in partnership projects along with the County government.

The *12-Year Program* will not include a detailed schedule for each project but will assign each project phase to the first, second, or third period of four years. For example, the first edition of *12-Year Program* is scheduled for 2003. It will list what projects are expected to be constructed in the first four years (2003 to 2006), in the second four years (2007 to 2010) and in the third four years (2011 to 2014). It will also list what phase the project will be in during those three blocks of time.

As part of the *12-Year Program*, municipalities and other open space preservation organizations will be surveyed to determine what projects they are initiating in Chester County. General information on the status of these projects will also be gathered and listed separately from County funded projects. This listing will only be used by the County to identify

possible partnerships and to better establish a countywide network of protected open spaces.

The first *12-Year Program* will be developed based on the priorities and initial implementation activities presented at the end of this chapter. This first *12-Year Program* will include projects that are already included in the Parks and Recreation Department Capitol Programming, projects planned by the Water Resources Authority, and other County government projects. The *12-Year Program* will be updated every two years and will be presented to the Planning Commission Board and the Parks and Recreation Board for recommendation to the County Commissioners.

Protected Open Space Network Initiatives and Priorities

Completing an in-depth implementation plan for each of the 292 actions presented in the previous 19 chapters would exceed the level of detail intended for this document. However it is important to identify how the County government will initiate these actions, either independently or through partnerships with municipalities or other organizations. The tables presented in the following pages identify how the 292 actions will become part of the County government's efforts to establish a countywide protected open space network.

Each table presented below corresponds to one of the chapters in this document. The first column of each table lists the actions presented in each chapter by number. The first action listed is **Action 4.1**, which comes from **Chapter 4**. There are no actions listed in **Chapters 1** through **3**. There are also breaks in the numbering sequence, because not all chapters include action items.

The second column of each table below presents a "Program Initiative," that will be used in developing the first *12-Year Program* scheduled for 2002. Each Program Initiative is described by a short phrase that summarizes its respective action. Such a description has been included because it is often required when filling out applications for state and federal matching grants.

It would be unrealistic to assume that the County government could initiate all of these 292 actions at once. All of these actions are important in establishing a protected open space network in Chester County, but not all have the same priority. Some of these actions represent ongoing efforts that the County government has already initiated. Others are

recommended actions that should be undertaken through new planning initiatives, while others are more urgent and should be acted upon in a more timely manner.

The third column in each table presented below prioritizes each action using the following terms:

- **Urgent Actions** – Activities to be initiated as soon as possible to seize an opportunity that may not be possible in the near future.
- **Recommended Actions** – Activities to be initiated through future planning or program efforts.
- **Ongoing Actions** – Activities that have already been initiated.

The third column in each table also includes the “Initial Implementation Activities” described at the beginning of this chapter. These activities represent the first steps that the County government intends to initiate to establish a protected open space network. Some of these activities are quite simple, such as setting up a meeting with a state agency, but they are still necessary to order to initiate the actions developed in the previous chapters. It is important to remember that quite often it is more effective to initiate a small activity that can lead to greater involvement, rather than to propose a complex project in detail.

The Planning Commission and the Parks and Recreation Department will be flexible in following the priorities listed in the tables below. If a proposed project that its not listed below will greatly help establish part of the protected open space network in Chester County, it will still be pursued by County government. Similarly, a project that is not listed as “urgent” may be pursued before one that is listed as “urgent,” if an opportunity arises to complete the project quickly and economically. It would be presumptuous to assume that strictly following the priorities listed below is the only means for establishing a protected open space network in Chester County.

Actions, Initiatives and Program Priorities

Chapter 4 Recreational Parks

Action Item	Program Initiative	PROGRAM PRIORITY Initial Implementation Activity
National Parks		
4.1	County comments and recommendations on linking NPS properties and other protected open spaces.	RECOMMENDED: CCPC will prepare a guidance memo on open space for Act 247 and other reviews.
4.2	Endorsing linking NPS properties to other protected open spaces via public trails.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on external grant endorsements. CCPRD will update its long-term vision.
4.3	County grants for linking NPS properties to other protected open spaces via public trails.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.
4.4	Linking the Paoli Battlefield site with Valley Forge NHS via a public trail with NPS Affiliate status.	RECOMMENDED: CCPC & CCPRD will prepare an outline for this study.
4.5	Establishing NPS conservation easements or management agreements on parcels around NPS sites.	RECOMMENDED: CCPC & CCPRD will meet with the NPS.
4.6	Protecting the Brandywine and Paoli Battlefields, and designating them with NPS Affiliate Status.	URGENT: CCPC & CCPRD will work to complete the preservation of the Paoli and Brandywine Battlefields.
State Parks		
4.7	Endorsing linking state parks to other protected open spaces via public trails and wildlife corridors.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on external grant endorsements. CCPRD will update its long-term vision.
4.8	County grants for linking state parks to other protected open spaces via public trails and wildlife corridors.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.
4.9	County grants for protecting privately owned parcels with natural resources near state parks.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo for ranking County grants.

Chapter 4 (continued)

Recreational Parks

Action Items	Program Initiative	PROGRAM PRIORITY Initial Implementation Activity
State Parks (continued)		
4.10	Establishing DCNR conservation easements or management agreements on parcels around state parks.	RECOMMENDED: CCPC & CCPRD will meet with DCNR Bureau of State Parks.
4.11	Protecting the Hopewell Big Woods in and around French Creek State Park in Chester and Berks Counties	RECOMMENDED: CCPRD will meet with the DCNR Bureau of State Forests and Berks County.
4.12	Transferring land trust or other protected open space parcels to the DCNR Bureau of State Parks.	RECOMMENDED: CCPC & CCPRD will meet with the DCNR Bureau of State Parks.
Chester County Parks		
4.13	Endorsing linking County Parks and trails to population centers, boroughs and cities.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on external grant endorsements. CCPRD will update its long-term vision.
4.14	Endorsing buffering County Parks with conservation and scenic easements.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on external grant endorsements. CCPRD will update its long-term vision.
4.15	Endorsing using County Parks as land and natural resource management demonstration areas.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on external grant endorsements. CCPRD will update its long-term vision.
4.16	Endorsing managing County Parks to include education and outreach activities.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on external grant endorsements. CCPRD will update its long-term vision.
4.17	County grants for linking County Parks and trails to population centers, boroughs and cities.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.
4.18	Establishing a 600-acre County park in the un-served southeastern part of the County.	RECOMMENDED: CCPC will prepare an outline for this study.
4.19	Establishing 1,200 acres of the County Parks within the under-served east-central part of the County.	RECOMMENDED: CCPC will prepare an outline for this study.

Chapter 4 (continued)

Recreational Parks

Action Items	Program Initiative	PROGRAM PRIORITY Initial Implementation Activity
Chester County Parks (continued)		
4.20	Involving volunteers in maintaining natural and cultural resources within the County Park System.	RECOMMENDED: CCPRD will prepare an outline for this study.
4.21	Addressing linking County Parks to population centers, boroughs and cities in County park master plans.	RECOMMENDED: CCPRD will prepare a guidance memo on this issue.
4.22	Increasing Special Purpose Parks used for natural and cultural resource protection, recreation or education.	ONGOING: CCPC & CCPRD will prepare a memo on status and actions to be taken on this issue.
4.23	Establishing County Schuylkill River Trail, loop trails and Special Purpose Parks along the southern side of the Schuylkill River.	ONGOING: CCPC & CCPRD will prepare a memo on status and actions to be taken on this issue.
4.24	Enlarging of County Parks through the purchase or donation of nearby parcels.	ONGOING: CCPC & CCPRD will prepare a memo on status and actions to be taken on this issue.
4.25	Extending County Struble Trail to Struble Lake and the County Chester Valley Trail to Atglen Borough.	ONGOING: CCPC & CCPRD will prepare a memo on status and actions to be taken on this issue.
4.26	Establishing the County Octoraro Water Trail.	ONGOING: CCPC & CCPRD will prepare a memo on status and actions to be taken on this issue.
4.27	Inventorizing all waterways suitable for water based recreation.	RECOMMENDED: CCPC will prepare a memo on this issue.
4.28	Establishing water based recreation on the Schuylkill River, the Octoraro Creek and their major tributaries.	ONGOING: CCPC & CCPRD will prepare a memo on status and actions to be taken on this issue.
4.29	Establishing or restoring wetlands on County Park System properties.	ONGOING: CCPC & CCPRD will prepare a memo on status and actions to be taken on this issue.
4.30	Establishing County Parks in highly developed areas on parcels that require habitat creation or restoration.	URGENT: CCPRD will prepare a memo on this issue.
4.31	Restoring wildlife habitat in County Parks through partnerships with private organizations.	RECOMMENDED: CCPC & CCPRD will meet with habitat preservation organizations.

Chapter 4 (continued)

Recreational Parks

Action Items	Program Initiative	PROGRAM PRIORITY Initial Implementation Activity
Chester County Parks (continued)		
4.32	Updating County Park resource management plans at least every ten years.	RECOMMENDED: CCPRD will prepare a memo in this issue.
4.33	Developing natural resource management policies for County Park System properties.	URGENT: CCPRD will prepare a memo on this issue.
4.34	Using County Parks primarily for passive recreation.	URGENT: CCPRD will prepare a memo on this issue.
4.35	Using Special Purpose Parks primarily for passive recreation and education.	URGENT: CCPRD will prepare a memo on this issue.
4.36	Completing the design and construction of recreational facilities on future park sites that have been acquired.	ONGOING: CCPC & CCPRD will prepare a memo on status and actions to be taken on this issue.
4.37	Continuing planning and implementation of educational programming and special events.	ONGOING: CCPC & CCPRD will prepare a memo on status and actions to be taken on this issue.
Municipal Parks		
4.38	County comments and recommendations on designating parks as recreational or non-recreation open space.	RECOMMENDED: CCPC will prepare a guidance memo on open space for Act 247 and other reviews.
4.39	Endorsing the establishment of municipal parks for active recreation.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on external grant endorsements. CCPRD will update its long-term vision.
4.40	County grants to establish least one active recreational municipal park in each municipality.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.
4.41	Designating municipal open spaces as recreational or non-recreational in comprehensive plans and ordinances.	RECOMMENDED: CCPC will prepare a guidance memo for the VPP on this issue.
4.42	Providing technical assistance on unique or regionally important recreational park projects.	ONGOING: CCPC will prepare an outline for this study.

Chapter 4 (continued)

Recreational Parks

Action Items	Program Initiative	PROGRAM PRIORITY Initial Implementation Activity
Municipal Parks (continued)		
4.43	Completing Open Space, Recreation and Environmental Resources (OSRER) Plans for all municipalities.	RECOMMENDED: CCPC will contact municipalities without OSRER Plans and prepare an outline for this study.
4.44	Updating each OSRER Plan at least every ten years.	RECOMMENDED: CCPC will prepare a guidance memo for the VPP on this issue.
4.45	Managing municipal recreation parks to provide wildlife habitat in areas not used for active recreation.	RECOMMENDED: The CCPC will contact municipalities.
4.46	Not mowing the stream banks and pond shorelines of municipal parks.	RECOMMENDED: The CCPC will contact municipalities.
4.47	Cultivating tall vegetation along stream and pond edges on municipal parks to reduce Canada geese.	RECOMMENDED: The CCPC will contact municipalities.
Multi-Municipal Parks		
4.48	Endorsing multi-municipal active recreation parks.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on external grant endorsements. CCPRD will update its long-term vision.
4.49	County grants for multi-municipal parks.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.
4.50	County grants for multi-municipal parks jointly used, owned and managed by multiple municipalities.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.
4.51	County grants for multi-municipal parks in rural municipalities.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.
4.52	Addressing multi-municipal parks in comprehensive plans and ordinances.	RECOMMENDED: CCPC will prepare a guidance memo for the VPP on this issue.

Chapter 5

Managed Areas and Water Resource Buffers

Action Item	Program Initiative	PROGRAM PRIORITY Initial Implementation Activity
State Game Lands		
5.1	Linking French Creek State Park, Warwick County Park and the three parts of State Game Lands #43.	RECOMMENDED: CCPC & CCPRD will prepare an outline for this study.
5.2	Legal and responsible hunting to control the over population of game species.	RECOMMENDED: CCPC & CCPRD will meet with the PGC.
5.3	Increasing game lands in the County.	RECOMMENDED: CCPC & CCPRD will meet with the PGC.
5.4	Controlling over populated game species where hunting and culling is not practical by proven non-lethal means.	ONGOING: CCPRD will monitor literature on this issue.
PA Fish and Boat Commission Lands		
5.5	Establishing Icedale Lake as a wet-land preserve for amphibians and reptiles.	URGENT: CCPC & CCPRD will meet with the PFBC.
5.6	Increasing PFBC managed lands and boat launches in the County. PA State Forests	RECOMMENDED: CCPC & CCPRD will meet with the PFBC.
PA State Forests		
5.7	Linking Valley Forge State Forest District #17 with Nottingham County Park.	RECOMMENDED: CCPC & CCPRD will prepare an outline for this study.
5.8	Restoring the vegetative species within Valley Forge District #17 to those of a serpentine barrens.	URGENT: CCPC & CCPRD will meet with the PA Bureau of Forestry.
5.9	Managing the County's forests and hardwood resources on a Countywide scale.	RECOMMENDED: CCPC & CCPRD will meet with the PA Bureau of Forestry.
5.10	Increasing state forest properties, especially along the Octoraro Creek and on serpentine barrens.	RECOMMENDED: CCPC & CCPRD will meet with the PA Bureau of Forestry.
Submerged Lands and Water Resource Buffers		
5.11	County comments and recommendation on protecting regionally significant water resources.	RECOMMENDED: CCPC will prepare a guidance memo on open space for Act 247 and other reviews.

Chapter 5 (continued)

Managed Areas and Water Resource Buffers

Action Item	Program Initiative	PROGRAM PRIORITY Initial Implementation Activity
Submerged Lands and Water Resource Buffers (continued)		
5.12	Endorsing protecting regionally significant water resources as open space.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on external grant endorsements. CCPRD will update its long-term vision.
5.13	County grants to protect open spaces that contain regionally significant water resources.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.
5.14	Endorsing those water resource protection projects that are consistent with the WRMP.	RECOMMENDED: CCPC will prepare a guidance memo on this issue.
5.15	Managing the Schuylkill River to permit both fish migration and watercraft recreation.	RECOMMENDED: CCPC will prepare a guidance memo on this issue.
Non-recreational Municipal Open Space		
5.16	County comments and recommendations on the protection of unique or locally important resources.	RECOMMENDED: CCPC will prepare a guidance memo on open space for Act 247 and other reviews.
5.17	Establishing non-recreational open space that protects unique or locally important resources.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on external grant endorsements. CCPRD will update its long-term vision.
5.18	County grants for the acquisition of non-recreational open space.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.
5.19	Addressing non-recreational locally important open space in comprehensive plans and ordinances.	RECOMMENDED: CCPC will prepare a guidance memo for the VPP on this issue.
5.20	Managing resources within non-recreational open spaces in perpetuity.	RECOMMENDED: The CCPRD will update its grant manuals to address this issue
Natural Areas Inventory		
5.21	County grants for the protecting Sites of Statewide Significance or Areas of Local Significance.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.
5.22	Managing Sites of Statewide Significance or Areas of Local Significance on private property.	ONGOING: CCPC will prepare a guidance memo on this issue.

Chapter 5 (continued)

Managed Areas and Water Resource Buffers

Action Item	Program Initiative	PROGRAM PRIORITY Initial Implementation Activity
Natural Areas Inventory (continued)		
5.23	Updating the Chester County Natural Areas Inventory every five to ten years.	RECOMMENDED: CCPC will meet with the DCNR and the Nature Conservancy.
5.24	Locating parcels with Sites of Statewide Significance and Areas of Local Significance.	URGENT: CCPC will prepare a memo to initiate this effort.

Chapter 6

Open Space Protected by Nonprofit Land Trusts

Action Item	Program Initiative	PROGRAM PRIORITY Initial Implementation Activity
Open Space Protected by Regional Land Trusts		
6.1	County comments and recommendations on land trust, and municipal officials, park boards and open space boards.	RECOMMENDED: CCPC will prepare a guidance memo on open space for Act 247 and other reviews.
6.2	County grants for acquiring easements or property in-fee buffering properties protected by land trusts.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.
6.3	County grants for trust protection on Elk and Octoraro Creeks, in the northern Brandywine Watershed and along the Welsh Mountain ridgeline.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.
6.4	County grants for project where Regional Land Trusts seek funding from the state and private donors.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.
6.5	Regional Land Trusts fostering the growth of Local Land Trusts through cooperative agreements.	RECOMMENDED: CCPC & CCPRD will prepare an outline for this study.
6.6	The Chesapeake Bay Foundation protecting land within the Elk Creek and Octoraro Creek Watersheds.	URGENT: CCPC & CCPRD will meet with the Chesapeake Bay Foundation.

Chapter 6 (continued)

Open Space Protected by Nonprofit Land Trusts

Action Item	Program Initiative	PROGRAM PRIORITY Initial Implementation Activity
Open Space Protected by Regional Land Trusts (continued)		
6.7	Regional Land Trusts transferring easements to other land trusts on their in-fee property.	URGENT: CCPC & CCPRD will meet with the Regional Land Trusts.
6.8	Regional Land Trusts coordinating land protection efforts within other land trusts and the County.	ONGOING: CCPC will coordinate information to Land Trusts.
Open Space Protected by Local Land Trusts (continued)		
6.9	County comments and recommendations on municipal coordination with Local Land Trusts.	RECOMMENDED: CCPC will prepare a guidance memo on open space for Act 247 and other reviews.
6.10	County grants for projects where Local Land Trusts seek funding from the state and private donors.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.
6.11	Informing municipal officials about start-up grants to Local Land Trusts.	RECOMMENDED: CCPC & CCPRD will prepare an outline for this study.
6.12	Local Land Trusts entering into land protection agreements with Regional Land Trusts.	RECOMMENDED: CCPC & CCPRD will meet with Regional and Local Land Trusts.
6.13	Establishing Local Land Trusts, or a multi-municipal Local Land Trusts.	ONGOING: CCPC will prepare a status memo on this issue.
6.14	Informing landowners about preserving their lands through a Local Land Trust.	ONGOING: CCPC will prepare a status memo on this issue.
6.15	Familiarizing Local Land Trust staff with the Preservation Partnership Program.	URGENT: CCPC & CCPRD will meet with Local Land Trusts.
6.16	Endorsing Local Land Trusts projects only after coordinate with municipal representatives.	URGENT: CCPC & CCPRD will prepare a guidance memo on this issue.
Parcels with Easement Potential		
6.17	Regional Land Trusts acquiring easements on parcels already developed or planned for development.	RECOMMENDED: CCPC will meet with the Regional Land Trusts.
6.18	Local Land Trusts acquiring easements on parcels already developed or planned for development.	RECOMMENDED: CCPC will meet with the Local Land Trusts.

Chapter 6 (continued)

Open Space Protected by Nonprofit Land Trusts

Action Item	Program Initiative	PROGRAM PRIORITY Initial Implementation Activity
Parcels with Easement Potential (continued)		
6.19	Informing landowners with a Parcel with Easement Potential of the importance of protecting the parcel.	URGENT: CCPC will prepare a memo to initiate this effort.
6.20	Monitoring parcels with easement potential.	RECOMMENDED: CCPC will prepare a guidance memo on this issue
6.21	Protecting parcels that are not well suited for land trust or ALPB protection.	RECOMMENDED: CCPC will prepare and outline for this study.

Chapter 7

Protected Spray and Drip Irrigation Fields

Action Item	Program Initiative	PROGRAM PRIORITY Initial Implementation Activity
Spray and Drip Irrigation Fields		
7.1	County comments and recommendation on Including spray and drip irrigation in wastewater treatment systems.	RECOMMENDED: CCPC will prepare a guidance memo on open space for Act 247 and other reviews.
7.2	County grants for spray and drip irrigation fields linked to other open spaces.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.
7.3	Locating spray and drip irrigation fields as near to a point of large groundwater withdrawal as possible.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.
7.4	Protecting unprotected spray and drip fields.	RECOMMENDED: CCPC will prepare an outline for this study.

Chapter 8 Historic Properties and Districts

Action Items	Program Initiative	PROGRAM PRIORITY Initial Implementation Activity
National Register Sites		
8.1	Linking National Register Sites and Districts to recreational parks.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.
8.2	Developing a uniform system for recording data on historic resources.	URGENT: CCPRD will prepare a guidance memo on this issue.
8.3	Preparing digitized mapping of National Register Sites and Districts, and potentially eligible non-listed sites.	URGENT: CCPRD will prepare a memo to initiate this effort.
Pennsylvania Heritage Parks		
8.4	Widening the Schuylkill River State Heritage Corridor to include the entire watershed.	ONGOING: CCPC will prepare a status memo on this issue.
8.5	Cooperating with other Counties on projects in the Schuylkill River State and National Heritage Corridors.	RECOMMENDED: CCPC & CCPRD will meet with Berks and Montgomery County.

Chapter 9 Protected Farmlands

Action Items	Program Initiative	PROGRAM PRIORITY Initial Implementation Activity
Agricultural Security Areas		
9.1	Municipalities providing the Planning Commission with information on changes to ASAs.	RECOMMENDED: CCPC will prepare an outline for this study.
9.2	Landowners who use their land for agriculture enrolling it into an ASA.	RECOMMENDED: CCPC will meet with the ADC.
9.3	Increasing the percentage of the total County ASA acreage that is owned by Plain Sect farms.	RECOMMENDED: CCPC will meet with the ADC.
9.4	Better informing municipal officials of the procedures for establishing and altering ASAs.	RECOMMENDED: CCPC will meet with the ADC.

Chapter 9 (continued)

Protected Farmlands

Action Item	Program Initiative	PROGRAM PRIORITY Initial Implementation Activity
Agricultural Easements		
9.5	Establishing an easement program to protect farms that are located on rolling topography.	RECOMMENDED: CCPC will prepare an outline for this study.
9.6	Pursuing funding for qualified landowners to sell agricultural easements to the Chester County ALPB.	RECOMMENDED: CCPC will meet with the ALPB.
9.7	Increasing the percentage of Plain Sect farms in the County with agricultural conservation easements.	RECOMMENDED: CCPC will meet with the ALPB.
9.8	Developing a county plan to coordinate agricultural production and the preservation of farmland.	RECOMMENDED: CCPC will meet with the ADC and ALPB.
9.9	Protecting farms with agricultural conservation easements in clusters of at least 750 to 1,000 acres.	ONGOING: CCPC will prepare a status memo on this issue.
Farm Preservation Programs		
9.10	Implementing effective agricultural zoning.	RECOMMENDED: CCPC will prepare a guidance memo for the VPP on this issue.
9.11	Implementing effective agricultural zoning where agriculture is the primary land use.	RECOMMENDED: CCPC will prepare an outline for this study.
9.12	Seeking federal funding to protect farmland.	RECOMMENDED: CCPC will prepare a guidance memo on this issue.
9.13	Informing farmers of their options for reducing their tax burden through PA Act 319 and 515.	ONGOING: CCPC will prepare a status memo on this issue.

Chapter 10

Open Space Restoration on Existing Developments

Action Item	Program Initiative	PROGRAM PRIORITY Initial Implementation Activity
Homeowner Association Lands		
10.1	Comment and recommendations on including HOA open space in new developments.	RECOMMENDED: CCPC will prepare a guidance memo on open space for Act 247 and other reviews.
10.2	Managing HOA open space either to restore wildlife habitat or better facilitate recreational activities.	RECOMMENDED: CCPC will meet with CCCD and prepare and outline for this study.
10.3	Addressing the maintenance of HOA open space in municipal comprehensive plans and ordinances.	RECOMMENDED: CCPC will prepare a guidance memo for the VPP on this issue.
10.4	Informing Homeowners Associations of techniques they can use to restore HOA parcels.	RECOMMENDED: CCPC will meet with CCCD and prepare an outline for this study.
Cemeteries		
10.5	County comments and recommendations on appropriately quite land uses surrounding cemeteries.	RECOMMENDED: CCPC will prepare a guidance memo on open space for Act 247 and other reviews.
10.6	Linking cemeteries to protected open spaces.	RECOMMENDED: CCPC will prepare a memo to initiate this effort.
Golf Courses		
10.7	Vegetating golf courses in with native species.	RECOMMENDED: CCPC will contact golf course owners and managers.
10.8	Not mowing stream banks and pond shorelines within golf courses.	RECOMMENDED: CCPC will contact golf course owners and managers.
10.9	Encouraging tall vegetation to grow along stream and pond edges on golf courses to reduce Canada geese.	RECOMMENDED: CCPC will contact golf course owners and managers.
10.10	Easing golf courses in the County to limit their future development.	RECOMMENDED: CCPC will contact golf course owners and managers, and land trusts.
10.11	Municipalities encouraging golf courses to limit their future development.	RECOMMENDED: CCPC will contact municipal officials.
Private Schools		
10.12	Vegetating private school campuses with native species.	RECOMMENDED: CCPC will contact private schools.

Chapter 10 (continued)

Open Space Restoration on Existing Developments

Action Item	Program Initiative	PROGRAM PRIORITY Initial Implementation Activity
Private Schools (continued)		
10.13	Not mowing the stream banks and pond shorelines within private school campuses.	RECOMMENDED: CCPC will contact private schools.
10.14	Encouraging tall vegetation, along stream and pond edges on private school campuses to reduce Canada geese.	RECOMMENDED: CCPC will contact private schools.
10.15	Establishing easements on private school campuses of 50 acres or more.	RECOMMENDED: CCPC will contact private schools and land trusts.
10.16	Managing private school campuses to provide wildlife habitat and opportunities for ecological education.	RECOMMENDED: CCPC will contact private schools.
College Campuses		
10.17	County comments and recommendations on linking college campuses, or sidewalks leading to them to public trails.	RECOMMENDED: CCPC will prepare a guidance memo on open space for Act 247 and other reviews.
10.18	Linking public trails to college campuses.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.
10.19	Not mowing the stream banks and pond shorelines within college campuses.	RECOMMENDED: CCPC will contact colleges.
10.20	Establishing tall vegetation along stream and pond edges on college campuses to reduce Canada geese.	RECOMMENDED: CCPC will contact colleges.
10.21	Establishing easements on college campuses of 50 acres or more.	RECOMMENDED: CCPC will contact colleges and land trusts.
10.22	Managing college campuses to provide wildlife habitat, and provide opportunities for ecological education.	RECOMMENDED: CCPC will contact colleges.

Chapter 10 (continued)

Open Space Restoration on Existing Developments

Action Item	Program Initiative	PROGRAM PRIORITY Initial Implementation Activity
Corporate Campuses		
10.23	County comments and recommendations on linking the walking paths and service roads within corporate campuses to public trails.	RECOMMENDED: CCPC will prepare a guidance memo on open space for Act 247 and other reviews.
10.24	Linking municipal trails to walking paths and service roads within corporate campuses.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.
10.25	Not mowing the stream banks and pond shorelines of corporate campuses.	RECOMMENDED: CCPC will contact corporate campuses.
10.26	Encouraging tall vegetation, along stream and pond edges on corporate campuses to reduce Canada geese.	RECOMMENDED: CCPC will contact corporate campuses.
Publicly Owned Campuses and Open Lands		
10.27	Protecting publicly owned parcels that contain large open areas that are suitable for natural open spaces or recreational open spaces.	RECOMMENDED: CCPC will prepare a guidance memo on ranking County grants.
10.28	Mapping publicly owned parcels that contain large open areas that are suitable for natural open spaces or recreational open spaces.	URGENT: CCPC will prepare a memo to initiate this effort.
Unique Unprotected Open Space Properties		
10.29	County comments and recommendations on linking unique unprotected open space properties should be linked to protected open spaces.	RECOMMENDED: CCPC will prepare a guidance memo on open space for Act 247 and other reviews.
10.30	Not mowing the stream banks and pond shorelines on unique unprotected open space.	RECOMMENDED: CCPC will contact unique unprotected open space owners.
10.31	Encouraging tall vegetation along stream and pond edges on unique unprotected open space properties to reduce Canada geese.	RECOMMENDED: CCPC will contact unique unprotected open space owners.
10.32	Establishing easements on unique unprotected open spaces of 50 acres or more.	RECOMMENDED: CCPC will contact unique unprotected open space owners and land trusts.

Chapter 11

Rural Centers, Villages and Community Facilities

Action Item	Program Initiative	PROGRAM PRIORITY Initial Implementation Activity
Rural Centers and Villages		
11.1	County comments and recommendations on linking rural centers and villages to nearby protected open spaces by public trails.	RECOMMENDED: CCPC will prepare a guidance memo on open space for Act 247 and other reviews.
11.2	Linking public trails should be linked to rural centers and villages.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.
11.3	Developing a Rural Center Design Guide.	ONGOING: CCPC will prepare a status memo on this issue.
Public School Property		
11.4	County comments and recommendations on linking public schools to public trails that extend into residential areas.	RECOMMENDED: CCPC will prepare a guidance memo on open space for Act 247 and other reviews.
11.5	Linking public trails that extend from residential areas to public schools.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.
11.6	Vegetating public school properties with native species.	RECOMMENDED: CCPC will contact public school districts.
11.7	Not mowing the stream banks and pond shorelines within public school properties.	RECOMMENDED: CCPC will contact public school districts.
11.8	Managing public schools to provide wildlife habitat, and provide opportunities for ecological education.	RECOMMENDED: CCPC will contact public school districts.
11.9	School districts pursuing opportunities to restore or protect open space.	RECOMMENDED: CCPC will contact public school districts.
11.10	Map public school district property on a Countywide basis.	URGENT: CCPC will prepare a memo to initiate this effort.
Indoor Public Recreation Centers		
11.11	County comments and recommendations on linking indoor public recreation centers with public trails that extend to residential areas.	RECOMMENDED: CCPC will prepare a guidance memo on open space for Act 247 and other reviews.

Chapter 11 (continued)

Rural Centers, Villages and Community Facilities

Action Item	Program Initiative	PROGRAM PRIORITY Initial Implementation Activity
Indoor Public Recreation Centers (continued)		
11.12	Linking public trails that extend from residential areas to indoor recreational centers.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.
11.13	Map showing indoor public recreation centers.	URGENT: CCPC will prepare a memo to initiate this effort.

Chapter 12

Regional Recreation Centers

Action Items	Program Initiative	PROGRAM PRIORITY Initial Implementation Activity
Regional Recreation Corridors		
12.1	Endorsing multi-municipal public trails along Undeveloped Regional Recreation Corridors.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on external grant endorsements. CCPRD will update its long-term vision.
12.2	County grants for multi-municipal public trails along Undeveloped Regional Recreation Corridors.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.
12.3	Developing plans to link internal municipal trails and Undeveloped Regional Recreation Corridors.	RECOMMENDED: CCPC will prepare a guidance memo for updating OSRER Plans.
12.4	Completing a Trail Master Plan Study for each Undeveloped Regional Recreation Corridor.	RECOMMENDED: CCPC & CCPRD will prepare an outline for this study.
12.5	Establishing trails in Undeveloped Regional Recreation Corridors as a multi-municipal effort.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo for this issue.
Informally Used Corridors		
12.6	Endorsing multi-municipal trails along Informally Used Regional Recreation Corridors.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on external grant endorsements. CCPRD will update its long-term vision.

Chapter 12 (continued)

Regional Recreation Centers

Action Item	Program Initiative	PROGRAM PRIORITY Initial Implementation Activity
Informally Used Corridors (continued)		
12.7	County grants for multi-municipal trails along Informally Used Regional Recreation Corridors.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.
12.8	Establishing a land trust to protect the Brandywine, Mason-Dixon and the Horse-Shoe Trails.	RECOMMENDED: CCPC & CCPRD will prepare an outline for this study.
12.9	Developing plans to link internal municipal trails to Informally Used Regional Recreation Corridors.	RECOMMENDED: CCPC will prepare a guidance memo for updating OSRER Plans.
12.10	Completing a Trail Master Plan Study for each of the Informally Used Regional Recreation Corridors.	RECOMMENDED: CCPC & CCPRD will prepare an outline for this study.
12.11	Establishing public trails the Brandywine, the Mason-Dixon and the Horse-Shoe Trails.	URGENT: CCPC & CCPRD will prepare a status memo on the Brandywine, Mason-Dixon and the Horse-Shoe Trails.
12.12	Establishing trails within Informally Used Regional Recreation Corridors as a multi-municipal effort.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo for multi-municipal projects.
Partially Developed Corridors		
12.13	Endorsing multi-municipal trails along Partially Developed Regional Recreation Corridors.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on external grant endorsements. CCPRD will update its long-term vision.
12.14	County Grants for trails along Partially Developed Regional Recreation Corridors.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.
12.15	County grants for linking the future County Park in West Whiteland and the Brandywine River in the Downingtown Borough.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.
12.16	Developing plans to link municipal trails to Partially Developed Regional Recreation Corridors.	RECOMMENDED: CCPC will prepare a guidance memo for updating OSRER Plans.

Chapter 12 (continued)

Regional Recreation Centers

Action Item	Program Initiative	PROGRAM PRIORITY Initial Implementation Activity
Partially Developed Corridors (continued)		
12.17	Constructing County Trails along the Brandywine-Struble, Chester Valley and Schuylkill Regional Recreation Corridors.	ONGOING: CCPRD will establish or assist in establishing trails along the entire length of the Brandywine-Struble, Great Valley and Schuylkill Regional Recreation Corridors.
12.18	Constructing a trail along the Uwchlan Regional Recreation Corridor.	URGENT: CCPC & CCPRD will endorse establishing a trail along the entire length of the Uwchlan Regional Recreation Corridor.
12.19	Conducting a County Water Trail Feasibility Study for both the Schuylkill River and Octoraro Creek.	RECOMMENDED: CCPC & CCPRD will prepare an outline for this study.
12.20	Establishing the Schuylkill Loop Trail and other loop trails along the Schuylkill River.	RECOMMENDED: CCPC & CCPRD will prepare an outline for this study.
12.21	Conducting a Trail Master Plan Study for each Partially Developed Regional Recreation Corridors.	RECOMMENDED: CCPC & CCPRD will prepare an outline for this study.
12.22	Establishing trails along Partially Developed Regional Recreation Corridors as a multi-municipal effort.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on this issue.
Bicycle Routes		
12.23	Reviewing plans regarding a county-wide network of signed bicycle routes.	RECOMMENDED: CCPC will prepare a guidance memo on open space for Act 247 and other reviews.
12.24	Endorsing a countywide network of bike routes along those routes identified by the Planning Commission.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on external grant endorsements. CCPRD will update its long-term vision.
12.25	Addressing bicycle routes and bicycle parking in municipal comprehensive plans and ordinances.	RECOMMENDED: CCPC will prepare a guidance memo for the VPP on this issue.
12.26	Acquiring state maps of Bicycle PA Routes and Proposed Bicycle Touring Corridors.	RECOMMENDED: CCPC will meet with DCNR and PennDOT.

Chapter 12 (continued)

Regional Recreation Centers

Action Item	Program Initiative	PROGRAM PRIORITY Initial Implementation Activity
Bicycle Routes (continued)		
12.27	Updating maps of the Planning Commission Bike Route Map and distributing to municipalities.	ONGOING: CCPC will prepare a status memo on bike route issues.
12.28	The Chester Conference and Visitors Bureau using the Planning Commission Bike Route Map.	ONGOING: CCPC will prepare a status memo on bike route issues.
12.29	Informing bicycle advocacy groups of bike route planning efforts conducted by the County.	ONGOING: CCPC will prepare a status memo on bike route issues.
12.30	Establishing bike routes should on roadways built or reconstructed by PennDOT.	RECOMMENDED: CCPC will meet with PennDOT.
12.31	Informing PennDOT and the DVRPC of proposed and potential bike routes.	ONGOING: CCPC will meet with DVRPC and PennDOT.
Public Stables and Public Equestrian Riding Lanes		
12.32	Establishing public accessible stables near public trails that permit equestrian use.	RECOMMENDED CCPC & CCPRD will meet with equestrian stakeholders.
12.33	Establish Riding Lane Associations that acquire conservation easements on riding lanes.	RECOMMENDED: CCPC & CCPRD will meet with equestrian stakeholders.
12.34	Establishing riding lanes open to the general public with no membership restrictions.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo in this issue.
Chester County Trail Network		
12.35	Endorsing trail loops.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on external grant endorsements. CCPRD will update its long-term vision.
12.36	County grants for multi-municipal trail loops.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.
12.37	Establishing trail loops as a multi-municipal planning effort.	URGENT: CCPC & CCPRD will prepare a status memo on this issue.

Chapter 12 (continued)

Regional Recreation Centers

Action Item	Program Initiative	PROGRAM PRIORITY Initial Implementation Activity
Chester County Trail Network (continued)		
12.38	County comments and recommendations on linking public internal loop trails to multi-municipal trails.	RECOMMENDED: CCPC will prepare a guidance memo on open space for Act 247 and other reviews.
12.39	Linking existing internal municipal trails to multi-municipal trails throughout all parts of the County.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.
12.40	Mapping municipal and community trails should on a Countywide basis.	RECOMMENDED: CCPC will prepare an outline for this study.
12.41	Municipalities properly designing, constructing and maintaining trails.	RECOMMENDED: CCPRD will prepare an outline for this study.
12.42	Extending a spur of the East Coast Greenway should extend through Chester County.	URGENT: CCPC & CCPRD will contact the East Coast Greenway.
12.43	Establishing a state trail system to manage or designate multi-county trails.	RECOMMENDED: CCPC & CCPRD will contact the DCNR.
12.44	Acquiring, constructing, managing and extending County Trails.	ONGOING: CCPRD will complete the County Chester Valley, Schuylkill River, and Struble Trails, and the County Octoraro Water Trail.
12.45	Constructing trails within Regional Priority Trail Corridors.	URGENT: CCPC & CCPRD will prepare a status memo on this issue.

Chapter 13

Wildlife Biodiversity Corridors

Action Item	Program Initiative	PROGRAM PRIORITY Initial Implementation Activity
Wildlife Biodiversity Corridors		
13.1	Endorsing multi-municipal wildlife corridors along Wildlife Biodiversity Corridors.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on external grant endorsements. CCPRD will update its long-term vision.
13.2	County grants for wildlife corridors along Wildlife Biodiversity Corridors.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.
13.3	Properly designing, constructing and maintaining wildlife corridors.	RECOMMENDED: CCPRD will prepare an outline for this study.
13.4	Endorsing wildlife corridors using ecologically sound evaluation techniques and detailed mapping.	URGENT: CCPC will prepare an outline for this study.
13.5	Local wildlife preservation organizations in Chester County coordinating their efforts.	RECOMMENDED: CCPC will meet with wildlife organizations.
13.6	Mapping and distributing maps of existing municipal-level wildlife corridors and greenways.	RECOMMENDED: CCPC will prepare a guidance memo on this issue.
13.7	Linking internal municipal wildlife corridors and wildlife corridors in adjacent municipalities.	RECOMMENDED: CCPC will prepare a guidance memo for updating OSRER Plans.
13.8	Establishing wildlife corridors as a multi-municipal planning effort.	URGENT: CCPC will prepare a guidance memo on this issue.

Chapter 14

Recycling Land and Infrastructure for Open Space

Action Item	Program Initiative	PROGRAM PRIORITY Initial Implementation Activity
Rail Corridors		
14.1	Endorsing trails utilizing abandoned rail beds.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on external grant endorsements. CCPRD will update its long-term vision.
14.2	County grants for trails on abandoned rail beds.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.
14.3	Addressing the trails on abandoned rail beds in municipal comprehensive plans, and ordinances.	RECOMMENDED: CCPC will prepare a guidance memo for the VPP on this issue.
14.4	Mapping abandoned trolley lines on a Countywide basis.	RECOMMENDED: CCPC will prepare a memo to initiate this effort.
14.5	Acquiring abandoned rail rights-of-way for reuse as trails.	ONGOING: CCPC & CCPRD will prepare a status memo on this issue.
Major Utility Corridors		
14.6	Endorsing trails and wildlife habitat corridors utilizing utility corridors.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on external grant endorsements. CCPRD will update its long-term vision.
14.7	County grants for municipal trails or wildlife habitat corridors on utility corridors.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.
14.8	Addressing trails or wildlife corridors utilizing appropriate utility corridors in municipal comprehensive plans and ordinances.	RECOMMENDED: CCPC will prepare a guidance memo for the VPP on this issue.
14.9	Updating County maps of oils and gas lines.	RECOMMENDED: CCPC will prepare a memo to initiate this effort.
14.10	Cultivating warm season grasses and other native vegetation in utility corridors.	RECOMMENDED: CCPC & CCPRD will contact utility owners.
14.11	Acquiring utility corridor rights-of-way or easements for reuse as trails.	ONGOING: CCPC will prepare a status memo on this issue.

Chapter 14 (continued)

Recycling Land and Infrastructure for Open Space

Action Item	Program Initiative	PROGRAM PRIORITY Initial Implementation Activity
Scenic Byways		
14.12	County comments and recommendations on protecting byway viewsheds seen from nearby roadways.	RECOMMENDED: CCPC will prepare a guidance memo on open space for Act 247 and other reviews.
14.13	Endorsing designating byways.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on external grant endorsements. CCPRD will update its long-term vision.
14.14	County grants to protect open spaces that are part of viewsheds seen from roadways.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.
14.15	Addressing viewsheds seen from roadways in comprehensive plans and ordinances.	RECOMMENDED: CCPC will prepare a guidance memo for the VPP on this issue.
14.16	Designating regionally important sections of roadways as County Byways.	RECOMMENDED: CCPC will prepare an outline for this study.
14.17	Mapping municipally designated byways on a Countywide level.	RECOMMENDED: CCPC will prepare a memo to initiate this effort.
Brownfields		
14.18	County comments and recommendations on using suitable brownfields as open space.	RECOMMENDED: CCPC will prepare a guidance memo on open space for Act 247 and other reviews.
14.19	Endorsing the restoration of suitable brownfields into protected open space.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on external grant endorsements. CCPRD will update its long-term vision.
14.20	County grants for restoring suitable brownfields into protected open space.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.
14.21	Mapping brownfields on a county-wide basis.	RECOMMENDED: CCPC will prepare a memo to initiate this effort.

Chapter 17

Open Space in Surrounding Counties

Action Item	Program Initiative	PROGRAM PRIORITY Initial Implementation Activity
Open Space in Surrounding Counties		
17.1	County comments and recommendations on linking multi-county protected open spaces.	RECOMMENDED: CCPC will prepare a guidance memo on open space for Act 247 and other reviews.
17.2	Endorsing linking multi-county protected open spaces.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on external grant endorsements. CCPRD will update its long-term vision.
17.3	County grants for linking multi-county protected open spaces.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.
17.4	Addressing multi-county protected open spaces in municipal comprehensive plans and ordinances.	RECOMMENDED: CCPC will prepare a guidance memo for the VPP on this issue.
17.5	Extending a bike route should from Kennett Township to Delaware Bike Route 1.	RECOMMENDED: CCPC will prepare an outline for this study.
17.6	Establishing a permanent alignment for the Mason Dixon Trail in Chester and New Castle Counties.	RECOMMENDED: CCPC & CCPRD will prepare an outline for this study.
17.7	Coordinate with other counties to plan, design and construct trails, wildlife corridors and water trails.	ONGOING: CCPC will prepare a status memo on this issue.

Chapter 19

Planning and Protecting an Open Space Network

Action Item	Program Initiative	PROGRAM PRIORITY Initial Implementation Activity
The Distribution of Recreational Parks		
19.1	Not endorsing municipalities relying only on federal, state or County Parks to meet local needs.	RECOMMENDED: CCPC will prepare a guidance memo for this issue.
19.2	Endorsing more evenly distributing large passive recreation parks throughout the County.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on external grant endorsements. CCPRD will update its long-term vision.
19.3	Mapping large undeveloped parcels that have a potential to be developed into passive recreation parks.	URGENT: CCPC will prepare a memo to initiate this effort.
Trail Links Between Recreational Parks		
19.4	County comments and recommendations linking recreational parks to recreational parks or major population centers within five miles.	RECOMMENDED: CCPC will prepare a guidance memo on open space for Act 247 and other reviews.
19.5	Updating park master plans to address linking recreational parks to recreational parks or major population centers within five miles.	RECOMMENDED: CCPC will prepare a guidance memo on this issue.
19.6	Extending county parks out to recreational parks, boroughs, city or major population centers within five miles.	URGENT: CCPC & CCPRD will prepare an outline for this study.
19.7	Identifying trail links between federal and state parks and recreational parks, or major population centers within five miles.	RECOMMENDED: CCPC & CCPRD will meet with the NPS and Bureau of State Parks.
Terms Used in Open Space Planning		
19.8	County comments and recommendations on informing the public of the proposed uses of a proposed open space during planning.	ONGOING: CCPC will prepare a guidance memo on open space for Act 247 and other reviews.
19.9	County comments and recommendations on informing the public of access limits of open space.	RECOMMENDED: CCPC will prepare a guidance memo on open space for Act 247 and other reviews.

Chapter 19 (continued)

Planning and Protecting an Open Space Network

Action Item	Program Initiative	PROGRAM PRIORITY Initial Implementation Activity
Terms Used in Open Space Planning (continued)		
19.10	Using clear and specific definitions for active and passive recreation and other terms relating to open space.	URGENT: CCPC will prepare a guidance memo with examples of ordinance language.
19.11	Addressing the type of uses that are permitted on publicly owned open spaces in OSRER plans.	RECOMMENDED: CCPC will prepare a guidance memo for the VPP on this issue.
Distinguishing Trails from Wildlife Corridors		
19.12	County comments and recommendations on informing the public of the uses of trails versus wildlife corridors during planning.	RECOMMENDED: CCPC will prepare a guidance memo on open space for Act 247 and other reviews.
19.13	County comments and recommendations on the uses of trails versus wildlife corridors in comprehensive plans and ordinances.	RECOMMENDED: CCPC will prepare a guidance memo on open space for Act 247 and other reviews.
19.14	Using clear and specific definitions for trails and wildlife corridors and other linear open space facilities.	URGENT: CCPC will prepare a guidance memo with examples of ordinance language.
19.15	Updating OSRER Plans to address uses permitted on their publicly owned trails versus wildlife corridors.	RECOMMENDED: CCPC will prepare a guidance memo for the VPP on this issue.
Open Space that is Not Open to the Public		
19.16	Addressing trespassing on protected open space on private property in comprehensive plans and ordinances.	RECOMMENDED: CCPC will prepare a guidance memo for the VPP on this issue.
19.17	Easing private property surrounding owned and managed by the Parks and Recreation Department.	URGENT: CCPC & CCPRD will prepare an outline for this study.
19.18	Coordinating land trusts and government open space preservation efforts on private property.	RECOMMENDED: CCPC & CCPRD will meet with the land trusts annually.
19.19	Land trusts and government sharing of information on private properties with conservation easements.	ONGOING: CCPC will prepare a status memo on this issue.

Chapter 19 (continued)

Planning and Protecting an Open Space Network

Action Item	Program Initiative	PROGRAM PRIORITY Initial Implementation Activity
Open Space that is Not Open to the Public (continued)		
19.20	Land trusts and governments respecting the property rights and privacy concerns of landowners.	ONGOING: CCPC will prepare a status memo on this issue.
The Current Status of the Open Space Network		
19.21	Updating information on protected open space within Chester County.	ONGOING: CCPC will prepare a status memo on this issue.
19.22	Updating mapping of protected open space parcels within Chester County.	ONGOING: CCPC will prepare a status memo on this issue.
Alternatives for Funding Open Space		
19.23	Protecting 5,000 acres of open space should be protected annually.	ONGOING: CCPC will prepare a status memo on this issue.
19.24	Continuing County grants to fund the protection of open space.	ONGOING: CCPC will prepare a status memo on this issue.
19.25	Publicizing the protection of 5,000 acres of protected open space annually.	RECOMMENDED: CCPC will meet with the ALPB.
19.26	Increasing the amount of farmland protected annually by agricultural conservation easements.	RECOMMENDED: CCPC will meet with the ALPB.
19.27	Increase the amount of open space protected annually by Regional Land Trusts.	RECOMMENDED: CCPC will meet with the Regional Land Trusts.
The Network Potential for Chester County		
19.28	Increasing the amount of open space protected annually by Local Land Trusts.	RECOMMENDED: CCPC will meet with the Local Land Trusts.
19.29	Establishing support agreement between Local and Regional Land Trusts.	ONGOING: CCPC will prepare a status memo on this issue.
Establishing a Goal for Protecting All NSAs		
19.30	County comments and recommendations on standards for protecting Naturally Sensitive Areas.	RECOMMENDED: CCPC will prepare a guidance memo on open space for Act 247 and other reviews.

Chapter 19 (continued)

Planning and Protecting an Open Space Network

Action Item	Program Initiative	PROGRAM PRIORITY Initial Implementation Activity
Establishing a Goal for Protecting All NSAs (continued)		
19.31	Defining the types of natural features consider as Naturally Sensitive Areas and buffers in ordinances.	URGENT: CCPC will prepare a guidance memo with examples of ordinance language.
19.32	Addressing naturally sensitive areas and buffers in municipal ordinances.	RECOMMENDED: CCPC will prepare a guidance memo for the VPP on this issue.
19.33	Protecting all Naturally Sensitive Areas through municipal zoning or land development ordinances.	RECOMMENDED: CCPC will prepare a guidance memo on this issue.
19.34	Evaluating all Naturally Sensitive Areas in a Natural Resources Plan.	URGENT: CCPC will prepare a memo to initiate this effort.
19.35	Involving the public in protecting all Naturally Sensitive Areas through ordinances.	RECOMMENDED: CCPC will prepare a guidance memo on this issue.
Network Potential for Chester County		
19.36	Informing landowners with large properties about land preservation and conservation.	ONGOING: CCPC will prepare a status memo on this issue.
19.37	Mapping unprotected open space parcels that have the potential to be protected and fill gaps in a network.	URGENT: CCPC will prepare a memo to initiate this effort.
19.38	Mapping unprotected parcels that have the potential to be protected with agricultural easements.	URGENT: CCPC will prepare a memo to initiate this effort.
19.39	Mapping unprotected undeveloped parcels owned by the federal and state government, or institutions.	URGENT: CCPC will prepare a memo to initiate this effort.
19.40	County comments and recommendations on the use of vegetative Best Management Practices on open space.	RECOMMENDED: CCPC will prepare a guidance memo on open space for Act 247 and other reviews.
19.41	County comments and recommendations on municipal ordinances permitting vegetative Best Management Practices.	RECOMMENDED: CCPC will prepare a guidance memo on open space for Act 427 and other reviews.

Chapter 19 (continued)

Planning and Protecting an Open Space Network

Action Item	Program Initiative	PROGRAM PRIORITY Initial Implementation Activity
Network Potential for Chester County (continued)		
19.42	Encouraging the protection of open space through policies and procedures of the Tax Assessment office and other taxing entities.	RECOMMENDED: CCPC will meet with the Tax Assessment Office and other taxing entities.
19.43	Encouraging the protection of open space through policies and procedures of water and wastewater utilities, and state agencies.	RECOMMENDED: CCPC will meet with water and wastewater utilities and state agencies.
19.44	Lending institutions providing funding for developments that protect open space.	RECOMMENDED: CCPC will meet with lending institutions.
19.45	Considering the impacts that changing the County's tax structure would have on open space.	RECOMMENDED: CCPC will prepare a memo on this issue.
19.46	Informing municipal officials and employees about techniques for protecting open space.	RECOMMENDED: CCPC will prepare a memo to initiate this effort.
19.47	Informing landowner and the general public about techniques for protecting open space.	RECOMMENDED: CCPC will prepare a memo to initiate this effort.

Glossary



Glossary

The Definitions In this Glossary Specifically Relate to Chester County

Open space planning is a relatively new field and there is no consensus among professional planners as to the definitions of many terms that are commonly used when discussing open space. Furthermore, one term may be defined differently when used by agricultural, natural resource or historic resource planners, or by various government agencies.

For example, cultural resource planners use the term “conservation” to describe the process of restoring the physical features of a historic site, including its buildings, associated structures and its surrounding landscape. Natural resource planners use the term “conservation” to describe efforts to protect a natural resource, so that it can be used in the future, such as a forest set aside for future logging. Natural resource planners use the term “preservation” to describe actions that protect a natural resource in its natural state forever, thus a forest “preserve” would never be lumbered. However, cultural resource planners use the term “preservation” to describe the restoration of a historic structure, such as a house, barn or industrial building, to preserve it in its original state, or the renovation of such a structure so that it can be re-used.

The definitions presented on the following pages have been developed for *Linking Landscapes*, and reflect viewpoints of the Chester County Planning Commission and the Parks and Recreation Department. These definitions are tailored to apply specifically to conditions and features within Chester County. As a result, these terms may be somewhat different from those presented in other planning documents. These definitions are presented in laymen’s terms and should not be used verbatim for ordinances or legally binding documents. Individuals who wish to use these terms in ordinances or legally binding documents should research published legal and planning dictionaries and consult their solicitors.

Selected acronyms used in *Linking Landscapes* are presented at the beginning of each letter heading. More detailed technical definition for many of these terms can be found in the following documents which were used in compiling the glossary presented below:

The New Illustrated Book of Development Definitions, by H. Moskowitz and C. Lindbloom, Center for Urban Policy Research, 1993.

The Encyclopedia of Community Planning and Environmental Management, by M.S. Schultz and V. Kasen, Facts on File Publications, 1984.

The Encyclopedia of Urban Planning, Arnold Whittick Editor, McGraw Hill Books, 1974.

Terms Used in *Linking Landscapes*

A

ALPB – The acronym for the Agricultural Land Preservation Board. Each county in Pennsylvania may establish an ALPB, which is responsible for administering the state, and county funded Agricultural Conservation Easement Program. (See Agricultural Conservation Easement)

ASA – The acronym for Agricultural Security Area. (See Agricultural Security Area)

Act 43 – Pennsylvania Act 43 of 1981, the Agricultural Security Law permits municipal governments to designate an Agricultural Security Area within their municipality. (See Agricultural Security Area)

Act 149 – Pennsylvania Act 149 of 1988, The Agricultural Area Security Law, created the Statewide Agricultural Easement Program.

Act 247 – Pennsylvania Act 247 of 1968, The Municipalities Planning Code, or “MPC” gives each of Pennsylvania’s municipalities the authority to create and enforce zoning ordinances.

Act 319 – Pennsylvania Act 319 of 1974, the PA Farmland and Forestland Assessment Act, commonly called “Clean and Green,” permits parcels over ten acres that are farmland or forestland to be assessed at a lower than fair market value.

Act 515 – Pennsylvania Act 515 of 1966 provides farmers with lower tax assessment for keeping their lands in agriculture, forest, water supply or open space uses.

Act 537 – Pennsylvania Act 537 of 1966, the Sewage Facilities Act requires that all municipalities develop and adopt an Official Sewage Facilities Plan.

Active Recreation – Recreation activities that have a noticeable impact on the surrounding environment and are usually rigorously athletic and not quiet. May include individual or team sports, child’s play, large picnics, playground play, and recreational events with a high density of people. (See Passive Recreation)

Activity Node – For planning purposes, it is a community gathering point where people from a surrounding neighborhood meet and interact.

Aesthetic Value – For planning purposes, it refers to the beauty or scenic quality of a community or a landscape.

Agriculture – For the purposes of *Linking Landscapes*, it is a broadly defined term which covers a wide range of activities that may include growing or breeding plants or animals so that they can be sold or processed for food or other products. This term is broadly defined in common use. Different federal, state and County programs and publications may define agriculture differently.

Agricultural Conservation Easement – An easement on productive farmland that is purchased jointly by the state and Chester County as part of the Agricultural Conservation Easement Program authorized by PA Act 149, which limits future use to productive agriculture. (See Agricultural Security Area, ALPB, and Act 149)

Agricultural Security Area – An area of at least 250 acres of farmland designated as an ASA by a municipality as authorized by PA Act 43. Farms within an ASA are protected from nuisance lawsuits and are more difficult to condemn. A farm must be located in an ASA in order to be considered for an Agricultural Conservation Easement by the ALPB. (See ALPB and Act 43)

Appraisal – The process in which a professional “appraiser” determines the value of a property based on current market conditions. Land trusts and the ALPB require that a parcel be appraised before they will purchase or accept a donation of land in-fee, or a conservation easement. (See ALPB and Land Trust)

B

Bargain Sale – When a landowner sells a property for less than its appraised value. This commonly occurs when a landowner conveys a property to a land trust. (See Appraisal and Land Trust)

Biodiversity – In general terms, it is the variety of plants and animals in a given habitat, or the variety of features found within a given population of one type of plant or animal. More technically it is the variety of species, the genetic variation within them, and the spectrum of ecological communities in which they occur. It is the sum total of compositional, structural and function diversity of genes, species, and ecological communities. It can be described on a continuum of spatial and temporal scales; from local to global; from days to millennia.

Bicycle Route – For the purposes of *Linking Landscapes*, it is a roadway shoulder or a low volume roadway that is designated and mapped for bicycle use. (See Trail and Path)

Bond – For planning purposes, it is a legal certificate of indebtedness that serves as a promise by the borrower to repay the lender a particular amount of money plus interest on specific dates. Bonds may be issued by

federal, state or local government agencies or corporations, and are generally issued for a period of five years or more. If the maturity date is less than five years distant, it is generally called a note.

Brownfields – Abandoned, idle or underused industrial and commercial facilities where expansion or redevelopment is complicated by real or perceived environmental contamination.

Bridal Path – Also called a “Riding Lane,” is usually a path allowing, or limited to, horseback riding or pack horses. (See Path)

Buffer – Open spaces, landscaped areas, fences, walls, berms or any combination thereof used to physically separate or screen one used property from another so as to visually shield or block noise, lights or other nuisances. (See Riparian Buffer)

Byway – Roads, highways and other motor vehicle facilities that provide users with the opportunity to look out at scenic vistas or viewsheds or to experience historically or culturally significant landscapes. (See Scenic Byway)

C

CCPP – The acronym for the Community Conservation Partnership Program grants program administered by the DCNR. (See DCNR)

CMAQ – The acronym for the Congestion Mitigation and Air Quality Improvement Program of TEA21. (See TEA21)

COE – The acronym for the United States Army Corps of Engineers.

Chrome Barrens – See Serpentine Barrens.

Cluster Development – It is generally another term for a Limited Development, although the term Cluster Development is usually used when describing a medium to large-scale residential development. Sometimes it is used interchangeably with the terms Conservation Development, Open Space Development, or Sensitive Development. (See Conventional Development, Conservation Development, Limited Development, Open Space Development and Sensitive Development)

Common Open Space – Generally, it is undeveloped land within a development, not individually owned or dedicated for public use, that is designed and intended for the common use or enjoyment of the residents of the developments and their guests.

Condemnation – The exercise by a governmental agency of the right of eminent domain. (See Eminent Domain)

Conservancy – See Land Trust.

Conservation Development – Used interchangeably with Sensitive Development, it is generally another term for a Limited Development, although the open space in a Conservation Development usually contains some sensitive natural or cultural feature like a wetland complex, a scenic viewshed or a historical farmstead. Sometimes it is used interchangeably with the terms Cluster Development or Limited Development. (See Conventional Development, Cluster Development, Limited Development and Sensitive Development)

Conservation Development, *Linking Landscapes* – As described in *Linking Landscapes*, it is an ideal development in terms of open space protection and ecological management that can be used as a standard of excellence to evaluate developments throughout Chester County. It must permanently protect 60 percent or more of the original property from future development as homeowner association open space or through a conservation easement or some other permanent protection mechanism; and must have an average lot size of one-third of an acre or less on that portion of the original property that is developed into residential units; and must manage and maintain the portion of the property that is protected as open space for recreation or natural resource preservation or restoration as part of a management plan. (See Cluster Development, Conventional Development, Conservation Subdivision, Limited Development, Open Space Development and Sensitive Development)

Conservation Easement – An easement in which the property owner agrees to limit the type or amount of development that may take place on his or her property. (See Land Trust)

Conventional Development – In general it is a development in which most or all of an original property is subdivided into similarly sized lots and infrastructure such as roads, and there is little if any land that is set aside as common open space or to protect natural features, cultural resources, or productive agricultural soils. (See Cluster Development, Common Open Space, Conservation Development, Limited Development, Open Space Development and Limited Development.)

Convey – To transfer the title of a parcel of land either by selling, trading or donating some, or all, of the parcel. (See Deed)

Cool Season Grass – A species of grass that is green and grows mostly during the fall and spring, but is brown and grows less in the summer. (See Warm Season Grass)

D

DCED – The acronym for the Pennsylvania Department of Community and Economic Development.

DCNR – The acronym for the Pennsylvania Department of Natural Resources.

DEP – The acronym for the Pennsylvania Department of Environmental Protection.

DOI – The acronym for the United States Department of the Interior.

DVRPC – The acronym for the Delaware Valley Regional Planning Commission, which is the Metropolitan Planning Organization for Philadelphia and its eight suburban counties including Chester County.

Deed – A written document used by the owner of a property (grantor) to convey the property, or an interest in the property to another (grantee). (See Title, Property, Convey, and Easement)

Deed Restriction – Restrictions added to a deed by the owner of a property (grantor) that limit the activities of the future owner (grantee). Enforcing deed restrictions over the long term can be difficult.

Detention Basin – Also called a “Detention Impoundment Basin,” is a man made basin designed to fill up with stormwater runoff during heavy rain, which it then releases into a downstream channel at a controlled rate. (See Runoff, Retention Basin, Dry Pond and Wet Pond)

Density – The number of units per acre within a development or a municipality. In most rural areas, “Medium Density” is typically 1 unit per acre.

Development Right – The right of a landowner to develop land. This right may be sold, donated or otherwise conveyed. (See Easement and Servient Estate)

Drip Irrigation – A sewage treatment technique in which treated wastewater is distributed underground through perforated pipes buried beneath a field, where it is then allowed to dissipate into the soil. (See Spray Irrigation and Effluent)

Dry Pond – A Retention or Detention Basin that is designed to be mowed and cleared of tall vegetation. (See Runoff, Detention Basin, Retention Basin and Wet Pond)

E

EPA – The acronym for the United States Environmental Protection Agency.

EV Watersheds – Sometimes called “EV Streams,” see Exceptional Value Watersheds.

Easement – A right to use some or part of a parcel of land, to conduct an activity on that parcel, or to use a resource on that parcel. A conservation easement is one kind of easement. (See Land Trust)

Effective Agricultural Zoning – In Pennsylvania, it is zoning that not only allows agriculture within a zone, but also discourages the establishment of land uses that are incompatible with agriculture such as some kinds of residential, commercial or recreational uses.

Effluent – Sometimes called “wastewater,” it is generally used to describe a discharge of liquid waste, with or without treatment, into the environment. For the purposes of sewage facilities operations, it refers only to liquid waste resulting from sewage treatment or other industrial processes, such as water used for power plant cooling purposes. (See Drip Irrigation, Spray Irrigation and Wastewater)

Eminent Domain – The authority to acquire or take, or to authorize the taking of, private property for public use or public purpose. It is largely the prerogative of the government, but utilities and independent agencies may also exercise this right. The Fifth Amendment of the U. S. Constitution requires just compensation for any taking.

Endangered Species – A species that is protected by the 1973 Endangered Species Act because it is in danger of extinction throughout all or a significant portion of its range. (See also Threatened Species and Pennsylvania Endangered Species)

Equestrian – Relating to horses or the riding and care of horses.

Equine Industry – For the purposes of *Linking Landscapes*, it is all of the agricultural and non-agriculture businesses that focus on horse care, breeding and training, horse meat production, horse racing, recreational or competitive horseback riding, and other horse related industries and services.

Estate – It is commonly used to describe a large real estate property. In financial planning it is generally the total assets of an individual, partnership or corporation, including cash, savings and the value of any land or any other personal property.

Exceptional Value Watersheds – Also called “EV Watersheds,” are streams or watersheds with outstanding ecological or recreational value that have been so designated and listed in Chapter 93 “Water Quality Standards” of the Pennsylvania DEP’s Rules and Regulations. (See EV Watersheds or High Quality Watersheds)

Exotic Species – Also called “Non-native species,” are plants or animals that are not native to the United States but have become naturalized and reproduce in the wild with out human intervention. Species that are not native to a region within the United States are also sometime regarded as exotic. (See Native Species, Invasive Species and Exotic Invasive Species)

Exotic Invasive Species – Plants or animals that are both exotic and invasive. Examples include Japanese knotweed and Norway maples. (See Exotic Species and Invasive Species)

F

FBC – The acronym for the Pennsylvania Fish and Boat Commission.

FEMA – The acronym for the United State Federal Emergency Management Agency.

FHWA – The acronym for the Federal Highway Administration.

Fair Market Value – The price for which a property could be sold on the free market, with no conservation easements. It is sometimes called the “development” value, since it is the value that a property could have if it were sold for development.

Farmland – For the purposes of *Linking Landscapes*, it is a property where agriculture is practiced. Farmland is only regarded as protected open space when it is protected from development by a conservation easement. (See Agriculture and Protected Open Space)

Fee Simple – See In-fee Simple.

Flood Fringe – The flatter part of the floodplain, outside the floodway that becomes flooded when the floodway overflows. (See Floodplain and Floodway)

Floodplain – The area that becomes partially or completely inundated during flood conditions. It consists of an inner floodway and an outer flood fringe. (See Flood Fringe and Floodway)

Floodway – The deep central stream channel within a floodway. It is surrounded by the flood fringe. (See Flood Fringe and Floodplain)

Flyway – The path that migratory birds usually take when they travel south for the winter or north from the summer.

G

GIS – The acronym for Geographic Information System, which is any computer generated mapping program that links data or descriptive information to points, polygons or lines on a computer generated map.

Game Lands – In Pennsylvania, state game lands are publicly owned properties used for animal management, hunting and other specified uses.

Greenbelt – A loosely defined term for linear open space or greenway, usually surrounding a developed region, town or city. (See Greenway)

Greenways – A loosely defined term for any linear open space. (See Wildlife Biodiversity Corridors and Greenbelt)

Ground Water – The supply of freshwater under the surface in an aquifer or geologic formation that forms the natural reservoir for potable water.

H

HOA – The Acronym for Homeowner Association. (See Homeowner Association)

HQ Watersheds – Sometimes called “HQ Streams,” see High Quality Watersheds.

Hedgerow – A row of vegetation including trees, shrubs, and grasses planted along the edges of fields or other unused areas.

Heritage Parks – Areas, typically watersheds or stream corridors, designated by the federal government or the State of Pennsylvania, to promote historic resource based tourism and economic development.

High Quality Watersheds – Also called “HG Watersheds,” are streams or watersheds with excellent quality waters, and environmental or other features that require special water quality protection and that have been so designated and listed in Chapter 93 “Water Quality Standards” of the Pennsylvania DEP’s Rules and Regulations. (See Exceptional Value Watersheds and HG Watersheds)

Homeowner Association – A community association, other than a condominium association, that is organized in a development in which individual owners share common interests and responsibilities for cost and upkeep of common open space or facilities.

Homeowner Association Open Space – Generally, land that remains open in a development that is collectively owned or managed by a Homeowners Association. For the purposes of *Linking Landscapes*, it is a parcel designated by the Chester County Tax Assessors Office as having the land use code “R-Open Space.”

Hydric Soils – Soils that are saturated, flooded or ponded long enough during the growing season, usually in early spring, to develop low oxygen or anaerobic conditions in the soil layer closest to the surface. (See Wetland)

Hydrophytic Vegetation – Plant life that grows in shallow water, on wet soils, or on some other wet substrate such as sand, that is at least periodically deficient in oxygen because of excessive water content. (See Wetland)

I

ISTEA – The acronym for the federal Intermodal Surface Transportation Efficiency Act of 1991. It was superseded by TEA-21 in 1998. (See TEA-21)

Impervious Surface – Any material that prevents adsorption of stormwater into the ground. (See Pervious Surface and Stormwater)

In-fee Simple – A type of land ownership in which the landowner owns the land perpetually until the land is sold or the landowner dies. Sometimes called “in-fee” or “fee simple.” In common use “in-fee simple” refers to a situation where the landowner still owns the development rights to the land, and has not sold or donated any conservation easements. (See Easement)

In Perpetuity – See Perpetuity.

In-fill Development – Also called “Odd-lot Development,” it is the development of new housing or other buildings on scattered vacant sites within a built-up area. (See Vacant Land)

Infrastructure – See Public Infrastructure.

Invasive Species – Plants or animals that grow or reproduce aggressively, usually because they have no natural predators, which can so dominate an ecosystem that they kill off or drive out most other plant or animal species. They can be native or exotic species. Examples include multiflora rose and wild grape. (See Native Species and Exotic Invasive Species)

J

Joint Ownership – The equal estate interest of two or more persons.

K

L

LESA – The acronym for the Land Evaluation Site Assessment, a GIS program developed by the NRCS and used by the state and County to evaluate applications for ALPB Conservation Easements – (See NRCS, ALPB and Agricultural Conservation Easement)

Land Trust – Also called a “Conservancy,” is a non-profit organization that acquires conservation easements, or property in-fee, for the purpose of preserving land as open space in perpetuity. (See Easement, Local Land Trust, and Regional Land Trust)

Land Stewardship – Generally, the physical care, management and maintenance of a parcel of land. For the purpose of *Linking Landscapes* it also refers to a landowner’s efforts to protect open space from future development.

Lawn – A vegetated landscape, usually surrounding buildings, that is regularly mowed and is dominated by one or a small number of grass species.

Local Land Trust – For the purposes of *Linking Landscapes*, it is a private non-profit organization that only acquires easements or property in-fee only within one or a few municipalities. Although it is commonly called a “Municipal Land Trust,” it is usually not an agency of municipal government in Chester County. (See Land Trust and Regional Land Trust)

Loop – A trail that forms a circle or a closed shape. (See Trail)

Lot Averaging – A design technique in which some lots in a subdivision are smaller and some lots larger, so that there are the same number of lots as would occur if all the lots were the same size.

Limited Development – The technique of developing only a portion of a property, while leaving a significant portion of it in open space that is free from development. The open space in a Limited Development may or may not be Protected Open Space. Sometimes the term Limited Development is used interchangeably with the terms Cluster Development, Open Space Development, Sensitive Development or Conservation Development. (See Conventional Development, Cluster Development, Conservation Development, Open Space Development, Protected Open Space and Sensitive Development)

Linking Landscapes Conservation Development – See Conservation Development, *Linking Landscapes*.

M

MPC – The acronym for PA Act 247, the Municipalities Planning Code. (See Act 247)

Master Plan – A comprehensive long-range plan intended to guide the growth and development of a property, facility, community, or region that typically includes inventory and analytic sections leading to recommendations for future activities.

Meadow – A naturally occurring or man-made vegetated landscape dominated by grasses, wildflowers, weeds and other herbaceous plants, which are allowed to grow to seed, or are mowed or grazed seasonally. (See Seasonal Mowing)

Megalopolis – A large massed area of largely unbroken urban and suburban development typically consisting of a number of cities and their surrounding suburbs.

Municipalities Planning Code – See Act 247.

Monoculture – A plant community in which one plant is excessively predominant. Examples include lawns, crop fields or habitat overpopulated with invasive exotic plants. (See Invasive Species)

N

NHS – The acronym for a National Historic Site. Valley Forge and Hopewell Furnace National Historic Sites both extend into Chester County.

NIMBY – The acronym for “Not in my back yard.” This term is commonly used to describe residents opposed to new projects in their neighborhood.

NPS – The acronym for the National Parks Service, a division of the United States Department of the Interior.

NRCS – The acronym for the Natural Resource Conservation Service, a division of the United State Department of Agriculture

NSA – The acronym for Naturally Sensitive Areas.

National Register of Historic Places – Commonly called the “National Register,” it is the official list, established by the National Historic Preservation Act of 1966, of sites, districts, buildings, structures and objects significant to the nation’s history or whose architectural value is unique.

National Register Sites – The common term for buildings, structures, objects or districts listed on the National Register of Historic Sites.

Naturally Sensitive Areas – In general, they are lands that are designated in municipal ordinances as having natural features that make them un-buildable, or that can be easily damaged by development. For the purposes of *Linking Landscapes*, they include hydric soils, 100-year floodplains, lakes, ponds, streams, wetlands and slopes greater than 25 percent. (See NSA)

Native Species – A species of plant or animal that currently or previously inhabited or grew in a specified location, and which was not introduced to that location as a result of human activity, either intentionally or accidentally. The term “native” species generally refers to a species whose original range was located within a large area like a continent or a nation. The term “indigenous” species is typically used to refer to a species whose original range extended into a smaller area like a state, county or watershed. (See Exotic Species)

Non-recreational Open Space – For the purposes of *Linking Landscapes*, it is any protected open space that has been protected, and is managed to provide open space that is not used for recreation. (See Recreational Open Space)

O

OSRER – The acronym for Open Space, Recreation and Environmental Resource Plan. In Chester County it is the municipal-level open space plan.

Open Space – In general, it is a large undeveloped tract or area of land that is designated for public or private use. For the purposes of *Linking Landscapes*, it refers to any land of any size that is not covered by buildings or pavement, and may include lawns, fields, or other vegetated areas of previously developed properties or farms. (See Protected Open Space)

Open Space Development – A Limited Development (See Limited Development)

Option – For the purposes of real estate, it is the right to sell, purchase or lease a specific piece of land for a stated price within a given time period.

Ordinance – A law, rule or regulation issued by the governing body of a municipality or county under legal authority granted by the state. (See Zoning)

P

PFBC – The acronym for the Pennsylvania Fish and Boat Commission.

PGC – The acronym for the Pennsylvania Game Commission.

PNDI – The acronym for the Pennsylvania Natural Diversity Index, a statewide-computerized listing of rare plant and animal species and habitats maintained by the DCNR.

Passive Recreation – Recreation activities that are usually quiet and not rigorously athletic, and have a low impact on the surrounding environment. May include walking, hiking, fishing, bird watching, and quiet picnicking. (See Active Recreation)

Parcel – In Chester County, an area of land that has been mapped and recorded by the County for use in assessing taxes. A property may consist of one or more parcels owned by the same owner. (See Property)

Park – Generally, a loosely defined term describing any open land that is publicly owned or used by the public. For the purposes of *Linking Landscapes*, it is any outdoor property with few if any structures that is owned in-fee or permanently eased for recreation by a government agency, is open to the general public and has recreation as its primary use. (See Recreational Open Space)

Path – Generally, a loosely defined term synonymous with a trail. For the purposes of *Linking Landscapes*, it is a trail that is designed, constructed, maintained and used primarily for one form of travel, such as a bicycle path or a walking path. (See Trail)

Pennsylvania Endangered Species – Is a species that is protected under Pennsylvania Law under either Title 34, Chapter 133, Game and Wildlife Code, Title 30 Chapter 75, Fish and Boat Code, or Title 25 Chapter 82 Conservation of Native Wild Plants because it is in danger of extinction throughout most of its natural range within the Commonwealth. (See also Pennsylvania Threatened Species, Endangered Species and Species of Special Concern)

Pennsylvania Threatened Species – Is a species that is protected under Pennsylvania Law under either Title 34, Chapter 133, Game and Wildlife Code, Title 30 Chapter 75, Fish and Boat Code, or Title 25 Chapter 82 Conservation of Native Wild Plants because it may become a Pennsylvania Endangered Species if critical habitat is not maintained. (See also

Pennsylvania Endangered Species, Threatened Species and Species of Special Concern)

Perpetuity – A type of agreement that will last forever.

Percolation – The downward flow or infiltration of water through pores or spaces of rock or soil.

Performance Zoning – A type of land use control whose main purpose is the protection of important environmental features while encouraging the development of a diversity of housing types. It controls development intensity through standards concerning required minimum open space, maximum impervious surface coverage and maximum density.

Permeability – The ease with which air, water, or other fluids can move through soil or rock.

Permitted Use – Any use allowed in a zoning district and subject to the restrictions applicable to that zoning district.

Pervious Surface – Any material that permits full or partial absorption of stormwater into previously unimproved land. (See Impervious Surface)

Piedmont Soils – For the purposes of *Linking Landscapes*, they are the highly productive non-irrigated soils of the Piedmont Region of South-eastern Pennsylvania.

Public Infrastructure – Facilities and services that serve the general public and the business community and are needed to sustain industry, residential, commercial and all other land use activities. May include roadways, water and sewer lines and other utilities.

Public Utility – A closely regulated enterprise with a franchise for providing to the public a utility service deemed necessary for the public health, safety and welfare. (See Utility)

Prime Agricultural Soils – Soils that are designated by the NRCS as “Prime Agricultural Soils,” because they are well-drained, fertile soils that are suitable for a wide range of crops and require less fertilizer, irrigation and conservation measures than most soils. (See NRCS and Soils of Statewide Importance.)

Primary Interest – The majority rights that a landowner (titleholder) retains after he or she conveys an easement to another. (See Easement)

Property – For planning purposes it is land that is owned by an single landowner. It may be owned by an individual, multiple individuals or a corporation. A property is composed on one or more parcels. (See Parcel)

Property Right – One of a variety of rights that a landowner may possess for a given parcel of land. One or more property rights may be sold, donated or otherwise transferred. (See Easement)

Protected Open Space – For the purposes of *Linking Landscapes*, it is land or water areas that have little or no development; are used for recreation or preserving cultural or natural resources, including productive agricultural soils; and are protected from development either permanently or on a long-term basis. (See Open Space and Unprotected Open Space)

Q

Quasi-public – A somewhat antiquated term referring to land that is used by non-profit, religious, educational or charitable institutions.

Quit Claim – In law, the transfer of a title, right or claim to another, or to renounce all claim to a possession or a right. (See Title)

R

Rails-to-Trails – The technique of reusing abandoned rail lines as recreational trails.

Rails-with-Trails – The technique of using a portion of the right-of-way along active rail lines as recreational trail corridors.

Recreation – Leisure time activities usually involving play, bodily movement, or physical exertion. (See Active Recreation and Passive Recreation)

Recreational Open Space – Generally, parks used for recreation. For the purposes in *Linking Landscapes*, it is protected public open spaces that are used for active or passive recreation. It may include sports fields and playgrounds. (See Non-recreational Open Space and Park)

Regional Recreation Corridor – For the purposes of *Linking Landscapes*, it is a 2,000 foot wide conceptual planning zone that is an ideal location for the construction of a multi-municipal trail. (See Trail and Wildlife Biodiversity Corridor)

Receiving Zone – A part of a municipality that has been officially designated as an area in which developers can exceed the standard housing density, but only if they purchase development rights from a vacant land owner in a “Sending Zone.” (See Sending Zone and Transfer of Development Rights)

Regional Land Trust – For the purposes of *Linking Landscapes*, it is a private non-profit organization that acquires easements or property in-fee within a large area such as a watershed or covering many municipalities, counties, states or nations. (See Land Trust and Local Land Trust)

Reservoir – A man made lake used as a community water supply.

Retention Basin – Also called a “Retention Impoundment Basin,” is a man made basin designed to fill up with stormwater runoff during heavy rain, which it then releases into the soil below the basin through percolation. (See Runoff, Detention Basin, Dry Pond and Wet Pond)

Reuse – Also called “adaptive reuse,” it is the development of a new use for an older building or a building originally designed for a special or specific purpose.

Right of Access – The authority to enter or leave a property.

Right-of-Way – Generally, the right of one to pass over the property of another. On the landscape, it is a strip of land acquired by reservation, dedication, forced dedication, prescription or condemnation and intended to be occupied by a road, crosswalk, railroad, electric transmission lines, oil or gas pipeline, water line, sanitary sewer and other similar uses.

Riparian Buffer – A vegetated strip of land containing trees, shrubs or un-mowed meadow adjacent to a body of water and managed to maintain the integrity of stream channels and shorelines to reduce the impact of upland sources of pollution by trapping, filtering and converting sediments, nutrients and other chemicals, and to supply food, cover and thermal protection to fish and other wildlife species. (See Buffer)

Riparian Corridor – A strip of land along a stream or shoreline. (See Riparian Buffer)

Riparian Planting – Vegetation planted or allowed to grow within a riparian buffer so that the buffer can function properly. (See Riparian Buffer)

Route – For the purposes of *Linking Landscapes*, it is a roadway shoulder or a low volume roadway used for bicycle transportation. (See Bicycle Route)

Runoff – Surface water, usually from rainfall, that is not evaporated, transpired, used or absorbed into the ground water system, and thus flows to a collection system or directly into a surface water body.

S

Scenic Rivers – River segments that have outstanding aesthetic and recreational value as designated under PA Act 283, the Pennsylvania Scenic Rivers Act of 1972. (See Wild and Scenic Rivers)

Scenic Byways – Roads, highways and other motor vehicle facilities that provide users with the opportunity to look out at scenic vistas or viewsheds. (See Byway)

Seasonal Mowing – A technique used to maintain lawns or meadows in which the vegetation is mowed once or twice annually.

Sending Zone – A part of a municipality that has been officially designated as an area in which landowners are permitted to sell their development rights, but only to landholders within a “Receiving Zone.” (See Receiving Zone and Transfer of Development Rights)

Sensitive Development – Also called Site Sensitive Development and used interchangeably with Conservation Development. It is generally another term for a Limited Development, although the open space in a Sensitive Development usually contains some sensitive natural or cultural feature like a wetland complex, a scenic viewshed or a historical farmstead. Sometimes it is used interchangeably with the terms Cluster Development, Open Space Development or Limited Development. (See Conventional Development, Cluster Development, Conservation Development, Open Space Development and Sensitive Development)

Septic System – An underground system with a septic tank used for the decomposition and distribution of domestic waste.

Serpentine Barrens – Also called “Chrome Barrens,” they are plant communities found on serpentine-based soils belonging to the Neshaminy-Chrome-Conowingo Soils Associations. They are unique landscape found only in southeastern Pennsylvania and Northeastern Maryland that support drought tolerant species, and are the location of a higher than normal percentage of rare plant species. (See Soil Associations)

Service Area – A circular area of specific radius surrounding a park facility that is used to determine the population around the park facility.

Servient Estate – A parcel of land that has an easement on it. (See Parcel and Easement)

Site Sensitive Development – A Sensitive Development. (See Sensitive Development)

Soil Association – A mapping unit consisting of a number of soil series with similar characteristics. (See Soil Series)

Soil Series – A mapping unit that consists of a number of soils that all have a similar soil profile, which means that they have a similar texture, color and mineral content at roughly the same depth. (See Soil Association)

Soils of Statewide Importance – Soils designated by the NRCS as being well suited for agriculture, but having a narrower range of crop choices, and requiring more conservation measures than “Prime Agricultural Soils.” (See Prime Agricultural Soils and NRCS)

Special Purpose Parks – Properties owned by Chester County Parks and Recreation Department that are used for passive recreation, wildlife preserves, land management demonstration sites, public education and community outreach, or to protect or restore valuable natural or cultural resource features.

Species of Special Concern – In Pennsylvania, species that are Pennsylvania Threatened Species or Pennsylvania Endangered Species. (See also Pennsylvania Threatened Species and Pennsylvania Endangered Species)

Spray Irrigation – A sewage treatment technique where treated effluent is sprayed over a field or forest, and allowed to percolate back into the soil. (See Drip Irrigation and Effluent)

Sprawl – For the purposes of *Linking Landscapes*, it is defined as a spreading low density, totally automobile dependent pattern of housing, shopping centers and corporate and industrial parks that is wasteful and short sighted. This is the definition that was presented in *Landscapes*.

Stakeholders – Individuals or organizations that have an interest in a project or who may be impacted by a project.

Steep Slopes – Generally slopes of 20 percent or more. For the purposes of *Linking Landscapes* they are slopes of 25 percent or more.

Stream – a perennial or intermittent watercourse having a defined channel, not including man made ditches, that contains flowing water from surface and groundwater sources during at least 50 percent of an average rainfall year.

Streambank – The portion of a channel cross-section that restricts the lateral movement of water at normal water levels.

Subdivision – The division of a lot, tract, or parcel of land into two or more lots, tracts parcels or other division of land for sale, development or lease.

Submerged Land – Those lands situated below the mean low waterline or all of the lands covered by the mean high waterline.

Surface Waters – Bodies of water that are exposed at the surface of the earth including rivers, streams, ponds, lakes and reservoirs.

T

TDR – The acronym for Transfer of Development Rights. (See Transfer of Development Rights)

TEA-21 – The acronym for the federal Transportation Equity Act for the 21st Century of 1998. It superceded ISTEA. (See ISTEA and CMAQ)

Title – A document officially designating what individual, individuals or organization owns a piece of land. (See Deed)

Threatened Species – Is a species that is protected by the 1973 Endangered Species Act because it is likely to become endangered within the foreseeable future throughout all or a significant portion of its range. (See also Endangered Species and Pennsylvania Threatened Species)

Trail – Generally a pedestrian or bike path. For the purposes of *Linking Landscapes*, it is an off-road facility with a permanent alignment that is open to the general public, and that is designed, constructed maintained as part of a public park system and used for a variety of non-motorized forms of travel including walking, hiking, biking, cross-country skiing or horseback riding. (See Path, Loop and Route)

Trail Head – An access point for a trail, which may include signage parking and other facilities, or which may be a town or village center.

Traditional Hiking Route – For the purposes of *Linking Landscapes*, it is a hiking route that has been used for many years but that has not been constructed into a multi-use trail and is not maintained as part of a public park system.

Transfer of Development Rights – The process allowed in some municipalities in which a landowner in a “Receiving Zone” can sell the development rights to his or her land to a landowner who owns land in a “Sending Zone.” (See Receiving Zone and Sending Zone)

Trust – Generally in real estate law, an equitable right or interest in property distinct from the legal ownership thereof and a property interest held by one person for the benefit of another. Also a combination of firms or corporations formed by an agreement legally establishing a trust and managed and operated by trustees. (See Land Trust)

U

USDA – The acronym for the United States Department of Agriculture.

Unit – For planning purposes, it usually refers to a residential structure that contains one household. A detached house would contain one unit, while a building with 50 apartments would contain 50 units.

Unprotected Open Space – For the purposes of *Linking Landscapes*, it is open space that is **not** rigorously protected from development either through an easement enforced by a third party (other than the owner and the seller) or through in-fee acquisition where the owner has committed to retain the property in perpetuity as an undeveloped property. Parcels with deed restrictions that **are** enforced by a third party, such as a land trust, are regarded as “protected open space.” (See Protected Open Space)

Utility – Any public or private agency that, under franchise or ownership, or under certificate of convenience and necessity, or by grant of authority by a government agency, provides the public with gas, electricity heat, steam, communication, transportation, water, sewage collection, or other similar service. Also a closely regulated enterprise with franchise for providing a needed service. (See Infrastructure)

V

Vacant Land – Land that is undeveloped and unused, including land that is not used for agriculture.

W

WILMAPCO – The acronym for the Wilmington Area Planning Commission, which is the Metropolitan Planning Organization for New Castle County DE, and Cecil County, MD.

Warm Season Grass – A species of grass that is green and grows mostly during summer months, but is brown and grows less in the spring and fall. (See Cool Season Grass)

Wastewater – Also called “sewage” consists of storm sewage, which is surface water, groundwater and storm water that flows directly into or infiltrate sewers; industrial sewage which is liquid waste conducted away from industrial processes; or liquid wastes conducted away from all except industrial uses, called sanitary or domestic sewage. (See Effluent)

Water Trail – A stream or river that has been officially designated and posted for use by recreational watercraft such as canoes, rafts or motorboats.

Watershed – An area of land that drains into a particular river or body of water, usually bounded by ridges; or the total area of land above a given point on a waterway that contributes surface runoff to the flow at that point; or a drainage basin or a major subdivision of a drainage basin.

Wet Pond – A Retention or Detention Basin that is designed to contain wetland vegetation that is not mowed and is periodically cleared, if at all, and wet soils or ponded water. (See Runoff, Detention Basin, Retention Basin and Dry Pond)

Wetland – Swamps, bogs, wet meadows and wet forests that possess wetland hydrology, hydric soils and hydrophytic vegetation. Wetlands are formally defined in the 1987 *Federal Manual for Identifying and Delineating Jurisdictional Wetlands*, revised in 1989 and 1991. (See Wetland Hydrology, Hydrophytic Vegetation and Hydric Soils)

Wetland Hydrology – A shallow subsurface pocket of water that remains in soil long enough to create low oxygen or anaerobic conditions that limit what type of plants can grow there. (See Wetland)

Wild and Scenic River – A free flowing river with outstanding natural, cultural and recreational features as designated by the National Park Service under the National Wild and Scenic Rivers Act of 1968. (See Scenic River)

Wildlife Biodiversity Corridor – For the purposes of *Linking Landscapes*, it is a 2,000 foot wide conceptual planning zone that is an ideal location for the establishment of wildlife corridor. (See Greenway and Regional Recreation Corridor)

X

Y

Z

Zoning – A process used by a municipality to regulate the use and development of private property. Through zoning the municipality is divided into various Zoning Districts presented on a Zoning Map. Land uses that are permitted within each district are detailed in a Zoning Ordinance.

Zoning District – Also called a “Zone,” is a specifically delineated area or district in a municipality within which uniform regulation and requirements govern the use, placement, spacing and size of land and buildings.

Appendix A



*Actions and Program
Priorities Listed by Topic*

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Background

Linking Landscapes included 292 Vision and Action Items, each of which was assigned a Program Priority and Initial Implementation Activity in **Chapter 20**. Many of the Action items deal with a specific topic or program. For example, there are 33 Action Items which recommend that the Planning Commission evaluate open space features when conducting reviews of development proposals, municipal ordinances or other planning document submitted for review, as required by PA Act 247, the Municipalities Planning Code.

To better clarify how the 292 Action Items will be implemented by the Planning Commission and the Parks and Recreation Department, this appendix presents all 292 Action Items classified into 11 groups, based on how they will be implemented. The first list presents all of the Action Items that are designated in **Chapter 20** as having an “Urgent” priority. These “Urgent” items are also presented in the other listings. In most cases, an Action Item is only presented in one list, but some are listed on more than one list where applicable.

Urgent Actions

The *Figure A.1* presents the 33 Actions Items that are designated as “Urgent” in *Chapter 20*. These items will be given the highest priority for implementation by the Planning Commission and the Parks and Recreation Department.

Figure A.1: Urgent Action Items

<i>Linking Landscapes</i> Action Items	PROGRAM PRIORITY Initial Implementation Activity
<p>4.6 The County will continue to cooperate with the NPS, the state, Delaware County, municipalities and non-profit land trusts to protect properties associated with the Battle of Brandywine and the Paoli Massacre from further development, and to designate them with NPS Affiliate Status.</p>	<p>URGENT: CCPC & CCPRD will work to complete the preservation of the Paoli and Brandywine Battlefields.</p>
<p>4.30 The County will consider establishing County Parks on large parcels in or near Urban or Suburban Landscapes as mapped in <i>Landscapes</i>, even if those parcels have been cleared of native vegetation and require habitat creation or restoration in order to attract wildlife.</p>	<p>URGENT: CCPRD will prepare a memo on this issue.</p>
<p>4.33 The County will develop policies and guidelines for natural resource management on County Park System properties that address restoring and maintaining native species and biodiversity, reinstating disturbance regimes, such as controlled burning on appropriate habitats, and using public education and volunteers to assist in resource management.</p>	<p>URGENT: CCPRD will prepare a memo on this issue.</p>
<p>5.5 The County will request that the PFBC designate Icedale Lake as a permanent wildlife preserve and develop a management plan to preserve and enhance its wetlands as habitat for amphibians and reptiles.</p>	<p>URGENT: CCPC & CCPRD will meet with the PFBC.</p>

Figure A.1: Urgent Action Items (continued)

<i>Linking Landscapes Action Items</i>		PROGRAM PRIORITY Initial Implementation Activity
5.8	The County will request that the PA Bureau of Forestry alter their management of Valley Forge District #17 to return it to its original serpentine savanna habitat. This management may include active intervention such as controlled burns and other means to restore open canopy.	URGENT: CCPC & CCPRD will meet with the PA Bureau of Forestry.
5.24	The County will determine what parcels within the County contain Sites of Statewide Significance and Areas of Local Significance, and which of these parcels are not yet protected. The County will then study what options are feasible for protecting these unprotected parcels.	URGENT: CCPC will prepare a memo to initiate this effort.
6.6	The County will request that the Chesapeake Bay Foundation consider acquiring conservation easements in Chester County within the Elk Creek and Octoraro Creek Watersheds.	URGENT: CCPC & CCPRD will meet with the Chesapeake Bay Foundation.
6.7	The County will request that Regional Land Trusts ease parcels that they own in-fee to another land trust or some other easement holding organization to limit future development.	URGENT: CCPC & CCPRD will meet with the Regional Land Trusts.
6.15	The County will meet with the staff of Local Land Trusts to explain the Preservation Partnership Program.	URGENT: CCPC & CCPRD will meet with Local Land Trusts.
6.16	The County will only endorse major Local Land Trust projects after coordination with appropriate municipal representatives occurs.	URGENT: CCPC and CCPRD will prepare a guidance memo on this issue.
6.19	The County will contact each landowner who owns a Parcel with Easement Potential and inform him or her of the community and ecological importance of protecting his or her parcel from development.	URGENT: CCPC will prepare a memo to initiate this effort.
8.2	The County will develop a uniform reference system for recording and cataloging data on historic resources that will include tax parcel numbers listed in a database that can be converted to the County's GIS database.	URGENT: CCPRD will prepare a guidance memo on this issue.

Figure A.1: Urgent Action Items (continued)

<i>Linking Landscapes Action Items</i>		PROGRAM PRIORITY Initial Implementation Activity
8.3	The County will map parcels that contain National Register Sites and Districts, and potentially eligible non-listed sites identified by historic inventories previously conducted in the County.	URGENT: CCPRD will prepare a memo to initiate this effort.
10.28	The County will develop a criteria for identifying publicly owned parcels that contain large open areas that are suitable for restoration as natural open spaces, or as the site of recreational open spaces.	URGENT: CCPC will prepare a memo to initiate this effort.
11.10	The County will create a map that shows all types of public school district property and describes the general use of the properties.	URGENT: CCPC will prepare a memo to initiate this effort.
11.13	The County will conduct a survey of municipal OSRER plans and other information sources to develop a Countywide map showing the location of indoor public recreation centers.	URGENT: CCPC will prepare a memo to initiate this effort.
12.11	Before endorsing a project or awarding a County grant for improvements to or maintenance of parts of the Brandywine Trail, the Mason-Dixon Trail and the Horse-Shoe Trail, the County will require documentation that all parts of these trails are open to the general public with no membership restrictions.	URGENT: CCPC & CCPRD will prepare a status memo on the Brandywine, Mason-Dixon and the Horse-Shoe Trails.
12.18	The County will endorse efforts taken by Uwchlan and West Whiteland Townships to acquire right-of-way and property in-fee within or near the Uwchlan Regional Recreation Corridor for the purpose of establishing a multi-municipal trail along this corridor, and also in their efforts to design and construct this trail.	URGENT: CCPC & CCPRD will endorse establishing a trail along the entire length of the Uwchlan Regional Recreation Corridor.
12.37	Before endorsing a project or awarding a County grant for a multi-municipal trail loop, the County will require documentation that the project was developed through joint planning involving all of the municipalities crossed by the trail.	URGENT: CCPC & CCPRD will prepare a status memo on this issue.

Figure A.1: Urgent Action Items (continued)

<i>Linking Landscapes Action Items</i>	PROGRAM PRIORITY Initial Implementation Activity
12.42 The County will request that the East Coast Greenway Alliance consider a bypass of the East Coast Greenway that would loop west of Delaware County and through Chester County. The County will also request that Montgomery County do likewise.	URGENT: CCPC & CCPRD will contact the East Coast Greenway.
12.45 Relative to all other trail projects, the County will make it the highest priority to endorse projects that establish segments of multi-municipal trails on Regional Priority Trail Corridors.	URGENT: CCPC & CCPRD will prepare a status memo on this issue.
13.4 The County will study the feasibility of updating countywide Wildlife Biodiversity Corridors based on the most ecologically sound evaluation techniques and the most detailed resource mapping available.	URGENT: CCPC will prepare an outline for this study.
13.8 Before endorsing a project or awarding a County grant for multi-municipal wildlife corridor, the County will require documentation that the project was established through joint planning involving all of the municipalities crossed by the corridor.	URGENT: CCPC will prepare a guidance memo on this issue.
19.3 The County will map large undeveloped parcels, including vacant formerly developed parcels that have a potential to be developed into passive recreation parks and are within or near Urban and Suburban Landscapes.	URGENT: CCPC will prepare a memo to initiate this effort.
19.6 The County will study the feasibility of linking or extending County Parks out to any other recreational park, borough, city or major population center within five miles.	URGENT: CCPC & CCPRD will prepare an outline for this study.
19.10 The County will provide examples of ordinance language that describes active recreation, passive recreation, non-recreational open space and other terms relating to open space and recreation facility development and use.	URGENT: CCPC will prepare a guidance memo with examples of ordinance language.

Figure A.1: Urgent Action Items (continued)

<i>Linking Landscapes</i> Action Items	PROGRAM PRIORITY Initial Implementation Activity
19.14 The County will provide examples of ordinance language that describes trail and wildlife corridors and other terms relating to linear open space facility construction and use.	URGENT: CCPC will prepare a guidance memo with examples of ordinance language.
19.17 The County will study the feasibility of purchasing or accepting donations of conservation easements on private properties surrounding properties owned and managed by the Parks and Recreation Department.	URGENT: CCPC & CCPRD will prepare an outline for this study.
19.31 The County will provide examples of ordinance language relating to the protection of Naturally Sensitive Areas, that define what types of natural features are considered as Naturally Sensitive Areas, that set specific buffers around these areas, and that detail the amount of these areas that can be disturbed by development.	URGENT: CCPC will prepare a guidance memo with examples of ordinance language.
19.34 The County will map and inventory all Naturally Sensitive Areas as part of a County Natural Resources Plan.	URGENT: CCPC will prepare a memo to initiate this effort.
19.37 The County will map and evaluate unprotected open space parcels in Chester County to determine which are undeveloped and have the potential to be protected and fill gaps in the protected open space network. This evaluation will include preliminary recommendations of how eligible parcels can be protected.	URGENT: CCPC will prepare a memo to initiate this effort.
19.38 The County will inventory and map unprotected parcels of 50 acres or more to determine which of them meets the basic requirements of the state and County Agricultural Conservation Easement Program.	URGENT: CCPC will prepare a memo to initiate this effort.
19.39 The County will inventory and map unprotected and largely undeveloped parcels owned by the federal and state government, or institutions, such as colleges, hospitals and horticultural organizations.	URGENT: CCPC will prepare a memo to initiate this effort.

Actions Involving Specific County Government Initiatives

For the most part, the Action Items presented in *Linking Landscapes* deal with administrative procedures, however some deal with specific projects. The 13 action items listed in **Figure A.2** each deal with a different project either underway or proposed within Chester County.

Figure A.2: Actions Involving Specific County Government Initiatives

<i>Linking Landscapes</i> Action Items	PROGRAM PRIORITY Initial Implementation Activity
4.6 The County will continue to cooperate with the NPS, the state, Delaware County, municipalities and non-profit land trusts to protect properties associated with the Battle of Brandywine and the Paoli Massacre from further development, and to designate them with NPS Affiliate Status.	URGENT: CCPC & CCPRD will work to complete the preservation of the Paoli and Brandywine Battlefields.
4.23 The County will continue to acquire additional rights-of-way and parcels in-fee along the southern side of the Schuylkill River from PA Route 29 to US Route 422, to create the County Schuylkill River Trail, loop trails and Special Purpose Parks.	ONGOING: CCPC & CCPRD will prepare a memo on status and actions to be taken on this issue.
4.25 The County will continue to acquire and construct extensions to the County Struble Trail and the County Chester Valley Trail.	ONGOING: CCPC & CCPRD will prepare a memo on status and actions to be taken on this issue.
4.26 The County will continue to coordinate with municipalities, Lancaster County, the Chester Water Authority, and private landowners to establish the County Octoraro Water Trail.	ONGOING: CCPC & CCPRD will prepare a memo on status and actions to be taken on this issue.
4.28 The County will continue to establish water based recreation facilities in appropriate sections of the Schuylkill River and its major tributaries, and the Octoraro Creek and its major tributaries.	ONGOING: CCPC & CCPRD will prepare a memo on status and actions to be taken on this issue.

Figure A.2: Actions Involving Specific County Government Initiatives (continued)

<i>Linking Landscapes</i> Action Items	PROGRAM PRIORITY Initial Implementation Activity
<p>4.36 The County will complete the design and construction of recreational facilities on future park site that have been acquired, including an educational center at the future County Park in Newlin Township.</p>	<p>ONGOING: CCPC & CCPRD will prepare a memo on status and actions to be taken on this issue.</p>
<p>5.15 The County will not endorse projects that maintain or create an impedance to fish migration within the Schuylkill River, and the County will only endorse projects that improve fish migration which also permit watercraft recreational use of some kind.</p>	<p>RECOMMENDED: CCPC will prepare a guidance memo on this issue.</p>
<p>6.19 The County will contact each landowner who owns a Parcel with Easement Potential and inform him or her of the community and ecological importance of protecting his or her parcel from development.</p>	<p>URGENT: CCPC will prepare a memo to initiate this effort.</p>
<p>8.4 The County will continue to endorse the widening of the State Heritage Corridor to include the entire watershed.</p>	<p>ONGOING: CCPC will prepare a status memo on this issue.</p>
<p>12.11 Before endorsing a project or awarding a County grant for improvements to or maintenance of parts of the Brandywine Trail, the Mason-Dixon Trail and the Horse-Shoe Trail, the County will require documentation that all parts of these trails are open to the general public with no membership restrictions.</p>	<p>URGENT: CCPC & CCPRD will prepare a status memo on the Brandywine, Mason-Dixon and the Horse-Shoe Trails.</p>
<p>12.17 The County will continue to plan, design and construct County Trails and other linear recreation facilities within the Brandywine-Struble, Chester Valley and Schuylkill Regional Recreation Corridors for the purpose of establishing a multi-municipal trail along the entire length of these corridors.</p>	<p>ONGOING: CCPRD will establish or assist in establishing trails along the entire length of the Brandywine-Struble, Great Valley and Schuylkill Regional Recreation Corridors.</p>

Figure A.2: Actions Involving Specific County Government Initiatives (continued)

<i>Linking Landscapes</i> Action Items	PROGRAM PRIORITY Initial Implementation Activity
12.18 The County will endorse efforts taken by Uwchlan and West Whiteland Townships to acquire right-of-way and property in-fee within or near the Uwchlan Regional Recreation Corridor for the purpose of establishing a multi-municipal trail along this corridor, and also in their efforts to design and construct this trail.	URGENT: CCPC & CCPRD will endorse establishing a trail along the entire length of the Uwchlan Regional Recreation Corridor.
12.44 The County will continue to acquire, construct and manage County Trails and extend the County Struble and Chester Valley Trail, and the future County Octoraro Water and, Schuylkill River Trails.	ONGOING: CCPRD will complete the County Chester Valley, Schuylkill River, and Struble Trails, and the County Octoraro Water Trail.
19.45 If the County should consider changes to the tax structure within Chester County, the way in which such changes will promote or discourage the protection of open space will be considered.	RECOMMENDED: CCPC and the CCPRD will prepare a memo on this issue.

Actions Involving County Government Feasibility Studies

Linking Landscapes recommends that feasibility studies be conducted in order to evaluate a wide range of open space issues in Chester County. **Figure A.5** list the 31 Action Items that recommend that some form of feasibility study be initiated.

Figure A.3: Actions Involving County Government Feasibility Studies

<i>Linking Landscapes</i> Action Items	PROGRAM PRIORITY Initial Implementation Activity
<p>4.4 The County will study the feasibility of establishing a public trail with NPS Affiliate Status connecting the Paoli Battlefield site with Valley Forge NHS.</p>	<p>RECOMMENDED: CCPC & CCPRD will prepare an outline for this study.</p>
<p>4.18 The County will study the feasibility of establishing a 600-acre County park in the un-served southeastern part of the County. This Park should consist of either one contiguous 600-acre property, or a small number of nearby properties that total 600 acres and are linked by a County Trail.</p>	<p>RECOMMENDED: CCPC will prepare an outline for this study.</p>
<p>4.19 The County will study the feasibility of establishing 1,200 acres of the County Park System properties, such as County Parks, Trails and Special Purpose Parks within the under-served east-central part of the County. Any County Park considered in this study may consist of a small number of nearby properties that total 600 acres and are linked by a County Trail.</p>	<p>RECOMMENDED: CCPC will prepare an outline for this study.</p>
<p>4.20 The County will study the feasibility of coordinating volunteer efforts on a countywide level to assist in maintaining natural and cultural resources within or surrounding County Parks, Trails and Special Purpose Parks.</p>	<p>RECOMMENDED: CCPC will prepare an outline for this study.</p>
<p>4.42 The County will study the feasibility of providing technical assistance to municipalities conducting unique or regionally important recreational park projects.</p>	<p>ONGOING: CCPC will prepare an outline for this study.</p>

Figure A.3: Actions Involving County Government Feasibility Studies (continued)

<i>Linking Landscapes</i> Action Items	PROGRAM PRIORITY Initial Implementation Activity
5.1 The County will study the feasibility of establishing wildlife corridors that link together the three parts of State Game Lands #43, French Creek State Park and Warwick County Park, and then share this study with the DCNR and PGC.	RECOMMENDED: CCPC & CCPRD will prepare an outline for this study.
5.7 The County will study the feasibility of establishing a wildlife corridor that links together Valley Forge State Forest District #17 with Nottingham County Park.	RECOMMENDED: CCPC & CCPRD will prepare an outline for this study.
6.5 The County will study the feasibility of developing a program to foster the growth of Local Land Trusts and create cooperative agreements between Regional and Local Land Trusts to ensure the maintenance of Local Land Trust properties and the enforcement of easements on Local Land Trust properties.	RECOMMENDED: CCPC & CCPRD will prepare an outline for this study.
6.11 The County will study the feasibility of establishing a grant program that will help municipalities provide start up grants to Local Land Trusts.	RECOMMENDED: CCPC & CCPRD will prepare an outline for this study.
6.21 The County will study the feasibility of protecting, through public and private entities, or public and private partnerships, undeveloped parcels that could form open space links or that are unique but not well suited for protection by a land trust of ALPB easements due to six or other features.	RECOMMENDED: CCPC will prepare and outline for this study.
7.4 The County will study the feasibility of having non-profit land trusts or municipalities acquire conservation easements on unprotected spray or drip irrigation fields.	RECOMMENDED: CCPC will prepare an outline for this study.
9.1 The County will study the feasibility of improving the way it gathers and updates information on changes to ASAs.	RECOMMENDED: CCPC will prepare an outline for this study.

Figure A.3: Actions Involving County Government Feasibility Studies (continued)

<i>Linking Landscapes</i> Action Items	PROGRAM PRIORITY Initial Implementation Activity
<p>9.5 The County will study the feasibility of establishing a locally administered program for purchasing agricultural easements on farms that are located on topography that is so rolling that these farms are likely to rank low when applying to the existing easement program administered jointly by the state and County.</p>	<p>RECOMMENDED: CCPC will prepare an outline for this study.</p>
<p>9.11 The County will study the feasibility of implementing effective agricultural zoning in municipalities where agriculture is the primary land use and a dominant contributor to the economy.</p>	<p>RECOMMENDED: CCPC will prepare an outline for this study.</p>
<p>10.2 The County will study the feasibility of developing a handbook of open space Best Management Practices for Homeowner Associations, perhaps through the County Conservation District.</p>	<p>RECOMMENDED: CCPC will meet with CCCD and prepare and outline for this study.</p>
<p>10.4 The County will study the feasibility of publicizing open space Best Management Practices for Homeowner Associations, perhaps through the County Conservation District.</p>	<p>RECOMMENDED: CCPC will meet with CCCD and prepare an outline for this study.</p>
<p>12.4 The County will either conduct a Trail Feasibility Study and Recreation Master Plan for each Undeveloped Regional Recreation Corridor, or identify other qualified organizations that will agree to conduct such studies. These studies may be part of a larger regional recreation or planning study.</p>	<p>RECOMMENDED: CCPC & CCPRD will prepare an outline for this study.</p>
<p>12.8 The County will study the feasibility of assisting interested citizens in developing non-profit land trusts whose goals are to acquire easements or property in-fee along the Brandywine Trail, the Mason-Dixon Trail and the Horse-Shoe Trail.</p>	<p>RECOMMENDED: CCPC & CCPRD will prepare an outline for this study.</p>

Figure A.3: Actions Involving County Government Feasibility Studies (continued)

<i>Linking Landscapes</i> Action Items	PROGRAM PRIORITY Initial Implementation Activity
12.10 The County will either conduct a Trail Feasibility Study and Recreation Master Plan for each Informally Used Regional Recreation Corridor, or identify other qualified organizations that will agree to conduct such studies. These studies may be part of a larger regional recreation or planning study.	RECOMMENDED: CCPC & CCPRD will prepare an outline for this study.
12.19 The County will conduct a County Water Trail Feasibility Study that evaluates both the Schuylkill River and Octoraro Creek.	RECOMMENDED: CCPC & CCPRD will prepare an outline for this study.
12.20 The County will conduct a feasibility study that evaluates the establishment of Schuylkill Loop Trail and other loop trails along the Schuylkill River as a cooperative effort of Chester and Montgomery Counties.	RECOMMENDED: CCPC & CCPRD will prepare an outline for this study.
12.21 The County will either conduct a Trail Feasibility Study and Recreation Master Plan for each Partially Developed Regional Recreation Corridor, or identify other qualified organizations that will agree to conduct such studies. These studies may be part of a larger regional recreation or planning study.	RECOMMENDED: CCPC & CCPRD will prepare an outline for this study.
12.40 The County will study the feasibility of mapping and classifying municipal or community trails, or both, on a countywide basis.	RECOMMENDED: CCPC will prepare an outline for this study.
12.41 The County will study the feasibility of establishing a program to assist municipalities in trail planning and design.	RECOMMENDED: CCPRD will prepare an outline for this study.
13.3 The County will study the feasibility of establishing a program to assist municipalities in wildlife corridor planning and design.	RECOMMENDED: CCPRD will prepare an outline for this study.
13.4 The County will study the feasibility of updating countywide Wildlife Biodiversity Corridors based on the most ecologically sound evaluation techniques and the most detailed resource mapping available.	URGENT: CCPC will prepare an outline for this study.

Figure A.3: Actions Involving County Government Feasibility Studies (continued)

<i>Linking Landscapes</i> Action Items	PROGRAM PRIORITY Initial Implementation Activity
<p>14.16 The County will study the feasibility of establishing a County Byway program following the guidelines of the National Scenic Byways Program.</p>	<p>RECOMMENDED: CCPC will prepare an outline for this study.</p>
<p>17.5 The County will study the feasibility of establishing a bike route from Kennett Township to Delaware Bike Route 1 at DE Route 82 or Yorklyn Road, and share the results of this study with Kennett Township, London Britain Township and New Castle County.</p>	<p>RECOMMENDED: CCPC will prepare an outline for this study.</p>
<p>17.6 The County will study the feasibility of assisting interested citizens in developing a non-profit multi-state land trust, whose focus will be acquiring easements or property in-fee along the Mason-Dixon Trail, and share the results of this study with New Castle County and land trusts with easements in the area.</p>	<p>RECOMMENDED: CCPC & CCPRD will prepare an outline for this study.</p>
<p>19.6 The County will study the feasibility of linking or extending County Parks out to any other recreational park, borough, city or major population center within five miles.</p>	<p>URGENT: CCPC & CCPRD will prepare an outline for this study.</p>
<p>19.17 The County will study the feasibility of purchasing or accepting donations of conservation easements on private properties surrounding properties owned and managed by the Parks and Recreation Department.</p>	<p>URGENT: CCPC & CCPRD will prepare an outline for this study.</p>

Actions Involving County Government Coordination

Linking Landscapes recommends that the Planning Commission or the Parks and Recreation Department, or both, contact various non-County entities in order to begin the process of initiating certain Action Items. The 69 Action Items listed in **Figure A.4** all relate to recommended meetings or coordination between County government and non-County entities.

Figure A.4: Actions Involving County Government Coordination

<i>Linking Landscapes</i> Action Items	PROGRAM PRIORITY Initial Implementation Activity
<p>4.5 The County will request that the NPS acquire conservation easements through donation or purchase on parcels surrounding NPS properties or secure management agreements with landowners of parcels surrounding NPS properties, and meet with the NPS regularly to discuss the status of its properties.</p>	<p>RECOMMENDED: CCPC & CCPRD will meet with the NPS.</p>
<p>4.10 The County will request that the DCNR Bureau of State Parks acquire conservation easements through donation or purchase on parcels surrounding state parks, and secure management agreements with landowners of parcels surrounding state park, and meet regularly with the Bureau to discuss the status of its properties.</p>	<p>RECOMMENDED: CCPC & CCPRD will meet with DCNR Bureau of State Parks.</p>
<p>4.11 The County will request a meeting with the DCNR and Berks County to discuss the feasibility of developing a management plan for preserving the Hopewell Big Woods in and around French Creek State Park in Chester and Berks Counties, which is the largest contiguous woodland in southeastern PA. This management plan will likely require gathering scientific data on the forest and coordinating with municipalities to modify zoning and comprehensive plans.</p>	<p>RECOMMENDED: CCPRD will meet with the DCNR Bureau of State Forests and Berks County.</p>

Figure A.4: Actions Involving County Government Coordination (continued)

<i>Linking Landscapes</i> Action Items	PROGRAM PRIORITY Initial Implementation Activity
<p>4.12 The County will continue to support those transfers of open space parcels from nonprofit land trusts, or other entities, to the DCNR Bureau of State Parks.</p>	<p>RECOMMENDED: CCPC & CCRD will meet with the DCNR Bureau of State Forests.</p>
<p>4.31 The County will meet with the major wildlife habitat preservation organizations to determine possible partnership opportunities for the management of wildlife habitat on County Park System properties.</p>	<p>RECOMMENDED: CCPC & CCRD will meet with habitat preservation organizations.</p>
<p>4.43 The County will request that municipalities that do not have an OSRER Plan complete one, and will provide those municipalities with an OSRER County grant manual. The County will also study options that these municipalities might use to raise funds so that they can match the County OSRER Grant.</p>	<p>RECOMMENDED: CCPC will contact municipalities without OSRER Plans and prepare an outline for this study.</p>
<p>4.45 The County will request that municipalities manage their recreational parks to provide wildlife habitat in areas not used for active recreation and to maintain and restore wetlands and vegetated stream buffers as a demonstration to park users.</p>	<p>RECOMMENDED: The CCPC will contact municipalities.</p>
<p>4.46 The County will request that municipalities refrain from mowing municipal recreation parks within 5 to 15 feet of stream banks and pond shore lines, except at stream access points or crossings.</p>	<p>RECOMMENDED: The CCPC will contact municipalities.</p>
<p>4.47 The County will request that municipalities allow and encourage tall vegetation, such as cattails and tall grasses, to grow along stream and pond edges in municipal recreational parks to reduce the habitat for Canada geese.</p>	<p>RECOMMENDED: The CCPC will contact municipalities.</p>
<p>5.2 The County will request that the PGC determine what areas of the County do not provide sufficient hunting opportunities. The County will also request that the PGC recommend how hunting opportunities could be improved in these areas.</p>	<p>RECOMMENDED: CCPC & CCRD will meet with the PGC.</p>

Figure A.4: Actions Involving County Government Coordination (continued)

<i>Linking Landscapes</i> Action Items	PROGRAM PRIORITY Initial Implementation Activity
5.3 The County will provide the PGC with maps depicting existing protected open spaces within the County, and request that the PGC acquire more state game lands in the County.	RECOMMENDED: CCPC & CCPRD will meet with the PGC.
5.5 The County will request that the PFBC designate Icedale Lake as a permanent wildlife preserve and develop a management plan to preserve and enhance its wetlands as habitat for amphibians and reptiles.	URGENT: CCPC & CCPRD will meet with the PFBC.
5.6 The County will provide the PFBC with maps depicting existing protected open spaces within the County and request that the PFBC acquire more managed lands and more boat launches to promote the conservation and control of fish, reptile and amphibian species.	RECOMMENDED: CCPC & CCPRD will meet with the PFBC.
5.8 The County will request that the PA Bureau of Forestry alter their management of Valley Forge District #17 to return it to its original serpentine savanna habitat. This management may include active intervention such as controlled burns and other means to restore open canopy.	URGENT: CCPC & CCPRD will meet with the PA Bureau of Forestry.
5.9 The County will request that the PA Bureau of Forestry develop a plan to direct forestry management on a countywide scale using modern management techniques. Such an effort may include timber harvesting, reforestation and riparian buffer rehabilitation.	RECOMMENDED: CCPC & CCPRD will meet with the PA Bureau of Forestry.
5.10 The County will provide the Bureau of Forestry with maps depicting existing protected open spaces within the County, and request that the Bureau acquire more state forest properties.	RECOMMENDED: CCPC & CCPRD will meet with the PA Bureau of Forestry.
5.23 The County will contact the DCNR and the Nature Conservancy to determine how to best implement regularly scheduled updates of the Inventory.	RECOMMENDED: CCPC will meet with the DCNR and the Nature Conservancy.

Figure A.4: Actions Involving County Government Coordination (continued)

<i>Linking Landscapes</i> Action Items		PROGRAM PRIORITY Initial Implementation Activity
6.6	The County will request that the Chesapeake Bay Foundation consider acquiring conservation easements in Chester County within the Elk Creek and Octoraro Creek Watersheds.	URGENT: CCPC & CCPRD will meet with the Chesapeake Bay Foundation.
6.7	The County will request that Regional Land Trusts ease parcels that they own in-fee to another land trust or some other easement holding organization to limit future development.	URGENT: CCPC & CCPRD will meet with the Regional Land Trusts.
6.12	The County will request that all Local Land Trusts enter into agreements with Regional Land Trusts to ensure that properties protected by Local Land Trusts will remain protected, even if the Local Land Trust is dissolved.	RECOMMENDED: CCPC & CCPRD will meet with Regional and Local Land Trusts.
6.15	The County will meet with the staff of Local Land Trusts to explain the Preservation Partnership Program.	URGENT: CCPC & CCPRD will meet with Local Land Trusts.
6.17	The County will meet with the Regional Land Trusts and request that they acquire easements on open space on parcels that are already developed or are planned for development, including golf courses, privately owned gardens, homeowner association open spaces, and corporate, educational or other campuses, if those easements link to eased parcels or parcels that are well suited to be eased.	RECOMMENDED: CCPC will meet with the Regional Land Trusts.
6.18	The County will meet with Local Land Trusts and request that they acquire easements on open space on parcels that are already developed or planned for development, including golf courses, privately owned gardens, homeowner association open spaces, and corporate, educational or other campuses.	RECOMMENDED: CCPC will meet with the Local Land Trusts.
8.5	The County will cooperate with Berks and Montgomery County on multi-county projects within the Schuylkill River State Heritage Corridor and the National Heritage Corridor.	RECOMMENDED: CCPC & CCPRD will meet with Bucks and Montgomery County.

Figure A.4: Actions Involving County Government Coordination (continued)

<i>Linking Landscapes</i> Action Items	PROGRAM PRIORITY Initial Implementation Activity
9.2 The County will request that the ADC study the feasibility of increasing enrollment in ASAs and set an annual goal for increasing the acreage of farmlands enrolled in ASAs.	RECOMMENDED: CCPC will meet with the ADC.
9.3 The County will request that the ADC study the feasibility of increasing Plain Sect enrollment in ASAs and set an annual target for increasing the acreage of Plain Sect-owned farmlands enrolled in ASAs.	RECOMMENDED: CCPC will meet with the ADC.
9.4 The County will request that the ADC study the feasibility of educating municipal officials regarding the administration of ASAs.	RECOMMENDED: CCPC will meet with the ADC.
9.6 The County will request that the ALPB study the feasibility of pursuing alternative funding for the purchase of agriculture conservation easements.	RECOMMENDED: CCPC will meet with the ALPB.
9.7 The County will request that the ALPB study the feasibility of increasing Plain Sect participation in the agricultural conservation easement program and setting annual targets for increasing Plain Sect participation.	RECOMMENDED: CCPC will meet with the ALPB.
9.8 The County will request that the ADC and ALPB prepare or sponsor a Countywide agricultural development plan.	RECOMMENDED: CCPC will meet with the ADC and ALPB.
10.2 The County will study the feasibility of developing a handbook of open space Best Management Practices for Homeowner Associations, perhaps through the County Conservation District.	RECOMMENDED: CCPC will meet with CCCD and prepare and outline for this study.
10.4 The County will study the feasibility of publicizing open space Best Management Practices for Homeowner Associations, perhaps through the County Conservation District.	RECOMMENDED: CCPC will meet with CCCD and prepare an outline for this study.

Figure A.4: Actions Involving County Government Coordination (continued)

<i>Linking Landscapes Action Items</i>	PROGRAM PRIORITY Initial Implementation Activity
10.7 The County will request that golf course owners and managers plant species native to the County on golf courses in all areas, except fairways, putting greens and heavily used areas, such as lawns around clubhouses.	RECOMMENDED: CCPC & CCPRD will contact golf course owners and managers.
10.8 The County will request that golf course owners and managers refrain from mowing within 5 to 15 feet of stream banks and pond shore lines.	RECOMMENDED: CCPC & CCPRD will contact golf course owners and managers.
10.9 The County will request that golf course owners and managers allow and encourage tall vegetation, such as cattails and tall grasses, to grow along stream and pond edges to reduce the habitat for Canada geese.	RECOMMENDED: CCPC & CCPRD will contact golf course owners and managers.
10.10 The County will request that golf course owners pursue selling or donating conservation easements on golf courses, and that land trusts and municipalities pursue buying or accepting donations of such easements.	RECOMMENDED: CCPC & CCPRD will contact golf course owners and managers, and land trusts.
10.11 The County will contact municipalities to recommend that they consider requiring golf courses to limit their future use to either golf course development or protected open space as part of plan approval.	RECOMMENDED: CCPC & CCPRD will contact municipal officials.
10.12 The County will request that private schools plant species native to the County in all areas, except high use areas.	RECOMMENDED: CCPC & CCPRD will contact private schools.
10.13 The County will request that private schools refrain from mowing within 5 to 15 feet of stream banks and pond shore lines, except at stream access points or crossings.	RECOMMENDED: CCPC & CCPRD will contact private schools.
10.14 The County will request that private schools allow and encourage tall vegetation, such as cattails and tall grasses, to grow along stream and pond edges to reduce the habitat for Canada geese.	RECOMMENDED: CCPC & CCPRD will contact private schools.

Figure A.4: Actions Involving County Government Coordination (continued)

<i>Linking Landscapes</i> Action Items	PROGRAM PRIORITY Initial Implementation Activity
10.15 The County will request that private schools pursue selling or donating conservation easements, and that land trusts and municipalities pursue buying or accepting donations of such easements.	RECOMMENDED: CCPC & CCPRD will contact private schools and land trusts.
10.16 The County will request that private schools manage their campuses to provide wildlife habitat, and provide opportunities for on-campus ecological education.	RECOMMENDED: CCPC & CCPRD will contact private schools.
10.19 The County will request that colleges refrain from mowing within 5 to 15 feet of stream banks and pond shore lines, except at stream access points or crossings.	RECOMMENDED: CCPC & CCPRD will contact colleges.
10.20 The County will request that colleges allow and encourage tall vegetation, such as cattails and tall grasses, to grow along stream and pond edges to reduce the habitat for Canada geese.	RECOMMENDED: CCPC & CCPRD will contact colleges.
10.21 The County will request that colleges pursue selling or donating conservation easements on golf courses, and that land trusts and municipalities pursue buying or accepting donations of such easements.	RECOMMENDED: CCPC & CCPRD will contact colleges and land trusts.
10.22 The County will request that colleges manage their campuses to provide wildlife habitat, and provide opportunities for on-campus ecological education.	RECOMMENDED: CCPC & CCPRD will contact colleges.
10.25 The County will request that corporate campuses refrain from mowing within 5 to 15 feet of stream banks and pond shore lines, except at stream access points or crossings.	RECOMMENDED: CCPC & CCPRD will contact corporate campuses.
10.26 The County will request that corporate campuses allow and encourage tall vegetation, such as cattails and tall grasses, to grow along stream and pond edges to reduce the habitat for Canada geese.	RECOMMENDED: CCPC & CCPRD will contact corporate campuses.

Figure A.4: Actions Involving County Government Coordination (continued)

<i>Linking Landscapes</i> Action Items	PROGRAM PRIORITY Initial Implementation Activity
10.30 The County will request that unique unprotected open space property owners refrain from mowing within 5 to 15 feet of stream banks and pond shore lines, except at stream access points or crossings.	RECOMMENDED: CCPC & CCPRD will contact unique unprotected open space owners.
10.31 The County will request that unique unprotected open space property owners allow and encourage tall vegetation, such as cattails and tall grasses, to grow along stream and pond edges to reduce the habitat for Canada geese.	RECOMMENDED: CCPC & CCPRD will contact unique unprotected open space owners.
10.32 The County will request that unique protected open space property owners pursue selling or donating conservation easements, and that land trusts and municipalities pursue buying or accepting donations of such easements.	RECOMMENDED: CCPC & CCPRD will contact unique unprotected open space owners and land trusts.
11.6 The County will request that public school properties be vegetated with species native to the County, except in high use areas.	RECOMMENDED: CCPC will contact public school districts.
11.7 The County will request that public schools refrain from mowing within 5 to 15 feet of stream banks and pond shorelines, except at stream access points or crossings.	RECOMMENDED: CCPC will contact public school districts.
11.8 The County will request that public schools manage their campuses to provide opportunities for ecological education.	RECOMMENDED: CCPC will contact public school districts.
11.9 The County will request that public schools consider pursuing opportunities to restore or protect open space when acquiring, transfer or easing their property, except where it is documented to be impractical.	RECOMMENDED: CCPC will contact public school districts.
12.26 The County will request that the state distribute detailed mapping to the public showing the routes of Bicycle PA Routes and Proposed Bicycle Touring Corridors.	RECOMMENDED: CCPC will meet with DCNR and PennDOT.
12.30 When reviewing PennDOT projects for the building or reconstruction of roadways, including repaving, the County will recommend that bike routes be added or maintained where appropriate.	RECOMMENDED: CCPC will meet with PennDOT.

Figure A.4: Actions Involving County Government Coordination (continued)

<i>Linking Landscapes</i> Action Items	PROGRAM PRIORITY Initial Implementation Activity
12.31 The County will continue to coordinate with PennDOT and the DVRPC regarding proposed and potential bike route projects within the County.	RECOMMENDED: CCPC will meet with DVRPC and PennDOT.
12.32 The County will hold a meeting with federal, state and municipal officials to evaluate the potential for establishing public accessible stables near public trails that permit equestrian use.	RECOMMENDED: CCPC & CCPRD will meet with equestrian stakeholders.
12.33 The County will hold a meeting with equestrian clubs and organizations within Chester County that could establish Riding Lane Associations that can acquire conservation easements on riding lanes that are open to the public.	RECOMMENDED: CCPC & CCPRD will meet with equestrian stakeholders.
12.42 The County will request that the East Coast Greenway Alliance consider a bypass of the East Coast Greenway that would loop west of Delaware County and through Chester County. The County will also request that Montgomery County do likewise.	URGENT: CCPC & CCPRD will contact the East Coast Greenway.
12.43 The County will request that the DCNR establish a state trail system.	RECOMMENDED: CCPC & CCPRD will contact the DCNR.
13.5 The County will hold a meeting with all of the local wildlife preservation organizations and request that they coordinate their efforts and consider forming a coalition.	RECOMMENDED: CCPC will meet with wildlife organizations.
14.10 The County will request that the owners of utility corridors manage the vegetation on their property to promote warm season grasses and other native vegetation and wildlife.	RECOMMENDED: CCPC & CCPRD will contact utility owners.
19.7 The County will request that the National Park Service and the DCNR Bureau of State Parks identify and document possible locations for trail links that would connect their respective recreational parks to any other recreational park, borough, city or major population center within five miles.	RECOMMENDED: CCPC & CCPRD will meet with the NPS and Bureau of State Parks.
19.18 The County will hold a meeting to coordinate with land trusts that own easements on private properties in Chester County at least every year.	RECOMMENDED: CCPC & CCPRD will meet with the land trusts annually.

Figure A.4: Actions Involving County Government Coordination (continued)

<i>Linking Landscapes</i> Action Items	PROGRAM PRIORITY Initial Implementation Activity
19.25 The County will publicize the protection of 5,000 acres of open space annually to the general public, landowners and the business community.	RECOMMENDED: CCPC will meet with the ALPB.
19.26 The County will request that the ALPB develop annual and long term targets for how much farmland they plan to protect.	RECOMMENDED: CCPC will meet with the ALPB.
19.27 The County will request that the Regional Land Trusts active in Chester County develop annual and long term targets for how much land they plan to protect individually and in cooperation with Local Land Trusts.	RECOMMENDED: CCPC will meet with the Regional Land Trusts.
19.28 The County will request that the Local Land Trusts develop annual and long term targets for how much open space they plan to protect.	RECOMMENDED: CCPC will meet with the Local Land Trusts.
19.42 The County will coordinate with the County Tax Assessment Office and other taxing entities to make them aware of the role their policies and procedures can play in protecting open space.	RECOMMENDED: CCPC will meet with the Tax Assessment Office.
19.43 The County will coordinate with the state agencies, and water and wastewater utilities and make them aware of the role they can play in protecting open space.	RECOMMENDED: CCPC will meet with state agencies and water and wastewater utilities.
19.44 The County will coordinate with lending institutions and make them aware of the role their policies and procedures can play in protecting open space.	RECOMMENDED: CCPC will meet with appropriate lending institutions.
19.46 The County will coordinate with civic groups that focus on land use and environmental education to determine what kind of municipal official and employee education partnerships might be available.	RECOMMENDED: CCPC will contact local civic groups.
19.47 The County will coordinate with the Conservation District to determine what kind of landowner and general public education partnerships might be available.	RECOMMENDED: CCPC will meet with the Conservation District.

Actions Involving Act 247, OSRER or Other Reviews

Section 502 of PA Act 247, the Municipalities Planning Code requires a municipality to submit land development plans, zoning and subdivision ordinances, open space and recreation plans, and comprehensive plans to the County Planning Commission for review and comment prior to approving such plans or ordinances. If the County Planning Commission does not provide comments within 30 days, the municipality may proceed with approval without the County's input. In Chester County, the Planning Commission provides comments describing whether submitted plans and ordinances are consistent with the County Comprehensive Plan. The Planning Commission also provides recommendations on how submitted plans and ordinances could be revised to be more consistent with the County Comprehensive Plan. After the review is completed, the Planning Commission submits a letter to the municipality containing review comments and recommendations. Municipalities may then take these comments and recommendation under advisement.

Because *Linking Landscapes* is an element of the Chester County Comprehensive Plan, the Planning Commission will use it for guidance when conducting PA Act 247 reviews. Documents submitted by municipalities for PA Act 247 reviews will henceforth be evaluated by the Planning Commission based on how consistent the documents are with *Linking Landscapes* in general, and specifically with the 33 action items listed in *Figure A.5*.

Figure A.5: Actions Involving Act 247, OSRER or Other Reviews

<i>Linking Landscapes</i> Action Items	PROGRAM PRIORITY Initial Implementation Activity
4.1 When reviewing land development plans, zoning and subdivision ordinances, open space and recreation plans, and comprehensive plans, the County will provide comments and recommendations on how well NPS properties are linked to other protected open spaces via public trails.	RECOMMENDED: CCPC will prepare a guidance memo on open space for Act 247 and other reviews.
4.38 When reviewing land development plans, zoning ordinances, open space and recreation plans and comprehensive plans, the County will provide comments and recommendations on how well municipal park system properties are designated as either recreational parks or non-recreational open spaces.	RECOMMENDED: CCPC will prepare a guidance memo on open space for Act 247 and other reviews.

Figure A.5: Actions Involving Act 247, OSRER or Other Reviews (continued)

<i>Linking Landscapes</i> Action Items	PROGRAM PRIORITY Initial Implementation Activity
<p>5.11 When reviewing land development plans, zoning ordinances, open space and recreation plans, and comprehensive plans, the County will provide comments and recommendations on how well regionally significant water resources, such as floodplains, large wetland complexes, riparian buffers and buffers surrounding water bodies are protected.</p>	<p>RECOMMENDED: CCPC will prepare a guidance memo on open space for Act 247 and other reviews.</p>
<p>5.16 When reviewing land development plans, zoning and subdivision ordinances, open space and recreation plans and comprehensive plans, the County will provide comments on how well municipalities have protected unique or locally important natural or cultural resources as non-recreational open space.</p>	<p>RECOMMENDED: CCPC will prepare a guidance memo on open space for Act 247 and other reviews.</p>
<p>6.1 When reviewing land development plans, zoning and subdivision ordinances, open space and recreation plans and comprehensive plans, the County will provide comments and recommendations on how well municipal officials, park boards and open space boards are coordinating their efforts with any Regional Land Trust active in the municipality.</p>	<p>RECOMMENDED: CCPC will prepare a guidance memo on open space for Act 247 and other reviews.</p>
<p>6.9 When reviewing land development plans, zoning and subdivision ordinances, open space and recreation plans and comprehensive plans, the County will provide comments and recommendations on how well municipal officials, park boards and open space boards are coordinating their efforts with any Local Land Trust active in the municipality.</p>	<p>RECOMMENDED: CCPC will prepare a guidance memo on open space for Act 247 and other reviews.</p>
<p>7.1 When reviewing land development plans, zoning and subdivision ordinances, open space and recreation plans and comprehensive plans, the County will provide comments and recommendations on how well spray and drip irrigation fields are included in public wastewater treatment systems.</p>	<p>RECOMMENDED: CCPC will prepare a guidance memo on open space for Act 247 and other reviews.</p>

Figure A.5: Actions Involving Act 247, OSRER or Other Reviews (continued)

<i>Linking Landscapes</i> Action Items	PROGRAM PRIORITY Initial Implementation Activity
10.1 When reviewing land development plans, zoning and subdivision ordinances, open space and recreation plans, and comprehensive plans, the County will provide comments and recommendations on the extent to which developments include or have the potential to include HOA open space.	RECOMMENDED: CCPC will prepare a guidance memo on open space for Act 247 and other reviews.
10.5 When reviewing land development plans, zoning and subdivision ordinances, open space and recreation plans, and comprehensive plans, the County will provide comments and recommendations on the presence of any conflict between cemeteries and surrounding land uses.	RECOMMENDED: CCPC will prepare a guidance memo on open space for Act 247 and other reviews.
10.17 When reviewing land development plans, zoning and subdivision ordinances, open space and recreation plans and comprehensive plans, the County will provide comments and recommendations on how well walking paths and service roads within college campuses, or sidewalks leading to them, are linked to public trails.	RECOMMENDED: CCPC will prepare a guidance memo on open space for Act 247 and other reviews.
10.23 When reviewing land development plans, zoning and subdivision ordinances, open space and recreation plans and comprehensive plans, the County will provide comments and recommendations on how well walking paths and service roads within corporate campuses are linked to public trails.	RECOMMENDED: CCPC will prepare a guidance memo on open space for Act 247 and other reviews.
10.29 When reviewing land development plans, zoning and subdivision ordinances, open space and recreation plans and comprehensive plans, the County will provide comments and recommendations on how well unique unprotected open space properties are linked to protected open spaces.	RECOMMENDED: CCPC will prepare a guidance memo on open space for Act 247 and other reviews.
11.1 When reviewing land development plans, zoning and subdivision ordinances, open space and recreation plans and comprehensive plans, the County will provide comments and recommendations on how well Rural Centers and villages are linked to nearby open spaces by public trails.	RECOMMENDED: CCPC will prepare a guidance memo on open space for Act 247 and other reviews.

Figure A.5: Actions Involving Act 247, OSRER or Other Reviews (continued)

<i>Linking Landscapes</i> Action Items	PROGRAM PRIORITY Initial Implementation Activity
<p>11.4 When reviewing land development plans, zoning and subdivision ordinances, open space and recreation plans, and comprehensive plans, the County will provide comments and recommendations on how well public schools are linked to public trails that extend into residential areas.</p>	<p>RECOMMENDED: CCPC will prepare a guidance memo on open space for Act 247 and other reviews.</p>
<p>11.11 When reviewing land development plans, zoning and subdivision ordinances, open space and recreation plans, and comprehensive plans, the County will provide comments and recommendations on how well indoor public recreation centers are linked to public trails that extend to residential areas.</p>	<p>RECOMMENDED: CCPC will prepare a guidance memo on open space for Act 247 and other reviews.</p>
<p>12.3 The County will require that any Open Space, Recreation and Environmental Resource (OSRER) Plan written or updated using County funds must map trails outside the municipality within one mile; must evaluate the establishment of links between internal municipal trails and the trails in adjacent municipalities; and must consider using Undeveloped Regional Recreation Corridors as alignments for multi-municipal links.</p>	<p>RECOMMENDED: CCPC will prepare a guidance memo for updating OSRER Plans.</p>
<p>12.9 The County will require that any Open Space, Recreation and Environmental Resource (OSRER) Plan written or updated using County funds must map trails outside the municipality within one mile; must evaluate the establishment of links between internal municipal trails and the trails in adjacent municipalities; and must consider using Informally Used Regional Recreation Corridors as alignments for multi-municipal links.</p>	<p>RECOMMENDED: CCPC will prepare a guidance memo for updating OSRER Plans.</p>
<p>12.16 The County will require that any Open Space, Recreation and Environmental Resource (OSRER) Plan written or updated using County funds must map trails outside the municipality within one mile; must evaluate the establishment of links between internal municipal trails and the trails in adjacent municipalities; and must consider using Partially Developed Regional Recreation Corridors as alignments for multi-municipal links.</p>	<p>RECOMMENDED: CCPC will prepare a guidance memo for updating OSRER Plans.</p>

Figure A.5: Actions Involving Act 247, OSRER or Other Reviews (continued)

<i>Linking Landscapes</i> Action Items	PROGRAM PRIORITY Initial Implementation Activity
12.23 When reviewing land development plans, zoning and subdivision ordinances, open space and recreation plans, and comprehensive plans, the County will provide comments and recommendations on how well bicycle routes have been established, signed and maintained.	RECOMMENDED: CCPC will prepare a guidance memo on open space for Act 247 and other reviews.
12.34 Before endorsing a project or awarding a County grant for establish a riding lane by a Riding Lane Association, the County will require documentation that all parts of these lanes are open to the general public with no membership restrictions.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo in this issue.
12.38 When reviewing land development plans, zoning and subdivision ordinances, open space and recreation plans, and comprehensive plans, the County will provide comments and recommendations on how well internal loop trails on public property are linked to multi-municipal trails.	RECOMMENDED: CCPC will prepare a guidance memo on open space for Act 247 and other reviews.
13.7 The County will require that any Open Space, Recreation and Environmental Resources (OSRER) Plan written or updated using County funds must map wildlife corridors within one mile of the municipality; must evaluate the establishment of links between their internal wildlife corridors; and the wildlife corridors in adjacent municipalities, and consider locating these links within Wildlife Biodiversity Corridors.	RECOMMENDED: CCPC will prepare a guidance memo for updating OSRER Plans.
14.12 When reviewing land development and subdivision plans, zoning and subdivision ordinances, open space and recreation plans, and comprehensive plans, the County will provide comments and recommendations on how well existing scenic viewsheds and significant cultural resource sites seen from roadways are or will be protected.	RECOMMENDED: CCPC will prepare a guidance memo on open space for Act 247 and other reviews.

Figure A.5: Actions Involving Act 247, OSRER or Other Reviews (continued)

<i>Linking Landscapes Action Items</i>	PROGRAM PRIORITY Initial Implementation Activity
<p>14.18 When reviewing land development plans, zoning and subdivision ordinances, open space and recreation plans, and comprehensive plans, the County will provide comments and recommendations on how well brownfields, whose most appropriate reuse would be open space, are or will be restored and protected.</p>	<p>RECOMMENDED: CCPC will prepare a guidance memo on open space for Act 247 and other reviews.</p>
<p>17.1 When reviewing land development plans, zoning and subdivision ordinances, open space and recreation plans, and comprehensive plans, the County will provide comments on how well multi-county trail and wildlife corridors, and multi-county clusters of protected open space properties link together protected open spaces in Chester County's border municipalities to protect open space in surrounding counties.</p>	<p>RECOMMENDED: CCPC will prepare a guidance memo on open space for Act 247 and other reviews.</p>
<p>19.1 The County will not endorse planning studies that propose that a municipality should fulfill the active recreation needs of its residents with federal, state or County Parks, or parks wholly owned and operated by another municipality.</p>	<p>RECOMMENDED: CCPC will prepare a guidance memo for this issue.</p>
<p>19.4 When reviewing land development plans, zoning and subdivision ordinances, open space and recreation plans, and comprehensive plans, the County will provide comments and recommendations on how well proposed recreational parks are linked to any other recreational park, borough, city or major population center within five miles.</p>	<p>RECOMMENDED: CCPC will prepare a guidance memo on open space for Act 247 and other reviews.</p>
<p>19.5 When reviewing a master plan, master plan update, design or redesign for any existing recreational park, the County will provide comments and recommendations on how well existing recreational parks are linked to any other recreational park, borough, city or major population center within five miles.</p>	<p>RECOMMENDED: CCPC will prepare a guidance memo on this issue.</p>

Figure A.5: Actions Involving Act 247, OSRER or Other Reviews (continued)

<i>Linking Landscapes Action Items</i>	PROGRAM PRIORITY Initial Implementation Activity
19.8 When reviewing land development plans for proposed publicly owned open spaces, the County will provide comments and recommendations on how clearly the proposed open space use and access have been documented and publicized.	RECOMMENDED: CCPC will prepare a guidance memo on open space for Act 247 and other reviews.
19.9 When reviewing land development plans, zoning and subdivision ordinances, open space and recreation plans, and comprehensive plans, the County will provide comments and recommendations on how clearly the uses and access limitations of existing and proposed publicly owned open spaces are described.	RECOMMENDED: CCPC will prepare a guidance memo on open space for Act 247 and other reviews.
19.12 When reviewing land development plans for proposed publicly owned trails or wildlife corridors, the County will provide comments and recommendations on how clearly the proposed open space use and access have been documented and publicized.	RECOMMENDED: CCPC will prepare a guidance memo on open space for Act 247 and other reviews.
19.13 When reviewing land development plans, zoning and subdivision ordinances, open space and recreation plans and comprehensive plans, the County will provide comments and recommendations on how clearly the uses and access limitations of existing and proposed publicly owned trails or wildlife corridors are described.	RECOMMENDED: CCPC will prepare a guidance memo on open space for Act 247 and other reviews.
19.30 When reviewing municipal land development plans, zoning and subdivision ordinances, open space and recreation plans and comprehensive plans, the County will provide comments and recommendations on how well Naturally Sensitive Areas are protected.	RECOMMENDED: CCPC will prepare a guidance memo on open space for Act 247 and other reviews.
19.40 When reviewing municipal land development plans, zoning and subdivision ordinances, open space and recreation plans and comprehensive plans, the County will provide comments and recommendations on how well vegetative Best Management Practices, such as meadow, wetland or forest restoration management are included.	RECOMMENDED: CCPC will prepare a guidance memo on open space for Act 247 and other reviews.

Actions Involving County Government Endorsement of External Grants

Every year the Planning Commission, Parks and Recreation Department and other County government agencies receive requests for letters supporting projects being proposed by municipalities and other organizations. These letters are usually included in applications for grant funding as a way to provide evidence that the proposed project is consistent with the adopted County Comprehensive Plan. The 30 Action Items presented *Figure A.6* will guide how Chester County Government will endorse grants awarded and funded by entities other than County Government, such as the state and federal government, or grant programs operated by privately funded organizations.

Figure A.6: Actions Involving County Government Endorsement of External Grants

<i>Linking Landscapes</i> Action Items	PROGRAM PRIORITY Initial Implementation Activity
4.2 The County will endorse federal, state and municipal projects that link NPS properties to other protected open spaces via public trails, and pursue such projects on a County level.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on external grant endorsements. CCPRD will update its long-term vision.
4.7 The County will endorse federal, state and municipal projects that link state parks to other protected open spaces through public trails and non-recreational wildlife corridors, and pursue such projects at the County level.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on external grant endorsements. CCPRD will update its long-term vision.
4.13 The County will endorse federal, state and municipal projects that link County Parks and County Trails to population centers, boroughs and the City of Coatesville by public trails, and pursue such projects on a County level.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on external grant endorsements. CCPRD will update its long-term vision.

Figure A.6: Actions Involving County Government Endorsement of External Grants (continued)

<i>Linking Landscapes</i> Action Items	PROGRAM PRIORITY Initial Implementation Activity
4.14 The County will endorse federal, state and municipal projects that buffer County Parks by conservation and scenic easements that link them to other protected open spaces using such easements, especially along riparian corridors and ridges, and pursue such projects on a County level.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on external grant endorsements. CCPRD will update its long-term vision.
4.15 The County will endorse federal, state and municipal projects that use County Parks as demonstration areas to provide natural resource and land management models that can be used throughout the County, and pursue such projects on a County level.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on external grant endorsements. CCPRD will update its long-term vision.
4.16 The County will endorse federal, state and municipal projects for County Parks that include outreach activities that focus on educating the public about natural resources and cultural heritage issues, establishing positive relationships with park neighbors, and coordination with volunteers and “friends of” groups, and pursue such projects on a County level.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on external grant endorsements. CCPRD will update its long-term vision.
4.39 The County will endorse federal, state and municipal projects that help establish municipal active recreation parks, and pursue such projects on a County level.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on external grant endorsements. CCPRD will update its long-term vision.
4.48 The County will endorse federal, state and municipal projects that establish multi-municipal active recreational parks, and pursue such projects on a County level.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on external grant endorsements. CCPRD will update its long-term vision.
5.12 The County will endorse federal, state and municipal projects that protect open space containing regionally significant water resources, such as floodplains, large wetland complexes, riparian buffers and buffers surrounding water bodies, and pursue such projects at the County level.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on external grant endorsements. CCPRD will update its long-term vision.
5.17 The County will endorse, federal, state and municipal projects that establish non-recreational open space that protects unique or locally important natural or cultural resources, and pursue such projects at the County level.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on external grant endorsements. CCPRD will update its long-term vision.

Figure A.6: Actions Involving County Government Endorsement of External Grants (continued)

<i>Linking Landscapes</i> Action Items	PROGRAM PRIORITY Initial Implementation Activity
<p>6.16 The County will only endorse major Local Land Trust projects after coordination with appropriate municipal representatives occurs.</p>	<p>URGENT: CCPC and CCPRD will prepare a guidance memo on this issue.</p>
<p>12.1 The County will endorse federal, state and municipal projects that establish multi-municipal public trails that link together along Undeveloped Regional Recreation Corridors, and pursue such projects at the County level.</p>	<p>RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on external grant endorsements. CCPRD will update its long-term vision.</p>
<p>12.5 Before endorsing a project or awarding a County grant for a multi-municipal recreational trail, the County will require documentation that the project was established through joint planning involving all of the municipalities crossed by the trail.</p>	<p>RECOMMENDED: CCPC & CCPRD will prepare a guidance memo for this issue.</p>
<p>12.6 The County will endorse federal, state and municipal projects that establish multi-municipal public trails that link together along Informally Used Regional Recreation Corridors, and pursue such projects at the County level.</p>	<p>RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on external grant endorsements. CCPRD will update its long-term vision.</p>
<p>12.12 Before endorsing a project or awarding a County grant for a multi-municipal recreational trail, the County will require documentation that the project was established through joint planning involving all of the municipalities crossed by the trail.</p>	<p>RECOMMENDED: CCPC & CCPRD will prepare a guidance memo for multi-municipal projects.</p>
<p>12.13 The County will endorse federal, state and municipal projects that establish multi-municipal public trails that link together along Partially Developed Regional Recreation Corridors, and pursue such projects at the County level.</p>	<p>RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on external grant endorsements. CCPRD will update its long-term vision.</p>
<p>12.22 Before endorsing a project or awarding a County grant for a multi-municipal recreational trail, the County will require documentation that the project was established through joint planning involving all of the municipalities crossed by the trail.</p>	<p>RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on this issue.</p>

Figure A.6: Actions Involving County Government Endorsement of External Grants (continued)

<i>Linking Landscapes</i> Action Items	PROGRAM PRIORITY Initial Implementation Activity
12.24 The County will endorse federal, state and municipal projects that establish segments of Countywide network of bike routes, and that are consistent with the County's overall transportation planning, and pursue such projects at the County level.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on external grant endorsements. CCPRD will update its long-term vision.
12.34 Before endorsing a project or awarding a County grant for establish a riding lane by a Riding Lane Association, the County will require documentation that all parts of these lanes are open to the general public with no membership restrictions.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo in this issue.
12.35 The County will endorse federal, state and municipal projects that establish trail loops, and pursue such projects at the County level.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on external grant endorsements. CCPRD will update its long-term vision.
12.37 Before endorsing a project or awarding a County grant for a multi-municipal trail loop, the County will require documentation that the project was developed through joint planning involving all of the municipalities crossed by the trail.	URGENT: CCPC & CCPRD will prepare a status memo on this issue.
13.1 The County will endorse federal, state and municipal projects that establish multi-municipal wildlife corridors along Wildlife Biodiversity Corridors, and pursue such projects at the County level.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on external grant endorsements. CCPRD will update its long-term vision.
13.8 Before endorsing a project or awarding a County grant for multi-municipal wildlife corridors, the County will require documentation that the project was established through joint planning involving all of the municipalities crossed by the corridor.	URGENT: CCPC will prepare a guidance memo on this issue.
14.1 The County will endorse federal, state and municipal projects that establish trails on appropriate abandoned rail beds, and pursue such projects at the County level.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on external grant endorsements. CCPRD will update its long-term vision.
14.6 The County will endorse federal, state and municipal projects that establish trails and wildlife habitat corridors utilizing appropriate utility corridors, and pursue such projects at the County level.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on external grant endorsements. CCPRD will update its long-term vision.

Figure A.6: Actions Involving County Government Endorsement of External Grants (continued)

<i>Linking Landscapes</i> Action Items	PROGRAM PRIORITY Initial Implementation Activity
<p>14.13 The County will endorse federal, state and municipal projects that designate scenic byway networks, and pursue such projects on a County level.</p>	<p>RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on external grant endorsements. CCPRD will update its long-term vision.</p>
<p>14.19 The County will endorse federal, state and municipal projects that restore suitable brown-fields into protected open space, and pursue such projects on a County level.</p>	<p>RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on external grant endorsements. CCPRD will update its long-term vision.</p>
<p>17.2 The County will endorse federal, state and municipal projects that establish multi-county trail and wildlife corridor links, and multi-county clusters of protected open space properties, and pursue such projects on a County level.</p>	<p>RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on external grant endorsements. CCPRD will update its long-term vision.</p>
<p>19.2 The County will endorse state and federal projects that help to establish or enlarge large passive recreation parks in unserved parts of the County, and pursue such projects at the County level.</p>	<p>RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on external grant endorsements. CCPRD will update its long-term vision.</p>

Actions Involving Ranking County Government Grants

The Chester County Planning Commission and the Parks and Recreation Department have been administering a number of grants programs since funding for such programs was first made available due to the 1989 Open Space Bond. Henceforth, these grants will be administered following the guidance provided in the 43 Action Items presented in *Figure A.7*.

Figure A.7: Actions Involving Ranking County Government Grants

<i>Linking Landscapes Action Items</i>	PROGRAM PRIORITY Initial Implementation Activity
<p>4.3 When reviewing applications for appropriate County grants, the County will give additional credit to public trail projects that link NPS properties to other protected open spaces.</p>	<p>RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.</p>
<p>4.8 When reviewing applications for appropriate County grants, the County will give additional credit to projects that link state parks to other protected open spaces via public trails and non-recreational wildlife corridors.</p>	<p>RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.</p>
<p>4.9 When reviewing applications for appropriate County grants, the County will give additional credit for projects that protect, through easements, privately owned parcels that are near a state park and that are either crossed by streams flowing into the state park, or that contain documented wildlife habitat that is frequented by animals that also frequent the state park.</p>	<p>RECOMMENDED: CCPC & CCPRD will prepare a guidance memo for ranking County grants.</p>
<p>4.17 When reviewing applications for appropriate County grants, the County will give additional credit to projects that link County Parks and Trails to population centers, boroughs and the City of Coatesville via public trails.</p>	<p>RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.</p>
<p>4.40 When reviewing applications for appropriate County grants, the County will give additional credit to projects that establish a municipality's first active recreational park.</p>	<p>RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.</p>

Figure A.7: Actions Involving Ranking County Government Grants (continued)

<i>Linking Landscapes</i> Action Items	PROGRAM PRIORITY Initial Implementation Activity
<p>4.49 When reviewing applications for appropriate County grants, the County will give additional credit to multi-municipal park projects.</p>	<p>RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.</p>
<p>4.50 When reviewing applications for appropriate County grants, the County will give additional credit to projects in which municipalities that do not have enough undeveloped land available to serve the recreation needs of their residents work with one or more adjoining municipalities, to establish a multi-municipal park that would be jointly used, owned and managed by two or more municipalities.</p>	<p>RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.</p>
<p>4.51 When reviewing applications for appropriate County grants, the County will give additional credit to projects in which rural municipalities work with one or more adjoining municipalities to establish a multi-municipal park that would be jointly used, owned and managed by two or more municipalities.</p>	<p>RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.</p>
<p>5.13 When reviewing applications for appropriate County grants, the County will give additional credit to projects that protect open spaces that contain regionally significant water resources, such as floodplains, large wetland complexes, riparian buffers and buffers surrounding water bodies.</p>	<p>RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.</p>
<p>5.18 When reviewing applications for applicable County grants, the County will give additional credit to municipal projects that acquire parcels for non-recreational open space that are sites of local significance; unique properties that are not well suited for protection by a non-profit land trust; and sites that contain unique natural or cultural resources, or scenic views.</p>	<p>RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.</p>

Figure A.7: Actions Involving Ranking County Government Grants (continued)

<i>Linking Landscapes</i> Action Items	PROGRAM PRIORITY Initial Implementation Activity
5.20 Before awarding County funded municipal acquisition grants for the protection of natural or locally important natural and cultural resources as non-recreational open spaces, the County will require that the municipality commit to completing a resource management plan for the property to be acquired.	RECOMMENDED: The CCPRD will update its grant manuals to address this issue
5.21 When reviewing applications for appropriate County grants, the County will give priority to projects that contain Sites of Statewide Significance or Areas of Local Significance.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.
6.2 When reviewing applications for appropriate County grants, the County will give additional credit to projects that acquire easements or property in-fee as a conservation buffer surrounding parcels already eased or owned by the Regional Land Trusts.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.
6.3 When reviewing applications for appropriate County grants, the County will give additional credit to projects that protect property in the far southern portion of the County – especially along the steep valleys of the Elk and Octoraro Creeks – and in the northern half of the Brandywine Watershed and along the Welsh Mountain ridgeline.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.
6.4 When reviewing applications for appropriate County grants, the County will give additional credit to Regional Land Trust projects that obtain funding from the state and private donors.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.
6.10 When reviewing applications for appropriate County grants, the County will give additional credit to Local Land Trust projects that obtain funding from the state and private donors.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.
6.16 The County will only endorse major Local Land Trust projects after coordination with appropriate municipal representatives occurs.	URGENT: CCPC and CCPRD will prepare a guidance memo on this issue.

Figure A.7: Actions Involving Ranking County Government Grants (continued)

<i>Linking Landscapes</i> Action Items	PROGRAM PRIORITY Initial Implementation Activity
7.2 When reviewing applications for appropriate County grants, the County will give additional credit to spray or drip irrigation projects that link to other protected open spaces.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.
7.3 When reviewing applications for appropriate County grants, the County will give additional credit to projects that locate spray and drip irrigation fields as near to a point of large groundwater withdrawal as possible.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.
8.1 When reviewing applications for appropriate County grants, the County will give additional credit to projects that link National Register Sites and Districts to recreational parks.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.
10.18 When reviewing applications for appropriate County grants, the County will give additional credit to projects that link public trails to walking paths and service roads within college campuses.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.
10.24 When reviewing applications for appropriate County grants, the County will give additional credit to projects that link public trails to walking paths and service roads within corporate campuses.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.
10.27 When reviewing applications for appropriate County grants, the County will give additional credit to projects that acquire publicly owned parcels that contain large open areas that are suitable for restoration as natural open spaces, or as the site of recreational open spaces.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.
11.2 When reviewing applications for appropriate County grants, the County will give additional credit to projects that link public trails to rural centers and villages.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.
11.5 When reviewing applications for appropriate County grants, the County will give additional credit to projects that link public trails that extend from residential areas to public schools.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.

Figure A.7: Actions Involving Ranking County Government Grants (continued)

<i>Linking Landscapes</i> Action Items	PROGRAM PRIORITY Initial Implementation Activity
11.12 When reviewing applications for appropriate County grants, the County will give additional credit to projects that link public trails that extend from residential areas to indoor recreational centers.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.
12.2 When reviewing applications for appropriate County grants, the County will give additional credit to projects that establish multi-municipal public trails that link together along Undeveloped Regional Recreation Corridors.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.
12.5 Before endorsing a project or awarding a County grant for a multi-municipal recreational trail, the County will require documentation that the project was established through joint planning involving all of the municipalities crossed by the trail.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo for this issue.
12.7 When reviewing applications for applicable County grants, the County will give additional credit to projects that establish multi-municipal public trails that link together along Informally Used Regional Recreation Corridors.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.
12.12 Before endorsing a project or awarding a County grant for a multi-municipal recreational trail, the County will require documentation that the project was established through joint planning involving all of the municipalities crossed by the trail.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo for multi-municipal projects.
12.14 When reviewing applications for appropriate County grants, the County will give additional credit to projects that establish multi-municipal public trails that link together along Partially Developed Regional Recreation Corridors.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.

Figure A.7: Actions Involving Ranking County Government Grants (continued)

<i>Linking Landscapes Action Items</i>	PROGRAM PRIORITY Initial Implementation Activity
<p>12.15 When reviewing applications for appropriate County grants, the County will give additional credit to projects that help establish an east-west trending link between the future County Park in East Whiteland Township and the Brandywine River Corridor in the vicinity of Downingtown Borough, even if there is already a trail planned or developed connecting the County Chester Valley Trail and County Struble Trail.</p>	<p>RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.</p>
<p>12.22 Before endorsing a project or awarding a County grant for a multi-municipal recreational trail, the County will require documentation that the project was established through joint planning involving all of the municipalities crossed by the trail.</p>	<p>RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on this issue.</p>
<p>12.34 Before endorsing a project or awarding a County grant to establish a riding lane by a Riding Lane Association, the County will require documentation that all parts of these lanes are open to the general public with no membership restrictions.</p>	<p>RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on this issue.</p>
<p>12.36 When reviewing applications for appropriate County grants, the County will give additional credit to projects that establish multi-municipal trail loops.</p>	<p>RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.</p>
<p>12.37 Before endorsing a project or awarding a County grant for a multi-municipal trail loop, the County will require documentation that the project was developed through joint planning involving all of the municipalities crossed by the trail.</p>	<p>URGENT: CCPC & CCPRD will prepare a status memo on this issue.</p>
<p>12.39 When reviewing applications for appropriate County grants, the County will give additional credit to projects that link existing internal municipal trails to multi-municipal trails.</p>	<p>RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.</p>
<p>13.2 When reviewing applications for appropriate County grants, the County will give additional credit to projects that establish wildlife corridors within Wildlife Biodiversity Corridors.</p>	<p>RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.</p>

Figure A.7: Actions Involving Ranking County Government Grants (continued)

<i>Linking Landscapes</i> Action Items	PROGRAM PRIORITY Initial Implementation Activity
13.8 Before endorsing a project or awarding a County grant for multi-municipal wildlife corridors, the County will require documentation that the project was established through joint planning involving all of the municipalities crossed by the corridor.	URGENT: CCPC will prepare a guidance memo on this issue.
14.2 When reviewing applications for appropriate County grants, the County will give additional credit to projects that establish trails on appropriate abandoned rail beds.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.
14.7 When reviewing applications for appropriate County grants, the County will give additional credit to projects that establish trails or wildlife habitat corridors on appropriate utility corridors.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.
14.14 When reviewing applications for appropriate County grants, the County will give additional credit to projects that establish protected open spaces that are part of scenic viewsheds and significant cultural resource sites seen from roadways.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.
14.20 When reviewing applications for appropriate County grants, the County will give additional credit to projects that restore suitable brown-fields into protected open space.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.
17.3 When reviewing applications for appropriate County grants, the County will give additional credit to projects that establish multi-county trail and wildlife corridor links, and multi-county clusters of protected open space properties.	RECOMMENDED: CCPC & CCPRD will prepare a guidance memo on ranking County grants.

Actions Involving Mapping or Data Collection

Linking Landscapes identifies a number of resources that have not been sufficiently inventoried or mapped within Chester County. The 16 Actions Items presented in **Figure A.8** each describe a mapping or information gathering activity recommended in *Linking Landscapes*.

Figure A.8: Actions Involving Mapping or Data Collection

<i>Linking Landscapes</i> Action Items	PROGRAM PRIORITY Initial Implementation Activity
4.27 The County will inventory streams in Chester County to determine which are suitable for water based recreation.	RECOMMENDED: CCPC will prepare a plan of action memo on this issue.
5.24 The County will determine what parcels within the County contain sites of Statewide Significance and Areas of Local Significance, and which of these parcels are not yet protected. The County will then study what options are feasible for protecting these unprotected parcels.	URGENT: CCPC will prepare a memo to initiate this effort.
8.2 The County will develop a uniform reference system for recording and cataloging data on historic resources that will include tax parcel numbers listed in a database that can be converted to the County's GIS database.	URGENT: CCPRD will prepare a guidance memo on this issue.
8.3 The County will map parcels that contain National Register Sites and Districts, and potentially eligible non-listed sites identified by historic inventories previously conducted in the County.	URGENT: CCPRD will prepare a memo to initiate this effort.
11.10 The County will create a map that shows all types of public school district property and describes the general use of the properties.	URGENT: CCPC will prepare a memo to initiate this effort.
11.13 The County will conduct a survey of municipal OSRER plans and other information sources to develop a Countywide map showing the location of indoor public recreation centers.	URGENT: CCPC will prepare a memo to initiate this effort.

Figure A.8: Actions Involving Mapping or Data Collection (continued)

<i>Linking Landscapes</i> Action Items	PROGRAM PRIORITY Initial Implementation Activity
13.6 The County will inventory municipal wildlife corridors and greenways using OSRER plans and other sources, and use this mapping when updating the Wildlife Biodiversity Corridor network.	RECOMMENDED: CCPC will prepare a guidance memo on this issue.
14.4 The County will map abandoned trolley lines on a countywide basis.	RECOMMENDED: CCPC will prepare a memo to initiate this effort.
14.9 The County will produce an updated map of oil and gas lines.	RECOMMENDED: CCPC will prepare a memo to initiate this effort.
14.17 The County will map municipally designated scenic and culturally significant byways based on OSRER plans.	RECOMMENDED: CCPC will prepare a memo to initiate this effort.
14.21 The County will map brownfields on a Countywide basis using data gathered by the County Development Council.	RECOMMENDED: CCPC will prepare a memo to initiate this effort.
19.3 The County will map large undeveloped parcels, including vacant formerly developed parcels that have a potential to be developed into passive recreation parks and are within or near Urban and Suburban Landscapes.	URGENT: CCPC will prepare a memo to initiate this effort.
19.34 The County will map and inventory all Naturally Sensitive Areas as part of a County Natural Resources Plan.	URGENT: CCPC will prepare a memo to initiate this effort.
19.37 The County will map and evaluate unprotected open space parcels in Chester County to determine which are undeveloped and have the potential to be protected and fill gaps in the protected open space network. This evaluation will include preliminary recommendations of how eligible parcels can be protected.	URGENT: CCPC will prepare a memo to initiate this effort.
19.38 The County will inventory and map unprotected parcels of 50 acres or more to determine which of them meets the basic requirements of the state and County Agricultural Conservation Easement Program.	URGENT: CCPC will prepare a memo to initiate this effort.
19.39 The County will inventory and map unprotected and largely undeveloped parcels owned by the federal and state government, or institutions, such as colleges, hospitals and horticultural organizations.	URGENT: CCPC will prepare a memo to initiate this effort.

Actions Involving County Government General Administration

Most of the Action Items recommended in *Linking Landscapes* deal with establishing new procedures that direct the administration of open space protection by the County government; modifications to existing procedures; or continuing procedures which have proven to be beneficial. The 43 Action Items that relate to this general administration are presented in *Figure A.9*.

Figure A.9: Actions Involving County Government General Administration

<i>Linking Landscapes</i> Action Items	PROGRAM PRIORITY Initial Implementation Activity
<p>4.21 When developing master plans or master plan updates for County Parks, Trails and Special Purpose Parks, the County will include alternatives for using public trails to link County Parks, trails and Special Purpose Parks to population centers, boroughs and the City of Coatesville.</p>	<p>RECOMMENDED: CCPRD will prepare a guidance memo on this issue.</p>
<p>4.22 The County will continue to establish and enhance Special Purpose Parks that do not meet the conventional definition of a recreational park, but can be used for natural and cultural resource protection, recreation or education.</p>	<p>ONGOING: CCPC & CCPRD will prepare a memo on status and actions to be taken on this issue.</p>
<p>4.24 The County will continue to coordinate with landowners near County Parks to identify properties that could be sold or donated to enlarge County Parks to meet service area deficits.</p>	<p>ONGOING: CCPC & CCPRD will prepare a memo on status and actions to be taken on this issue.</p>
<p>4.29 The County will continue to restore or establish wetlands on County Park System properties to promote wildlife habitat and biodiversity and to improve surface and groundwater quality.</p>	<p>ONGOING: CCPC & CCPRD will prepare a memo on status and actions to be taken on this issue.</p>

Figure A.9: Actions Involving County Government General Administration (continued)

<i>Linking Landscapes</i> Action Items	PROGRAM PRIORITY Initial Implementation Activity
<p>4.30 The County will consider establishing County Parks on large parcels in or near Urban or Suburban Landscapes as mapped in Landscapes, even if those parcels have been cleared of native vegetation and require habitat creation or restoration in order to attract wildlife.</p>	<p>URGENT: CCPRD will prepare a memo on this issue.</p>
<p>4.32 The County will develop a resource management plan for each County Park and Special Purpose Park to be updated at least every ten years.</p>	<p>RECOMMENDED: CCPRD will prepare a memo in this issue.</p>
<p>4.33 The County will develop policies and guidelines for natural resource management on County Park System properties that address restoring and maintaining native species and biodiversity, reinstating disturbance regimes, such as controlled burning on appropriate habitats, and using public education and volunteers to assist in resource management.</p>	<p>URGENT: CCPRD will prepare a memo on this issue.</p>
<p>4.34 The County will manage a minimum of 80 percent of each County Park as vegetated wildlife habitat in a naturalized state.</p>	<p>URGENT: CCPRD will prepare a memo on this issue.</p>
<p>4.35 The County will manage a minimum of 80 percent of each Special Purpose Park as undeveloped land or farm fields.</p>	<p>URGENT: CCPRD will prepare a memo on this issue.</p>
<p>4.37 The County will continue to plan and implement educational programming and special events to make the general public aware of environmental, historical and cultural features within County Parks and the County as a whole.</p>	<p>ONGOING: CCPC & CCPRD will prepare a memo on status and actions to be taken on this issue.</p>
<p>5.4 The County will continue to support the control of overpopulated game species by hunting and culling, and continue to consider for parts of the County where hunting and culling is not practical, non-lethal means that have been documented through multiple case studies to be effective, feasible and cost efficient.</p>	<p>ONGOING: CCPRD will monitor literature on this issue.</p>

Figure A.9: Actions Involving County Government General Administration (continued)

<i>Linking Landscapes Action Items</i>	PROGRAM PRIORITY Initial Implementation Activity
<p>5.14 A project that involves the acquisition or management of property containing water resources or water resource buffers will be endorsed or funded by the County only if it is consistent with the WRMP.</p>	<p>RECOMMENDED: CCPC will prepare a guidance memo on this issue.</p>
<p>5.22 The County will continue to inform landowners about land stewardship techniques, and support land stewardship education efforts initiated by government agencies, non-profit land trusts and watershed associations.</p>	<p>ONGOING: CCPC will prepare a guidance memo on this issue.</p>
<p>6.8 The County will continue to gather and provide Countywide information on protected open spaces to Regional Land Trusts.</p>	<p>ONGOING: CCPC will coordinate information to Land Trusts.</p>
<p>6.13 The County will continue to provide technical assistance and education materials dealing with Local Land Trusts to municipal officials.</p>	<p>ONGOING: CCPC will prepare a status memo on this issue.</p>
<p>6.14 The County will continue to provide technical assistance and education materials dealing with Local Land Trusts to private landowners.</p>	<p>ONGOING: CCPC will prepare a status memo on this issue.</p>
<p>6.20 The County will annually monitor whether Parcels with Easement Potential have been protected as open space or are proposed for development.</p>	<p>RECOMMENDED: CCPC will prepare a guidance memo on this issue</p>
<p>9.9 The ALPB will continue to make it a priority to purchase easements that create clusters of protected farmland consisting of at least 750 to 1,000 acres.</p>	<p>ONGOING: CCPC will prepare a status memo on this issue.</p>
<p>9.12 The County will monitor federal funding projects for farmland protection, and lobby for funds to be included in the 2002 Farm Bill.</p>	<p>RECOMMENDED: CCPC will prepare a guidance memo on this issue.</p>
<p>9.13 The County will continue to publicize the benefits that farmers can derive from PA Acts 319 and 515.</p>	<p>ONGOING: CCPC will prepare a status memo on this issue.</p>
<p>10.6 The County will provide maps showing cemeteries and burial grounds to municipal offices and land trusts with holdings in the County.</p>	<p>RECOMMENDED: CCPC will prepare a memo to initiate this effort.</p>

Figure A.9: Actions Involving County Government General Administration (continued)

<i>Linking Landscapes</i> Action Items	PROGRAM PRIORITY Initial Implementation Activity
10.28 The County will develop a criteria for identifying publicly owned parcels that contain large open areas that are suitable for restoration as natural open spaces, or as the site of recreational open spaces.	URGENT: CCPC will prepare a memo to initiate this effort.
11.3 The County will continue to develop a Rural Center Design Guide.	ONGOING: CCPC will prepare a status memo on this issue.
12.27 The County will continue to provide mapping of the Planning Commission Bike Route Map to each municipality, and update the mapping based on input from municipalities.	ONGOING: CCPC will prepare a status memo on bike route issues.
12.28 The County will continue to provide the Chester County Conference and Visitors Bureau with updates of the Planning Commission Bike Route Map.	ONGOING: CCPC will prepare a status memo on bike route issues.
12.29 The County will continue to coordinate with bicycle advocacy groups.	ONGOING: CCPC will prepare a status memo on bike route issues.
12.45 Relative to all other trail projects, the County will make it the highest priority to endorse projects that establish segments of multi-municipal trails on Regional Priority Trail Corridors.	URGENT: CCPC & CCPRD will prepare a status memo on this issue.
14.5 The County will continue to monitor the status of rail rights-of-way that have been or are likely to be abandoned, and acquire appropriate rail rights-of-way for reuse as trails.	ONGOING: CCPC & CCPRD will prepare a status memo on this issue.
14.11 The County will continue to assess utility rights-of-way that have been identified for possible use as a trail or wildlife habitat, with the goal of acquiring them for reuse as a County owned and maintained trail.	ONGOING: CCPC will prepare a status memo on this issue.
17.7 Chester County will continue to coordinate with surrounding counties to plan, design and construct multi-county trails, wildlife corridors and water trails. Priority will be given to the Chester Valley/Cross County Trail, multi-county trails along the Schuylkill River, and the County Octoraro Water Trail.	ONGOING: CCPC will prepare a status memo on this issue.

Figure A.9: Actions Involving County Government General Administration (continued)

<i>Linking Landscapes</i> Action Items	PROGRAM PRIORITY Initial Implementation Activity
<p>19.10 The County will provide examples of ordinance language that describes active recreation, passive recreation, non-recreational open space and other terms relating to open space and recreation facility development and use.</p>	<p>URGENT: CCPC will prepare a guidance memo with examples of ordinance language.</p>
<p>19.14 The County will provide examples of ordinance language that describes trail and wildlife corridors and other terms relating to linear open space facility construction and use.</p>	<p>URGENT: CCPC will prepare a guidance memo with examples of ordinance language.</p>
<p>19.19 The County will continue to share information on private property with natural resource or agricultural conservation easements with the public.</p>	<p>ONGOING: CCPC will prepare a status memo on this issue.</p>
<p>19.20 When publishing information that will be available to the public, the County will continue to respect the property rights and privacy concerns of private landowners.</p>	<p>ONGOING: CCPC will prepare a status memo on this issue.</p>
<p>19.21 The County will continue to gather updated information on protected open space, and produce a Countywide inventory of this information on an annual basis.</p>	<p>ONGOING: CCPC will prepare a status memo on this issue.</p>
<p>19.22 The County will continue to gather updated mapping of protected open space parcels on an annual basis, and produce a Countywide map of these parcels on an annual basis.</p>	<p>ONGOING: CCPC will prepare a status memo on this issue.</p>
<p>19.23 The County will complete an annual memorandum measuring how much open space has been protected and recommending actions that will facilitate the protection of 5,000 acres of open space annually.</p>	<p>ONGOING: CCPC will prepare a status memo on this issue.</p>
<p>19.24 The County will continue to fund the protection of open space through grants to municipalities, municipal authorities and qualified non-profit organizations.</p>	<p>ONGOING: CCPC will prepare a status memo on this issue.</p>

Figure A.9: Actions Involving County Government General Administration (continued)

<i>Linking Landscapes</i> Action Items	PROGRAM PRIORITY Initial Implementation Activity
19.29 The County will continue to publicize the benefits of Local Land Trusts that have support agreements with Regional Land Trusts, and study the feasibility of establishing an initiative to assist municipalities in establishing Local Land Trusts.	ONGOING: CCPC will prepare a status memo on this issue.
19.31 The County will provide examples of ordinance language relating to the protection of Naturally Sensitive Areas, that define what types of natural features are considered as Naturally Sensitive Areas, that set specific buffers around these areas, and that detail the amount of these areas that can be disturbed by development.	URGENT: CCPC will prepare a guidance memo with examples of ordinance language.
19.33 The County will complete an annual memorandum describing progress toward the protection of all of Chester County's Naturally Sensitive Areas by municipal zoning or land development ordinances.	RECOMMENDED: CCPC will prepare a guidance memo on this issue.
19.35 The County will publicize to the general public, landowners and the business community, the value of protecting all of Chester County's Naturally Sensitive Areas by municipal zoning or land development ordinances.	RECOMMENDED: CCPC will prepare a guidance memo on this issue.
19.36 The County will continue to publicize land preservation and conservation development technique to landowners that own large undeveloped properties or undeveloped parcels adjacent to existing protected open spaces.	ONGOING: CCPC will prepare a status memo on this issue.

Actions Involving the Vision Partnership Program

The Chester County Planning Commission administers the Vision Partnership Program (VPP) which awards matching grants to municipalities that are consistent with the principles of *Landscapes*, in order to implement the policies of *Landscapes*, which is the Policy Element of the Chester County Comprehensive Plan. *Linking Landscapes*, which is the Open Space Element of the Chester County Comprehensive Plan, includes recommendations that will help to broaden the Vision Partnership Program consistency reviews so that they will have an enhanced consideration of issues relating to the protection and restoration of open space. The 14 Action Items listed in **Figure A.10** each relate to the VPP program.

Figure A.10: Actions Involving the Vision Partnership Program

<i>Linking Landscapes</i> Action Items	PROGRAM PRIORITY Initial Implementation Activity
<p>4.41 The County will work with municipalities through the VPP to develop municipal planning policies that encourage the designation of the properties within a municipality's park system as either "Recreational Parks" which are used for recreation, or "Non-recreational Open Spaces" which are not used for recreation.</p>	<p>RECOMMENDED: CCPC will prepare a guidance memo for the VPP on this issue.</p>
<p>4.44 The County will determine which municipalities have OSRER Plans over ten years old, and will work with municipalities through the VPP to update those OSRER Plans and that are over ten years old.</p>	<p>RECOMMENDED: CCPC will prepare a guidance memo for the VPP on this issue.</p>
<p>4.52 The County will work with municipalities through the VPP to develop municipal planning policies that encourage the establishment of multi-municipal parks.</p>	<p>RECOMMENDED: CCPC will prepare a guidance memo for the VPP on this issue.</p>

Figure A.10: Actions Involving the Vision Partnership Program (continued)

<i>Linking Landscapes</i> Action Items	PROGRAM PRIORITY Initial Implementation Activity
<p>5.19 The County will work with municipalities through the VPP to develop municipal planning policies that encourage the acquisition of parcels for non-recreational open space that are sites of local significance; unique properties that are not well suited for protection by a non-profit land trust; and sites that contain unique natural or cultural resources, or scenic views.</p>	<p>RECOMMENDED: CCPC will prepare a guidance memo for the VPP on this issue.</p>
<p>9.10 The County will work with municipalities that wish to preserve agriculture as an industry through the VPP to implement effective agricultural zoning that preserves agriculture.</p>	<p>RECOMMENDED: CCPC will prepare a guidance memo for the VPP on this issue.</p>
<p>10.3 The County will work with municipalities through the VPP to include language into municipal planning documents that addresses how HOA open space should be maintained according to a management plan either to restore wildlife habitat or better facilitate recreational activities.</p>	<p>RECOMMENDED: CCPC will prepare a guidance memo for the VPP on this issue.</p>
<p>12.25 The County will work with municipalities through the VPP to develop policies that encourage the establishment of bicycle routes and bicycle parking facilities.</p>	<p>RECOMMENDED: CCPC will prepare a guidance memo for the VPP on this issue.</p>
<p>14.3 The County will work with municipalities through the VPP to develop local planning policies for establishing trails on appropriate abandoned rail beds.</p>	<p>RECOMMENDED: CCPC will prepare a guidance memo for the VPP on this issue.</p>
<p>14.8 The County will work with municipalities through the VPP to update municipal comprehensive plans and ordinances so that they encourage the establishment of trails or wildlife corridors utilizing appropriate utility corridors, except where impractical.</p>	<p>RECOMMENDED: CCPC will prepare a guidance memo for the VPP on this issue.</p>
<p>14.15 The County will work with municipalities through the VPP to develop local planning policies that encourage the protection of open spaces that are part of scenic viewsheds and significant cultural resource sites seen from roadways.</p>	<p>RECOMMENDED: CCPC will prepare a guidance memo for the VPP on this issue.</p>

Figure A.10: Action Involving the Vision Partnership Program (continued)

<i>Linking Landscapes</i> Action Items	PROGRAM PRIORITY Initial Implementation Activity
<p>17.4 The County will work with municipalities through the VPP to develop municipal planning policies that encourage the establishment of multi-county trail and wildlife corridor links, and multi-county clusters of protected open space parcels.</p>	<p>RECOMMENDED: CCPC will prepare a guidance memo for the VPP on this issue.</p>
<p>19.11 The County will work with municipalities through the VPP to update OSRER Plans that do not document the type of uses that are permitted on their publicly owned open spaces, or on properties proposed to be established as publicly owned open spaces.</p>	<p>RECOMMENDED: CCPC will prepare a guidance memo for the VPP on this issue.</p>
<p>19.15 The County will work with municipalities through the VPP to update OSRER Plans that do not document the type of uses that are permitted on their publicly owned trails or wildlife corridors, or on properties proposed to be established as publicly-owned trails or corridors.</p>	<p>RECOMMENDED: CCPC will prepare a guidance memo for the VPP on this issue.</p>
<p>19.16 The County will work with municipalities through the VPP to include language into municipal planning documents that explain that the public should not trespass on protected open space that is on private property, even if the protection effort for the property received full or partial financing through public fund, unless the public funding specifically requires public access.</p>	<p>RECOMMENDED: CCPC will prepare a guidance memo for the VPP on this issue.</p>
<p>19.32 The County will work with municipalities through the VPP to include language into municipal planning documents that protects naturally sensitive areas, that defines what types of natural features are considered as Naturally Sensitive Areas, that sets specific buffers around these areas, and that details the amount of these areas that can be disturbed by development.</p>	<p>RECOMMENDED: CCPC will prepare a guidance memo for the VPP on this issue.</p>
<p>19.41 The County will work with municipalities through the VPP to update comprehensive plans and ordinances so that they address vegetative Best Management Practices, such as meadow, wetland or forest restoration or management, that improve the environmental quality of open spaces, even within existing developments.</p>	<p>RECOMMENDED: CCPC will prepare a guidance memo for the VPP on this issue.</p>