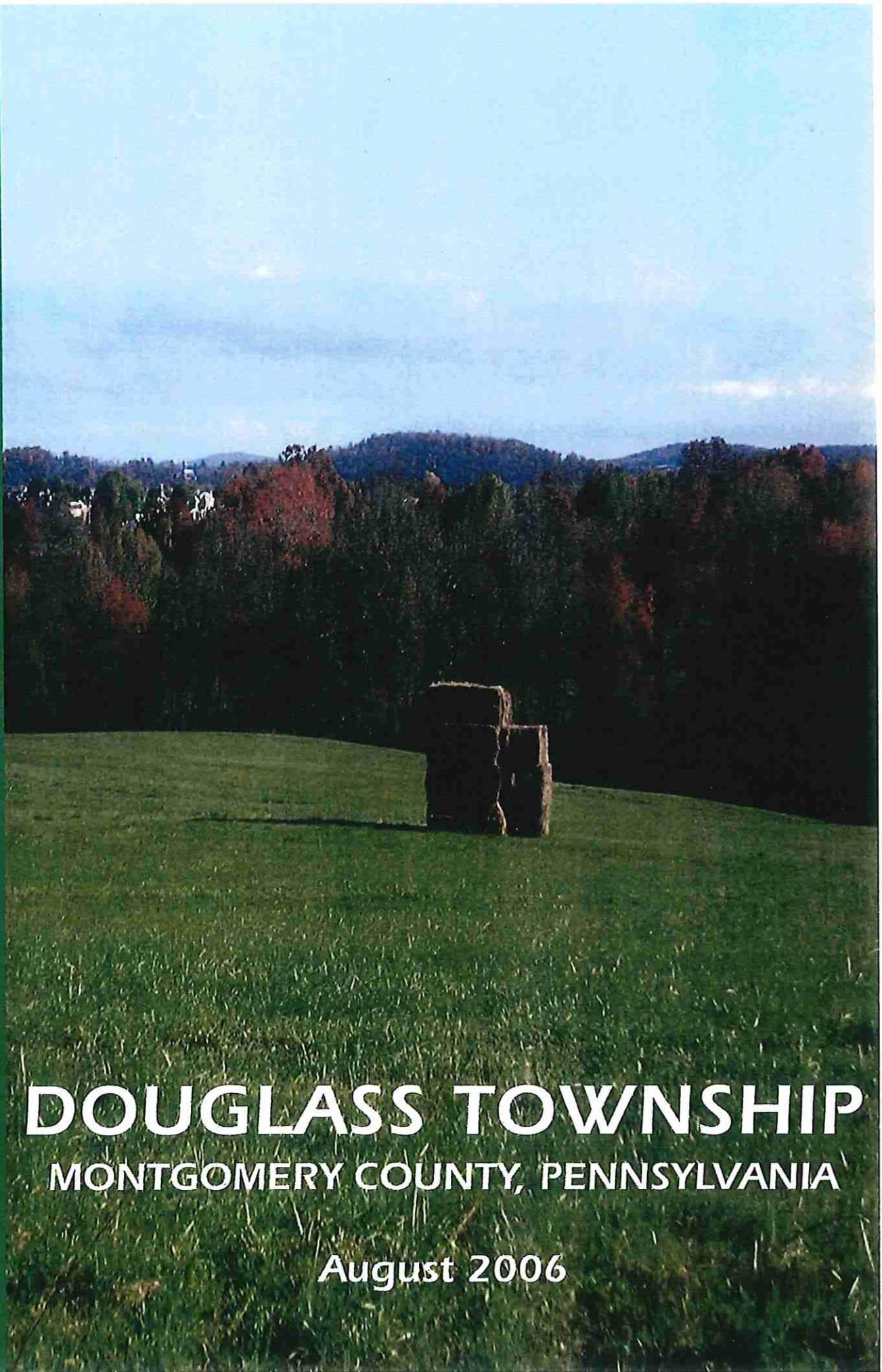


OPEN SPACE PLAN



DOUGLASS TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA

August 2006

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MONTGOMERY COUNTY, PENNSYLVANIA

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OPEN SPACE PLAN

AUGUST 2006

This report was partially funded by
The Montgomery County Green Fields/Green Towns Program

Montgomery County Planning Commission

TABLE OF CONTENTS

INTRODUCTION

1 DOUGLASS' 2005 OPEN SPACE PLAN

CHAPTER 1 COMMUNITY PROFILE

- 5 COMMUNITY CONTEXT
- 5 HISTORICAL BACKGROUND
- 7 REGIONAL SETTING
- 9 EXISTING LAND USE ANALYSIS
- 12 COMMUNITY DEMOGRAPHIC ANALYSIS
- 17 STATUS OF RELEVANT PLANS

CHAPTER 2 GOALS & OBJECTIVES

- 19 THE 1994 OPEN SPACE AND ENVIRONMENTAL RESOURCE PLAN
- 20 GOALS AND OBJECTIVES FOR THE 2005 OPEN SPACE PLAN

CHAPTER 3 EXISTING PROTECTED LAND

- 24 PERMANENT OPEN SPACE
- 26 TEMPORARY OPEN SPACE

CHAPTER 4 INVENTORY OF POTENTIALLY VULNERABLE RESOURCES

- 31 GEOLOGY
- 32 TOPOGRAPHY
- 35 SURFACE WATERS AND HYDROLOGY
- 38 SCENIC ROADS & VISTAS
- 39 HISTORIC AND CULTURAL RESOURCES

CHAPTER 5 ANALYSIS OF UNPROTECTED RESOURCES

- 43 COMPOSITE OF VULNERABLE RESOURCES

45	PRIORITIZATION OF AREAS FOR PRESERVATION
CHAPTER 6	POTENTIAL OPEN SPACE LINKAGES
48	TRAIL PRIORITIES
50	BICYCLE NETWORK
51	SIDEWALK NETWORK
54	GREENWAY PRIORITIES
CHAPTER 7	EVALUATION OF GROWTH AREAS
57	POPULATION, HOUSING, AND EMPLOYMENT PROJECTIONS
58	DOUGLASS' FUTURE GROWTH AREAS
59	BUILD-OUT ANALYSIS
62	CONCLUSION
CHAPTER 8	EVALUATION OF OPEN SPACE NEEDS
63	EXISTING PARKS AND FACILITIES
64	OPEN SPACE STANDARDS
67	OPEN SPACE NEEDS
CHAPTER 9	EVALUATION OF COUNTY AND ABUTTING MUNICIPAL PLANS
70	COMPARISON TO MONTGOMERY COUNTY LAND USE PLAN AND OPEN SPACE PLAN
71	OPPORTUNITIES FOR REGIONAL OR MULTIMUNICIPAL COOPERATION
71	RELATION TO PLANS OF ABUTTING MUNICIPALITIES
CHAPTER 10	RECOMMENDATIONS
75	FARMLAND PROTECTION
78	RURAL CHARACTER
78	OPEN SPACE AND NATURAL RESOURCE PROTECTION
79	PARKS AND RECREATION
81	LINKAGES
81	PRESERVATION OF HISTORIC AND CULTURAL RESOURCES
81	OPEN SPACE PLANNING AWARENESS
82	GREEN FIELDS/GREEN TOWNS PROGRAM OPTIONS
82	CONCLUSION
CHAPTER 11	IMPLEMENTATION
85	BACKGROUND
85	IMPLEMENTATION MATRIX
86	RESPONSIBILITY
86	PRIORITY CATEGORIES
86	PRESERVATION METHODS
91	FUNDING SOURCES
95	CONCLUSION

LIST OF FIGURES

CHAPTER 1	COMMUNITY PROFILE
6	Figure 1 Regional Setting
8	Figure 2 Existing Land Use Map
9	Figure 3 Land Use Comparison
11	Figure 4 Housing Types
11	Figure 5 Population Classification
13	Figure 6 Age Profile
13	Figure 7 Income Levels (1999\$)
14	Figure 8 Special Needs Groups
15	Figure 9 Education Level
15	Figure 10 Household Types
16	Figure 11 Labor Force by Occupation
16	Figure 12 Employment Forecast
CHAPTER 3	EXISTING PROTECTED LAND
25	Figure 13 Permanent Open Space
26	Figure 14 Permanent Open Space Map
28	Figure 15 Temporary Open Space
30	Figure 16 Temporary Open Space Map
CHAPTER 4	INVENTORY OF POTENTIALLY VULNERABLE RESOURCES
32	Figure 17 Geology
33	Figure 18 Topography
34	Figure 19 Soils
36	Figure 20 Hydrology
37	Figure 21 Water Sheds
39	Figure 22 Scenic Roads & Vistas
41	Figure 23 Selected Historic Resources

CHAPTER 5	ANALYSIS OF UNPROTECTED RESOURCES
44	Figure 24 Combined Vulnerable Resources
46	Figure 25 Priority Vulnerable Resources
CHAPTER 6	POTENTIAL OPEN SPACE LINKAGES
49	Figure 26 Proposed Linkages
51	Figure 27 Recommended Bicycle Routes for the Pottstown Region
52	Figure 28 Existing Sidewalks and Future Sidewalk District
53	Figure 29 Recommended Locations for Sidewalks
53	Figure 30 Sidewalk Width Guidelines by Area
55	Figure 31 Montgomery County Lands Trust Watershed Study Area
CHAPTER 7	EVALUATION OF GROWTH AREAS
58	Figure 32 Population Projection
59	Figure 33 Employment Forecast
60	Figure 34 Pottstown Metropolitan Regional Plan Future Land Use Map
61	Figure 35 Potential Residential Build-out
CHAPTER 8	EVALUATION OF OPEN SPACE NEEDS
65	Figure 36 Minimum Recreational Open Space Needs
66	Figure 37 Public Open Space Service Areas
68	Figure 38 Recreational Facility Needs
68	Figure 39 Boyertown Area School District
CHAPTER 10	RECOMMENDATIONS
77	Figure 40 Farmland Preservation Priorities
80	Figure 41 Potential Neighborhood and Community Park Locations
83	Figure 42 Structures within 100-yr Floodplain
CHAPTER 11	IMPLEMENTATION
87	Figure 43 Implementation Matrix

INTRODUCTION

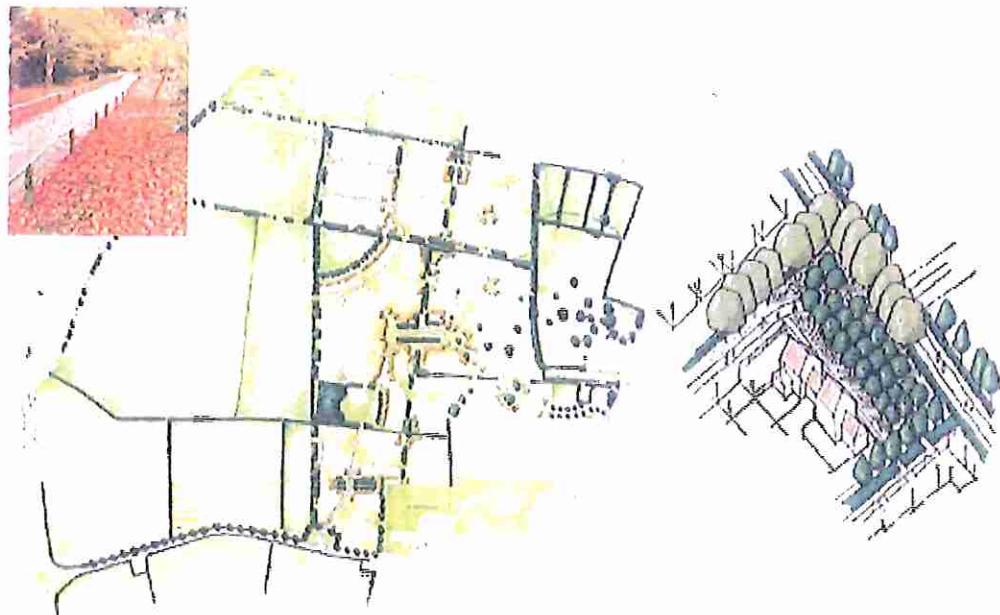
DOUGLASS' 2005 OPEN SPACE PLAN

DEVELOPING AN OPEN SPACE PLAN

"In the past, many communities assumed that open space was land that had simply not been developed yet, because no one had filed a subdivision plan for it. This view was reinforced by the legal and philosophical framework of our land use system which assumed that land was a commodity to be consumed. Communities that planned for open space primarily thought about preserving land for parks. And these parks were often viewed as a community amenity, an extra, even a frill.

Likewise, until recent years, most open space preservation efforts were site-specific in their orientation: develop a park here, protect a natural area there. Today, however, a growing number of communities are recognizing not just that green space is a basic community necessity, but that it should be planned and developed as an integrated system.* This plan represents Douglass' effort to create such a system.

* McMahon, Edward T. Green Infrastructure. Planning Commissioners Journal. Number 37, Winter 2000, p.4.



PURPOSE OF THIS PLAN

This plan was developed for two major purposes. First, it was developed to serve as a guide to the Township in acquiring new open space, forging connections through existing open space via an enhanced trail network, and developing programs and policies to preserve and maintain active and passive open space in the Township.

Second, this plan was created to fulfill a requirement in order to be eligible to apply for funding through the Green Fields/Green Towns program. In 2003, a referendum to fund open space and green infrastructure projects was passed in Montgomery County. This funding was distributed to municipalities, private non-profit conservation organizations and the county to preserve more open space and enhance the livability of existing communities throughout the County. A similar referendum was passed in 1993. At that time, Douglass drafted its 1994 Open Space and Environmental Resource Protection Plan.

Under the new program, Douglass is eligible to receive a total of \$952,921 for open space planning and implementation projects between April 2004 and April 2008. This grant

requires matching funds from the township equal to twenty percent of project costs. The County grants come with several conditions. The most important condition is that any land purchased with grant money must be permanently preserved as open space or for active recreation. Another condition is that Douglass must complete and adopt an updated Open Space Plan. This plan must be approved by the County's Open Space Board before applications for grant money will be accepted..

THE OLD PLAN VS. THE NEW PLAN

Douglass' previous open space played a key role in the acquisition of new open space. As a result of the plan, several projects were implemented, including the acquisition of Keller Woods, the Rhoads property, and the Moyer property. Between 1994 and 2005, nearly \$5.3 Million had been invested to preserve twenty farms in Douglass Township comprising about 1,300 acres. And several upgrades were made to the Township park, including bathroom and concession stand repairs, and the addition of two pavilions and two playground clusters.

In addition to acquisition and trail development, the new plan also focuses on Heritage Resource Conservation, County Trail Connections, Floodplain Restoration, and Farmland Preservation. These items were not previously eligible for funding through County Open Space grants, and are a new feature of the 2005 Green Fields/Green Towns Program.

THE OPEN SPACE COMMITTEE

In March 2005, the Douglass Open Space Committee was formed according to the requirements of the Green Fields/Green Towns Program. Members include representatives from the Douglass Planning Agency and the Board of Supervisors, as well as several neighborhood representatives with interest in and knowledge of open space issues. A liaison from the Montgomery County Planning Commission also served on the committee.

The Open Space Committee held meetings on a monthly basis from March 2005 through November 2005 to develop this plan. The committee presented a draft version of this plan to the Board of Supervisors during a regularly scheduled meeting, as well as to the community during a public hearing. Comments were solicited from the public and incorporated into the final document.

The 2005 Open Space Plan was reviewed and approved by the County Open Space Board prior to adoption by the Township. This assures that the plan's recommendations are eligible for funding through the Green Fields/Green Towns program (this does not, however, guarantee that any specific project will receive funding). In addition to County Open Space grants, grants from other agencies will be sought to implement many of the recommendations in this plan.

Upon completion of this plan, Douglass Township will embark on implementing the recommendations listed in Chapter 10 by

writing specific project proposals and applying to various organizations and agencies for grants.

The Open Space Committee made every effort to consider all aspects of open space planning relevant to the Township. However, in the event that a project, program or policy was overlooked, the plan may be amended by following the procedure outlined in section 302 (a) of the Pennsylvania Municipalities Planning Code.

RECOMMENDATIONS

The Open Space Committee has included a number of recommendations for open space projects, programs and policies. Each recommendation is described in detail in Chapter 10. It is also listed along with its priority level, the party responsible for implementation, and potential funding sources in the implementation matrix in Chapter 11.

WORKING WITH OUR NEIGHBORS

Douglass Township is a member of the Pottstown Metropolitan Region and as such is accustomed to multi-municipal planning. This type of planning allows the Township to address regional issues while retaining local control.

Douglass Township has been coordinating with all of its neighbors, not just those in the Pottstown Metropolitan Region, including Upper Hanover, New Hanover, and Upper Pottsgrove Townships in Montgomery County and Washington, Colebrookdale, Douglass Townships and Boyertown Borough in Berks County, to develop this open space plan. It will continue to work with them to implement the recommendations of this plan and to work on planning efforts in the future.

CHAPTER 1

COMMUNITY PROFILE

The Community Profile Chapter of the Douglass Township Open Space Plan is designed to provide residents, planners and officials the necessary background information to make well-informed decisions regarding the future preservation of natural and cultural resources within their community. It consists of three parts: 1) the Community Context section, which examines the community's historical background and regional setting, 2) the Existing Land Use Analysis, which details the use of each property in the Township, and 3) the Community Demographic Analysis, a study of the demographic trends in Douglass Township. It is important to understand the development patterns and the history of the people who live in Douglass in order to effectively plan for the Township's future.

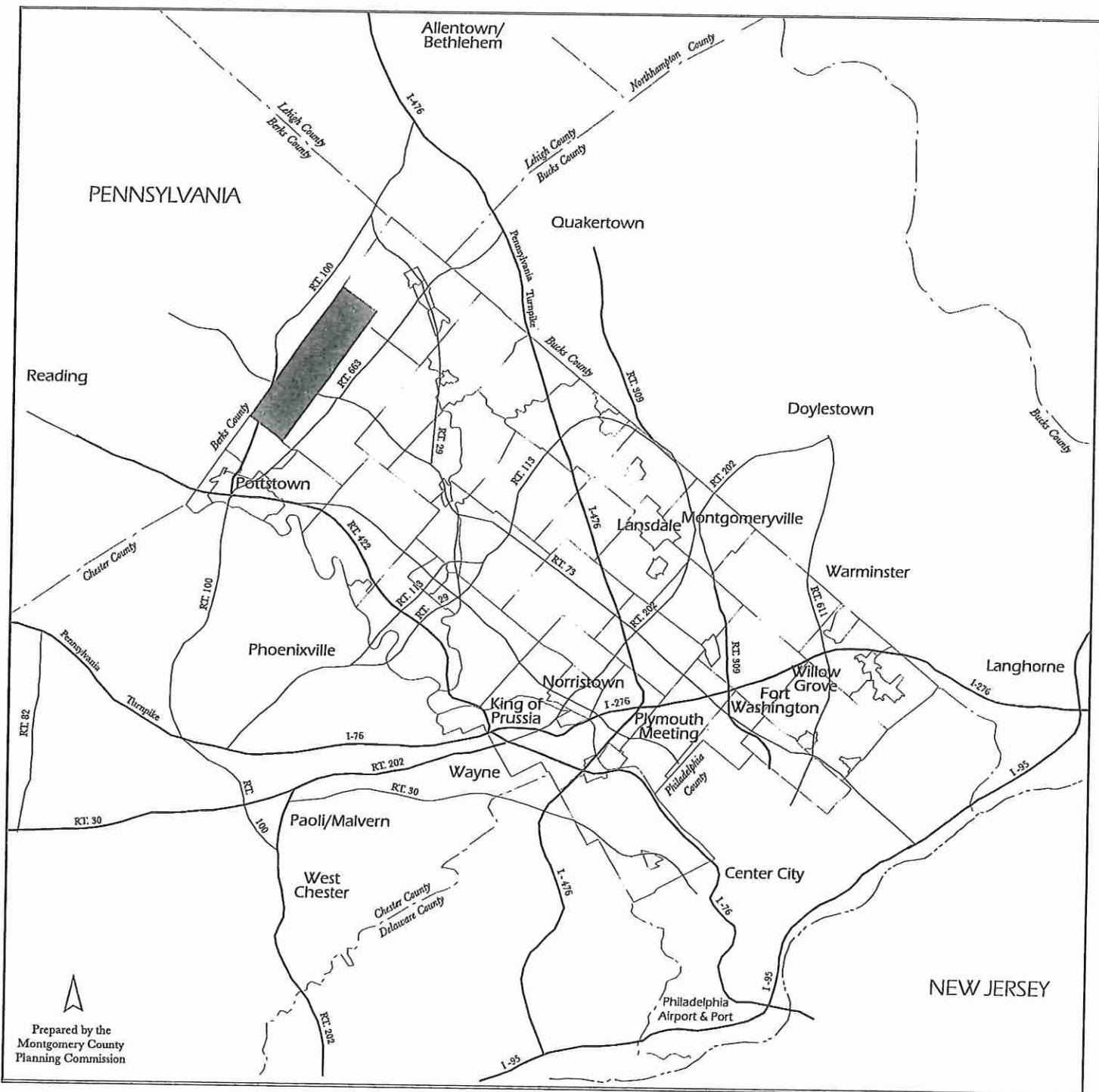
COMMUNITY CONTEXT

HISTORICAL BACKGROUND

Originally home to the Unami (Turtle) clan of the Lenni Lenape Tribe, the area now known as Douglass Township was settled by Germans in the early 18th century. In 1735, ownership of the land changed hands from William Penn's son John to George Samuel McCall Jr. After McCall's death in 1740, the Philadelphia County Court granted a petition

to the inhabitants of the area to create a new municipality called "Douglass," and the municipality was officially established in 1741. Later, Douglass would become one of the 28 original townships in Montgomery County. In 1806, the size of Douglass Township was reduced as a result of the incorporation of Pottsgrove Township as a separate entity.

Figure 1 Regional Settings



Whereas Douglass Township had originally extended to the Schuylkill, its southern boundary was then set at its present location, reducing the total size to 15.33 square miles.

POPULATION

The first official record of residents was dated 1741, and lists 58 "taxables," or the heads of households renting land from the previous owner. The 1810 census listed a total of 637 inhabitants, increasing to 941 by 1830. After the civil war, the population continued to grow. The 1870 census recorded a total of 1,604 residents.

After several decades of stagnation, the Township's population increased from 1,599 in 1920 to 1,705 in 1930. During the Depression-ridden 1930's, when most area municipalities lost population, Douglass continued to grow to a total of 1,913 residents recorded in the 1940 census. After World War II, suburbanization began in earnest, so that by 1960, the population had risen to 3,083. The 2000 census recorded 9,104 residents, by far the largest number ever to reside in Douglass Township, reflecting the American trend of populating the countryside.

INDUSTRY

Early industries in the area included the Caldonia Company's copper mine, the "Maaks" or "Mocks" grist mill, Beck and Boyt's Paper Mill, and Walker's Inn, store and Blacksmith shop. An 1884 survey of the county referred to all the villages in Douglass Township as hamlets, with the exception of Gilbertsville, which it called a "large and flourishing community." Among the industries listed for the town were wheelwrighting, smithing, plowmaking, carpetweaving, tinsmithing, carpentering, cigarmaking, and agriculture-related industries.

TRANSPORTATION

The first road through the area, Swamp Pike, was constructed in 1723. It connected Limerick to Colebrookdale. Sixteen years later, Big Road was extended from Layfield across the township along the route of present-day Ludwig Road, Middle Creek Road, and Swamp Creek Road. By the turn of the Revolution, Hoffmansville Road, Congo-Niantic Road, and Halfway House (Gilbertsville) Road were also laid out, although not known at that time by those names.

In 1909, trolley tracks were laid on East Philadelphia Avenue connecting Pottstown to Boyertown via New Hanover Township and Gilbertsville. With the arrival of the trolley in Gilbertsville, riders could use public transportation all the way to Philadelphia. It operated until 1937.

PLANNING

In 1946, the first ordinance providing for subdivision regulations and building permits was adopted. The Douglass Township Planning Commission was later established in 1957, and the first comprehensive plan was written in 1976. Zoning regulations were approved two years later. The Township is looking forward to adopting the Pottstown Metropolitan Regional Plan in 2005.

REGIONAL SETTING

Today, Douglass Township is a 15.8 square mile community located in north-western Montgomery County, surrounded in the county by the Townships of Upper Hanover, New Hanover, and Pottsgrove, as well as Washington and Colebrookdale Townships and Boyertown Borough in Berks County as indicated in Figure 1. Its regional location places it close to the urban centers of Allentown, Reading, and West Chester. Convenient access to Douglass is made possible by several major roads, including routes 73

Figure 2: Existing Land Use Map

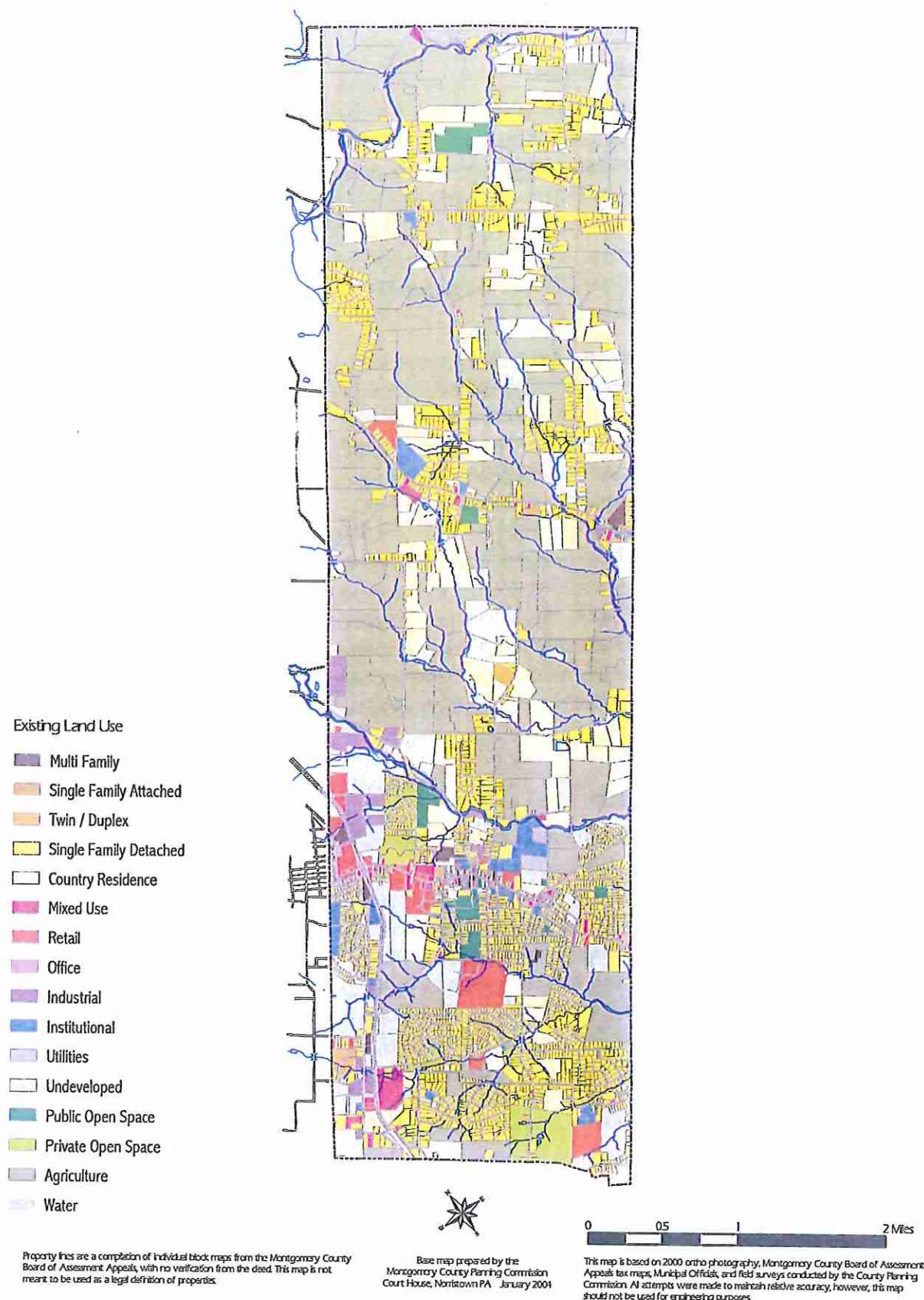
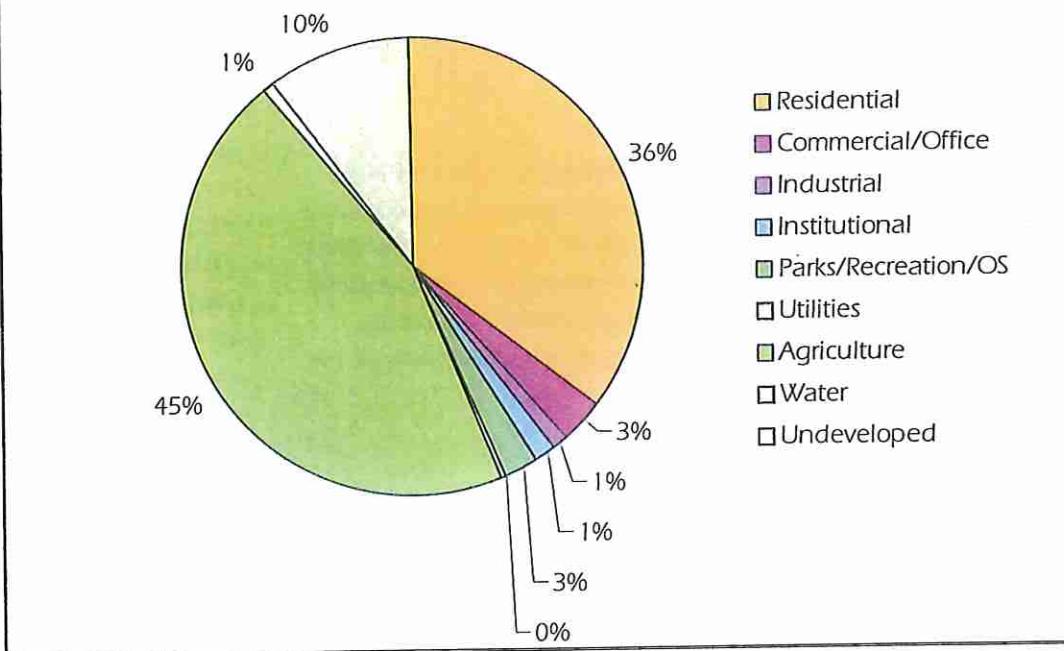


Figure 3
Existing Land Use Comparison

LAND USE	1992		2004		% Change
	Acres	% Total	Acres	% Total	
Residential	2,454	23.8%	3,270	35.8%	33.2%
Commercial/Office	173	1.7%	278	3.1%	60.9%
Industrial	171	1.7%	107	1.2%	-37.4%
Institutional	110	1.1%	113	1.2%	2.8%
Parks/Recreation/OS	124	1.2%	234	2.6%	88.5%
Utilities	52	0.5%	21	0.2%	-59.8%
Agriculture	4,163	0.0%	4,174	45.7%	0.3%
Water	0	0.0%	57	0.6%	N/A
TOTAL DEVELOPED	7,247	70.4%	8,197	89.8%	13.1%
Undeveloped	3,051	29.6%	927	10.2%	-69.6%
TOTAL ACREAGE*	10,298	100%	9,124	100%	-11.4%

Source: Montgomery County Planning Commission Land Use Maps

*Discrepancies due to digitization of parcel information



(Philadelphia Avenue and Big Road), 100, 422, and 663.

EXISTING LAND USE ANALYSIS

The Existing Land Use Analysis focuses on the current land uses within the township, enabling a more in-depth focus of municipal

land use patterns. In addition to the Existing Land Use Map (Figure 2), Figure 3 details the acreage of each category and the percent change from 1992 to 2004. The assigned land use categories are derived from board of assessment parcel data. These numbers are useful in understanding changes in land use patterns and help to identify potential open space and/or recreational needs.

RESIDENTIAL

Douglass's core area (Gilbertsville) is surrounded by extensive open land, agricultural uses, low density residential areas, and several small villages including Congo, Niantic and Sassamansville. Although a range of other uses has developed over time, the Township remains a largely rural and ex-urban community. This is evident in the existing land use data shown in Figure 3. This figure shows that nearly 36% of Douglass' land is used for residential purposes, a dramatic increase from 1973, when it only comprised 8.4% of all land.

COMMERCIAL/OFFICE

Commercial and office uses comprise about 3% of the township, which is only slightly more than it has in the past. The main center of commerce is Gilbertsville Village.

INDUSTRIAL

Douglass Township supports a very small number of Industrial uses, such as Cabot Supermetals. Several of the parcels designated industrial are not currently in use. Industrial uses comprise only 1.2% of the township's area- slightly less as a percentage than they did in 1992.

INSTITUTIONAL

Institutional uses comprise about 1.2% of the township. Such uses include the churches, cemeteries, the fire company, the post office, and property owned by the Berks Montgomery Municipal Authority (BMMA) and the Boyertown school district. Institutional uses have traditionally comprised a very small percentage of land in Douglass Township.

PARKS/RECREATION

Parks and recreational activity areas account

for only about 3% of the Township, although this is more than double the percentage in 1992. This category includes Douglass Township Park, Twin Ponds Golf Course, and Chandler's Crossing Playground, as well as land reserved for recreation in several subdivisions.

UTILITIES

BMMA and Metropolitan Edison Company own the Township's 21 acres of land designated as utilities.

AGRICULTURE

Nearly 46% of the township is designated as agricultural land. This includes 24 permanently preserved farms comprising 1,894 acres, as well as 1,029 acres in Agricultural Security Areas (ASAs) and other farms.

UNDEVELOPED LAND

Approximately 10% of Douglass Township is as of yet undeveloped (about 927 acres). This is land that does not have any structures, is not preserved as open space, and is not used for agricultural purposes. Much of this land lies in the lower third of the Township. In the past, this category also included water, which makes up about .6% of the Township today.

HOUSING TYPES

Figure 4 shows a breakdown of the residential land use category by housing types. Although there is a predominance of single-family detached dwellings, a range of housing types is available and the overall housing stock has become more diversified in recent years with the addition of more attached and smaller multi-family units. Between 1990 and 2000, there was a 28% increase in the number of housing units in the Township.

Figure 4
Housing Types

Housing Types	1990		2000		% Change
	Number	% Total	Number	% Total	
Single Family Detached	1,917	74.9%	2,467	75.3%	28.7%
Single Family Attached	163	6.4%	274	8.4%	68.1%
Multi Family (2-4 Units)	114	4.5%	196	6.0%	71.9%
Multi Family (5 or More Units)	315	12.3%	309	9.4%	-1.9%
Mobile Home/Trailer/Other	50	2.0%	29	0.9%	-42.0%
Total Housing Units	2,559	100%	3,275	100%	28.0%

Sources: U.S. Census Bureau; Census of Population and Housing, 1990, 2000.

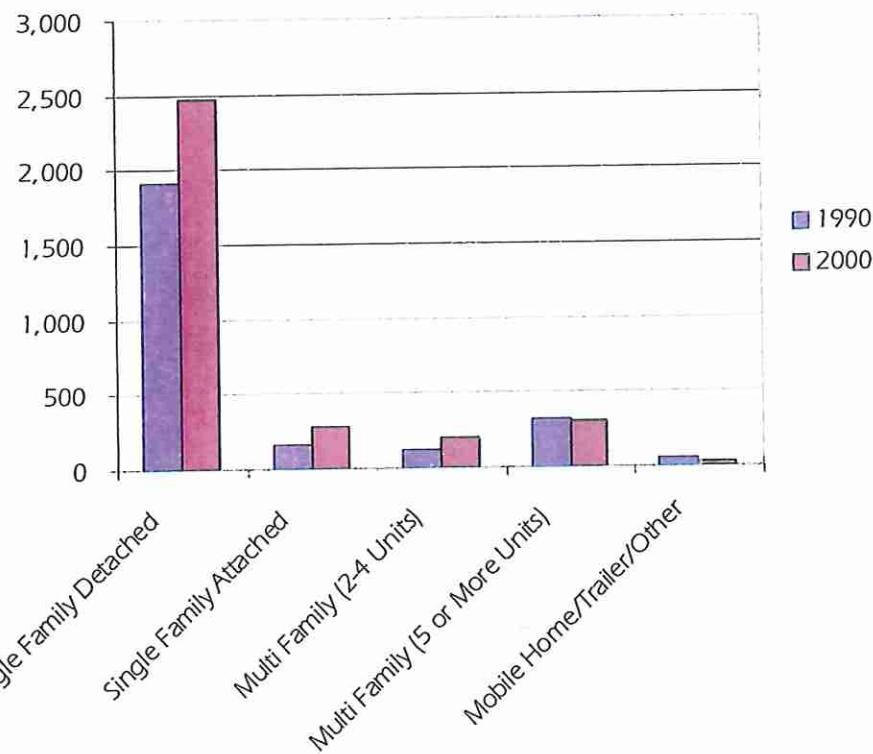


Figure 5
Population Classification

POPULATION TYPE	1990		2000		% Change
	Number	% Total	Number	% Total	
Household Population	7,048	100.0%	9,100	100.0%	29.1%
Group Quarters Population	0	0.0%	4	0.04%	N/A
TOTAL POPULATION	7,048	100%	9,104	100%	29.2%

Sources: U.S. Census Bureau; Census of Population and Housing, 1990, 2000.

CONCLUSION

Since the last Open Space plan for the township was adopted in 1993, Douglass has changed quite a bit from a land use perspective. The most significant changes have been increases of 33% in residential land, 60% in commercial land, and 88% in park land; as well as decreases of 37% in industrial land, nearly 60% in land devoted to utilities, and a staggering 70% in undeveloped land. Douglass is rapidly transforming from a rural community into a suburban community, and must respond effectively in order to maintain the Township's character and way of life.

COMMUNITY DEMOGRAPHIC ANALYSIS

The Community Demographic Analysis consists of information relating to Douglass' population, housing, and economics. With few exceptions, the source of the information is the decennial U.S. Census and other reports of the Census Bureau.

Demographic characteristics provide insight when planning for open space preservation and recreational development. They can assist in determining not only how much but also where land should be preserved. Additionally, this information can further assist a municipality in determining what type of recreational facilities, if any, should be placed in the preserved land.

POPULATION TRENDS

The rate of municipal population change (relative population increase or decrease) is an important measure of the magnitude of population change that has occurred over time. Figure 5 shows population trends in the Township.

Between 1990 and 2000, the Township experienced a population increase of about 29 percent, or about 2,056 people. This con-

tinues the growth trend that began effectively at the Township's inception.

The Delaware Valley Regional Planning Commission (DVRPC) serves as the region's metropolitan planning organization (MPO). Among other reports, it provides population and employment forecasts through the year 2025. These projections will be addressed in further detail in Chapter 7. According to these reports, during the next 20 years the population of Douglass Township is projected to continue to increase. In fact, if projections hold true, the population would reach 13,480 by 2025. In general, projections are based on several factors, including past levels of development, recently proposed development, proximity to employment centers, available land, and public facilities (particularly sewers). Projections are typically revised after each decennial census.

An increase in population indicates a need for an increase in open space and recreational facilities, as more families look to the Township to provide them with recreational activities.

POPULATION CLASSIFICATION

Population classification refers to those segments of the population either in households or in group quarters (institutions). Figure 5 shows that virtually 100 percent of the Township's population continues to be in households. Between 1990 and 2000 the proportion of residents in group quarters increased to only .04 percent.

AGE

A community's age profile over time can be an important measure of growth and change. Among other things, shifts in the distribution among age groups can have significant impacts on the provision of social services, housing, school enrollments, park and recreation needs, and the labor force. Figure 6 summarizes changes in the Township's age

Figure 6
Age Profile

Age	1990		2000		%Change 1990-2000
	Number	% Total	Number	% Total	
0-4	570	8.1%	744	8.1%	30.5%
5-17	1,385	19.7%	2,008	22.0%	45.0%
18-24	605	8.6%	570	6.2%	-5.8%
25-34	1,211	17.2%	1,142	12.5%	-5.7%
35-44	1,227	17.4%	1,747	19.1%	42.4%
45-54	727	10.3%	1,283	14.0%	76.5%
55-64	600	8.5%	754	8.2%	25.7%
65-74	475	6.7%	496	5.4%	4.4%
75+	248	3.5%	401	4.4%	61.7%
Total	7,048	100%	9,145	100%	29.8%
Median Age	33.2		36.6		10.2%

Sources: U.S. Census Bureau; Census of Population and Housing, 1990, 2000.

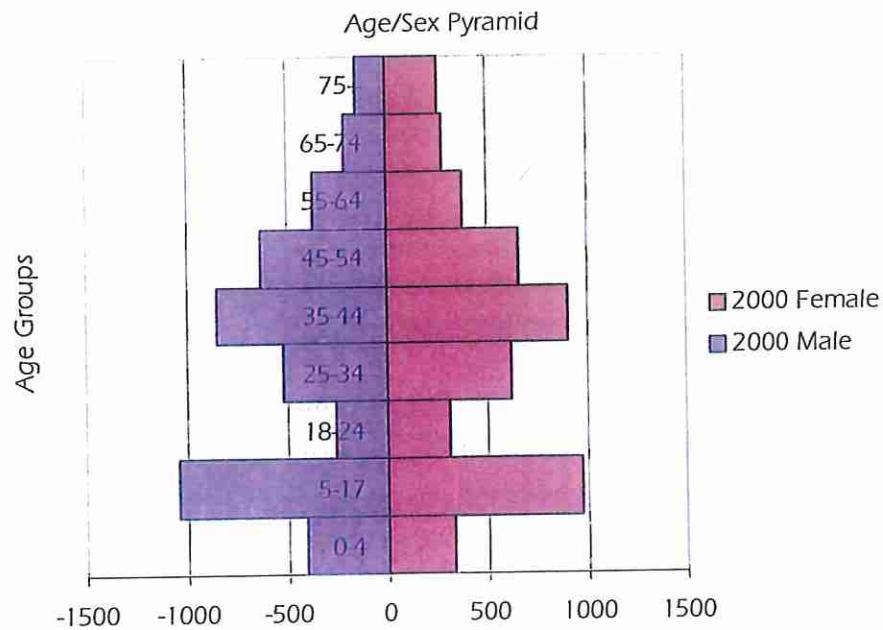


Figure 7
Income Levels (1999 \$)

Income	1989	1999	% Change
Per Capita	\$22,289	\$22,476	0.8%
Median Household	\$57,909	\$55,679	-3.9%

Sources: U.S. Census Bureau; Census of Population and Housing, 1990, 2000.

Figure 8
Special Needs Groups

Special Needs Groups	1990		2000		% Change 1990-2000
	Number	% Total	Number	% Total	
Persons 16-64 with Disabilities			1,423	15.6%	N/A
Persons 16-64 with Mobility and Self Care Limitations	91	1.3%			N/A
Over 65 Years of Age	723	10.3%	897	9.9%	24.1%
Under 18 Years of Age	1,955	27.7%	2,752	30.2%	40.8%
Income Below Poverty Level	266	3.8%	259	2.8%	-2.6%
Total Population	7,048		9,104		29.2%

Sources: U.S. Census Bureau; Census of Population and Housing, 1990, 2000.

profile from 1990 to 2000. It shows that the fastest growing age groups were middle-aged adults (45-54), the elderly (75 and over), younger adults (35-44) and school-aged children (5-17). Negative growth was seen among young adults (18-34).

Over all though, families with children make up the bulk of the population. This impacts the type of open space and recreation facilities the Township needs. For example, an increase in playgrounds or indoor recreational facilities would serve the majority of residents, whereas increasing the number of shuffleboards would impact a smaller segment of the population.

INCOME

Figure 7 shows changes in per capita and household incomes for 1989 and 1999 (in 1999 dollars). Among other factors, changes in income reflect the state of the economy overall (recession or growth) and social changes such as the maturation of the baby boom generation (expanded labor force).

Per capita income is a per person average computed for every man, woman, and child in a given area. Per capita income also accounts for persons living alone, a growing segment of the population that is excluded from family income tabulations. As the percentage of the population earning income has increased, so has the per person average.

In Douglass, per capita income grew slightly by .8 percent between 1989 and 1999.

Median household income refers to the income of the primary householder and incomes from all other person over the age of 15 in the home, regardless of their relationship to the householder. Because households of unrelated individuals can be a fairly large proportion of all households, this measure may be a better indicator of the typical income for an area than the family income measure. Also, since many households consist of only one person, this measure is usually lower than median family incomes. Between 1989 and 1999 Douglass' median household income declined by nearly 4 percent.

SPECIAL NEEDS GROUPS

Certain groups within Douglass Township have special needs that should be considered in determining how much open space is needed, the type of open space that is needed, and the specific design of the open space development. In particular, the very young, the very old, those with incomes below the poverty level, and people with disabilities have special needs that will affect the need for and development of open space. Because definitions of persons with disabilities have changed between the 1990 and 2000 censuses, a direct comparison for these

Figure 9
Education Level

Education Level	1990		2000		% Change
	Number	% Total	Number	% Total	
Less than 9th grade	459	10.3%	298	5.2%	-35.1%
9th through 12th grade, no diploma	557	12.5%	455	7.9%	-18.3%
High school graduate (includes equivalency)	1,924	43.3%	2,394	41.4%	24.4%
Some college, no degree	465	10.5%	817	14.1%	75.7%
Associate degree	257	5.8%	421	7.3%	63.8%
Bachelor's degree	500	11.3%	972	16.8%	94.4%
Graduate or Professional degree	278	6.3%	423	7.3%	52.2%
Total Population Over 25 Years	4,440	100%	5,780	100%	30.2%

Sources: U.S. Census Bureau; Census of Population and Housing, 1990, 2000.

Figure 10
Household Types

Household Types	1990		2000		% Change
	Number	% Total	Number	% Total	
Married Couples with Children	924	37.7%	1,093	34.0%	18.3%
Married Couples with No Children	831	33.9%	1,046	32.6%	25.9%
Single Parent	163	6.6%	250	7.8%	53.4%
Other Family	98	4.0%	163	5.1%	66.3%
1 Person Non-Family Households	376	15.3%	542	16.9%	44.1%
2+ Person Non-Family Household	62	2.5%	117	3.6%	88.7%
Total Number of Households	2,454	100%	3,211	100%	30.8%
Average People per Household	2.87		2.83		-1.3%

Sources: U.S. Census Bureau; Census of Population and Housing, 1990, 2000.

groups could not be made. However, in 2000 approximately 15.6 percent of Douglass' population between the ages of 16 and 64 had some type of disability. Over the past decade, the number of people over age 65 has increased by nearly 11 percent, while the number of people under age 18 has increased by over 29 percent. The number of people with incomes below poverty level has increased slightly by 2.8 percent.

EDUCATION LEVEL

Residents of Douglass Township tend to be fairly well-educated (Figure 9). About 7 percent of those over age 25 have graduate or profes-

sional degrees, while nearly 17 percent have earned bachelor's degrees. Since 1990, the number of people possessing less than a 9th grade education has dropped by over 35 percent.

HOUSEHOLD TYPES

A household profile is defined by the Census Bureau as a person or persons occupying a single housing unit. A household can be broken down into two categories. A family household is two or more related persons living in a single housing unit, and a non-family household is occupied by a single person or a group of unrelated persons. Nationally, as well as locally, households are changing. There has

Figure 11
Labor Force by Occupation

Occupation	2000	
	Number	% Total
Management	650	13.9%
Professional	944	20.2%
Sales	354	7.6%
Clerical/Office	696	14.9%
Construction	496	10.6%
Production/Transportation	858	18.4%
Farming	33	0.7%
Services	642	13.7%
Total	4,673	100%

Sources: U.S. Census Bureau; Census of Population and Housing, 2000.

been an overall increase in non-family and single person's households since the 1970's. Fragmentation of the family unit through divorce, death of a spouse, or children leaving home to form their own households has contributed to an increase in the number of households and a decrease in the size of households.

For example, Figure 10 shows that Single Parent Households in Douglass have increased by over 54 percent between 1990 and 2000. Douglass has also seen one-person households increase by 44 percent, and households of two or more non-family members increase by nearly 89 percent, comprising over one fifth of all households. The traditional household of married couples with children account for about one in three households in the Township.

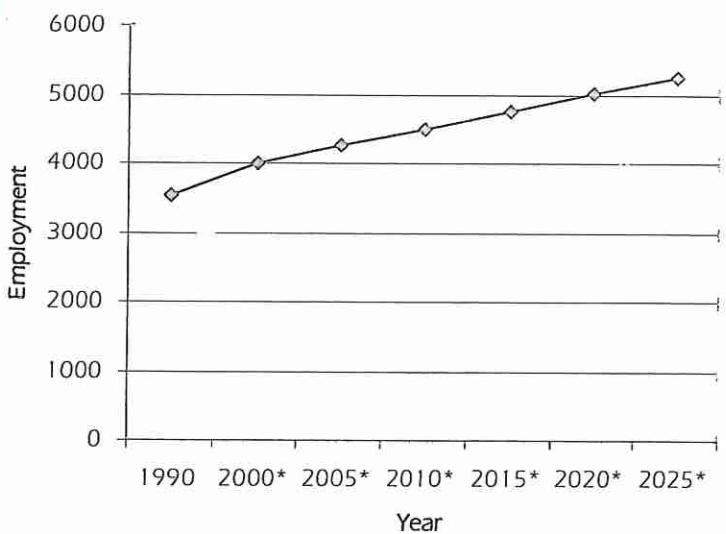
The average household size is the number of persons in households divided by the number of occupied housing units. This too has seen a national decline as households continue to diversify. Douglass has seen the average household size decrease only slightly from 2.87 people in 1990 to 2.83 in 2000.

Figure 12
Employment Forecast

Year	Total Employment
1990	3,530
2000*	4,000
2005*	4,250
2010*	4,500
2015*	4,750
2020*	5,000
2025*	5,250

Years	% Change
1990-2000	13.31%
2000-2010	12.50%
2010-2020	11.11%
2000-2025	31.25%

*Source: DVRPC Forecasts.



EMPLOYMENT AND LABOR

As used here, employment figures refer to the number of workers in a given area, and can serve a variety of purposes. As one aspect of the economy, they serve to inform the public of current and anticipated future economic conditions and may serve as decision-making input for current and potential employers and investors in the region. Because an area's growth and activity is related to the region's economy, employment data can also be tied to land use and transportation planning, and can help to project population growth.

In recent years, the western portion of Montgomery County has experienced a significant change with the construction of Route 422,

a major highway that permits direct access from surrounding counties and the City of Philadelphia. This has brought more workers to the region and more truck access to industrial areas. Increases in jobs and access usually indicates an increase in population, which, as stated previously, DVRPC has projected to be somewhat significant.

OCCUPATIONS

The types of occupations held by residents in 1990 and 2000 are shown in Figure 11. The wide range of occupations listed have historically been classified as being "white collar" (managerial), "blue collar" (operative), or "other" (farm workers). Although this has generally been a useful distinction in terms of income, educational requirements, etc., the lines of distinction have become less marked as the nation's economy has moved from being industrially based to information and service based. This change is evident nationally with the proportion of the U.S. labor force in white collar jobs increasing from 37 percent in 1950 to 60 percent in 2000. In Douglass Township, over half of all jobs were white collar positions in 2000. Due to this shift, the census has implemented a new system for compiling labor force statistics, making it difficult to draw a comparison between categories from 1990 and 2000.

EMPLOYMENT FORECAST

As with population, the DVRPC provides employment forecasts for the area. Employment is projected to grow from approximately 4000 jobs in 2000 to 5250 jobs in 2025, representing an overall increase of about 31 percent over 25 years (see Figure 12).

STATUS OF RELEVANT PLANS COMPREHENSIVE PLAN

The primary existing planning document for the Township has been its 1981 Comprehen-

sive Plan, updated from the original 1976 version. In 2005, the Township is looking forward to adopting the Pottstown Metropolitan Regional Plan which encompasses eight municipalities, six of which are in Montgomery County (Douglass, New Hanover, Upper Pottsgrove, Lower Pottsgrove, West Pottsgrove, and Pottstown), and two of which are in Chester County (East Coventry and North Coventry). This plan will serve as the comprehensive plan for the region.

OPEN SPACE AND ENVIRONMENTAL RESOURCE PROTECTION PLAN

The 1993 Open Space and Environmental Resource Protection Plan was developed in accordance with the Montgomery County Open Space Preservation Program Guidelines. For the past ten years it has served as a guide for Township open space preservation activities, enabling the Township to use its open space acquisition funding allocation included in the County Program. This plan serves as the basis for this 2004 update, and contains many of the same sections. Among the key recommendations from this plan were:

- To establish greenways along Swamp Creek, Minister Creek and Perkiomen Creek.
- To purchase additional parkland adjacent to the greenways.
- To provide parkland for the Congo-Sassamansville area.
- To utilize non-acquisition methods to maintain floodplain, wetland, steep slope, and ASA preservation.
- To complete development of the Township Park in Gilbertsville.

As part of the update of this plan, these and other recommendations were reviewed in detail during an audit process.

PARK AND RECREATION PLAN

In 1993 Douglass Township also completed a Park and Recreation Plan. It reviews previous plans, lists existing park and recreation resources, estimates future park and recreational needs, and recommends additional parks and recreational spaces.

MONTGOMERY COUNTY OPEN SPACE PLAN

The County is the process of adopting a new comprehensive plan, which includes a volume on Open Space, Natural Features and Cultural Resources. Douglass Township's open space plan is consistent with the goals in the County plan.

DELAWARE VALLEY REGIONAL PLANNING COMMISSION 2025 OPEN SPACE NETWORK

The 2025 Open Space Network links existing parkland, population centers and key natural resource areas worthy of preservation. The areas proposed for protection include large expanses of unprotected woodlands, stream corridor buffer areas, wetlands, vacant lands, and in some cases, agricultural lands. The proposed network is somewhat generalized, but it serves to create a framework for state, county and municipal preservation plans. More detailed mapping at the local area scale is recommended to determine specific boundaries and priorities, and this open space plan implements that recommendation.

CHAPTER 2

GOALS & OBJECTIVES

THE 1994 OPEN SPACE AND ENVIRONMENTAL RESOURCE PLAN

Douglass Township adopted its first Open Space and Environmental Resource Protection Plan in 1994. At that time a series of goals and objectives was developed to address issues regarding the preservation of open space and the protection of environmental resources. As a part of the update process required by the Montgomery County Open Space Program, Douglass has evaluated its previous goals and objectives to address whether the goals are still valid and to evaluate why some of the last plan's recommendations were not implemented. Below are listed the previous recommendations that have been acted upon with accompanying explanations of their status and proposed future action where applicable.

- Acquire parkland in Gilbertsville and/or the Congo-Sassamansville area.

Status: Parkland in both these areas was purchased with grants from the previous County Open Space Program. The Moyer property (9.89 acres), which is located in the Congo-Sassamansville area,

was purchased in 1998 for both active and passive recreation purposes. The Rhoads Properties (8.5 acres) are located near Township Park in Gilbertsville and were purchased in 1996 for passive recreation purposes.

- Future Action: As the Township develops, more parkland should be acquired, and existing parkland should be improved.
- Acquire woodlands in the northern area of the Township.
- Status: In 1998 the Spadafora Property (34.34 acres), now known as Keller Woods, was purchased as passive open space.
- Encourage participation in Township Agricultural Security Areas/permanent conservation of farmland.
- Status: Since 1994, \$5,267,121.52 has been invested to preserve twenty farms in Douglass Township comprising 1,299.66 acres. Since the farmland preservation program's inception, \$7,884,562.52 has been invested in Douglass, preserving thirty-three farms comprising a total of 2,112.61 acres. Approximately forty additional parcels are participating in the ASA program.
- Upgrade recreation facilities at Township Park.
- Status: The following upgrades have been completed at Township Park: bathrooms repaired, concession stand repaired, two small pavilions installed, two playground clusters installed.
- Examine development of additional recreation facilities.
- Explanation: The Park and Recreation Board has not been able to obtain funding to implement this recommendation.
- Future Action: The board is interested in securing funding to create a master plan for all Township parks and recreational areas.
- Begin Land Preservation Techniques Study.
- Explanation: This study did not remain a priority for the Board of Supervisors.
- Future Action: The township is still interested in pursuing this project.
- Conduct recreation survey and facility needs assessment after acquisition of additional properties.
- Explanation: This is addressed above. In addition, the Pottstown Council Of Governments (COG) completed a survey on recreation needs in the region.
- Hold a public information meeting on land preservation by conservancy organizations.
- Explanation: Interest in this topic was not high among the public, and this meeting was not held.

The following recommendations have not been acted upon to date. An explanation and/or description of possible future action is provided for each project:

- Acquire Greenways for passive trail use along Swamp Creek, Minister Creek, and Perkiomen Creek.

Explanation: This recommendation has not been acted upon due to lack of past demand

Future Action: The Township would like to explore the possibility of utilizing private easements on land as it is developed to create a greenway.

GOALS AND OBJECTIVES FOR THE 2005 OPEN SPACE PLAN

The Open Space Committee has evaluated the goals and objectives of the previous plan and revised them to reflect issues identified during the audit process. This chapter will serve as the framework for Douglass' plan for open space preservation and protection of natural resources. Goals are provided regarding retention of open space, enhancement of existing facilities, coordination of open space, and protection of natural and cultural features followed by a series of objectives. Action items

related to these goals and objectives will be created throughout the open space planning process and included in the recommendations and implementation chapters of this plan.

GOAL 1: RAISE AWARENESS OF THE IMPORTANCE OF OPEN SPACE PLANNING

OBJECTIVES:

- A. Introduce concept of Open Space as an important infrastructure issue with a critical impact on quality of life.
- B. Educate the public on the role of open space in the Township, and focus on how to protect and manage it.

GOAL 2: PRESERVE THE TOWNSHIP'S RURAL IDENTITY

OBJECTIVES:

- A. Continue effort to place farmland in permanent protection.
- B. Ensure that new developments have a rural character, including rural open spaces.

GOAL 3: INCREASE ACTIVE RECREATION OPPORTUNITIES

OBJECTIVES:

- A. Require new developments to contain both active and passive useable open space areas.
- B. Purchase land for new playgrounds.
- C. Create walking paths and loops in various locations.
- D. Create a new Township park with ball fields.

GOAL 4: ACTIVELY PURSUE PUBLIC/PRIVATE PARTNERSHIPS TO PRESERVE OPEN SPACE

OBJECTIVES:

- A. Develop a multi-pronged approach to preserving open space that emphasizes part-

nerships with various entities including nonprofits, government agencies, and individuals.

GOAL 5: PROVIDE LINKAGES AMONG COMMUNITIES

OBJECTIVES:

- A. Establish a network of pathways linking various subdivisions to help create a cohesive sense of community.
- B. Connect open space via public pathways wherever possible.
- C. Build the portion of the West County Trail that lies within the Township.

GOAL 6: PRESERVE HISTORIC SITES

OBJECTIVES:

- A. Preserve the historic school– and its grounds– located on Hoffmansville Road.

GOAL 7: MAINTAIN TREE COVERAGE

OBJECTIVES:

- A. Preserve existing woodlands
- B. Establish a Shade Tree Commission to oversee the planting and maintenance of new shade trees.
- C. Explore opportunities to protect existing trees in new developments utilizing the Subdivision and Land Development Ordinance.

GOAL 8: PRESERVE GREENWAYS

OBJECTIVES:

- A. Work with the Montgomery County Lands Trust to preserve greenway along Middle Creek and/or Swamp Creek.
- B. Develop a riparian corridor ordinance.

**GOAL 9: COORDINATE OPEN SPACE
EFFORTS WITH NEIGHBORING MUNI-
CIPALITIES**

OBJECTIVES:

- A. Reach out to municipalities in Berks County to coordinate open space planning and other planning efforts.
- B. Work with New Hanover to establish shared goals concerning open space, development, and public sewers.

**GOAL 10: UTILIZE OPEN SPACE PRES-
ERVATION TECHNIQUES TO IMPROVE
STORMWATER MANAGEMENT**

OBJECTIVES:

- A. Require Best Management Practices concerning stormwater management.
- B. Focus on role of tree cover, landscaping, and riparian corridor protection in stormwater management.

CHAPTER 3

EXISTING OPEN SPACE

A key component of the open space plan is a review of existing open space. Some of the open space utilized by residents is permanently protected, while other areas are not permanently preserved, and are in essence temporary open space. Permanently protected land refers to land preserved for active or passive recreation use and/or for environmental conservation purposes. In addition to municipally-owned areas, it can include land preserved by private conservation groups and private open space preserved as part of residential or non-residential development. Permanently preserved open space puts limitations on development and provides permanent resource protection— this land will continue to exist much the way it does today for future generations.

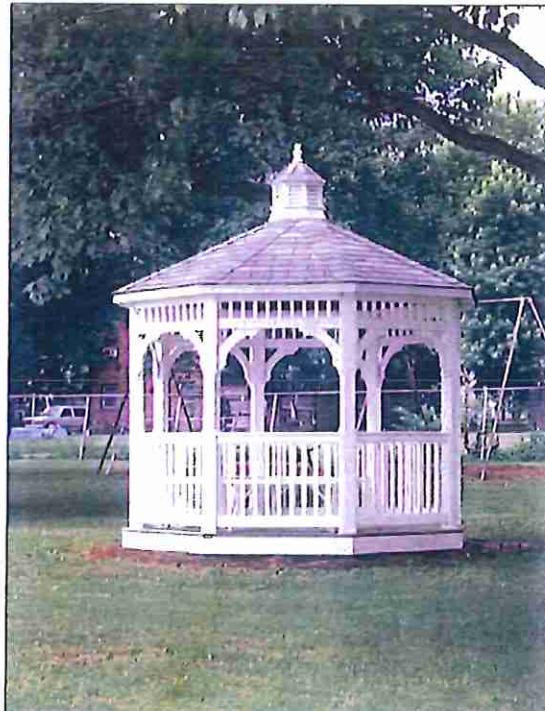
Temporary open space also makes an important contribution to the overall recreation base of a community by providing open space, sheltering significant natural features, and/or providing recreation facilities that do not require municipal involvement in maintenance. However, temporary open space can easily be lost through development or degradation. Creating this plan involves making choices about temporary open space and determining which of these areas the township wants to permanently preserve.

PERMANENT OPEN SPACE

Currently, there are just over 1,972 acres of permanently protected open space in Douglass Township (see Figure 13). However, only 79.33 acres of this land is open to the public, while the vast majority (1,893 acres) is privately owned, permanently preserved farmland—consisting of crop, beef, dairy, hog, and horse farms as well as nurseries. The publicly owned land is all owned by Douglass Township, and is described below.

MUNICIPAL OPEN SPACE

Douglass' existing system of parks and open space has grown over the past ten years with the acquisition of the Rhoads property adjacent to the landfill in 1996, Keller Woods in 1998, and the Moyer property, also in 1998 (see Figures 13 and 14). Today, a total of 7 parks and open spaces are owned and maintained by the municipality. These parks comprise approximately 79.33 acres of land, less than 20 of which are considered active recreational space. All public recrea-



Douglass Park on Merkel Road is the only Township-owned active recreation area.

tional facilities are located in Douglass Township Park on E. Philadelphia Avenue, which includes a ball field, basketball courts, tennis courts, a volleyball court, a picnic pavilion, and playground equipment. This park is centrally located and provides much needed recreational facilities to Township.

PRIVATE OPEN SPACE

In Douglass Township, the only privately owned open space is on the farms that have been accepted into the County's Farmland Preservation Program. Through this program, the Montgomery County Farm Board purchases agricultural easements from productive farms using state, county, and some municipal money. Land-owners who participate in this program accept a conservation easement on their property that prohibits development and non-farming activities in exchange for a payment. However, these land-owners continue to own the farm, and it must remain in farming in perpetuity. The farmer may sell the land, but the new owner must continue to grow productive crops or pasture on it. Applying to the program is voluntary.

This program is extremely popular in Douglass, and 24 farms are currently participating in this program. The County has spent over \$7.8 million to purchase development rights on these farms. This is a considerable investment, and the County would like to protect its investment by ensuring that even more land in the Township remains agriculturally viable. However, the vast majority of this land is in private ownership. Douglass would benefit from preserving more land for public use.

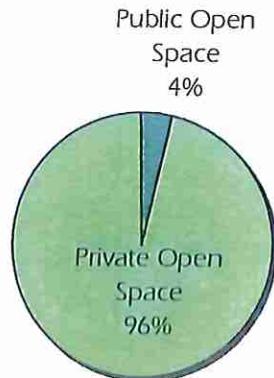
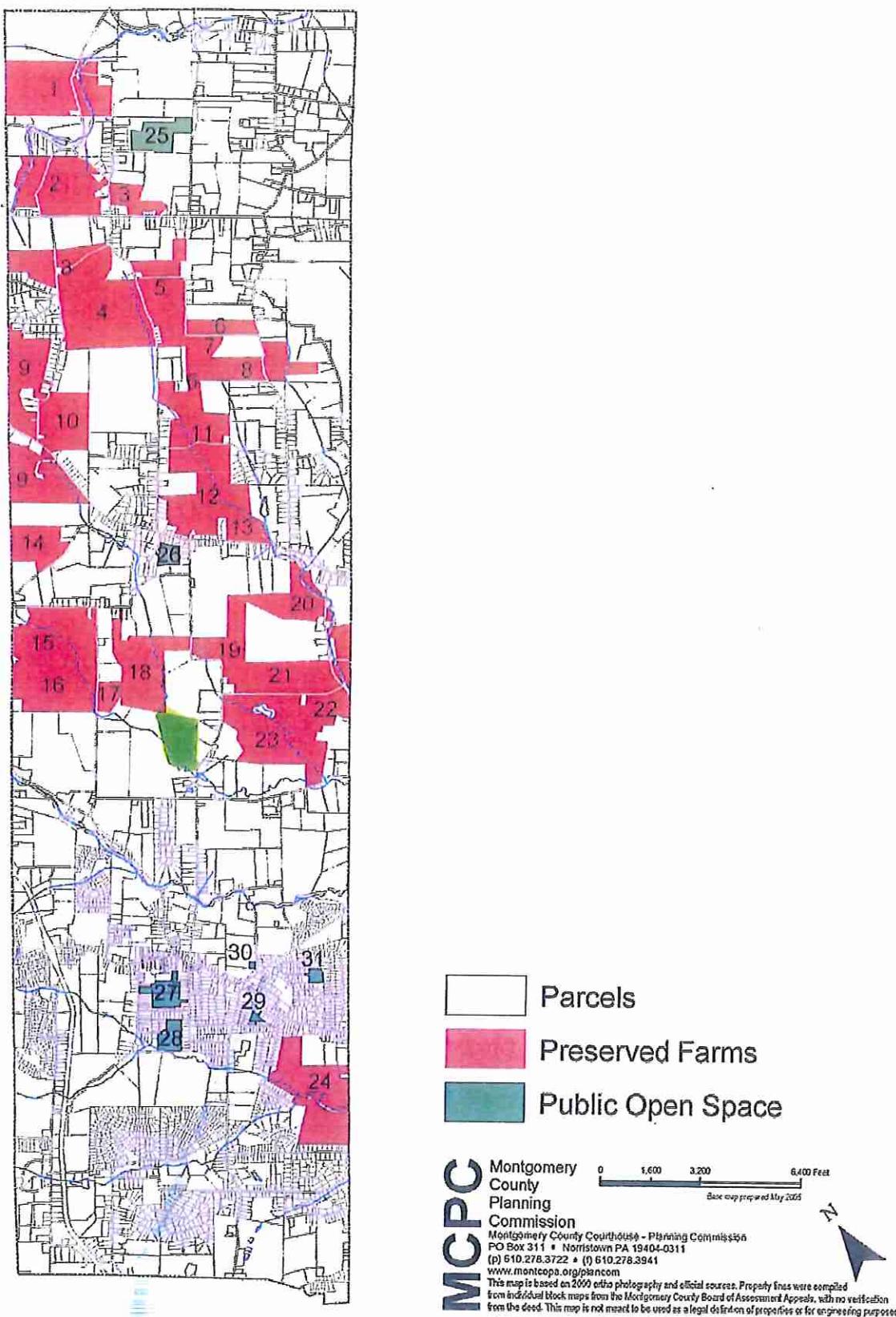


Figure 13
Permanent Open Space

Open Space Type	Map Key	Name/Owner	Acreage	Location	Facilities
Preserved Farms	1	Fern Weiss	94.00	410 Miller Road	Farm: crop, poultry
	2	Moser & Moser Inc.	78.19	320 Miller Road	Farm: crop
	3	Gerald & Virginia Moser	133.60	241 Niantic Road	Farm: dairy
	4	Robert & Terry Moser	148.31	282 Congo-Niantic Road	Farm: dairy
	5	Harold & Dorothy Moser	66.60	222 Weller Road	Farm: dairy
	6	Mark Austerberry	94.84	151 Weller Road	Farm: crop
	7	Daniel Moser	10.00	128 Weller Road	Farm: feed crop
	8	Joseph Ritter	46.43	248 Green Hill Road	Farm: crop
	9	Clark Yoder	74.72	110 Miller Road	Farm: dairy
	9	John Lutz	121.99	Miller Road	Farm: hogs
	11	Travis & Diane Moser	78.87	231 Hoffman Road	Farm: dairy
	12	Robert & Dolly Renninger	66.19	131 Congo-Niantic Road	Farm: crop
	13	John Feather	39.46	265 Hoffmansville Road	Farm: beef, crop
	14	Davis & Mary Haldeman	42.75	139 Renninger Road	Farm: crop
	15	Aloysius & Ann Steiert	95.13	210 Oberholtzer Road	Farm: horse
	16	Franklin & Elizabeth Schlegel	99.07	196 Schlegel Road	Farm: crop, dairy
	17	William Zimmerman	13.62	209 Schlegel Road	Farm: feed crop
	18	Robert & Carolyn Francis	90.65	851 Congo Road	Farm: crop
	19	Henry & Mae Zajac	56.37	820 Congo Road	Farm: crop
	20	Frederick Hansen	70.54	244 Sassamansville Road	Farm: nursery
	21	E. Barbara Reichert	67.05	151 Linsenbeidler Road	Farm: beef, hogs
	22	Charles Warnick	60.31	114 Linsenbeidler Road	Farm: crop
	23	Anthony Mashintonio	121.82	170 Linsenbeidler Road	Farm: nursery
	24	John & Vivian Keebler	123.76	81 Townshipline Road	Farm: dairy
Public Open Space	25	Keller Woods/Douglass Township	34.34	131 Keller Road	Passive open space
	26	Moyer Property/Douglass Township	9.89	1261 Congo Road	Passive open space
	27	Douglass Park/Douglass Township	19.57	E. Philadelphia Avenue	Ballfield, basketball courts, tennis courts, volleyball court, picnic pavilion, playground
	28	Rhoads Property/Douglass Township	8.50	Willard & Gilbert Roads	Passive open space
	29	Nelmore Park II	2.16	1556 Moore Road	None
	30	Douglass Township	0.91	108 Municiple Drive	None
	31	Colonial Manor	3.96	175 Oak Street	None
Total			1,973.60		

Sources: County Board of Assessments; MCPC field checks, 1994, 2004

Figure 14
Permanent Open Space Map



TEMPORARY OPEN SPACE

Approximately 1,512 acres of open space are temporary in nature (see Figures 15 and 16). This land falls into several categories including privately owned land, schools, and Act 319 Agricultural Security Areas.

PRIVATE OPEN SPACE

Over 153 acres of open space are privately owned. The majority of this (84.2 acres) belongs to the Twin Ponds Golf Course on Gilbertsville road. The remaining acres are owned and maintained by several homeowners associations. While this land is currently maintained as active and passive open space, because it is privately owned is could be sold and developed at any time.

SCHOOLS

Two schools in the Township, Gilbertsville Elementary School and Congo Elementary School, run by Helping Hands, Inc., have publicly accessible open space including a ball field, a multi-purpose field, a pavilion, a basketball court, and a playground.

ACT 319

The Pennsylvania Farmland and Forest Land Assessment Act was created to preserve land devoted to agricultural use, agricultural reserve, or forest reserve. This preferential tax assessment gives landowners a small incentive to keep the their parcel intact (minimum 10-acre parcel size). If a breach occurs, the landowner must pay roll-back taxes for the previous seven years plus interest. With the high demand for land, this penalty is not a significant deterrence, and therefore Act 319 provides minimal land protection. Thirty one farms comprising nearly 1,359 acres are currently participating in this program.

Despite their temporary nature, these sources of open space are still important to Douglass Township as they offer residents a greater

range of choices to meet their recreational needs and perform cultural and environmental protection rolls. They also add an aesthetic quality to the Township by opening up views and contributing to the Douglass' rural character.

In total, Douglass has a significant amount of protected land, with over 3,484 acres being either permanently or temporarily protected. This land provides residents with many opportunities to enjoy all that open space can offer – recreation, tranquility, beauty, and a sense of community.

Figure 15
Temporary Open Space

Open Space Type	Map Key	Name/Owner	Acreage	Location	Facilities
Private Open Space	33	Village Green Estates	5.3	E. Philadelphia Avenue & Bartman Avenue	Tot lots, basketball courts, play fields
	34	Presidential Estates	1.7	Estate Road	None
	35	Chandler's Crossing	10.0	Swinehart & Cleaver Roads	Tot lot, exercise course
	36	Summerhill HOA	11.4	Grosser & Cross Roads	None
	32	Sheffield	10.2	Bartman Avenue & Holly Road	None
	37	Twin Ponds Golf Course	84.2	Gilbertsville Road	18 hole golf course
	40	Berwind Estates HOA	30.4	Willow Lane	None
Schools	38	Gilbertsville Elementary School		Congo Road	Playfields, pavilion, basketball court, playground
	39	Congo Elementary School (Helping Hands, Inc.)		Congo-Niantic & Hoffmansville Roads	Ballfield
Act 319 Agricultural Security Areas	A	Schoenly Family Trust	122.25	350 Gehman Road	
	B	Mark & Judith Santangelo	26.07	211 Henry Road	
	C	Johnnie & Doris Niehls	23.47	111 Wild Run Road	Farm: hogs
	D	Jerry & Barbara Steever	29.97	115 Birdneck Road	
	E	Clinton & Martha Holmes	32.69	117 Cronrath Road	
	F	Joseph Kehs	45.91	273 Miller Rd	
	G	Wilson Hoffman	20	Miller Road	
	H	Ralph & Sylvia Schoenly	13.61	153 Hill Road	
	I	Charles & Deborah Beaver	33.84	310 Green Hill Road	
	J	John Hiryak	22.75	296 Green Hill Road	
	K	Harold & Dorothy Moser	30.9	Weller Road	Farm: feed crop
	L	Jared Clemmer	26.25	165 Miller Road	
	M	Walter Wydrzynski	129.16	Congo-Niantic Road	
	N	Robert & Barbara Smith	10	141 Green Hill Road	
	O	Troy & Tracy Heuer	77.01	181 Hoffmansville Road	Farm: crop
	P	George Sterner	80	155 Sterner Road	
	Q	Patricia Hart	10.56	233 Oberholtzer Road	
	R	Davis & Mary Haldeman	57.16	139 Oberholtzer Road	Farm: crop
	S	Robert & Ruth Shafer	10.13	179 Oberholtzer Road	Farm: horse
	T	Wayne Hallowell	120.97	1150 Congo Road	Farm: dairy
	U	Don Orner	10.71	266 Hoffmansville Road	
	V	Alan & Karen Keiser	24.79	234 Hoffmansville Road	
	W	Evelyn Standhardt	19.19	252 Sassamansville Road	
	X	Louis & Maureen Farrel	81.38	220 Sassamansville Road	
	Y	Robert Clauser	9.68	227 Schlegel Road	
	Z	William Zimmerman	9.89	191 Schlegel Road	

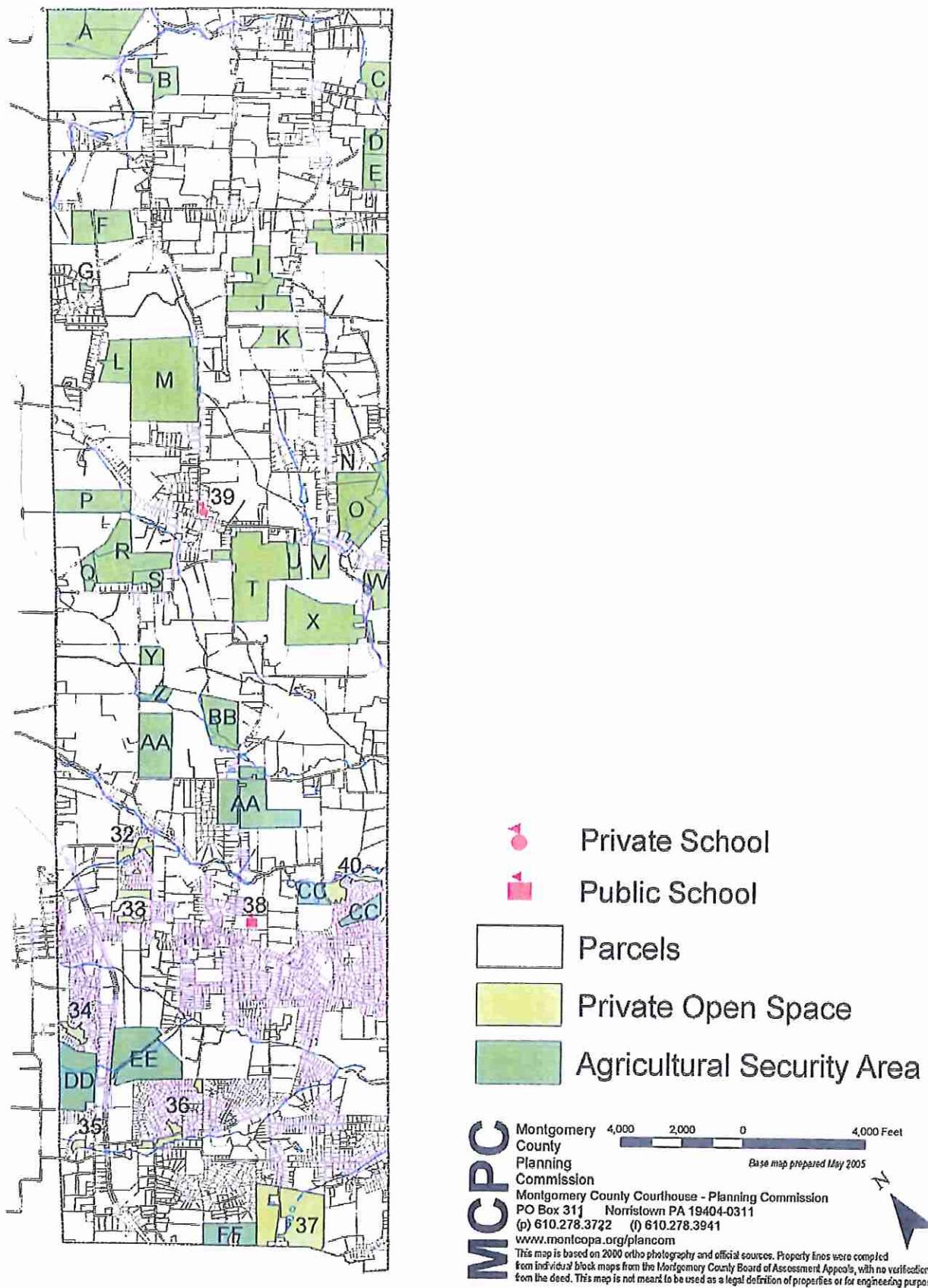
Figure 15 continued...

Temporary Open Space

Open Space Type	Map Key	Name/Owner	Acreage	Location	Facilities
Act 319 Agricultural Security Areas	AA	Tom & Joan Yarnall	130.57	291 Middle Creek Road	
	BB	Michael & Michele Libor	38.92	475 Congo Road	
	CC	Rolland Wildermuth	7	124 Smith Road	Farm: dairy
	DD	Natalie Cappel	50.5	650 Englesville Road	
	EE	Mary Jane Long	75.74	300 Jackson Road	
	FF	Lowell & Phyllis Swenson	27.58	115 W. Moyer Road	
Total			1,561.7		

Sources: County Board of Assessments; MCPC field checks, 1994, 2004

Figure 16
Temporary Open Space Map



CHAPTER 4

INVENTORY OF POTENTIALLY VULNERABLE RESOURCES

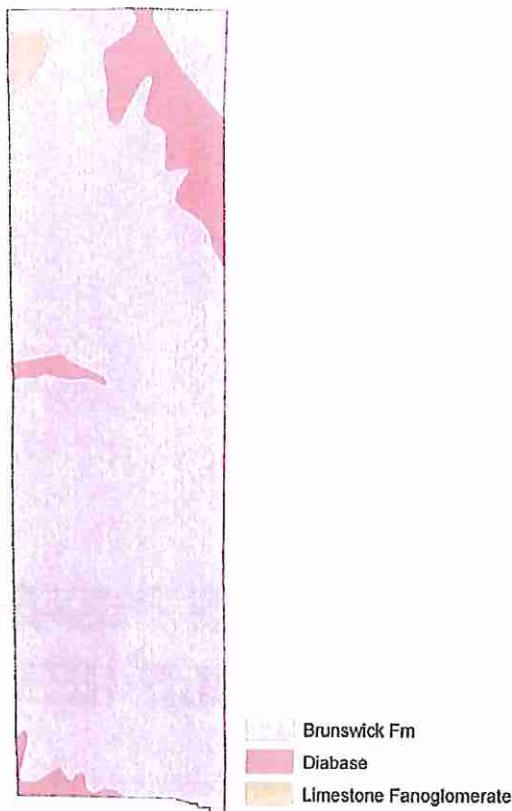
In Douglass, the combination of potentially vulnerable resources, such as geology, productive soils, streams, woodlands, and historic resources, creates a unique landscape that gives the township a distinct identity and contributes significantly to the overall quality of life. The township's natural resources serve to provide clean air and water, fresh produce, and habitat for wildlife. Also, these natural features help identify the opportunities and constraints for development. In order for the community to be able to prioritize these resources according to their vulnerability and local importance, they must determine which are most important for the health and welfare of the community.

GEOLOGY

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

Montgomery County is located in the Triassic Lowland and Piedmont Upland section of the Piedmont Physiographic Province. The Triassic Lowlands are primarily red shales and sandstones, with intrusions of diabase. Four formations - Stockton Sandstone/ Conglomerate /Shale, Lockatong Argillite/ Shale, Brunswick Shale/Sandstone, and Diabase - comprise the Triassic Lowlands. The formations underlying Douglass are described below and shown in Figure 17:

Figure 17
Geology



BRUNSWICK SHALE AND SANDSTONE

This sedimentary formation underlies most of the northwestern half of the county including the majority of Douglass' land area. The Brunswick formation sustains moderate groundwater yields in most locations (up to 100 gpm). The yields may vary and secondary openings such as joints and fractures are the key to adequate water flow. This formation results in the flat or gently rolling topography that is found throughout the county. In addition, the Brunswick formation includes harder and more resistant rocks called hornfels. The hornfels resulted when the red shale of the Brunswick was super heated by the super hot magma of the diabase intrusions through a process called metamorphosis.

DIABASE

Also referred to as "black granite," diabase is an igneous rock. It was formed when molten rock was extruded into large cracks in the surrounding Brunswick geologic formation. The intrusions of diabase, called sills and dikes, are generally narrow (less than half a mile wide and in some cases only several feet in width). The intrusions are very resistant to erosion, weathering, water infiltration, and groundwater movement.

The formation is notorious for low well yields and is very difficult to excavate. Limited groundwater is typically obtained from fractures in the weathered zone at the top of the bedrock. The average well yield is approximately five gpm and the best location for wells would be on hillsides and valleys.

Many wells located on the tops of ridges and hills will fail to obtain adequate domestic supplies. Ground water levels in diabase show a strong seasonal influence and are greatly affected by droughts.

Areas of diabase are often steeply sloped and wooded, with numerous surface rocks and large boulders. Most of the county underlain by diabase is wooded since the rock formation has been inhospitable to farming and development. Since diabase is formed from magma, which is typically high in mineral content, soils derived from this formation can yield quite unique and rare plant species.

TOPOGRAPHY

STEEP SLOPES

Slope, or frequency of change in elevation, is an important environmental condition. When expressed as a percentage, slope is defined as the amount of change in vertical elevation over a specified horizontal distance. For example, a three foot rise in elevation over a one hundred foot horizontal distance is expressed as a three percent slope. These changes in elevation throughout a

community contribute a great deal to its appearance and natural diversity.

This is especially true of the steep slope areas of a community, which also cause limitations to development. The slope and soils present on steep slopes are in balance with vegetation, underlying geology and precipitation levels. Maintaining this equilibrium reduces the danger to public health and safety posed by unstable hillsides. Steep slopes often have a combination of vegetation, climate, soil and underlying geology that differs from the surrounding area. Frequently this means that the environmental sensitivity of the steep slope are different as well. Susceptibility to erosion and mass movement may be greater than the surrounding area, especially if vegetation is removed. Increased runoff and

sedimentation from disturbed slopes require increased public expenditure for flood control and stormwater management. Also, different species of plants and the associated wildlife that depends on these plants may be present only on the slopes, creating unique recreation opportunities.

Steep slopes of between 15 and 25 percent are scattered throughout the Township, primarily adjacent to creeks and tributaries. Areas with slopes greater than 25 percent are located along the West Branch of the Perkiomen Creek, near the border with Upper Hanover. Figure 18 illustrates the location of steep slopes.

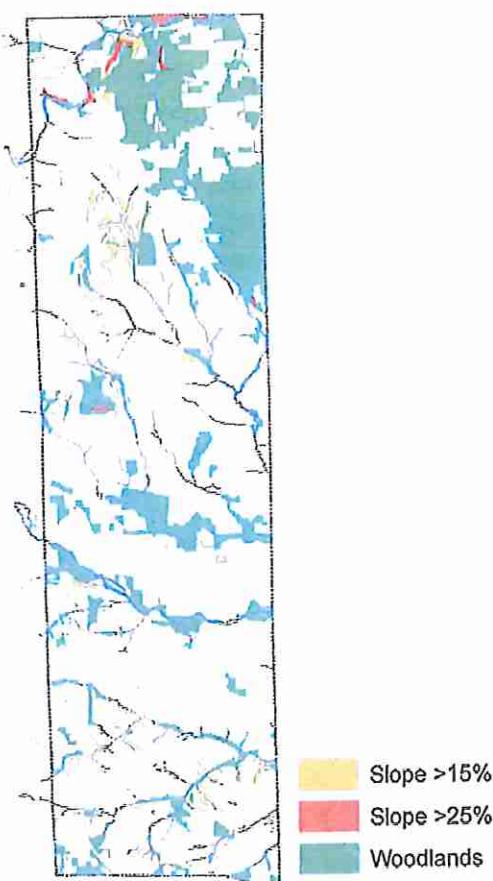
WOODLANDS

The original vegetation of Montgomery County was a dense forest of hardwoods which covered over 99 percent of the county. Oaks were the dominant species, but chestnut, tulip poplar, hickory, ash, red maple, and dogwoods were also present. Several hundred years of clearing and cultivation, and in more recent times the rapid development of houses and commercial facilities, have reduced woodlands to a shadow of their former extent. The principle types of woodlands remaining in the county are:

Red Oak - About 60% of all remaining woodlands. Northern Red Oak is predominant, but Black, Scarlet and Chestnut Oak are also abundant.

Ash/Maple/Elm - About 19% of all woodlands. Local mixtures will vary, and include minor species, such as the Slippery Elm, Yellow Birch, Black Gum, Sycamore, and Poplar.

Eastern Red Cedar - 18% of the county's wooded acres are covered with this species and associated species: Gray Birch, Red Maple, Sweet Birch, and Aspen.

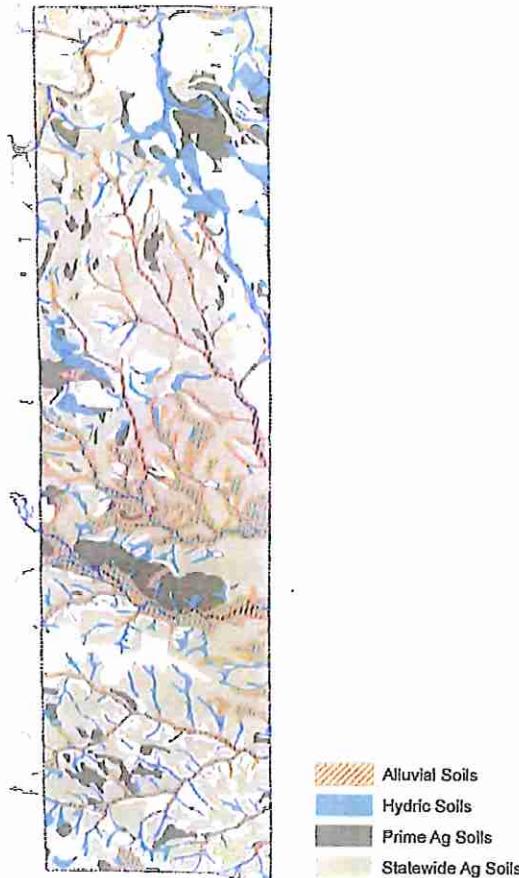


Sugar Maple/Beech/Yellow Birch - The remaining three percent of woodlands is comprised of this association. Associated species include Red Maple, Hemlock, Northern Red oak, White Ash, and Tulip Poplar.

Woodlands and hedgerows serve many purposes, both functional and aesthetic. Woodlands prevent erosion, provide habitat for wildlife, provide buffers for creeks, and offer recreational opportunities for residents. Hedgerows and wooded corridors prevent erosion also, and provide cover for wildlife movement, shelter, and migration.

The distribution of woodlands in Montgomery County can be described in three different patterns. Small, widely scattered stands can be found east of the central county ridge, often strung along

Figure 19
Soils



alluvial soils. Long, linear stands along streams and on alluvial soils are typical in the central part of the county. Large forested blocks of land, often hundreds to thousands of acres in size, are found on ridges in the central and northern areas of the county.

Important woodlands in the Township are found in the northeast corner in the vicinity of Niantic and Hoffmansville Roads, as well as along Middle Creek (Figure 18). However, with the exception of Keller Woods, no permanent open space currently exists for preservation of these areas.

SOILS

Soils are a natural assortment of organic materials and mineral fragments that cover the earth and supports plant life. The composition of soils changes slowly over time, due to weathering of rock and activity of soil organisms. As a consequence, soils vary with respect to depth to bedrock, depth to groundwater, color, mineral characteristics, fertility, texture, and erodibility. One of the most influential natural features, soils are a result of the hydrology and the weathering capacity of the underlying geology in a given area. They are also influenced by the orientation of the land and the types of vegetation that grow in them. Conversely, the type of soil influences the vegetative cover of the land, which effects the quality and quantity of surface and groundwater, wildlife diversity, rates of erosion, and the aesthetic quality of the landscape.

Though soils are diverse, soil scientists have classified the soils found in Montgomery County into several groups called soil series. Soils listed within the same series will display similar subsurface characteristics. The surface characteristics of soils within a particular series can vary in slope, degree of erosion, size of stones, and other easily recognizable features. Although a variety of soil types exist

in all parts of the Township, the most extensive type is "made land" from several soil series (Duffield, Lawrenceville, Chester, and Manor, for example).

In addition to the soil mapping units, soils can also be divided into prime and important agricultural soils, hydric components, and alluvial soils. The groups of soil pertinent to the Township are described below.

PRIME AND IMPORTANT AGRICULTURAL SOILS

The agricultural capability of soil is measured based on fertility, depth to bedrock and groundwater, texture, erodibility, and slope. Soils are classified as prime farmland, farmland of statewide importance, and other land, based on these characteristics. Prime farmland includes deep, well drained, and moderately sloped soils that can support high yields of crops with little management. Farmland of statewide importance includes soils that support cultivation but require careful crop management. The remaining soils are best used for pasture and woodlands.

Figure 19 shows that many Township areas contain soils suitable for agricultural use, including a number of areas with prime soils. Much of this area is currently farmed, although the largest swath of prime agricultural soils just north of Swamp Creek is under intense development pressure.

ALLUVIAL SOILS

Alluvial soils are frequently, but not always, located within a floodplain. They have been deposited by flowing water and are not stable as a result of their texture and composition. The presence of alluvial soils is only one indicator of a floodplain. Changes in the tributary drainage area or slope of the adjacent stream may create a floodplain that is either larger or smaller than the area of

alluvial soils. Also, alluvial soils do not indicate the probability of recurrence of a flood (for example, a 100 year flood). An important aspect of alluvial soils is that they often form aquifer recharge areas.

HYDRIC SOILS

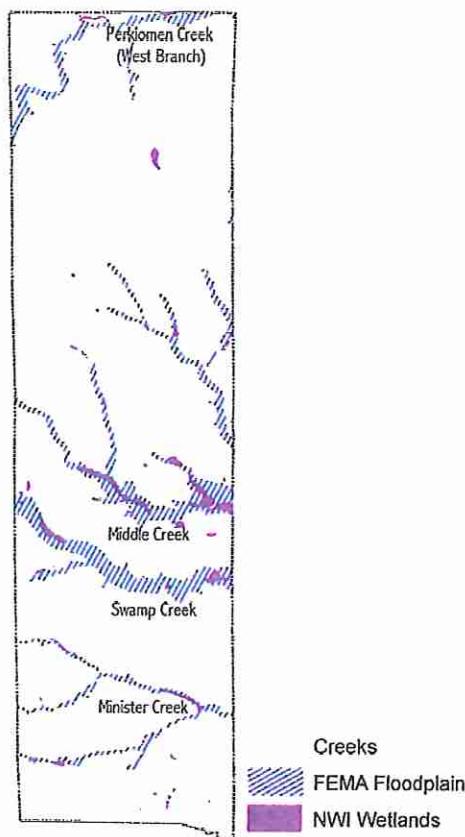
In general, soils that are saturated with water at or near the ground surface, particularly during certain times of the year, are considered to have a high water table. As would be expected, such areas often exist near water bodies and watercourses and may be part of wetlands. Because of wetness, these soils present a major constraint for development wherever on-site subsurface sewage treatment is utilized, as in many rural areas, since treatment depends largely on adequate water percolation through the soil. This is potentially a problem in Douglass, particularly along Swamp Creek where large expanses of hydric soils can be found.

SURFACE WATERS AND HYDROLOGY

Water is a valuable resource, consumed by people and industry, enjoyed at recreation facilities, employed in the assimilation of treated sewage, and integral to the landscape. The average rainfall in the county varies from 43 inches near City line Avenue to 47 inches in the vicinity of the Green Lane Reservoir.

It should be noted that in any given year, annual precipitation can vary from the average by as much as ten inches. Generally speaking, 25 percent of precipitation becomes direct runoff, 50 percent evaporates or is transpired by plants, and 25 percent replenishes groundwater. The surface water that falls on or is carried through Springfield affects the topography, soils, vegetation, and groundwater and

Figure 20
Hydrology



comes from two natural sources: direct runoff and groundwater. A third, manmade source, may also contribute to stream flow: effluent from sewage treatment plants, which tends to dampen the variation between high and low flow periods.

TOWNSHIP WATERCOURSES AND WATERBODIES

The township is crossed by five main creeks and their various tributaries: The West Branch of the Perkiomen Creek and Schlegel Run in the north, Middle Creek and Swamp Creek in the central area, and Minister Creek toward the south. Small portions of all but Swamp Creek are protected by existing open space as they traverse preserved farms. However, in general this open space adjacent to the creeks is not permanently protected. In fact,

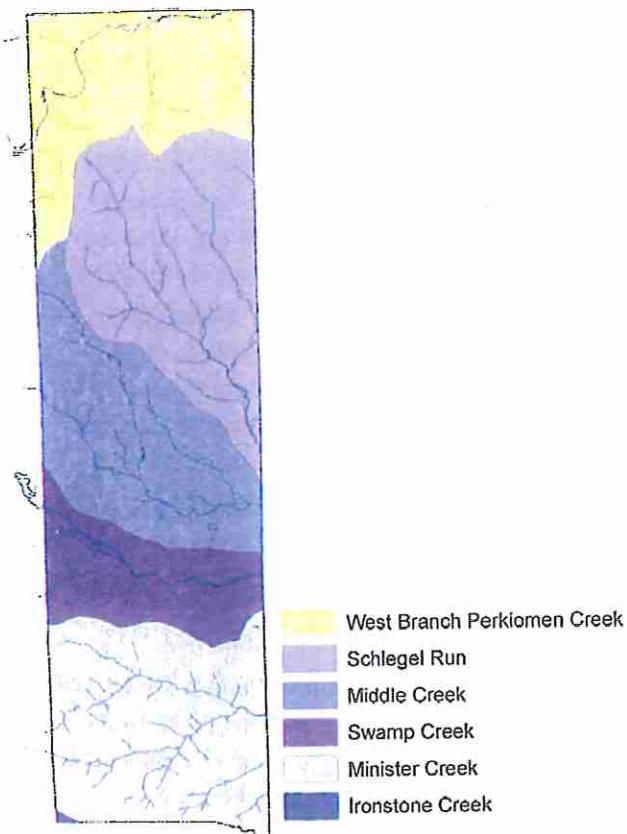
both Swamp Creek and Minister Creek lie within the township's future growth area. The Montgomery County Lands Trust is looking to establish a protected greenway along Swamp Creek and/or Middle Creek to help preserve water and habitat resources. In addition, Swamp Creek is part of the Montgomery County Proposed Greenway Network.

FLOODPLAIN AND STREAM CORRIDORS

The 100-year floodplain is a feature that will affect the health, safety, and welfare of township residents. Much of the time, it is dry. During storms, however, the floodplain stores and conveys floodwater. Development within the floodplain reduces the carrying capacity and increases the height and destructive ability of floodwater. In addition to carrying floodwaters, the floodplain and stream corridor serve other important functions. The condition of the stream corridor itself is important in minimizing erosion and water pollution, protecting water quality (temperature and velocity), and providing animal habitat and recreation opportunities. Floodplains in the township identified by the Federal Emergency Management System (FEMA) are found along each of the five main creeks and their tributaries, however the largest floodplain areas are located along Swamp Creek and Middle Creek.

Well vegetated corridors will reduce pollutant loads to streams, shade the stream, and provide habitat for wildlife. If vegetation is preserved along the banks of feeder streams as well as the main stem, pollutant loads are greatly reduced. Wetlands that filter and impede stormwater and provide a habitat for aquatic life are frequently found along stream corridors. Unconsolidated gravel and stone deposits along corridors allow for groundwater recharge. People also benefit from protected stream corridors, as they provide opportunities for trails and other forms of recreation.

Figure 21
Watersheds



WETLANDS

Wetlands have value and are worthy of protection due to a number of characteristics. However, it is easier to discuss the benefits of wetlands than it is to delineate the wetland itself. Some wetlands are easily recognizable by most people because the presence or influence of water is obvious. However, many wetlands are subject only to seasonal flooding. For much of the year, surface water may not be present. Still other wetlands develop in areas where the soil is saturated for long periods, but never flooded. The Environmental Protection Agency and the Army Corps of Engineers have defined wetlands as, "Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions."

Depending on where they are located, wetlands may serve one or more beneficial functions. Almost all wetlands provide habitat for birds, amphibians and fish, which in turn support other wildlife. Wetlands also mitigate flooding by holding back floodwater and slowing stream velocity. Wetlands improve water quality too. As water flows through a wetland, it slows and drops much of its sediment load. In addition, nutrients that can cause algae blooms and other pollution problems are taken up by wetland vegetation. Wetlands located in depressions often encourage infiltration of stormwater, contributing to groundwater recharge.

The township has a few wetland areas based on the National Wetlands Inventory (NWI). The NWI offers a broad based, generalized overview of wetlands, therefore other wetlands may also exist in the municipality. Hydric soils may also indicate the presence of wetlands. The Army Corps of Engineers or a qualified consultant could be enlisted for a final determination of where wetlands are in fact present. NWI wetland sites are scattered across the township along Middle Creek, Swamp Creek, minister Creek, and just west of the intersection of Niantic and Green Hill Roads.

WATERSHEDS

In terms of drainage, the vast majority of Township land drains into the Swamp Creek sub-basin (see blue areas of Figure 21) while a small portion in the north drains directly into the Perkiomen Creek basin (yellow area of Figure 21). Because watershed basins are usually larger than one community, an interrelationship exists whereby municipalities that are upstream, mainly in Berks County, contribute surface water flow to Douglass, while those downstream such as New Hanover Township receive Douglass Township's flow. With this in mind, Douglass should aim to maintain the natural conditions of its drainage system, such as through preservation of open space along watercourses.

PROTECTED WATERCOURSES

Pennsylvania, as required by the Federal Clean Water Act, has established water quality standards that apply to all streams and other waterbodies in the Commonwealth. The water quality standards, codified in Title 25 PA Code Chapter 93, establish water quality criteria that need to be maintained to protect designated water uses.

Discharges to waters of the Commonwealth are evaluated to assure that water quality standards are complied with. Where needed, effluent or other discharge limitations are established to assure that water quality criteria are achieved and designated uses protected. Non-point source discharges are required to incorporate Best Management Practices.

The protected water use designation for a given waterway is an indicator of its value for the protection and propagation of aquatic life. Since each protected use has chemical and biological characteristics, and other stream conditions that need to be maintained, the designations are also indicators of stream quality. Therefore, the designations can be used to prioritize the unprotected stream and stream valley resources in a municipality. The West Branch of the Perkiomen Creek and Middle Creek are both designated watercourses. The Perkiomen is designated for cold water fishes, and Swamp creek is designated for trout stocking.

GROUNDWATER

Groundwater behaves much like surface water, flowing like a stream, only much slower. Groundwater is tapped as a source of drinking water and for industrial purposes where surface water is unavailable.

Groundwater replenishment occurs slowly, as precipitation and in some cases stream water seeps through the soil, down to the aquifer. Open, undisturbed land is essential to

groundwater recharge, since vegetation serves to retain precipitation where it falls, allowing it to soak into the soil rather than run off the surface. Impervious surface from development prevents infiltration of precipitation.

The Township obtains its public water supply from Berks Montgomery Municipal Authority (BMMA) and Superior Water. Nearly half of all households, mainly outside of the immediate Gilbertsville area, obtain their water from private wells, while just over half utilize public water systems. All of the land not within a rural resource area (designated in the Pottstown Metropolitan Regional Plan) is or will be connected to public water service in the future.

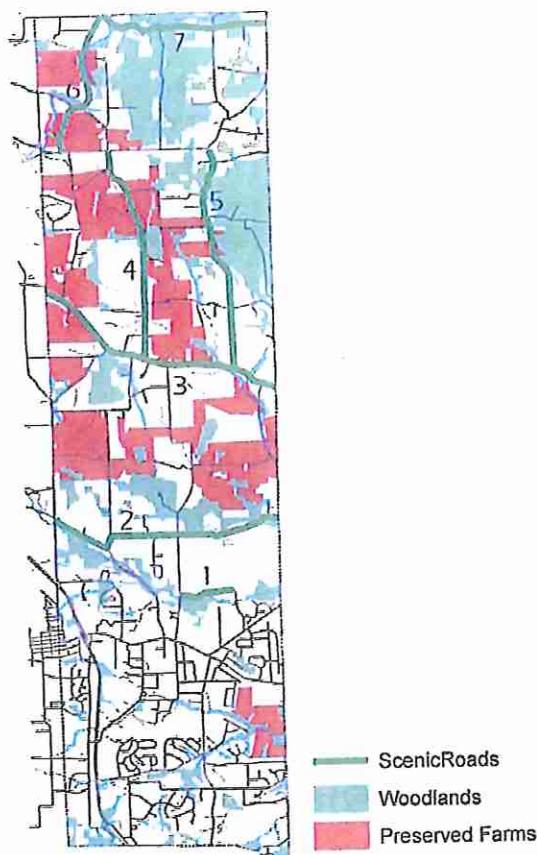
SCENIC ROADS AND VISTAS

Scenic resources are elements of the natural and/or built environment that stand out among all the attributes of a community. They tend to be the most pleasant and interesting places, such as historic sites, natural features like lakes or creeks, and recreation areas.

Although the process of identifying a scenic resource is largely dependent on the observer's own opinions and preferences, information collected from a community group, such as a planning commission, can provide a relatively broad inventory. Wherever possible, these areas should be preserved and linked to the community's open space and recreation system. Scenic resources in Springfield are summarized below under the combined heading of roadways and views and are mapped in Figure 22. The defining element or feature for each resource is noted.

Roadways with scenic attributes contribute to a community's open space system because they provide a way to view its scenic resources and in some cases also serve as

Figure 22
Scenic Roads & Vistas



recreation routes for walkers, bicyclists, and joggers. A number of such roads exist in the Township.

1. **Smith Road** - Scenic elements include Swamp Creek and surrounding woodlands.
2. **Middle Creek Road** - Scenic elements include Swamp Creek and farmland.
3. **Hoffmansville Road** - Scenic elements include broad vistas of farmland.
4. **Congo-Niantic Road** - Scenic elements include broad vistas of farmland.
5. **Green Road** - Scenic elements include woodlands
6. **Miller Road** - Scenic elements include the Perkiomen Creek and farmland.
7. **Paper Mill Road** - Scenic elements include the Perkiomen Creek and woodlands.

HISTORIC AND CULTURAL RESOURCES

Historic sites are another important vulnerable resource in a community. Historic structures and places are an important element in creating and maintaining a community's sense of place. These historic resources add to an area's quality of life by providing a community with pride and ownership of its past. They also make a valuable contribution to an area's current educational, cultural, and social environment.

Preservation also makes good economic sense. Long considered the "ultimate in recycling," historic preservation allows for the reuse of existing buildings and infrastructure, while retaining the heritage that defines a community.

NATIONAL REGISTER SITES

The National Register of Historic Places contains a record of properties considered worthy of preservation at the national level. This list contains a number of sites in Montgomery County such as Valley Forge National Park, but none currently in Douglass. However, in 1994 the Gilbert Farm at 1447 Grosser Road was added to the National Register Eligible list. This farm has since been subdivided into a residential development called Greenbriar.

OTHER HISTORIC RESOURCES

The 1976 Comprehensive Plan included an inventory of some historic structures in the Township, ten of which are listed below, along with their current use, and mapped in Figure 23:

1. Wartman Tanyard (Isaac Gilbert, owner), 1812; Currently used as a residence.
2. Wartman Grist Mill (Adam Wartman, owner), 1793.

3. Gilbertsville Hotel
4. Huber's Church; Currently used as a church.
5. H. Moyer Store; Currently used as an office.
6. Paper Mill (D. Leidig, owner); Currently used as a residence.
7. Mill (A Schultz, owner)
8. Taggart's Mill; Currently used as a residence.
9. Hotel (F. Fox, owner)

10. Brick Kiln, Apple Butter Factory (Bauman, owner)
11. Zern's School, Hoffmansville Road

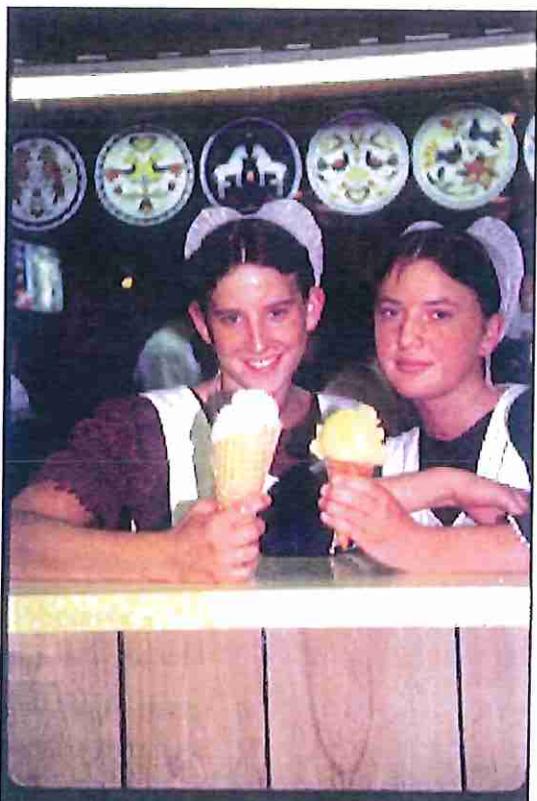
Douglass Township also boasts other cultural resources, such as Zern's Farmer's Market. Begun in 1922, today it houses 400 flea market stands and is billed as the "World's Largest Dutch Treat."



This historic marker appears on a bridge that crosses Middle Creek.

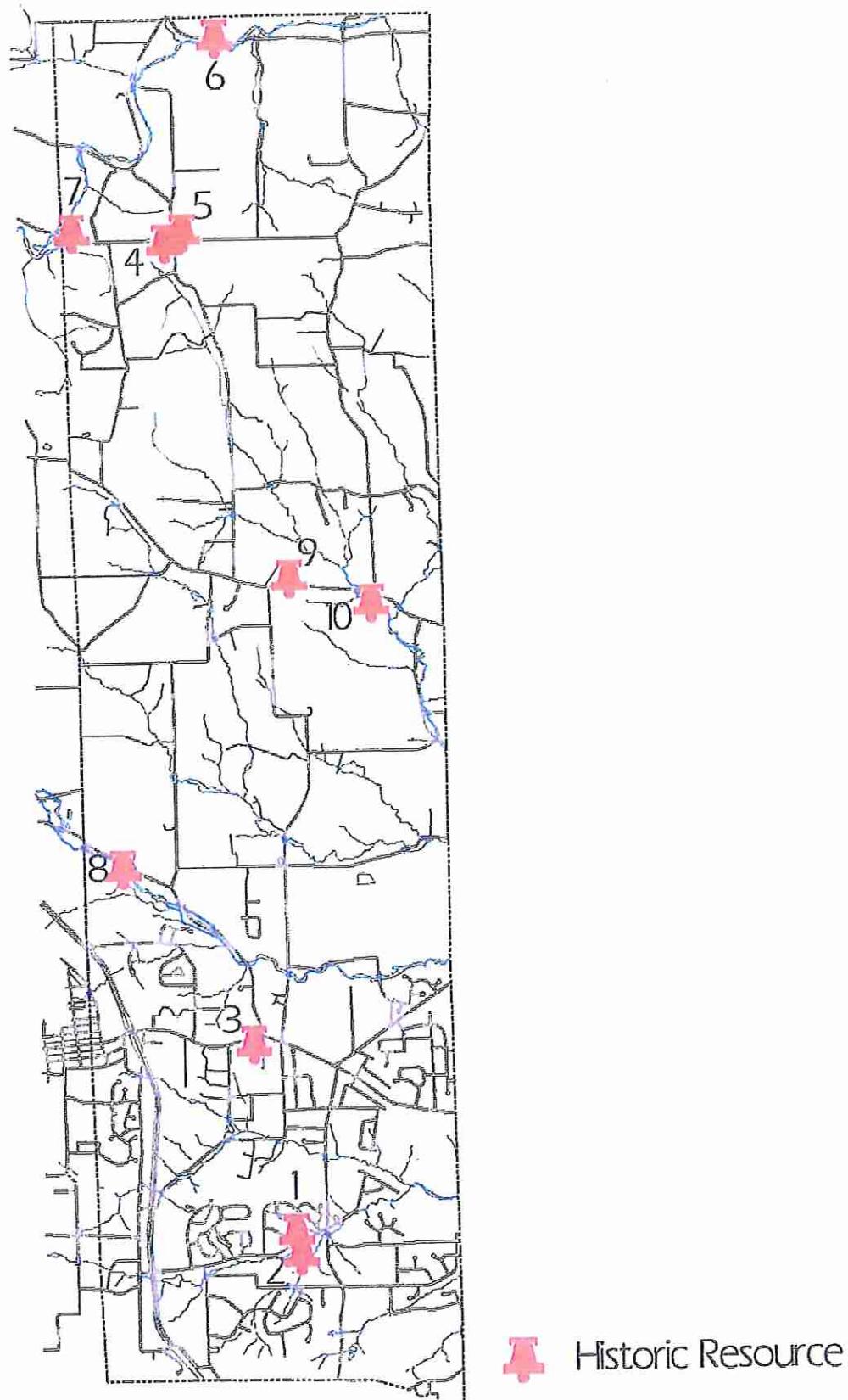


"The Corner Shoppe" at the intersection of Gilbertsville Road and E. Philadelphia Avenue gives the area a historic flavor.



Zern's Farmer's Market attracts many vendors, including these Amish ice cream vendors.

Figure 23
Selected Historic Resources



CHAPTER 5

ANALYSIS OF UNPROTECTED RESOURCES

This chapter identifies areas where vulnerable resources are not permanently protected, proposes priorities for their future preservation, and establishes specific protection goals. Generally, the priority categories are based on the extent of resources found in a given area, particularly where a concentration exists, their location and contribution to community identity, and the open space goals established in Chapter 2. These priorities are only based on vulnerable resources, and may not be the same as the priorities established in the implementation portion of this plan.

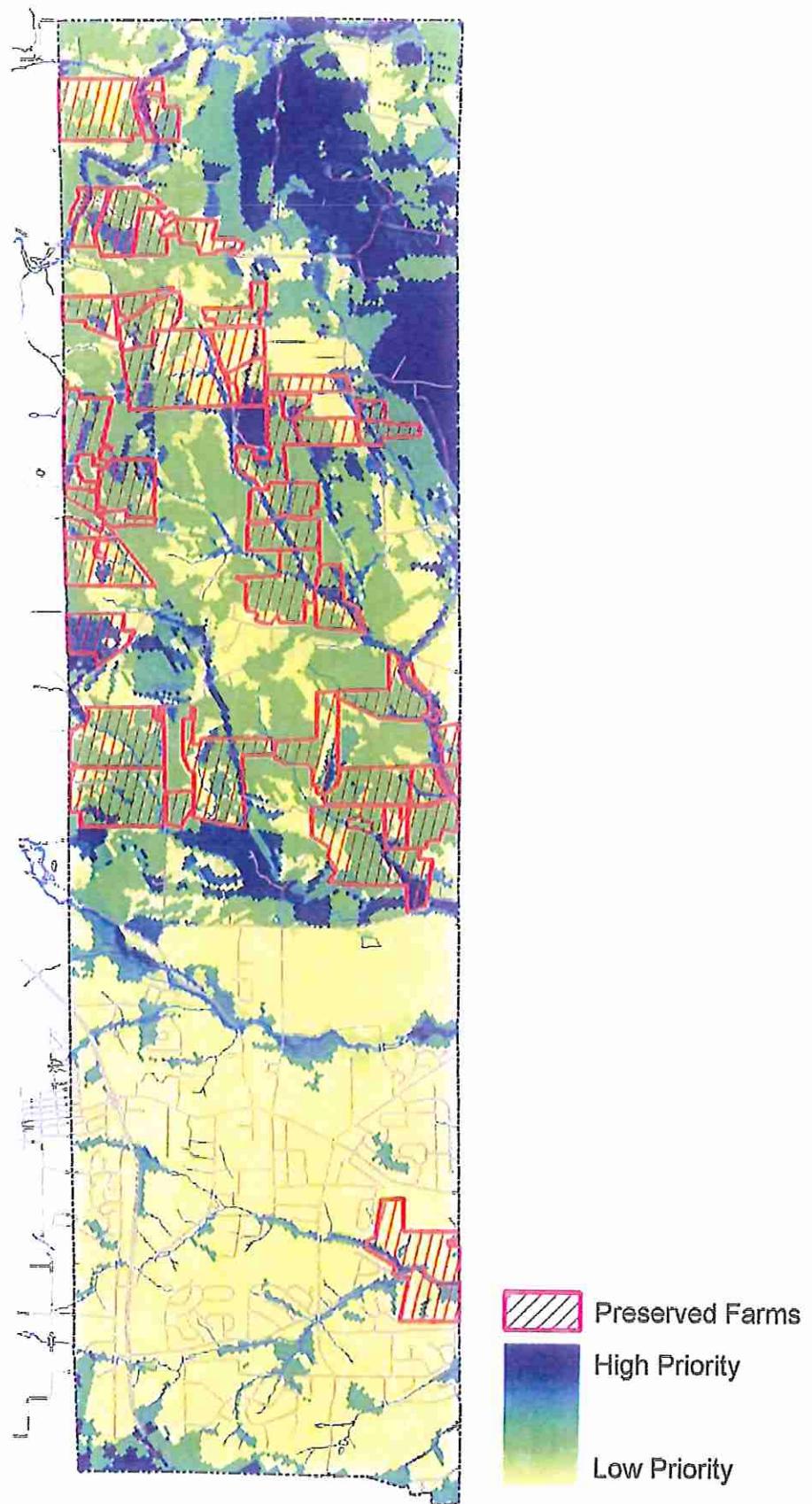
COMPOSITE OF VULNERABLE RESOURCES

Douglass Township has several natural resources that are not currently protected from future degradation. The township's goals for this open space plan include ensuring the Township's rural identity through farmland preservation, maintaining tree cover, preserving greenways, improving water quality. With these goals in mind a composite of vulnerable resources was created including

woodlands, wetlands, floodplains, steep slopes (15-24% and 25% or greater), alluvial soils, hydric soils, prime agricultural soils, and soils of statewide importance. While floodplains, wetlands, and steep slopes are given a level of protection by various ordinances, other vulnerable resources are not currently protected.

Figure 24
Combined Vulnerable Resources

MCP
Montgomery
County
Planning
Commission
Montgomery County Courthouse - Planning Commission
PO Box 311 Norristown PA 19404-0311
(610) 278-3722 (610) 278-3941
www.montcopa.org/plancm



PRIORITIZATION OF AREAS FOR PRESERVATION

Priority areas have been chosen based on goals, concentration of resources, scenic views, and proximity to existing open space. Figure 24 maps vulnerable resources using a value scale weighted in the following manner: Agricultural soils—35%; Woodlands—25%; Diabase geological formation—20%; Wetlands-10%; Floodplains-5%; Steep Slopes-5%. These weights indicate the level of increased protection each resource needs as determined by community representatives. Here, yellow areas indicate low priorities, green mid-level priorities, and blue high priorities. Preserved farms are indicated by red hatching.

Figure 25 maps the same resources with the same weights as those in Figure 24, but further identifies areas that could be preserved. White areas indicate land that has been developed or permanently preserved: Preserva-

tion efforts need not focus on these areas. Colored areas indicate land that still has a possibility of being preserved.

MID-LEVEL PRIORITY AREAS

Mid-level priority areas (green) are mainly located north of Middle Creek Road. These are areas that contain existing unprotected farms, former farmland, and low-density residential development.

HIGH PRIORITY AREAS

High Priority Areas (blue) are located primarily in the north-eastern portion of the Township, where woodlands and diabase geological formations dominate. These are generally parcels owned by residents who live in single-family detached homes on this land.

A second high priority area is located around Middle Creek on either side of Congo Road. This area also consists mainly of single-family homes on large lots.

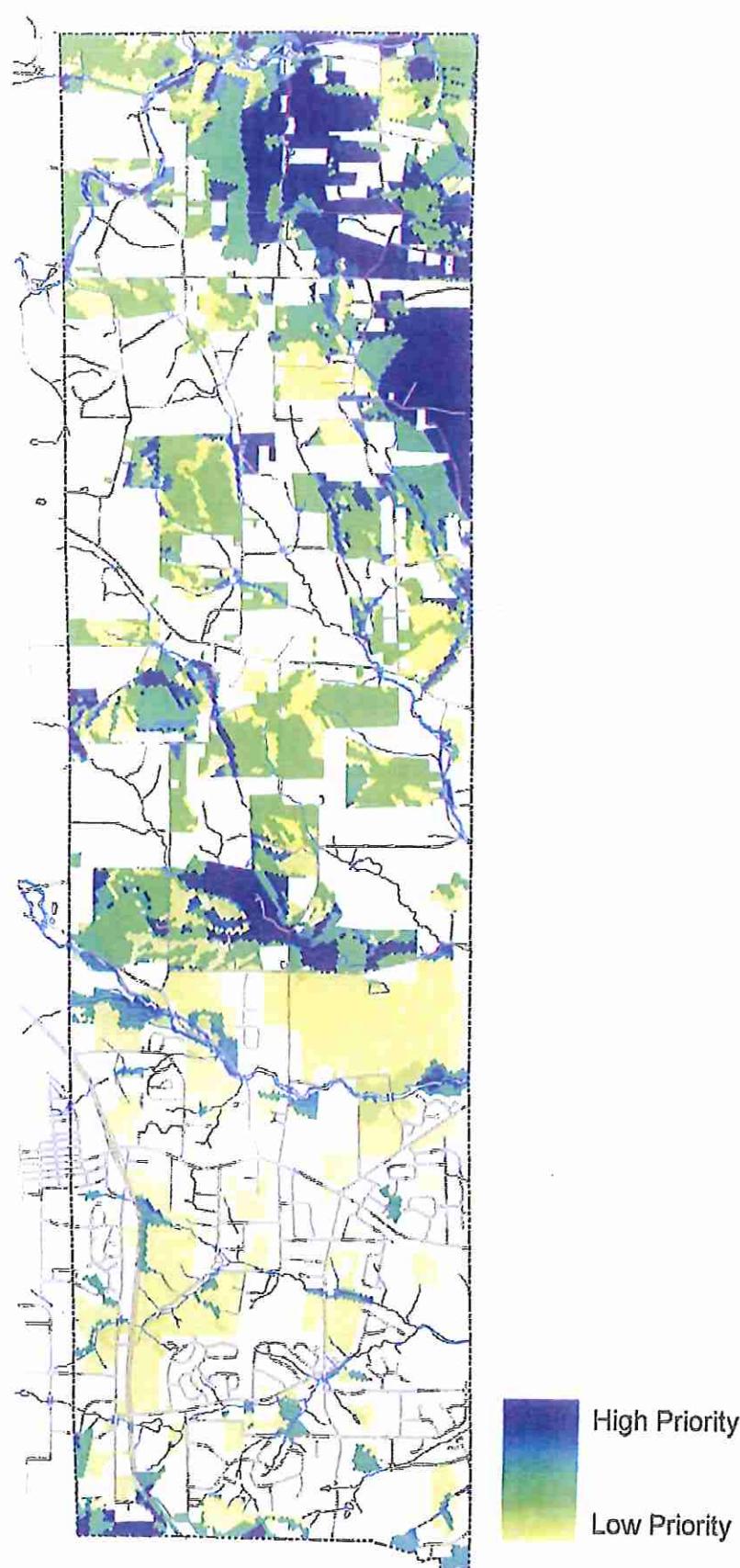
These high priority areas represent a confluence of natural features that the Township feels are very important to protect. Within these areas, specific properties will be identified for open space preservation in the Recommendations and Implementation chapters.



Protection of existing woodlands is a high priority for the Township.

Figure 25
Priority Vulnerable Resources

 **MCPC**
Montgomery
County
Planning
Commission
Montgomery County Courthouse - Planning Commission
PO Box 311 - Norristown PA 19404-0311
(610)278-3722 (610)278-3941
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CHAPTER 6

POTENTIAL OPEN SPACE LINKAGES

An important aspect of open space is the accessibility of that space to community residents and to the region as a whole. This section of the plan identifies potential open space linkages that tie together various sites within the Township and connect to open space in adjacent communities. Such connections help form a more comprehensive open space system for residents and wildlife, and contribute to the creation of a more effective and enjoyable regional network. They can increase the accessibility of parks by adding off-street pedestrian and bicycle access and can offer recreational opportunities in and of themselves as passive, natural recreational space. Examples of potential linkage opportunities include utility corridors, stream valleys, abandoned rail lines, sidewalks, and similar linear features.

Identification of potential linkages on a regional level will help to contribute to Montgomery County's vision of a Countywide Trail System. Ten possible connections for Douglass Township are described below and shown in Figure 26. These linkages are prioritized into two categories: Trail Priorities and Greenway Priorities. Trails indicate active use, while greenways indicate passive use or simply environmental protection areas.

TRAIL PRIORITIES

A trail network is important for public health concerns, access to nature, and quality of life. The latest data from the National Center for Health Statistics show that 30 percent of U.S. adults 20 years of age and older - over 60 million people - are obese. Among children and teens aged 6-19 years, 16 percent (over 9 million young people) are considered overweight.* The Centers for Disease Control and Prevention have recommended more places to walk and bicycle as an antidote to inactive lifestyles.

Designated routes provide access to, and appreciation of, the values of natural areas and other green spaces. According to the Planning Commissioners Journal, more homebuyers today favor housing developments that include green space, biking and

pedestrian paths, and natural areas. With these ideas in mind, Douglass is interested in establishing a comprehensive trail network (see Figure 26). Trails can be off-road paved pathways, on-road striped lanes, signed routes, or anything in between (see photos below). What is important is to designate safe areas for people to walk, run, bike, or skate that links various destinations.

In addition to trails, Douglass would like to develop a comprehensive sidewalk network in the Gilbertsville area. These pedestrian amenities will also link various destinations within the Township and serve as a type of recreation facility.

CONGO-GILBERTSVILLE TRAIL

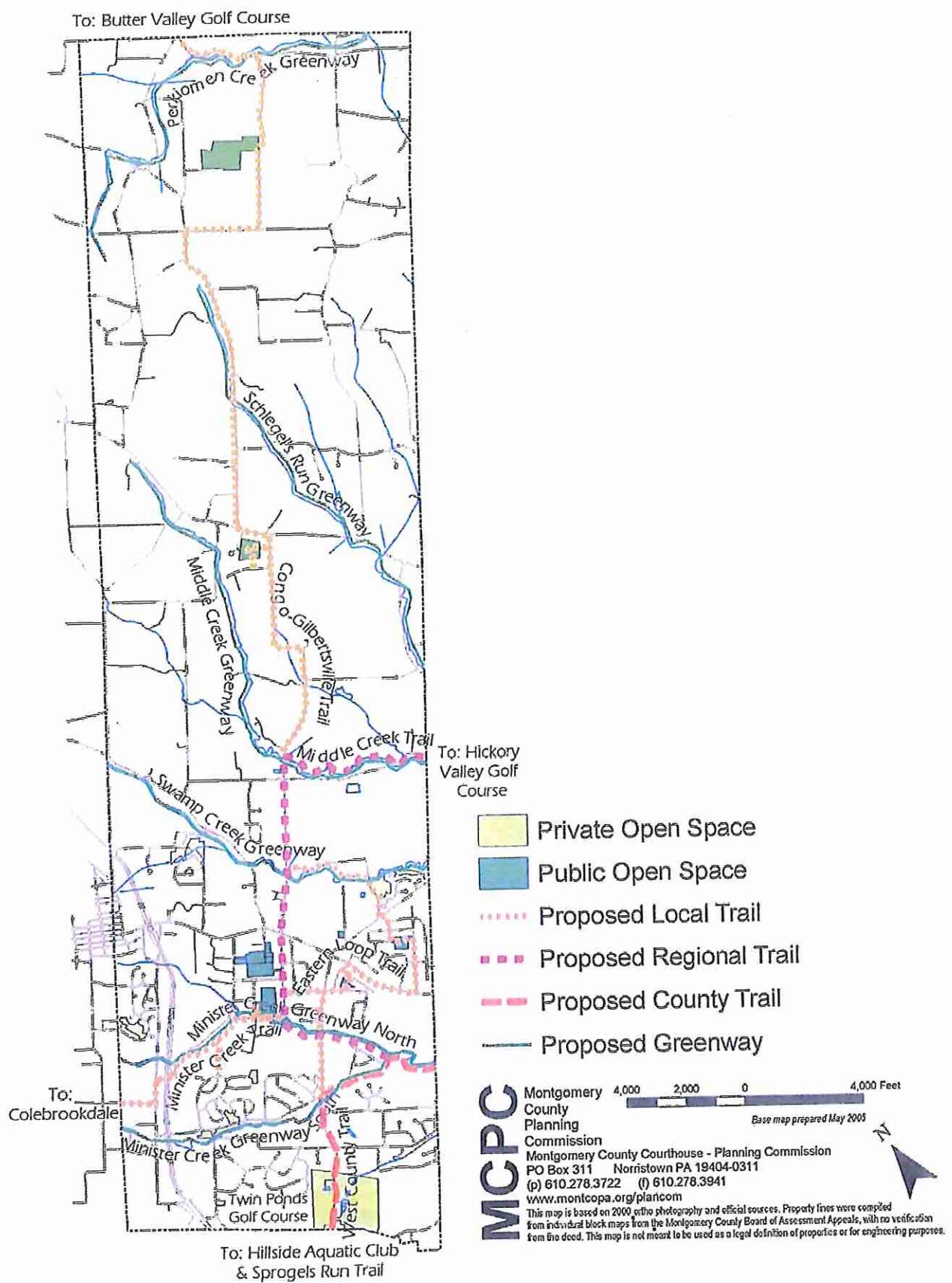
This linkage connects several Township parks including Keller Woods, Congo Road Town-



Examples of trail types clockwise from top left: Signed hiking path, share the road sign, separate pedestrian pathway parallel to roadway, utilizing a shoulder, off road trail.

*Department of Health and Human Services, Centers for Disease Control and Prevention.
<http://www.cdc.gov/nccdphp/dnpa/obesity/>

Figure 26
Proposed Linkages



ship Park, and the Township Park in Gilbertsville. It leads into the West County Trail through Twin Ponds Golf Course. The trail would be extended to the north to connect with the Butter Valley Golf Course in Upper Hanover Township. This trail alignment falls mainly on Congo and Gilbertsville Roads, moving onto creek alignments where possible. A portion of this trail is identified as a Proposed Regional Trail in the Pottstown Metropolitan Regional Comprehensive Plan.

EASTERN LOOP TRAIL

Existing neighborhoods on the eastern side of Gilbertsville would be connected to the Congo-Gilbertsville Trail and to two existing Township Parks via this trail. For the most part, it runs on the existing street network (Smith Road, Elm Street, Oak Street, E. Philadelphia Avenue, S. Werstler Avenue, and Virgmy Drive) and Swamp Creek.

MINISTER CREEK TRAIL

Connecting the Congo-Gilbertsville Trail and Township Park to the Berks County Border, this trail runs along Minister Creek and Jackson Road through the Long property, then across Route 100 to Swinehart and Cleaver Roads. With cooperation, this trail could lead into the village of Colebrookdale in Douglass Township (Berks County).

MIDDLE CREEK TRAIL

This trail runs along the eastern portion of Middle Creek and connect the Congo-Gilbertsville Trail to the Hickory Valley Golf Course in New Hanover Township. A portion of this trail is identified as a Proposed Regional Trail in the Pottstown Metropolitan Regional Comprehensive Plan.

WEST COUNTY TRAIL

The West County Trail is part of Montgomery County's proposed primary trail network.

This trail will connect the Green Lane Reservoir Park in Upper Frederick Township to the Manatawny Trail in Pottstown Borough via New Hanover, Douglass, and Upper Pottsgrove Townships. While the exact alignment has not be determined, it would likely be located along Minister Creek and Gilbertsville Road within Douglass Township. It would connect the Congo-Gilbertsville Trail to the Twin Ponds Golf Course and points of interest in Upper Pottsgrove, including the Hillside Aquatic Club and the planned Sprogels Run Trail.

TRAIL SAFETY

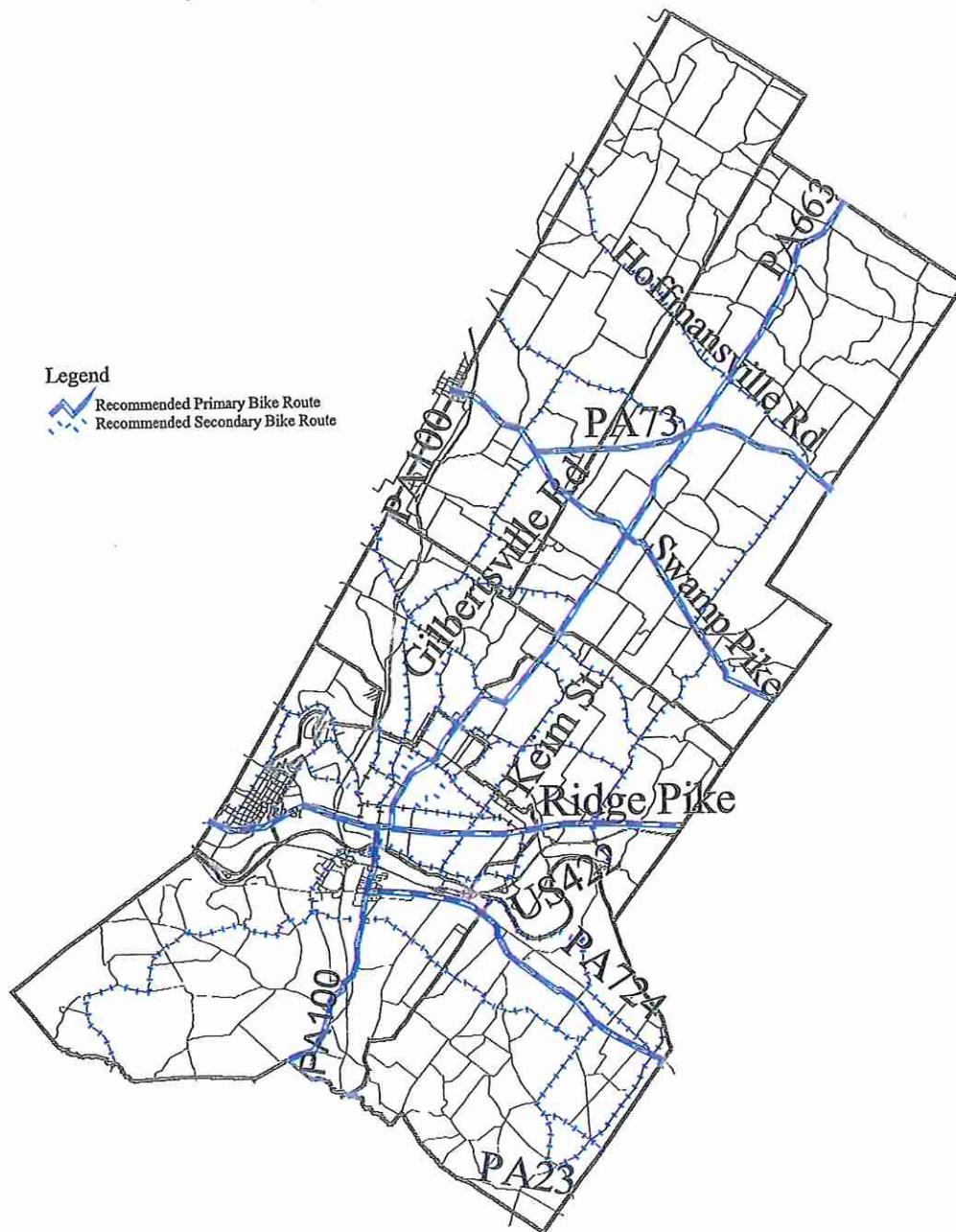
New trail development often raises questions about their impact on property values and public safety. In the real estate market, trails are regarded as an amenity that may help to attract buyers and to sell property. Numerous studies have shown that trails that have a positive effect or no effect on the value of adjacent homes. And, according to the Rails-to-Trails Conservancy, trails are actually one of the safest places to be, and the incidence rate of crime on trails is minor in comparison to other locations. Numerous studies, surveys, and letters from law enforcement officials indicate that trails are safe places for local residents and visitors to enjoy.

BICYCLE NETWORK

In addition to the local, regional and county trails proposed above, the Draft Regional Plan also recommends a number primary and secondary bicycle routes. In Douglass, E. Philadelphia Avenue and Big Road are primary routes, while Hoffmansville Road, Middle Creek Road, Congo Road, Gilbertsville Avenue, and Moyer Road are all secondary routes (see Figure 27).

To accommodate this network, roads can be retrofitted for bicyclists when the roads undergo maintenance or improvement projects.

Figure 27
Recommended Bicycle Routes for the Pottstown Region



Roads may be widened, re-striped, or signed, depending on the needs of bicyclists and existing conditions.

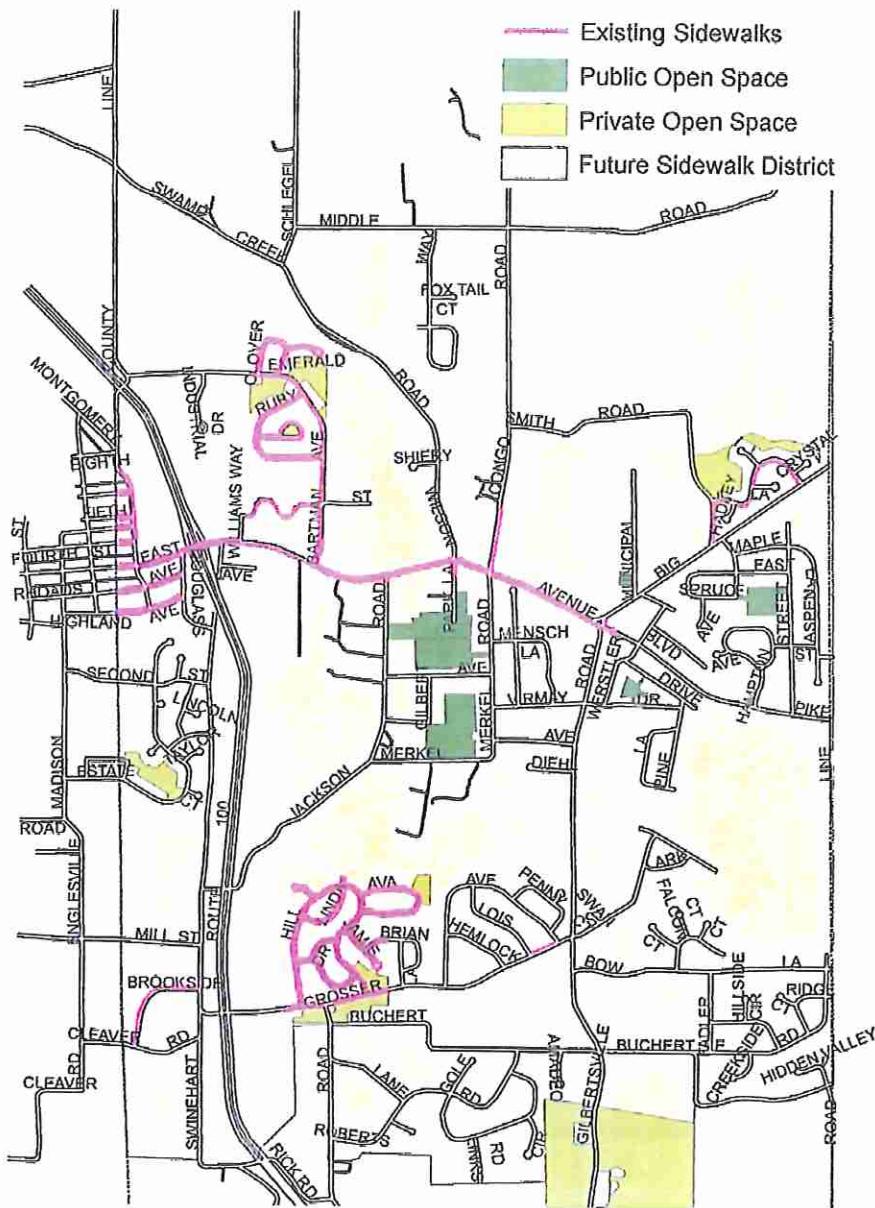
SIDEWALK NETWORK

Until recently, subdivisions in Douglass Township did not make provisions for sidewalks. Sidewalks tend to give a development a more suburban character, and Douglass has thus

far remained a rural township. However, as the Township grows, it will be even less safe to walk on heavily traveled roadways. Under these conditions, a sidewalk network becomes more desirable in select locations.

In June 2005, a sidewalk survey was completed (see Figure 28). As can be seen, only the Cobblestone Commons, Sheffield, Summerhill, and Chandler's Crossing subdivisions

Figure 28
Existing Sidewalks and Future Sidewalk District



provide sidewalks for their residents. Sidewalks are also present in the Boyertown area, as well as along E. Philadelphia Avenue. The latter are narrow (less than 4 feet wide) and, in many places, in need of repair.

Currently, the construction of sidewalks is required for new development through the subdivision and land development ordinance. However, in the past the Township has often waived these requirements in an effort to maintain a rural character. In order to create

the well-connected system that it now needs, the township should discontinue this practice. It should require that sidewalks be built in all new non-residential development and all new residential development of 3 or more homes that lie within the Future Sidewalk District. This district is identical to the area delineated for development in the draft Pottstown Metropolitan Regional Plan.

For development outside of this district (i.e. within the rural resource area), the require-

Figure 29
Recommended Locations for Sidewalks

Type of Development	Sidewalk Location for New Development	Sidewalk Location for Existing Development
Commercial, Office, and Industrial (along all types of streets)	Both sides of streets	Both sides of streets. Every effort should be made to add sidewalks where they do not exist and complete missing links.
Residential (along arterials).	Both sides of streets.	Both sides of streets.
Residential (along collectors).	Both sides of streets.	Apartments, townhouses, or twins: both sides of streets Single-family detached homes: prefer both sides of street, require at least one side.
Residential (along local streets) More than 4 units per acre	Both sides of street	Prefer both sides of streets; require at least one side.
1 to 4 units per acre	Prefer both sides of street; require at least one side	Prefer both sides of streets*; however sidewalk on one side of street or 6-foot shoulders* on both sides are acceptable.
Less than 1 unit per acre	One side of street preferred; shoulder on both sides required	One side of street preferred; at least 6-foot shoulders* on both sides.

Published in the Draft Pottstown Metropolitan Regional Comprehensive Plan. Adapted from guidelines in the Institute of Transportation Engineers' Design and Safety of Pedestrian Facilities.
 * Changes made from guidelines to reflect Pottstown Regional conditions are noted with an asterisk (based on Montgomery County Transportation Plan's adjustments).

Figure 30
Sidewalk Width Guidelines by Area

Area	Minimum Sidewalk and Planting Strip Width
Central Business District	Minimum width of 8 feet, but wider widths when significant numbers of pedestrians are expected
Commercial, office, industrial area outside of the central business district	Minimum 5-foot width with a preferred planting strip width of 4 to 8 feet*. However a 7-foot sidewalk width with no grass strip or a 5-foot width with a 2-foot grass strip are acceptable.
Residential areas located along arterial or collector streets	Minimum 5-foot width with a preferred planting strip width of 4 to 8 feet*. However, grass strips of 2 feet are acceptable.
Residential areas along local streets with densities greater than 4 homes per acre.	Minimum 5-foot width with minimum 2-foot grass strip.
Residential areas along local streets with densities of 4 homes per acre or less	Minimum 4-foot width with minimum 2-foot grass strip.

Important Note: All sidewalk widths are exclusive of any obstacle. Sidewalk areas containing street lights, trees, benches, doors, trash cans, mailboxes, newspaper boxes, etc. must be added to the minimum width. In addition, in central business districts, two feet should be added to the width wherever pedestrians may be window shopping or doors may be opening into the sidewalk area.

Note: Published in the Draft Pottstown Metropolitan Regional Comprehensive Plan. Adapted from guidelines in the Institute of Transportation Engineers' Design and Safety of Pedestrian Facilities. * Changes made from guidelines to reflect Pottstown Regional conditions are noted with an asterisk (based on Montgomery County Transportation Plan's adjustments).

ment to provide sidewalks should be waived outside of large subdivisions if they are not near existing or proposed trails. Within large subdivisions, either concrete sidewalks or macadam pathways should be built, depending on the compactness and the character of the development.

The Township should also find a way to repair and/or expand the width of the sidewalks along E. Philadelphia Avenue to increase safety for pedestrians patronizing the businesses located on this road. Narrowing the existing cartway, which is quite wide, would also act as a natural traffic calming device within the Village of Gilbertsville. For recommended locations and sidewalk width guidelines, see Figures 29 and 30.

GREENWAY PRIORITIES

A greenway can be many things: A protected creek bed, a riparian corridor, a forested corridor, a ridgeline, a stream valley park, a converted railroad or utility right-of-way. Greenways occur in cities, suburbs, rural areas, and consist of both public and private lands. Greenways can preserve landscapes important to a region's character while stimulating economic opportunities and tourism for individual communities.



Much of the land surrounding Middle Creek is undeveloped.

Some greenways are pristine corridors which provide habitat and movement areas for plants and animals and are not intended for human use or access. Others are natural areas designed to accommodate recreational uses such as hiking and fishing. Proximity to greenways generally has positive, statistically significant effects on property values, according to the Center for Urban Policy and the Environment.

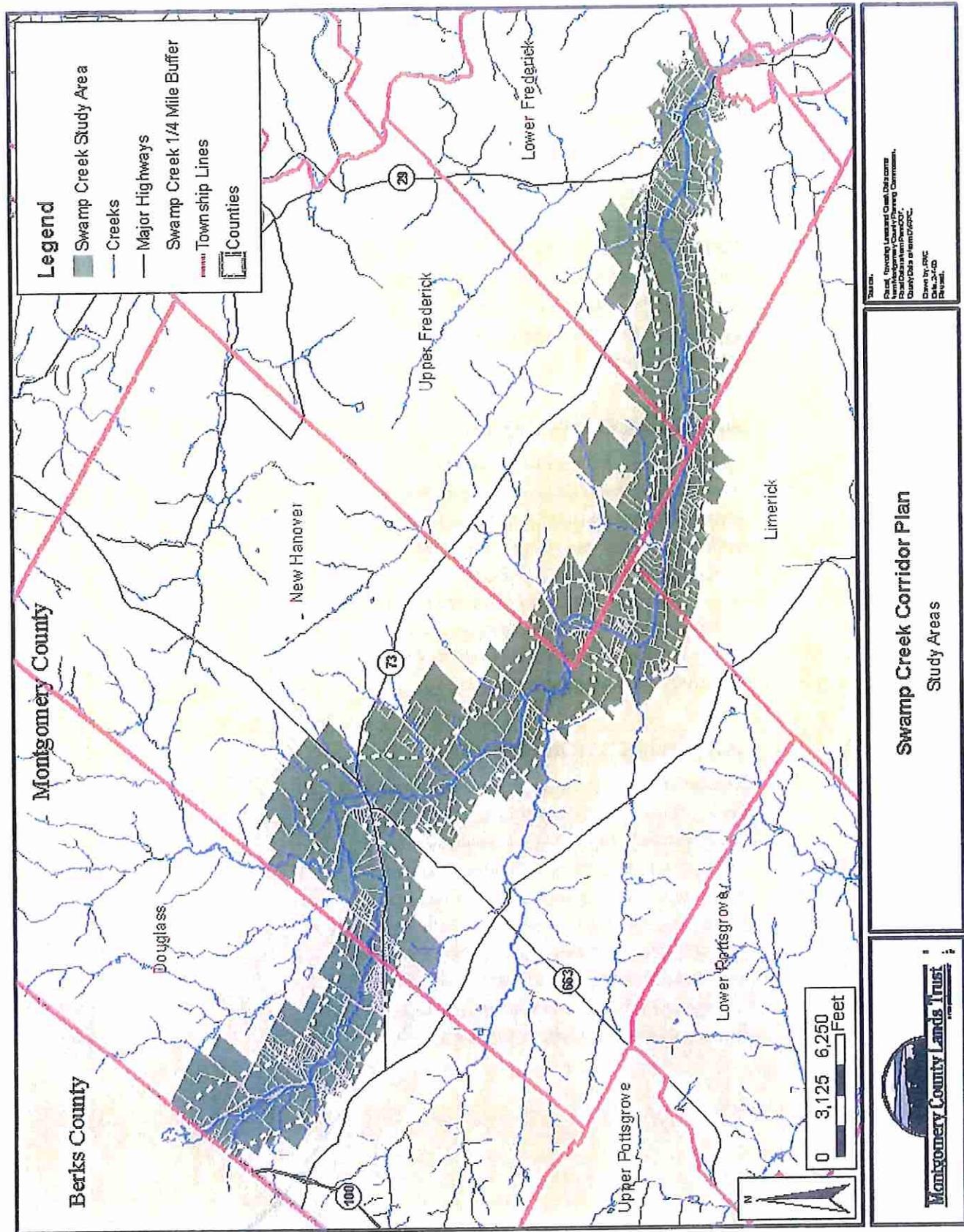
Douglass Township has many areas where greenways, riparian corridors in particular, would be desirable, and lists the following as top priorities for greenway acquisition and/or protection:

MIDDLE CREEK GREENWAY

Middle Creek, a tributary of the Swamp Creek, stretches through the center of the Township. Currently, much of the land surrounding the creek is undeveloped. The portion of the creek delineated for the greenway in Figure 26 passes through three preserved farms as well as some of the most environmentally sensitive areas in the Township. Preserving a greenway along this creek for the purposes of erosion control, protection of animal habitat, and protection of water quality is one of the Township's highest priorities.

The Montgomery County Lands Trust, a non-profit organization established in 1993, is interested in helping the Township protect this greenway as part of its Swamp Creek Corridor Plan. The study area extends the entire length of the Swamp Creek in Upper Hanover, Upper Frederick, and Limerick Townships. Swamp Creek itself was the original candidate for concentration (see Figure 31), however, due to the lack of available land along that creek and the abundance along Middle Creek, the plan will acknowledge the new priority.

Figure 31
Montgomery County Lands Trust Watershed Study Area



SCHLEGEL'S RUN GREENWAY

Schlegel's Run is also a tributary of the Swamp Creek, and it too runs through the center of the Township. It passes through eight preserved farms.

PERKIOMEN CREEK (WEST BRANCH) GREENWAY

Part of the Perkiomen watershed, this branch of the creek is located in the northern end of the Township. It passes through two preserved farms before it reaches the Upper Hanover border.

MINISTER CREEK GREENWAY

Minister Creek is another tributary of the Swamp Creek. In Douglass, it splits into two main branches worthy of protection after passing through a protected farm. Both branches run through developed areas, although the north branch passes through the Long property, which is currently undeveloped. Any new development in this area should protect this greenway.

SWAMP CREEK GREENWAY

Swamp Creek runs through the developed center of the Township although much of the land bordering the creek currently remains free of structures. However, the creek does lie within the designated suburban growth area, and as such may be heavily impacted by new development. Protection of a greenway along Swamp Creek today could help avoid problems with flooding, pollution, and loss of animal habitat in the future.

CHAPTER 7

EVALUATION OF GROWTH AREAS

In addition to establishing open space preservation areas, it is important to identify areas that can accommodate any projected community growth. Douglass Township has traditionally been a rural township and is in the early stages of suburbanization. In an effort to plan for the future in a regional context, Douglass has adopted the Pottstown Metropolitan Regional Plan. That plan delineates future growth areas as well as areas to be preserved for agriculture. As part of the planning process, a build-out analysis was performed to get an idea of the type and amount of development Douglass can expect to experience in the future.

POPULATION, HOUSING, AND EMPLOYMENT PROJECTIONS

By the year 2025, Douglass is projected to have a residential population of 13,480 persons, about 4,376 more than the Township had in 2000 (Figure 32). In addition, it is expected to have about 5,250 persons employed, up from about 4,000 in 2000 (Figure 33). While population and employment are expected to increase by 2025, the average household

size is expected to decrease from 2.83 to 2.75 people per household. With more people, but fewer people in each house, new housing units will be needed at an increased rate. These units can be accommodated in the future growth areas indicated in Figure 34.

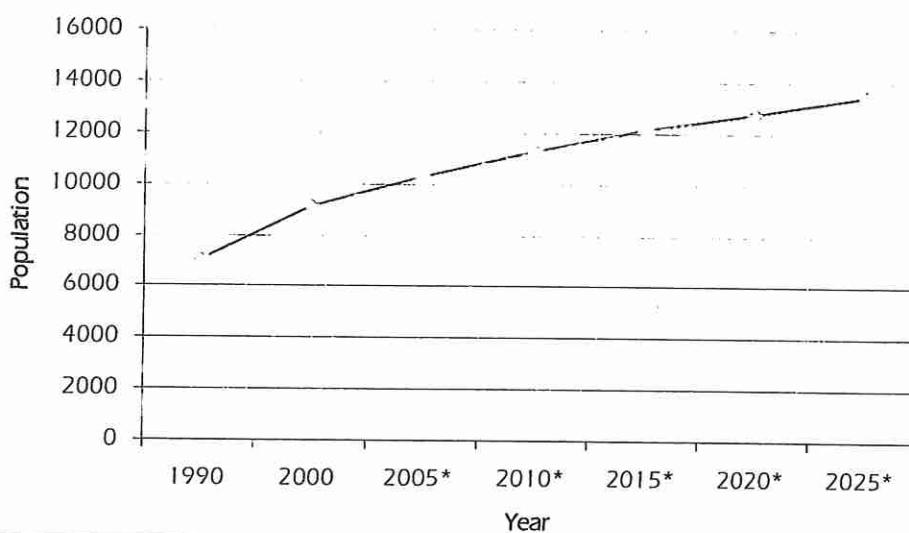
Figure 32
Population Projection

Year	Population
1990	7,048
2000	9,104
2005*	10,290
2010*	11,300
2015*	12,120
2020*	12,720
2025*	13,480

* Projected population

Years	% Change
1990-2000	29.17%
2000-2010	24.12%
2010-2020	12.57%
2000-2025	48.07%

Source: U.S. Census Bureau;
Census of Population and
Housing, 2000; DVRPC
projections.



DOUGLASS' FUTURE LAND USE

The Future Land Use Plan in the Pottstown Metropolitan Regional Plan identifies four categories of land use that allow for residential development. These are the Rural Resource Area, which allows a maximum density of 1 unit per 2 acres; the Suburban Residential Areas, which would be served by public sewer and water and allow a density of 5 units per acre to 1 unit per two acres; the Community Mixed Use Center, which would allow high density residential as well as retail and shopping center uses; and the Village Center, which would allow for mixed-use villages with a density of up to 8 units per acre.

Most residential development is expected to occur in these areas, and an adequate amount of undeveloped or underdeveloped land exists to accommodate projected future growth. Development of surrounding areas aims to preserve any existing natural features.

Non-residential, non-agricultural development would occur mainly around the Gilbertsville area, with a mixed-use area centered around E. Philadelphia Avenue and two regional commerce areas located along Route 100 to the north and south of the interchange with Route 73.

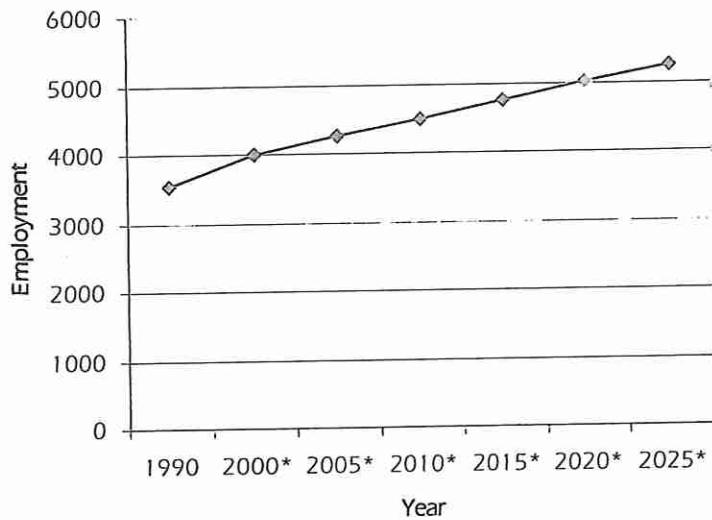
RURAL RESOURCE AREAS

Farming still plays an important role in Douglass Township. In fact, the majority of

Figure 33
Employment Projection

Year	Total Employment	Years	% Change
1990	3,530	1990-2000	13.31%
2000*	4,000	2000-2010	12.50%
2005*	4,250	2010-2020	11.11%
2010*	4,500	2000-2025	31.25%
2015*	4,750		
2020*	5,000		
2025*	5,250		

*Source: DVRPC Forecasts.



the township has been earmarked for agricultural and other rural purposes in the Pottstown Metropolitan Regional Comprehensive Plan's "Rural Resource Area." According to the Municipalities Planning Code, this is defined as "an area within which rural resource uses including, but not limited to, agriculture, timbering, mining, quarrying and other extractive industries, forest and game lands and recreation and tourism are encouraged and enhanced. Development that is compatible with or supportive of such uses is permitted and public infrastructure services are not provided for except in villages." In Douglass, the areas north of Middle Creek Road and south of the subdivision above the township line have been designated as Rural Resource Areas (see Figure 34). This is the area where

most of Douglass' permanently preserved farms can be found. Only nominal amounts of residential and non-residential development should be allowed in these areas.

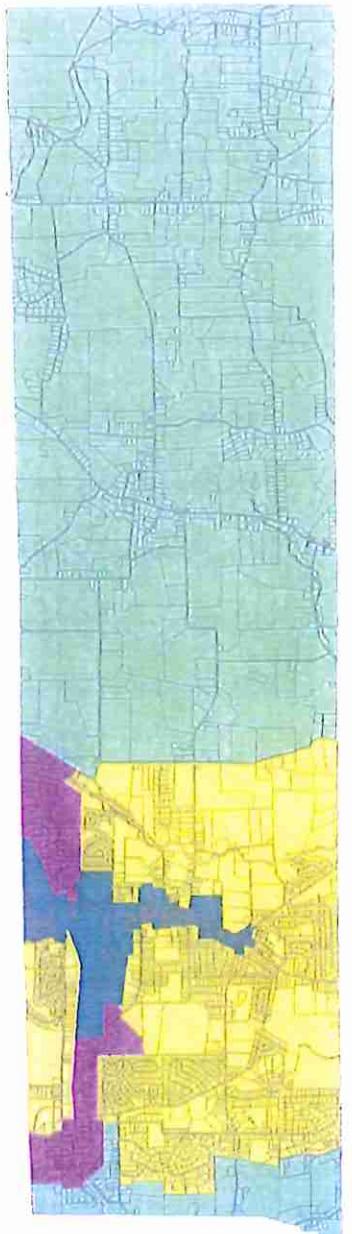
BUILD OUT ANALYSIS

The Future Land Use Plan adopted as part of the Pottstown Metropolitan Regional Plan outlines the Township's desired growth patterns, and Douglass' current zoning technically meets the minimum standards described in that plan. However, a good amount of growth is still possible under the existing zoning ordinance, and a build-out analysis has been performed to illustrate how much growth is possible in the future.

The method used to determine residential

Figure 34 Pottstown Metropolitan Regional Plan Future Land Use Map**Legend**

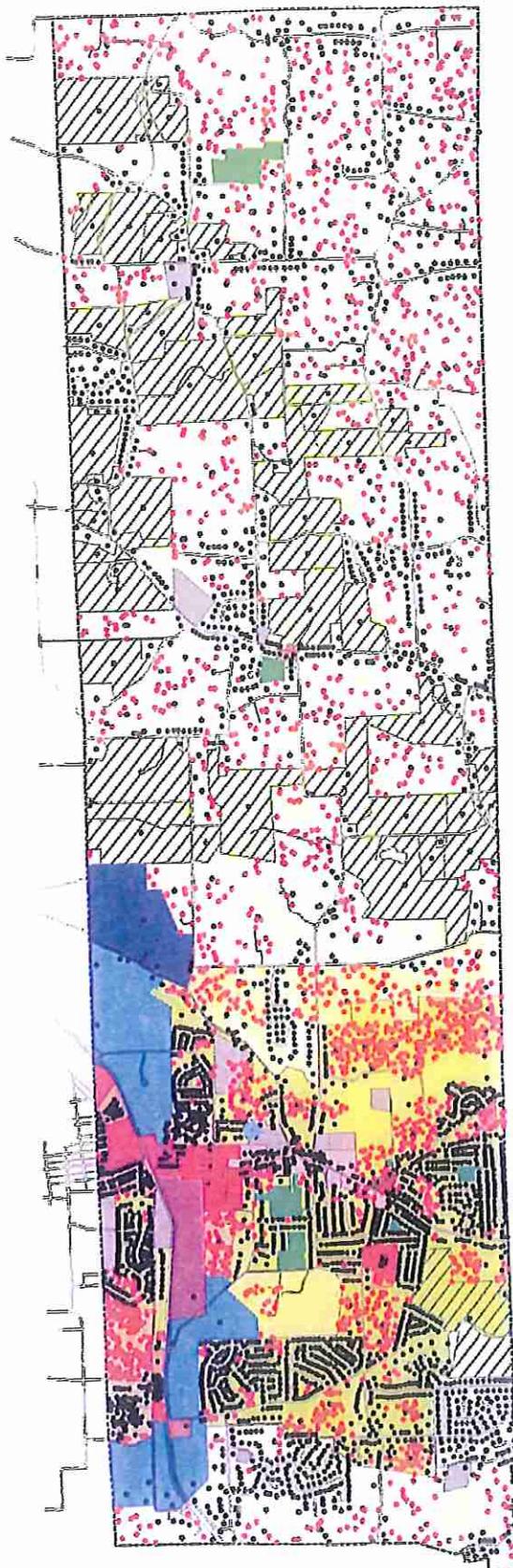
- Suburban Residential
- Community Mixed Use Center
- Regional Commerce
- Rural Resource Area



build-out is the same method used by the County to conduct a fair share housing analysis. This method examines undeveloped land (those with land use designations of country residence, undeveloped, private open space, and agriculture), but does not consider underdeveloped land (land that has development on it, but could be further subdivided or developed more intensely). It assumes that natural features including floodplains, wet-

lands and steep slopes will not be built upon, and that approximately 20% of a site's area will be used for roads, driveways, and utilities. The method used here represents potential households with red dots that have been randomly placed within the developable areas based on the maximum density allowed in each zoning district. These dots do not represent the actual location of future homes. Existing homes are represented by black dots

Figure 35
Potential Residential Build-Out



- Existing Homes (Approximately 3275)
- Potential Homes (Approximately 2719)

Preserved Farms
Public Open Space
R-1 Residential (2 acres)
R-1A Residential (1 acre)
R-2 Residential (15,000 SF)
R-3 Residential (2,000 SF)
R-4 Residential (4,356 SF)
LC Limited Commercial
CC Convenience Commercial
GC General Commercial
VCC Village Center Commercial
MU Mixed Use
IN Institutional
M-1 Light Industrial
M-2 Heavy Industrial

NOTE: The residential buildout calculations are the result of a simplified analysis based upon vacant land and zoning. The potential new units are randomly distributed and have no relation to specific parcels. The number of units permitted on a given parcel can only be determined following a site-specific analysis and strict conformance to the township's zoning and subdivision and land development ordinances.



Montgomery 4,000 2,000 0 4,000 Feet
County Planning Commission

Base map prepared September 2005

Montgomery County Courthouse - Planning Commission
PO Box 311 Norristown PA 19404-0311
(p) 610.278.3722 (f) 610.278.3941
www.montcopa.org/plancom

This map is based on 2000 ortho photography and official sources. Property lines were compiled from individual block maps from the Montgomery County Board of Assessment Appeals, with no verification from the deed. This map is not meant to be used as a legal definition of properties or for engineering purposes.

placed in the center of each residentially developed property.

Figure 35 illustrates one potential allocation scenario of full residential build-out township-wide. While 2,719 potential housing units can be built in the Township, by 2015 only approximately 1,192 new units will be required to house the projected population. Therefore it is not likely that build-out will be reached within the next ten years. Beyond that time period, it may be possible for the Township to reach the forecasted build-out if changes to the current zoning ordinance and other policies are not made.

CONCLUSION

Douglass Township has committed to a policy of growth management. In the face of suburbanization, knowing which parts of the township will grow and which will not enables Douglass to plan for its future open space needs, as well as its needs for infrastructure and various other programs. However, the Township is still subject to a large amount of residential development, and should look for more specific ways to channel that growth and to provide ample recreation and open space areas for future residents.

CHAPTER 8

EVALUATION OF OPEN SPACE NEEDS

This section of the plan examines the amount of existing public open space and types of recreation facilities in relation to current and expected future needs. Recreation-oriented organizations such as the National Recreation and Park Association (NRPA) recommend that municipalities strive to meet their open space needs independently of other providers, such as schools and private developments. Therefore open space provided by quasi-public establishments is considered only peripherally. An analysis of public open space considers how open space land is distributed in addition to showing if a deficit exists or will occur in the future. Both the amount (acreage) and type (natural, passive or active) of open space is considered.

EXISTING PARKS AND FACILITIES

While the Township owns several parcels designated as permanent open space, its only park with active recreational facilities is Douglass Park in Gilbertsville. This park can be considered a community level park. Typical characteristics of community-level parks are large size (serving more than one neighborhood), a central location, a good

range of facilities/amenities (creek and woodlands corridor, ballfields, playground equipment, etc.), and parking.

Douglass' remaining public parks contain only vacant fields. Those parks have the potential to become neighborhood parks. Neighborhood-level open space refers to

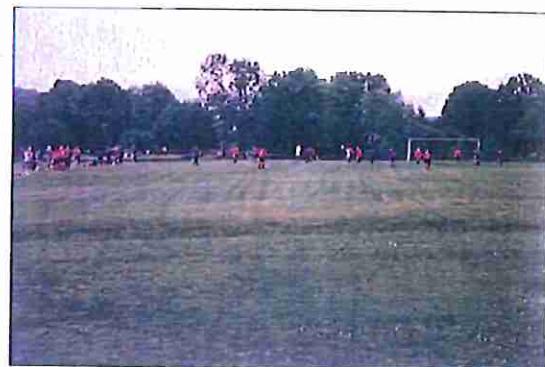
smaller areas (less than five acres) that serve a particular area of the community (typically one neighborhood), a concentrated or limited population or specialized group such as elderly or tots, and provide for quiet, informal recreation as well as facilities for short term, frequent and active use. Good examples are playgrounds, tot lots, and pocket parks (small green space within a highly developed area), and they are most valuable in areas that are not conveniently served by larger sites because of distance or a natural or man-made barrier (hills, train tracks). The Township has five sites, totaling about 25 acres, that could potentially serve as neighborhood-level open space.

OPEN SPACE STANDARDS

In order to determine whether or not Douglass' existing open space serves the needs of Township residents, it is helpful to consult national park standards. In 1983, the NRPA

published the Recreation, Park and Open Space Standards and Guidelines. These standards have been widely accepted and used for many years. In 1996, the NRPA developed new guidelines based on the systems approach to facility planning. This approach is based on level of service (LOS) and the recognition that the residents of each community should be given the right to determine the size and use of land set aside for parks and recreation facilities. The new process requires use of a complex formula, and therefore many municipalities use a combination of the 1983 and 1996 standards when determining open space need.

Both sets of standards mainly apply to recreational uses, rather than passive or natural open space (of which there is no standard minimum or maximum). The 1983 standard utilizes the population ratio method, or the number of acres of parkland per 1,000 people. The NRPA estimates that a total of 6.25 to 10.5 acres of municipally owned and



Clockwise from top left: Douglass Park playground, a soccer game at Douglass Park, the Rhoads property, and Moore Drive Park.

developed open space per 1,000 people is a useful guide. Generally speaking, the more densely populated an area is, the higher the ratio should be. Therefore a less developed Township like Douglass would apply a lower ratio than a more developed municipality such as Pottstown Borough. For the purposes of this plan, both the low and high ratios are used to create a range for evaluating existing conditions and to perhaps establish an acreage goal for the community. For example, the midpoint value of the recommended range may be a good target.

Further, the NRPA recommends that the developed open space consist of a core system of parkland, distributed among mini parks (such as tot lots), neighborhood parks, and community parks. Each of these components are of a certain size, have a defined "service area" (Figure 37 shows a .25 and .5 mile service area for each public park), and provide for certain uses (active and/or passive).

Figure 36
Minimum Recreational Open Space Needs

Projected Population*	2000		2010		2025	
	9104		11300		13480	
Range	From	To	From	To	From	To
Recommended Acreage**						
Community	46	73	57	90	67	108
Neighborhood	11	23	14	28	17	34
Total	57	96	71	119	84	142
Existing Acreage						
Community	20	20	20	20	20	20
Neighborhood	0	0	0	0	0	0
Total	20	20	20	20	20	20
Difference						
Community	-26	-53	-37	-70	-47	-88
Neighborhood	-11	-23	-14	-28	-17	-34
Total	-37	-76	-51	-99	-64	-122

Sources: U.S. Census Bureau; MCPC; NRPA

* Projected Population

** Recommended Acreage - Range per 1000 persons as follows: Community Level = 5.0 - 8.0 acres; Neighborhood Level = 1.25 - 2.5 acres; Total = 6.25 - 10.5 acres

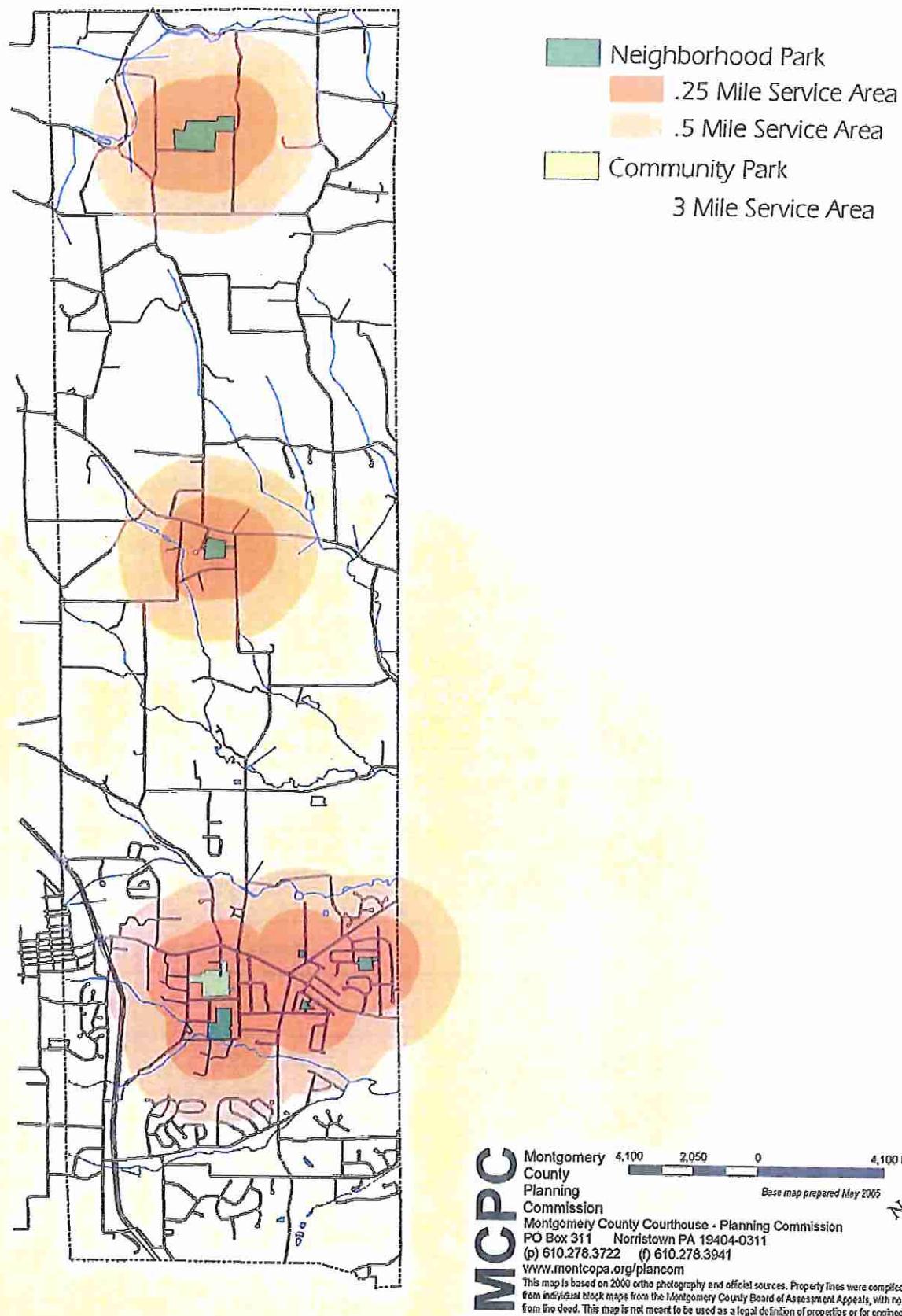
This division of acreage has been applied to the Township to determine if a particular need exists now or may develop in the future. Figure 36 shows the results of applying the 1983 NRPA standards.

As shown, Douglass' current total open space acreage does not meet even the low end of existing and future recommended ranges for recreational open space. The Township needs to provide between 64 and 122 additional acres of recreational open space by 2025. This goal can be approached if the Township acquires much of the target public open space proposed in Chapter 10.

SERVICE AREAS

Figure 37 illustrates quarter- and half-mile service areas for neighborhood parks and a three-mile service area for the community park (Douglass Park).. This map highlights

Figure 37
Public Open Space Service Areas



the fact that about three-quarters of the township is served by a community and/or neighborhood park. However, none of the neighborhood parks currently has any recreational facilities. In addition, there is poor connection from homes to the parks in many instances. As a result, this map really shows the potential service areas of township-owned park lands were they to be transformed into usable open space.

PASSIVE OPEN SPACE

As mentioned earlier, unlike active open space needs, there is no standard to determine how much acreage to devote to passive open space. Often, a determining factor is the location and extent of natural resources that are currently unprotected. Keller Woods is currently the Township's only public open space that is designated for passive use. As shown in Chapter 6, there are additional areas in the Township that should become permanently protected passive open space.

OPEN SPACE NEEDS

In addition to determining how much land is needed, it is also important to determine what kinds of open space facilities are needed. As demographics, land use, and development pressure change within a community, so do the needs of the population. For instance, a younger population may utilize active open space in the form of playing fields. Active recreation facilities should be located where significant residential density exists or is proposed. Where older populations exist, less intense open space uses such as walking trails may better serve the community. This setting also allows for natural resource protection opportunities.

RECREATIONAL FACILITIES

Figure 38 summarizes the results of applying specific recreational facility standards to

Douglass and compares the results to the supply of existing Township facilities. It should be noted that some results shown as fractions are rounded up to a whole number; for example, .3 football fields means 1 football field should be provided. As can be seen, the Township falls short of the recommended levels for all but one of the facilities. Some of these, however, are available through the Boyertown Area School District (see Figure 39), including playground equipment, tennis courts, running tracks, basketball courts, swimming pools, and football, soccer, baseball, lacrosse, field hockey and softball fields.

As a result, the Township need not try to meet all of these standards, but rather should focus on several that can more realistically be accomplished. The community has identified a need for more soccer, baseball and softball fields with facilities, as well as walking trails and playgrounds. Each of these facilities requires a certain amount of land:

- Soccer: 1.7-2.1 acres; 195'-22' X 330'
- Baseball:
 - Official: 3.0-3.85 acres; 90'
 - Little League: 1.2 acres; 60'
- Softball: 1.7-2.1 acres; 195'-225' X 330'
- Walking Trails: varies
- Playgrounds: varies

A Comprehensive Park and Recreation Plan for the Township that will address recreational needs in more detail should follow adoption of this Open Space Plan.

NATURAL RESOURCE PROTECTION

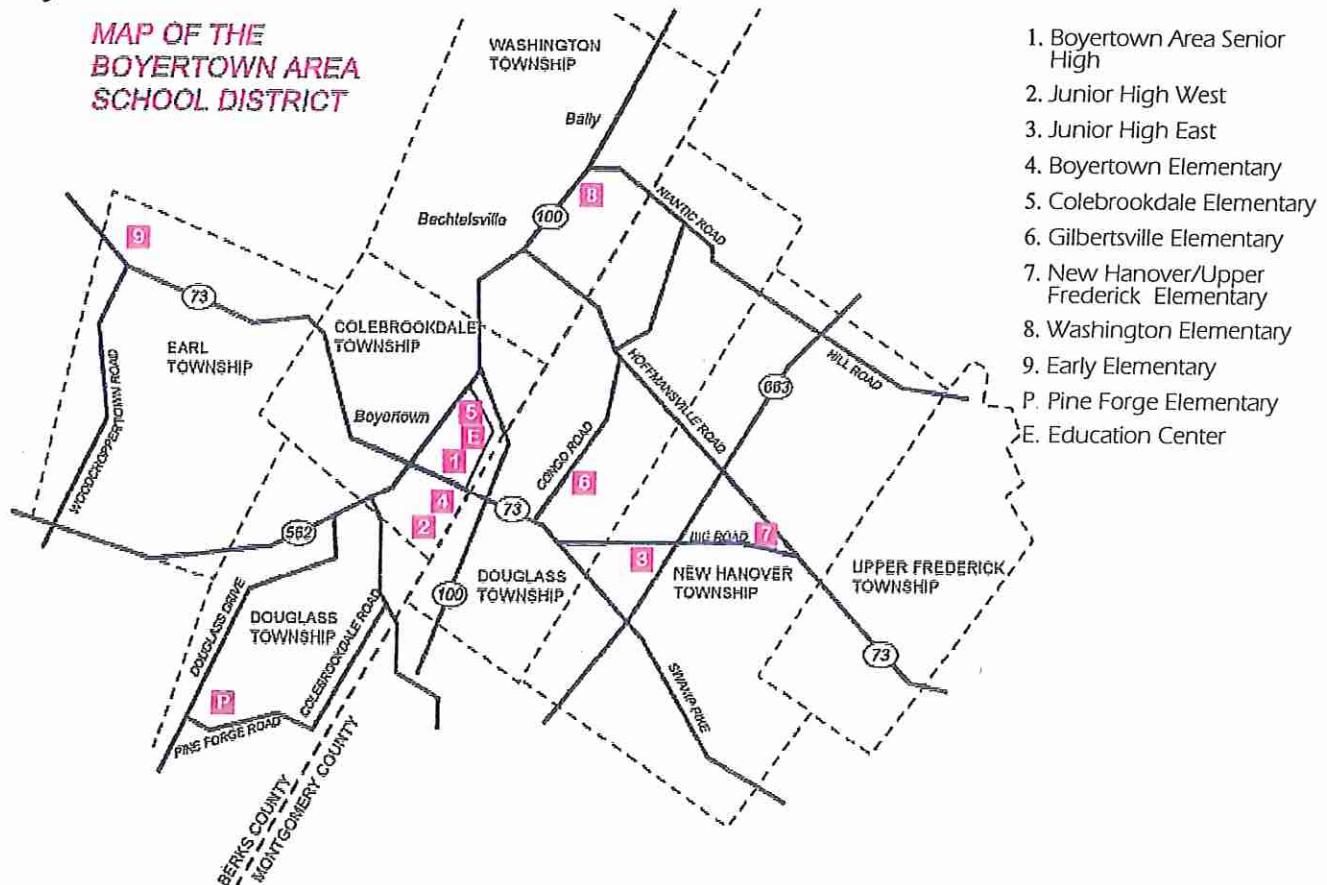
Vulnerable natural resources identified in Chapter 5 could provide areas for passive recreation, including the Middle Creek riparian corridor, and the woodlands and diabase areas along Lone Pine and Green Hill roads.

Figure 38
Recreational Facility Needs

Standard Per 1,000 Pop.	2000 Population	2025 Projected Population*	Permanently Protected Facilities	2025 Deficit
	9104	13480		
Basketball Courts	0.2	2	3	2
Tennis Courts	0.5	5	7	2
Volleyball Courts	0.2	2	3	1
Baseball/Softball Fields	0.4	4	5	1
Field Hockey Fields	0.05	0	1	0
Football Fields	0.05	0	1	0
Soccer Fields	0.1	1	1	2
Running Track (1/4 mile)	0.05	0	1	0
Swimming Pools	0.05	0	1	0
Playgrounds	0.6	5	8	2
Picnicking Areas	0.24	2	3	0
Multipurpose Fields	0.3	3	4	0
Shuffleboard Courts	0.8	7	11	0
Multipurpose Courts	0.1	1	1	0
Nature Areas	0.24	2	3	1
Golf Courses	0.04	0	1	1

Source: U.S. Census Bureau, MCPC; NRPA

Figure 39
Boyertown Area School District



CHAPTER 9

EVALUATION OF COUNTY AND ABUTTING MUNICIPAL PLANS

The preceding chapters investigate the resources, needs, and opportunities that exist within the municipal bounds of Douglass Township. With this information, recommendations can be made to effectively serve Douglass' residents. However, the land use decisions that the Township makes affect the larger region just as decisions made in neighboring municipalities affect Douglass. Therefore, this open space planning effort should be performed in context of surrounding planning efforts.

This chapter compares the goals of this plan with those in the County comprehensive plan and the comprehensive, open space, and revitalization plans of abutting municipalities and counties. The intent is to prevent conflicts between plans and to encourage collaboration of efforts. By gaining an understanding of how Douglass' plan will fit into the larger open space and trail linkage picture, partners can optimize both the quantity and quality of future open space preservation and management.

MONTGOMERY COUNTY LAND USE AND OPEN SPACE PLANS

In 2001, Montgomery County began updating its Comprehensive Plan. Although not yet complete, this plan will help guide the growth of housing, transportation, economic development, and natural & cultural resource management, through 2025 and beyond. Each of these factors could potentially bear great significance on open space needs and opportunities in Douglass.

Within this plan is the Vision of the County in 2025. This Vision sets up four issues as the highest priority for action:

- Controlling sprawl
- Controlling traffic congestion
- Preserving open space/natural areas

Douglass' Open Space Plan addresses many of these issues by setting a future course for wise land use, increasing linkages and accessibility, clustering and diversifying growth, and preserving open space.

The draft version of the adopted Vision Plan lists 48 goals that describe and expand upon the vision of the County in 2025. Several of these goals parallel those in this Open Space Plan, adding strength to the recommendations set forth here.

Vision Plan

- Support Smart Growth and Preservation Efforts both Regionally and Locally
- Implement Plans Effectively and Cooperatively

Land Use

- Direct Development to Designated Growth Areas
- Encourage Sound Land Use Planning and Design

- Preserve and Create Community Identity and a Sense of Place

Open Space, Natural Features, and Cultural Resources

- Preserve Large Interconnected Areas of Significant Open Space
- Protect and Manage Wetlands, Streams, Steep Slopes, Woodlands, and Natural Habitats
- Create a Greenway System along Rivers, Creeks, and Other Sensitive Natural and Historic Features
- Develop a Countywide Network of Interconnected Trails
- Provide Park Facilities to Meet the Public's Recreation Needs
- Protect Scenic Roads, Vistas, and Viewsheds
- Protect Historic Resources and Cultural Landscapes

Water Resources

- Effectively Manage Flooding
- Create Attractive Stormwater Facilities that Control Flooding, Recharge Groundwater, and Improve Water Quality

At a site-specific level, the County Comprehensive plan identifies several open space areas worthy of protection in Douglass Township. They include the Swamp Creek Greenway; a property eligible for the National Historic Register; aesthetically unique scenic roads (Miller and Niantic Roads); proposed open space; and a county trail (West County Trail). As outlined in this plan, Douglass also considers these areas significant resources and will act to preserve, protect, and enhance them using acquisition and non-acquisition methods.

OPPORTUNITIES FOR REGIONAL OR MULTI-MUNICIPAL COOPERATION

THE POTTSTOWN METROPOLITAN REGIONAL PLAN

Douglass is one of eight municipalities involved in the Pottstown Metropolitan Regional Plan. Preservation of open space is an essential component of the regional plan. It establishes growth and preservation areas that provide a framework for local municipalities to create more detailed park and open space plans. Some general recommendations from this plan include:

- Maximize the protection of vulnerable natural features in the Region's designated Growth Area through land use planning, regulation, and selective acquisitions. Each open space piece in the growth area should be viewed as part of a connected green infrastructure system.
- Protect agriculture and natural features in the Region's Rural Resource Area through land use planning, development rights purchase, and selective acquisitions.
- Protect water resources by requiring effective BMPs during development and guiding growth away from constraining features.
- Connect communities by enhancing the green infrastructure network, including the Schuylkill River Greenway.
- Expand the regional trail network, including the Reconections Plan, by planning jointly and increasing linkages at the neighborhood scale.
- Educate residents about the value of green infrastructure and promote its use by the community.
- Provide recreational opportunities for all residents of the Pottstown Metropolitan Region.

Douglass Township is a supporter of this regional plan, and as such is quite interested in pursuing these goals. The recommendations in the following chapters support these goals.

BOYERTOWN AREA SCHOOL DISTRICT

As noted in chapter 8, the school district provides many opportunities for open space and recreation coordination. The school district is aware of Douglass' open space plan, and the township will work with it to ensure that the needs of residents of the entire area are met.

RELATION TO PLANS OF ABUTTING MUNICIPALITIES

Three Townships in Montgomery County—Upper Hanover, New Hanover, and Upper Pottsgrove- and four municipalities in Berks County—Washington Township, Colebrookdale Township, Boyertown Borough, and Douglass Township- share borders with Douglass. The current zoning map, open space policies and other pertinent information of each municipality are summarized below. Adjacent, yet incompatible land uses may result in conflicts while potential linkages could lead to cooperative partnerships between municipal neighbors.

Based on the Montgomery County Open Space Program in 1993, each municipality developed an Open Space Plan. Over the years since these plans were adopted, many projects have been implemented, including the acquisition and preservation of land and implementation of trails. In addition, over this ten-year period, the needs of the communities have changed. It is therefore vital that Douglass keeps abreast of the continually evolving planning efforts of its neighbors and the county.

Berks County is currently updating their County-wide Greenway, Park and Recreation Plan, which will focus on recreation, green infrastructure/ecology, and heritage resources.

UPPER HANOVER TOWNSHIP

Directly north of Douglass, Upper Hanover Township is quite similar to Douglass in that it also has a rural character and many preserved farms. Upper Hanover is part of the Upper Perkiomen Valley, which is in the process of creating a Regional Comprehensive Plan. The Township is very interested in inter-municipal coordination of open space and other planning activities. Water quality, natural resources, and cultural resources will be protected, new passive and active recreation land will be sought, and the agricultural industry will be further protected as a result of implementing the open space plan.

There is currently no permanent open space along the border of Upper Hanover and Douglass Townships. The Butter Valley Golf Course, a temporary open space, is the only recreation land on this boundary.

NEW HANOVER TOWNSHIP

New Hanover Township currently has an open space plan in draft format. The plan calls for greenway preservation along all creeks and streams. New Hanover has also adopted the Bicycle and Pedestrian Trails Master Plan of 2004. This plan proposes nu-

merous on-street bicycle lanes. Bike lanes on Moyer Road, E. Philadelphia Avenue, Big Road, and Hoffmansville Road would carry bicyclists into Douglass Township. An additional trail is proposed along Minister Creek.

New Hanover has an active Parks and Recreation program, boasting six parks with various amenities, including jogging trials, a roller rink, sport courts and fields, golf courses, pavilions, fishing areas, and two soccer fields heavily utilized by the Boyertown Soccer Club and the Pine Forge Athletic Association. Douglass plans to forge a connection to New Hanover via the Middle Creek Trail, which could lead into the Hickory Valley Golf Course. Additional linkages could be provided by sidewalks on Route 73 (Big Road) to connect Douglass residents to Junior High East in New Hanover.

The two townships currently use the same township engineer, which enables each to stay abreast of developments in the other.

UPPER POTSGROVE TOWNSHIP

This Township is also currently formulating its open space plan, and has identified a linkage to Douglass Township via the West County trail at Gilbertsville Road. This trail will link to the future Srogels Run Trail, as well as to the Manatawny Trail in Berks County and Pottstown Borough. Upper Pottsgrove also plans to purchase open space on the west side of Route 100, which is an area accessible to residents of Douglass Township.

WASHINGTON TOWNSHIP

The Berks Vision 2020 Comprehensive County Plan identifies the portion of Washington Township directly adjacent to Douglass as an agricultural preservation area, with a small area of land designated for rural conservation purposes. This is compatible with Douglass' goal to preserve farmland north of Middle Creek Road.



Upper Hanover Township

In the past, a trail along an abandoned rail corridor was proposed near the border with Douglass. If the "Old Dutchman's Trail" is ever developed, Douglass would be interested in providing connections to that trail.

Douglass and Washington Townships share roadway equipment, and communications are mainly based on this relationship. Douglass is interested in reaching out to Washington and improving communication.

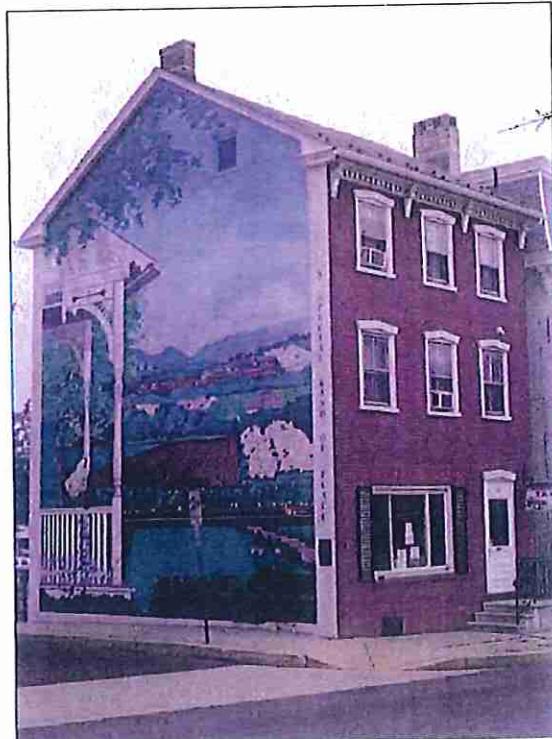
COLEBROOKDALE TOWNSHIP & BOYERTOWN BOROUGH

Colebrookdale Township, the Borough of Boyertown, and Pike Township are currently engaged in a Joint Comprehensive Planning effort. Land adjacent to Douglass is designated for industrial, planned business, medium density housing, general residential, and general commercial land uses. No significant open space areas exist near the Montgomery County border.

Boyertown is a major destination in the immediate area, which has a well-developed sidewalk network. Connections via E. Philadelphia Avenue should be strengthened by widening the sidewalks and creating attractive streetscapes. Douglass and Boyertown have a joint municipal sewer authority (Berks-Montgomery Municipal Authority), and therefore coordinate quite a bit regarding planning and development.

DOUGLASS TOWNSHIP (BERKS COUNTY)

In May of 1998, Douglass adopted an Open Space and Recreation Plan Element to update their 1988 Comprehensive Plan. The trails plan calls for loop trails in Ironstone Park and Gooseren Recreational Area, and does not indicate any connections to neighboring municipalities. However, this does not preclude Douglass (Montgomery County) from planning such connections. In fact, the Minister Creek Trail could be extended to create a connection to Colebrookdale village.



An open space mural in Boyertown Borough, Berks County.

CHAPTER 10

RECOMMENDATIONS

After completing a community profile, establishing goals and objectives, analyzing existing protected land and potentially vulnerable resources, considering opportunities to link open space, evaluating growth areas, examining open space and recreation needs, and examining the open space plans of abutting municipalities, the Douglass Township Open Space Committee has developed a set of recommendations to guide the future acquisition, development, and coordination of open space infrastructure in the Township. This chapter discusses recommendations for projects, programs and policies, as well as special options available through the Green Fields/Green Towns program.

FARMLAND PROTECTION

The diversity of Montgomery County's economy has made it a desirable place in which to live and work. The result is growth in both population and land development. While it is a reflection of economic strength, this development has a heavy impact on the land and the natural features found on it. Farmland is often seen as very desirable for development. Because of this, the County has seen a great

deal of its farmland sold for development or taken out of production. This represents the loss of a productive resource, which cannot be replaced.

However, the farming economy in Montgomery County has historically been, and still is, strong and visible. There is much active farmland, as well as agricultural businesses,

particularly in Douglass Township, which process farm products, or sell products & services to farmers. The dynamic population of the Delaware Valley provides opportunities for farming to thrive. Conventional farms continue to produce commodities like feed corn, wheat, and beef, while newer types of farming have a significant place in the county as well. A Montgomery County resident can find projects like organic vegetables, nursery stock, buffalo meat, apples, and more right within the County's borders.

The County's Farmland Preservation Program and the Green Fields/Green Towns Program are opportunities to preserve farmland by placing it in agricultural security areas and purchasing conservation easements from interested landowners. The program focuses on the following objectives:

- Encourage a long-term commitment to agriculture.
- Protect normal farming operations.
- Conserve viable agricultural lands.
- Purchase agricultural conservation easements.

The protection of viable agricultural lands by acquiring easements strengthens farming operations in the county while providing benefits such as lowering property taxes for everyone, providing jobs, promoting local tourism, assisting the national trade balance through exports, providing fresh locally-produced food, retaining tranquil scenery, contributing to the nation's food supply, protecting ground water recharge areas, and improving wildlife habitats.

DOUGLASS' FARMLAND

As described in Chapter 3, Douglass Township currently has more preserved farms than any other municipality in the County. Today 24 farms totaling over 1,894 acres are volun-

tarily participating in the farmland preservation program. Over \$7.8 million has been invested by Montgomery County to purchase the development rights on these farms, ensuring that the lands will remain as farmland forever and preventing development from occurring on them.

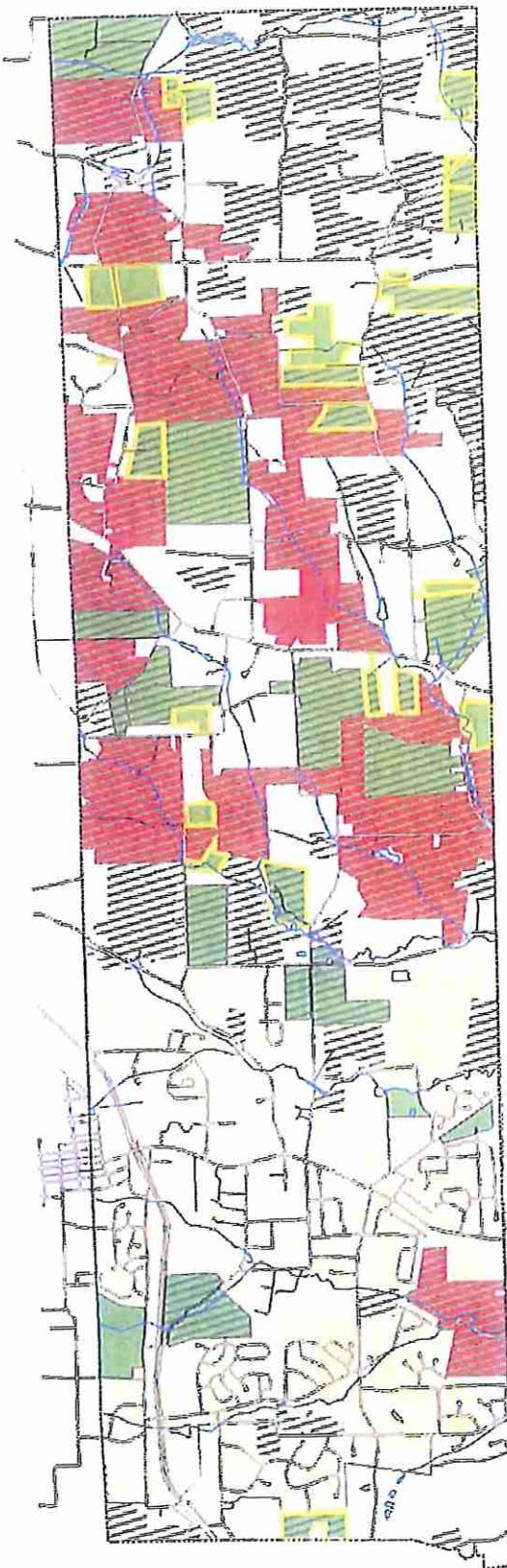
AGRICULTURAL SECURITY AREA (ASA)

Thirty-two farms comprising nearly 1,409 acres of farmland participate in the Agricultural Security Area program in Douglass Township. Douglass is very interested in adding more farms to the ASA, and will assist individual farmers and landowners to complete applications for this program. When evaluating a farm for the ASA, the following criteria are considered:

- Size of the farm
- Historic qualities
- Scenic qualities
- Farm product sales
- Vulnerability
- Adjacency/proximity to other farms
- Adjacency/proximity to other preserved lands
- Unique value
- Viability of farming operation (current & future)
- Other considerations
- Act 319 preferential status
- EQIP program
- State and County program eligibility
- Conservation Plan
- Nutrient Management Plan

Admission into the ASA program is a necessary first step to becoming a permanently preserved farm, as only farms in the ASA program are eligible for the Pennsylvania Agricultural Land Preservation Program established under Act 43; however, farms that do not participate in the ASA program may be eligi-

Figure 40
Farmland Preservation Priorities



- Farmland Targeted for Preservation
- Act 319 Properties
- Preserved Farms
- Agricultural Security Areas
- Designated Growth Area

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ble to receive preservation funding from other sources, such as the Green Fields/Green Towns program.

Farming constitutes the economic and cultural heritage of Douglass Township. Residents and visitors have been greeted by a rural landscape since the municipality was first incorporated. It is very important that the township maintain a viable farming environment, and residents of Douglass have been taking steps to ensure that this occurs. Recommendations for continuing to protect farmland include:

1. Purchase and/or encourage easements on:
 - Active farms in the rural resource area that are currently in the Agricultural Security Area, but do not meet the acreage requirements for preservation under the Pennsylvania Agricultural Land Preservation Program established under Act 43 (see Figure 40); and
 - Active farms in the rural resource area that are not currently in the ASA, but meet the requirements for that program.
2. Continue to encourage qualifying farms to apply to the Farmland Preservation Program, and support those farms already participating in such programs.

RURAL CHARACTER

In addition to working farms, the built environment impacts the rural character of the township. To ensure that this character is maintained, the township recommends the following:

1. Ensure that new developments within the rural resource area have a rural character.
 - Promote siting of homes in rural areas out of view of main roads.
 - Maintain rural road configurations (no curb, swales, narrow width etc.).

- Promote use of rural embellishments such as split-rail fences, native plantings, rural landscaping, and reuse of existing farmsteads.
 - Update the Subdivision and Land Development Ordinance to require more substantial vegetative buffers.
2. Protect scenic roads and vistas in the rural resource area.
 - Encourage scenic easements on properties fronting on the roadways identified in Figure 22, "Scenic Roads & Vistas."
 - Investigate the possibility of increasing setbacks in the R-2 residential zoning district.

OPEN SPACE AND NATURAL RESOURCE PROTECTION

Recommendations for open space and natural resource protection focus on fragile environments in the rural resource area, tree protection, and stormwater management, and include the following:

1. Through a joint acquisition with New Hanover Township, acquire the Hafer Estate at 201 Stone Road on the eastern edge of the Township. This 151-acre property is identified in Chapter 5 as containing a large confluence of vulnerable resources.
2. Utilize non-acquisition methods, such as a riparian corridor protection ordinance, to protect other sensitive open space areas within the regional Rural Resource area, particularly properties along Middle Creek.
 - Libor Property-475 Congo Road
 - Haring Property-199 Middle Creek Road
 - Walters Property-438 Congo Road
3. Introduce a tree-replacement requirement



Examples of Low Impact Development include planting islands, vegetated swales, and bioretention cells.

into the subdivision and land development ordinance.

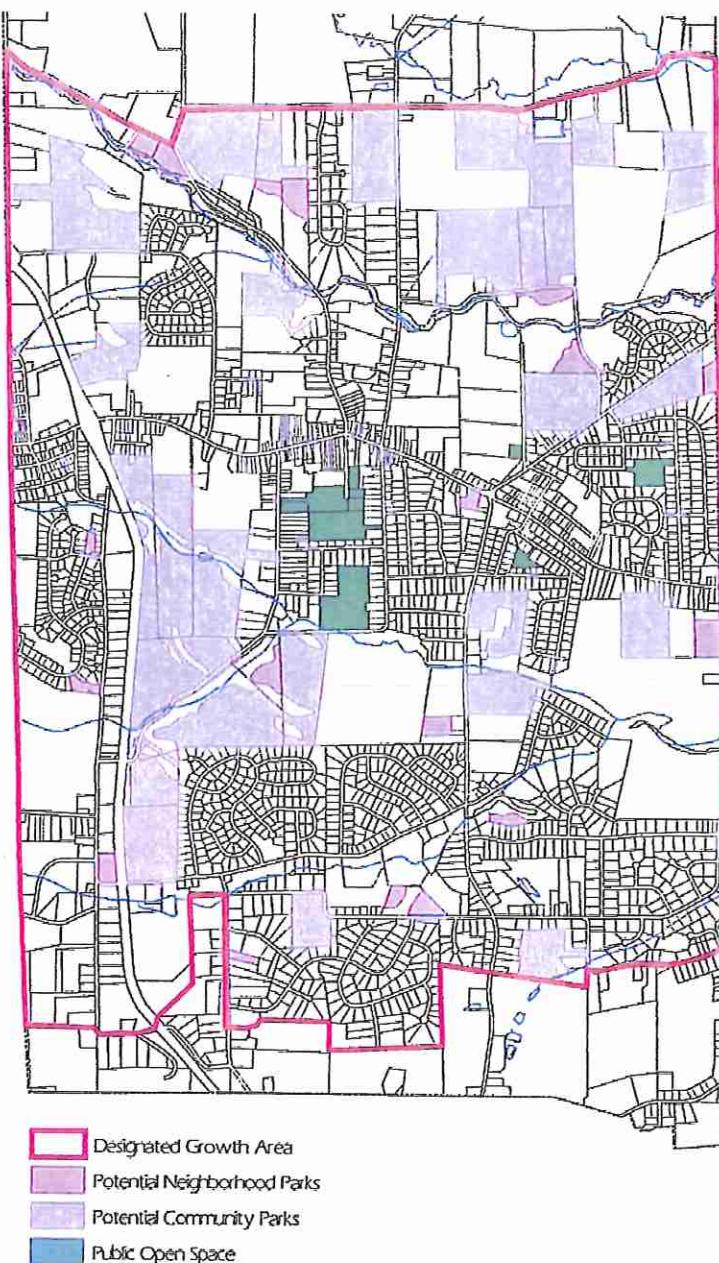
4. Explore opportunities to protect existing trees through amendments to the subdivision and land development ordinance.
5. Establish a Shade Tree Commission to oversee the planting and maintenance of new shade trees.
6. Encourage Best Management Practices (BMPs) for stormwater management, including Cul de Sac planting islands, drainage swales, and naturalized stormwater basins.
7. Promote Low Impact Development (LID), which is an ecologically friendly approach to site development and storm water management that aims to mitigate development impacts to land, water, and

air. The approach emphasizes the integration of site design and planning techniques that conserve natural systems and hydrologic functions on a site. LID practices include the BMPs listed above as well as permeable pavement blocks, soil amendments, and bio-retention cells and swales.

PARKS AND RECREATION

This plan demonstrates that Douglass is in great need of active recreation facilities. The township has devised several targeted methods for ensuring that residents of Douglass Township have the facilities they need, including:

1. Purchase land for active recreation parks only within the regional growth area.
 - 17-34 useable acres needed for neighborhood parks.
 - Develop up to 15 useable acres of

Figure 41*Potential Neighborhood and Community Park Locations*

- 44-87 useable acres for community parks
 - Long Property, Jackson Road- 45-55 acres
 - Purchase 2-19 useable acres of land based on the following criteria (see Figure 41):
 - 10-40 useable-acre parcel
 - At least 1/4 mile from existing community open space
 - Road frontage required

- Require useable active open space within all new subdivisions.
- Collect Recreation Impact Fees from new residential developments.
 - Update the Park and Recreation Plan.
 - Pass an ordinance to collect park and recreation fees on building permits.
- Investigate developing the existing Township-owned open spaces (within regional growth area) listed below to create active recreation areas:
 - Rhodes Property- 8.5 acres
 - Nelmore Park II- 2.16 acres
 - Colonial Manor- 3.96 acres
 - Municipal Drive Open Space- .91 acres
- Encourage developers to build active recreation parks on Township-owned open space within the regional rural resource area.
 - Moyer Property, 1261 Congo Road- 9.89 acres: Small baseball diamond, half-court soccer field, loop trail, picnic benches, playground equipment, gazebo, 40 parking spaces, and supporting accoutrements.
- Encourage developers to either provide useable open space on their own property, or contribute fees to the park and

recreation fund, to serve their subdivisions within the regional rural resource area.

LINKAGES

Linking new and existing open spaces is an effective way to expand passive and active recreational activities. It also helps to preserve sensitive linear features (see Figure 26, Chapter 6). The township recommends the following activities:

1. Implement local, regional, and county trails.
2. Protect proposed greenways using non-acquisition methods such as a riparian corridor protection ordinance.
 - Middle Creek
 - Schlegel's Run
 - West Branch Perkiomen Creek
 - Minister Creek
 - Swamp Creek
1. Persuade developers to build those proposed trails that are adjacent to their properties (macadam paths in rural resource area, paths or sidewalks in growth area).
2. Require sidewalks to be built on all internal and adjacent external streets of new subdivisions (of three or more homes) within the regional growth area.
3. Require sidewalks or pathways to be built only on internal streets of new large subdivisions within the rural resource area, and on exterior roads when they connect to proposed trails.

PRESERVATION OF HISTORIC AND CULTURAL RESOURCES

Douglass Township contains a few historic buildings and landscapes. Preservation of specific resources can be accomplished through the following recommendations:

1. Preserve the historic Zern School and its grounds on Hoffmansville Road. This land is currently leased by the Township with the goal of restoring the school house, providing picnic areas, and opening the historic building to the public.
2. Maintain and enhance the historic character of E. Philadelphia Ave within the Village of Gilbertsville.
 - Develop a "Main Street" vision plan complete with design guidelines.
3. Celebrate cultural resources such as Zern's Market and the farming community.
4. Encourage preservation of historic structures with creative site development that preserves views and historic structures. This may include maintaining historic elements (or remnants thereof) in the open space areas of developed properties to recall the property's past history.

OPEN SPACE PLANNING AWARENESS

It is important to the township that its community members be aware of the importance of open space planning and its impact on quality of life. With that in mind, the township recommends the following:

1. Ensure that the Planning Agency considers open space and park planning when reviewing the applications that come before it.
2. Hold one or more open space education events, possibly involving a lands trust or other non-profit organization.
3. Hold a kickoff event to rally the community around the 2005 Open Space plan.

4. Reach out to farmers in target areas to discuss farmland preservation.

GREEN FIELDS/GREEN TOWNS PROGRAM OPTIONS

Through the Green Fields/Green Towns Program, alternative means of preservation are now eligible for funding through the various grant options described in this chapter, including Farmland Protection, County Trail Connections, Historic Resources Protection and Floodplain Restoration. Many of the recommendations included above fit in to these categories and may meet the requirements for funding through the Green Fields/Green Towns program. In this section, the County Trail Connections and Floodplain Restoration options are explored further.

COUNTY TRAIL CONNECTIONS

The development of an interconnected trail and pathway system in Montgomery County will enhance pedestrian and cyclist mobility and provide increased recreation opportunities. Many trails and pathways are proposed in the County's vision plan, and it is important to connect to, complete or expand this system at every opportunity. The proposed West County Trail runs through Douglass Township, and as described in chapter 6, this plan suggests an alignment along Minister Creek and Gilbertsville Avenue.

FLOODPLAIN RESTORATION

The restoration of developed floodplains to their natural state is an effective way to reduce the cycle of flood induced property damage that impacts several areas within the County. Reforestation is a particularly effective way to do this.

Fortunately, not many buildings in Douglass are located within floodplains. Those that are

include 2 homes on Onyx Lane, 2 homes on Diehl Road, one home on Sassamansville Road, one home on Swamp Creek Road, the Berks Products corporation on Wilson Avenue, and the Berks Montgomery Municipal Authority on Municipal Drive.

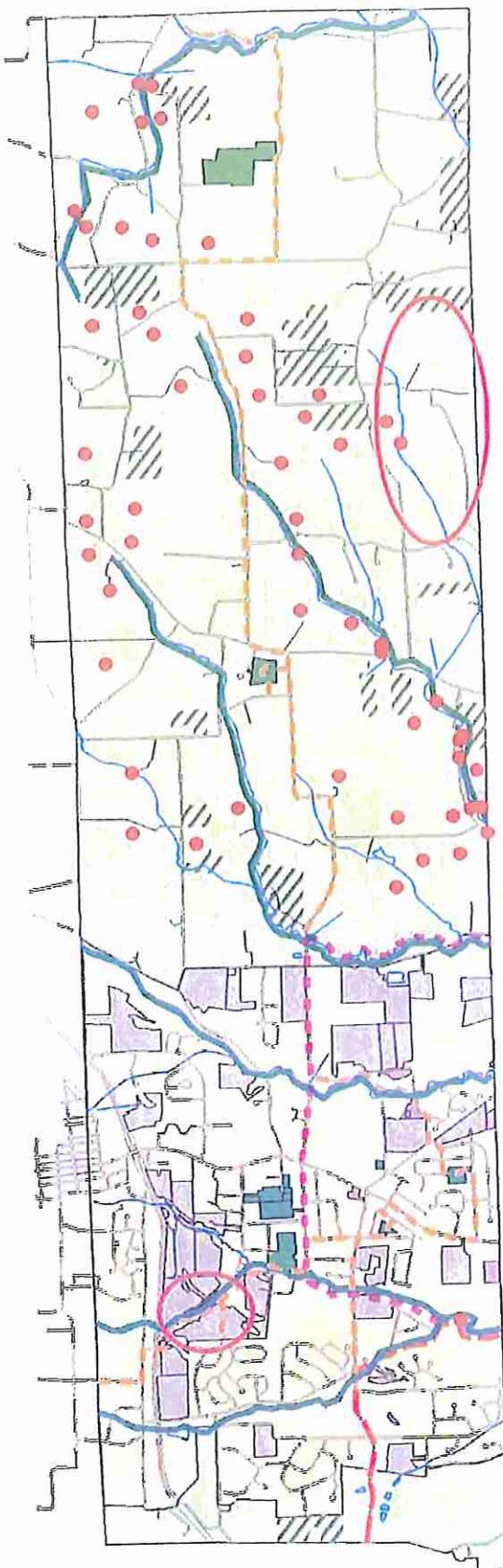
Unless homeowners volunteer to participate, it is generally not advised for residential structures to take part in the floodplain restoration program. Industrial and institutional uses are better-suited for relocation outside of a floodplain. If flood losses on these properties cost the Township a large amount of money, it may be sensible to investigate the possibility of demolition, contingent of course on finding an alternate location for the facility acceptable to all parties.

CONCLUSION

Open space preservation performs many functions. It can protect groundwater, enhance our supply of drinking water, preserve ecologically significant lands and habitats, provide pleasant view-scapes, prevent erosion, buffer incompatible land uses, reduce flooding, shape the development pattern, raise property values, and provide recreational opportunities. Open space adds to the livability of neighborhoods, communities, and the region. In its open meadows, wooded hills, river and stream valleys, expansive farmland, and parks and plazas, it embodies the attributes that make an area attractive as a place to live, work, or visit.

The significance of any type of preserved open space goes beyond its physical uses or functions. Perhaps the greatest benefit of open space is that it enhances the quality of life in many ways. The benefits to physical health and overall sense of well-being gained from the use of open space and trails may be difficult to measure, but without open space, Douglass Township would have a far less livable environment.

Figure 42
Summary of Recommendations



- Priorities for Acquisition
- Proposed Local Trail
- Proposed Regional Trail
- Proposed County Trail
- Proposed Greenway
- Potential Community Parks
- Potential Neighborhood Parks
- Existing Public Open Space
- Preserved Farms
- Farmland Targeted for Preservation
- Designated Growth Area
- Rural Resource Area

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Base map prepared October 2005

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CHAPTER 11

IMPLEMENTATION

BACKGROUND

Implementation is perhaps the most important part of any plan. Having identified and examined the open space issues important to the Township, a timeframe for implementation is established here to guide Douglass toward achieving its goals. In essence, this chapter is Douglass' "action plan." In the near term, implementation principally involves securing funds from Douglass' funding allocation under the County Open Space Program for Urgent Priority Projects. This would occur immediately (2005-2006). It also means taking other, non-acquisition actions for open space preservation and recreation facility planning and development. Critical and High (long-term) Priorities will build upon these earlier efforts, and will be implemented within the next fifteen years (2005-2015).

IMPLEMENTATION MATRIX

Figure 42 lists each recommendation along with goals and objectives achieved, method of implementation, responsible party, potential funding source, and priority. These rec-

ommendations are described in further detail in Chapter 10. The matrix is followed by a list of potential preservation methods as well as funding sources.

RESPONSIBILITY

For each proposed action, primary responsibility is proposed among the following municipal groups and consultants:

- Board of Supervisors (BS)
- Douglass Township Planning agency (DPA)
- Engineer (E)
- Montgomery County Planning Commission (MCPC)
- Open Space Committee (OSC)
- Solicitor (S)
- Douglass Township (TWP)

PRIORITY CATEGORIES

Different priority levels have been assigned to each recommendation based on many factors. They are as follows:

- **Urgent Priority Projects** should begin immediately (2005-2006). Eleven recommendations fall into this category.
- **Critical Priority Projects** should begin within the next three years (2005-2008). Seven recommendations fall into this category.
- **High Priority Projects**, which are generally long-term, should begin within the next ten years (2005-2015). The remaining 27 recommendations fall into this category.

Priorities may shift over the years, and a priority assignment of "High Priority" does not prevent a project from being implemented immediately if the situation warrants.

PRESERVATION METHODS

There are a number of ways a municipality can preserve land for open space. An over-

view of these alternatives is provided here to serve as a guide for the Township's future open space acquisition efforts. In the long term, all of these could conceivably be used by the Township, although at any given time one or more may be more appropriate than others for acquiring a specific site. More generally, however, they indicate that the Township can be flexible in its approach to implementing the plan's goals.

FEES SIMPLE ACQUISITION

This option is the most direct way to acquire open space because it simply involves negotiating with a private landowner to arrive at a mutually acceptable purchase price and then completing the deal. The municipality then has free and clear title to the property, or fee simple ownership. Because it is usually a straightforward transaction, municipalities often prefer this approach, particularly for establishing a community park.

INSTALLMENT BUYING

With this method, the municipality agrees to purchase a set number of acres annually until the full parcel is acquired. In return, the full site is removed from the tax rolls when the initial agreement is signed. The owner may choose to remain on his land until it is completely sold and paid for.. The advantage of this method is that benefits accrue to both the municipality and the landowner. For a municipality with limited funds, installment buying spreads the cost over a period of time. The landowner in the meantime is relieved of real property responsibilities with the agreement is signed.

LONG TERM LEASE WITH OPTION TO BUY

This involves the negotiation of a lease price with a property owner and includes conditions for use and possible purchase of the property. The primary advantage is that it

Figure 43
Implementation Matrix

Recommendations	Goal/ Objective Achieved	Responsible Party	Potential Funding Source	Priority
Farmland Preservation				
Purchase easements on active farms in ASA	2/A	TWP, MCPC	PALP, COS	High
Purchase easements on active farms not in ASA	2/A	TWP	COS, DEP	High
Encourage qualifying farms to apply to preservation program	2/A	TWP, MCPC	N/A	High
Rural Character				
Promote siting of homes out of view of main roads	2/B	DPA	N/A	High
Maintain rural road configurations	2/B	DPA	N/A	High
Promote use of rural design	2/B	DPA	N/A	High
Encourage scenic easements to protect scenic roads & vistas	2/B	DPA	N/A	High
Investigate increasing front yard setbacks in the R-2 district to protect scenic roads & vistas	2/B	DPA	N/A	High
Open Space and Natural Resource Protection				
Acquire the Hafer Estate	7/A, 4/A, 9/B	TWP, MCPC	COS	Urgent
Encourage stormwater BMPs	10/A	DPA, E	N/A	Urgent
Draft a riparian corridor protection ordinance	8/B	DPA, S, MCPC	N/A	Critical
Protect sensitive OS:				
Libor Property-	7/A, 8/A	TWP	COS, DCNR	Critical
Haring Property-	7/A, 8/A	TWP	COS, DCNR	Critical
Walters Property-	7/A, 8/A	TWP	COS, DCNR	Critical
Update Landscaping requirements in the SLDO	7/A, B, C, 10/B	DPA, S	N/A	High
Establish a Shade Tree Commission	7/A	TWP	N/A	High
Promote Low Impact Development	10/B	DPA, E	N/A	High
Parks & Recreation				
Encourage developers to develop the Moyer Property	3/A	BS	N/A	Urgent
Establish a 45-55 acre park on the Long Property	3/B, C, D	TWP, BS	RIF, DCNR	Urgent
Form a Park & Recreation Committee and adopt a revised Plan	3/B, C, D	TWP	N/A	Urgent
Collect Recreation Impact Fees from new residential developments	3/B, C, D	TWP, S	N/A	Urgent
Investigate ordinance for recreation impact fees based on building permits.	3/B, C, D	S	N/A	Urgent
Investigate the development of the Rhodes Property, Nelmore Park II, Colonial Manor, and Municipal Drive Open Space into active recreation areas	3/B, C, D	TWP	RIF, DCNR	Critical
Purchase 2-19 acres of land in growth area for active recreation	3/B	TWP	COS, DCNR	Critical
Purchase up to 22 additional acres of community park land (in addition to Long Property)	3/B, C, D	TWP	RIF, DCNR	Critical

Figure 43
Implementation Matrix Continued...

Recommendations	Goal/ Objective Achieved	Responsible Party	Potential Funding Source	Priority
Encourage developers to develop active & passive recreation parks on their own property in the rural resource area	3/A	DPA	N/A	High
Investigate Multi-Municipal Park concept	3/B, C, D	TWP, OSC	N/A	High
Linkages				
Implement local trails	4/A, B	TWP, DPA	COS, DCNR	Urgent
Persuade developers to build trails identified on their properties	4/A, B	DPA	N/A	High
Require sidewalks in all new subdivisions in growth area	4/A	DPA	N/A	High
Require sidewalks or pathways only in internal streets in rural resource area	4/A	DPA	N/A	High
Build sidewalks on Route 73 to connect to Junior High East	4/A	DPA	PADOT Safe Routes to School	High
Implement regional trails	4/A, B	TWP	COS, DCNR, TE	High
Implement county trail	4/C	TWP	COS, DCNR, TE	High
Protect greenways using non-acquisition methods	4/A, 8/A,B	TWP	DEP	High
Preservation of Historic & Cultural Resources				
Preserve historic Zern School & its grounds	6/A	TWP	PHMC	Urgent
Develop a "Main Street" vision plan for E. Philadelphia Ave	6	TWP, DPA	MCPC, DCNR, CDBG	Critical
Maintain & enhance the character of Gilbertsville	6	TWP, DPA	PADOT Home Town Streets	High
Encourage preservation of historic structures with creative site design	6	DPA	N/A	High
Celebrate cultural resources such as Zern's Market & the farming community	6	TWP	PHMC	High
Open Space Planning Awareness				
Hold an Open Space Plan Kickoff event	1/A,B	OSC	N/A	Urgent
Ensure that the Planning Agency considers open space and park planning in development reviews	1/A,B	DPA	N/A	Urgent
Hold 1 or more Open Space Education events	1/A,B	DPA, OSC	N/A	Urgent
Coordinate OS planning with New Hanover Township	9/B	TWP, OSC	N/A	High
Coordinate OS planning with Berks County	9/A	TWP, OSC	N/A	High
Reach out to farmers in target areas	1/A,B, 2A	TWP, MCPC	N/A	High

permits flexibility; if the property is not needed in the future for open space, it returns to the owner.

PURCHASE AND LEASE-BACK

Purchase and lease-back results in buying land and leasing it back to the owner in accordance with agreed-upon policies for the use and protection of the land. Its primary advantage is that it permits purchase of property before prices rise or before the property is lost to development. It also permits flexibility because once the land is purchased it can be used for another public purpose, sold, or exchanged for another parcel.

PURCHASE AND RESALE

This method is similar to purchase and lease-back, except that the land is purchased with the sole intent of reselling it under conditions or restrictive covenants. If the land is acquired at a low cost, the resulting profits help repay initial purchase costs and can be used to acquire additional land. Another advantage is that after resale, the municipality is relieved of ownership and maintenance responsibilities and the land is taxable.

LEASING

This is a popular, relatively inexpensive way to acquire open space, especially if the land is unlikely to be developed (for example, reservoirs and utility land). The term of the lease usually ranges from 20 to 50 years; at a minimum, a period should be established that is long enough to finance anticipated capital improvements. The owner of the leased land prescribes conditions and terms under which the land can be used and the lessee is required to carry liability insurance covering personal injury and property damage.

EASEMENTS

Easements are a successful way to save public funds, yet receive open space benefits. An easement is a limited right over land owned by another person. Legally, a person has the right to use his property subject to zoning laws, subdivision regulation, etc; however, he may sell his right to use the land in specific ways. The costs of easements vary with the type acquired.

Easements can be affirmative or negative. Affirmative easements grant limited rights to the public to use the land for public purposes, such as hiking, fishing, or riding. Such easements can be used selectively to obtain public use of private lands for trails and access to water-based recreational facilities. In contrast, negative easements do not allow public access, but restrict the owner in his use of the property. For example, a scenic easement requires the owner to preserve the "openness" or natural beauty of a site; this type of easement can be effective in maintaining municipality's visually attractive roads.

Use of easements is generally more limited and complicated than land acquisition, but they can limit or prevent destruction and premature development of scenic areas. They should be selectively used and tailored to fit the requirements of each particular situation.

EMINENT DOMAIN

Eminent domain is the condemnation of land for a public use by due process of law. It must involve the determination of a fair market value for the property and a clear definition of the public purposes for which it is being condemned. Before exercising the right of eminent domain, a municipality should study the necessity of obtaining the particular site and the feasibility of acquiring it by other acquisition methods. Only if all other methods fail and the property is essential to an open space system should eminent domain be considered.

PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP)

The Growing Greener program has funded efforts to clean up Pennsylvania's rivers and streams, reclaimed abandoned mines and toxic waste sites, invested in new alternative energy sources, preserved farmland and open space, and developed watershed restoration programs. Thus far, Growing Greener has generated nearly \$1.50 in matching funds for the environment for every \$1.00 in state money. As the Growing Greener program evolves, it will focus on brownfield redevelopment, farmland and open space preservation, water quality improvements, enhanced state and community parks, and an upgraded fish and wildlife infrastructure. Growing Greener II will accomplish these goals while making critical investments in community revitalization and the promotion of the use of clean energy.

KEYSTONE RECREATION, PARK AND CONSERVATION FUND

The Keystone Recreation, Park and Conservation Fund Act was signed into law in 1993. It directs a portion of the state's Real Estate Transfer Tax to the Keystone Fund, establishing a dedicated and permanent funding sources for recreation, parks, conservation, and other programming. Grants from this program require a minimum 50% match from the recipient municipality or nonprofit organization. As of 2002, \$144 million had been granted to more than 2,100 projects. The demand on the Keystone Fund already outstrips resources by a 4 to 1 margin.

PENNSYLVANIA DEPARTMENT OF COMMUNITY & ECONOMIC DEVELOPMENT (DCED)

The mission DCED is "To foster opportunities for businesses and communities to succeed and thrive in a global economy, thereby enabling Pennsylvanians to achieve a superior quality of life." Therefore there are several

assistance and grant programs available to Pennsylvania municipalities. Often, local economic and community revitalization efforts are supported by the implementation of green infrastructure and open space plans. Below is a list of programs offered by DCED through which revitalization funds may flow to implement the recommendations described in this open space plan.

- **Community Development Block Grant Program (CDBG)** - Provides grant assistance and technical assistance to aid communities in their community and economic development efforts.
- **Community Revitalization Program (CR)** - Provides grant funds to support local initiatives that promote the stability of communities.
- **Main Street Program** - Provides assistance for revitalization planning and projects.
- **Elm Street Program** - Grant funds for planning, technical assistance and physical improvements to residential and mixed use areas in proximity to central business districts.
- **Industrial Sites Reuse Program** - Grant and low-interest loan financing to perform environmental site assessment and remediation work at former industrial sites.

PENNSYLVANIA HISTORICAL & MUSEUM COMMISSION (PHMC)

Many communities value their historic resources and work to preserve them for future generations. These resources can then be integrated into the open space network and cultural amenities of that community to enhance local image and aesthetics. The PHMC offers several programs that aid municipalities in these efforts.

- **Certified Local Government Grant Program** - Provides funding for cultural resource surveys, national register nomi-

nations, technical and planning assistance, educational and interpretive programs, staffing and training, and pooling CLG grants and third party administration.

- **Keystone Historic Preservation Grant Program** - Provides funding for preservation, restoration, and rehabilitation
- **Pennsylvania History and Museum Grant Program** - Provides 10 types of funding grants designated to support a wide variety of museum, history, archives and historic preservation projects, as well as nonprofit organizations and local governments.

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION (PENNDOT)

SAFE ROUTES TO SCHOOL

This category includes projects for bicyclists and pedestrians that permit safe passage for children to walk or bike to school. This includes activities that enhance the transportation system through the construction of new facilities or the improvement of existing facilities to make them more usable for pedestrians and bicyclists. Some examples of eligible activities include: sidewalk improvements, pedestrian/bicycle crossing improvements, bike lanes, traffic diversion improvements, off-street bicycle and pedestrian facilities. In addition, this program may fund traffic calming measures to slow the speed of cars such as the following: curb extensions, bulb-outs, traffic circles, raised median islands, speed humps, textured or raised crosswalks. Funds cannot be used for bicycle and pedestrian facilities that are solely for recreational use.

HOME TOWN STREETS

This category includes a variety of streetscape improvements that are vital to reestablishing our downtown and commercial centers. These will include activities undertaken within a defined "downtown" area that collectively en-

hance that environment and promote positive interactions with people in the area. Projects may include sidewalk improvements, planters, benches, street lighting, pedestrian crossings, transit bus shelters, traffic calming, bicycle amenities, kiosks, community "gateway" plantings, signage and other visual elements.

DELAWARE VALLEY REGIONAL PLANNING COMMISSION (DVRPC)

DVRPC's Transportation and Community Development Initiative program is intended to assist in reversing the trends of disinvestment and decline in many of the region's core cities and first generation suburbs by:

- Supporting local planning projects that will lead to more residential, employment or retail opportunities;
- Improving the overall character and quality of life within these communities to retain and attract business and residents, which will help to reduce the pressure for further sprawl and expansion into the growing suburbs;
- Enhancing and utilizing the existing transportation infrastructure capacity in these areas to reduce the demands on the region's transportation network; and
- Reducing congestion and improving the transportation system's efficiency.

CONGESTION MITIGATION AND AIR QUALITY IMPROVEMENT PROGRAM (CMAQ)

This program seeks transportation-related projects that can help the region reduce emissions from highway sources and meet National Clean Air Act standards. The program covers the DVRPC region of Bucks, Chester, Delaware, Montgomery, and Philadelphia counties in Pennsylvania; and, Burlington, Camden, Gloucester and Mercer counties in New Jersey.

TRANSPORTATION ENHANCEMENT PROGRAM (TE)

Transportation Enhancements is a set-aside of Federal highway and transit funds, mandated by Congress in the Transportation Equity Act for the 21st Century (TEA-21) for the funding of "non-traditional" projects designed to enhance the transportation experience, to mitigate the impacts of transportation facilities on communities and the environment, and to enhance community character through transportation-related improvements.

NATIONAL PARK SERVICE RIVERS, TRAILS, AND CONSERVATION ASSISTANCE PROGRAM

The program offers technical assistance only to nonprofit organizations, community groups, and local or state government agencies. Rivers and Trails technical staff offers the following types of assistance for recreation and conservation projects:

- Building partnerships to achieve goals set by the community
- Assessing resources
- Developing concept plans
- Engaging public participation
- Identifying potential sources of funding
- Creating public outreach
- Organizational development
- Providing conservation and recreation information

PECO ENERGY GREEN REGION OPEN SPACE GRANT PROGRAM

PECO Energy, a subsidiary of Exelon, is currently involved in several environmental partnerships including "TreeVitalize," with DCNR, clean water preservation with The Nature Conservancy, and environmental education initiatives with the Schuylkill Center for Environmental Education and Green Valleys Asso-

ciation. Green Region grants are available to municipalities in amounts up to \$10,000. The grants can be used with other funding sources to cover a wide variety of planning and direct expenses associated with development and implementing open space programs, including consulting fees, surveys, environmental assessments, habitat improvement, and capital improvements for passive recreation.

PENNSYLVANIA AGRICULTURAL CONSERVATION EASEMENT PURCHASE PROGRAM (PACE)

The Pennsylvania Agricultural Conservation Easement Purchase Program was developed in 1988 to help slow the loss of prime farmland to non-agricultural uses. The program enables state, county and local governments to purchase conservation easements (sometimes called development rights) from owners of quality farmland. The first easements were purchased in 1989. Counties participating in the program have appointed agricultural land preservation boards with a state board created to oversee this program. The state board is responsible for distribution of state funds, approval and monitoring of county programs and specific easement purchases.

RECREATION IMPACT FEES (RIF)

Fees can be collected from a developer or land development applicant for the purposes of providing park or recreational facilities accessible to the development. However, according to Section 503(11) of Act 247 of the Pennsylvania Municipalities Planning Code, the governing body must have a formally adopted recreation plan in order to require construction of recreational facilities, the payment of fees in lieu thereof, or the private reservation of the land.

DONATIONS

Douglass should encourage donations from individuals and groups to help pay for park-land acquisition, development, and tree planting. The donations may be cash, materials, or labor. The Township could organize special days during which local citizens and groups could gather to participate in implementing open space projects.

CONCLUSION

Douglass Township looks forward to adopting the 2005 Open Space Plan and implementing its recommendations. The Township believes that parks and open space contribute greatly to the quality of life of its residents, and that a "Green Township" is what Douglass strives to be.

For more information, please visit the following websites:

Montgomery County Green Fields/Green Towns Program

<http://www.montcopa.org/plancom/greenfields2.htm>

Douglass Township

<http://www.douglasstownship.org>

Montgomery County Planning Commission

<http://www.montcopa.org/plancom>

RESOLUTION # 4170601

**MONTGOMERY COUNTY OPEN SPACE BOARD
APPROVAL OF THE DOUGLASS TOWNSHIP MUNICIPAL OPEN SPACE PLAN**

WHEREAS, On December 18, 2003, the Commissioners of Montgomery County established the Green Fields/Green Towns Program which provides grant funds for open space preservation; and

WHEREAS, the Green Fields/Green Towns Program requires the preparation of municipal open space plans and provides grants which may be used by any municipality in Montgomery County for the preparation of an open space plan; and

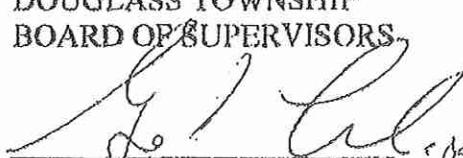
WHEREAS, Douglass Township has prepared an open space plan in accordance with guidelines established for the Green Fields/Green Towns Program; and

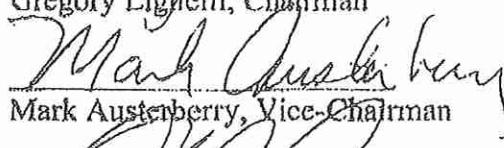
WHEREAS, the Montgomery County Open Space Board has reviewed the plan in accordance with guidelines established by the county.

NOW THEREFORE BE IT RESOLVED that the Open Space Board hereby approves the Douglass Township Open Space Plan subject to final adoption by Douglass Township.

Resolved and adopted the 17th day of April 2006 by:

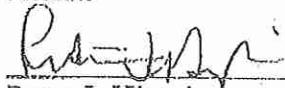
DOUGLASS TOWNSHIP
BOARD OF SUPERVISORS


Gregory Lignelli, Chairman


Mark Austerberry, Vice-Chairman


Tina Turner, Supervisor

Attest:


Peter J. Hiryak

