

# East Rockhill Township Comprehensive Plan Update

<b>TABLE OF CONTENTS</b>	<b>Page</b>
<b>INTRODUCTION</b> .....	1
<b>STATEMENT OF COMMUNITY GOALS AND OBJECTIVES</b> .....	3
<b>REGIONAL LOCATION AND HISTORY</b> .....	9
<b>DEMOGRAPHICS &amp; SOCIOECONOMIC TRENDS</b> .....	11
Regional Perspective.....	11
Township Perspective .....	11
Age Composition .....	12
Population Projections .....	13
<b>LAND USE CHARACTERISTIC AND DEVELOPMENT TRENDS</b> .....	15
Regional Perspective.....	15
Township Perspective .....	15
Development Trends.....	16
Approved Development Proposals .....	17
<b>RESIDENTIAL DEVELOPMENT</b>	
Housing Composition .....	19
Housing Affordability.....	21
Residential Zoning.....	22
Housing Development Patterns.....	23
Large-Lot Development and Resource Protection.....	23
Diversified Housing Alternatives .....	24
Senior Housing Opportunities.....	25
Housing Forecasts.....	26
<b>NONRESIDENTIAL DEVELOPMENT</b> .....	29
Commercial Uses .....	29
Home Occupation .....	30
Mining and Manufacturing Uses .....	30
Resident Employment.....	31
<b>NATURAL RESOURCES</b> .....	35
Land Resources.....	35
Geology.....	35
Steep Slopes .....	36
Woodlands .....	37
Agricultural Soils.....	38

**TABLE OF CONTENTS**

**Page**

Hydrological Resources ..... 39  
    Watersheds/streams..... 39  
    Floodplains..... 40  
    Wetlands ..... 40

**OPEN SPACE AND FARMLAND PRESERVATION..... 43**  
    Permanently Protected Lands ..... 43  
        State-owned Lands..... 43  
        County-owned/Leased Land ..... 44  
        Township-owned Lands..... 44  
        Township-owned Lands with Conservation Easement..... 45  
        Other Lands with Conservation Easements ..... 45  
    Other Lands..... 45  
        Lands with Preferential Assessment ..... 45  
        Agricultural Security Areas ..... 46  
        Agricultural Conservation Easements..... 46  
        School Facilities..... 47  
        Perkasie Borough Authority Lands..... 48  
    Township Open Space Plan ..... 48  
    Natural Areas Program ..... 49  
    Agricultural Preservation Zoning ..... 51  
        Agricultural Preservation Initiatives ..... 51  
        Agricultural Preservation in East Rockhill Township ..... 52  
        Court Decisions..... 53

**HISTORIC AND SCENIC RESOURCES ..... 55**  
    Historic Resources ..... 55  
        Villages of East Rockhill Township ..... 55  
        Methods of Preservation ..... 56  
    Scenic Resources ..... 57

**COMMUNITY FACILITIES ..... 59**  
    Police Services ..... 59  
    Fire Protection..... 60  
    Emergency Medical Services..... 61  
    Schools ..... 62  
    Solid Waste Management ..... 63  
    Libraries ..... 64  
    Park and Recreational Resources..... 65  
        Existing Parks and Facilities ..... 65  
        Greenway Planning..... 65  
        Future Improvements ..... 67

**TABLE OF CONTENTS**

**Page**

Water Resources and Wastewater Facilities .....68

- Water Resources .....68
  - Water Supply .....68
    - Public Water Service .....69
    - Regional Water Resource Planning.....71
  - Water Quality.....72
  - Stormwater Management.....74
- Wastewater Facilities .....76
  - Public Sewer Service .....78
  - Alternative Systems and Holding Tanks .....79
  - On-lot Systems and Malfunctions.....79

**TRANSPORTATION AND CIRCULATION .....81**

- Regional Road Network.....81
- Local Street Classification .....81
- Traffic and Circulation Issues .....83
- Transportation Improvement Program Projects.....85
- Pedestrian and Bikeway System .....86
- Public Transportation Services .....87
- Airport Facilities .....88

**FUTURE LAND USE AND GROWTH MANAGEMENT .....91**

- Development District Concept.....91
  - Development Area .....92
  - Rural Areas .....93
    - Resource Protection .....93
    - Agricultural Preservation .....94
    - Village Enhancement .....95
    - Rural Holding .....95
- Purpose and Intent of Zoning Districts .....96
- Zoning Recommendations .....98
- Potential Tools and Techniques .....99

**ADJACENT LAND USE AND ZONING.....105**

**PLAN RECOMMENDATIONS AND IMPLEMENTATION.....109**

**APPENDICES**

- Appendix A Community Visioning Process .....121
- Appendix B Land Use Classification Definitions .....127
- Appendix C Development Area Capacity Analysis .....129
- Appendix D Multifamily Fair Share Analysis.....133

**TABLE OF CONTENTS**

**Page**

**LIST OF TABLES**

Table 1 Housing and Population, Pennridge Planning Area, 1990–2000.....11  
Table 2 Demographic Characteristics, East Rockhill Township, 1990–2000 .....12  
Table 3 Population by Age, 1980–2000 .....13  
Table 4 East Rockhill Township Population Projections, 2015 .....14  
Table 5 Land Use Characteristics, 1990 and 2003.....15  
Table 6 Housing Units, East Rockhill Township, 1980–2000.....19  
Table 7 Housing Units by Type, 1990–2000 .....19  
Table 8 Housing Types by Locality, 2000.....20  
Table 9 Age of Housing Units, East Rockhill Township.....20  
Table 10 Median Housing Prices, East Rockhill and Surrounding Communities, 1999-2003.....21  
Table 11 Permitted Housing, East Rockhill Township.....23  
Table 12 Housing Forecasts.....26  
Table 13 Resident Occupation, 2000 .....31  
Table 14 Resident Labor Force by Industry, 2000.....32  
Table 15 Steep Slope Regulations .....37  
Table 16 Woodland Protection Regulations .....38  
Table 17 Hydrologic Resources Regulations.....41  
Table 18 Recreational Resources, East Rockhill Township .....66  
Table 19 Common Sources of Groundwater Contamination.....73  
Table 20 TIP List, East Rockhill and Adjacent Communities, 2003 .....85

**LIST OF FIGURES**

Figure 1 Land use ..... after page 16  
Figure 2 Land Resources ..... after page 36  
Figure 3 Agricultural Soils ..... after page 40  
Figure 4 Hydrological Resources ..... after page 40  
Figure 5 Protected Farmland and Open Space ..... after page 44  
Figure 6 Natural Areas ..... after page 50  
Figure 7 Scenic Areas ..... after page 58  
Figure 8 Recreational Facilities..... after page 66  
Figure 9 Recommended Greenway Routes ..... after page 66  
Figure 10 Public Water Facilities ..... after page 70  
Figure 11 Wastewater Facilities ..... after page 78  
Figure 12 Functional Street Classification ..... after page 82  
Figure 13 Future Land Use..... after page 92

# East Rockhill Township Comprehensive Plan Update

## Introduction

The *East Rockhill Township Comprehensive Plan* is designed to guide future land use policy and decision-making. A comprehensive plan can help a community shape its future by guiding zoning decisions, open space acquisition, transportation improvements, water supply planning, stormwater management, and sewage facilities planning.

During the past ten years, East Rockhill Township has experienced modest growth with most of the development being located adjacent to built-up areas containing public water and sewer service. The remaining development consisted of single-family homes in large-lot subdivisions. Due to its proximity to major highways, its wealth of natural and historical resources, and large amount of open land, East Rockhill Township has the potential for increased development pressures. If unplanned, such development could have a series of negative consequences for the township, including an overburdened road network, strained municipal services, increased water and air pollution, species habitat destruction, loss of open space and scenic resources, and a reduced quality of life.

The *East Rockhill Township Comprehensive Plan* presents a vision for maintaining a high quality of life for its residents and meeting the challenge of managing growth through 2015 and possibly beyond. It identifies the characteristics and resources of the township, examines trends in development, and recommends policies and actions for realizing its vision for the future. The plan addresses each of the comprehensive planning elements required by the Pennsylvania Municipalities Planning Code (MPC). Finally, to ensure community participation in the preparation of the plan, public meetings were held to discuss plan elements and the results of a community survey were used to shape the plan's direction.

The *East Rockhill Township Comprehensive Plan* is organized into the following sections: Community Goals and Objectives; Regional Location and History; Demographics and Socioeconomic Trends; Land Use Characteristics and Development Trends; Residential Development; Nonresidential Development; Natural Resources; Open Space and Farmland Preservation; Community Facilities; Transportation and Circulation; Future Land Use and Growth Management; and Plan Recommendations and Implementation.

Through the goals, objectives, and recommendations of the *East Rockhill Township Comprehensive Plan*, the township hopes to appropriately guide future development, effectively protect and manage the township's resources, and maintain a high quality of life for its residents.



## **Statement of Community Goals and Objectives**

The following goals and objectives are organized by topic that corresponds to each section of the comprehensive plan. A goal is an ideal or desired future condition and is usually not quantifiable or time dependent. An objective defines the purpose and commitment to achieve a goal or condition. The goals and objectives serve as the township's community vision for preservation, conservation, land use, and development. In 2004, a resident survey was mailed out to solicit comments and issues that helped to shape East Rockhill's community vision through the development of these goals and objectives as well as plan recommendations. (See Appendix A: Community Visioning Process.) During the preparation of this plan, discussions suggested that some of the original goals and objectives needed to be revised; some were deleted or revised; and new ones were added.

### **Residential Development**

**Goal:** Provide for safe and adequate housing for present and future residents of the township.

**Objectives:**

1. Provide for a variety of housing types and arrangements to accommodate the projected population growth, provide a fair share of housing needs, and promote housing affordability.
2. Promote the health, safety, and welfare and to ensure a quality living environment by providing for quality housing through sound zoning standards and modern building and fire codes.

### **Nonresidential Development**

**Goal:** Encourage nonresidential development that is well integrated and compatible with the surrounding context and character of the township.

**Objectives:**

1. Establish sufficient opportunities for nonresidential development that provides employment opportunities and a range of commercial services for residents.
2. Develop commercial and industrial use regulations that protect the health, safety, and welfare of township residents.
3. Minimize potential land use conflicts of nonresidential uses upon adjacent residential uses through appropriate land use and zoning measures.
4. Concentrate nonresidential development in areas zoned for such uses and that contain adequate infrastructure to support this development.
5. Promote well-planned industrial office park development that will provide positive image for the township.

## **Natural Resources**

**Goal:** Protect significant natural resources such as floodplains, wetlands, woodlands, steep slopes, sensitive wildlife habitat, and bodies of water.

### **Objectives:**

1. Allow the location of natural features to guide the type and intensity of land uses in the township.
2. Minimize negative environmental impacts related to growth and development.
3. Evaluate the environmental impact of all planning, zoning, and development decisions, and to minimize adverse environmental impacts through sound design and planning.
4. Prioritize the preservation and protection of significant natural resource areas and habitats.
5. Protect surface and groundwater resources from point and nonpoint source pollutants through appropriate methods.
6. Prevent further intrusion of hazardous materials into groundwater or other environmentally sensitive areas.
7. Maintain the natural biodiversity within the township that provides a healthy living environment for plants and animals.

## **Open Space and Farmland Preservation**

**Goal:** Promote open space and farmland preservation that contributes to the rural character of East Rockhill Township as the community grows.

### **Objectives:**

1. Preserve open space and farmland in strategic locations throughout the township.
2. Protect the township's farmlands from development, which may remove fertile soils from production or interfere with the existing practice of farming.
3. Support and strengthen the economic vitality of the township's agricultural base.
4. Promote the preservation of agricultural land through sound land use policies and regulations.
5. Provide flexibility in the agricultural zoning regulations to promote alternative sources of income to farmers.

6. Encourage farmland and open space preservation through conservation easement purchase or donation.
7. Promote private initiatives in conjunction with public funding sources to protect strategic open space lands.

## **Historic and Scenic Resources**

**Goal:** Preserve significant historic resources and scenic views and vistas throughout the township.

### **Objectives:**

1. Plan for future development that safeguards historic and scenic resources.
2. Protect the character and qualities of the historic villages through appropriate land use regulations, landscape buffering, or other appropriate methods.
3. Protect scenic roadways from the negative impact of future development through appropriate regulatory measures.
4. Promote private initiatives in conjunction with public funding sources to protect strategic historic resources.

## **Community Facilities**

**Goal:** Promote the orderly and coordinated use of public facilities and services that will provide adequate service to residents of East Rockhill.

### **Objectives:**

1. Promote sound development practices, which make it possible to provide public facilities and services adequately, including schools, recreation, and police and fire protection.
2. Provide adequate public safety and protection that makes East Rockhill a safe and desirable community in which to live.
3. Maintain and/or enhance facilities serving the existing and anticipated service requirements of residents, allowing for expansion as needed.
4. Coordinate land use planning with planning for water and sewage facilities.
5. Provide for the efficient use of areas currently served by public sewer and water facilities and to avoid the extension of these services until the areas around existing lines are fully developed.
6. Maintain the rural character of the township by providing the opportunity for services and facilities in areas that are appropriate for the growth of more

intensive uses and by prohibiting the intrusion of services and facilities in areas that should remain rural.

7. Plan for public sewer and water service within the designated Development Area to facilitate appropriate growth in the township.
8. Plan for the reliable supply of water, considering current and future water resources availability, uses and limitations, and provisions to protect water supply sources.
9. Provide the balance of aquifer withdrawals and recharge so that the long-term safe-yield of the aquifer is not exceeded.
10. Promote intermunicipal cooperation for water service and wellhead protection.
11. Manage stormwater runoff created by new development activities taking into account the cumulative watershed-wide stormwater impacts from peak runoff rates and runoff volume.
12. Preserve existing natural drainage and watercourses and provide proper maintenance of all stormwater management facilities.
13. Maximize groundwater recharge where appropriate and attainable throughout the watersheds to maintain the existing hydrologic regime.
14. Regularly monitor licensed waste haulers to ensure municipal waste haulers are properly collecting, transporting, and disposing of solid waste and recyclables.

## **Transportation and Circulation**

**Goal:** Protect, maintain, and improve the capacity of the township's highway network to reduce travel times, minimize congestion, and eliminate hazardous conditions.

### **Objectives:**

1. Maintain a safe and efficient transportation network.
2. Link transportation planning efforts with future land use planning.
3. Provide road improvements and implement traffic impact requirements that promote safe road conditions.
4. Regulate land use along the major roadways in the township to avoid hazardous situations and to maintain the road's primary function of serving through traffic.
5. Provide adequate cartway paving along rural collector roads and construct only those improvements necessary to maintain the safety of road and lanes for turning, acceleration, and deceleration.

6. Promote access management techniques that will protect the function of arterial streets (e.g., reverse frontage access roads, marginal access roads, or shared access driveways) should be considered for properties fronting on arterial roads.
7. Plan for improvements to the pedestrian and bicycle network to serve resident's needs.
8. Consider multimunicipal planning to address the regional transportation network.

## **Future Land Use and Growth Management**

**Goals:** To control the form, location, and timing of growth within East Rockhill Township while protecting the natural environment, maintaining visual quality, and providing services and facilities necessary for its residents.

### **Objectives:**

1. Foster a community with well-balanced mix of agricultural, residential, institutional, commercial, and industrial uses that support and complement a rural community.
2. Provide for future growth in areas best suited for development and provide appropriate land uses that will promote the protection of the township's overall character.
3. Maintain the integrity of agricultural and rural areas by limiting development and the extension of public infrastructure and services into these areas.
4. Provide for growth in a coordinated and timely manner through the implementation of the Development District Concept.
5. Locate the Development Area where more intense future growth can be concentrated and supported by infrastructure (e.g., public water and sewer) and basic services.
6. Use growth management techniques to preserve open space, protect environmental resources, and minimize site development costs.
7. Link the financial planning of the township with the policies established for future growth and development.



## **Regional Location**

Located in the northwestern region of central Bucks County, East Rockhill Township encompasses 12.95 square miles (8,288 acres). The township lies within the following approximate boundaries: Rich Hill Road to the north, Tohickon Creek and Nockamixon State Park to the northeast, Old Bethlehem Road to the southeast, slightly below the East Branch of the Perkiomen Creek to the south, Callowhill Road to the southwest, and Old Bethlehem Pike to the west.

East Rockhill is part of the Pennridge Planning Area that includes nine municipalities (Bedminster, East Rockhill, West Rockhill, and Hilltown townships and Telford, Sellersville, Perkasio, Silverdale, and Dublin boroughs). The township also abuts Richland and Haycock townships located to the north in upper Bucks County.

East Rockhill is predominantly rural in nature; however, there is a potential for increased development due to the existing transportation system leading to and from the area. Pennsylvania Routes 313 and 309 provide access to the north and south, and PA Routes 563 and 113 provide access to the east and west.

## **History**

East Rockhill Township was originally inhabited by the Lenni Lenape Indians, who settled along the area's valleys including the East Branch of the Perkiomen Creek. During the early days of the county's history, William Penn had reserved the lands of East Rockhill and neighboring West Rockhill Township for the future home of indentured servants. In fact, the area was also known as "Servants."

Quakers of English and Welsh descent are believed to have been the first white settlers in this region. During 1720 to 1730 large movements of German immigrants arrived and soon dominated the population. The majority of early settlers built farmsteads and cultivated crops and livestock. Local villages provided a wide range of businesses offering essential goods and services to residents of the surrounding countryside. General stores, post offices, churches, blacksmiths, and wheelwrights were among the common merchants and trades of early villages.

Named after its rocky and uneven landscape, Rockhill Township initially encompassed both East and West Rockhill townships. It was established as a result of a petition by Richland Township residents who argued that roads in the unincorporated territory to the southeast were inadequately maintained and in poor condition. Rockhill Township was created by court order in 1740, and a road supervisor and constable were appointed soon after.

In 1870, Rockhill Township was the largest township in Bucks County with a land area of 19,168 acres and population of 3,369. During this time, Sellersville, Perkasio, and Telford were also included within the boundaries of Rockhill Township. Early industries included sgraffito pottery, brickyards, hand-made cigars and cigar boxes, and gunsmiths. Rockhill Township was officially divided into East and West Rockhill townships on December 24, 1890.

Between the late 19<sup>th</sup> and early 20<sup>th</sup> centuries, East Rockhill Township, like many other upper Bucks communities, saw minimal growth and development. Most growth occurred within the incorporated boroughs or villages. However, during the 30-year period between 1940 and 1970, the township's population increased about 110 percent from 1,350 to 2,886 people.

In 1957, the Northeast Extension of the Pennsylvania Turnpike from Norristown to Scranton was officially opened. As a result, access to upper Bucks County, as well as destinations throughout this corridor were significantly increased. In 1969, access to the area was further enhanced following the completion of Route 309 bypass. This bypass runs from County Line Road in Hilltown Township to Bethlehem Pike in West Rockhill Township.

Over the past 30 years population growth has exceeded 80 percent, and there have been various significant developments such as the construction of Interstate 78 from Fogelsville to the Pennsylvania–New Jersey State line in 1989. Within East Rockhill, the construction of the Pennridge Airport and industrial park, Hansen Materials quarry operation, Pennridge High School, and the Upper Bucks Campus of the Bucks County Community College have had an impact on the land use and development. East Rockhill's proximity to Perkasio Borough and convenient access to the regional transportation network will continue to provide both residential and nonresidential development opportunities. Balancing the preservation of historic, natural, and scenic resources with the need to satisfy its population and economic base will be among the challenges for East Rockhill Township in the future.

## Demographics and Socioeconomic Trends

### Regional Perspective

Between 1990 and 2000, the Pennridge Area municipalities have grown by 3,181 housing units and 4,589 residents as shown in Table 1. Municipalities in this region undergoing the most housing and population growth are Hilltown and East Rockhill townships, and Perkasio and Telford boroughs. This can be attributed to good highway access and the provision of public water/sewer service to these communities. In this decade, West Rockhill Township had the lowest housing growth (17 dwelling units) and actually lost resident population (-285), which may be attributed to limited public utilities available in the township. Dublin Borough received only limited housing and population growth due primarily to the fact that there is limited land available for development, and the borough is approaching build out.

**Table 1. Housing and Population, Pennridge Planning Area, 1990–2000**

Municipality	Housing			Population		
	1990	2000	1990–2000	1990	2000	1990–2000
Bedminster Township	1,733	1,868	135	4,602	4,804	202
Dublin Borough	840	869	29	1,985	2,083	98
East Rockhill Township	1,359	1,883	524	3,753	5,199	1,446
Hilltown Township	3,659	4,370	711	10,582	12,102	1,520
Perkasie Borough	3,089	3,378	289	7,878	8,828	950
Silverdale Borough	209	329	120	881	1,001	120
Telford Borough	761	1,015	254	1,673	2,211	538
West Rockhill Township	1,684	1,701	17	4,518	4,233	(285)
<b>Total</b>	<b>13,334</b>	<b>15,413</b>	<b>2,079</b>	<b>35,872</b>	<b>40,461</b>	<b>4,589</b>

Source: U.S. Census, 1990 and 2000

### Township Perspective

East Rockhill Township has experienced continued population growth over the past fifty years. Although growth rates were slow (3.6 percent) from 1970 to 1980, they surged during the next twenty years with an overall growth rate of 75 percent, until reaching the municipality's 2000 U.S. Census population of 5,199. East Rockhill also experienced its highest 10-year population increase of 1,446 persons or about 39 percent between 1990 and 2000. Housing units increased from 1,359 units in 1990 to 1,883 units in 2000 or a 19 percent increase (For more discussion on housing and future housing needs, see the Residential Development section.)

East Rockhill's average household size fell from 2.92 persons per household in 1990 to 2.84 persons per household in 2000. (See Table 2.) This trend, which is occurring throughout the county, is due to an increase in the number of smaller families and singles living alone. It may also reflect an increased number of people whose children have grown up and left home. As of 2000, East Rockhill Township contains 1,828 households. Of these households 1,428 of them are considered family households. Of the family

households, 1,254 are married-couple families. This is down slightly from 1990, when there were 1,310 married-couple families. Nonfamily households rose from 229 in 1990 to 400 in 2000. Of these nonfamily households, 312 consist of a householder living alone.

**Table 2. Demographic Characteristics, East Rockhill Township, 1990–2000**

Characteristic	1990	2000
Median Age (years)	33.6	36.5
Households*	1,286	1,828
Family household**	1,057	1,428
Married Couple Families	948	1,254
Nonfamily Households***	229	400
Householders Living Alone	174	312
Average Household Size	2.92	2.84
Average Family Size	3.22	3.21

Source: U.S. Census, 1990 and 2000

\*A household is an occupied housing unit.

\*\*A family household is a household with two or more individuals related by marriage, birth, or adoption.

\*\*\*A nonfamily household is a household with a group of unrelated individuals or a person living alone.

The median household income for East Rockhill Township is \$59,663, just under the countywide estimate of \$59,727. According to the 2000 Census, 87.1 percent of East Rockhill's population over the age of 25 earned a high school diploma. Of that fraction, 17.8 percent also completed bachelor degrees and an additional 10 percent hold master degrees. Education attainment and employment are often the most accurate determinates of an area's income.

### Age Composition

Census data indicate the composition of East Rockhill Township's population is very similar to that of Bucks County and the surrounding municipalities within the Pennridge Area. Keeping to earlier trends, the median age within East Rockhill increased from 31.6 to 36.5 during 1980 to 2000. This climb in median age partially occurred as a result of the increase in the 35 to 54 age cohorts, which represent the greatest share of the township's population. School age cohorts, 5 to 19, account for 24.1 percent of the township's population while retirement age cohorts, 65 and older, represent 8.9 percent. (See Table 3.) Differences between East Rockhill and the county suggest that the township is home to a comparatively larger percentage of families than the county as a whole.

During the 1980s, the under-9 age category rose by 2 percent, while throughout the 1990s, percentages dropped slightly. The age groups of 15 to 34 also declined since 1980. The increase in the 35 to 54 age brackets reflects the aging of larger cohorts in previous stages. After a slight increase in 1980s, the 55 to 64 cohorts began to decrease while the 65-plus age range remained fairly constant. With the future aging of the 35 to 54 cohorts, a higher demand for senior services including housing, healthcare, and transportation may be generated. Such needs will also depend on migration rates and lifestyle preferences of these age groups.

**Table 3. Population by Age, 1980–2000**

Age	1980		1990		2000	
	Population	% of Total	Population	% of Total	Population	% of Total
Under 5	187	6.29%	314	8.37%	357	6.87%
5 to 9	201	6.77%	325	8.66%	444	8.54%
10 to 14	288	9.69%	252	6.71%	444	8.54%
15 to 19	288	9.69%	228	6.08%	365	7.02%
20 to 24	233	7.84%	188	5.01%	212	4.08%
25 to 34	448	15.08%	676	18.01%	639	12.29%
35 to 44	406	13.67%	666	17.75%	1,049	20.18%
45 to 54	331	11.14%	430	11.46%	789	15.18%
55 to 64	306	10.30%	307	8.18%	439	8.44%
65 to 74	188	6.33%	242	6.45%	268	5.15%
75+	95	3.20%	125	3.33%	193	3.71%
<b>Total</b>	<b>2,971</b>	<b>100%</b>	<b>3,753</b>	<b>100%</b>	<b>5,199</b>	<b>100%</b>
19 and under	964	32.45%	1,119	29.82%	1,610	30.97%
20–64	1,724	58.03%	2,267	60.41%	3,128	60.17%
65+	283	9.53%	367	9.78%	461	8.87%
<b>Total</b>	<b>2,971</b>	<b>100%</b>	<b>3,753</b>	<b>100%</b>	<b>5,199</b>	<b>100%</b>

Source: U.S. Census, 1980, 1990 and 2000

### Population Projections <sup>1</sup>

Population projections are useful in helping a municipality plan for future needs, such as park and recreation facilities, emergency services, and senior services. The following population projections shown in Table 4 were developed using an age cohort survival model. The age cohort survival model simulates the process by which population actually changes by applying birth (fertility), death, and migration rates to a starting population (2000 Census). Under the process, the starting population was broken down into five-year increments (called cohorts) according to the age structure and sex of the population. Fertility, death, and migration rates based on past trends were applied to the cohorts of the starting population to produce a 2015 projected population. Holding past death and fertility rates constant, three possible migration rates were used to produce low, medium, and high population projections.

The low-growth scenario projects an additional 1,571 people in 2015, the medium-growth scenario projects an additional 2,554 people, and the high-growth scenario projects an additional 3,213 people. It should be noted that these numbers are not definitive and that any forecast of future growth is tentative and subject to a given set of assumptions holding true for a defined period of time and constraints of the projection model employed, but these projections should provide a fairly good picture of population growth to the year 2015.

<sup>1</sup> Housing projections will be developed in the Residential Development section.

**Table 4. East Rockhill Township Population Projections, 2015**

	2000 Census	2015 Projections		
		Low	Middle	High
<b>Population</b>	5,199	6,770	7,753	8,412
<b>Migration Rate*</b>	20.64%	5%	14.36%	20.64%

\*Migration rate used to develop the low projections assumes a reduction in in-migration. The migration rate for the middle projection assumes a return to the rate of migration seen during the 1980s, while the migration rate for the high projection assumes a continuation of the rate of migration found during the 1990s.

## **Land Use Characteristic and Development Trends**

### **Regional Perspective**

In the past, development within the Pennridge Area (which includes East Rockhill Township) has been steady due to good transportation access and economic activity. Development has primarily been in the form of single-family detached residential and commercial establishments. Nearly three-quarters of the Pennridge Area is either agricultural, rural residential, or vacant land uses, while about 17 percent of the total land area is in the form of single-family residential use. The four boroughs in the area (i.e., Dublin, Perkasio, Sellersville, and Silverdale boroughs) have received significant nonresidential development in recent decades. Due to increased public water and sewer availability and a strong commercial and industrial base, this growth trend is expected to continue. Development within the Pennridge Area has not been as significant as other areas within the county; however, the economic stability and presence of public water and sewer make it attractive for future growth.

### **Township Perspective**

East Rockhill Township is still largely rural in character. Table 5 provides a snapshot of the land use characteristics within the township between 1990 and 2003 and Figure 1 highlights 2003 land use.<sup>1</sup> In 2003, over half or 56 percent of the township consists of three land use categories—rural residential (2,417 acres), agricultural (716 acres), and vacant (1,542 acres). A majority of the agricultural land is concentrated in the southeastern portion of the township.<sup>2</sup>

Rural Residential land use constituted the largest land area in the township with 2,417 acres or over 29 percent of the total land area of the township. Rural Residential land use contains a single-family detached dwelling but is located on lots that are 5 acres or greater (for a detailed description of land use classification definitions, see Appendix 1). The purpose of the Rural Residential category is to identify large residential lots that may have potential for future subdivision or land development. This category is useful for identifying potential areas for future development remaining in the township as discussed in the Future Land Use and Growth Management section. Single-Family Residential category consists of 1,543 acres or over 18 percent of the total land area of the township, and consists of single-family detached dwellings on lots less than 5 acres.

---

<sup>1</sup> For 2003 land use mapping and statistics, subdivision and/or land development proposals that received a building permit at the time of plan production was considered constructed or subdivided and the parcel and its respective acreage was included in the respective land use category.

<sup>2</sup> The agricultural land use category is limited to parcels that are 20 acres or over for statistical and mapping purposes. Agricultural lands under 20 acres are classified as either Vacant or Rural Residential land uses.

**Table 5. Land Use Characteristics, 1990 and 2003**

Land Use Category	1990		2003		1990–2003	
	Acreage	%	Acreage	%	Amt. Chg.	% Chg.
Single-Family Residential	1,220	14.7	1,543	18.6	323	20.9
Multifamily Residential	56	0.7	85	1.0	29	34.1
Rural Residential	2,386	28.8	2,417	29.2	31	1.2
Agricultural	1,122	13.5	716	8.7	-406	-56.7
Mining & Manufacturing	26	0.3	26	0.3	0	0
Commercial	146	1.8	109	1.3	-37	-31.3
Transportation & Utilities	494	6.0	532	6.4	38	7.1
Government & Institutional	267	3.1	316	3.8	49	15.9
Parks, Recreation, & Protected Opens Space	618	7.5	1,004	12.1	386	38.4
Vacant	1,953	23.6	1,542	18.6	-411	-26.6
<b>Total</b>	<b>8,288</b>	<b>100%</b>	<b>8,288</b>	<b>100%</b>		

Note: The percentage of the respective land use category is based upon the total land area of the township.

Multifamily Residential land use comprises 1 percent of the land area in the township and consists of three or more attached units. Multifamily residential developments are scattered throughout the township, but the highest concentration is located within the Pines at Pennridge and Cedarbrook development along North Fifth Street.

Parks, Recreation, and Protected Open Space land use constitutes 1,542 acres or over 12 percent of the area of the township. This is due to the extensive State and local park system. State-owned lands consist of a portion of Nockamixon State Park and State Gameland No. 139. Other protected open space includes the township acquired common open space associated with residential subdivisions and land with conservation easements.

Nonresidential land uses represent only a limited land area and overall percent of the township. Government and Institutional accounted for the largest land area (316 acres or 3.8 percent), followed by Commercial (109 acres or 1.3 percent), and Mining and Manufacturing (26 acres or 0.3 percent).

### Development Trends

Historically, there have been subtle shifts in land use characteristics in East Rockhill Township. An examination of these development trends between 1990 and 2003 are provided in Table 5. During this time period, the largest land use decreases were agricultural (406 acres or over 56 percent decrease) and vacant (411 acres or over 26 percent decrease). This can largely be attributed to the conversion of agricultural and vacant areas to single-family and multifamily residential development. Consequently, over this same time period, Single-Family Residential and Multifamily Residential land uses have increased significantly, to about 20 and 34 percent, respectively. The number of residential lots will increase in the near future as suggested by the residential subdivisions that were approved but pending issuance of building permits.

Between 1990 and 2003, Parks, Recreation, and Protected Open Space land use had the highest percentage increase (over 38 percent), due to in a large part to the purchase of open space and the creation of Markey Park, open space acquired in 2000 as part of the Bucks County Open Space Program, and additional open space purchased by the township. Scheduled to open in 2006, the township is planning on developing a regulation 18-hole public golf course on a portion of this property.

Development trends between 1990 and 2003 indicate that Government and Institutional land use grew by about 16 percent, Mining and Manufacturing stayed the same, while Commercial land use actually decreased by over 31 percent. This can be attributed to the dramatic affect on the percentage change that results from transferring parcels from a land use category with limited land area to different a land use category. Specifically, the Bucks County Community College—Upper County Campus moved into the former Bucks County Bank headquarters building in the Glenwood Village Shopping Center, and an office building located off Clymer Road was converted to a nursing home. As a result, the bank and office building parcels that were classified as Commercial in 1990 have been converted into Government and Institutional and Multifamily Residential land uses, respectively. Since there is only 307 acres of Commercial land area, the loss of these two parcels (that collectively total about 32 acres) has resulted in the significant percentage change of -31.3 percent.

#### **Approved Development Proposals**

As of January 2003, various development proposals have received approval or pre-approval status from the township, but have not received a building permit. The majority of these proposals involved subdivisions of 3 lots or less; therefore, the inclusion of these proposals have not been incorporated into the 2003 land use statistics and mapping.



## Residential Development

### Housing Composition

In 2000, East Rockhill Township had a total of 1,883 housing units, which is an increase of 819 units (77 percent) since 1980. In the past two decades, housing unit increases in the township have increased from 295 units (28 percent gain) from 1980 to 1990 and 524 units (37 percent gain) between 1990 and 2000. Table 6 shows changes in East Rockhill housing from 1980 through 2000.

**Table 6. Housing Units, East Rockhill Township, 1980–2000**

	1980	1990	1980–1990	2000	1990–2000	1980–2000
<b>Total Units</b>	1,064	1,359	295	1,883	524	819

Source: U.S. Census, 1980-2000

Most housing in East Rockhill consists of single-family detached homes. Of a total 1,883 units in 2000, 1,396 units, or nearly three-quarters, were single-family detached. Nevertheless, the township's housing stock within the past decade has grown to encompass a mix of housing types.

The next most numerous housing type is single-family attached housing.<sup>1</sup> There were 252 units of this housing type in 2000. The share of single-family attached housing grew the most from 1990 to 2000, climbing from 1 percent to more than 13 percent of the housing stock.

The share of multifamily housing<sup>2</sup> held steady in the range of 8 percent from 1990 to 2000, while the share of mobile homes dropped by nearly 2 percent, from 5.4 percent to 3.6 percent. Housing units by type are shown in Table 7 below:

**Table 7. Housing Units by Type, 1990–2000**

Housing Type	1990		2000	
	Number of Units	Percentage of Total	Number of Units	Percentage of Total
Single-Family Detached	1,147	84.3	1,396	74.1
Single-Family Attached	13	1.0	252	13.4
Multifamily	118	8.7	153	8.1
Mobile Homes	74	5.4	67	3.6
Boats, RVs, Vans, etc.	7	0.6	15	0.8
<b>Total</b>	<b>1,359</b>	<b>100.0</b>	<b>1,883</b>	<b>100.0</b>

Source: U.S. Census, 2000

The distribution of housing types in East Rockhill most closely resembles the adjacent communities of Bedminster and Hilltown townships that have seen a significant increase in their housing stock in recent years. In each of the three townships, single-family

<sup>1</sup> Units attached by walls that extend from the ground to the ceiling (e.g., townhouses).

<sup>2</sup> Units in one structure that are attached below and/or above other units (e.g., apartment building).

detached housing accounts for about three-quarters of all dwelling units, while the share of attached single-family and apartment housing ranges from about 20 percent to 25 percent. This distribution differs significantly from the housing profile in adjacent Richland Township, which has been actively seeking to boost the proportion of single-family detached housing within its borders.

The share of attached single-family housing in East Rockhill is similar to the countywide share. But the countywide housing type distribution is tilted more heavily toward multifamily (apartment) housing, which was built in greater numbers in the years before East Rockhill experienced a wave of growth. Table 8 shows the distribution of housing types in East Rockhill, its neighboring townships, and Bucks County.

**Table 8. Housing Types by Locality, 2000**

Housing Type	East Rockhill	Bedminster	Hilltown	Richland	West Rockhill	Bucks County
Single-Family Detached	74.1%	75.6%	73.6%	45.8%	66.0%	64.1%
Single-Family Attached	13.4%	10.1%	13.0%	21.9%	4.7%	13.9%
Multifamily	8.1%	10.3%	10.7%	11.9%	20.5%	19.4%
Mobile Homes	3.6%	3.7%	2.7%	20.3%	8.8%	2.5%
Boats, RVs, Vans, etc.	0.8%	0.3%	0.0%	0.0%	0.0%	0.03%
<b>TOTAL =</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

Source: U.S. Census, 2000

The vast majority of East Rockhill homes, 83 percent as of 2000, are owner-occupied. The corresponding figure for Bucks County is 77.4 percent. About one-third of the housing stock, numbering 628 units, has been added since 1990. Before that, the number of homes grew at a relatively even pace, with new construction ranging from about 10 percent to 13 percent each decade between 1960 and 1990. The age of housing in East Rockhill is shown in Table 9.

**Table 9. Age of Housing Units, East Rockhill Township**

Year Built	Number of Units	Percent
1990 to March 2000	628	33.4%
1980 to 1989	243	12.9%
1970 to 1979	249	13.2%
1960 to 1969	193	10.2%
1940 to 1959	233	12.4%
1939 or earlier	337	17.9%

Source: U.S. Census, 2000

## Housing Affordability

As is the case in Bucks County as a whole, housing affordability in East Rockhill remains an issue. Lower interest rates coupled with higher than usual demand has resulted in increased housing prices throughout the Delaware Valley. Low interest rates and high demand have combined to raise housing prices dramatically throughout the Delaware Valley. The Housing Price Index<sup>3</sup> indicates a 47 percent rise in housing prices in the Philadelphia-New Jersey Primary Metropolitan Statistical Area<sup>4</sup> over the previous five years and much of this has been driven by a rise in prices in the outlying suburbs. According to the 2000 Census, the median value<sup>5</sup> of a home in East Rockhill is \$170,600 which is slightly higher than that of Bucks County valued at \$163,200. As a comparison, the median home value of the entire Philadelphia-New Jersey Metropolitan Statistical Area is only \$119,400.

Housing sales prices within Bucks County and the Pennridge Area have also been rising steadily since the late 1990s. Housing sales prices for the period 1999 through 2003 as compiled by the area wide multiple listing service are in Table 10.

**Table 10. Median Housing Prices, East Rockhill and Surrounding Communities, 1999–2003**

Municipality	1999	2000	2001	2002	2003
East Rockhill Township	\$168,500	\$144,995	\$178,000	\$185,000	\$225,000
Bedminster Township	\$166,450	\$195,000	\$187,500	\$287,500	\$239,900
Hilltown Township	\$167,000	\$169,700	\$167,500	\$223,400	\$272,450
Dublin Borough	\$154,900	\$153,000	\$140,000	\$197,500	\$185,000
Perkasie Borough	\$130,212	\$145,000	\$150,000	\$167,440	\$189,900
Richland Township	\$95,900	\$108,000	\$112,250	\$128,500	\$159,950
Sellersville Borough	\$99,900	\$108,000	\$107,450	\$114,900	\$142,700
Silverdale Borough	\$165,200	\$136,000	\$155,000	\$157,000	\$180,000
Telford Borough	\$124,900	\$126,950	\$129,250	\$157,000	\$157,400
West Rockhill Township	\$128,500	\$190,000	\$162,700	\$199,900	\$230,000
Bucks County	\$156,000	\$165,000	\$174,895	\$200,000	\$229,500

Source: TreND Multiple Listing Service

Housing prices appreciated by about one-third in East Rockhill between 1999 and 2003, while median housing sales prices in the township in 2003 ranked fourth among the 10 upper Bucks communities listed in Table 10. In 2003, East Rockhill had the second lowest median housing price of the four adjacent townships, and the \$225,000 median housing value in the township remained below the countywide median of \$229,500.

<sup>3</sup> Office of Federal Housing Enterprise Oversight

<sup>4</sup> Includes Chester, Delaware, Philadelphia, Montgomery, and Bucks counties in Pennsylvania; includes Burlington, Camden, Gloucester, and Salem counties in New Jersey.

<sup>5</sup> The U.S. Census defines median home value as the respondent's estimate of how much the property (house and lot, mobile home and lot, or condominium unit) would sell for if it were sale.

Consequently, as long as the demand for housing remains high and interest rates remain low, housing affordability will likely remain an issue in East Rockhill and other areas of Bucks County.

## **Residential Zoning**

While the township's housing stock is composed mostly of single-family detached homes, the township's zoning ordinance does permit a reasonable range of housing types in a reasonable range of districts, as mandated by the Pennsylvania Municipalities Planning Code (MPC). Section 604(4) of the code requires that the provisions of the zoning ordinance be designed:

To provide for the use of land within the municipality for residential housing of various dwelling types encompassing all basic forms of housing, including single-family and two-family dwellings, and a reasonable range of multifamily dwellings in various arrangements, mobile homes, and mobile home parks, provided, however, that no zoning ordinance shall be deemed invalid for the failure to provide for any other specific dwelling types.

Single-family detached homes are permitted in all districts other than the Cultural-Educational, Commercial-Office, Extraction, and I-1 and I-2 Industrial districts. Single-family detached cluster housing is permitted in the Resource Protection, Rural Residential, Suburban, and Residential zoning districts. Those districts in which single-family detached housing is a permitted use cover much of the township.

Multifamily units are permitted in the R-1, Residential District and Village Residential District as part of a Performance Standard Development. In the R-1 district, all types of housing are permitted (i.e., townhouses, weak-link townhouse, village townhouse, apartments, twins and duplexes); however, the only multifamily unit types permitted in the Village Residential district are twins and duplexes. Performance Standard Developments are permitted by special exception in the Suburban district but excludes multifamily uses. These zoning districts are located near the Perkasie border or in or adjacent to the township's villages.

Mobile home parks are permitted by special exception in the R-1 district and as a conditional use in the Extraction District. Life care and full care facilities are permitted in the R-1 and Cultural-Educational districts, and are permitted by conditional use in the suburban district. Rooming houses are permitted by special exception in the Village Commercial District. Group homes are permitted by special exception in the Resource Protection, Rural Residential, Village Residential and Suburban districts.

While it appears that the township's zoning ordinance satisfies the requirements of the Pennsylvania Municipalities Planning Code (MPC), the possibility of providing additional areas for single-family and multifamily residential uses may need to be explored (see Future Land Use and Growth Management section).

Table 11 provides a summary of the major housing types as permitted in the various zoning districts.

**Table 11. Permitted Housing, East Rockhill Township**

Housing Type	Zoning District								
	AP	RP	RR	VR	VC	S	R-1	CE	E
Single-Family Detached	P	P	P	P	P	P	P		
Single-Family Detached, Cluster		P	P			P	P		
Village House				P		S	P		
Twin				P			P		
Duplex				P			P		
Multiplex							P		
Townhouse							P		
Apartment							P		
Mobile Home Park							S		C
Group Home		C	C	C		C			
Life Care or Full Care Facility						C	P	P	
Rooming House					S				
Residential Conversion	C	C	C	C	C		C	C	
Residential Accessory Building	P	P	P	P	P	P	P	P	
Accessory Home Occupation**	P,S,C	P,S,C	P,S,C	P,S,C	P,S,C	P,S,C	P,S,C	P,S,C	P,S,C

\* Not inclusive of all housing uses permitted by the zoning ordinance, only those that fit into a "house type."

\*\* Type of authorization required depends on nature of home occupation. Certain Accessory Home Occupation uses are also permitted by right in the I-1 and I-2 Industrial districts.

**Key**

- AP Agriculture Protection District
  - RP Resource Protection District
  - RR Rural Residential District
  - S Suburban District
  - R-1 Residential District
  - VR Village Residential District
  - VC Village Commercial District
  - CE Cultural-Educational District
  - E Extraction District
- P Permitted By-right
  - C Permitted by Conditional Use
  - S Permitted by Special Exception

**Housing Development Patterns**

Although the township is composed mostly of single-family homes on large lots, the housing stock has grown more diversified in recent years, with the addition of multifamily units in the form of twins and townhouses located at The Pines of Penridge and Cedarbrook developments. The housing mix reflects the makeup of the township and the consumer preferences of buyers looking to move into the area.

**Large-Lot Development and Resource Protection**

East Rockhill Township is a semirural area that has a limited variety of goods and services within its municipal boundaries. People living in the township like it because of

its open spaces and relatively isolated lifestyle. Since single-family homes on large- to medium-sized lots are readily marketable and fit this lifestyle choice of most residents, it is the predominant form of housing in the township.

In the survey given to residents to shape the direction of this plan, respondents ranked natural resources, open space, and growth management as the most important planning issues for the future of the township. Despite good market demand for large-lot development, it can destroy rural character if not adequately controlled. Large-lot development threatens the township's character because in many instances the yards become manicured lawns instead of meadows and woods. Moreover, as development of large lots spreads across the township, the landscape becomes dotted with homes that can effectively ruin the rural character of the area.

There are a variety of effective growth management tools and techniques that can concentrate development on smaller lots in appropriate areas of the township while preserving natural resources on a regional and on an individual lot basis. These techniques, including transfer of development rights, low impact grading, and site analysis and resource conservation plans that are discussed in the Future Land Use and Growth Management section.

### **Diversified Housing Alternatives**

While large-lot subdivisions are the primary form of housing in the township, there are households composed of singles or small families who are drawn to the area but prefer the greater affordability and lessened maintenance responsibilities of townhouses or other types of communities featuring attached housing. The construction of an appropriate mix of dwelling unit types and prices is a complex process. Private interests such as financiers, developers, and builders play an active role in this process. Numerous factors such as change in population make-up or in consumer preferences may increase the interest of a particular housing type. However, East Rockhill Township has taken several steps to foster a balanced mix of housing types while preserving the natural resources. For instance, the township has attempted to encourage denser development in its development district, located near its border with neighboring Perkasio Borough, so that housing demand might be guided to areas already served by public water and sewer. Townhouses, single-family attached and detached houses, duplexes, village houses, and apartments are among the housing types permitted by-right or by special exception around Perkasio. In this way, the township seeks to make use of existing public infrastructure by promoting future development (with a mix of housing unit types) to areas that are intended to accommodate higher densities and away from sensitive natural resources and farmland.

The township's zoning ordinance requires a minimum amount of open space for performance subdivisions, detached dwelling cluster subdivisions, and senior housing developments. Such uses allow a greater intensity of development while preserving valuable natural resources and open space. A discussion on the provision of additional multifamily housing opportunities is discussed in the Future Land Use and Growth Management section.

### **Senior Housing Opportunities**

According to the 2004 Residential Survey, nearly half of the respondents indicated that senior citizen housing opportunities should be a medium priority when planning for the future of the township. Senior housing falls into four general categories: independent living (also known as “active adult” or “age-restricted” housing), assisted living, continuing care retirement communities (CCRC), and nursing homes. Independent living housing has been a popular development type over the past few years. Mainly targeted at wealthy, active, and aging baby boomers, age-restricted housing accounted for over 20 percent of all units proposed in Bucks County in 2003. Age-restricted units provide few or no supports services to help residents carry out normal tasks of daily living. Residents live in their own households and are responsible for maintaining them. Assisted living is a long-term living situation for seniors who need more help than is available in an independent living community, but do not require the degree of medical and nursing care provided in a nursing home. Continuing care retirement communities package independent living with assisted living, nursing care, or both.

The township’s zoning ordinance permits nursing home, life care facility, and full care facility uses. Nursing homes are a permitted use in the C-E, Cultural Educational District. Life care facility and full care facility are permitted by right in the R-1, Residential District and by conditional use in the Suburban District. The life care facility or “assisted living” use is intended for individuals requiring certain support facilities, including personal care boarding homes in excess of eight residents. Full care facilities are intended to be used exclusively for individuals requiring skilled full time care. Currently, there are no nursing homes or full care facilities in East Rockhill Township; however, there is an existing life care facility (i.e., Success Rehabilitation) and a proposal for a new life care facility. Independent living units, assisted living facilities, and continuing care retirement communities are located nearby in Perkasio Borough and West Rockhill Township.

While some municipalities choose to regulate independent living or “age-restricted” housing as a separate use in their zoning ordinances, case studies have shown that they function the same as a typical household and should not be regulated any differently than any other residential use. For instance, the parking requirements for active adult housing are generally the same as typical housing unit. There is no need to provide a reduction in the required number of parking spaces per unit since active adults are just as mobile as their younger counterparts and often own multiple motor vehicles. Any residential use can be designated “age-restricted” through a legal covenant.

The senior housing use regulations in the zoning ordinance should be revised to updated standards and classifications that are more useful. For instance, existing life care facility requirements do not specify the type of housing units that are permitted. Area and dimensional requirements for housing unit types (e.g., building and yard setbacks) should be included or existing standards such as those established for the performance standard development should be referenced in the senior housing regulations.

Another issue needing to be evaluated is that full care facility appears to be similar in purpose and intent to the nursing home use. Full care facilities are required to have skilled full time care and nursing homes is described as a licensed nursing or

convalescent home. It may be possible to eliminate redundancies by combining these two uses and providing appropriate regulations.

Finally, the township's zoning ordinance does not include use regulations for CRCCs that may be appropriate to complete the senior housing continuum. The Bucks County Planning Commission publication, *Fifty-five plus, A Guide to Age-Restricted Housing for Bucks County Municipalities* (2002) may provide guidance in drafting appropriate regulation and design standards for senior housing uses in East Rockhill.

## Housing Forecasts

The amount of future development in the township is dependent on: the desirability of the area, the availability of local goods and services, the land availability for future development, proximity of transportation networks, and the accessibility to regional employment. But housing development is mostly dependent on the perceived supply and demand of housing in the township. The demand for single-family detached housing must also be taken into account. This type of housing composes a good amount of the overall housing stock of the township and will continue to be a large component of its future housing composition.

The following housing forecasts are based on the population projections (using an age cohort survival model) developed in the Demographics and Socioeconomic Trends section. The age cohort survival model simulates the process by which population actually changes by applying birth (fertility), death, and migration rates to a starting population (2000 Census).

Under the process, the starting population was broken down into five-year increments (called cohorts) according to the age structure and sex of the population. Fertility, death, and migration rates based on past trends were applied to the cohorts of the starting population to produce a 2015 projected population.

To develop forecasts for future housing growth, a tenure-by-age-of-householder rate was applied to the cohorts of the projections. The resulting housing units for each cohort were then added to produce a total projected number of units as shown in Table 12.

**Table 12. Housing Forecasts, 2015**

2000 Housing Units	2015 Projected Housing Units					
	Low	Amount Change 2000–2015	Medium	Amount Change 2000–2015	High	Amount Change 2000–2015
1,883	2,657	774	2,968	1,085	3,176	1,293

Source: Bucks County Planning Commission

The above low, medium, and high forecasts produce three possible growth scenarios for the township. (See below.) These scenarios will play a major role in subsequent chapters on development districts, future land use, and growth management strategies.

**Low-growth**—The low-growth scenario proposes a modest amount of housing growth consisting of 774 dwelling units. This type of growth is typical of the growth that has occurred in the past decade—primarily large-lot single-family detached subdivisions (with 10 or less lots) scattered across the township. Because of the limited amount of development, environmental and scenic impacts will be minimal, though many previously open lots will be lost for the foreseeable future.

**Medium-growth**—The medium-growth scenario proposes the development of 1,085 dwelling units. Growth may be a mix of mostly single-family homes on large lots with a few cluster subdivisions. The amount of land consumed in this scenario may be similar to the low-growth scenario, depending on the mix of development types.

**High-growth**—The fast-growth scenario proposes the development of 1,293 units. In this scenario, housing construction reaches levels seen in many central Bucks communities during the 1990s. Growth will consist primarily of single-family detached homes, located in large subdivisions. Some residential growth includes higher density residential detached or attached units. The locations of these possible subdivisions will determine the scenic and environmental impacts to the township. However, potential growth impacts may be limited if development is concentrated in specific areas of the township.

Once more, any forecast of future growth is tentative and subject to a given set of assumptions holding true for a defined period of time and constraints of the projection model employed. Nevertheless, these projections should provide a fairly good picture of housing growth to the year 2015. The nature of that growth will be dependent on future housing markets as well as the growth management policies and programs of the township. One of these policies is the “Development District Concept.” This concept is discussed in the Future Land Use and Growth Management section.



## **Nonresidential Development**

At the early stages of the comprehensive plan process, the steering committee conducted a community visioning brainstorming session. As a result of these discussions, increasing employment opportunities and attracting new businesses both ranked as “medium” priorities in maintaining and improving the quality of life in East Rockhill. The purpose of this section is to identify the amount of undeveloped lands within the nonresidential zoning districts and determine if there is a need to provide additional nonresidential development opportunities. The following summary does not include an anticipated growth calculation of the nonresidential development areas to determine its build out capacity, since employment, sales and service needs vary significantly by locality. There are no reliable analytical models that can be used to effectively gauge the unique nonresidential needs of a community. Therefore, this section provides a summary of the status of lands available for nonresidential development.

The Land Use Characteristics and Development Trends section shows that nonresidential uses (i.e., commercial, mining and manufacturing, and government and institutional uses) compose about 5.4 percent of the total area of the township.<sup>1</sup> The majority of East Rockhill’s nonresidential uses are located along major arterials such as Ridge Road, North Fifth Street, and Dublin Pike (Route 313); however, there are also several nonconforming nonresidential uses scattered around the township.

### **Commercial Uses**

As indicated in the 2004 Resident Survey, most residents purchase a majority of their goods and services outside the township, such as Perkasio and Quakertown boroughs. The township’s commercial development is generally restricted to the Commercial-Office, Village Commercial, and Cultural-Educational districts. However, there is limited land area remaining in these zoning districts. The Cultural-Educational district is located along Fifth Street and is the site of the Pennridge High School and Middle School. The Pennridge School district is currently undergoing an expansion of the school facilities, eliminating any future commercial use. Within the Commercial-Office districts, there are only limited areas available for future commercial development. In the Commercial-Office located northwest on Dublin Pike (Route 313), there is about 31 acres; however, there is a proposal for a shopping center and convenience store on this site. Within the Commercial-Office district at the corner of Ridge Road and Dublin Pike, there is one vacant 10-acre parcel. There are two Commercial-Office districts—one contains the Bucks County Community College—Upper County Campus and Glenwood Village Shopping Center, and the other contains the township’s sewage treatment plant; however, there is no vacant land available at these locations. The three Village Commercial districts located in Hagersville (Fifth Street and Dublin Pike) and along Rich Hill (Old Bethlehem Pike) are completely built out. While there are limited vacant lands available for future development in the Commercial-Office and Village Commercial districts, there does exist a potential for some infill or redevelopment.

---

<sup>1</sup> For the purposes of this plan, government and institutional uses were not considered as part of the nonresidential analysis. School facilities will be addressed in the Community Facilities section.

In order to provide additional commercial and employment opportunities, township officials have decided to examine the feasibility of expanding the Commercial-Office district located northwest on Dublin Pike. To increase nonresidential development opportunities while enhancing housing diversity in the township, the expansion of the Village Commercial and/or Village Residential districts will be explored, especially in the Hagersville area. However, any expansion of the village zoning districts should be predicated on a village study to identify ways of preserving and enhancing the village's character. For more detailed discussion on commercial zoning expansions, see Future Land Use and Growth Management section.

### **Home Occupation**

Throughout the country, the number of people working at home has increased dramatically in the past decade. Home occupation allows self-employed professionals or "telecommuters" to take advantage of technological advances such as computers/trades persons or internet access, and fax machines that allow them to work as effectively at home as they would do in an office. Changes in the types and number of home-based businesses have resulted in a changing view of regulations for home occupation. Today's home-based businesses can operate without external effects on neighborhoods. Many have no employees, no signs, no clients coming and going, and no changes to the appearance of the house of operation. Accessory Home Occupation use is broken into seven types of accessory uses based upon the type of activity as follows: professional offices, personal services, instructional services, home crafts, family day care, and trades/business, and repair services and other. Accessory home occupations may be permitted by right, by special exception, or by conditional use in all districts except the Extraction District. The type of approval required depends on the nature of the home occupation. Accessory home occupations must be incidental to the primary residential use by its occupants and must comply with strict operation standards. A review of the zoning ordinance may be necessary to determine if additional use regulations (e.g., minimum lot size, equipment stored on premises, employees of the business restrictions) are needed to address the different types of home occupational uses that vary in the nature of the respective business. Support of home occupations will provide residents with limited employment opportunities within the comfort of their own home while posing minimal impacts upon neighboring properties. Allowing people to work at home can also reduce traffic congestion by reducing commuter trips.

### **Mining and Manufacturing Uses**

East Rockhill's industrial zoning districts are limited to the I-1 and I-2 Industrial Districts located at the Pennridge Airport along northwest of Ridge Road and the Extraction district located northeast of Rockhill and Quarry roads. The Pennridge Industrial Park is located on the Pennridge Airport site and contains a few manufacturing operations. Since the late 1990s, there has been interest expressed in possible development of portions of the industrial district by the owners of the Pennridge Airport (Pennridge Development Enterprises). In order to take the appropriate steps necessary for the potential development of the airport site, in 2000, the Board of Supervisors adopted an ordinance amendment that effectively split the original Industrial district into two separate zoning districts—the I-1 and I-2 Industrial districts. The purpose of the I-1 district is to provide

for industrial, major commercial, intensive office, and laboratory uses with suitable open space and landscaping. The purpose of the I-2 district has a similar purpose, but permits industrial park use. An industrial park is to consist of a planned development of industrial and related uses with a high quality business campus character with coordinated utilities, landscaping, buffering, and stormwater management. The I-2 district also permits an office park, which is a planned development of office and related uses in a business campus-like environment. There is extensive vacant land available for future development on the Pennridge Airport site, but, future development will have to be located outside the designated “airport zones,” which are restricted areas that need to be unobstructed for purposes of emergency takeoff and landing maneuvers. As a result of having revised the industrial zoning regulations, township officials are in a position of marketing new businesses into the industrial office park with the assurance that any development that does occur there will be consistent with the intended appearance and character along Ridge Road.

There is a quarry owned by Hansen Materials located off Quarry Road that has been inactive for quite some time, and there are no immediate plans for future use. Currently, it is a restricted area and is regularly patrolled to keep trespassers off the property. Preparation of mid- to long-term plans should be considered to determine the best use for quarry site in the event that ownership or use is transferred to the township.

## Resident Employment

About 74 percent of the population age 16 years or older participates in the labor force. In 2000, 2.1 percent of township residents were unemployed which is comparable to 2.4 percent unemployment rate for Bucks County. Resident occupations in East Rockhill are shown in Table 13.

**Table 13. Resident Occupation, 2000**

Occupation	Number	Percent
Management, Professional, and Related Occupations	896	32.2
Service Occupations	351	12.6
Sales and Office Occupations	732	26.3
Farming, Fishing, and Forestry Occupations	9	0.3
Construction, Extraction, Maintenance Occupations	345	12.4
Production, Transportation, and Material Moving Occupations	451	16.2

Source: U.S. Census, 2000

The highest percentages of residents are employed in management and professional occupations (e.g., engineers, physicians, and executives), sales and office occupations (e.g., cashiers, travel agents, and secretaries), and production, transportation, and material

moving occupations (e.g., machinists, drivers, and welders). Service occupations (e.g., firefighters, home health aides, and childcare workers) and construction, extraction, and maintenance (e.g., electricians and mechanics) occupations both account for over 12 percent of resident occupations. Farming, fishing, and forestry occupations account for less than 1 percent of all resident occupations.

Resident employment can also be broken down by industry as illustrated in Table 14 below.

**Table 14. Resident Labor Force by Industry, 2000**

Industry	Number	Percentage
Agriculture, Forestry, Fishing and Hunting, and Mining	30	1.1
Construction	245	8.8
Manufacturing	568	20.4
Wholesale Trade	108	3.9
Retail Trade	401	14.4
Transportation and Warehousing, and Utilities	40	1.4
Information	20	0.7
Fire, Insurance, Real Estate, and Rental and Leasing	201	7.2
Professional, Scientific, Management, Administrative, and Waste Management Services	343	12.3
Educational, Health and Social Services	563	20.2
Arts, Entertainment, Recreation, Accommodation, and Food Services	99	3.6
Other Services	122	4.4
Public Administration	44	1.6

Source: U.S. Census, 2000

While the U.S. Census does not indicate how many East Rockhill residents work at businesses located in the township, according to the table above, it is evident that a majority of township residents are employed in the manufacturing and education, health, and social services, with over 20 percent of the residents employed in these industries. The largest employers in the township include the Pennridge School District with 479 employees and Draper-DBS, Inc. (custom cabinetry and furniture manufacturer) with 73

employees.<sup>2</sup> Other significant businesses in the township include Bucks County Community College—Upper County Campus and Clemens Market.

In order to increase the tax ratable in East Rockhill, there may be a need to explore options for the expansion of nonresidential employment base in the township. In 2000, the creation of the I-2 Industrial District was just one vehicle that was intended to facilitate this objective, but other zoning options should be examined. Based upon the resident employment figures in Table 14 above, East Rockhill has a highly-skilled local labor force in various sectors that can be used to promote business creation or relocation in the township. Increased local employment opportunities may also be attractive to area residents as well, particularly if changing jobs in order to gain local employment will dramatically reduce their commuting time.

---

<sup>2</sup> The source of employee numbers from *Bucks County Industrial Directory* (2002). Pennridge School District employment figure is from their source data.



## Natural Resources

East Rockhill has a wealth of natural resources that affect the quality of life of its residents. Farmland, woodlands, steep slopes, and stream valleys are some of the resources that contribute to the aesthetic and rural character of the township. Land use planning should balance future development with the protection of the township's inherent natural resources. Conventional subdivisions and nonresidential development often place a maximum on density and intensity of land use without regard to the natural resources on a site. While township's zoning ordinance requires that proposed development comply with natural resource protection standards and site capacity calculations for certain types of residential development, there are other tools and techniques that can enhance resource protection on an individual site. For instance, the implementation of Low Impact Development or LID, is a concept that stresses the utilization of a site's natural drainage system while minimizing grading and site disturbances. Site fingerprinting and minimum disturbance are two development techniques can greatly reduce the impacts of grading. (For more on this topic see the Tools and Techniques section).

The purpose of this section is to provide an inventory the existing natural resources in East Rockhill and suggest implementation strategies that will help to better plan for their protection and enhancement. Natural resources have been broken into two categories—land and hydrological resources. Land resources include geology, steep slopes, woodlands, and agricultural soils. Hydrologic resources consist of watersheds/streams, floodplains, and wetlands. In order to preserve these resources from the negative impacts of improper land use and development, the following resource inventory was compiled.

## Land Resources

### *Geology*

In East Rockhill, there are three major geologic formations, all formed in the Triassic Period: diabase (igneous intrusions), Brunswick (sedimentary shale and sandstones), and Lockatong (sedimentary argillite) (See Figure 2.) Inherently, geology affects future planning and land use decisions through impacts on water supply and topography and soil characteristics. Groundwater supplies largely depend upon geology, surface characteristics, water use and seasonal precipitation. The capacity of these aquifers to transmit and store water is directly related to the specific physical and chemical properties of the underlain geologic formation. The descriptions and water bearing characteristics of each are described below:

- › **Brunswick Formation**—Interlaced with bands of Lockatong, the Brunswick formation composes the majority of the eastern and southern portions of the township. A sedimentary rock consisting mostly of red to reddish-brown shale, gray to greenish-gray mudstone, and siltstone. Brunswick shale is nonporous rock moderately resistant to erosion and weathering. However, because it is highly fractured, the Brunswick Formation is considered a reliable source of groundwater than Lockatong with well yields often greater than 100 gallons per minute (gpm). Yields in the fractured rocks of Brunswick

shale are more predictable than in areas of dense, hard, poorly fracture rocks such as diabase or Lockatong argillite.

- **Lockatong Formation**—More resistant to weathering than the Brunswick formation, the Lockatong formation defines two distinct ridges in the East Rockhill Township, one along Ridge Road and a smaller band parallel to the East Branch of the Perkiomen Creek. Characterized by a gray to black argillite and containing tightly cemented sediment. The Lockatong Formation is a less reliable source of groundwater. Storage areas within the fractures are generally small and often obstructed by the formation itself that weathers to a dense clay-like soil that fills joints and prevents water flows. Therefore, the Lockatong formation has a low capacity to transmit and store water. Median well yields from Lockatong formations are about 10 gpm.
- **Diabase**—This formation covers more than one third of East Rockhill Township, covering the extreme northern and western portions of the township. Diabase consists of a dense, erosion-resistant crystalline, which is the primary rock type underlying many wooded ridges, steep slopes, and narrow stream valleys. Most diabase is too dense and the fractures and fissures too narrow to provide reliable well water on a large scale. Thus, diabase is considered a poor source of groundwater, which is only available within the weathered zone to 30 feet deep. The average well yield is 5 gpm. The shallow depth to bedrock also presents difficulties for excavation of on-site septic systems.

Water supply and methods of protecting water supply will be discussed more thoroughly in the Wastewater and Water Issues section.

### *Steep Slopes*

East Rockhill's topography may be characterized by two geologic systems: the hilly terrain of the diabase intrusion and the alternating ridges and valleys of the parallel Lockatong and Brunswick formations. The dominant topographic feature of the Pennridge Area is the Rockhill chain, a major outcropping of diabase running across upper Bucks County from Haycock Mountain through East and West Rockhill, where the major hills are the so-called Rock Hills. Rock Hill, located in the northern portion of East Rockhill Township, between Three Mile Run Road, PA Route 313, and Rockhill Road, has the highest elevation in the Pennridge Area (over 840 feet above mean sea level). It is a striking geologic formation, identified by the Pennsylvania Geological Survey as an Outstanding Scenic Geological Feature of Pennsylvania. A second major ridge parallels most of the length of PA Route 563/Ridge Road, forming a steep natural barrier. Three Mile Run is a very sharply defined valley between Rockhill and Ridge Road. The lowest elevation in the township is 310 feet above mean sea level located at the western most edge of the East Branch of the Perkiomen Creek. Approximately 1,557 acres or 19 percent of the township is covered by slopes of 15 percent or greater (See Figure 2.)

If improperly regulated and designed, development on steep slopes can lead to accelerated erosion, instability of structures, limited access, and obstruction of scenic views. The East Rockhill Township Zoning Ordinance (Sections 27-1900 and 27-1901) restricts development of areas with slopes of 15 percent or greater as shown in the table below:

**Table 15. Steep Slope Regulations**

Slope	Allowable Disturbance
15 to 25 percent	No more than <b>30</b> percent
15 to 25 percent <i>tracts less than 10 acres in Agricultural Preservation District</i>	No more than <b>75</b> percent
26 percent or steeper	No more than <b>20</b> percent
26 percent or steeper <i>tracts more than 10 acres in Agricultural Preservation District</i>	No more than <b>70</b> percent

Township officials may wish to examine these existing provisions to determine if the zoning ordinance should be amended to incorporate additional protection measures and/or allowances for limited disturbance areas. For instance, for sites containing slopes of 26 percent or steeper that are located outside the Agricultural Preservation District, increasing the maximum allowable disturbance to 15 percent would be consistent with Bucks County's policy in the *Natural Resources Plan* (1999). Furthermore, the county plan minimal disturbance areas (e.g., areas of steep slopes that are less than 3000 square feet) to be exempted from steep slope standards.

### **Woodlands**

In East Rockhill Township nearly 4,892 acres (59 percent of the area of the township) contains woodlands (See Figure 2.) Much of these woodlands are concentrated in the northwest of the township, northwest of Three Mile Run Road. The predominate woodland cover is oak-hickory association. These woodland resources provide numerous benefits to the environment including water and air purification, local and regional climate control, open space, erosion control, wildlife habitat, and providing a commercial value as timber and firewood. Vegetative cover also enhances groundwater recharge by reducing the volume and rate of runoff, which is invaluable, especially in the low-yielding aquifers of the diabase formation.

The wooded hillsides in East Rockhill Township dominate the landscape and contribute to its rural character. Woodlands provide visual and audible buffering while contributing to the township's scenic value. When woodlands are located in environmentally sensitive areas, such as steep slopes areas, along tributaries and wetlands, even minor disturbances can lead to serious environmental degradation.

The East Rockhill Township Zoning Ordinance (Section 27-1900.d) provides for the protection of woodlands as shown in the table below:

**Table 16. Woodland Protection Regulations**

Zoning District	Allowable Disturbance
Resource Protection (RP) Rural Residential (RR) Suburban (S) Agricultural Preservation (AP) <i>tracts less than 10 acres</i>	No more than <b>20</b> percent.
Residential (R-1) Commercial-Office (C-O) Extraction (E) Industrial (I-1, I-2) Agricultural Preservation (AP) <i>tracts 10 acres or larger</i>	No more than <b>40</b> percent.  No more than <b>75</b> percent.
All other zoning districts	No more than <b>20</b> percent.

Forestry use (Use A4) includes commercial logging operations; clearing or destruction of forested or wooded areas; selective cutting or clearing for commercial or development purposes, or clearing of vegetation in reserved open space or resource protection areas. A reforestation plan is required that will provide a reestablishment of the forest on a sustained yield except where clearing is for agricultural use. All plans are required to illustrate how the general habitat and visual appearance of the forest is to be maintained so that the forest retains its visual and habitat qualities at all stages of the long-term cutting plan. Clear cutting of vegetation is restricted to no more than 5 acres or more than 20 percent of the forest in any one calendar year, whichever is less. Township officials may wish to review these regulations to provide more restrictive clear-cutting standards. For instance, the Forestry use regulations could be revised to establish a maximum area limit for tree removal (e.g., 20 percent of the site) for the lifetime of the lot, and a deed restriction may be placed on the remaining lot area to restrict further clear-cutting. Also, a permanent forested buffer area (e.g., 50 feet) may be required along adjacent roadway that will function to preserve forested areas and minimize the visual impact to passing motorists.

#### ***Agricultural Soils***

The U.S. Department of Agriculture—Natural Resources Conservation Service (NRCS) has recently recertified the soils in Bucks County and has identified and mapped important farmlands. This identification takes into account not only soil quality but also other environmental conditions that affect agricultural productivity, such as climate and soil acidity. Generally, in Bucks County, the important farmlands surveyed by the NRCS

include soil capability classes I through IV, grouped into two classifications—Prime Farmland (soils with land capability class 1 and 2 soils) and Additional Farmland of Statewide Importance (soils with land capability class 2 and 3 soils). Class 3 soils and class 2 soils that do not qualify as Prime Farmland are classified as Additional Farmland of Statewide Importance.

NRCS defines Prime Farmland as land that has the best combination of physical and chemical characteristics for producing feed, forage, fiber, and oilseed crops, and is also available for these uses (the land could be cropland, pastureland, rangeland, forest land or other land, but not urban built-up land or water. Additional Farmland of Statewide Importance generally includes those lands that are nearly prime farmland and that economically produce high yields of crops when treated and managed according to acceptable farming methods. Some may produce as high a yield as prime farmlands if conditions are favorable.

As shown in Figure 3, the highest concentration of agricultural soils are located in the central and southeast portions of the township. Based upon the NRCS soil classification, there are 459 acres of Prime Farmland and 2,530 acres of Additional Farmland of Statewide Importance in East Rockhill Township. This accounts for 31 and 6 percent of the area of the township, respectively.

In 2000, township officials created a new zoning district—AP, Agricultural Preservation District that is intended to promote the preservation of agriculture as a primary use. Limited residential uses are permitted. The standards and densities are intended to provide a positive incentive for the preservation of large amounts of open space and agriculture. In May 2003, (Ordinance No. 201) the Agricultural Preservation district regulations was revised to prohibit no more than 40 percent of the Prime Farmland and Additional Farmland of Statewide Importance soils to be developed.

## **Hydrological Resources**

### ***Watersheds/Streams***

East Rockhill Township contains two primary watersheds—Tohickon and East Branch Perkiomen (See Figure 4.) The Tohickon Watershed originates in the northern portion of Bucks County, includes Lake Nockamixon (a man-made impoundment), and discharges its stream flow into the Delaware River at Point Pleasant in Plumstead Township. In East Rockhill, the Tohickon Watershed contains two secondary watersheds—Three Mile Run and Bog Run. Three Mile Run Secondary Watershed, originally a tributary to the Tohickon Creek, starts in West Rockhill Township, crosses East Rockhill Township, and flows directly into Lake Nockamixon. The Bog Run Secondary Watershed is located in portions of East Rockhill and Richland townships and generally corresponds to the environmentally sensitive area known as the Quakertown (Great) Swamp. The headwaters of Bog Run originate in East Rockhill and flows eastward across the northern tip of the township to Tohickon Creek.

The dividing line between the Tohickon and East Branch Perkiomen watersheds generally parallels Ridge Road. The latter is located to the southeast. A small portion of the Morris Creek Secondary Watershed corresponding to the confluence of Morris Creek and the East Branch of the Perkiomen Creek is located along East Rockhill's border with Hilltown Township.

The juxtaposition of the two primary watersheds in East Rockhill Township has significance for water supply planning. Currently, public water is being withdrawn through a series of wells that are owned by the Perkasio Borough Authority (PBA) but located in East Rockhill (within the Three Mile Run Secondary Watershed). These wells serve certain homes and businesses in Perkasio Borough and East Rockhill Township within the East Branch Perkiomen Watershed. Subsequently, wastewater is treated and discharged into the East Branch Perkiomen Creek. However, these wells also supply water to certain businesses in the East Rockhill portion of Tohickon Watershed, which discharges sewage into Three Mile Run interceptor. Ultimately, this wastewater is also treated and discharged into the East Branch of the Perkiomen Creek. These transfers of water across watershed boundaries have implications for development district and infrastructure planning in the township. Conservation easements should be encouraged on the PBA sites to prevent future development or improvements that may have a negative impact on the water quality of the respective wells.

### ***Floodplains***

Floodplains or alluvial soils indicate where flooding has occurred in the past. These soils are composed of a mix of other soil types that have been eroded from the land and deposited along streambeds by stormwater. Floodplain/alluvial soils are crucial for the protection of water quality and aquatic life and they store water and accommodate fluctuations of stream volume during heavy rains. Floodplain soils indicate where flooding has occurred in the past. Many of East Rockhill's scenic areas are found within the floodplain of stream valleys with their lush vegetation, steep slopes, and attractive open space. There are approximately 693 acres (or about 8 percent of the area in the township) floodplains East Rockhill Township. (See Figure 4.)

### ***Wetlands***

Typically, wetlands occur as marshes, swamps, and bogs. Often, they are saturated lands or areas that display a seasonal high water table. Wetlands are important resources providing habitat for wildlife, filtering stormwater runoff and improving water quality, reducing potential flood damage, and increasing groundwater recharge. Wetland areas greater than 10 acres in size are dispersed throughout the Pennridge Area, though many are located along the area's streams. There are a few concentrations of wetland areas greater than 10 acres in the headwater area of Bog Creek in East Rockhill Township, as part of the Quakertown (Great) Swamp. (See Figure 4.)

The Quakertown Swamp is one of the few significantly large wetlands in upper Bucks County. It is a palustrine nonglacial bog that provides a critical wildlife habitat and is a natural plant community for numerous wetland species. Seasonally high water tables and

large areas subject to occasional ponding or puddling identify this region as a remnant of the original great swamp. The majority of this significant natural feature is located in Richland and East Rockhill townships, but a small portion is located in northeastern part of West Rockhill Township.

The natural resource protection standards in the township zoning ordinance (sections 27-1900 a., b., f., g., h.,i., j) includes provisions for the preservation of hydrologic resources. Encroachment and disturbances are prohibited within floodplain and floodplain soils, streams, watercourses, lake, ponds, wetlands, and riparian buffer zones,<sup>1</sup> except as noted below. A maximum of 20 percent disturbance is allowed for lake and pond shorelines and wetland margins for wetlands over an acre in size as shown the table below.<sup>2</sup>

**Table 17. Hydrologic Resources Regulations**

<b>Hydrologic Resource</b>	<b>Allowable Disturbance</b>
Floodplain/Floodplain Soils	None*
Streams, Watercourses, Lakes, and Ponds	None**
Lake or Pond Shorelines	No more than <b>20</b> percent
Wetlands	None**
Wetlands Margins <i>wetlands 1 acre and over</i>	No more than <b>20</b> percent
Riparian Buffer Zones	None***

\* Except disturbances that are permitted by Section 27-1902 of the zoning ordinance.

\*\* Except that roads and utilities may cross streams and watercourses where no other reasonable access is available and where design approval is obtained from the township, as well as State and Federal permitting agencies.

\*\*\* Except for road and utility crossings where design approval is obtained from the township.

Overall, township officials may wish to examine the natural resource protection standards in order to enhance the protection of the township land and hydrological resources.

<sup>1</sup> A riparian buffer is a wooded, natural area within 75 feet of the top of stream/watercourse bank of any perennial or intermittent stream or watercourse identified on USGS or NRCS mapping.

<sup>2</sup> Wetland margins is an area that extends 100 feet from the wetland boundary or to the limit of hydric soils, whichever is less (in no case shall the margin be less than 50 feet).



## Open Space and Farmland Preservation

East Rockhill Township's open space resources include areas containing rural residential, vacant, agricultural, and park and recreational land uses. Approximately 68 percent of the total land area falls within these four land use categories. A significant portion of this area may not be protected from future development. In the resident survey distributed as part of the comprehensive planning process, over 90 percent of the respondents indicated that East Rockhill Township officials should acquire key open space areas, wildlife corridors, and trail linkages. Subsequently, the preservation of significant open space resources is an important issue in the minds of many residents.

This chapter examines the type, nature, and extent of the township's open space resources and identifies potential preservation strategies and techniques that may be appropriate for implementation in East Rockhill Township. Open space resources can be classified in three categories: permanently protected lands, other lands that are temporarily protected, and unprotected lands. Permanently protected lands include areas that are more likely to be preserved due to its ownership, such as publicly-owned lands (e.g., parks or vacant lands) and lands owned by nonprofit conservation organizations or homeowners' associations. In March 1998, the township acquired land for a municipal golf course, adding to its network of recreational facilities (to be discussed in the next section).

Other lands that are afforded temporary protection include areas of open space or partial open space use. However, these property owners reserve the right to develop the land in the future (under the parameters of the underlying zoning). These areas include properties enrolled in preferential tax assessment, agricultural security areas, school facilities and the Perkasio Borough Authority land (containing wellheads).

Other unprotected lands include any vulnerable resources that do not have an inherent mechanism in place that would discourage or prevent land from being developed or being impacted from the development in the future. This includes a significant portion of the township's existing natural, historical, and scenic resource lands.

### Permanently Protected Lands

The following provides a brief description of all permanently protected open space lands. The permanently protected lands comprised approximately 1,019 acres or about 12 percent of the total area in the township.<sup>1</sup> The location and extent of these lands are illustrated in Figure 5.

#### *State-Owned Lands*

The Commonwealth of Pennsylvania owns significant land in East Rockhill in the form of State Parkland and State Gameland. Nockamixon State Park is located within portions of East Rockhill, Haycock, Nockamixon, and Bedminster townships. The park is located in the northeastern portion of the East Rockhill Township and contains facilities for a

---

<sup>1</sup> The acres shown for both the Permanently Protected Lands and Other Lands are accurate as of September 2004, when the data for these resources were compiled.

variety of activities including hiking, biking, horseback riding, swimming, boating, fishing, and picnicking. There is approximately 388 acres of state parkland within the township.

The East Rockhill is also the site of State Gameland No. 139. Located between Hill and Rockhill roads, this land is open to the public for hunting during prescribed seasons. The total area of State Gameland No. 139 is about 131 acres. Therefore, the total acreage of State Park and State Gameland in the township is approximately 519 acres.

#### ***County-Owned/Leased Land***

Bucks County actually owns only a one-quarter acre parcel adjacent to Nockamixon State Park, containing a radio tower. However, the county leases an 8-acre parcel from the State. This is the site of the Weisel Youth Hostel located on Richlandtown Road adjacent to Nockamixon State Park. Facilities include overnight accommodations for up to 20 persons, available to members of the Hosteling International American Youth Hostel and all Bucks County residents and groups. Facilities include a kitchen and meeting/social rooms, mill pond for fishing and skating, and hiking in nearby Nockamixon State Park and Tohickon Creek. The total acreage of county owned and leased land is 8.25 acres.

#### ***Township-Owned Lands***

The Willard H. Markey Centennial Park located on Ridge Road contains 92 acres with facilities that include soccer fields, football fields, multi-purpose fields, volleyball courts, play equipment, a pavilion, picnic areas, tennis courts, a recently constructed skateboard park, and a golf driving range.

In 1998, East Rockhill acquired a 107-acre tract of land along Ridge Road, just west of PA Route 313. Obtained through Bucks County Open Space Program funds, it is the largest, single property preserved in East Rockhill Township. This site has been approved by the Bucks County Open Space Program Board for use as a golf course. In February 2002, the township purchased an additional 33 acres of land adjacent to the open space tract. The site is to be developed into a regulation 18-hole public course complete with clubhouse and driving range and is scheduled to open in the fourth quarter of 2006.

East Rockhill Township has also acquired 63.8 acres along the East Branch of the Perkiomen Creek as part of the Country Hunt Subdivision. This area will provide a stream corridor preservation, walking path, and greenway preservation. This tract currently contains a walking trail that is connected with a trail system in the Perkasio/Sellersville boroughs to the west, and to a planned walking trail as part of the Valley Green Subdivision.

Other open space associated with residential developments that were dedicated to the township is as follows: Pines at Pennridge (15.5 acres), Creek View (2.4 acres) and Valley Green or Cedarbrook Crossing (23.0 acres). The total acreage of land owned by the township is about 336.7 acres.

### ***Township-Owned Lands with Conservation Easement***

The township recently acquired three parcels located along Three Mile Run Road. One parcel is located adjacent to Willard Markey Park, and the other two parcels are located on the northwest side of Three Mile Run Road. While owned by East Rockhill, two of the three parcels (TMP#s 12-9-92-1 and 12-9-157 are protected by a joint conservation easement held by the Bedminster Land Conservancy. The easement agreement stipulates that these two lots not be further subdivided or developed for residential use. Instead, the parcels must be used for educational purposes only, with no buildings to exceed 10,000 square feet. The agreement for the other parcel (TMP#12-9-93) has not been formally accepted yet, but is intended to be restricted to passive recreational purposes. These parcels form a contiguous land holding that may be used to provide a trail network into Willard Markey Park. The total acreage of these lands is 87.8 acres.

### ***Other Lands with Conservation Easements***

There are other lands in the township that are not owned by the township, but contain conservation easements. The Musselman farm is located at the corner of Schwenk Mill and North Fifth Street. This property consists of 60 acres and contains a conservation easement held by Heritage Conservancy. The agreement stipulates that no residential activities (with exception of existing dwelling unit) are permitted on the site. The Wismer subdivision located adjacent to Blooming Glen Road also contains a 7-acre conservation easement that is held by East Rockhill Township. In total, there is about 67 acres of land that contain conservation easements on land not owned by the township.

### **Other Lands**

The following provides a brief description of other lands containing a temporary covenant or restrictions from development. These lands comprise approximately 2,173 acres or about 26 percent of the total area in the township. The location and extent of these lands are illustrated in Figure 5.

### ***Lands with Preferential Assessment***

Numerous residents within the township have registered their properties with the county under the preferential assessment programs. Bucks County has entered into voluntary covenants with owners who have valuable open space resources (e.g., farmland, forested areas, water resources) in order to preserve open space. Consequently, the property is assessed by the county at the fair market value (or at less than its highest and best use). As a result, the property owner is afforded a significant savings through preferential property tax assessment as an incentive to maintain the land as open space. Until recently, there were two acts that were available to land owners for preferential assessments. At the end of 2003; however, Act 515 Lands (Pennsylvania Open Space Covenant Act of 1966) was terminated but participants were allowed to convert their properties into the sister program known as Act 319. If they elected to do so, applicants had to satisfy more stringent Act 319 requirements.

Act 319 Lands (Pennsylvania Farmland & Forest Land Assessment Act of 1974)—This legislation, also known as the “Clean and Green Act,” is available to landowners for the following uses: agricultural use,

agricultural preserve, and forest preserve. Under this program, soil classification and yield per acre determine a property's individual assessment. Enrollment in this program is continuous unless dissolved by the landowner or eligibility requirements are not met.

Lands covenanted under Act 319 are considered only temporarily protected because the property owners have the right to terminate the agreement at any time. However, as a result, the property owner must pay a penalty in the form of rollback taxes (i.e., the difference between the preferential assessment value and the fair market or development value) and accumulated interest (i.e., 7 years for Act 319). Although covenanted lands are only temporarily protected, it shows a willingness of landowners to maintain their properties in open space. Commitment into Act 319 program is an example of a local grassroots action that should be considered in the overall comprehensive planning process. In total, there are 74 parcels totaling about 1,616 acres covenanted under Act 319 within the township.

### ***Agricultural Security Areas***

Similar to lands covenanted under the preferential assessment programs, enrollment into an Agricultural Security Area (ASA) suggests a significant commitment by property owners for ongoing farmland preservation. The ASA program was created by the Agricultural Security Area Law (Act 43 of 1981) to protect the agricultural industry from increasing development pressure. ASAs are intended to promote more permanent and viable farming operations by strengthening the farmers' sense of security in their right to farm.

For properties to be eligible for enrollment into an ASA, the aggregate total of the properties must be a minimum of 250 acres in viable farmland, and the zoning district in which these properties are located must permit agricultural uses. Individual parcels comprising a designated ASA must be at least 10 acres in area and at least 50 percent of which contains Class I-IV soils. Respective property owners must petition the township supervisors in order to gain approval into the program. Consequently, once enrolled into an ASA, farmers gain the following benefits:

- Protection from municipal nuisance ordinances which restricts odors and noise in a community;
- Protection from governmental acquisitions of land through condemnation or eminent domain; lands proposed for such action within a ASA must first be approved by Agricultural Lands Condemnation Approval Board;
- Enrollment into the county's easement purchase program requires previous establishment of properties in ASA.

East Rockhill has not established an ASA program. However, there are 10 parcels in the township totaling 194.6 acres that are enrolled in Hilltown Township's ASA program.

### ***Agricultural Conservation Easements***

In May 1989, the Bucks County Commissioners appointed a nine-member board to develop and oversee a county farmland preservation program. The Bucks County

Agricultural Land Preservation Program (BCALPP) seeks to acquire agricultural conservation easements on viable farmland within the county.

An agricultural conservation easement secured through acquisition is a legally binding document that is filed in the land records with the deed of a farm property, restricting its use substantially to agricultural and directly associated uses. As an easement in gross, restrictions are binding upon the owners and future owners, carrying with the land. A conservation easement allows a landowner to protect his farmland for agricultural uses while retaining private ownership of the farm.

The BCALPP compensates farmers for the difference between the fair market value (development value) and the agricultural value of their land. To be eligible for this program, the following criteria must be satisfied for eligibility:

- Size restriction: 50 acres (minimum)
- Location: within agricultural security area
- Soil criteria: at least 50 percent Class I-IV soils
- Harvest criteria: at least 50 percent harvested cropland/pastureland
- Plan approval: approved U.S.D.A. Soil Conservation Plan in effect

Once a farm is accepted into the program, the property owner may sell or convey a conservation easement and receive cash for the respective development rights. The easement is placed in perpetuity. As of February 2003, approximately 6,530 acres of agricultural land in Bucks County (consisting of 60 farms) have been preserved through the BCALPP. In East Rockhill Township, there are no properties that are protected under this program. However, several properties may be eligible for future designation.

### ***School Facilities***

Public school facilities in East Rockhill include Pennridge High School and The Robert B. Deibler Elementary School. Pennridge High School campus is located at the corner of Blooming Glen Road and North Fifth Street and totals 141.4 acres. The school facility is currently undergoing a major redevelopment and expansion plan, but once construction is completed in 2006, the inventory of recreational facilities will include a football field, two soccer fields, two baseball fields, and six tennis courts. The Robert B. Deibler Elementary School contains 12 acres and is located on Schwenk Mill Road. The site includes softball and baseball fields and playground equipment.

The Upper Bucks Christian School (and Bethel Baptist Church) is a private facility located on Rockhill Road, containing 27.6 acres. There is a soccer field, a baseball field and 2 playgrounds on the site.

Lastly, the Bucks County Community College—Upper County Campus located adjacent to the Glenwood Village Shopping Center consists of 14.4 acres and does not contain recreational facilities. The total land area for school facilities is about 195.4 acres.

### ***Perkasie Borough Authority Lands***

The Perkasie Borough Authority (PBA) currently owns four parcels in East Rockhill Township. On another parcel that is owned by East Rockhill Township, PBA has exclusive easement rights on the property. On two of these parcels, PBA operates three active wells, one test well, and one well that is in the process of being developed. These wells provide public water supply to both Perkasie Borough and East Rockhill Township. The total land area of PBA sites within the township is approximately 167 acres.

### **Township Open Space Plan**

As East Rockhill Township experienced large population growth and significant conversion of vacant and agricultural land into residential use, it recognized the need to establish a working plan for the preservation and use of the remaining open space within the municipality. The Board of Supervisors created the Open Space Task Force to address these concerns. In 1998, the Task Force prepared the *East Rockhill Township Open Space and Recreation Plan*. In addition to identifying existing sites, the plan also inventoried unprotected and potentially vulnerable resources and earmarked specific areas for immediate acquisition and future consideration for purchase and/or conservation easements.

The plan outlined the following five objectives to be accomplished through the township's open space preservation program.

- Preservation of Rural Character and Environmental Integrity
- Controlled Development Areas
- Preservation of Forested Vistas
- Preservation of Stream Corridors and Floodplains
- Provide Recreational Facilities and Parks

Proposed implementation strategies include preservation tools both currently utilized by the township as well as new and innovative techniques to be added to municipal ordinances.

- **Increase Ordinance Requirements.** At this time, Section 27-1905 of the zoning ordinance authorizes the Board of Supervisors to require a fee in lieu of dedication where it is impractical to set aside recreation land as required. The amount of payment for a fee in lieu of such land is determined by multiplying the number of dwelling units by the fees adopted by resolution by the Board of Supervisors. It is recommended that the township investigate the feasibility of instituting open space requirements and a corresponding fee in lieu option for residential developments within the subdivision and land development ordinance.
- **Create a Transfer of Development Rights Ordinance.** A method of exchanging development rights among property developers to increase development density and protect open space.

- **Promote Use of Conservation Easements.** Private property owners place conservation easements on their properties restricting all or a portion of the property from development.
- **Acquisition by State and County Governments.** Encourage agencies that currently own areas within the township to consider other parcels suitable for ownership.

The *East Rockhill Township Open Space and Recreation Plan* serves as a valuable benchmark analysis of the open space preservation practices and opportunities within the municipality. During the past ten years, the township has acquired several tracts of open space. Recently, the township targeted six properties for preservation purposes. Representatives from the Heritage Conservancy have also been working with township officials to preserve these properties located through various means such as acquisition of conservation easements and development rights or outright purchase. One of the properties is the Sheard's–Clymer's Grist Mill site. Heritage Conservancy has submitted the Pennsylvania Historic Resource Survey form to the Pennsylvania Historic Commission and will determine if the grist mill site is eligible for the National Register for Historic Places. A successful open space preservation program will rely heavily upon continued long-term planning considerations of undeveloped park and open space sites and changing needs of the community.

### **Natural Areas Program**

In June of 1999, an inventory was undertaken to identify and rank the most significant natural areas remaining in Bucks County, including those in East Rockhill. This survey, titled *Natural Areas Inventory of Bucks County*, provides guidance for implementation of the natural areas protection component of the Bucks County Open Space Initiative. The individual site evaluation to determine the significance of natural areas is based upon 13 criteria addressing biological, ecological, hydrological, and geological components. Sites were assigned one of four levels of importance.

- Priority 1—areas that have statewide or countywide significance based on uniqueness or exceptionally high quality of natural features.
- Priority 2—areas that have countywide or statewide significance based on the overall quality and the diversity and importance of the resources.
- Priority 3—areas that have local or countywide significance that may contain small or degraded resources.
- Priority 4—areas that have biological or ecological resources that are important at the local level.

East Rockhill Township contains the following priority sites as identified in the *Natural Areas Inventory*. (See Figure 6.)

### **Quakertown Swamp – Priority 1 Site**

Quakertown Swamp is the largest freshwater inland wetland in southeastern Pennsylvania. The swamp encompasses nearly 518 acres bordering Bog Run, a tributary to Tohickon Creek and lies within East Rockhill, West Rockhill, and Richland townships. Located near the dormant Rockhill Quarry, it provides a critical wildlife habitat and is a natural plant community for numerous wetland species ranging from open water to shrub swamp, cattail marsh, tussock sage marsh, and swamp forests. More than 74 bird species nest in the swamp, which also provides habitat for a variety of reptiles and amphibians. The area is largely undisturbed, and at an elevation of 840 feet, its heavily forested areas and steep slopes make the area abundant with aesthetic views and scenery.

The Quakertown Swamp has been awarded several distinctions for its natural significance. In 1996, the Bucks County Audubon Society designated the Quakertown Swamp as an Important Bird Area. The Pennsylvania Game Commission recognized the area as a significant habitat for nesting and migrating waterfowl. The United States Fish and Game Commission has also acknowledged the swamp as an important wetland area within Pennsylvania.

Numerous studies have been conducted investigating the wetland's diverse natural communities. In 2000, the Heritage Conservancy published the *Quakertown Swamp Resource Protection Plan*, which explains the importance of the swamp, and attempts to encourage landowners and municipalities to preserve the land so that the swamp can be maintained as a complete site. Because many private landowners hold properties encompassing the wetland, Quakertown Swamp is extremely vulnerable to the impacts of land use and development.

The Heritage Conservancy recommends a combination of land protection techniques to preserve and maintain the Quakertown Swamp. Several options include: acquisition in fee simple, placement of deed restrictions, acquisition of easements or development rights, and voluntary preservation by individual landowners. Innovative zoning and regional land management strategies should also be investigated. Heritage Conservancy notes that interagency cooperation is essential in establishing protection guidelines to ensure the permanent protection of this resource.

The Quakertown Swamp Resource Protection Plan is a component of the Heritage Conservancy's Lasting Landscapes initiative. Lasting Landscapes first identifies and maps significant environments that contain a critical mass of both natural and historic resources, and then works to develop and implement maintenance and protection strategies. To fulfill its mission the Heritage Conservancy also coordinates the Quakertown Swamp Partnership, consisting of federal, state, municipal and local agencies, landowners, and concerned citizens.

### **Haycock Mountain and Nockamixon State Park – Priority 1 Site**

Nockamixon State Park and State Game Lands 157 make up the largest expanse of protected open space in Bucks County with over 7,000 acres. The southwestern portion of Nockamixon State Park is located in East Rockhill Township. Open year-round, the

park's primary attraction is its 1,450-acre lake. The park also contains varied habitats including forests, old fields, rocky streams, and forested wetlands.

### **Rock Hill – Priority 2 Site**

Rock Hill rises to a height of 850 feet above sea level, approximately 300 feet above the surrounding landscape. It includes extensive forested slopes and abundant evidence of past quarrying, including an abandoned quarry pit on its southern face. Rock Hill has been identified as an outstanding scenic geologic feature of Pennsylvania (Geyer and Bolles 1979). As an integral part of the continuous forested band that stretches across Upper Bucks and Montgomery Counties, it should be protected from deforestation and fragmentation.

### **Agricultural Preservation Zoning**

Farming in the Pennridge Area enjoys a rich heritage. The area has contained a large farming community since the first settlers arrived in the early 1700s. By 1750, the settlers had developed their farms and prospered to the extent that they could sell some of the produce. This arable land shaped the area's agrarian past, its architectural heritage, and the pattern of many of its villages. Beyond its historical value, farmland is a productive resource, contributing to the local economy and providing scenic open space valued by residents. Moreover, farmland opens opportunities as additional attractions such as pick-your-own harvesting, hay rides, educational tours, and recreational activities (i.e., batting cages and miniature golf). As of 1990, agriculture remained a primary land use in the Pennridge Area using almost 26 percent of the land area.

Because of the presence of active, productive farms in the East Rockhill, a primary goal of this comprehensive plan is to promote the preservation of prime agricultural land. Agricultural preservation zoning, also known as effective agricultural zoning, is one approach that municipalities can use to limit the conversion of farmland into nonagricultural uses. It focuses on permitting landowners to subdivide a limited number of residential lots from their property based on a minimum acreage necessary for a viable farm unit.

### **Agricultural Preservation Initiatives**

In 1995, Bedminster Township officials initiated the preparation of an update to the township's comprehensive plan. The plan set the stage for agricultural preservation and the need for implementation techniques such as zoning revisions. Natural resource protection and preservation was considered important since more development was expected to occur in the township. Over 80 percent of the soil in the township was determined to be prime or secondary agricultural preserves. Additional action was deemed appropriate to preserve these agricultural areas, particularly the local Agricultural Security Area properties. The existing ordinance did not assist in this preservation effort.

Several approaches to agricultural preservation were examined from a land use regulatory standpoint. Input was provided from the local farming community, agricultural extension service, the county agricultural preservation board, and the conservation district on how

certain approaches would affect the farming industry, the development rights of landowners, and the natural resources in the township. As a result of this work, the township officials, in August 1996, adopted revisions to the zoning ordinance that included a set of agricultural protection standards as a backbone for regulating development in a new Agricultural Preservation (AP) zoning district.

Since 1995, various municipalities have adopted agricultural preservation zoning that is similar to Bedminster Township, including East Rockhill, New Britain, Warwick, and Plumstead townships. Several others have begun analyzing the technique and its potential benefits.

### **Agricultural Preservation in East Rockhill Township**

In East Rockhill, approximately about 9 percent of the land area is in active farmland. There are currently 20 agricultural properties totaling over 700 acres. In 2000, East Rockhill Township adopted the AP—Agricultural Preservation District. The AP district is located in the southeastern corner of the township and corresponds to soils classified as Prime Farmland and Additional Farmland of Statewide Importance.

Section 27-500 of the East Rockhill Township Zoning Ordinance establishes the Agriculture Preservation (AP) District intended to promote farming as a primary use. While limited residential uses are permitted, the standards and regulations of the ordinance are intended to provide an incentive for the preservation of open space and agriculture. Within the agricultural protection standards, area and dimensional requirements are applied according to the size of the parcel or tract: sites containing less than 10 acres and sites containing 10 acres or more. The minimum lot area for a parcel of land less than 10 acres is 80,000 square feet. For tracts of land containing 10 acres or more, a minimum lot area of 32,000 square feet is required, but a larger lot area may be necessary to accommodate on-lot sewage disposal systems. A site analysis must be performed that is based upon the net buildable site area. This includes protection of 40 percent of Prime Farmland and Farmland of Statewide Importance. The nonbuildable site area (the area composed of portions of the site protected from development in accordance with environmental performance standards) is subtracted from the base site area (the total site area minus street and utility rights-of-ways or lands that are not contiguous or previously designated open space) resulting in the net buildable site area. Proposed lots and development must be located on the portion of the tract situated outside the nonbuildable site area. All residential lots are required to have a minimum building envelope of 7,500 square feet to provide sufficient area and flexibility for the location of the building, driveway, parking, and other improvements and site alteration while meeting the natural resource protection and minimum setback requirements. The building envelope can include woodlands, steep slopes, and agricultural soil areas that are not part of the nonbuilding site area.

The ordinance requires that all preserved farmland meet certain minimum standards so that the land is suitable for continued agriculture use. Ordinance provisions also allow farmers to maintain an existing farmhouse and accessory buildings as well as build a new

house and accessory buildings on the protected land as long as the lot size is 10 acres or more.

### **Court Decisions**

Recently, the courts have shown their support for agricultural preservation. In April 2001, the Commonwealth Court affirmed a lower court's ruling that upheld Bedminster Township Zoning Hearing Board's decision to deny C&M Developers' validity challenge to the AP zoning district. C&M Developers appealed the decision to the Pennsylvania Supreme Court.

On November 1, 2002, the Supreme Court reversed the Commonwealth Court's order affirming the Zoning Hearing Board's decision and declared the township's amended zoning ordinance constitutionally invalid. However, the Supreme Court seems to have upheld the regulatory purpose and intent of agricultural preservation zoning. In summary, the decision does not appear to have an issue with the purpose and intent of the AP district. The court decision focused on the "one good acre" and nonbuildable area provisions. The underlying issue appears to be the basis for the required minimum one-acre lot size as it relates to agricultural preservation.

In response to the Supreme Court's decision regarding the appeal by C&M Developers, township officials filed a self-cure in December of 2002. In the first quarter of 2003, the AP district regulations were amended to make appropriate revisions to satisfy the opinion of the court. This includes reducing the minimum lot size from one acre to 32,000 square feet and removing the requirement that certain natural resource are prohibited from being included within the minimum lot area. The building envelope was reduced from 20,000 to 7,500 square feet, but for uses with on-lot sewage disposal systems, a minimum contiguous area of 3,000 square feet in addition to the 7,500-square-foot building envelope must be provided. Also, the maximum intrusion within the Prime Farmland and Farmland of Statewide Importance was increased from 30 to 40 percent (narrative to be revised based upon ultimate AP district revisions).



## **Historic and Scenic Resources**

### **Historic Resources**

Cultural and historic resources are essential in understanding an area's past settlement patterns and heritage. When protected and preserved, they can also make a significant contribution to the character of a community.

In 1992, the Bucks County Conservancy (now Heritage Conservancy) conducted a historic resource survey throughout the county. Two bridges within East Rockhill Township were highlighted in its findings. Mood's Covered Bridge, built in 1874, crosses the East branch of the Perkiomen Creek. The historic Mood's Covered Bridge was damaged by fire on June 22, 2004, but the devastation was limited to the covered part of the bridge—the fire did not structurally damage the bridge deck. PennDOT has repaired the deck and the bridge is open to motor vehicles. Recently, PennDOT has agreed to rebuild the covered bridge.

Sheard's Mill Covered Bridge, built in 1873, spans the Tohickon Creek. Located along Covered Bridge Road through East Rockhill and Haycock townships, the bridge is 130 feet long and 15 feet wide.

Headman Pottery produced its well-known sgraffito ware in the early 1800s on Muskrat Road near the intersection with Rockhill Road in the village of Rich Hill. Peter Headman was one of the last potters to make the now scarce "tulip ware" of Pennsylvania German tradition. Built in 1846, Hager House, on Old Bethlehem Road serves as a classic example of an early Bucks County farmhouse.

A significant historic resource in the township is the Sheard's–Clymer's Grist Mill. The mill used water power to grind the grain (e.g., corn, rye, or wheat) into meal for either local farmers or for general public sale. While it is not certain when the mill was built, the earliest deeds date back to 1798. In 1844, Levi Sheard purchased the mill and it was later sold to John and Rubin Clymer. The mill ceased operation in 1971; however, the Clymer family ran an apple cider business until 1985.

### **Villages of East Rockhill Township**

There are still over one hundred identifiable villages remaining in Bucks County, but many have been lost or overshadowed by growth and development. Historic villages are a unique resource, and once they are lost are irreplaceable. While municipalities cannot prevent growth, they can alleviate the effects that development can have on villages through appropriate land use policies and regulations. Additionally, residents can work together to maintain or improve the positive aspects of their village.

East Rockhill encompasses four villages: Hagersville, Keelersville, Rich Hill, and Rockhill Station. Township officials should determine if separate village planning studies or specific preservation techniques should be implemented in order to preserve and enhance the historic character of these cultural resources.

**Hagersville**—situated on the border of East Rock Hill and Bedminster townships. Most properties in the village front Old Bethlehem Road and Fifth Street between Old Bethlehem Road and Dublin Pike (PA Route 313). The village was named in honor of a prominent local politician Colonel George Hager. The Hager family was actively involved with public affairs throughout central and upper Bucks County. In fact, Samuel Hager founded Perkasio Borough.

Hagersville appears to have been a lively settlement in the 1870s, with a store, hotel, blacksmith shop, wheelwright shop, and two coach factories. Today, Hagersville is quiet and quaint, with many trees and flowers adding to its charm. Several of the early homes are well preserved and maintained, with the majority found near the village center. More recently, newer homes have developed along the periphery of Hagersville. Two relatively large apartment buildings in the village center contrast with the architectural style of the older village houses.

**Keelersville**—a residential community with a riding stable and club as commercial uses. Named after the Keeler family, the village is located in both East Rockhill and Bedminster townships. The original section of Keelersville is along Old Bethlehem Road north of Ridge Road. During the start of the 20<sup>th</sup> century, Keelersville consisted of a store, hotel, shops, a large tannery, and a leather factory. The Tohickon Union Church was originally built of log in 1745 on the East Rockhill Township side of Old Bethlehem Road. In 1837 the church was rebuilt in Bedminster Township where it remains the primary landmark of the village. Two historic one-room schoolhouses are also found in the village.

**Rockhill Station**—takes its name from the mountainous ridge that extends across the northwestern parts of East and West Rockhill townships. Rockhill Station is the only village in the township not located at a road intersection, and it is the only one that is not partially located in another municipality. Rockhill Station boasts the only confirmed discovery of gold in Bucks County.

The original homes in Rockhill Station were wood-frame and masonry structures. Although none of the buildings are architecturally significant, together they offer consistency and scale that gives the village a uniform character. The woods, quarry, and railroad tracks surrounding these homes form distinct boundaries.

**Rich Hill**—located on the border of East Rockhill, West Rockhill and Richland townships. Rich Hill developed along Old Bethlehem Pike, and was bypassed when PA Route 309 was built. The village has remained a small, residential community consisting of a few houses at the crossroad of Rich Hill Road and Old Bethlehem Pike. The stone houses found at the intersection are quite large and have been well maintained over the years. Large shade trees enhance the setting of the picturesque village.

## **Methods of Preservation**

### ***Register of Historic Places***

The National Historic Register is the official list of the nation's cultural resources, providing recognition that buildings or districts have historic, architectural, or archeological significance. The National Register does not place restrictions on the actions of private property owners, but

has the effect of alerting landowners to its historic significance. Listing on the National Register does not in any way limit what a private property owner may do to a property.

In 2004, the Heritage Conservancy applied for listing on the national historic register for Sheard's–Clymer's Gristmill, which is located in the along the Tohickon Creek in the northwestern corner of the township. If approved, Sheard's–Clymer's Gristmill will be recognized as a nationally significant historic resource.

### ***Historic Districts***

A commonly used planning strategy for historic preservation is the adoption of ordinances that establish historic districts. This planning strategy is most appropriate in those municipalities that have concentrations of historic structures or sites such as villages. The Historic District Act provides authorization for Pennsylvania municipalities to designate historic districts and regulate the alteration of buildings within them based on the historic context. Historic districts created under the authority of Act 167 are not zoning districts but a review process separate from zoning concerns. The National Register program is a credible way to identify a community's historic resources while the local district designation can further protect and enhance them.

### ***Landmark Designation***

Often, a municipality's historic structures are not located within an easily defined district. The preservation of individual structures or landmarks is often more difficult than establishing historic districts, but their preservation has been used successfully by various communities. The Pennsylvania Municipalities Planning Code allows municipalities to pass ordinances for the "regulation, restriction, or prohibition of uses and structures at, along or near places having unique historical, architectural, or patriotic interest or value."

While the villages of East Rockhill Township do not currently have historical designation, there may be a need to explore village protection strategies and techniques. The preparation of a village planning study can establish a community vision and a set of standards for public improvements and guidelines for future action. In addition, a complete historic resource inventory and study of the municipality may help to strengthen the efforts of protecting and maintaining the rural character of East Rockhill Township.

### **Scenic Resources**

Identifying the aesthetic value of scenic resources is a subjective process. Certain areas are distinguished because of special geologic formations, pristine landscapes, agricultural settings, natural resources, and historic structures. Scenic roads are segments of roadway that contain natural, historic, or cultural resources in proximity or contain an area of concentrated scenic vistas. Scenic vistas are points along a roadway that have sweeping views of the landscape. Scenic resources may be depleted or overshadowed by inappropriate development activities.

The *East Rockhill Township Open Space and Recreation Plan* identifies two scenic forest vistas centrally located in the township (not shown in Figure 7.) Immediately below the Richland Township border, the first vista is roughly bordered by Rockhill Road to the west, Route 313 to the north, and Three Mile Road to the east. The second vista occurs east of Ridge Road and is bordered by Route 313 and Blooming Glen Road.

The *2000 Pennridge Area Greenway Plan* classifies scenic roads and scenic vistas. (See Figure 7.) Within East Rockhill Township, there are six scenic roads identified as follows:

- **Three Mile Run Road**—Railroad tracks to Schwenk Mill Road; includes views of the Three Mile Run Stream Corridor
- **Branch Road**—PA Route 313 to Blooming Glen Road; includes views of the East Branch Perkiomen
- **Rockhill Road**—Three Mile Run to Old Bethlehem Pike
- **Hill Road**—Just north of Stone Edge Road to Rockhill Road
- **West Rockhill Road**—Just east of utility right-of-way to PA Route 313
- **Richlandtown Road**—Covered Bridge Road to Sterner Road

There are two scenic vistas identified in the *Pennridge Area Greenway Plan* within East Rockhill Township are identified as follows:

- **Dublin Pike (Route 313)**—Looking northeast towards Lake Nockamixon and looking southeast along Three Mile Run corridor.
- **Mountain View Drive**—Looking northwest along Tohickon Creek corridor and looking southeast towards Lake Nockamixon.

Two other scenic areas have been identified in Figure 7. Heritage Conservancy's publication, *Route 113 Lasting Landscape* identifies a scenic vista along North Fifth Street between Schwenk Mill Road and Dublin Pike. The other scenic vista is shown along Ridge Road between Schoolhouse and Schwenk Mill roads as identified by the Comprehensive Plan Steering Committee.

To emphasize the importance of preserving a community's inherent scenic qualities, the township may wish to establish scenic overlay provisions to encourage compatible land uses that complement the existing rural character and provide protection of scenic vistas from roadways, entrances to historic villages, and overall scenic character of the township.

The overlay district concept does not affect the underlying use, density, or area and dimensional requirements, nor is it intended to reduce the development opportunity of the site; however, applicants must provide a scenic resource map, visual analysis, and satisfy performance standards when proposing development within a scenic overlay district.

## **Community Facilities**

Land use planning and community facilities and services planning should be closely interrelated. Generally, suburban sprawl can increase the cost of providing community facility and services, while concentrating development often results in more cost efficiency to service providers and ultimately to residents. Community facilities are considered essential for health, safety, and welfare of township residents and help provide a higher quality of life.

As part of the comprehensive planning process, the resident survey can assist township officials in evaluating the current level of service for various community facilities. Township residents were asked to rate 10 separate categories of services as excellent, good, adequate, or poor.<sup>1</sup> Park and recreation areas and snow removal received the highest rating with 57 and 44 percent of the respondents rating them as excellent. A majority of the respondents ranked stormwater/groundwater as adequate but this service category also received the highest percentage of poor rating at 25 percent. The majority of the remaining responses for other service categories received a good rating. Therefore, it appears that residents believe that the level and quality of services in the township is generally acceptable.

This section will analyze the adequacy of existing and projected community facilities and services (i.e., police services, fire protection, emergency medical services, schools, solid waste management, park and recreational resources, water facilities, and wastewater facilities). A more detailed study of each service or facility should be undertaken before it is provided, extended, or expanded. In such a study, the land use implications and consistency with the adopted goals included in this comprehensive plan should be analyzed.

## **Police Services**

The Pennridge Regional Police Department (PRPD) provides police services to both East Rockhill and West Rockhill township residents. The joint police force was originally established along with West Rockhill Township and Sellersville Borough in 1992. Sellersville Borough withdrew from the partnership at the close of 2002 and joined the Perkasio Borough Police Department. In the past, each municipality purchased Police Protection Units (PPU's) for a desired level of service. Since 2003, East and West Rockhill Townships have shared the costs equally. Both townships have representation on the police commission, which governs the PRPD. In the event of an emergency requiring additional personnel, the state police stationed in Dublin Borough can be called on for assistance on an as needed basis. Also, PRPD provides manpower for the Major Incident Response Team (MIRT) and Central Bucks Emergency Response Team (CBERT) when called upon. In 1993, MIRT was created to provide comprehensive security or emergency coverage in the post 9/11 era. The ERT is a special weapons and tactics team that are called upon to control regionally-based crises and MIRT provides

---

<sup>1</sup> The service categories that were ranked were park and recreational areas, street maintenance, garbage collection, snow removal, fire protection, police protection, ambulance service, street lighting, code enforcement, and stormwater/groundwater

crisis mitigation on a countywide basis. MIRT was recently called upon to provide crowd control and traffic control during the floods resulting from the remnants of Hurricane Ivan in September 2004.

PRPD is located at the James Farm House along Ridge Road across from the West Rockhill Township Building. One Chief of Police, 12 officers (i.e., two sergeants, nine patrol officers, and one detective), and 2 civilian staff members staff the department. The department provides 24-hour coverage and is equipped with a Traffic Safety and Accident Reconstruction Unit, Bicycle Patrol Unit, Criminal Investigation Unit, Tactical Team and Youth Services Unit including Drug Abuse Resistance Education (DARE) School Resource Officer, and Youth Aid Panel. A Criminal Processing Center located within the Perkasio Fire Company Sub-Station 76 helps to enhance police work in the upper Bucks area. In 2004, a substation was provided in the Glenwood Shopping Center.

The office of research and development of the state police does not provide guidelines for evaluating the adequacy of municipal police services. Typically, evaluation is based on factors such as crime rates, requests for police services, settlement patterns, and the rate of development. The current level of police service appears to satisfy the basic needs of the township.

Although the present level and quality of police services is adequate for existing conditions, the township's full-time police department with the back-up services of the state police in Dublin may be taxed as development continues. An economy and efficiency of providing police protection can be ensured if intensive residential and nonresidential land uses are directed into concentrated areas surrounding existing centers of development. In addition to the quality of service and the response time in emergencies, the cost to the taxpayers for providing the service could be lower if most development is concentrated rather than dispersed.

## **Fire Protection**

While East Rockhill Township does not have a fire station or any fire equipment; Substation 76 from the Perkasio Fire Company owns a fire engine and a quick response pumper/field truck, which is located at the East Rockhill township building. The fire companies of Perkasio, Quakertown, Dublin, Sellersville, and Haycock provide fire protection coverage for the township. Volunteers serve all of these fire companies. The five volunteer companies serve the portions of East Rockhill nearest their stations in the neighboring municipalities. The entire township is within five road-miles of at least one of the stations, and response times for the fire companies range from three to eight minutes. The boundaries of fire service areas are determined by a "box system" that establishes zones that correspond to one of the respective fire companies. The Perkasio and Quakertown companies provide a majority of the service coverage encompassing over 80 percent of the township. The other three companies serve the remaining portions of East Rockhill. However, in times of emergency, all of the departments can communicate through the Bucks County radio network in order to solicit the aid of any other fire departments in the region.

The Insurance Services Office (ISO) performs surveys to evaluate the level of fire service provided in a community.<sup>2</sup> A community's service is graded Class 1 (best) to Class 10 (worst) according to such factors as the building code, fire fighting equipment and manning, fire alarm systems, as well as the community's water systems and the fire company's response time for answering calls. In 1997, ISO conducted a community survey for East Rockhill. Based on aforementioned factors, ISO has graded the level of fire service in East Rockhill as Class 5 where there are fire hydrants in the vicinity of Perkasio Borough, and Class 9 in the remainder of the township. Much of the existing development in the township falls within range of an existing fire hydrant. A majority of the township has a low classification of fire service; however, this is not unusual for a rural community such as East Rockhill. For the outlying development, water tankers from the one of the participating fire companies are providing adequate fire protection now and for the immediate future. However, the township officials should continually consider and assess the fire protection needs of its residents.

### **Emergency Medical Services**

There are two forms of emergency medical services—basic life support (BLS) and advanced life support (ALS). Basic life support service can include first aid and basic pre-hospital patient care and transport. Advanced life support service includes enhanced pre-hospital care consisting of adjunctive equipment, administration of medication and fluids, and condition stabilizing treatment.

Emergency medical services are provided in East Rockhill from a variety of sources. The volunteer fire companies in Perkasio and Dublin fire companies as well as Upper Bucks Paramedics, Inc., provide basic life support service. The Perkasio Volunteer Fire Company Ambulance, which serves most of the township, also provides advanced life support. Upper Bucks Paramedics, Inc. services northeastern third of the township and the Dublin fire company services the southeastern corner of the township. Grand View and St. Luke's Quakertown hospitals provide both ALS and BLS. Grand View Hospital, located on Lawn Avenue in West Rockhill, is a private, not-for-profit community hospital that provides healthcare services to Bucks and Montgomery counties. Founded in 1913, Grand View Hospital provides a full range of medical services, including emergency care, birth and maternity care, rehabilitation programs, pediatric medicine, diagnostic services, cardiology care, home and hospice care, and behavioral health services. The hospital has about 250 beds and is licensed by the Pennsylvania Department of Health. St. Luke's Quakertown Hospital located in Quakertown is a nonprofit, 78-bed acute care facility. Both hospitals provide emergency room services, community education programs, diagnostic services, medical, surgical and hospital care, extended care, outpatient care, senior services, women's and children's services, and rehabilitation programs. (For a discussion of continuing care retirement communities, assisted living, and nursing home care, see the Residential Development section).

---

<sup>2</sup> Insurance Services Organization (ISO) is a private, for-profit organization that supplies data, analytics, and decision-support services for professionals in many fields, including insurance, finance, real estate, health services, government, and human resources.

Both hospitals also have transport services that transport nonemergency patients to and from the hospital. Grand View serves the southern two-thirds of East Rockhill, and St. Luke's serves the northern third. East Rockhill does not provide regular financial assistance to emergency services and will consider funding requests on a case-by-case basis.

It appears that the township has adequate emergency medical services. As with the other community services, emergency medical service can be provided more economically and efficiently if the township's growth is concentrated in specific areas rather than scattered through the township, which is the current and potential pattern of development.

## **Schools**

East Rockhill Township is located within the Pennridge School District, which serves seven additional municipalities including the boroughs of Dublin, Perkasio, Sellersville, and Silverdale; and the townships of Bedminster, Hilltown, and West Rockhill. The district includes seven elementary schools, grades K–6; two middle schools, grades 7–8; and one high school, grades 9–12.

In East Rockhill Township, Robert B. Deibler Elementary School (grades K–6) has an enrollment of 523. Pennridge High School (grades 9–12) has an enrollment of 2,397.<sup>3</sup> During the summer of 2003, the Pennridge School District began an extensive construction project that features the expansion of the Upper House on the high school campus, which will ultimately accommodate 2,400 students, demolition of the Lower House, and conversion of the Freshman Center into the district's third middle school. Renovations are scheduled for completion at the start of the 2006–2007 school year.

In fall 1999, the Bucks County Community College opened a campus to serve the upper Bucks County region. The 14-acre campus site located at 1 Hillendale Drive behind the Glenwood Shopping Center is adjacent to the township-owned open space along the East Branch of the Perkiomen Creek. The facility offers lecture and seminar classrooms, interactive videoconferencing, library, and computer lab. Courses offered include opportunities for associate's degrees and continuing education programs.

Given the central location of the Pennridge School District and the Upper Bucks Campus of the Bucks County Community College, the institutions may wish to continue exploring the possibility of developing academic partnerships. The Upper County Campus of the Bucks County Community College has experienced rapid growth since their advent in 1999, and they are currently constructing additional parking and considering facility expansion.

Based on the conclusions of the Pennridge School District's 1982 plan, no additional land for school use will be needed in the township in the next five years. State law requires school districts to update their plans periodically. Future school plans, accounting for the population increases due to in-migration and to the families that will be formed by

---

<sup>3</sup> According to Pennridge School District Records, September 2004.

today's teenagers, may find it necessary to expand school facilities. However, the school district has the policy that it is unreasonable to project enrollments and facility needs farther than five years into the future. Therefore, it is important for the township to review the updates of the school plan as they become available.

## **Solid Waste Management**

Solid Waste Management is the process of providing an economically and environmentally sound means of storage, collection, transportation, processing, and disposal of municipal waste recyclable materials. In Pennsylvania, through the Municipal Waste Planning, Recycling, and Waste Reduction Act of 1988 (Act 101) municipalities are required to adopt resolutions, ordinances, regulations and standards to carry out the responsibilities contained within these regulations. In addition, the counties were given the responsibility to prepare a solid waste management plan that would guide the management of municipal solid waste for the next ten years.

The Pennsylvania Department of Environmental Protection (PADEP) approved the *Bucks County Solid Waste Management Plan*, prepared by the Bucks County Planning Commission, in March of 1991. The plan provided for the regulation of haulers, the designation of disposal sites for municipal solid waste and recyclables, documentation of the flow of municipal waste generated in Bucks County, and provided an assurance of disposal capacity during that time.

On December 23, 2000, the Commonwealth of Pennsylvania adopted changes to the municipal waste planning regulations. Those changes to the regulations required that each county revise its Act 101 plan at the earlier of: (1) having less than three years of assured capacity, or (2) within three years of the expiration of its plan. As ten years had lapsed since the preparation of the current plan, it was necessary that Bucks County initiate the preparation of a plan revision.

This plan revision (Draft) provides continued guidance for the management of solid waste in Bucks County through the year 2014. It provides recommendations for attaining the goal of recycling 35 percent of the waste stream and proposes language to amend municipal ordinances, due to the elimination of flow control requirements, and the adoption of Title 27 by the Commonwealth of Pennsylvania, which provides for the licensing of waste haulers by the PADEP.

Section 1501 of Act 101 requires that all municipalities with a population of more than 5,000 residents, but less than 10,000, and a population density of over 300 persons per square mile establish and implement a source-separation (curbside) and collection program for recyclable materials. In the most recent census (2000) the population of East Rockhill Township was determined to be 5,199 residents. Based upon this recent assessment, and a land area of 12.9 square miles, the population density of East Rockhill Township is now 403 persons per square mile, resulting in the township being considered a "mandated" community. Therefore, the township has established a curbside recycling program and report the results of the program annually to the County of Bucks.

In the early 1990's, East Rockhill Township established a drop-off recycling program that provides the opportunity for residents to drop off various types of recyclable paper and food and beverage containers. With the implementation of a curbside program the township officials will need to determine whether to continue the drop-off program to provide for individuals who may not have access to curbside collection of recyclables. According to information submitted to the county for the year 2003, the township recycling drop-off center resulted in residents recycling 29.94 tons of material. Based upon an estimated annual waste generation figure of 4,159 tons this indicates a less than 1 percent recycling rate. It is anticipated that the implementation of a curbside recycling program and an ordinance requirement for haulers to report the amount of commercial recycling they collect in the township will result in a significant increase towards the goal set by the Commonwealth of Pennsylvania, of 35 percent.

Through the enactment of the appropriate municipal ordinances, it is anticipated that private haulers operating within the township will continue to provide for the collection, transportation, processing and disposal of municipal solid waste as well as recyclables generated in the township. Along with the municipal ordinances it will be necessary to implement an education program for both residents and businesses within the township. The activities associated with the development of the necessary ordinances and educational program are eligible for funding assistance through Sections 902 and 904 of Act 101 as well as through the Technical Assistance Grant program, all of which are administered through the PADEP.

## **Libraries**

There are no libraries in the township, but there are three libraries in nearby municipalities. The Samuel Pierce Branch of the Bucks County Free Library is located on Arthur Avenue in Perkasio. The Samuel Pierce Branch has a circulation of about 182,000 and a collection of 85,000 books, videos, DVDs, and music CDs. The library offers computers with internet access and a small meeting room. There are no plans for expansion in the near future. Located on West Mill Street in Quakertown, the James A. Michener Branch of the Bucks County Free Library opened in September of 2004. It is located on the former Krupp Factory site. There are about 83,000 books and over 6,000 audio-visual items to choose from. The library offers computers with internet access and there are two conference rooms and meeting room with a capacity of 150. Lastly, the Indian Valley Public Library is located on Church Avenue in Telford Borough. Indian Valley Public Library is an independent member of the Montgomery County Library District and provides service to the Souderton School District. The Indian Valley Public Library has a circulation of about 521,000 and a collection of 125,000 books, videos, DVDs, and music CDs. The library offers computers with internet access and two meeting rooms. The library recently added an extension on its children's room and added space to the reading room.

## Park and Recreational Resources

### Existing Parks and Facilities

East Rockhill Township contains over 1,000 acres of parkland that offer an assortment of recreational opportunities throughout the municipality. Based on 1983 guidelines from the National Recreation and Park Association (NRPA), the *1998 East Rockhill Township Open Space and Recreation Plan* categorized existing parks according to size, location, design, and amenities into five park types: regional reserve, community, neighborhood, mini, and linear parks. The plan indicates that the township is currently well served by both public and private park and recreation areas. Of the five categories mentioned above, the township offers facilities of each type, except neighborhood parks.

The NRPA updated their park and recreational classification system in their 1995 publication.<sup>4</sup> Based upon the updated classification system, East Rockhill contains a variety of park types including large urban park, community, neighborhood, park trail, special use, school-park, private park/recreational facility, and mini-park. With the advent of future development in the township, municipal officials may wish to provide a neighborhood park in strategic areas that are convenient to residents in the immediate vicinity. A neighborhood park is defined as the basic unit of a park system and serves the recreational and social focus of the neighborhood. Focus is on informal, active, and passive recreation. The location criteria is described as one-quarter to on-half mile distance and uninterrupted by road and other physical barriers. Five acres is considered the minimum size for this park type (five to ten acres is optimal).

### Greenway Planning

A greenway is a linear open space area established along either a natural corridor, such as a riverfront, stream valley, or ridgeline; or along an abandoned railroad right-of-way, a canal, scenic road, or other route. As noted in Table 6, the Mervin C. Bryan Walking Path provides a two-mile linear park within the 46-acre stream corridor preservation area that extends along the East Branch of the Perkiomen Creek between East Callowhill and Schwenk Mill roads. Greenways provide numerous benefits to their surrounding communities. In addition to preserving natural resources, greenways create safe, nonmotorized transportation routes to schools, commercial centers, residential developments, and recreational areas. A recreational greenway provides a system of paths that can accommodate different users such as bicyclists, hikers, and joggers. By linking individual parks together, linear trails can create a unified park system throughout a municipality and even beyond its borders.

As an active member in the PACC, East Rockhill Township is among the eight municipalities that developed the *Pennridge Area Greenway Plan*. The plan evaluates the feasibility of developing a linear park throughout the Pennridge Area. By incorporating cooperative land use planning principles, the proposed greenway system will enhance the coordination among neighboring municipalities. Recommended greenways routes within the plan incorporate streams, existing trails, floodplains, on-road bike routes, and off-road

---

<sup>4</sup> Classification system from *Parks, Recreation, Open Space, and Greenway Guidelines*, National Recreation and Park Association (NRPA), 1995.

linkages. Among the proposed greenways for the entire Pennridge Area, six are located within or along East Rockhill Township lines as described below and shown on Figure 9.

An inventory of existing parks in East Rockhill has been summarized in Figure 8 and Table 18 below.

**Table 18. Recreational Facilities, East Rockhill Township**

Name	Park Types*	Facilities	Acreage	Ownership
Lake Nockamixon State Park	Large Urban Park	Hiking and biking trails, swimming, boating, fishing, and picnicking	338 acres (in E. Rockhill)	Public
Willard H. Markey Park	Community	Pavilion, play equipment, picnic areas, golf driving range, volleyball courts, and soccer, football, and multi-purpose fields	92 acres	Public
Mervin C. Bryan Walking Path	Park Trail	Stream corridor preservation, walking path, and greenway preservation	46 acres	Public
State Gamelands No. 139	Special Use	Gamelands for hunting	131 acres	Public
Weisel Youth Hostel	Special Use	Kitchen and meeting/social rooms, mill pond for fishing, skating, and hiking	8 acres	Public
Proposed Municipal Golf Course	Special Use	Regulation 18-hole golf course	140 acres	Public
Pennridge High School Campus	School-Park	Football, soccer, and baseball fields, and tennis courts	141 acres	Public
Robert B. Deibler Elementary School	School-Park	Softball and baseball field, and playground equipment	12.0 acres	Public
Upper Bucks Christian School	Private Park/ Rec. Facility	Soccer and baseball field, and playground equipment	28 acres	Private
Keelersville Club	Private Park/ Rec. Facility	Baseball and softball fields, play equipment, picnic areas	6 acres	Private
Camp Tohikane Girl Scouts of America	Private Park/ Rec. Facility	Baseball and softball fields, picnic areas, swimming facilities, boating, and cabins	82 acres	Private
Branch Valley Fish and Game	Private Park/ Rec. Facility	Picnic areas, fishing, ice fishing, and trap shooting	29 acres	Private
Faith Baptist Church (lot in East Rockhill)	Private Park/ Rec. Facility	Soccer field	4 acres	Private
Cedarbrook Crossing	Mini-Park	Basketball, playfields, and playground	10 acres	Public
Country Hunt	Neighborhood	Soccer field, walking trails, fishing area	60 acres	Public
Country Hunt	Mini-Park	Tot lot	1 acre	Public

\*Note: Park type classification based upon 1995 National Recreation and Park Association (NRPA) classification system.

***Willard H. Markey Centennial Park Link*** serves as a spur route to the Dublin Borough–Nockamixon State Park corridor, a primary route through the center of the Pennridge Area. The proposed Markey Park trail follows PA Route 563 with the possibility of adding linkages from PA Route 313 to Markey Park. The Perkasio Borough Authority also owns parcels adjacent to Markey Park that could also be included in the spur.

***The East Branch Perkiomen-Deer Run Greenway*** extends from Bedminster Township, where Deer Run branches from the Tohickon Creek to townships in Montgomery County. The link would be comprised of an entirely off-road facility along the East Branch Perkiomen and Deer Run Stream Corridor. Points of interest along the Lenape–Menlo Park Link include: the Pines at Pennridge, Moods Covered Bridge, Village of Glenwood Shopping Center, and Upper County Campus of Bucks County Community College.

***The Tohickon Creek Greenway*** follows the Tohickon Creek stream corridor and extends from Stover-Myers Mill to the Richland Township border. Nockamixon State Park and Quakertown Swamp are significant features along this link, which has the potential to become a high-use corridor.

***Plumstead–East Rockhill Greenway*** is situated along the Texas-Eastern pipeline right-of-way located through Bedminster and East Rockhill townships, and would serve as an off-road link to the East/West Rockhill area. The utility right-of-way is free of trees and is generally flat the entire length of the corridor. The Willard H. Markey Centennial Park and East Rockhill Township open space facilities would be accessible through a spur route along an unnamed tributary of Three Mile Run.

***Three Mile Run Greenway*** utilizes the Three Mile Run stream corridor and connects residents of East and West Rockhill townships with Nockamixon State Park. The greenway follows the Three Mile Run corridor providing a trail connection to and from Nockamixon State Park. Low traffic volumes on Rockhill Road provide an excellent opportunity for an on-road connection to State Game Lands #139 and the Plumstead–East Rockhill Greenway. An additional spur route would travel through the Willard H. Markey Centennial Park, Pennridge Senior High School, and the Pines at Pennridge. This spur would connect the Three Mile Run Greenway with the East Branch Perkiomen–Deer Run Greenway. A lateral spur route would connect Markey Park and the municipal golf course.

***Liberty Bell Trail*** is an anticipated greenway opportunity for the township. The Regional Improvement Consortium has secured federal funding to complete a study on the potential greenway, which follows the historic Liberty Bell Trolley route, which ran from Bethlehem to Philadelphia. The project plans for a recreational trail system along the trolley path, linking Bucks and Montgomery County communities to Norristown.

### **Future Improvements**

In addition to evaluating existing park areas, the NRPA recommends determining the recreational needs of a community by means of user surveys and observation. As part of a general resident survey distributed throughout the township in early 2004, residents were

asked to identify recreational facilities and activities that they would like to see improved or added to the township's park system. Overwhelmingly, the top two responses were walking trails (82 percent) and bicycling facilities (57 percent). Other top recreational facilities and activities desired were tennis courts (33 percent), picnicking (31 percent), soccer/football fields (27 percent), baseball/softball fields (25 percent), and playgrounds/tot lots (24 percent). Community clubs and senior citizen programs (both 23 percent) were also identified in the resident survey.

## **Water Resources and Wastewater Facilities**

The coordination of water resources, wastewater facilities, and land use planning is a vital component to the comprehensive plan, and all are part of the township's interrelated water system. Water and wastewater facilities are key factors in determining the location, nature, and density of future development. Periodic assessment of water resources, wastewater disposal methods, and service areas is necessary to ensure that adequate facilities can be provided to satisfy future development needs. Effective stormwater management practices can ensure that water quality is protected, peak stormwater flows are controlled, and groundwater recharge is enhanced.

### **Water Resources**

Water resources can be broken into three primary factors—water supply, water quality, and stormwater management. The following discussion addresses the specific concerns and considerations of each.

#### ***Water Supply***

Many Bucks County communities are concerned with water supply issues related to the safe yield of groundwater withdrawal and the potential reduction in groundwater recharge to local aquifers. The Pennsylvania Municipalities Planning Code directs municipalities to consider water facilities in municipal comprehensive planning, zoning, and the development review process. Section 301(b), a revision to the code that became effective on January 2001, states that the comprehensive plan shall include a plan for the reliable supply of water, considering current and future water resource availability, uses and limitations, including provisions adequate to protect water supply sources. Any such plan should be generally consistent with the State Water Plan and any applicable water resources plan adopted by a river basin commission.

Groundwater is the source of water supply for the majority of the property owners in the township. Although several creeks, tributaries, and Lake Nockamixon are located in East Rockhill, surface water resources are not used as a source of water supply.<sup>5</sup> The use of individual on-lot wells will continue to be the primary source of water for properties located outside the Development Area.<sup>6</sup> As discussed in the Natural Resources section,

---

<sup>5</sup> Lake Nockamixon is designated as a future water supply source and flow augmentation (after 2010) in the *Delaware River Basin Commission Comprehensive Plan* (2001).

<sup>6</sup> The Development Area is designated as four zoning districts—R-1, Residential, Cultural-Educational, Commercial-Office, and Industrial districts. The purpose of the Development Area is to accommodate the more intensive residential, commercial, office, and industrial uses in the most appropriate locations.

many of the geologic formations underlying parts of East Rockhill are not conducive to storing and transmitting large quantities of water.

Because water supply is not unlimited, the Delaware River Basin Commission (DRBC) has established Ground Water Protected Area Regulations for portions of southeastern Pennsylvania, which includes portions of Berks, Bucks (including East Rockhill Township), Chester, and Montgomery counties. Rock formations underlying much of this study area experience low recharge rates during dry years, which can lead to declines in water table levels, diminished flow in adjacent streams, and cessation of flow from springs. Many public water systems in the area relying on groundwater resources have peak and/or average demands, which closely approach or exceed the dry period capacity of their existing wells. As a result, withdrawals in the DRBC Ground Water Protected Area shall not exceed a daily average withdrawal of 10,000 gallons per day during any calendar month unless approved by DRBC. According to DRBC, all of Perkasio Borough Authority's (PBA) wells in East Rockhill and Perkasio Borough have a net annual groundwater withdrawal that is less than the withdrawal limit of as set by Section 6.1 of the Ground Water Protection Area Regulations.

Section 408 of the township's subdivision and land development ordinance requires a water resource impact study be conducted when the proposed development is not served by a public water supply and meets specific conditions based upon the size and land use proposed. The purpose of the water impact study is to determine if there is an adequate supply of water for the proposed use and to estimate the impact of additional water withdrawals on existing nearby wells, underlying aquifers, and streams. The township will not approve a water system that does not provide an adequate supply and water quality for the proposed use.

**Public Water Service**—Public water service in East Rockhill is provided by two separate entities—the North Penn Water Authority (NPWA), which operates a small satellite water system in East Rockhill Township, and the Perkasio Borough Authority (PBA), which is the primary public water supplier to East Rockhill.

Whether development is served by on-site wells or the public water system depends on several factors including regulatory provisions, hydrological situation, and economics. Section 519.2 of the subdivision and land development ordinance requires that all residential subdivisions of 15 lots or more, all residential subdivisions of five lots or more with a density of 1.8 dwelling units per acre or greater, and all nonresidential subdivisions of three lots or more be provided with public or centralized water supply and distribution systems. An important hydrological issue confronting East Rockhill relates to water that is being exported to the adjacent watershed instead of recharged back to the original local watershed. This situation may require further study (as discussed below).

PBA owns and operates five existing and a well being developed in East Rockhill. These wells primarily provide public water service to East Rockhill and West Rockhill townships and Perkasio Borough. (See Figure 10.) In April 2003, a DRBC permit was issued to allow a total monthly allocation of 40.2 million gallons per 30 days. Due to

federal changes to acceptable arsenic levels, \$4 million of infrastructure improvements are also proposed to satisfy more stringent requirements.

In 2004, as part of planned future improvements of the water system, PBA submitted an application for a groundwater withdrawal project to supply up to 11.67 million gallons per 30 days of water to the distribution system from the proposed well in East Rockhill. The new well will be used to replace some of the groundwater supply from PBA's existing wells that may be lost due to regulatory changes pertaining to the concentration of arsenic in public drinking water supply. Other improvements include the replacement of the 1 million gallon reservoir (constructed in 1895) that is located in Perkasio Borough. A new booster station will be required to meet the needs of the system expansions and to provide a measure of redundancy. To fund these planned improvements, the water authority is proposing to increase water bills to the more than 4,000 customers served by PBA by about 8 percent in 2005. Another rate hike is expected in 2006, when the water authority determines the cost of treating a well (located on the Perkasio Borough/Hilltown Township border) to bring it into compliance with the EPA standards. The water authority recommends making the remediation of excessive arsenic levels a priority and postponing some of the expansion projects until after 2006 or as required by development in this area. (For further discussion on this topic, see the Water Quality subsection below.)

The PBA *Comprehensive Plan Update for the Water System* (adopted October 2004) projects the average demand for the water system to increase from 0.71 to 0.89 million gallons per day by the year 2030. To assess the water source adequacy, PADEP has identified two criteria: (1) the average daily demand should not be equal to or less than the safe yield of the combined sources of supply with the largest supply not in service, and (2) the maximum daily demand should be equal or less than the safe yield of the combined sources of supply. According to PBA, both criteria have been satisfied.

An issue that has not been addressed in the PBA *Comprehensive Plan* is the issue of water not being returned to the watershed of the original withdrawal. Groundwater withdrawal from wells located in Tohickon watershed serves residences in the East Branch Perkiomen watershed. Therefore, the water is being exported to the adjacent watershed instead of recharged back to the local aquifer. An accurate assessment of the affect of existing and future increases in groundwater withdrawal may have on the depletion of the source aquifer would have to be a conclusion of a thorough hydrological study of the watershed. That issue should be addressed in the implementation of plan recommendations from the *Pennridge Water Resources Plan* (2002) as discussed below.

The secondary water supplier in East Rockhill is the North Penn Water Authority (NPWA), which owns and operates a satellite water system in the Ridge Run development in East Rockhill. The system consists of two groundwater wells, a 250,000-gallon tank or standpipe (for fire protection purposes only), and a booster station. In 2003, the average well withdrawal was 35,364 and 3,914 gallons per day. The NPWA line ties into the PBA water system at the intersection of Stone Edge Road and Three Mile Run Road for emergency purposes only. No future expansions are planned in East

Rockhill at this time; however, if development were proposed adjacent to, or near an existing NPWA water line, the water authority would consider providing water service to the respective development.

**Regional Water Resource Planning**—The *Pennridge Water Resources Plan* (2002) was developed for eight municipalities in Bucks County that formed the Pennridge Area Coordinating Committee (PACC).<sup>7</sup> The plan addresses the impacts on and threats to the water in an area where there is a steady conversion of the natural environment to the built environment. Ensuring sustainable water resources for the future need of the Pennridge Area requires a multifaceted comprehensive water resource management approach to address the various issues including water supply, stormwater management, flood control, nonpoint pollution control, and wastewater treatment and reuse. The plan's main objectives are (1) protect the supply of surface waters and groundwater resources for existing and future recreational, industrial, household and commercial users; and (2) protect surface water and groundwater resources from point and nonpoint pollutants. A potential byproduct of the plan is the development of a standardized "water resources protection plan" for each new or proposed land development or water withdrawal. Such a plan would not only incorporate all the existing water-related requirements (e.g., stormwater management and floodplain management) but would also include additional computations to balance land use with water budget. The individual water resources protection plans would comprehensively describe specific performance requirements that, when implemented, would ensure that the land development proposal does not adversely affect water resources.

The purpose of the *Pennridge Water Resources Plan* is not to limit growth but to provide a scientific approach for analysis of the water resources in the Pennridge Area while applying sound planning principles to implement the plan's overall recommendations, which are as follows:

- A. Form an Intermunicipal Water Resources Committee
- B. Develop a Public Education and Awareness Program
- C. Develop a Model Water Resources Management Ordinance
- D. Update Municipal Act 537 Sewage Facility Plans
- E. Establish the Pennridge Area Watershed Monitoring Program
- F. Conduct Nonpoint Source Pollution Assessment
- G. Develop a Source Water Protection Program
- H. Prepare an Integrated Water Resources Plan (IRP)

In October of 2003, the PACC was awarded a planning grant from the Pennsylvania Department of Community and Economic Development (DCED) to implement A and C from the above recommendations. Once it is formed, the Intermunicipal Water Resources Committee would educate the public about the importance of protecting water resources,

---

<sup>7</sup> The Pennridge Area Coordinating Committee (PACC) includes eight municipalities in the Pennridge Area—Bedminster, East Rockhill, Hilltown, and West Rockhill townships as well as Dublin, Perkasié, Sellersville, and Silverdale boroughs. Telford Borough, although not a member of the PACC, is participating in the water resources planning effort. The Pennridge School District, Pennridge Chamber of Commerce, and the Bucks County Community College also have representatives on the PACC.

research the integration of land use regulations and water resources, and develop an Intermunicipal Cooperative Agreement. The PACC's consultants are developing the *Model Water Resources Management Ordinance* that will address regulations to protect natural water resources. These regulations represent the minimum protection standards; municipalities may modify the regulations to be more restrictive. The township should consider the adoption of all, or relevant portions, of the model ordinance to further enhance water resource protection in the township.

Recommendation E (Establish the Pennridge Area Watershed Monitoring Program) is in part being addressed using funding from both a Coastal Zone Management Zone (CZM) grant and a Growing Greener grant issued by the Pennsylvania Department of Environmental Protection (PADEP) to PACC (in which East Rockhill is the fiscal administrator) to conduct an inventory of existing stormwater systems in the entire East Branch Perkiomen Creek watershed. The Growing Greener grant is a match for the CZM grant that provides funding for an inventory of stormwater facilities in the whole Pennridge Area, with the exception of the Tohickon Creek watershed.

Recommendation G (Develop a Source Water Protection Program) is currently being developed for all of the Pennridge Area water suppliers (as discussed in the Water Quality subsection below).

East Rockhill township officials will continue their ongoing cooperation with the PACC and its coordination of municipal water resource planning to address monitoring, protection programs, and regulatory ordinance provisions to ensure an adequate supply of water in the township and the surrounding PACC communities.

### ***Water Quality***

Inappropriate or insensitive land uses and activities can negatively affect ground water quality on a site. Groundwater contamination from sewage and organic chemicals is the most common and serious health concern for private water supplies in East Rockhill. Two aspects of water quality in East Rockhill need to be considered. One is the provision of potable water to properties with contaminated sources of water. In the cases of the confirmed instances of organic chemical pollution, the contaminated areas are too distant from the public water system to be a feasible alternative source of water. Similarly, most of those areas where pollution from malfunctioning on-site septic systems is likely are too distant from the existing public water system and too small to support a separate community water system. In any event, changing to an alternative water supply is an avoidance of a problem rather than its solution.

The second aspect of water quality has to do with public awareness of contamination, its occurrence and its solution. Many pollutants are not detectable to human senses, and property owners usually do not test the quality of their water unless they suspect a problem. When tests such as those provided by the Bucks County Department of Health are made, they usually measure only the bacteriological pollutants normally associated with contamination from failing septic systems. Most property owners would not think to test the chemical contaminants such as TCE and PCE. A basic lack of information about

the quality of water remains a problem in East Rockhill. Some common sources of groundwater contamination are summarized in the table below.

**Table 19. Common Sources of Groundwater Contamination**

<b>Category</b>	<b>Contaminant Source</b>	
<b>Agricultural</b>	Animal burial areas Animal feedlots Fertilizer storage/use	Irrigation sites Manure spreading areas/pits Pesticide storage/use
<b>Commercial</b>	Auto repair shops Construction areas Car washes Cemeteries Dry cleaners Gas stations Golf courses	Laundromats Paint shops Photography establishments Railroad tracks and yards Research laboratories Scrap and junkyards Storage tanks
<b>Industrial</b>	Asphalt plants Chemical manufacture/ storage Electronics manufacture Foundries/metal fabricators Machine/metal working shops Mining and mine drainage	Petroleum production/ storage Pipelines Septage lagoons and sludge Toxic and hazardous spills Wells (operating/abandoned) Wood preserving facilities
<b>Residential</b>	Fuel oil Furniture stripping/ refinishing Household hazardous products Household lawn chemicals	Septic systems, cesspools Sewer lines Swimming pools (chemicals)
<b>Other</b>	Hazardous waste landfills Highway spills Municipal incinerators Municipal landfills Municipal sewer lines Open burning sites	Recycling/reduction facilities Road deicing operations Road maintenance depots Stormwater drains/basins Transfer stations

(Adapted from US EPA. 1991. *Protecting Local Groundwater Supplies Through Wellhead Protection*. Publication #570/9-91-007. p. 18 p.)

Effective in February 2006, new federal drinking water standards will require that arsenic levels be lowered to 10 parts per billion (ppb), compared to the present 50 ppb. Although the PBA water supplies meet the current standards, three wells will exceed the standards after February 2006 deadline. Two separate wells tested also contained trichloroethylene (TCE) in excess of the maximum contamination level (MCL). Blending is a process that involves mixing water that exceeds the MCL with water that is below the MCL in proportions so that the end product does not exceed federal standards. The water authority anticipates abandoning certain wells and installing arsenic and TCE removal facilities by 2010.

The Bucks County Department of Health (BCDH) monitors the water quality of public supplies and enforces the water quality standards set by federal and state agencies.

However, private water supplies are owned and operated by individual property owners, and the quality of the private water supply is the responsibility of the respective property owner. State laws do not require testing of private domestic water supplies, and regulatory agencies do not regularly monitor the quality of private supplies. Therefore, information on water quality problems of private wells is not readily available.

Beginning in 2005, BCDH will begin certifying new private wells to help prevent residents from drinking contaminated water. The regulation will apply to new, but not existing wells. One of the key components of the new program will be to certify that each well has a proper sanitary seal that can safeguard against groundwater contamination. To offset start-up costs, funding for this project is provided by a federal grant from the Centers of Disease Control and Prevention. While the well inspection/certification will only occur at the time a well is constructed, it is still recommended that people who rely on private wells have them tested every year or so to make sure they are safe.

Amendments to the federal Safe Drinking Water Act of 1986 require that states create a wellhead protection program to protect the quality of groundwater used as sources of public drinking water supplies through local land use planning and other management means. Open space and low-density land uses are appropriate uses near high-production well fields. Wellhead protection programs have become both pollution prevention and water supply planning tools.<sup>18</sup> Developing a wellhead protection program will help to increase public awareness about the location of community water supply wells and the potential pollutant threats throughout the area. To address the issue of protecting public water systems, the Pennridge Area water suppliers in conjunction with the Pennridge Area Coordinating Committee (PACC) are establishing a source water protection program for the Pennridge Area. The PACC in conjunction with the Bucks County Planning Commission and the respective water suppliers in the Pennridge Area have established a committee to develop and implement this program. The project will include developing a Wellhead Protection Ordinance for the Perkasio Borough Authority and North Penn Water Authority well sites in East Rockhill Township. The wellhead protection ordinance will enhance the protection of water quality from these public water supply sources.

### ***Stormwater Management***

Stormwater runoff is the rainwater that moves over the ground during and immediately following a rainfall event. Stormwater runoff will move through a specific drainage area referred to as a watershed. In a watershed undergoing land development and urban expansion, the amount of stormwater runoff from a rainfall event can increase dramatically. This is due to the reduction of natural grassy or wooded areas resulting

---

<sup>18</sup> The Pennsylvania Safe Drinking Water Act (1994) mandates that after October 9, 1995, for any new or expanding community water system (i.e., systems serving more than 25 persons on a regular basis or systems with over 15 service connections) the municipality, municipal authority, or private water purveyor that provides a community water supply to the public must have ownership, or substantial control by deed restriction, the area known as Zone 1 surrounding the wellhead. As required by 25 PA Code Chapter 109, Zone 1 should contain a minimum wellhead protection radius of 100 feet, but can be expanded based upon the results of detailed hydrological testing of the area surrounding the wellhead.

from increasing the impervious land (i.e., natural landscape being covered by pavement, rooftops, or buildings), which reduces infiltration.

It is this increased amount (volume) and speed (rate) of runoff that is responsible for some of the localized flooding and drainage problems associated with stormwater runoff. As development and impervious surfaces increase within the watershed, so does the problem of dealing with greater quantities of stormwater runoff. Failure to properly manage this runoff can result in more flooding; greater stream channel erosion; siltation and sedimentation; and a reduction in groundwater recharge. It is important to recognize the watershed scope of stormwater management problems and potential solutions.

Recognizing the need to address this serious and growing problem, the Pennsylvania General Assembly enacted the Pennsylvania Stormwater Management Act (P.L. 864, No. 167, October 4, 1978). Act 167 requires DEP to designate watersheds and establish guidelines for the preparation of stormwater management plans for these watersheds. Counties are responsible for preparing the plans and developing ordinance language that municipalities must adopt to manage the volume and rate of stormwater runoff and the impact on water quality.

East Rockhill Township is located within two watersheds whose boundary approximately mirrors Ridge Road. The majority of the township is located within the Tohickon watershed northwest of Ridge Road, and the remainder of the township is located in the East Branch Perkiomen watershed southeast of Ridge Road. The major program objectives of the *Tohickon Creek* and *East Branch Perkiomen Creek Stormwater Management Plans* can be summarized as follows:

- Manage stormwater runoff created by new development activities taking into account the cumulative basinwide stormwater impacts from peak runoff rates and runoff volume;
- Preserve existing natural drainageways and watercourses and provide for proper maintenance of all stormwater management facilities;
- Maintain and/or improve existing water quality, especially in those areas which drain to existing lakes and reservoirs, by preventing additional loading of various stormwater runoff pollutants into the stream system;
- Maximize groundwater recharge where feasible and attainable throughout the watershed in an attempt to maintain the existing hydrologic regime; and
- Provide sound guidelines and methods for stormwater management for communities in the watershed.

In September 2002, township officials adopted the East Rockhill Township Stormwater Management Ordinance (Ordinance No. 199). Since the *East Branch Perkiomen Stormwater Management Plan* was being prepared at that time, the stormwater management ordinance incorporates the regulatory provisions of the *Tohickon Creek Watershed Stormwater Management Plan* over the entire township. The ordinance applies to various temporary and permanent stormwater management facilities constructed as part of any regulated activity that is specified. The ordinance contains the performance standards and design criteria that are necessary or desirable from a

watershedwide perspective. Until the adoption of the *East Branch Perkiomen Plan*, the entire watershed located in East Rockhill is a 100 percent release rate district with required infiltration and water quality measures. The *East Branch Perkiomen Plan* was adopted in April of 2004, and it is anticipated that East Rockhill will adopt this plan and incorporate its contents into the township's stormwater management ordinance prior to DEP's February 2005 deadline.

**NPDES II Regulations**—The National Pollutant Discharge Elimination System (NPDES) is a two-phase federal program created as an outgrowth of the Federal Clean Water Act (1972), which attempts to establish local regulations creating a nationwide reduction of the pollutants found in our nation's waterways. The purpose of the program is to reduce pollution, promote and require better stormwater management, and educate the public about water pollution. This program was amended in 1987 to include stormwater discharge regulations. The first phase of the NPDES program was established in the early 1990's, and targeted large communities and industrial facilities. These entities were required to obtain permits from the state which enforce good housekeeping practices on-site and a reduction of hazardous materials kept on the premises where they could be washed off the site by rainfall and enter local waterways. This latest phase of the NPDES program, Phase II (2003), is aimed at smaller urban communities, as defined by the Pennsylvania Department of Environmental Protection (DEP) based on U.S. Census data. Small urban areas that are designated as "MS4s" (Municipal Separate Storm Sewer System) must obtain a state permit showing how they intend to manage pollution in the municipality.

In accordance with the goals of the NPDES program, small communities, including East Rockhill Township, must develop a stormwater management program that includes six minimum control measures. These measures include public education and outreach, public participation, illicit discharge detection and elimination, and construction and post-construction runoff control and pollution prevention. Thus far, East Rockhill is in compliance with this program; however, in the coming years, the township will be expected to maintain its compliance by further developing the required control measures and filing an annual report on its activities. Bucks County is assisting municipalities in planning for, and meeting, the requirements of the federal and state mandates of the NPDES Phase II by providing methods and ordinance language. This assistance is established in accordance with existing Act 167 guidelines and goals to help to merge critical stormwater management issues, including groundwater recharge, under the comprehensive umbrella of water resources protection.

### ***Wastewater Facilities***

Consideration of wastewater collection, treatment, and disposal are important factors in comprehensive land use planning. Coordination of the township's sewage facilities planning and land use planning is a primary aspect of this comprehensive plan. Planning for the proper types of sewage systems aids in implementing the township's land use goals and aids in ensuring the quality of the natural environment.

The Pennsylvania statutes that authorize wastewater facilities planning functions direct and encourage municipalities to coordinate land use planning and facilities planning efforts. Section 71.14(5) of the Pennsylvania Sewage Facilities Act (Act 537 of 1966) directs municipal officials to consider their community's comprehensive plan, zoning ordinance, and subdivision regulations in the preparation, review, and amendment of their official sewage facilities plan. Section 301(4) of the Pennsylvania Municipalities Planning Code of 1968 (Act 247) requires that a plan for sewage facilities be included in a comprehensive plan. Section 604(1) of the Code, dealing with the purposes of zoning, states that the provisions of zoning ordinances shall protect the public health and general welfare through adequate provisions for sewage facilities. Section 503(3) of the Code states that a community's subdivision and land development ordinance should contain standards for the installation of sewage facilities.

The Pennsylvania Sewage Facilities Act assigns to municipalities certain specific responsibilities for wastewater facilities. Each municipality is required to have an official wastewater facilities plan, and unless proposed facilities are consistent with the plan, the Pennsylvania Department of Environmental Resources cannot issue permits for the facilities. Permits can be issued only after the revision/supplement process outlined in Act 537 has been followed. Act 537 also provides for municipal involvement in proposals for holding tanks and rural residences.

In 1996, the township officials adopted the *East Rockhill Township Wastewater Facilities Plan*, replacing the *Pennridge Wastewater Facilities Plan* (1988) as the official Act 537 plan for the township. The plan update examines four study areas for adequacy of the public sewerage system to meet the projected growth in the Development Area and analyzes various alternatives for resolving failing on-lot sewage systems for two areas of the township. The recommended plan for wastewater facilities within East Rockhill Township includes the following:

- Implementation of a collection and conveyance system and construction of a treatment facility to serve the portion of the development study area (identified as Study Area B that includes the Suburban and a portion of the R-1 Residential Zoning districts) in the vicinity of Branch Road.
- Continued reliance on treatment facilities of the Pennridge Wastewater Treatment Authority (PWTA) to provide public sewer service in Study Area A (which includes areas of the Suburban, Commercial-Office, Industrial (I-1 and I-2 districts), Cultural-Educational, and R-1 districts).
- Extension of the public sewer collection and conveyance system to serve Study Area C in the vicinity of Ridge Road and Old Bethlehem Pike to correct malfunctioning on-site disposal systems. Treatment of effluent will be at the facilities of the PWTA.
- Increased municipal involvement in wastewater facility planning and maintenance through implementation of a public education program.
- Continued monitoring of on-site sewage disposal systems within Schwenk Mill Road and Keelersville/Butler Lane Study areas. Pursue long-term goal of providing public sewer service to the Schwenk Mill Road Study Area.

- Implementation of a wastewater alternative selection process for all new development to ensure utilization of cost effective and environmentally sensitive sewage disposal/treatment facilities.

Many of these plan recommendations have been implemented since the adoption of the Act 537 plan as discussed below.

**Public Sewer Service**—In East Rockhill, the Pennridge Wastewater Treatment Authority (PWTA) and the East Rockhill sewage treatment facility provide public sewer service to the Development Area. (See Figure 11.) There are four areas of East Rockhill that are served by public sewers. Three of these areas are connected to the PWTA treatment plant in Sellersville via the South-side Interceptor that runs along the East Branch of the Perkiomen Creek. A sewer line runs eastward along Three Mile Run Road from Old Bethlehem Pike to a pumping station on Schoolhouse Road. This line also serves the properties fronting on Schoolhouse Road, Deibler Elementary, and approved Schwenk Mill Road extension before it reaches the pumping station. The third area is a small section at the western end of the township between Perkasio and Sellersville boroughs. East Rockhill has 345 Equivalent Dwelling Units (or EDUs which is a gallon per day measure for the purpose of determining wastewater generation per household) remaining from 1,060 EDUs originally allocated to the township by the Pennridge Wastewater Treatment Authority (PWTA). In 2003 the PWTA sewage facility was expanded; this may result in a rerating and thus additional capacity for East Rockhill in the future.

The fourth public sewer service area, which is located in the watershed of East Branch Perkiomen Creek west of Blooming Glen Road, is served by East Rockhill's sewage treatment facility, which came on line in 1998. Properties on Blooming Glen, Branch, and Seven Corners roads are connected to the lines in this area. East Rockhill's sewage treatment facility is designed to accommodate 0.113 million gallons per day with a stream discharge to the East Branch of the Perkiomen Creek. As of November 2004, the East Rockhill sewage treatment facility has a remaining capacity of 60 EDUs.

The planning of wastewater facilities in East Rockhill must also address areas where problems exist with on-site septic systems. Because these problems are scattered throughout the township, it is not feasible to extend sewer lines to most of them. Due to the limited number of failing systems within the Schwenk Mill Road Study Area and excessive costs of a community system/public sewer service alternative, the current Act 537 plan recommends that the township implement a program to educate residents regarding on-lot disposal system and maintenance and other methods to reduce septic system failures. The selected long-term alternative proposed was to connect to public sewer via the Deibler Elementary School system. Township officials have decided to pursue public sewer service for the Schwenk Mill Road Study Area sooner than expected, and sewer lines have been extended and service to this study area is anticipated in 2005. However, the two lots within this study area located to the northwest of Three Mile Run probably will not be connected. The opening of the municipal golf course is anticipated in 2006, and a public sewer lateral will serve the site from Schwenk Mill Road. Since the sewer line extension to the golf course was not anticipated in the current Act 537 plan, the plan will be revised to reflect the provision of public sewer service to this site.

The sewer line on Three Mile Run presents a situation that deserves special attention. As with most of the lines in the Pennridge Area, the sewer line transports sewage to the PWTa treatment plant in Sellersville, where the treated effluent is released into the East Branch of the Perkiomen Creek. However, the properties served by the line obtain their water supply through the groundwater withdrawals from Three Mile Run watershed, which the Delaware River Basin Commission is monitoring for excessive withdrawals. Therefore, water is not being returned to the watershed of the original withdrawal. The issue is that the water is being exported to the adjacent watershed instead of recharged back to the local aquifer. A determination of what role the Three Mile Run sewer line plays in the depletion of the aquifer would have to be a conclusion of a thorough hydrological study of the watershed. (For more information, see the Water Supply section.)

Nockamixon State Park has its own wastewater treatment plant. This plant is located outside of East Rockhill, but a sewer line lies within the township. This line does not extend beyond the park's boundaries. The plant has capacity in excess of the projected needs of the park. The Pennsylvania Department of Parks and Recreation has a firm policy of reserving the plant solely for use within Nockamixon State Park and for use by the Upper Bucks Vocational School.

To satisfy future housing projections, the Future Land Use and Growth Management section recommends zoning changes and alternative for handling wastewater in order to concentrate higher density development with the designated Development Area. By concentrating the public sewer facilities in these areas, East Rockhill can realize direct cost savings, and the coordination of other municipal services in these service areas can result in additional savings. Based upon the unplanned sewer lateral to the municipal golf course and changes to the future land use policies in the township, the Act 537 plan is not consistent with the comprehensive plan update. Therefore, an Act 537 Plan revision will take place.

**Alternative Systems and Holding Tanks**—The limited availability of adequate sewage disposal systems due to poor soils is a major limiting factor for development in East Rockhill. Adequate surface and subsurface disposal depends on the capacity of the soil to absorb and filter effluent. The filtering ability of soil is directly related to various factors including its permeability, stoniness, underlying slope, depth to bedrock, seasonal high water table, and inherent flood prone conditions. Soil conditions that do not permit the proper filtering process can lead to malfunctioning systems (as discussed below) and potential health hazards, such as contaminated drinking water, exposed effluent, and odors. While there are no known community sewer systems or spray irrigation systems in the township, there are ten separate holding tanks and a five alternative systems (in the form of privately owned, non-municipal sewage treatment facilities) serving individual residential and nonresidential uses in the township. (See Figure 11.)

**On-lot Systems and Malfunctions**—The majority of the township is served by individual on-lot sewage systems. Design, review, permitting, and construction

inspection of septic systems is administered by the Bucks County Health Department (BCHD). Septic system failure may be the result of problems related to the design, construction, operation, or maintenance of the system. Many septic systems operate satisfactorily for a period of time and then, for a variety of reasons, begin to malfunction, either periodically or on a continuous basis. Inadequate septic tank capacity and hydraulic overload are the primary causes of failure in older systems. There are reports of malfunctioning individual on-lot sewage systems scattered throughout the township. However, the largest concentrations are in the vicinity of Schwenk Mill Road between Ridge and Three Mile Run roads (which is to be provided with public sewer as discussed above), Keelersville, Butler Lane, and Hagersville. The Act 537 plan recommendation for these areas is public education and technical assistance program. Due to the small number of failed systems within these study areas and excessive costs of a community system/public sewer alternative, the plan recommends a program to educate residents regarding on-lot disposal system maintenance, water conservation fixtures, and other methods to reduce septic system failures.

In 2005, this education program recommendation was initiated through a multimunicipal planning effort between East Rockhill, West Rockhill, Bedminster, and New Britain townships. The byproduct will be a joint on-lot management septic ordinance and program. This management program provides residents with maintenance and education of on-lot sewage systems. Key program elements include an explanation to property owners for the need to periodically pump out their sewage disposal systems to inspection and monitoring of nonmunicipal, industrial, and individual alternative disposal systems (e.g., package treatment plants with stream discharge or spray irrigation systems serving individual lots. This program is intended to be a preventative means of reducing the potential malfunction of a system that can affect the quality of water resources in the township.

According to representatives from the Bucks County Health Department, there have been numerous complaints of malfunctioning on-lot sewage systems in the vicinity of the Hagersville in the form of both gray water (shower, faucet, and laundry) and black water (toilet) overflows. While this area was not identified as one of the study areas needing to address failing systems in the township's Act 537 plan, township officials have decided to remedy these malfunctioning systems while satisfying the future land use policy of limited expansion of the village zoning districts. This comprehensive plan recommends promoting village-style development in two specific areas adjacent to Hagersville and has proposed rezoning of lands. (See the Future Land Use and Growth Management section for more discussion on future land use policies for Hagersville.)

## **Transportation and Circulation**

A transportation network is made up of roads, rail lines, airports, bikeways, and pedestrian ways and provides access for the movement of people and goods within the region as well as within the municipality. Types and intensities of land use affect the transportation system, and transportation facilities affect the pattern, intensity, and rate of development within the municipality. This section provides an overview of the regional road network, as well as the local street classification, traffic and circulation issues, pedestrian and bikeway systems, public transportation services, and airport facilities in the township.

### **Regional Road Network**

Future land use and development will depend on the land use and transportation decisions of adjacent municipalities and the ability of the regional roads to carry future traffic volumes at a reasonable level of service. An efficient and accessible transportation network is one of the main factors people consider when relocating to a new area. Each regional road allows East Rockhill residents to more conveniently access jobs and services throughout the area.

The main regional roads in East Rockhill are Dublin Pike (S.R. 313), Ridge Road (S.R. 563), Fifth Street, and Mountain View Drive (S.R. 563). Traffic traveling into, through, or out of the township will likely use one of these four roads, as these are the main roads that connect with adjacent municipalities and the larger transportation network. Also influential on the growth and development of the township are regional roads in relatively close proximity. These include the Route 309 Bypass and the Northeast Extension of the Pennsylvania Turnpike to the west, Route 663 to the northwest, Route 113 to the south, and Route 611 to the east.

The Northeast Extension was a new stretch of the limited access toll road first constructed in the late 1930s. The Northeast Extension of the Pennsylvania Turnpike connects northeastern Pennsylvania with southeastern Pennsylvania. This highway effectively allowed the Pocono region to become the resort area that it is today. There are no plans to develop a new exit between the Lansdale and Quakertown; however, in 2003, a slip ramp was constructed at the Quakertown exit of the Northeast Extension that provides a way for motor vehicles and trucks to enter the turnpike from the adjacent planned industrial and commercial districts without entering Route 663 and compounding traffic congestion in the area.

### **Local Street Classification**

East Rockhill is a rural area that depends on its system of roads and streets for its transportation needs. There is a direct correlation between land uses and the local street network. The existing streets should be able to support the extent of development intended. Similarly, decisions to make improvements to roadways should be based in part on the intensity of development expected in an area to be served by the roadway. Decisions on future growth and development should take into consideration the adequacy of streets within and adjacent to the area intended for concentrated development. East

Rockhill's functional street classification is shown in Figure 12 and described in detail below:

**Arterial**—Arterial highways are designed to carry large volumes of traffic and to connect major business and employment centers. The classification includes highways that provide intracounty or intermunicipal traffic of substantial volumes where the average trip lengths are usually 5 miles or greater. Generally these highways should accommodate operating speeds of 35 to 55 miles per hour. Dublin Pike (Route 313) is the sole arterial in East Rockhill. Dublin Pike is a state-owned street that stretches for about 3.5 miles between Hilltown and Richland townships. The subdivision and land development ordinance requires that a minimum right-of-way and cartway widths for arterials be 100 feet and 34 feet, respectively.

The number and location of access points onto arterial streets should be strictly limited because the proliferation of turning movement at individual driveways to properties will degrade the function of an arterial. Access management techniques should be considered by the township to protect the function of arterial highways. Techniques such as reverse-frontage access roads, marginal access roads, or shared access driveways should be provided for properties fronting on arterial roads. New access points should be well spaced so that speeds on the arterial can be maintained.

The need for roadway improvements such as turning lanes, acceleration and deceleration lanes, shoulder improvements, and intersection improvements should be evaluated for all major developments. The potential exists for arterials to function as a regional on-road recreational linkage for bicyclist if conditions are favorable. For instance, Pennridge municipalities have proposed the installation of a bike lane along Route 313 (See discussion in the Transportation Improvements Program Projects section below).

**Collector**—This classification is intended to include those roads that connect local access streets to arterial highways. They may serve intracounty and intramunicipal traffic. They may serve as traffic corridors connecting residential areas with employment areas and shopping/service areas. Generally, these streets will accommodate operating speeds of between 35 and 45 miles per hour. Collector streets are classified as either major or minor collectors as follows:

**Major Collector**—The three major collectors in East Rockhill are Ridge Road, Fifth Street, and Mountain View Drive.

**Minor Collector**—The minor collectors in East Rockhill are Park Avenue, Old Bethlehem Pike, Callowhill Road, Rockhill Road, Three Mile Run Road, Branch Road, Blooming Glen Road, Schwenk Mill Road, Old Bethlehem Road, Sterner Mill Road, and Richlandtown Road.

The subdivision and land development ordinance requires a minimum right-of-way width for major and minor collectors of 80 feet and 60 feet, respectively. The minimum cartway width for both minor and major collectors is 34 feet. Ridge Road, Fifth Street, and Mountain View Drive are state owned and maintained while the remaining collector

streets are owned and maintained by the township. Many of the collector streets in the township are located in a rural setting and improvements should be considerate of the surrounding context. Cartway paving should be limited to only improvements necessary to maintain the safety of the road and lanes for turning, acceleration, and deceleration.

Recreational bicyclists and occasional pedestrians use many of the collector streets in the township. Future improvements should be designed to take into account the needs of the users and ensure their safety (See Pedestrian and Bikeway System subsection below).

**Local Access**—All other streets not classified as an arterial or collector are classified as local access streets. This classification is intended to include streets and roads that provide direct access to abutting land and connections to higher classes of roadways. Traffic volumes will be low and travel distances generally short. These streets and roads should be designed for operating speeds of 25 miles per hour or less. The subdivision and land development ordinance requires a minimum right-of-way width of 50 feet and cartway width of 28 feet. Local access streets are owned and maintained by the township. Through-traffic on local access streets should be discouraged. New local access streets should be designed to discourage fast-moving traffic and limit the amount of traffic generated by uses along the street. Traffic calming techniques and the design of local access to discourage through traffic should be explored in appropriate locations (see discussion below).

## **Traffic and Circulation Issues**

Several issues should be considered when examining the local transportation network in East Rockhill. The current zoning ordinance requires traffic impact studies for major developments to determine what improvements may be necessary.

One way to enhance pedestrian and bicyclist safety is through a technique known as traffic calming. Traffic calming uses physical and psychological changes to the roadway to reduce speeding and cut-through volumes, enhancing the safety of both pedestrians and bicyclists. Traffic calming measures (e.g., speed tables, raised or textured crosswalks, on-street parking, and raised median islands) can be used to accomplish these goals. In Pennsylvania, traffic calming measures can be constructed on local residential streets, collector streets with primarily residential uses, and arterials that serve as downtown or commercial areas (with posted speeds of 40 mph or less). The township must follow PennDOT's recommended study and approval process when traffic calming measures are proposed along a state road or when state, federal, or liquid fuels funds are to be used to fund such measures.

To address traffic speeds and pedestrian safety along Branch Road, Fifth Street, and Three Mile Run Road, township officials will work with PennDOT and the Pennridge Regional Police to evaluate possible speed limit restrictions and/or traffic calming measures deemed appropriate for each location.

East Rockhill's Industrial-1 and Industrial-2 districts are located within the regional transportation network, with easy access to the Route 309 Bypass to the southwest and

Dublin Pike (S.R. 313) to the northeast. However, the industrial districts take access from Ridge Road, a state road whose current condition may not be able to support increased heavy truck traffic. Township officials will work with PennDOT to provide the necessary improvements to Ridge Road, possibly as a multimunicipal planning effort with West Rockhill Township and Perkasio Borough. Funding options for the road improvements as part of this effort will also be explored.

A regional planning effort by the PA Route 313/663 Task Force has been underway for over a decade. In November of 1994, the task force published the *Transportation Improvements Plan—Route 313/663 Corridor, Bucks County, Pennsylvania*. There are many plan strategies and recommendations directed at reducing or minimizing traffic related impacts to this corridor. In East Rockhill, the plan contains several recommendations, with implementation responsibility assigned to either PennDOT or East Rockhill Township. These recommendations include:

- A beacon flashing yellow light at the intersection of Dublin Pike (S.R. 313) and Mountain View Drive (S.R. 563) (East Rockhill/PennDOT)
- Upgrade shoulders to allow vehicles to bypass left-turning vehicles to reduce congestion (East Rockhill)
- Improve shoulders at Fifth Street to allow through vehicles to bypass left-turning vehicles to reduce congestion and stripe to delineate travel lanes to better define intersection (PennDOT)
- Realign Sterner Mill road to eliminate the skewed intersection at Dublin Pike (East Rockhill)
- Improve access management by curbing driveways in the area of Route 563 (East Rockhill)
- Install curbing for access control along Fifth Street (East Rockhill)

Since the plan's completion over a decade ago there have been new developments and issues that should be addressed by the township. For instance, due to ongoing accidents at the intersection of routes 563 (Mountain View Drive) and 313 (Dublin Pike) as a result of motorists carelessly entering the intersection with oncoming traffic, township officials have discussed the possibility of adding a traffic light.

The *Transportation Improvements Plan* continues to be a working document and has provided a basis for ongoing discussions with municipalities located along the Route 313 corridor. East Rockhill will continue its participation and coordination to promote a regional solution to the problems and issues along the Route 313 corridor.

The historic Mood's Covered Bridge was destroyed by arson in June 2004. As a result, dialog ensued between residents and township officials regarding future traffic circulation issues and the ultimate design of the bridge (e.g., covered versus standard bridge design and one lane versus two lanes). The restoration of the covered bridge is still in the preliminary design phase but it has been decided that PennDOT will be responsible for its reconstruction using state and federal funds and Bucks County will assume ownership and maintenance responsibilities.

## Transportation Improvement Program Projects

The Bucks County Transportation Improvement Program (TIP) is an inventory of transportation-related improvements requested by municipalities, concerned citizens, transportation studies, and other sources. Each request for federal or state funding is reviewed by the staff of the Bucks County Planning Commission and added to the catalog of projects. The list is submitted to the Delaware Valley Regional Planning Commission (DVRPC) to be included as candidate projects for the regional TIP.

DVRPC, in conjunction with member government agencies, ranks and selects potential projects from candidate projects lists (i.e., county TIPs) submitted by member governments. Once approved by the Regional Transportation Committee and DVRPC Board, the regional TIP is then submitted to PennDOT to be included in the state TIP. The regional TIP is updated every two years, in coordination with PennDOT's Twelve Year Plan. The regional TIP lists all projects that intend to use federal or state funds for engineering, right-of-way costs, or construction costs.

East Rockhill has two separate projects on the 2003 TIP list, one located within the township and the other that is part of a multimunicipal planning effort. The following table lists the TIP projects for East Rockhill and projects in adjacent municipalities that may impact East Rockhill.

**Table 20. TIP List, East Rockhill and Adjacent Municipalities, 2003**

Municipality	Project
<b>East Rockhill Township</b>	<b>Hill Road Bridge Repair/Replacement</b> Location: Hill Road over Three Mile Run Proposed Work: Bridge repair/replacement to accommodate flow, eliminate flooding, and remove weight restriction
<b>East Rockhill, Bedminster, Hilltown, Richland townships and Dublin Borough</b>	<b>Route 313 Bike Lane</b> Location: Route 313 from Richland Township 7.5 miles to Dublin Borough Proposed Work: Install striping and signage for bike lane along shoulder of Route 313
<b>Milford and Richland townships</b>	<b>Portzer Road Bypass</b> Location: Route 309 to Route 663 Proposed Work: Realignment and improvement of Portzer Road/Pumping Station Road, including intersection improvements at Route 309 and Route 663
<b>Hilltown Township</b>	<b>Stone Arch Bridge Repair/Replacement</b> Location: Route 113 bridge over Morris Run, between Minsi Trail and Blooming Glen Road Proposed Work: Bridge repair/replacement

The Hill Road Bridge repair/replacement project will provide much needed improvements to the existing infrastructure. The Route 313 bike lane will provide an important segment of the regional bike route that runs from the intersection of Mountain

View Road southeast through Dublin Borough, possibly all the way to Doylestown Borough. While there is no significant road improvements planned at this time, development pressures from adjacent municipalities will affect East Rockhill Township. If constructed, most of the proposed improvements should improve circulation and safety in those municipalities.

## **Pedestrian and Bikeway System**

Pedestrian and bicycle facilities are an important part of the transportation network that provide residents a nonmotorized means of travel for commuting and recreational purposes. When asked to identify recreational facilities and activities they would like to see improved or added to the township's park system, residents gave walking trails (82 percent) and bicycling facilities (57 percent) as the top two responses in the 2004 resident survey.

The Mervin C. Bryan Walking Path provides a two-mile linear park for multipurpose use intended to accommodate bicyclists, hikers, and joggers within the 46-acre stream corridor preservation area that extends along the East Branch of the Perkiomen Creek between East Callowhill and Schwenk Mill roads. The township plans on extending the path northwest along Blooming Glen Road and through their easement on the Pennridge High School site to Willard H. Markey Park. The proposed path extension will expand the township's trail network by providing a linkage to and from Markey Park that contains its own multipurpose trail system. There is a possibility of expanding the trail network to other points of interest in the township using designated greenways. In addition to preserving natural resources, greenways can be used to create safe, nonmotorized transportation routes to points of interest such as schools, commercial centers, residential developments, and recreational areas, creating a unified park system throughout East Rockhill and beyond. Recommended greenways routes within East Rockhill which are based in part upon the *Pennridge Area Greenway Plan*, incorporate streams, existing trails, floodplains, on-road bike routes, and off-road linkages.

Like many upper Bucks County communities, East Rockhill is a popular place for bicycle enthusiasts. As described above, municipalities in the Pennridge area plan to implement the Route 313 bike lane as part of the regional TIP. A bike lane is an established lane on the roadway for use by bicycles only. Bike lanes are designated with signage and striping. Bicycle routes, which are the least expensive option for creating on-road linkages, make use of the existing road surface. Along bicycle routes, bicyclists and pedestrians must share the road with vehicles. In addition, the township could require developers to provide a bike lane along roads where bike routes have been designated; much in the way developers are required to provide road improvements along roads where their development proposals are situated. No matter what the system employed, adequate route signing should always be provided to supply directional information to users of the system.

The Bucks County Planning Commission (BCPC) has been successful in working with municipalities and PennDOT in improving safety along bicycle routes. Wherever possible, PennDOT will reduce cartway widths to 11 feet by restriping the fog line

inward after road repaving or maintenance projects. This allows for an increase in shoulder width without the need to acquire additional right-of-way, thereby, improving safety for bicyclists on designated bike routes. Additionally, the use of “Share the Road” signs has been very successful in alerting motorists of the presence of bicyclists within the traffic stream, thus, increasing safety conditions for bicyclists using a bike route.

As part of an ongoing planning effort, township officials will continue to pursue the implementation of the designated greenway routes (as described in the Community Facilities section) including on-road and off-road linkages while ensuring these facilities are designed to provide adequate safety measures for its users.

### **Public Transportation Services**

Currently, there is no public transportation in East Rockhill since population densities are too low, and there are too few common origins or destinations to make public bus or van service feasible. However, the Bucks County Transportation Management Association (BCTMA), in which East Rockhill was recently inaugurated as a formal member, has completed a study concluding that sufficient ridership exists to support bus service in the tri-borough area of Quakertown, Perkasio, and Sellersville boroughs. While the bus route would not run through East Rockhill, residents will be able to drive a short distance to bus stops located along the tri-borough route. The BCTMA is currently securing grant funding for the Quakertown and Richland portion of the bus route and in 2005 will apply for funding for the Perkasio and Sellersville portion of the route. After a two-year trial period, if the bus route achieves its ridership goals, the route would receive permanent funding.

Township officials, in cooperation with will the BCTMA, will continue explore the feasibility of providing appropriate forms of public transportation to points of interest such as the Bucks County Community College and Nockamixon State Park.

The Bucks County Transport, Inc. is a private, nonprofit organization that provides ride-share opportunities primarily for senior citizens and those on welfare. There is a nominal fee to seniors, but welfare recipients are paid for in full. Their service area includes all of Bucks County but a proof of residency is required. Pick up and drop off is provided to essential and nonessential destinations such as doctor’s offices, hospitals, adult day care, and grocery stores for a nominal cost to residents.

### **Rail Restoration Study**

In 2000 the Bucks County Planning Commission commissioned a study of reopening the Quakertown/Stony Creek rail line to passenger service. The Quakertown/Stony Creek Rail Restoration Study was initiated to determine the viability of reactivation of passenger service for the Bethlehem Branch, which runs from Lansdale Borough in Montgomery County, through East Rockhill Township to the village of Shelly in Richland Township. In terms of operating ratio and performance measures, the restoration of passenger rail service over the Bethlehem Line appears to be both feasible and viable. There are significant capital costs, however, associated with these options,

which SEPTA, the counties, and the Commonwealth must consider and prioritize relative to the other competing financial needs in the region.

The Bucks County Transportation Management Association has taken the lead on this project to develop a business plan. The goal is to begin developing information needed to restart the line using a private corporation to run the line and employ a strategy that could be constructed in less time and result in less cost to taxpayers.

The restoration of rail service to the Bethlehem Branch would provide public transportation to the upper Bucks County area and could provide an important link between the Lehigh Valley and Philadelphia areas.

Township officials should coordinate with the Bucks County Transportation Management Association to continue to monitor the status of the project so that the township may take appropriate steps (e.g., rezoning, amending use provisions) in ensuring that needed associated facilities (e.g., park-and-ride facilities) could be provided.

### **Airport Facilities**

The Pennridge Airport is located north of Ridge Road between Tunnel and Schoolhouse roads. Although privately-owned, the airport facility has utilized state and federal grants and funding for maintenance and improvements, and, consequently, is subject to public funding restrictions and regulations. The recent reduction in the number of based aircraft and increase in based aircraft criteria for funding eligibility in the Airport Improvement Program (Federal Aviation Trust Fund) has resulted in the loss of federal eligibility. The airport has a paved runway 3,775 feet long, making it an important facility to aviation in the area. The Delaware Valley Regional Planning Commission (DVRPC) classifies the Pennridge Airport as a basic utility stage I airport. A utility stage 1 airport consists of approximately three quarters of the propeller planes under 12,500 pounds and serving areas of low air activity and small population. This classification is based upon an assessment of the types of aircraft using the airport and the types of facilities available there. DVRPC planning for the year 2025 indicate that the demand for aircraft services and facilities is not anticipated to exceed the capacity of the airport. Aircraft users are not expected to see excessive delays or be forced to use nearby airports, such as the Upper Bucks County Airport in Quakertown and The Central Bucks Airport in Doylestown.

In 2004, the Pennridge Airport at the direction of their own master plan (with the agreement from PennDOT) relocated an aircraft tie down area and there are future plans to build T hanger space. As part of this proposal, access is located off of Schoolhouse Road.

Currently, the zoning ordinance contains Airport Area Protection Standards for an overlay district that is intended to protect the surrounding properties from the obstruction (e.g., structure, growth, or other object that exceeds the established height limit) that has the potential for endangering life and property of users of the Pennridge Airport. The ordinance establishes airport zones and establishes maximum heights for structures and trees within each zone and identifies use restrictions related to electrical interference with

navigational signals or radio communications, lighting, or uses that would otherwise endanger or interfere with the operation of aircrafts using the airport.

There may be a need to reexamine the current Airport Area Protection Standards, since they do not, for example, address certain accessory uses. In order to provide additional regulations for airport uses, township officials may wish to amend the overlay district regulations or create a separate airport zoning district.

As an element of East Rockhill's transportation network, the Pennridge Airport provides personal and recreational use. But potential conflicts may occur with the surrounding residential land uses if the airport is used beyond its capacity or if airport regulations do not adequately address all accessory activities.



## **Future Land Use and Growth Management**

A primary aim of a comprehensive plan is to ensure that there is an adequate mix of land uses to satisfy resident needs while promoting a balance between the natural and built environments. Providing a well-balanced mix of agricultural, residential, commercial, recreational, institutional, and industrial uses enhances the vitality of a community. A municipality must provide services and facilities to satisfy the needs of its residents while meeting its fair share of growth. A municipality should ensure that its land use regulatory system is based on sound planning and growth management principles. Factors that affect future land uses include population growth, transportation network, infrastructure (water and sewer), natural resources, and compatibility with adjacent municipal comprehensive plans.

In the resident survey distributed as part of the comprehensive planning process, protection of natural resources, preservation of open space, growth management, and protection of historic resources were rated the four top priorities when planning for the future of East Rockhill. This section provides a community vision for future growth and development in East Rockhill that address these planning priorities. Specific planning measures will be discussed that will promote the concentration of future development within appropriate areas of the township, while enhancing the preservation of its valuable natural, agricultural, open space and historic resources. This section will also examine if East Rockhill is meeting its fair share of future housing demands including the provision of areas zoned for multifamily development. Various planning tools and techniques that will enhance the overall protection of the township's resources will be examined. Lastly, a review of adjacent municipal comprehensive plans and the county comprehensive plan will identify the relationship and potential impacts upon the township from adjacent municipalities. The following concepts and techniques will form the basis of the East Rockhill's land use vision and growth management strategy for the future.

### **Development District Concept**

A planning tool widely used in Bucks County to guide growth is the development district concept. The fundamental objective of this concept is to concentrate future development in areas best equipped to handle growth (e.g., areas which contain existing or planned water and sewer service), while minimizing land use conflicts and capital costs to residents. East Rockhill has employed the development district concept since the adoption of its 1987 comprehensive plan and township's zoning ordinance was amended to reflect the future land use policies established at this time. A significant portion of the residential and nonresidential development has been concentrated into areas designated by township officials to accommodate future growth in appropriate locations at densities sufficient to support necessary facilities and services. This is evidence that the development district concept has been an effective planning tool in East Rockhill. However, to account for new development, zoning ordinance amendments (e.g., the creation of the Agricultural Preservation zoning district), and other planning implications (e.g., the adoption of the township's sewage facility plan update and the advent of the sewage treatment plant), there is a

need to reevaluate the development district concept in East Rockhill. This section provides an update of the development district boundaries and future land use policies based on an analysis of current land use and zoning patterns, infrastructure, and natural resource conditions.

The Future Land Use map forms the basis of the township's community vision and highlights the future planning areas for East Rockhill Township. (See Figure 13.) The purpose and overview of each planning area is described below.

### **Development Area**

The Development Area is intended to accommodate the bulk of existing and future development, and has been sized to accommodate the projected housing demands. This area generally corresponds to the R-1 Residential, Suburban, Commercial-Office, Cultural-Educational, and I-1 and I-2 Industrial zoning districts. The purpose of this area is to concentrate higher density residential and nonresidential uses and to coordinate this growth with the provisions of public services. This area has been designated for several reasons, but primarily due to the presence of public water and sewer nearby. In order to provide a variety of different uses including higher density housing types, public water and sewer are intended to serve the Development Area. To retain the rural character of the township, public water and sewer lines should not be extended outside the Development Area until the land within the Development Area is at capacity or approaching capacity.

In addition to the existing water and sewer service issues, the Development Area is best suited for development due to its proximity to Perkasio Borough and existing development within the township. The roads within these areas are better equipped to handle additional traffic. Since there are no large concentrations of sensitive natural resources, the Development Area is appropriate for higher density/intensity development. Nevertheless, any development within this area should still respect the inherent resources located on the site.

The residential portions of the Development Area has been designated in recognition of the township's legal obligation to provide sufficient land for a variety of housing types while satisfying its fair share of multifamily growth. The Development Area satisfies these obligations and is sized large enough to accommodate the projected population and housing projections through the year 2015. (See Appendices A and B for a discussion on the Development Area Capacity Analysis and Multifamily Fair Share Analysis.) The Development Area (as defined in the 1987 comprehensive plan) was expanded into areas that will provide concentrated growth that is conveniently served by public infrastructure and services. Specifically, the Suburban zoning district (which was not included in the Development Area in the previous comprehensive plan) is included in the Development Area. Another expansion area includes several large rural residential lots and smaller single-family residential lots along Old Bethlehem Pike. Previously, this area was designated Resource Protection Area; but inclusion in the Development Area should be considered since the concentration of natural resources is not as significant as other areas in the Resource Protection Area,

and this area can be conveniently served by the extension of public water and sewer lines located southeast of the Development Area along Hill Road. Also, the expansion area is consistent with West Rockhill Township's future land use policy that includes a Development Area on the opposite side of Old Bethlehem Pike. Lastly, the Development Area has been expanded to include The Pines at Penridge and Cedarbrook Crossing developments that were constructed after the adoption of the previous comprehensive plan.

The Glenwood Village Shopping Center, along with other commercial centers in the township and the greater region, continue to satisfy the shopping needs of township residents. While there is limited land available for commercial use, there may be some opportunities for infill development and adaptive reuse in portions of the Development Area.

There are a few industrial uses that are dispersed throughout the township. Zoning revisions to the I-1 and I-2 Industrial zoning districts (located in the vicinity of the Penridge Airport) are intended to promote attractive high-quality light industrial developments with appropriate landscaping that will minimize impacts to adjacent land uses.

### **Rural Areas**

Rural Areas are broken into four separate future land use categories—Resource Protection, Agricultural Preservation, Village Enhancement, and Rural Holding. The purpose of the Rural Areas is to protect large environmentally sensitive areas, to maintain and enhance the agricultural industry to preserve prime agricultural lands, to protect established neighborhoods, and protect and enhance rural villages and commercial areas. The land use policies and descriptions for each are as follows:

***Resource Protection***—These areas include significant natural resource lands that require special attention, primarily concentrated northwest of Three Mile Run Road. The purpose of this district is to protect areas that contain large concentrations of natural resources such as forests, steep slopes, scenic areas, wetlands, streams, floodplains, and ponds. Included in this area are the following Natural Area Inventory sites: Quakertown Swamp, Rock Hill, and Haycock Mountain, and Nockamixon State Park (for further description, see the Open Space and Farmland Preservation section). The purpose of the Resource Protection Area is to provide maximum protection of these resources through a variety of regulatory measures and planning tools. The permitted uses and their intensities should be limited in this area to ensure that these resources are preserved, while providing for low-density residential development with suitable sewage disposal. The Resource Protection area contains the Resource Protection, Commercial-Office, and Extraction zoning districts.

Some nonresidential development is appropriate in the Resource Protection area to serve nearby residents. The Commercial-Office (C-O) district located

along Dublin Pike near Richland Township contains a commercial use (Wagon Wheel) and several vacant lands. There is a proposal to construct a village-style shopping center on the larger of the two vacant sites. The intensity and appearance of future development in the C-O district should be consistent with the rural character in which it is located.

***Agricultural Preservation***—This area (which corresponds to the zoning district by the same name) is located in the southeastern corner of the township and contains soils classified as Prime Farmland and Additional Farmland of Statewide Importance the Natural Resources and Conservation Service (NRCS). The purpose of this area is to recognize and protect the area designated as a significant agricultural area where active farming predominates. This comprehensive plan recognizes that farmland serves an important function and should be retained when possible to preserve the character of the township. It is not a holding zone but an area having a positive purpose in utilizing the prime agricultural soils for benefit of the entire community. This policy is supported by a Commonwealth court case *Heritage Building Group v. the Plumstead Township Board of Supervisors* (2003). In this case the court permitted agricultural land to be considered developed and thus a legitimate land use, not vacant and classified as a holding zone for future development.

Because of the presence of active, productive farms in the East Rockhill, a primary goal of this comprehensive plan is to promote the preservation of prime agricultural land. In 2000, agricultural preservation zoning was adopted by the township to limit the conversion of farmland into nonagricultural uses. It focuses on permitting landowners to subdivide a limited number of residential lots from their property based on a minimum acreage necessary for a viable farm unit. Development on large lots or in clusters where open space is preserved shall be permitted.

It is recognized that there are established residential neighborhoods within and adjacent to the Agricultural Preservation (AP) zoning district. While the character of these neighborhoods should be protected by township ordinances, those residents must realize that they reside in an area that is intermingled with agricultural uses. Beyond its historical value, farmland is a productive resource, contributing to the local economy and providing scenic open space valued by residents. Moreover, normal farming operations and activities should also be afforded protection by local ordinances. To promote the economic vitality of farming operations in the AP district, township officials may want to expand farmers opportunities to include additional nonagricultural activities such as pick-your-own harvesting, hay rides, educational tours, and recreational activities (i.e., batting cages and miniature golf). However, any future ordinance amendments should ensure that these activities are appropriately regulated to prevent negative impacts upon neighboring properties (e.g., lighting glare, noise, and traffic).

***Village Enhancement***—The existing villages are a unique resource, providing residents and nonresidents alike with a historic snapshot of East Rockhill’s early beginnings. The Village Enhancement area includes the villages of Hagersville, Keelersville, Rockhill Station, and Rich Hill and correspond to the Village Residential and/or Village Commercial zoning districts. The township’s villages vary considerably in the strength of their identity, both physically and socially. All of the villages, with the exception of Rockhill Station are located along primary roadways. Roadway improvements (e.g., cartway widening, turning lanes, or higher speed limits) may have a detrimental effect on the villages. Fortunately, according to the *2003 Bucks County Transportation Improvement Program*, the only scheduled improvement is the Route 313 bike lane that is proposed to run from Richland Township (through East Rockhill) to Dublin Borough along Dublin Pike. The bike trail can be incorporated into the village setting without undermining Hagersville historic integrity.

The villages are distinctive settlement patterns and should be preserved or enhanced through appropriate land use regulations. Potential for infill and/or expansion of a village should be predicated by a village planning and zoning study. In this comprehensive plan update, township officials have recommended provisions for a limited expansion of Hagersville (see discussion Zoning Recommendations below for more detail.)

***Rural Holding***—The Rural Holding area include the bulk of the township’s park and recreational lands (e.g., Willard H. Markey Park and the municipal golf course), township-owned open space lands, natural resource areas (e.g., steep slopes along Ridge Road), and large-lot residential development. However, there are also some limited commercial areas along Ridge Road and Dublin Pike. This area is intended to accommodate lower density/intensity development. Portions of this area (which corresponds to the Rural Residential and Commercial Office zoning districts) may serve as a reserve area for future residential development. Public water service should not be provided in this area at this time. Public sewer has been extended into this area to serve malfunctioning systems along Schwenk Mill Road and the municipal golf course. However, future tie-ins should be limited to only these areas.

Portions of the Rural Holding Area (not currently developed) are intended to be kept in reserve for future growth. Higher density residential development should not be encouraged in this area until the Development Area is approaching build out. At this time, township official can determine the appropriate extent and location of the expansion that will be cost effectively served by public sewer and/or water connections. The Commercial-Office district at the corner of Dublin Pike and Ridge Road contains a vacant lot this is about 10 acres in size. Future development of this site should be responsive

to the context and scale of the two existing commercial uses (County Place Restaurant and bed and breakfast use) within the zoning district. Access management should be considered in the design and layout to enhance vehicular safety and flow along these arterial roadways.

## **Purpose and Intent of Zoning Districts**

Municipalities are authorized by the Pennsylvania Municipalities Planning Code (MPC) to enact and enforce zoning powers to support their specific land use policies. There are 12 separate zoning districts (and one potentially new zoning district) in East Rockhill as shown in Figure 13, and each district has a specific purpose. The township has located each district to encourage various types of development in appropriate areas of the township. The following provides a brief description of each district's purpose and intent:

**Agricultural Preservation (AP)**—The purpose of the Agriculture Preservation District is to recognize and protect those areas of the township where farming predominates. Within the District, areas with Class I, II and III agricultural soils, as defined by the U.S. Department of Agricultural Soils Survey, shall be protected in accordance with the standards established herein. This district recognizes that farmland is being used to produce a product and has a positive purpose in utilizing the prime agricultural soils for the benefit of the entire community. Residents of the AP District are advised that there may be noise, odors, dust, fumes or other disturbances associated with agricultural practices which are considered to be acceptable effects of farming and shall not be regulated by township nuisance laws.

**Resource Protection (RP)**—The purpose of the Resource Protection District is to protect areas containing sensitive natural features and areas of natural scenic beauty. Agricultural and low-intensity residential uses are permitted with standards and densities designed to encourage preservation of natural resources.

**Rural Residential (RR)**—The Rural Residential Districts are intended to promote the preservation of agriculture as a primary use of undeveloped land outside the Development Area. Limited residential uses are permitted as well as agricultural uses. The standards and densities are intended to provide a positive incentive for the preservation of large amounts of open space and the retention of the Township's rural character.

**Suburban (S)**—The purpose of the Suburban Districts is to accommodate single-family detached residential uses. Clustering and performance standard developments provide landowners with some flexibility. In keeping with the Township's rural character, densities are moderate. The protection of natural resources is ensured through performance standards.

**Suburban-1 (S-1)**—The purpose of the proposed Suburban-1 district is to accommodate single-family detached and multifamily residential uses. Clustering and performance standard developments provide landowners with some flexibility. The maximum density is slightly higher than the Suburban district but the protection of natural resources is ensured through performance standards.

**R-1 Residential (R-1)**—The purpose of the Residential Districts is to accommodate all type of residential structures, single-family and multifamily to ensure a balanced community. The R-1 District is medium density in keeping with the township's character. Performance standards encourage clustered development with open space areas for resource protection and recreation.

**Village Residential (VR)**—The Village Residential Districts are intended to preserve the character of the township's villages. A variety of residential uses are permitted in these districts. Standards and densities are designed to be compatible with existing conditions in the villages.

**Village Commercial (VC)**—The Village Commercial District deals with a small commercial area adjacent to the village of Hagersville. The intent of this district is to provide local residents with a limited amount of commercial services.

**Cultural-Educational (C-E)**—The Cultural-Educational District is intended to maintain the character of areas currently used by major institutions.

**Commercial-Office (C-O)**—The Commercial-Office District is intended to provide a wide range of commercial and service uses for the needs of local and area residents. Office uses are also permitted in this district. Appropriate design standards will ensure that future development is compatible with existing commercial and office uses.

**Industrial-1 (I-1)**—The Industrial-1 District is intended to provide for industrial, major commercial, intensive office and laboratory uses with suitable open space and landscaping in keeping with the township's rural character. Such developments should be planned for adequate improvements, internal streets and compatibility with adjacent uses. Adverse impacts on neighboring residential developments must be avoided.

**Industrial-2 (I-2)**—The Industrial-2 District is intended to provide for industrial, major commercial, intensive office and laboratory uses similar to the Industrial-1 District with smaller lots and suitable open space and landscaping. Such developments should be planned for adequate improvements, internal streets and compatibility with adjacent uses. Adverse impacts on neighboring residential developments must be avoided.

**Extraction (E)**—The Extraction District is established to permit extraction of sand, gravel, shale, clay, stone, or similar operations in including borrow pits in a safe and nondeleterious manner. The rehabilitation of land during the extractive operation and at the time operations are ended will be required.

## Zoning Recommendations

The analysis presented in this comprehensive plan leads to the suggestion of several recommendations for new or revised zoning districts. These suggested changes are as follows:

**Creation of Suburban-1 zoning district**—To accommodate future housing projections while providing a transition between the R-1 and/or Suburban zoning districts, township officials should consider the creation of a new zoning district known as the Suburban-1 district. The Suburban-1 district will be similar to the existing Suburban District, but will permit certain multifamily units to aid in satisfying the fair share of multifamily units (see Appendix B for further discussion) and a slightly higher maximum density for Performance Standard Development (i.e., 3 versus 2 dwelling units per acre). The performance standards such as the minimum site area, maximum density, minimum open space, and maximum impervious surface will need to be examined in more detail to ensure that the district regulations are consistent with the district's purpose. The new zoning district will be located in appropriate areas within the Development Area. Two areas that have been targeted include vacant and rural residential lands in the following areas: (1) northeast of Three Mile Run Road, between Old Bethlehem Pike and Hill Road, and (2) adjacent to the township's sewage treatment facility on the northwest and southeastern side of Branch Road. (See Figure 13.)

**Expansion of the VR/VC district adjacent to Hagersville**—In order to provide additional commercial and multifamily residential housing opportunities while possibly providing the remediation of failing on-site septic systems in the Hagersville area, an expansion of the Village Residential and Village Commercial districts should be considered. The intension is to provide limited village-style residential and nonresidential development adjacent to Hagersville that will enhance the overall village character. Also, township officials should explore the possibility of amending the VR district regulations to include the provision of multifamily housing opportunities. Township officials should also explore regulatory provisions that will aid in the overall protection of the village character and architecture.

The potential sites for expansion are TMP# 12-14-45-3 (proposed for VR district) and a portion of 12-14-39 (proposed for VC district). This proposed expansion will provide a limited area for development on both sides of Dublin Pike while helping to strengthen and unify the village context (See Figure 13.) In order to address the remediation of existing on-lot septic systems in and around the village, future development proposals in the village expansion area should include coordination between the township and applicant to implement a sewage disposal

option (consistent with the Act 537 plan) that will address the failing on-lot systems in the Hagersville area as well as provide for any proposed new units.

**Potential expansion of the C-O district near Richland Township**—In order to provide additional nonresidential opportunities in this portion of Dublin Pike, township officials are exploring a potential expansion of the C-O district up to the municipal boundary of Richland Township. This potential expansion would be compatible with surrounding area, which is predominately residential in nature, if future commercial development is designed to be compatible with its rural context. The intent of the village-style shopping center that is proposed in the C-O district is to provide a commercial use that blends in with its surroundings. However, due to poor soils in this vicinity, the applicant was forced to install an on-lot sand mound system along Dublin Pike. Typically, the manufactured appearance of a sand mound system located along a roadway leaves much to be desired. Therefore, if this is the best form of sewage disposal available to these sites, the township and applicant should explore creative ways to utilize the sand mounds as natural berms in conjunction with natural buffer planting to optimize the visual appearance to motorists along Dublin Pike.

## **Potential Tools and Techniques**

Identifying what the township should look like in the future as well as how this can be accomplished is important component of comprehensive planning. The township has various means at their disposal that may be used to accomplish this community vision. This section describes a number of innovative tools and strategies that can be used to shape the future land use and design of the township. This section describes a number of innovative tools and strategies that can be used to shape the future land use and design of the township. These recommendations are in addition to the many tools and ordinance provisions that the township already uses to implement its land use vision, including wellhead protection ordinances, natural resource protection standards, site capacity calculations, performance subdivisions, open space preservation, and stormwater management ordinances. The combination of the township's ordinances and strategies serve to protect critical natural resources and keep densities low in designated Resource Protection Areas and allow well-planned development and infrastructure expansion in designated Development Areas.

**Traditional Neighborhood Development**—Authorized by the MPC, a Traditional Neighborhood Development (TND) zoning district attempts to establish a pedestrian-oriented, mixed-use development similar to that of older boroughs and villages. TND's are compact, pedestrian-oriented, mixed-use communities that seek to recreate traditional small town neighborhoods and strategically located open space for public use, and are characterized by a grid street pattern, short setbacks, narrow street widths, a mix of land uses, and a pedestrian-friendly environment. A TND features include a mix of house types on smaller lots, narrow streets on a grid, features such as porches and garages placed in rear of the house, and the creation of usable public space. The primary difference between a TND and conventional suburban development are the physical neighborhood composition and overall land use pattern.

A typical suburban development is composed of one building type such as a single-family home, townhouse, or apartment and use curvilinear streets and cul-de-sacs. TNDs integrate key elements of a neighborhood such as small-lot single-family homes, multifamily units, schools, retail stores, civic buildings, and parks with a formal grid street network. All elements of the neighborhood are within walking distance, so that residents are not as reliant on their cars for meeting their daily transportation needs.

In East Rockhill, TND's would be most appropriate in the Development Area or could serve as the expansion of an existing village, such as Hagersville. In conjunction with the district regulations, carefully constructed design guidelines would guide the look and the pattern of the development. TND's can be used in conjunction with TDR's (see below).

**Transfer of Development Rights**—A transfer of development rights (TDR) program shifts development away from agricultural land or sensitive natural areas, and concentrates in development areas. The theoretical basis of TDR is the legal definition of land ownership as consisting of a “bundle of property rights,” including: the right to use airspace above the land; and the right to develop the land. These rights can be separated from each other.

Transfer of development rights programs separate the right to develop property from the bundle of property rights. TDR programs allow property owners in the area where development is to be limited, the “sending area,” to sell development rights for use on properties in a “receiving area” where a concentration of growth is desired. TDR programs in Pennsylvania must be voluntary, where sending area landowners have the option to build homes or to sell the development rights. Other states permit mandatory programs, where actual development is prohibited or strictly limited in the sending area. In Pennsylvania, TDR programs can only be used to transfer development rights within a single municipality, or among municipalities with a joint zoning ordinance, as authorized by 1992 MPC amendments.

**Site Analysis and Resource Conservation Plan**—A mechanism could be incorporated into the subdivision ordinance to employ the good design principle intentions of the sketch plan submission requirements as part of the preliminary plan submission requirements. Site Analysis and Resource Conservation Plan requirements combine elements from “standard” subdivision ordinance requirements with conservation design principles, both for natural resources and cultural features (e.g., historic resources, viewsheds). Such requirements would not affect the development potential of a site, but would encourage better site planning essential to ensuring the preservation of the village and outlying area.

The purpose of a site analysis and resource conservation plan is to ensure that all development occurs in a manner that respects the natural environment and the cultural features that are important to the site, the surrounding area, and the township. With such an analysis and plan, the applicant and township officials would have a sound understanding of the conditions around the site that provide the context for the

proposed development. It would be more useful than an environmental assessment or environmental impact statement in that it would deal with the site before anything is built and address how valuable resources could be preserved versus just indicating what impacts would result after the development is built.

An existing resources inventory would be required to provide a comprehensive analysis of conditions on the proposed development site and areas within 500 feet, showing topography, natural drainage patterns, vegetative cover, soils and geology, historic buildings or sites, viewsheds/scenic views, pastureland and cropland, areas identified by the Pennsylvania Natural Diversity Inventory, solar access and orientation, and other features on and of the site. Narrative would be provided to indicate ways in which the applicant would respect the existing valuable resources described in the site analysis.

The resource conservation plan would require that the layout of the lots or development occur so that the areas identified as being important in the site analysis are preserved and the areas of secondary importance are used for development. Limits on site disturbance, use of natural drainage patterns, preservation of historic areas and scenic views, preservation of solar access, protection of natural areas, protection of groundwater resources, and consideration of low-impact grading techniques (see below) would all be required considerations.

The requirements of the site analysis and resource conservation plan could be supplemented by encouraging applicants to schedule preapplication meetings and site visits with the township officials before full-scale engineering work is started.

**Low-Impact Grading**—Among the most harmful development practices is site grading. Grading is the process of clearing a site of vegetation and smoothing sloping areas to create an even topography. Mass grading is harmful because it destroys valuable species habitat and reduces water quality by introducing sediment into local streams and lakes. Grading will also destroy an area's rural nature; it effectively replaces native vegetation and topography with a flat expanse of lawn.

Two development techniques can greatly reduce the impacts of grading: site fingerprinting and minimum disturbance. Site fingerprinting reduces the total amount of disturbance of a site by limiting grading and clearing for a subdivision to areas where structures, roads, and rights-of-ways are required. Grading and clearing can be further reduced by using shared driveways, designing roads to follow open paths in vegetation, and avoiding additional disturbance for material storage areas.

Minimum disturbance techniques further reduce impacts by using alternative construction techniques. Heavy equipment will typically compact soil (increasing imperviousness) and damage root systems. Minimum disturbance techniques use a carefully delineated disturbance area and through low impact construction practices attempt to preserve unstable soils and maintain a site's hydrologic function. Minimum disturbance techniques have the added benefit of reducing construction costs due to the decreased need for site grading.

**Riparian Corridor Conservation District and Management Plan**—A riparian corridor conservation district is an overlay zoning district that regulates the uses and activities within a designated margin along riparian corridors and wetlands. The district is generally divided into two zones. Zone 1 consists of a 30-foot margin that extends from the edge of the stream or wetland. In Zone 1 typical permitted uses include wildlife sanctuaries, nature preserves, fishing areas, passive park and recreation areas, and stream bank stabilization. Uses permitted by conditional use approval include corridor crossings by farm vehicles and livestock, recreational trails, roads, railroads, and utility lines. Zone 2 consists of a 60-foot margin that extends from the edge of Zone 1. In Zone 2 permitted uses include wildlife sanctuaries, nature preserves, passive park and recreation areas, recreational trails, front, side, and rear yards of private lots, and agricultural uses existing at the time of the adoption of the ordinance. Uses permitted by conditional use approval in Zone 2 include corridor crossings by farm vehicles and livestock, recreational trails, roads, railroads, and utility lines; camps, campgrounds, picnic areas, golf courses, and playgrounds; and naturalized stormwater basins. Uses such as clear-cutting, hazardous material storage, permanent structures, subsurface sewage disposal areas, chemical application of farmland, and motor vehicle traffic are specifically prohibited within the corridor. Permitted activities within the corridor must be accompanied by the implementation of an approved Corridor Management Plan that identifies management techniques that will be used to offset disturbances to the corridor.

**Accessory Farm Business**—In addition to retail sales of commercially grown agricultural products, an accessory farm business ordinance would permit the use of a farm for entertainment purposes. Permitted entertainment uses would include educational tours, seasonal festivals related to products grown on the site, craft fairs, hayrides, and horse shows. The purpose of this use is to provide farmers with additional sources of revenue so that they do not have to resort to selling their property to developers. The nature of permitted accessory uses and the respective use regulations should safeguard against potential negative impacts (e.g., noise and lights) upon neighboring properties.

**Historic Preservation Zoning**—A local historic district ordinance designates an area containing historic structures and protects by (1) limiting the type of alterations that may be made to existing buildings, (2) reviewing proposed demolitions, and (3) ensuring compatible design of new construction. Historic districts created under the authority of the enabling legislation, Act 167, are not zoning districts; the review process is a procedure separate from zoning concerns. The Pennsylvania Historical and Museum Commission must certify all areas proposed for a historic district as having historic character. Act 167 also requires the appointment of a historical architecture review board (HARB), which reviews and advises the governing body about any alterations within the district. The governing body then decides whether to approve or deny the proposal.

A historic preservation overlay district provides local designation and regulations of historic properties through local zoning. Historic resources may be further divided into classes depending upon their significance, with National Register properties

receiving greater protection than locally identified buildings. Historic overlay zoning can include one or more of the following provisions:

- Permitting additional uses within historic structures, with a condition of use being that alterations meet design guidelines;
- Review of demolition proposals by a local historic commission;
- Review by a local historic commission of proposed subdivisions and land developments;
- Preparation of impact statements for proposed subdivisions and land developments;
- Buffering adjacent to historic properties;
- Review by the historical commission of the design of proposed alterations to historic properties.

**Design Guidelines for Village and Development Areas**—Design guidelines would be very helpful in carrying out a vision of what the Development Area and Village Enhancement area should look like in the future. Design guidelines describe and illustrate preferred design approaches to developers to provide a better sense of what the community is looking for. Design guidelines are very useful in getting better development results in historic and village areas.

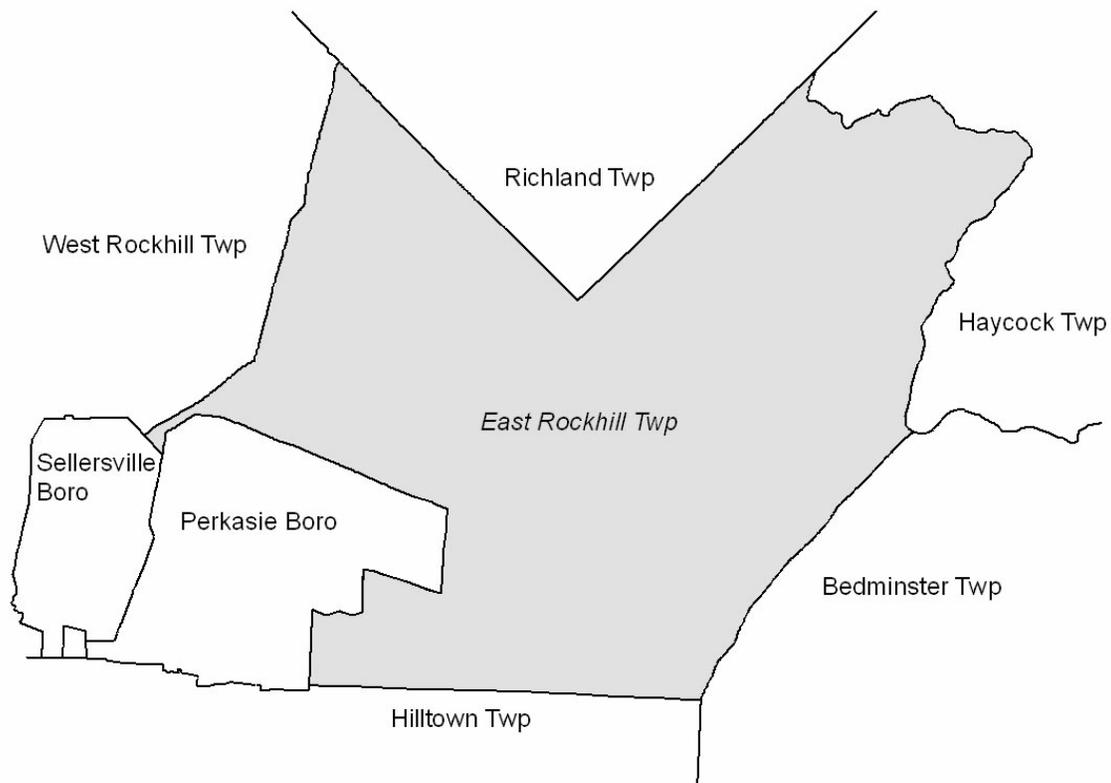
Typically, design guidelines consist of statements that describe a preferential treatment of a specific aspect of the design of a building or site. For instance, a design guideline might specifically address entryways: “Solid or residential-type doors with small areas of glass should be avoided. Openings containing double entry doors should be retained.” Another might address street character: “Entrances, porches, balconies, decks, and seating should be located along the street edge to promote pedestrian use of the street edge.” Such guidelines, especially when illustrated, can be helpful in maintaining the character of the community and encourage pedestrian traffic.

**Joint Municipal Planning and Zoning**—Joint planning and zoning occur when municipalities agree to work together to develop a single planning document or zoning regulations for use in all the municipalities involved. The purpose of joint municipal planning and zoning is to address regional concerns and development that has impacts across municipal borders. Pennsylvania courts have interpreted the MPC to require that all uses and housing types be provided for within a municipality. However, with joint planning and zoning in place, all uses may be provided for within the joint area, rather than each municipality. This can allow more development to concentrate where public services are available. In turn, the most valuable farmland and natural resources can be preserved.



## Adjacent Land Use and Zoning

The Pennsylvania Municipalities Planning Code (MPC) requires that comprehensive plans take into account the planning in surrounding areas, the county, and the region. The purpose of the following discussion is to ensure that policies developed for East Rockhill do not create conflicts with adjoining lands and to encourage a regional approach to planning problems and issues. Based upon this review, the surrounding municipalities seem to have compatible planning and zoning policies. The existing land uses along the border of East Rockhill are also generally consistent with the planning and zoning policies established for each of the respective municipalities. The six municipalities that border East Rockhill Township are Bedminster, Haycock, Hilltown, Richland, and West Rockhill townships as well as Perkasio Borough.



### Bedminster Township

The *Bedminster Township Comprehensive Plan* (1996) designates the area adjacent to the municipal border as Village, Park Buffer, or Agricultural Preservation. The portions of township designated as Village correspond to the villages of Keelersville and Hagersville, which are located within both Bedminster and East Rockhill townships. Both townships have village zoning districts that roughly correspond to the village limits of Keelersville and Hagersville and contain district regulations that are intended to permit only uses and area and dimensional requirements that will complement the existing village character. The Park Buffer, extending about 4,000 feet between Nockamixon State and the ridgeline, is intended to promote future land uses that are compatible with the natural qualities of the park. The remaining area along the municipal border is designated

Agricultural Preservation (also corresponding to the name of the underlying zoning district) which is consistent with East Rockhill's Agricultural Preservation future land use policies for this portion of the township. East Rockhill's Agricultural Preservation (AP) zoning district based largely upon Bedminster's AP district regulations, is intended to preserve prime farmland and farmland of statewide importance soils while clustering lots on the least productive soils.

### **Haycock Township**

Haycock Township is a member of the Quakertown Area Planning Committee (QAPC). The *Quakertown Area Comprehensive Plan for Haycock Township* designates the area along the municipal border as Resource Protection Areas. The corresponding areas are zoned RP—Resource Protection which requires a minimum lot size of 2 acres for single-family detached dwellings. This is comparable with this comprehensive plan's recommendation of RP—Resource Protection District (and underlying RP zoning district which requires a minimum lot area of 1.8 acres) for this portion of East Rockhill Township.

### **Hilltown Township**

In the recently adopted *Comprehensive Plan Update for Hilltown Township, Bucks County, Pennsylvania* (2003) the area bordering East Rockhill Township is designated as Rural Residential and Country Residential-2 which also corresponds to the name of the underlying zoning districts. The Rural Residential area is comparable with this plan's recommendation of Rural Areas—Agricultural Preservation, since both are rural zoning district designations. In Hilltown, the Country Residential-1 and Country Residential-2 districts are intended to accommodate the majority of the future residential development. The Country Residential-2 zoning district, which permits a minimum lot area of 50,000 square feet with single-family detached use and 20,000 square feet with the single-family cluster option, is located opposite this plan's Development Area consisting of the Suburban zoning district and a potentially new zoning district known as Suburban-1. The Suburban district allows a minimum lot area of 22,000 square feet with detached dwelling use and 12,500 square feet with detached dwelling cluster option. The potential Suburban-1 district regulations will be developed later (if appropriate) but will most likely be similar in density to the Suburban District. Therefore, the recommendations of this comprehensive plan are consistent with the Hilltown's adjacent land use and zoning.

### **Perkasie Borough**

The *Comprehensive Plan of Perkasie Borough* (1993) designates the area along the East Rockhill border as a mix of land uses—Residential-Low, Residential-Medium, Residential-High Density and Nonresidential. The corresponding underlying zoning districts are R Residential-1A, Residential-1B, Industrial-1, and Commercial-1 districts. In this comprehensive plan's future land use map, the area adjacent to Perkasie Borough is designated Development Area and the underlying zoning districts consist of: Residential-1, Industrial-1, Industrial-2, Cultural-Education, Commercial-Office, Suburban, Suburban-1 and a limited area of Rural Residential. The Development Area is intended to accommodate the majority of future residential and nonresidential uses in

East Rockhill. Therefore, East Rockhill's future land use policies are consistent with Perkasio's adjacent land use and zoning.

### **Richland Township**

Richland Township is also a member of the QAPC, and in 1997 the municipal officials adopted their own comprehensive plan. The *Comprehensive Plan, Richland Township, Bucks County, Pennsylvania* designates land adjacent to East Rockhill Township as predominately Natural Resource Protection Areas on Undeveloped Tracts or Developed Lands, and a limited area of Agricultural and Other Reserve Areas. The latter is scattered along the length of the border between Richland and East Rockhill. All of these areas are located outside of the Richland's designated Primary Potential Growth Areas. The corresponding zoning districts are the Resource Protection and Rural Agricultural districts, which permit single-family detached dwellings with a minimum lot area of 5 and 2 acres, respectively. This comprehensive plan's future land use map designation for the border of Richland Township is Resource Protection. The underlying Resource Protection zoning district requires a minimum lot area of 1.8 acres for single-family detached units. This comprehensive plan discusses the potential expansion of the existing Commercial-Office (C-O) zoning district along Dublin Pike (S.R. 313) to the border of Richland Township (known as Richland Center) which is predominately residential in nature. It is recommended that future commercial development as part of the C-O district expansion is designed to be compatible with its rural context. Therefore, the recommendations of this comprehensive plan are consistent with Richland's future land use and zoning policies.

### **West Rockhill Township**

In 2005, West Rockhill township officials adopted the *West Rockhill Township, Bucks County, Pennsylvania, U.S.A., Comprehensive Plan*. The comprehensive plan's future land use map designates the area along the municipal border adjacent to Old Bethlehem Pike as Development Area. This area is intended to accommodate the bulk of future development/infrastructure expansion and is designed and sized to contain projected future growth, including infill and adaptive reuse opportunities. The underlying zoning districts along the municipal border are Residential Conversion, Neighborhood Conversion, Planned Commercial, and Planned Industrial. The West Rockhill comprehensive plan states that the township should consider expanding the Planned Commercial district along Old Bethlehem Pike. By expanding the district in this location, the area will become a more commercially-oriented arterial. With an expanded district in place, the extension of public water and sewer to Bethlehem Pike could provide the necessary infrastructure to help further the development of this arterial.

In this comprehensive plan's future land use map, the area along the municipal border is designated as Development Area and Rural Areas—Resource Protection and Village Enhancement. The Development Area, located adjacent to Perkasio Borough and extending up Old Bethlehem Pike south of its intersection with Rockhill Road, is consistent with West Rockhill's Development Area designation. In this comprehensive plan, the area above the Development Area is designated Rural Areas—Resource Protection and Village Enhancement. However, given the natural resources and village areas along this portion of Old Bethlehem Pike, East Rockhill officials have decided not

to extend the Development Area beyond the limit of the potential Suburban-1 district. Therefore, this comprehensive plan's future land use and adjacent zoning is compatible with those of West Rockhill Township.

### **Bucks County Comprehensive Plan**

The *Bucks County Comprehensive Plan* (1993) provides policy recommendations and guidelines to assist municipalities with managing growth, developing comprehensive plans (and related documents), and evaluating development proposals. The plan also identifies various planning tools that can be used to manage growth in a manner consistent with the sound planning practices centered on the Development District Concept. It is up to local elected officials to select those planning tools that will best meet the present and future needs of their community. The township's comprehensive plan update is consistent with the county's growth management goals and objectives since the Development District Concept is an integral part of the plan. Under this approach, higher density residential and intensive nonresidential developments are channeled into areas where public services can be efficiently and economically provided, thereby preserving the township's significant natural, historic, and scenic resources. The residential development areas are sized to accommodate future residential growth until 2015 and possibly beyond. The designated development areas are not areas with significant or widespread environmental concerns.

In terms of natural resource protection, East Rockhill's current planning and zoning policies and standards are comparable to those recommended by the county. Environmental performance standards, performance zoning, and cluster provisions play an important role in the township's zoning ordinance. The township's interest in protecting farmland and encouraging the continuation of agriculture is reaffirmed in this comprehensive plan update.

The zoning ordinance includes provisions for a variety of residential housing types and arrangements that is consistent with this comprehensive plan's housing policies. The Development Area permits higher density housing developments that encourage affordable housing opportunities in the township. The need to provide consider appropriate housing opportunities (e.g., senior housing) has been identified and was addressed in this comprehensive plan update. Therefore, the basic housing policies between the county and township are consistent.

## Plan Recommendations and Implementation

The following summarizes the comprehensive plan's recommendations by section topic. Each plan topic includes the page numbers in which the discussion takes place in this plan. The entity or entities responsible for completing the task and suggested timeframe for action are also provided. Time frames are broken into short term (1 – 2 year), middle term (3 – 5 years), long term (6 – 10 years), and ongoing.

### Residential Development (Pages 19 – 28)

- ❖ Revise the zoning ordinance to consider appropriate housing opportunities (e.g., senior housing) through the creation of a new zoning district and/or revised use regulations.  
**Entity responsible:** Board of Supervisors, Planning Commission  
**Time frame:** Short Term
- ❖ Ensure strict enforcement of the building code and zoning ordinance.  
**Entity responsible:** Board of Supervisors, Zoning Officer  
**Time frame:** Ongoing

### Nonresidential Development (Pages 29 – 34)

- ❖ Explore ways of marketing new industrial office park businesses into the industrial zoning districts with the assurance that any development that does occur there will be consistent with the intended appearance and character along Ridge Road (e.g., coordinate with the Pennridge Chamber of Commerce, Upper Bucks Chamber of Commerce, Bucks County Economic Development Corporation, and Bucks County Community and Business Development to market businesses).  
**Entity responsible:** Board of Supervisors, Township Manager  
**Time frame:** Ongoing
- ❖ Consider mid to long-term plans that examine alternative uses for the Extraction District in the event that ownership or use is transferred to the township.  
**Entity responsible:** Board of Supervisors, Planning Commission  
**Time frame:** Middle to Long Term
- ❖ Explore (zoning and nonzoning) options for the expansion of nonresidential employment base in East Rockhill in order to increase the tax ratable in the township.  
**Entity responsible:** Board of Supervisors, Planning Commission  
**Time frame:** Ongoing
- ❖ Review the buffer yard requirements in the zoning ordinance to ensure that land use impacts between adjacent residential and nonresidential uses are minimized.  
**Entity responsible:** Board of Supervisors; Planning Commission

**Time frame:** Short Term

- ❖ Maintain high standards that control nuisances such as objectionable noise, odors, smoke, and hazardous materials in local ordinances.

**Entity responsible:** Board of Supervisors; Planning Commission

**Time frame:** Ongoing

## **Natural Resources (Pages 35 – 42)**

- ❖ Enforce natural resource protection standards to ensure that the carrying capacity of the site proposed for development is not exceeded.

**Entity responsible:** Board of Supervisors; Planning Commission

**Time frame:** Ongoing

- ❖ Examine the existing natural resource protection standards in the zoning ordinance to determine if should be amended to incorporate additional protection measures and/or allowances for limited disturbance areas where appropriate. (See page 37.)

**Entity responsible:** Board of Supervisors; Planning Commission

**Time frame:** Short Term

- ❖ Review forestry regulations to provide more restrictive standards. (See page 38.)

**Entity responsible:** Board of Supervisors; Planning Commission

**Time frame:** Short Term

- ❖ Explore the implementation of Low Impact Development (LID) techniques (e.g., site fingerprinting and site analysis and resource conservation plan) that stresses the utilization of a site's natural drainage system while minimizing grading and site disturbances (as highlighted in the Tools and Techniques section).

**Entity responsible:** Board of Supervisors; Planning Commission

**Time frame:** Middle Term

- ❖ Evaluate and possibly amend the riparian buffer regulations in the zoning ordinance to provide performance standards for the protection of the township's waterways. (See Riparian Corridor Conservation District and Management Plan in the Tools and Techniques section.)

**Entity responsible:** Board of Supervisors; Planning Commission

**Time frame:** Short Term

- ❖ Encourage landowners in significant resource areas (e.g., priority sites identified in the Bucks County's Natural Areas Inventory Program and Heritage Conservancy's Lasting Landscapes Program) to donate their land or provide a conservation easement.

**Entity responsible:** Board of Supervisors

**Time frame:** Ongoing

- ❖ Cooperate with the Heritage Conservancy to implement the recommendations from the *Quakertown Swamp Resource Protection Plan* (2000) that attempts to encourage landowners and municipalities to preserve the land so that the swamp can be maintained as a complete site.

**Entity responsible:** Board of Supervisors

**Time frame:** Ongoing

- ❖ Promote the ongoing education of resource protection programs and activities sponsored by various public and private organizations/agencies.

**Entity responsible:** Board of Supervisors

**Time frame:** Ongoing

### **Open Space & Farmland Preservation (Pages 43 – 54)**

- ❖ Continue implementing the recommendations of the *East Rockhill Township Open Space and Recreation Plan* (1998) including:

1. Identify unprotected and potentially vulnerable resources and earmark specific areas for immediate acquisition and future consideration for purchase and/or conservation easements.
2. Investigate the feasibility of instituting open space requirements and a corresponding fee in lieu option for residential developments within the subdivision and land development ordinance.
3. Explore the creation of a Transfer of Development Rights Ordinance that will exchange development rights among property developers to increase development density and protect open space.
4. Promote the use of conservation easements that would allow private property owners to place conservation easements on their properties restricting all or a portion of the property from development.

**Entity responsible:** Board of Supervisors, Planning Commission

**Time frame:** Ongoing

- ❖ Explore alternative use(s) that will allow a revenue-generating venture to farmers that is a related use to the primary business of farming the land or a nonfarm-related use that will not impact adjacent properties (e.g., Accessory Farm Business use).

**Entity responsible:** Board of Supervisors, Planning Commission

**Time frame:** Short Term

- ❖ Encourage farmers within the Agricultural Security Area to enroll in the Bucks County Agricultural Land Preservation Program.

**Entity responsible:** Board of Supervisors

**Time frame:** Ongoing

- ❖ Examine methods of land preservation in addition to land acquisition, such as zoning strategies and development incentives.

**Entity responsible:** Board of Supervisors; Planning Commission

**Time frame:** Ongoing

### **Historic and Scenic Resources (Pages 55 – 58)**

- ❖ Conduct a comprehensive historic resource inventory of the township.

**Entity responsible:** Heritage Conservancy or other comparable entity

**Time frame:** Middle Term

- ❖ Explore protection strategies and techniques (e.g., register of historic places designation, historic district) for significant historic resources in the township.

**Entity responsible:** Board of Supervisors, Planning Commission

**Time frame:** Middle Term

- ❖ Conduct a village study for Hagersville (or any other village identified for future expansion) as a precursor to village expansion that will identify potential opportunities and constraints for expansion while respecting the surrounding inherent historic character of the village.

**Entity responsible:** Planning Commission

**Time frame:** Middle Term

- ❖ Adopt additional landscape buffer standards for developments located adjacent to significant historic resources.

**Entity responsible:** Board of Supervisors; Planning Commission

**Time frame:** Middle Term

- ❖ Consider establishing a process for granting the demolition of historic buildings, including a permit requiring a review of alternatives and historic documentation, prior to demolition.

**Entity responsible:** Board of Supervisors; Planning Commission

**Time frame:** Middle Term

- ❖ Examine the feasibility of establishing scenic overlay provisions designed to preserve existing vegetation, minimize grading impacts, and provide additional plantings to scenic views and vistas along designated scenic road segments (as identified in Figure 7).

**Entity responsible:** Board of Supervisors, Planning Commission

**Time frame:** Middle Term

## **Community Facilities (Pages 59 – 75)**

### ***General Recommendation***

- ❖ Evaluate protective services, schools, and township facilities for adequacy on a periodic basis.

**Entity responsible:** Board of Supervisors

**Time frame:** Ongoing

- ❖ Continue with, and evaluate the potential for, additional shared services and facilities with adjacent municipalities.

**Entity responsible:** Board of Supervisors

**Time frame:** Ongoing

### ***Solid Waste Management***

- ❖ Expand and initiate a curbside recycling educational program for residents, businesses, and schools to assist in attaining the 35 percent recycling rate goal set by the Commonwealth of Pennsylvania.

**Entity responsible:** Board of Supervisors, Planning Commission

**Time frame:** Middle Term

- ❖ Investigate the feasibility of a regional yard waste recycling program.

**Entity responsible:** Board of Supervisors, Planning Commission

**Time frame:** Short Term

### ***Park and Recreational Resources***

- ❖ Consider the provision of a neighborhood park within the Development Area with the advent of future development that is convenient to residents in the immediate vicinity.

**Entity responsible:** Planning Commission, Park and Recreation Board

**Time frame:** Long Term

- ❖ Implement the recommendations from the *East Rockhill Township Open Space and Recreation Plan* including creating a greenway/trail linkage network that will connect points of interest throughout the township and the region. (See Figure 9.)

**Entity responsible:** Board of Supervisors; Planning Commission

**Time frame:** Ongoing

- ❖ Obtain access easements along the township's designated greenway/trail linkages network (when possible) as subdivision and land development review process.

**Entity responsible:** Board of Supervisors

**Time frame:** Ongoing

- ❖ Provide park and recreational facility improvements or additions to East Rockhill's park system that were identified in the 2004 resident's survey. (See Future Improvements on page 62.)

**Entity responsible:** Board of Supervisors, Park and Recreation Board

**Time frame:** Long Term

- ❖ Amend the zoning ordinance to include fees in lieu of recreational facilities for major subdivisions and land developments (following adoption of park and recreation plan).

**Entity responsible:** Board of Supervisors, Planning Commission

**Time frame:** Short Term

### ***Water Resources and Wastewater Facilities***

- ❖ Continue ongoing participation with the Pennridge Area Coordinating Committee (PACC) and its coordination of municipal water resource planning to address monitoring, protection programs, and regulatory ordinance provisions to ensure an adequate supply of water in the township and the surrounding PACC communities.

**Entity responsible:** Board of Supervisors, Planning Commission

**Time frame:** Ongoing

- ❖ Continue to serve on the committee in conjunction with Pennridge Area Coordinating Committee (PACC) to establish a source water protection program for East Rockhill. The project will include developing a Wellhead Protection Ordinance for the Perkasio Borough Authority and North Penn Water Authority well sites in East Rockhill Township.

**Entity responsible:** Board of Supervisors, Planning Commission

**Time frame:** Ongoing

- ❖ Continue implementing the recommendations from the *Pennridge Water Resources Plan (2002)* that are intended to provide a scientific approach for analysis of the water resources in the Pennridge Area while applying sound planning principles to implement the plan's overall recommendations. (See pages 66 – 67.)

**Entity responsible:** Board of Supervisors, Planning Commission

**Time frame:** Ongoing

- ❖ Update East Rockhill Township's Act 537 plan to take into account new developments (e.g., unplanned sewer lateral to the municipal golf course, malfunctioning systems in the vicinity of Hagersville), while providing consistency with this comprehensive plan's future land use policies.

**Entity responsible:** Board of Supervisors, Township Engineer

**Time frame:** Short Term

- ❖ Site public facilities in the designated Development Area to minimize sprawl.  
**Entity responsible:** Board of Supervisors  
**Time frame:** Ongoing
- ❖ Coordinate with the Perkasio Borough Authority and North Penn Water Authority to provide conservation easements on well sites to prevent future development or improvements that may have a negative impact on the water quality of the respective wells.  
**Entity responsible:** Board of Supervisors  
**Time frame:** Ongoing
- ❖ Maintain the *East Rockhill Township Stormwater Management Ordinance* so that it complies with the requirements of the Pennsylvania Department of Environmental Protection (DEP).  
**Entity responsible:** Board of Supervisors, Planning Commission  
**Time frame:** Ongoing
- ❖ Identify areas experiencing flooding problems in the township and determine if remediation measures are feasible.  
**Entity responsible:** Board of Supervisors, Township Manager  
**Time frame:** Ongoing
- ❖ Maintain compliance with NPDES program by continuing to developing the required control measures (as necessary) and filing an annual report on program activities.  
**Entity responsible:** Board of Supervisors  
**Time frame:** Ongoing

### **Transportation and Circulation (Pages 81 – 90)**

- ❖ Coordinate with PennDOT to address traffic speeds and pedestrian safety along Branch Road, Fifth Street, and Three Mile Run Road. Evaluate possible speed limit restrictions and/or traffic calming measures deemed appropriate for each location.  
**Entity responsible:** Board of Supervisors, PennDOT  
**Time frame:** Ongoing
- ❖ Continue participation and coordination with the Route 313/663 Task Force to promote a regional solution to the problems and issues along the Route 313 corridor.  
**Entity responsible:** Board of Supervisors, PennDOT  
**Time frame:** Ongoing

- ❖ Continue implementation of the recommendations from the *Transportation Improvements Plan—Route 313/663 Corridor, Bucks County, Pennsylvania* that is directed at reducing or minimizing traffic related impacts to this corridor.  
**Entity responsible:** Board of Supervisors, PennDOT  
**Timeframe:** Ongoing
- ❖ Identify traffic congestion and accident-prone areas in order to develop a capital improvements program for necessary highway improvements.  
**Entity responsible:** Township Engineer; Township Police  
**Time frame:** Middle Term
- ❖ Assist in the coordination and implementation of the 2003 regional Transportation Improvements Plan for East Rockhill (i.e., Hill Road Bridge repair/replacement and Route 313 bike lane).  
**Entity responsible:** Board of Supervisors, PennDOT  
**Timeframe:** Ongoing
- ❖ Adopt bike lane requirements (and fees in lieu of bike lanes) for subdivisions or land developments located along the township’s designated bike routes.  
**Entity responsible:** Board of Supervisors; Planning Commission  
**Time frame:** Short Term
- ❖ Continue the implementation of the designated greenway routes (as described in the Community Facilities section) including on-road and off-road linkages while ensuring these facilities are designed to provide adequate safety measures for its users.  
**Entity responsible:** Board of Supervisors, PennDOT  
**Time frame:** Ongoing
- ❖ Obtain access easements along the township’s designated greenway/trail linkages network (when possible) as subdivision and land development review process.  
**Entity responsible:** Board of Supervisors, Planning Commission, Park and Recreation Board  
**Time frame:** Ongoing
- ❖ Evaluate the impact on the road system and identify required off-site improvements necessary to avoid hazardous conditions for major land developments and land developments.  
**Entity responsible:** Township Manager, Township Engineer, Planning Commission  
**Time frame:** Ongoing
- ❖ Continue to explore the feasibility of providing appropriate forms of public transportation to points of interest (e.g., Bucks County Community College and

Nockamixon State Park) in cooperation with the Bucks County Transportation Management Association (BCTMA).

**Entity responsible:** Board of Supervisors

**Time frame:** Ongoing

- ❖ Continue to coordinate with the Bucks County Transportation Management Association (BCTMA) to monitor the status of the Quakertown/Stony Creek Rail Restoration Study project so that the township may take appropriate steps (e.g., rezoning, amending use provisions) in ensuring that needed associated facilities (e.g., park-and-ride facilities) could be provided.

**Entity responsible:** Board of Supervisors

**Time frame:** Ongoing

- ❖ Examine and amend (if necessary) the current Airport Area Protection Standards to address certain accessory uses. In order to provide additional regulations for airport uses, township officials may wish to amend the overlay district regulations or create a separate airport zoning district.

**Entity responsible:** Board of Supervisors, Planning Commission

**Time frame:** Middle Term

- ❖ Encourage continued dialogue with adjacent communities regarding the need for coordinated improvement to the regional transportation system.

**Entity responsible:** Board of Supervisors

**Time frame:** Ongoing

### **Future Land Use/Growth Management (Pages 91 – 104)**

- ❖ Examine the potential to amend the zoning ordinance to create a new zoning district (i.e., Suburban-1 District) that will be similar to the existing Suburban District, but will permit certain multifamily units and a slightly higher maximum density for Performance Standard Development (e.g., 3 versus 2 dwelling units per acre).

**Entity responsible:** Board of Supervisors, Planning Commission

**Time frame:** Short Term

- ❖ Examine the potential to amend the zoning ordinance to provide an expansion of the Village Residential District in the vicinity of Hagersville (possibly in conjunction with the expansion of the Village Commercial District). The intension is to provide limited village-style residential development that will enhance the overall village character. Also, explore the possibility of amending the VR district regulations to include the provision of multifamily housing opportunities. However, any expansion of the village zoning districts should be predicated on a village study to identify ways of preserving and enhancing the village's character.

**Entity responsible:** Board of Supervisors, Planning Commission

**Time frame:** Short Term

- ❖ Explore the feasibility of amending the zoning ordinance to provide an expansion of the Village Commercial District to increase nonresidential development opportunities, especially in the Hagersville area (possibly in conjunction with the expansion of the Village Residential District). However, any expansion of the village zoning districts should be predicated on a village study to identify ways of preserving and enhancing the village's character.

**Entity responsible:** Board of Supervisors, Planning Commission

**Time frame:** Short Term

- ❖ Explore the feasibility of amending the zoning ordinance to provide an expansion of the Commercial-Office District up to the municipal boundary of Richland Township in order to provide additional nonresidential opportunities in this portion of Dublin Pike.

**Entity responsible:** Board of Supervisors, Planning Commission

**Time frame:** Short Term

- ❖ Perform a Development Area Analysis every 5 years to ensure that there is adequate land available for future development.

**Entity responsible:** Board of Supervisors, Planning Commission

**Time frame:** Middle Term

- ❖ Evaluate and amend the zoning and/or subdivision and land development ordinance (if appropriate) to incorporate innovative planning tools and techniques that are suitable for East Rockhill Township. (See pages 99 – 104.)

**Entity responsible:** Board of Supervisors, Planning Commission

**Time frame:** Ongoing

- ❖ Continue to participate in inter and multi-municipal planning initiatives through the Pennridge Area Coordinating Committee (PACC).

**Entity responsible:** Board of Supervisors, Planning Commission

**Time frame:** Ongoing



## **Appendix A: Community Visioning Process**

In order to identify resident's sentiment on planning issues confronting East Rockhill Township, a resident survey was mailed out and responses were tabulated. The survey is just one of the mechanisms used to formulate the township's community vision. A brainstorming session was also conducted among the members of the Comprehensive Plan Committee on major planning issues and resident input at public meetings were always welcomed. Collectively, this input has aided in establishing an overall community vision for East Rockhill that is reflected in this plan's goals, objectives, and policies or recommendations.

The priorities for most of the planning issues between the Steering Committee brainstorming session and the resident survey were consistent. For instance, in the question planning priority for the future of East Rockhill, open space, natural resources, water protection, growth management, traffic, and historic resources were rated as high priorities by both the Steering Committee and residents alike.

The following is a summary of the responses from both the Comprehensive Plan Steering Committee brainstorming session and resident survey.

### **A. Comprehensive Plan Steering Committee Brainstorming Summary**

#### **(1) What do you like most about East Rockhill?**

- ~ Peaceful quiet community
- ~ Rural setting and yet easily accessible to shopping centers
- ~ Visually pleasing
- ~ Provides adequate recreational opportunities
- ~ Usefulness of open spaces
- ~ Politically stable
- ~ Being employed
- ~ Diverse elements of natural resources
- ~ Rural, appropriately planned nature of community

#### **(2) What are some problems or issues that are confronting East Rockhill?**

- ~ Development
- ~ Increasing traffic on narrow roads
- ~ No public transportation
- ~ Increase or need in certain economic development
- ~ Increased traffic
- ~ Roadway maintenance
- ~ Continued development without the ability to improve road/traffic issues
- ~ Lack of regional planning
- ~ Concern about long-term, safe water supply
- ~ Individual on-lot sewer management
- ~ Route 313 corridor congestion
- ~ Pollution

- (3) **The following are community development issues. Please indicate the priority each issue should have in maintaining and improving the quality of life in East Rockhill.**

<b>Development Issues</b>	<b>High</b>	<b>Med.</b>	<b>Low</b>	<b>None</b>
Open space/farmland preservation	6	1		
Natural resources protection	7			
Growth management/reduce sprawl	5	2		
Transportation improvements	3	4		
Provide senior housing options	2	3	2	
Historic resources preservation	3	4		
Provision of park & recreational facilities	2	5		
Attract new businesses	2	5		
Increase employment opportunities	1	4	2	
Promote affordable housing alternatives		3	4	
Provide public water and sewer	1	2	4	

- (4) **What elements/characteristics of East Rockhill would you like to see in the community within 20 years?**

- ~ Increased business and employment
- ~ Increased tax base
- ~ Route 313 corridor improvement
- ~ Limited growth (people)
- ~ Over 55 housing
- ~ Well balanced community – taxes and services
- ~ Practical taxes
- ~ Historic resources/preservation
- ~ The same ones currently existing

## **B. East Rockhill Township 2004 Residential Survey Results**

- (1) **How many years have you lived in East Rockhill Township?**

Less than 1 year	3%
1 to 5 years	26%
6 to 10 years	13%
11 to 15 years	16%
<b>More than 15 years</b>	<b>43%</b>

- (2) **What are the 3 main reasons you chose to live in East Rockhill Township?**

Born & Raised	3%
Convenient to Work	11%
<b>Good Place to Raise Children</b>	<b>15%</b>
<b>Reasonably Priced Homes</b>	<b>16%</b>
Reasonable Taxes	8%
<b>General Quality of Life</b>	<b>24%</b>
Quality of Public Schools	8%

Near Friends and Family	7%
Most of the Above	7%
Other	1%

(3) **Where are you and other household members employed?**

At Home	12%
Retired	14%
Philadelphia	3%
ERH	6%
<b>Bucks County</b>	<b>32%</b>
Montgomery County	24%
Other	8%

(4) **How many members of your household fit the following age categories?**

Preschool	6%
Elementary	13%
Middle School	9%
College	5%
<b>Adult, 22-54</b>	<b>44%</b>
Adult, 55-74	21%
Adult, 75 <sup>+</sup>	2%

(5) **How would you rate the following services in East Rockhill Township?**

	Excellent	Good	Adequate	Poor
Parks and Recreational Areas	57%	33%	9%	1%
Street Maintenance	22%	34%	27%	16%
Garbage Collection	22%	41%	33%	5%
Snow Removal	44%	36%	20%	0%
Fire Protection	30%	53%	15%	1%
Police Protection	36%	39%	22%	2%
Ambulance Service	25%	49%	24%	1%
Street Lighting	13%	38%	31%	18%
Code Enforcement	22%	43%	25%	10%
Storm/Ground Water	9%	29%	36%	25%

(6) **How would you rate the following business services in East Rockhill Township and vicinity?**

	Excellent	Good	Adequate	Poor
Grocery Stores	41%	45%	13%	2%
Pharmacies	33%	57%	0%	10%
Clothing Stores	8%	21%	32%	38%
Restaurants	17%	45%	30%	8%
Movies/Entertainment	9%	26%	44%	21%
Hardware	27%	38%	28%	6%
Auto Services	20%	42%	33%	5%
Banking / Financial	34%	48%	15%	3%

- (7) **In which locations do you purchase the majority of the following goods and services?**

	<b>E. Rockhill</b>	<b>Quakertown</b>	<b>Perkasie</b>	<b>Other</b>
Grocery Stores	34%	35%	22%	8%
Pharmacies	14%	26%	37%	23%
Clothing Stores	1%	36%	0%	63%
Restaurants	2%	54%	0%	44%
Movies/Entertainment	13%	68%	3%	17%
Hardware	14%	19%	17%	50%
Auto Services	1%	42%	1%	56%
Banking / Financial	1%	41%	9%	49%
Movies/Entertainment	3%	35%	0%	61%
Hardware	25%	42%	14%	19%
Auto Services	21%	20%	6%	54%
Banking / Financial	31%	17%	35%	17%

- (8) **What priority should each of the following have when planning for the future of East Rockhill Township?**

	<b>High</b>	<b>Medium</b>	<b>Low</b>	<b>None</b>
Natural Resources	84%	13%	8%	0%
Open Space	84%	11%	34%	1%
Growth Management	90%	7%	29%	0%
Historic Resources	51%	39%	10%	1%
Affordable Housing	24%	33%	41%	9%
Senior Housing	18%	48%	28%	4%
Recreational Facilities	31%	56%	13%	3%
Daycare	7%	45%	8%	8%
Activities for Seniors	20%	49%	24%	3%
Activities for Youth	51%	34%	25%	2%
Public Schools	60%	33%	3%	0%
Arts and Culture	18%	53%	37%	5%
Employment Opportunities	34%	36%	7%	4%
Traffic	76%	21%	3%	0%
Public Transportation	22%	32%	-	9%
Sewage Disposal	61%	30%	8%	3%
Water Protection	87%	10%	34%	0%
Other	100%	-	29%	-

- (9) **Do you think the township should encourage more diversified housing in order to serve families with varying income needs?**

	<b>Yes</b>	<b>No</b>	<b>No Opinion</b>
Apartments	17%	76%	7%
Condos	20%	70%	10%
Townhouses	22%	67%	11%
Manufactured Homes	17%	72%	11%

- (10) **Should the comprehensive plan include recommendations to encourage additional opportunities for senior citizens such as:**

	Yes	No	No Opinion
Age Restricted	41%	35%	24%
Assisted Living	50%	31%	20%
Nursing Homes	41%	37%	22%
Independent Living	47%	26%	26%

- (11) **Do you feel that East Rockhill Township is growing?**

<b>Too fast</b>	<b>59%</b>
Too slow	3%
At the right pace	39%

- (12) **Do you believe the current quality of life in East Rockhill Township is:**

Excellent	23%
<b>Very Good</b>	<b>48%</b>
Good	26%
Fair	3%

- (13) **Do you believe the quality of life in East Rockhill Township is:**

Improving	28%
Declining	22%
<b>Remaining the Same</b>	<b>49%</b>

- (14) **In your opinion, what top 3 qualities make a good neighborhood?**

<b>Recreational Facilities</b>	<b>18%</b>
Convenient Shopping	16%
<b>Safe Streets</b>	<b>30%</b>
<b>Quality Schools</b>	<b>27%</b>
Arts and Culture	4%
Pedestrian Safety	6%

- (15) **Should East Rockhill Township acquire key open space areas, wildlife corridors, and trail linkages?**

<b>Yes</b>	<b>92%</b>
No	5%
No Opinion	3%

**(16) Identify the recreational facilities and activities that you would like to see improved or added to the township's park system:**

Soccer/Football Fields	27
Baseball / Softball Fields	25
<b>Bicycling</b>	<b>57</b>
<b>Walking Trails</b>	<b>82</b>
Playgrounds / Tot Lots	24
Tennis Courts	33
Camping	14
Picnicking	31
Horseback Riding	21
Community Clubs	23
Senior Citizen Programs	23
Other	0

## Appendix B: Land Use Classification Definitions

**Single-Family Residential**—Consists of properties with single-family detached, or attached, one- or two-unit dwellings on lots less than 5 acres. This category also includes mobile home parks.

**Multifamily Residential**—Includes properties with 3 or more attached dwelling units. This category includes medium- to long-term housing accommodations, such as retirement complexes and nursing homes.

**Rural Residential**—The same as “Single-Family Residential” except dwellings are on lots that are 5 acres or more (but do not qualify as “Agricultural”).

**Agricultural**—Land which is 20 acres or greater, was considered “Agriculture” in 1990, and at least one-third of the parcel exhibits agricultural or farm-related characteristics such as stables, orchards, and active or fallow fields. This category may also include residential dwelling units and farm related structures on the same lot.

**Mining and Manufacturing**—Includes heavy manufacturing industries, and painting and advertising industries, as well as building and landscaping material extraction.

**Government and Institutional**—Includes all Federal, State, County, and Municipal buildings and facilities, except those that are park and recreation related. All private, parochial and public schools are included as well as, churches, cemeteries, emergency service facilities, and fraternal organizations.

**Commercial**—Includes (but is not limited to), wholesale and retail trade establishments finance and insurance real estate, and hotels.

**Parks, Recreation, and Protected Open Space**—Includes Municipal, County and State parks, State game lands, golf courses, campgrounds, and deed-restricted or open space easements associated with residential developments.

**Transportation and Utilities**—Consists primarily of utility installations and right-of-ways, terminal facilities and automobile parking. Calculations for roadway acreage are also included.

**Vacant**—Includes parcels without dwelling units but may include structures such as barns, stables, sheds, etc.

Note: Vacancy status does not imply potential development status. Some areas indicated as vacant may actually be abandoned landfills, superfund sites or natural resource areas but were labeled as such for lack of a better classification.



## Appendix C: Development Area Capacity Analysis

The *East Rockhill Township Comprehensive Plan* (1987) analyzed and determined that the existing Development Area would be large enough to accommodate the projected population and housing growth through the year 2000. As part of this comprehensive plan update, it is time once again to determine if the Development Area is sufficient to accommodate that 10-year projected population and housing growth. In the previous comprehensive plan, the Development Area consists of the R-1, Residential District. Since there is very limited area remaining in the R-1 for development (as discussed below under “Current Dwelling Unit Capacity”), there was a decision to include the S, Suburban District as part of the Development Area in this comprehensive plan update. As a result, the S district would be converted from a Rural Holding Area to a Development Area as originally intended by the comprehensive plan and zoning ordinance. In order to determine the current capacity of these zoning districts, the potentially developable land remaining in the Development Area must be analyzed. Potentially developable lands consist of vacant, agricultural, or rural residential properties.<sup>1</sup> The following assumptions were incorporated in the Development Area capacity analysis:

- The highest density development was used to calculate potential yield of a tract. The tract had to meet the minimum site area for Use B3 (Performance Standard Subdivision) which is 5 and 10 acres in the R-1 Residential and S, Suburban districts, respectively. Otherwise, the potential yield is based upon Use B1 (Detached Dwelling). However, if the parcel that is under the minimum site area is contiguous to a rural residential, vacant, or agricultural parcel and collectively, both lots would exceed the minimum site area for Use B3, then Use B3 regulations were used, accordingly.
- In the R-1 and S districts, the maximum density for Use B3 is 3 and 2 dwelling units per acre, respectively. For Use B1, the maximum density is 2 dwelling units per acre (based upon the minimum lot area of 22,000 square feet required in both zoning districts).
- To provide consistency with the site capacity calculations found in the zoning ordinance, the maximum permitted density for Use B3 is gross density (not net density) and is based upon the base site area, not the net buildable site area. Consequently, depending on the housing unit type and mix provided on a given site, the resulting yield shown below may or may not be obtainable.
- Use B1 (Detached Dwelling) assumes that 20 percent of the gross buildable site will be set aside for natural resource protection and the provision of roadways and utilities.
- For properties containing a 100-year floodplain, the approximate floodplain land area was subtracted from the base site area, since the zoning ordinance requires 100 percent protection of this resource. For properties that were entirely wooded, 40 percent of the lot was subtracted from the base site area (per zoning ordinance).

---

<sup>1</sup> A rural residential property contains a dwelling unit and is 5 acres or over, which may result in future subdivision.

- Tracts covenanted under Act 319 were included as potentially developable land.

### **Current Dwelling Unit Capacity**

As of November 2004, there were approximately 234 acres of land available for new development in the R-1 and Suburban districts. The dwelling unit capacity was determined by multiplying the available land in the R-1 and Suburban districts by the maximum density permitted for each zoning district. The current capacity of potentially developable lands zoned for residential development is 491 units.

In East Rockhill Township, the number of additional dwelling units projected for 2015 is as follows: 774 (low projection), 1,085 (middle projection), and 1,293 (high projection).<sup>2</sup> The low projection of 774 dwelling units has been selected as the number of additional housing unit needed through the year 2015. This is a conservative estimate since it is comparable to, and slightly higher than, the 2000 to 2004 trend of dwelling units constructed in East Rockhill.

Historic trends also indicate that about 14 percent of the dwelling units will be constructed outside the Development Area.<sup>3</sup> Recognizing this trend, 14 percent of the 774 projection results in 665 units. Consequently, the difference between the projected housing need (665) and the current capacity of the Development Area (491 units) results in an initial dwelling unit deficit of 174 units.

Lastly, the number of dwelling units that have been constructed since the 2000 Census should be deducted from the projected dwelling unit needs. Since October 2004, 181 dwelling units were constructed.<sup>4</sup> Subtracting 181 additional units from the initial dwelling unit deficits (174 units) results in a final surplus of 7 dwelling units. However, a 20 percent safety factor has been established above the projected housing unit needs for East Rockhill as described below.

### **Projected Dwelling Unit Capacity**

To satisfy the projected dwelling unit described above, township officials would have to consider rezoning selected sites including the area adjacent to the East Rockhill Sewage Facility from Suburban district to Suburban-1 district and the area along Old Bethlehem Pike from Suburban district to Suburban-1 district (See Figure 13.) The Suburban-1 district would be similar to the existing Suburban District, but Performance Standard Development (Use B3) would permit multifamily dwelling units (not currently permitted in the Suburban District) and a maximum density of 3 dwelling units per acre (versus 2 dwelling units per acre currently permitted in the Suburban district). The performance standards such as the minimum site area, maximum density, minimum open space, and

<sup>2</sup> According to the 2000 U.S. Census, the number of housing units in East Rockhill Township was 1,883. The projected low, middle, and high housing projections for 2015 are 2,657, 2,968, and 3,176, respectively. The number of additional dwelling units is the difference between 2000 U.S. Census figure and the projected low, middle, and high projections.

<sup>3</sup> Based upon a review of building permit records between 1990 and 2000.

<sup>4</sup> According to township administrators, between May 1, 2000 (the cut-off date of the 2000 Census) and October 31, 2004, there were a total of 181 dwelling units constructed in the township. These dwelling units are primarily located outside the Development Area and consist of the following: 179 single-family detached units (includes Country Hunt and Woodbridge developments), 4 in-law suite units, 5 apartment units (one building), and 2 group home units.

maximum impervious surface would need to be examined in more detail to ensure that the district regulations are consistent with the district's purpose.

The other proposed rezoning would include two parcels located adjacent to the village of Hagersville that would be rezoned to Village Residential. This expansion of the Village Residential district would provide additional multifamily residential housing opportunities while possibly providing the remediation of failing on-site septic systems in the Hagersville area. The intension is to provide village-style development adjacent to Hagersville that will enhance the overall village character while providing multifamily housing opportunities. The two sites (i.e., TMP#s 12-14-45-3 and a portion of 12-14-39) would be rezoned from Agricultural Preservation district to Village Residential district. They provide a limited area for development on both sides of Dublin Pike while helping to strengthen and unify the village context (See Figure 13.)

The potential yield for the aforementioned sites is based upon the maximum density permitted in the respective zoning district. However, the site has to satisfy the minimum site area required by the Performance Standard Development (Use B3). If a lot did not satisfy the minimum site area, then the capacity of the lot is determined by utilizing the Detached Dwelling (Use B1). Although no changes are proposed in the R-1 district, there is limited area that is potentially developable and have been included in the potential unit capacity. The proposed rezoning provides the following dwelling unit capacity:

**A. R-1 Residential District** (Total Acreage = 36.45)

(Use B3—Performance Standard Development)

$$\begin{array}{r} 29.28 \\ \times 3.00 \\ \hline = 87.84 \end{array} \begin{array}{l} \text{Acreage of potentially developable land} \\ \text{Maximum permitted density} \\ \text{Maximum number of potential dwelling units} \end{array} \quad \text{(88)}$$

(Use B1—Detached Dwelling)

$$\begin{array}{r} 7.17 \\ \times 0.80 \\ \hline = 5.73 \\ \times 2.00 \\ \hline = 11.46 \end{array} \begin{array}{l} \text{Acreage of potentially developable land} \\ \text{Infrastructure and resource protection area (20\%)} \\ \text{Net buildable area} \\ \text{Maximum permitted density (Min. lot area = 22,000 square feet)} \\ \text{Maximum number of potential dwelling units} \end{array} \quad \text{(12)}$$

**B. Suburban District** (Total Acreage = 199.72)

**Suburban District Lands Rezoned to S-1 District** (Total Acreage = 122.19)

**(Site Along Old Bethlehem Pike)**

(Use B3—Performance Standard Development)

$$\begin{array}{r} 59.19 \\ \times 3.00 \\ \hline = 177.57 \end{array} \begin{array}{l} \text{Acreage of potentially developable land} \\ \text{Maximum permitted density} \\ \text{Maximum number of potential dwelling units} \end{array} \quad \text{(177)}$$

**(Site Adjacent to Township's Sewage Treatment Facility)**

(Use B3—Performance Standard Development)

$$\begin{array}{r} 63.00 \\ \times 3.00 \\ \hline \end{array} \begin{array}{l} \text{Acreage of potentially developable land} \\ \text{Maximum permitted density} \end{array}$$

= 189.00 (**189**) Maximum number of potential dwelling units

**Remaining Lands in Suburban District** (Total Acreage = 77.53)

**(Use B1—Detached Dwelling)**

21.05	Acreage of potentially developable land (Use B1)
<u>x 0.80</u>	Infrastructure and resource protection area (20%)
= 16.84	Net buildable area
<u>x 2.00</u>	Maximum permitted density (min. lot area = 22,000 square feet)
= 33.68 ( <b>34</b> )	Maximum number of potential dwelling units

**(Use B3—Performance Standard Development)**

56.48	Total acreage remaining in S Dist.
<u>x 2.00</u>	Maximum permitted density (Ex. S Dist. Regs.)
= 112.96 ( <b>113</b> )	Maximum number of potential dwelling units

**C. Agricultural Preservation District**

**Agricultural Preservation District Lands Rezoned to VR and VC Districts**

(Total Acreage = 23.25)

**(Use B1—Detached Dwelling)**

15.71	Acreage of potentially developable land
<u>x 4.35</u>	Maximum permitted density (10,000 SF lot area)
= 68.33 ( <b>68</b> )	Maximum number of potential dwelling units

**Summary of Projected Dwelling Unit Capacity:**

(Ex. R-1 Dist. = 100 units)

(Rezoning Suburban District Lands to S-1 District = 366 units)

(Remaining Lands in Suburban District = 147 units)

(Rezoning Agricultural Preservation District Lands to VR District = 68 units)

**[Total Projected Dwelling Unit Capacity = 681]**

As a result of the proposed rezoning, the total dwelling unit capacity is 681 units. Consequently, the difference between the projected housing unit need (665 units) and the projected capacity of 681 units results in an initial dwelling unit surplus of 16 units. Subtracting the 181 additional units that were constructed since the 2000 Census results in an overall dwelling unit capacity **surplus of 197 units** or a safety factor of about **30 percent** above the projected housing unit needs for East Rockhill through 2015. Therefore, this analysis proves that the township's existing and proposed zoning would provide adequate zoning capacity to its development areas to provide for its fair share of housing. However, township officials should perform a Development Area capacity analysis about every 5 years to ensure that the current and projected level of development does not exceed the potential capacity of the Development Area. If so, additional rezoning may be necessary at this time. Furthermore, complementary tools/techniques and modifications to the zoning ordinance must be implemented to carry out the township's land use vision.

## Appendix D: Multifamily Fair Share Analysis

The purpose of this analysis is to determine if there is adequate land zoned (or proposed to be rezoned) for multifamily housing in East Rockhill based upon two separate tests which recent case law has been upheld by the courts—multifamily housing units needs based upon the county average and the Four Percent Rule as described below.

### A. Multifamily Housing Unit Needs based on County Average

The overall percentage of multifamily units for Bucks County, is 30.7 percent based upon the 2000 U.S. Census.<sup>1</sup> Using the 2015 low projection of 2,657 housing units<sup>2</sup> as the potential number of housing units that would be constructed, the following calculations summarize the potential number of multifamily units (based upon the proposed rezoning as described in the Future Land Use and Growth Management section) to determine if East Rockhill would match the county's average of multifamily units.

2015 housing units (middle projection)	2,657
Multiply by the county avg. of MF units (30.7%)	<u>x 0.307</u>
	815
Subtract MF units constructed (2000 Census)	<u>- 368</u>
	447
Subtract MF units constructed since 2000 Census <sup>3</sup>	<u>- 5</u>
<b>MF units needed for 2015</b>	<b>442</b>
Subtract potential number of MF unit capacity of existing R-1 District, lands rezoned to S-1 District	<u>- 621</u>
<b>Number of MF units above county average<sup>4</sup></b>	<b>178</b>

Based upon this analysis, East Rockhill would exceed the Bucks County's average number of multifamily units. If a decision is made to permit multifamily units in the Village Residential zoning district, this figure would increase accordingly.

<sup>1</sup> MF units include attached unit structures (e.g., townhouses) or 3 or more unit structures (e.g., apartment buildings), but excludes 2-unit structures (e.g., twins).

<sup>2</sup> Projections are based on age-cohort method as part of the comprehensive planning process.

<sup>3</sup> The cut-off date for the U.S. Census was April 2000. Therefore, based upon a review of building permit data by township administrators, there were 5 additional MF units constructed since May 1, 2000 and February 2003, the date of this analysis.

<sup>4</sup> Currently, the VR/VC districts do not permit MF units. Therefore, rezoning the sites adjacent to Hagersville would not contribute to the potential number of MF units. If Use B3 regulations is amended to permit MF units on these sites (or a new use is created for these two sites that permits MF units), the number of MF units above the county average would increase accordingly.

## B. Four Percent Rule

A second test for determining if a municipality is providing its fair share of multifamily housing units is based upon relevant case law that requires at least four percent of the land area of a municipality be zoned for multifamily use. The Court of Common Pleas has specifically held that land used for farming is to be considered developed when conducting an analysis related to the Surrick case and other cases that served to supplement the Surrick case<sup>3</sup>. Therefore, the agricultural land area (716 acres) is subtracted from the overall land area of the township (8,288 acres). The result (7,572 acres) is multiplied by 0.04 (or four percent) resulting in **303 acres**. This represents the land area needed in the Development Area for multifamily use.

Currently, in East Rockhill's existing zoning ordinance, the R-1 Residential District is the only zoning district that permits multifamily housing (i.e., single-family attached units).<sup>4</sup> Based upon an analysis of tax map parcel data, the total land area zoned R-1 is **377 acres, which exceeds 303 acres**. Therefore, the land area zoned for multifamily use in East Rockhill Township passes the Four Percent Rule.

---

<sup>3</sup> See Appeal of Heritage Building Group, Inc. from the decision of the Zoning Hearing Board 72 Bucks Co. L. Rep. 185 (2000), and Appeal of Heritage Building Group, Inc. from the Decision of the Bedminster Township Board of Supervisors 72 Bucks Co. L. Rep. 188 (1999).

<sup>4</sup> The potential capacity of the proposed Suburban-1 district is not included in these calculations, but would increase the total acreage accordingly.