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Borough of Bryn Athyn Municipal Parks, Open Space and Recreation Plan Update 2006



Glencairn

June 2006



Montgomery County
Green Fields/Green Towns Program

Acknowledgements

Bryn Athyn Borough

Hyland R. Johns, Mayor
Victoria S. Trost, Business Manager

Bryn Athyn Borough Council

Andrew G. Nehlig, President
David J. Rosco, Vice President
Eric Asplundh, Member
Duane D. Hyatt, Member
Carol G. Nash, Member
Mark J. Pennink, Member
Glen Gurney, Member

Bryn Athyn Borough Planning Commission

Russell Cooper, Chairperson
Luke Rhodes, Secretary
Lawrence Kauffman, Member
Jennifer Pronesti, Member
Peter Rhodes, Member

Borough Engineer

Nick T. Rose, P.E., ProTract Engineering

Open Space Task Force

Eric Asplundh, Chairman
Peter G. Bostock, Scribner
Andrew G. Nehlig, President, Borough Council
David J. Robertson, Pennypack Ecological Restoration Trust
Russell Cooper, Chair, Planning Commission
Luke Rhodes, Member, Planning Commission

Planning Consultant

Heritage Conservancy
85 Old Dublin Pike
Doylestown, PA 18901
215-345-7020
www.heritageconservancy.org



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Thank you for the Open Space Program

The Borough of Bryn Athyn wishes to extend its thanks to Montgomery County for the Open Space Program. The First phase of this program, which preserved Raythorn Farm and Bethayres Woods, has brought significant benefits to the residents of and visitors to the Borough.



View of Raytharn Farm from Cathedral West Lawn

Borough of Bryn Athyn Municipal Parks, Open Space and Recreation Plan

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Introduction

One of the pleasures of living in or visiting Bryn Athyn is the beauty of its open spaces; many people walk through the community enjoying the many scenic vistas. Bryn Athyn green space is a natural resource that is being planned, protected, and maintained.

History of Planning Efforts in Bryn Athyn

Planning, which started over one hundred years ago, makes today's planning possible. Plans completed a century ago guaranteed that today open land remains undeveloped and protected. This is a tribute to the planning that has taken place over the years.

Bryn Athyn is a planned community carved out of open farmland by a church group from central Philadelphia. Mr. and Mrs. John Pitcairn were the planners and financiers for the new community. A search of the archives unearthed two early maps produced by Charles Eliot and Fredric Law Olmstead, two pioneering landscape architects. There is correspondence between these gentlemen and Mrs. John Pitcairn concerning the planning details. The purpose of the maps and correspondence was the initial planning and designs for converting the open treeless farmland into an organized landscaped village. The Eliot map, dated 1892, shows surveyed contour lines and road layout. The Olmstead map, dated 1902, shows roads with a detailed layout of tree plantings giving the species and location of each tree. This early planning defined the Borough's areas for development and areas for open space. Much of this open land is now preserved. This update of the Borough's Open Space Plan deals with the few remaining open spaces that need consideration for development, protection and management. What began over 113 years ago is coming close to fruition with this plan.

Planning Process

This plan is an update of an open space plan for the Borough submitted to and accepted by the Montgomery County Open Space Board in 1996. This updated plan reviews the results of the original plan and looks forward with future plans.

The preparation of the initial open space plan, (completed in October, 1996) was a joint effort of the Borough Council, the Borough Planning Commission, ProTract Engineering (the Borough Engineer) and Carter van Dyke Associates. The Borough Council and Planning Commission prepared this update with the technical assistance of Heritage Conservancy.

The information contained within this report was gathered from a number of sources. Demographic data sources included the U.S. Bureau of the Census, Delaware Valley Regional Planning Commission and the Montgomery County Planning Commission. Parcel and road data were obtained from the Montgomery County Planning Commission. Natural resources were mapped using USGS maps, FEMA floodplain maps, National Wetland Inventory maps, Environmental Resources Research Institute and National Resource Conservation Service soils maps. The Montgomery County Planning Commission's natural resource descriptions and Montgomery County's Natural Areas Inventory were used in the text descriptions of natural resources. The

Bryn Athyn Borough 1996 Open Space Plan was a basic source for past demographic trends.

The public participation process included discussion and presentation of the plan at Borough Council and Planning Commission meetings. At these meetings, interested citizens provided input on recommendations for open space acquisitions.

Regional and inter-municipal concerns were addressed by soliciting input from surrounding municipalities, the Pennypack Ecological Restoration Trust and the Montgomery County Planning Commission.

Purpose of the Plan

Montgomery County's open space initiative, known as the Green Fields/Green Towns Program, is supported by a \$150 million bond issue and requires that all municipalities interested in acquiring implementation funds develop an updated open space plan. The County has allocated \$597,566 for Bryn Athyn Borough for open space acquisition. In addition, an allocation of \$20,000 is available to the Borough for open space planning assistance and report updating. Therefore, the purpose of this plan update is to comply with the County's requirement to participate in this program.

I. Community Background

Historical Background

During the United States' Centennial celebration in 1876, twelve members of a Philadelphia church congregation met to consider the formation of a new community centered around a church educational center. By 1892 land had been acquired, surveyed and the basic town laid out. In 1916, Montgomery County court recognized Bryn Athyn as an incorporated Borough. What began as a grand experiment is today the worldwide educational and Episcopal center for the General Church of the New Jerusalem and the governmental center of the Lord's New Church. Both of these churches are branches of what is known as the Swedenborgian religion.

Regional Setting

Bryn Athyn Borough is situated in the southeastern section of Montgomery County. Its boundaries include an area of approximately 1,216 acres or 1.9 square miles. As shown on Map 1 – Base Map, the Borough is bordered to the north by Upper Moreland Township and to the south by Lower Moreland Township.

Employment and Activity Centers

Bryn Athyn Borough is a unique community serving primarily as a residential, educational and religious center for members of the General Church of the New Jerusalem and The Lord's New Church, religious societies that are based on the writings of Emmanuel Swedenborg. The Borough's focus is primarily the Bryn Athyn Church, the Bryn Athyn Elementary School and the Academy of the New Church. Masons Mill Business Park, containing 30 small businesses and other smaller institutions also provide employment. However, most of the Borough's residents must travel outside the Borough for employment, shopping and other personal needs. These institutions draw a global array of students and visitors as well as serving as major employers within the Borough. For a town the size of Bryn Athyn, it has a larger than usual amount of land devoted to institutional use.

Population Characteristics

The 2000 census data for the Borough indicates a 25 percent increase in population since 1990 from 1,081 persons to 1,351 persons. According to forecasts prepared by the Delaware Valley Regional Planning Commission (DVRPC), the Borough's population is anticipated to increase slightly and remain stable through the year 2030.¹ In 2000, the Borough's population density was 706 persons per square mile as compared to 567 persons per square mile in 1990.

Major Transportation Routes

As shown on Map 1, the predominant traffic route through Bryn Athyn Borough is Huntingdon Pike (PA Route 232), which follows a north-south route bisecting the eastern portion of the Borough. Byberry Road, which touches the northern portion of the Borough, is a major east-west route for the area. The Newtown Line of the South

¹ Delaware Valley Regional Planning Commission, Population and Employment Forecasts 2000-2030, 9- County DVRPC Region, Regional Data Bulletin, Revised No. 73, March 2005.

Eastern Pennsylvania Transportation Authority (SEPTA), which is presently inactive, traverses the Borough in a north-south direction. The SEPTA Route 24 bus continues to provide public transportation from Philadelphia's Frankford Transportation Center to Southampton Township, Bucks County. This route also provides access to SEPTA's R-3 regional rail line station in Bethayres, which provides direct access into central Philadelphia.

Traffic Considerations

Bryn Athyn has experienced increasing amounts of traffic within and around the Borough boundaries.

The high speed and the volume of traffic is a serious problem. Bryn Athyn was designed as a "walking" community. Most of the children from kindergarten through high school walk to and from school. Although there are sidewalks, the road and sidewalk patterns require road crossings that are generally unprotected, although street markings have been added for crosswalks. For example, a traffic count in 2000 showed a peak traffic count on Alnwick Road and South Avenue of 385 cars per hour, and traffic frequently exceeded the 25 M.P.H. speed limit. Speed bumps have been added on Buck Road at the Academy Crossing and have worked well. Speed bumps are planned for both South Avenue and Alnwick Road. The intersections at Terwood and Valley Roads and at Terwood and Welsh Roads, both outside the Borough in Lower Moreland Township, have been improved with traffic signals and better marking.

Major Natural Features

The Borough is very unusual in that it is surrounded by suburban development; yet large areas remain undeveloped and retain many of their natural features. The Pennypack Creek, the most prominent natural feature, flows through the Borough in a north-south direction.

Much of the Borough is wooded. The majority of the undeveloped land is preserved and part of the Pennypack Ecological Restoration Trust's (Pennypack Trust) conservation lands.

Major Existing Protected Open Space and Parks

The Borough contains two municipally owned parks: Bryn Athyn Park with 25 acres and Elsa Park with 3 acres. Both are passive recreation areas serving Borough residents.

The Pennypack Trust has protected 257.8 acres within the Borough and another 455.7 adjacent to the Borough.

Regional Trails

The Pennypack Creek corridor is proposed as a County regional trail which would provides linkages to two Montgomery County trails currently in planning: the Cross County Trail and the Power Line Trail. The proposed 17.5 mile Cross County Trail will connect Conshohocken Borough with Bryn Athyn Borough. This trail will utilize railroad and utility corridors as well as roadways and public lands. The trail will link important commercial areas such as Willow Grove and Conshohocken as well as important natural areas such as the Wissahickon Valley Watershed Association and the Pennypack Preserve. Users of the trail will have access to public transportation at four

or more regional rail stations along the trail. Separation of trail and railroad uses poses a significant design challenge for this trail in the Pennypack Creek watershed in the area of Willow Grove in Upper Moreland Township.

The proposed Power Line Trail will connect the Cross County Trail with Evansburg State Park. This trail will stretch 17 miles along the PECO/Exelon Energy transmission corridor and local roads. This trail faces significant design challenges in the area of the proposed connection with the Cross County Trail in Upper Moreland.

The Pennypack Trail is proposed to connect the Cross County Trail with the Pennypack Park trail system in Philadelphia. This proposed 6.5-mile trail would follow the unused portion of the SEPTA Fox Chase-Newtown Railroad Line (R8). This trail will link trails in Montgomery County's Lorimer Park in Abington, Pennypack Park in Philadelphia and the Pennypack Preserve²

The conversion of the Newtown Rail Corridor to a trail has been the subject of extensive analysis and discussion within the Borough. The reactivation of the line is included in the SEPTA 2003-2014 Capital Program and Comprehensive Plan.³ The Borough Council has indicated a clear opinion that the SEPTA line should remain as a future transportation right-of-way.

The Pennypack Trust maintains more than eight miles of multi-use trails that are accessible to the general public. A portion of this trail system is found along the former Creek Road and Paper Mill Road within Bryn Athyn, which link to other major trails within the Pennypack Trust's lands.

Existing Land Use Pattern

Bryn Athyn Borough contains large areas that are undeveloped and which are preserved as part of the Pennypack Trust's land holdings. The Borough land uses are predominantly residential, religious and educational and agricultural. The western portion of the Borough contains large areas that are owned by the Pennypack Trust in addition to estate holdings and the grounds of the Lord's New Church. The eastern and southern portions of the Borough consist of grounds of the Bryn Athyn Cathedral, the Bryn Athyn Church Elementary School and the Academy of the New Church as well as residential areas.

Industrial uses are concentrated in the northwestern portion of the Borough at Mason's Mill and Byberry Roads. The Borough contains relatively few retail or commercial uses.

Land cover data obtained from the Montgomery County Planning Commission notes that the highest percent of land is devoted to woodlands, followed by agriculture or undeveloped lands and single-family detached residential lands. Table 1 and Figure 1 provide a breakdown of the different land use categories within the Borough.

² Pennypack Creek Rivers Conservation Plan, Draft – July 2005.

³ Andropogon Associates, Pennypack Trail Analysis, Draft 2004

Table 1 - Land Cover - Bryn Athyn Borough		
Land Use	Acreage	Percent of Total Land Area
Agriculture or Undeveloped Land	294.04	23.5%
Commercial	10.33	0.8%
Community Services	179.60	14.3%
Parking: Commercial	18.66	1.5%
Parking: Community Services/Recreation	9.26	0.7%
Recreation	20.80	1.7%
Residential: Single-Family Detached	232.72	18.6%
Vacant	6.77	0.5%
Water	19.03	1.5%
Wooded	460.41	36.8%
Total Acreage	1251.63	100.0%

Source: Montgomery County Planning Commission Land Use Maps
From 2000 land cover data (DVRPC)

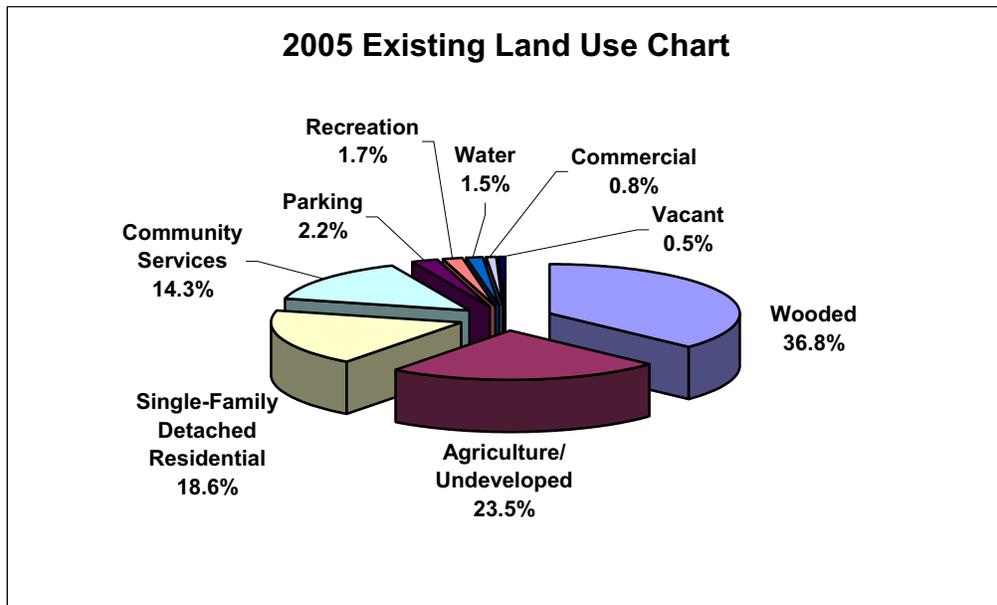


Figure 1 – Existing Land Use Bryn Athyn Borough – 2005

Community Demographic Information

Current Population

According to U.S. Census data from 2000, Bryn Athyn's population increased between 1990 and 2000 by 270 persons, representing an increase of 25 percent. As noted in Table 2, this rate of growth is high in comparison to the surrounding municipalities of Lower and Upper Moreland and exceeded the rates in both Montgomery County and the State.

Borough officials attribute the increase to the expansion of the Cairnwood Village Retirement Home and to the transition of small families living in large homes to

smaller residences, and these small families being replaced by larger families. This anecdotal information is supported by census data regarding household and family data.

Table 2 - Population Change Bryn Athyn Borough and Region 1990-2000				
Area	U.S. Census Population		Numeric Change	Percent Change
	1990	2000	1990-00	1990-00
Pennsylvania	11,881,643	12,281,054	399,411	3.4%
Montgomery County	678,111	750,097	71,986	10.6%
Bryn Athyn Borough	1,081	1,351	270	25.0%
Lower Moreland Township	11,768	11,281	-487	-4.1%
Upper Moreland Township	25,313	24,993	-320	-1.3%

Sources: US Bureau of the Census, Census 1990 and 2000.

Population Projections

Table 3 summarizes the forecasted population change from 2000 to 2030 for Bryn Athyn and adjacent municipalities. These projections were developed by the DVRPC and updated in March 2005. Bryn Athyn's population is projected to increase slightly and then stabilize over the next 25 years. Figure 2 illustrates the Borough's population trends and projections from 1980 to 2030. According to 2000 census data, only 24 new housing structures were constructed from 1980 to 2000, so population increases in this time period may be attributed to the increases in household and family sizes evident in the most recent census data along with the additional units. In future years, as less land becomes available for new construction, population increases will be the result of changes in household size and family size.

Table 3 - Population Forecasts Bryn Athyn Borough and Region 2000-2030						
Area	Current Population*	Projections**			Absolute Change	Percent Change
	2000	2010	2020	2030	2000-30	2000-30
Montgomery County	750,097	797,990	838,700	878,440	128,343	17.1%
Bryn Athyn Borough	1,351	1,350	1,410	1,420	69	5.1%
Lower Moreland	11,281	11,360	11,550	12,000	719	6.4%
Upper Moreland	24,993	25,190	25,130	25,100	107	0.4%

Source:* US Census Bureau, 2000

**Delaware Valley Regional Planning Commission, Population and Employment Forecasts, 2000-2030. No. 73, March 2005.

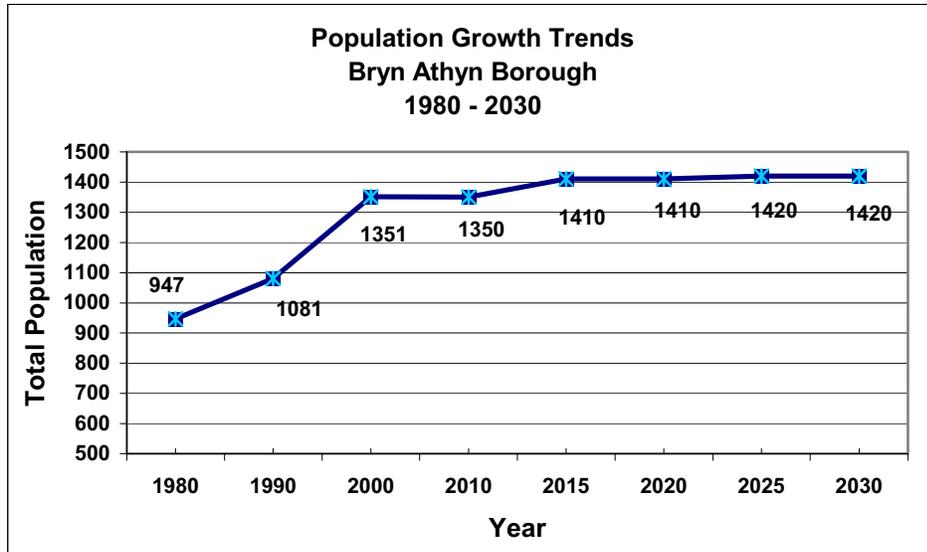


Figure 2 – Bryn Athyn Population Trends and Forecast – Sources: US Census Bureau (1980, 1990, 2000) & DVRPC – Forecasted Population Change 2000-2030, March 2005

Family and Household Characteristics

The increase of family households and increase in families with children under 18 both were evident in reviewing census data. As shown on Table 4, Bryn Athyn’s total family households increased by 24.3 percent. In addition the percentage of family households with children under 18 increased from 110 to 156 between 1990 and 2000, a 42 percent increase. These figures correlate well with the increases in persons per household and average family size as shown in Tables 4 and 5 below.

Area	Family Households		Numeric Change	Percent Change	Average family Size	
	1990	2000	1990-2000	1990-2000	1990	2000
Pennsylvania	3,155,989	3,208,388	52,399	1.7%	3.10	3.04
Montgomery County	181,075	197,640	16,565	9.1%	3.11	3.09
Bryn Athyn Borough	235	292	57	24.3%	3.67	3.76
Lower Moreland Township	3,421	3,329	-92	-2.7%	3.19	3.07
Upper Moreland Township	6,961	6,635	-326	-4.7%	3.04	3.00

Source: US Bureau of the Census, 1990 and 2000

The percentage of family households with children under 18 increased from 34 percent in 1990 to 41 percent in 2000. The household and family characteristics of the Borough are not consistent with regional trends that show family sizes to be declining. State, County and adjacent municipalities have shown a decrease in average household and family sizes over the past decade, while Bryn Athyn has shown an increase in both of these categories. This data seems to correlate with anecdotal information in that older individuals who may be living alone or with a partner are moving from larger

homes to smaller homes, while the larger homes are being re-occupied by larger families

Table 5 - Change in Households Bryn Athyn Borough and Region 1990-2000						
Area	Total Households		Numeric Change	Percent Change	Average HH Size	
	1990	2000	1990-2000	1990-2000	1990	2000
Pennsylvania	4,495,966	4,777,003	281,037	6.3%	2.57	2.48
Montgomery County	254,995	286,098	31,103	12.2%	2.58	2.54
Bryn Athyn Borough	326	377	51	15.6%	3.00	3.21
Lower Moreland Township	4,154	4,112	-42	-1.0%	2.83	2.71
Upper Moreland Township	10,063	10,120	57	0.6%	2.49	2.40

Source: US Census Bureau, Census 1990 and 2000

Age Characteristics

According to U.S. Census data for 2000, Bryn Athyn's median age of 32.7 is well below the state and county figures and is also below that of its neighboring municipalities. However, the data also indicates that the Borough's population is aging, a trend evident in state, county and municipal data, based on comparisons to 1990 figures. As noted in Table 6 below, median age increased slightly from 31.7 to 32.7 and the percentage of the population over 65 increased from 15.9 to 17 percent. These figures indicate that, although the Borough's population as a whole is younger than the county or state, it has a higher percentage of persons over 65 than the state or county. In addition, the percentage of population below 18 years decreased from 32.4 percent in 1990 to 30.2 percent in 2000. The figures seem to indicate that increases in family sizes are probably being offset slightly by increases in the formation of smaller households with older residents, as noted above.

Table 6 - Age Characteristics Bryn Athyn Borough and Region 1990 to 2000						
Area	2000 Census			1990 Census		
	Median Age	% Under 18 Years	% 65 Years and Over	Median Age	% Under 18	% 65 years and over
Pennsylvania	38.0	23.8	15.6	*	23.5%	15.4%
Montgomery County	38.2	24.0	14.9	36.9	22.9%	15.0%
Bryn Athyn Borough	32.7	30.2	17.0	31.7	32.4%	15.9%
Lower Moreland Township	45.5	22.3	20.4	*	22.0%	15.0%
Upper Moreland Township	38.8	22.1	18.3	*	21.6%	15.3%

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

*Not available in 1990 census data.

Education Levels

As noted in the 1996 plan, the residents of Bryn Athyn are highly educated. The 2000 census data, which summarizes education levels of residents over 25 years, shows that educational attainment levels remained high, and the percentages of those with high school degrees and college degrees increased over 1990 levels. In 2000, nearly 96 percent of Borough residents over 25 years had high school degrees, and over 54

percent had Bachelors Degrees or higher. These figures are higher than the county averages of 88.5 percent (high school degrees) and 38.7 percent (college degree or higher).

Housing Unit Characteristics

In 2000, Bryn Athyn had 381 housing units, of which 74 percent were single-family detached. Approximately half of the housing stock in the Borough was built before 1939. Another 25 percent were constructed between 1940 and 1959. Owner-occupied housing units comprised 70 percent of all housing units in the Borough, similar to the percentage in 1990.

As reported in the previous open space plan, Bryn Athyn Borough's median housing values continue to rank high compared to housing values in Montgomery County. As summarized in Table 7 below, Bryn Athyn's median housing value as reported in the 2000 census was \$215, 800, compared to the Montgomery County median of \$160,700. More recent data compiled by the Montgomery County Planning Commission illustrates the significant increase in housing values across the region after 2000. The median price for housing sales in 2004 was \$347,500, a leap of nearly 61 percent over the 2000 figures. These values are reflective of the strong housing market in the country due to historically low mortgage rates over the past few years.

Area	Median Value of Owner Occupied Housing Units		Numeric Change	Percent Change	Median Value*	Numeric Change	Percent Change
	1990	2000	1990-2000	1990-2000	2004	2000-2004	2000-2004
Montgomery County	\$143,400	\$160,700	17,300	12.1%	\$237,000	\$76,300	47.48%
Bryn Athyn Borough	\$191,800	\$215,800	24,000	12.5%	\$347,500	\$131,700	61.03%
Lower Moreland	\$220,600	\$233,600	13,000	5.9%	\$398,000	\$164,400	70.38%
Upper Moreland	\$132,700	\$143,400	10,700	8.1%	\$225,900	\$82,500	57.53%

Source: US Bureau of the Census (1990 and 2000 data)

*Montgomery County Planning Commission: 2004 median housing sales values

The proportion of Borough residents living in group quarters was approximately 10 percent (142 individuals). This is slightly higher than the 8.8 percent reported in 1990. Of the total population living in group quarters 61 percent (86 people) were living in college dormitories of the Academy.

Population Density and Lot Sizes

Bryn Athyn's land area totals 1.9 square miles. Based on the 2000 population of 1,351 persons, the Borough's population density is 706.5 persons per square mile. This reflects a 25 percent increase from 1990's figure of 569 persons per square mile. In comparison, this figure is well below the county average of 1,553 persons per square mile but well above the state's density of 274 persons per square mile.

The Borough’s zoning ordinance, updated in 1993, establishes residential lot sizes for each district. These lot sizes have not been revised since the 1996 plan and are listed in Table 8 below:

Zone	District	Lot Size	Type
NP	Natural Preservation	160,000 s.f. Lots	Single-family detached
A	Low Density Residential	43,560 s.f. Lots	Single-family detached
B	Medium Density Residential.	20,000 s.f. Lots	Single-family detached
C	High Density Residential	10,000 s.f. Lots	Single-family detached
MD	Mixed Dwelling Type	Varies	Multi-family

Source: Bryn Athyn Zoning Ordinance - 1993

Economic and Employment Information

Borough officials estimate that a total of 1,268 persons are employed within the Borough as of 2005. Bryn Athyn is projected to remain a predominantly residential municipality, with employment limited to the Masons Mill Business Park and administrative and educational services of the Academy of the New Church. Major employers in the Borough and their number of employees are listed in Table 9 below:

Employer	Business/Service	Employees
Borough Hall	Administrative	18
Masons Mill Business Park	Office/Industrial uses	461
Church or School Related	Educational/Religious/Admin	643
Housekeeping	Industrial	17
Small Businesses (excluding Masons Mill)	Office/Professional	108
Other	Miscellaneous	21
Total		1,268

Source: Borough Officials, 2005 (From Berkheimer Tax Records)
* includes part time employees

In addition, the Borough is situated near many major private employers in adjacent communities such as Abington Memorial Hospital in Abington Township (4,251 employees), United Parcel Service in Horsham Township (3,500 employees), Prucare of Philadelphia in Horsham Township (1,900 employees), and Holy Redeemer Hospital and Medical Center in Abington Township (1,500 employees).⁴

Types of Jobs and Employment Outlook

Of the employed Borough residents, 51 percent are in management, professional and related occupations, followed by 26.5 percent in sales and office occupations, and 16% in service occupations. The largest numbers of residents (34 percent) are employed in “Educational, health and social services.” Most employed residents drive (75 percent) or walk (15 percent) to work. Approximately 8 percent of Borough residents work at home. The mean travel time to work is 15 minutes.

⁴ Data from Pennypack Creek Rivers Conservation Plan – Draft, July 2005 (Philadelphia Water Department) and Borough Officials.

The Delaware Valley Regional Planning Commission prepares employment forecasts for the nine-county Delaware Valley Region (Southeastern PA, DE and NJ). These forecasts use data from the Year 2000 Census Transportation Planning Package (CTPP) released in 2004. From this information, DVRPC staff devises a comprehensive 2000 employment estimate and revises the employment projections for 2025. In addition, projections are extended to 2030.

According to these employment forecasts, the Borough's estimated employment in 2000 was 816. This number is projected to increase until 2010 to 822, and then decline to 800 by 2030, a modest 2 percent decrease over thirty years. In comparison, county employment forecasts are expected to increase by 21.2 percent by 2030. However, employment will likely increase in the Borough with the expansion of the Academy campus and related additional teaching and administrative staff.

Income Levels

The Borough's median household income, as reported in the 2000 Census, was \$68,646, which is above the Montgomery County median of \$60,829. The Borough's per-capita income (PCI) of \$32,737 is also above the county PCI of \$30, 898.

Demographic Summary

A review of population, housing and economic data for the Borough shows a vibrant, affluent Borough with a stable and relatively young population. Although the Borough's population is aging, the number of new family households with children under 18 has been increasing. Economic indicators such as median household income, per-capita income, and median housing values typically exceed countywide figures. While population has increased over the past decade as it has throughout the county in general, household and family sizes have also increased, which is inconsistent with county and regional trends. Employment forecasts over the next two decades are stable, with only a slight decrease projected by 2030. Local officials note that it is far more likely that employment will increase with the expansion of the Academy Schools and campus, added housing on Academy property and expanded uses at the Lord's New Church.

Status of Existing Municipal Plans

The Borough's 1968 Comprehensive Plan was updated by the Comprehensive Plan Update of 1980. The 1980 Comprehensive Plan Update recommended a number of zoning amendments, which were adopted in the Borough's 1993 zoning ordinance. The Borough has begun the process of updating the 1980 plan.

The Plan recommended creation of a Natural Preservation District, which directed development away from the rural land area and encouraged development in other residential and non-residential districts that had been designed to accommodate growth. The Natural Preservation (NP) District generally allows for 3.7-acre minimum lot sizes per dwelling unit and a maximum impervious surface cover of 3%. Under the NP District, rural residential subdivisions are permitted as a conditional use on tracts of 8 acres or more. Lot sizes may be reduced under this subdivision, but not less than 75% of the total area shall be designated as undeveloped and restricted open space.

A Cluster Development District was also established upon recommendation by the Comprehensive Plan Update. This district allows 43,560-square-foot lots to be reduced to 10,890 square feet when open space is preserved.

Steep Slope Conservation Districts have been established whereby slopes in excess of 15 percent are restricted from development.

The first Municipal Parks, Open Space and Recreation Plan was adopted in October of 1996. This plan resulted in the completion of two projects: the purchase of Raytharn Farm and Bethayres Woods by the Pennypack Trust. Both projects were outside of the Borough but shared borders with the Borough.

The Borough amended its Act 537 Sewage Facilities Plan in March 1998. This plan gave the details for a hybrid small-diameter gravity sewer for the two densely populated areas of the town. The plan was adopted and the sewer installation completed in 2005.

Map 1 – Base Map

II. Recreation and Open Space Goals and Objectives

Background

As part of the 1996 open space plan development, the Borough of Bryn Athyn developed a series of goals and objectives to provide guidance through the planning process. The major emphasis in this update, as it was in 1996, is to preserve the Borough's unique characteristics as a primarily residential and religious community with unique environmental resources.

Towards that end, a number of the planned projects and recommendations from the previous plan were completed. This included the purchase of the Raytharn Farm property by the Pennypack Trust in 1997. Although this property is not within the Borough's boundaries, it is adjacent to it and provides a key property along the border of the Pennypack Creek. In addition, it was considered within a recreational walking and biking distance from the Borough, and the development of the farm as open space open for the public was seen as a significant advantage to the residents of the Borough.

This acquisition, coupled with others, provided the Pennypack Trust with a presence and surveillance along the central portion of the Creek Walk. In addition to Raytharn Farm, another adjacent property, Bethayres Woods, was acquired in 1999 by the Pennypack Trust as a result of the open space program. This 33-acre property was not originally listed in the 1996 plan, but became available for sale by Aqua Pennsylvania. Bethayres Woods is located outside the Borough boundaries, but adjacent to the Borough's Elsa Park, just south of Fetters Mill Road. Bethayres Woods could also be linked to the proposed Newtown Rail Corridor Trail.

Current Goals and Objectives

This section presents Bryn Athyn's goals for open space and recreation space and describes actions that the Borough plans to take in order to implement these goals. The goals for preserving open space and recreational space should be used to guide future land use decisions by Borough officials and landowners.

The general guiding goals for open space preservation in Bryn Athyn are to:

1. conserve and restore the viability of the natural areas of the Borough including floodplains, adjacent slopes and uplands;
2. permanently protect environmentally fragile areas from future development;
3. guide development of less fragile areas in harmony with nature; and
4. improve the quality of life and aesthetic enhancement of the Borough's surroundings.

The following are detailed goals and recommended actions:

Goal

- Retain and protect the Borough's semi-rural and spacious institutional characteristics, which are the amenities that first attracted residents to the Borough.

Action

Use cluster zoning and open space preservation to dedicate easements and land to Pennypack Ecological Restoration Trust which will retain the character and natural amenities that make the Borough unique while allowing some increase to the population.

Goal

- Preserve environmentally sensitive areas adjacent to creeks and streams within the Borough.

Action

Enforce floodplain and steep slope regulations that will preserve the integrity of Pennypack Creek and its tributaries and will retain the open space character of the Borough.

Goal

- Retain the primarily residential character of this community with a focus on the religious and educational institutions that give Bryn Athyn its unique character.

Action

Carefully plan and limit the commercial and industrial land uses within the Borough. Review the possibility of promoting the Borough's unique architectural and cultural features to prospective tourists.

Goal

- Evaluate potential acquisitions or easements of rights-of-way for pedestrian/bikeway trails.

Action

Assess the feasibility of various possible linkages that may be appropriate within the Borough and in surrounding areas, including rail-to-trail conversions and stream corridor linkages.

Goal

- Promote inter-municipal cooperation, primarily through joint use of open-space properties such as Raytharn Farm.

Action

Support the Pennypack Ecological Restoration Trust's efforts to preserve open space parcels lying astride municipal boundaries as joint municipality projects.

Goal

- Support inter-municipal efforts to maintain the quality and character of Pennypack Creek.

Action

Continue participation on Pennypack Trust's Board and its activities.

Goal

- Encourage public facilities that promote the ecological balance of the area.

Action

Encourage the use of sewage facilities that promote groundwater recharge, such as spray irrigation and managed onsite effluent disposal.

Goal

- Ensure that the Borough's parks, recreation and open space policies are compatible with the Borough's planning and land use policies and that all these policies serve to enhance and protect the natural environment.

Action

Review and, if warranted, amend the zoning ordinance to ensure that environmental protection policies are consistent with and support open space goals.

III. Identification of Existing Protected Lands

Permanently Protected

The following section identifies and provides essential information about land that can be considered to be protected from development. These properties are shown on Map 2, Existing Protected Lands, Open Space Links and Greenways.

Municipal Parks and Open Space Lands

Bryn Athyn Borough owns two parks totaling 28 acres. Both of these parks offer passive recreational opportunities:

- Bryn Athyn Borough Park contains 25 acres and is located along Quarry Road, west of Alnwick Road.
- Elsa Park contains 3 acres and is located south of Feters Mill Road between the SEPTA Train Tracks and Pennypack Creek. (This area was part of the original Alnwick Grove that attracted people to the area)

Bryn Athyn Borough has no county, state or federal parks.

Watershed Association/Conservancy Organization Lands

Bryn Athyn contains large land holdings owned by the Pennypack Ecological Restoration Trust. These lands, which total 257.8 acres, are composed of woodlands, open fields, creeks and trails. These undeveloped lands constitute roughly half of the western part of the Borough (west of Paper Mill Road). All are devoted to passive recreational space and do not contain recreational facilities or equipment.

Homeowners Association Open Space

Bryn Athyn Borough contains approximately 12 acres in Homeowners' Association open space lands. These lands are managed by the Cairnrun Homeowners' Association and are located near Cathedral Road between Quarry Road and Cairnrun Circle.

Temporarily Protected

Special Assessment Land

Acts 319 and 515 provide incentives to landowners to keep their land open and undeveloped. This incentive is in the form of a reduction in the tax assessment for lands that are restricted from development for a given period of time. The Borough does not have any land assessed under Act 515. The Borough contains 13 parcels that are assessed under Act 319. Table 10 and Map 2 summarize and depict the location of the Borough's Act 319 parcels. Bryn Athyn's total acreage assessed under Act 319 is 303.2 acres.

Table 10 - Section 319 Properties in Bryn Athyn				
Section 319 - Preferential Assessment				
Parcel #	Block	Unit	Acres	Owner
30000271005	9	13	39.72	Academy of the New Church
30000268008	9	1	26.68	C. Pitcairn & H. Glenn
30000340008	1	12	20.45	Mark Pennink
30000589506	1	27	16.53	Feo Pitcairn/Pitcairn Trust
30000522006	2	5	68.19	Raymond Pitcairn Estate
30000589002	1	11	33.41	Feodor Pitcairn
Sub-Total			204.98	
Section 5319- Tax Exempt (Pennypack Trust)				
Parcel #	Block	Unit	Acres	Owner
30000488508	1	23	8.88	Pennypack Trust
30000334509	1	14	19.59	Pennypack Trust
30000340107	1	30	31.9	Pennypack Trust
30000340206	1	31	16.36	Pennypack Trust
30000487302	1	46	9.81	Pennypack Trust
30000587004	1	19	3.86	Pennypack Trust
30000581001	1	21	7.87	Pennypack Trust
Sub-Total			98.27	
Total Acreage			303.25	

Source: Montgomery County Assessment Files, 2005

Golf Courses

The Borough does not have any golf courses.

Large Institutional Land Holdings

Bryn Athyn Borough has a large proportion of its land area devoted to institutional uses. These areas are shown on Map 2 and include the following:

1. Academy of the New Church

The Academy of the New Church is located east of Huntingdon Pike on lands totaling **242.6** acres. The Academy contains the Academy of the New Church High School, Bryn Athyn College of Academy of the New Church and Academy of the New Church Theological School. The present enrollment is 430 students. The Academy provides sports fields, tennis courts, a fitness center and an outdoor roofed pavilion equipped as an ice rink and suitable for other recreation purposes. A library housing **90,000** titles is also located on the Academy grounds.

Glencairn

The Glencairn museum (constructed from 1929-1942) is a part of the Academy and has been listed on the National Register of Historic Places since 1978. It houses a variety of collections including medieval stained glass, and artifacts from ancient Egyptian, Greek, Roman and Native American cultures.

Cairnwood

Cairnwood was built between 1892 and 1895 by John Pitcairn and his wife Gertrude. Reminiscent of a French Chateau, Cairnwood was designed by the architectural firm of Carrere and Hastings. The firm of Olmstead and Eliot designed the grounds.

2. Bryn Athyn Church

The Bryn Athyn Cathedral and affiliated Bryn Athyn Elementary School is located on 44.1 acres. The Cathedral, with John and Gertrude Pitcairn as benefactors, is an excellent example of Gothic Romanesque architecture in America, and is listed as a historic site in the Montgomery County Plan for Preservation of Historic and Cultural Resources. The Cathedral serves as a religious center for a religious group following the teachings of Emmanuel Swedenborg. The Cathedral, with its surrounding grounds, serves as a spectacular focal point for Borough residents who share a common faith incorporating religious, educational and cultural life.

3. The General Church of the New Jerusalem

Cairncrest

The Cairncrest estate, headquarters of the General Church of the New Jerusalem, was formerly the home of Harold and Clara Pitcairn.

4. The Chapel of the Lord's New Church

The Chapel of the Lord's New Church with grounds consisting of 146.3 acres is located east of Mason's Mill Road and west of Pennypack Creek. This property contains a chapel, guesthouse, and stables converted into an assembly hall and business offices. The Chapel of the Lord's New Church is also a church based upon the teachings of Emmanuel Swedenborg.

Any subdivision of the large institutional land holding listed above would require substantial setbacks from the main structures in order to maintain the context of the surroundings. The Borough's Preservation Overlay District could be applied if these properties were to be developed. This type of zoning would address the unique character of the sites and attempt to preserve these features.

Map 2 – Existing Protected Lands/Open Space and Greenways

IV. Inventories of Vulnerable Resources

This section inventories the geographic, scenic and historic/cultural resources within the Borough. Sites that have a concentration of several resources should be seriously considered for preservation. As emphasized elsewhere in this report, outright purchase of land is not always the most practical method to save open space. Alternative methods such as easements or lease agreements with landowners can help to preserve valued areas.

Natural Features

The natural features of the Borough contribute to its unique character among the more densely populated municipalities of southeastern Montgomery County. Much of the undeveloped land remaining in the Borough is associated with the Pennypack Creek stream valley, the most dominant physical feature in the Borough. These lands include floodplains, steep slopes, woodlands and important geologic features. Understanding and recognizing the unique and special natural areas of the Borough is a key component of open space planning. The identification of these resources and their interrelationships help guide development decisions and preservation choices, which contribute to the qualities that make Bryn Athyn a special community in which to live.

Geology and Topography

Geologic formations have much to do with forming the natural land characteristics of an area. In addition, geology affects the amount, quality and depth of groundwater and the surface configuration of soil qualities for land development or agricultural use. The Borough is underlain by four geologic formations: Granite gneiss, Hornblende gneiss, Chickies quartzite and Stockton as shown on Map 3. These geologic formations have unique characteristics as summarized below:

Granite (Felsic) Gneiss: This is the most prominent formation underlying the Borough. Due to its characteristic dense rocks, granite gneiss typically does not yield large volumes of water.

Hornblende-Bearing (Mafic) Gneiss: This formation is found across the central section of the Borough between the two sections of granite gneiss. Hornblende gneiss is an impervious rock and is the formation present in the Borough that is least likely to bear water.

Chickies Quartzite: A small portion of Chickies quartzite is located in the extreme southern section of the Borough. It is a thick bedded, light colored glassy quartzite. Water can only be obtained from joints and cracks.

Stockton Formation: A very small portion of the Stockton Formation is found along the Borough's northernmost limits. Stockton offers the best source of water of all formations present in the Borough and consists of coarse conglomerate, yellow and brownish-red sandstone, and soft red shale.

Rock Outcroppings

According to Borough officials, the Borough has rock outcroppings at the following locations:

1. Bryn Athyn Train Station
2. Cairnrun at Quarry Road
3. Adjacent the SEPTA train tracks.

Steep Slopes

Steep slopes are natural features of the landscape that generally create limitations to development. The slope and soils present on steep slopes are in balance with vegetation, underlying geology and precipitation levels. Maintaining this equilibrium reduces the danger to public health and safety posed by unstable hillsides. The Soil Conservation Service's Soil Survey for Montgomery County has four classifications for slopes: 0 to 3 percent, 3 to 8 percent, 8 to 15 percent, and 15 to 35 percent. Not all sloping areas fit neatly into these four classes of slopes, and slopes do not always exhibit the same characteristics. Generally, as the slope increases, the depth of topsoil and the ability of the soil to support structures usually decrease. Steep slopes often have a combination of vegetation, climate, soil and underlying geology that differs from the surrounding area. Frequently, this means that environmental sensitivities of the steep slope are different as well. Susceptibility to erosion and mass movement may be greater than the surrounding area, especially if vegetation is removed. Increased runoff and sedimentation from disturbed slopes require increased public expenditure for flood control and stormwater management. In addition, different species of plants and the associated wildlife that depend on these plants may be present only on the slopes, creating unique wildlife habitats.

The Montgomery County Soil Survey indicates that Bryn Athyn Borough has a moderate amount of steep slopes. Steep slopes and soil associations are shown on Map 4. Steep slopes are located primarily along the banks of Pennypack Creek as well as along the banks of the tributary of Huntingdon Valley Creek that is north of Waverly Lane. The Borough zoning ordinance addresses steep slopes in the Steep Slope Conservation District, which places restrictions on development for slopes greater than 15 percent. To this date, no significant development has taken place on the Borough's steep slopes. There are three to five houses at the lower end of South Avenue that may have been built on steep slopes prior to the adoption of the ordinance.

Hydrologic Features

Water is a valuable resource, consumed by people and industry, enjoyed at recreation facilities, employed in the assimilation of treated sewage and integral to the landscape. Generally speaking in undisturbed, forest landscapes, 25 percent of precipitation goes to direct runoff, 50 percent evaporates or is transpired by plants and 25 percent replenishes groundwater. The hydrologic features of the landscape include surface waters, groundwater, ponds and lakes, springs, wetlands and floodplains. These areas are described in the following paragraphs and shown on Map 5, Hydrologic Features.

Surface Waters

The surface water that falls on or is carried through Bryn Athyn affects topography, soils, vegetation and groundwater. Bryn Athyn is located within the Pennypack Creek watershed. This drainage basin is approximately 56 square miles in area and includes 11 municipalities including Bryn Athyn, and its direct neighbors, Lower Moreland and Upper Moreland Townships. The drainage basin extends downstream to include

Pennypack Park, which is a portion of Fairmount Park in Philadelphia. Pennypack Creek then flows into the Delaware River. Several sub-watershed basins of the Pennypack Creek are located in Bryn Athyn including the main stem Pennypack and Huntingdon Valley Creek. Major surface water features in the Borough are shown on Map 5, Hydrological Features. Under Pennsylvania's water quality regulations; this portion of the Pennypack Creek is designated as a Trout Stocked Fishery, Migratory Fishery indicating that the creek could support both trout and seasonal migratory fish species.

The water flowing through Bryn Athyn comes from two natural sources: direct run-off and groundwater. Effluent from sewage treatment plants constitutes a third man-made contribution to the stream flow. This component tends to dampen the variation between high and low flow periods along the Pennypack Creek.

Bryn Athyn contains five ponds in addition to the Pennypack Creek waterway. These ponds are as follows:

5. Cairnrun Pond
6. Mildred's Retreat Pond
7. Glencairn Pond
8. Jungé Cairnwood Farm Pond (former skating pond)
9. Lachlan Pitcairn Pond

These ponds serve as habitat and water sources for wildlife, storage areas for storm water and enhancement to the aesthetic quality of Bryn Athyn.

Groundwater

Groundwater behaves much like surface water, flowing like a stream, only much more slowly. Groundwater is tapped as a source of drinking water and for industrial purposes where surface water is unavailable. Groundwater replenishment occurs slowly as precipitation and, in some cases, stream water seep through the soil column down into the underlying groundwater aquifer. Open, undisturbed land is essential to groundwater recharge. Vegetation serves to retain precipitation where it falls allowing it to soak into the soil rather than run off the surface. Impervious surfaces from development prevent infiltration of precipitation.

Natural Springs

According to Borough officials, natural springs occur at the following locations:

1. Borough Park
2. Lachlan Pitcairn's springhouse and pond
3. Mildred's Retreat spring and ponds
4. Feodor Pitcairn's property near SEPTA tracks (2 springs).
5. Elsa Park area
6. Louis B. King's backyard
7. Bertha Abele's back yard

Wetlands

Wetlands have value and are worthy of protection due to a number of characteristics. In many cases, it is easier to discuss the benefits of wetlands than it is to delineate the wetland itself. Some wetlands are easily recognizable because the presence or influence

of water is obvious. However, many wetlands are subject only to seasonal flooding; for much of the year, surface water may not be present. Still other wetlands develop in areas where the soil is saturated for long periods, but never flooded. The Environmental Protection Agency and the Army Corps of Engineers have defined wetlands as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

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

Bryn Athyn wetlands are identified in the National Wetlands Inventory. The wetlands occur in areas along the Pennypack Creek as well as tributaries of Huntingdon Valley Creek. Wetlands are also identified surrounding three of the Borough's ponds: Jung-Cairnwood Farm Pond, Cairnrun Pond and Glencairn Pond.

100-year Floodplain

The 100-year floodplain is a feature that affects the health, safety and welfare of Bryn Athyn residents. While much of the time the floodplain may be dry, during storms the floodplain stores and conveys large quantities of floodwater. Development within the floodplain reduces the carrying capacity and increases the height and destructive ability of floodwater. In addition to carrying floodwaters, the floodplain and stream corridor serve other important functions. The condition of the stream corridor itself is important in minimizing erosion and water pollution, protecting water quality (temperature and velocity) and providing animal habitat and recreation opportunities. Well-vegetated stream corridors help reduce pollutant loads to streams, shade the stream and provide habitat for wildlife. If vegetation is preserved along the banks of tributaries as well as the main stream, pollutant loads can be greatly reduced. Wetlands that filter and impede stormwater and provide a habitat for aquatic life are frequently found along the stream corridor. Unconsolidated gravel and stone deposits along the stream corridor allow for groundwater recharge. People also benefit from stream corridors, as they provide opportunities for trails and other forms of recreation.

Bryn Athyn is crossed by the Pennypack Creek as well as a tributary of Huntingdon Valley Creek. The most extensive floodplains are found along the Pennypack Creek. Much of the floodplain land remains undeveloped since a large portion is owned by Pennypack Trust.

The Pennypack Creek Watershed Management Plan and Stormwater Management Plan is currently being developed by Temple University's Center For Sustainable Communities. This project includes hydrologic modeling to determine new floodplain

boundaries for the entire watershed. Although the re-mapping is underway, data for Bryn Athyn Borough is not currently available for review in this plan update.

Vegetation and Wildlife

Woodlands⁵

Woodlands and hedgerows serve a variety of functional and aesthetic purposes. Woodlands stabilize soil and prevent erosion, allow precipitation to percolate through the soil and down into aquifers, clean and cool the air, provide habitat for wildlife, buffer streams from runoff and direct sunlight, and offer recreational opportunities for residents. Hedgerows and wooded corridors also provide cover for wildlife, allowing animals to move between blocks of forest safely.

The original vegetation covering Bryn Athyn and surrounding communities in the Piedmont Uplands was a dense oak-chestnut hardwood forest dominated by three species of oaks (Northern red oak; black oak; and white oak) and American chestnuts.

The oaks and chestnuts in the forest canopy were accompanied by a host of other species, especially four species of hickories (shagbark, mockernut, pignut, and sweet pignut), American beeches and tuliptrees. Below the forest giants grew a second layer of shorter, understory trees including flowering dogwoods, black-gums, hop-hornbeams and hackberries. The shrub layer consisted of a rich and diverse mix of bushes such as spicebushes and several species of viburnums (plus American hazelnut) and witch-hazel.

With the arrival in the Northeast of the fatal chestnut blight fungus on a shipment of Chinese chestnuts in 1904, American chestnuts, which once comprised one-quarter of all trees in the forest, all but disappeared and the oaks filled their ecological niche.

Along the flat bottomlands of larger streams such as Pennypack Creek and Huntingdon Valley Creek grew a riparian forest comprised of trees that could withstand periodic flooding and whose roots could tolerate moister conditions than were found on the upland slopes. Trees typical of riparian, or floodplain, forests were sycamores, swamp white and pin oaks silver and red maples, box-elders, green ashes blue-beech hornbeam, slippery and American elms. Canada hemlocks, Pennsylvania's state tree, grew on cool, shady, moist slopes slightly up off the floodplain but never far from water. Grapes, poison-ivy and Virginia creeper (all vines adapted to disturbed locations) proliferated and provided abundant fruit for birds.

With the colonization of eastern North America by European farmers, most of the woodlands on the best soils were cleared for crops. The forests that remained on land too steep, rocky or wet to till for agriculture were used for wood products and grazing. The periodic disturbance of the woodlands by human woodcutters and by cattle, sheep and hogs changed the composition of the remaining woodlands, reducing the dominance of species characteristic of older forests and allowing shorter-lived, quicker-growing trees to become more prevalent. Species like American ashes, red maples,

⁵ See Appendix A for detailed list of tree and shrub species within the Borough as provided by Pennypack Trust.

tuliptrees, black cherries and sassafras took advantage of the bright sun, disturbed soil and empty space to invade the woodlands. These were also the same species that colonized farmland soon after it was abandoned along with red-cedars) and dogwoods.

By the middle of the 19th century, over half the land in Bryn Athyn had been cleared of forests and was being used for agriculture. At one time, extensive apple orchards covered portions of the eastern end of the borough. Orchards were developed on estate lands owned by Raymond Pitcairn and his brother, Harold. While these orchards largely have been developed for housing, a few venerable apple trees can still be found growing near the intersection of Cathedral and Quarry Roads and on the grounds of the Bryn Athyn Elementary School. Other peach and apple orchards were developed by the Powell family on the land bounded by Buck and Tomlinson Roads; these orchards have since been developed for institutional use, primarily as athletic playing fields.

Bryn Athyn is unusual in densely populated southeastern Montgomery County because large portions of the borough remain undeveloped and wooded. The current woodland coverage of the Borough is shown on Map 6, Critical Natural Features. Forests still occupy the valleys of Pennypack Creek and Huntingdon Valley Creek where they were never completely cleared, and woodlands have recolonized abandoned agricultural fields, especially in the areas to the west of Huntingdon Pike and in the far western portions of the borough. This abundance of forested land distinguishes Bryn Athyn from surrounding communities and contributes to the borough's character.

Pennsylvania Natural Diversity Inventory (PNDI)

The Pennsylvania Natural Diversity Inventory (PNDI) was established in 1982 as a joint venture of the Nature Conservancy, the Pennsylvania Department of Environmental Resources and the Western Pennsylvania Conservancy. The PNDI has become Pennsylvania's chief storehouse of information on outstanding natural habitat types, sensitive plant and animal species, and other noteworthy natural features.

The PNDI specifically identifies the best natural areas and the location of all known animal and plant species of special concern (i.e. endangered, threatened, or rare). The Pennypack Preserve within Bryn Athyn is identified on the PNDI as a Priority 4 site. A recent request to the PNDI resulted in a determination letter dated October 26, 2005 from the U.S. Fish and Wildlife Service – Pennsylvania Field Office. The letter states that, "Except for occasional transient species, no federally listed or proposed threatened or endangered species under our jurisdiction are known to occur within the project impact area. Similar letters have been received from the Pennsylvania Game Commission and Pennsylvania Fish and Boat Commission. Copies of these letters are included in Appendix B.

Montgomery County Natural Areas Inventory

The Nature Conservancy conducted a systematic search of the county as part of a Natural Areas Inventory (NAI). The NAI supplements the current PNDI listings, provides a summary of the highest quality sites and suggests protection and conservation options for all sites. The Montgomery County NAI was completed in 1995 and is included in the County's Open Space Plan. There were no NAI sites

identified within the Borough of Bryn Athyn. However, two sites are identified in adjacent municipalities:

1. Fraziers Bog (Upper Moreland Township) – This site, located west of Terwood Road historically supported over a dozen rare species. A small remnant of this wetland community persists, containing three plants of special concern. Most of the habitat has been lost to development and an adjacent golf course. This site was identified as a high priority for protection.
2. Bethayres Swamp (Lower Moreland Township) – This site, located north of Huntingdon Pike near the Abington Township border, contains a marsh and shrub swamp of countywide significance. The site provides good bird habitat.

Although no sites within the Borough were listed on the Natural Areas Inventory, the Pennypack Creek stream corridor was identified in the County Open Space Plan as a Natural Area of Significance, primarily due to the convergence of hydrological and terrestrial features such as wetlands, alluvial soils and woodland stands. County residents, when surveyed as part of the preparation of the county open space plan, ranked preserving natural areas as the most important reason for saving open space.

Scenic Resources

The following areas have been identified as scenic resources by the Borough Planning Commission. The scenic views are noted on Map 7, Scenic and Cultural Resources.

1. Cathedral: West Lawn

This area is scenic looking west. Large expanses of woodland form the background with a view of Raytharn Farm in the distance. In front of the woods is the attractive Cairncrest estate, headquarters of the General Church of the New Jerusalem. In the foreground stretch the green open spaces of the Cathedral hill and the Borough Park.

2. Cairncrest

The view of the Cairncrest house at the crest of the hill looking west from the Cathedral is identified as scenic.

3. Paper Mill Road and Meadow Lane

Another high elevation in the vicinity of Paper Mill Road and Meadow Lane has been identified as scenic. Here, looking southward past open space and woodland, the upper part of Glencairn can be viewed.

4. Fetter's Mill Road near Pennypack Creek

This area of Fetter's Mill Road near Pennypack Creek is a scenic roadway. Here the old railroad and station (now the Bryn Athyn Post Office), the antique bridge, and Fetter's Mill contribute to the scenic view.

5. Cathedral Road

Cathedral Road, with views of the Cathedral, Glencairn and Cairnwood, is an area identified as scenic.

6. Pennypack Ecological Restoration Trust lands

These lands feature woodlands, open fields, a wetland pond and views of the Pennypack Creek.

7. View From Borough Park

The view from Borough Park is scenic. From this site, one can look up at the Cathedral, Cairncrest and the side of the village.

8. Mildred's Retreat

This scenic area contains a small stone building with porch, natural spring, stone-lined fishpond and waterfall.

9. Cairnwood Dairy Barn, Stables and Carriage House

These historic structures contribute to the scenic quality of the landscape. The carriage house is a museum that contains numerous restored antique carriages.

10. Alwick Road - South Avenue Loop

This site has many of the original turn of the century houses built by church members, an aging canopy of huge maple trees, and unusual Belgian block drainage gutters. Frederick Law Olmstead, who designed the layout of the Borough, laid out the roads.

11. View from Intersection of Buck and Byberry Roads.

The view looking toward the Cathedral and Glencairn is an area identified as scenic this view overlooks what was once the Pitcairn Air Field. This area is now owned by the Academy and is the subject of future planning as part of the expanding campus.

Historic and Cultural Resources, National Register and National Land Sites

(See Map 7)

Bryn Athyn has a number of outstanding buildings and historic areas that are significant in terms of defining Borough character.

12. Harold Pitcairn Airfield

The Harold Pitcairn Airfield dating from the early 1920's and located at Buck and Tomlinson Roads, is identified by a marker on the site. The Harold Pitcairn airfield was important because Mr. Pitcairn, a noted aviation pioneer, was awarded the Collier Award for making significant contributions to aeronautics including autogyro development, airmail and commercial passenger aviation.

13. Bryn Athyn Cathedral

Begun in 1913, the Gothic Romanesque architecture is reminiscent of medieval cathedrals. It is an excellent representation of Gothic and Romanesque architecture in America. The cathedral is listed on the Montgomery County Plan for preservation of Historic and Cultural Resources.

14. Cairnwood

John Pitcairn and his wife Gertrude built Cairnwood between 1892 and 1895. Reminiscent of a French Chateau, Cairnwood was designed by the architectural firm of Career and Hastings. The firm of Olmstead and Eliot designed the grounds.

15. Glencairn

The Glencairn museum (constructed from 1929 to 1942) is a part of the Academy and has been listed on the National Register of Historic Places since 1978. It houses a variety of collections including medieval stained glass, and artifacts from ancient Egyptian, Greek, Roman and Native American cultures.

16., 17. Two Stone Bridges

The two stone bridges located where Paper Mill Road and Creek Road cross Pennypack Creek were built in 1817 and 1840, respectively. They contain engraved stones bearing information on their construction. Both are located on Pennypack Ecological Restoration Trust property.

18. Alnwick Grove

This former park was accessible by train from Philadelphia. It attracted Academy of the New Church members who were then living in the city. The park featured swimming, canoeing, picnicking and a pavilion for dancing. John Pitcairn purchased 35 acres near the Grove in 1889. In 1897, the Academy and the newly named General Church of the New Jerusalem moved from Philadelphia and settled in the area north of Alnwick Grove.

19. Benade Hall: 2nd standing

Benade Hall, which burned down in 1948 and was rebuilt, houses the Academy high school classrooms. The original building, built in 1901 was the first Academy building and served as a society center and the chapel served as the society church until the Cathedral was built.

Archeological Sites or Ruins

The Borough has no sites of archeological significance and no significant ruins.

Sites of Local Significance

The following sites may be considered of local cultural significance.

Bryn Athyn Church Cathedral, Glencairn Museum, Cairnwood and Swedenborg Library are all sites of local significance. Pitcairn Hall, Asplundh Field House, Civic and Social Club, Cairnwood Dairy, Glenhurst, Cairnwood Village. The Cathedral, Cairnwood and Glencairn museum have been previously described. The Swedenborg Library, which serves the Academy School as well as the community, has a library of at least 90,000 titles.

Map 3 – Vulnerable Resources – Geology and Topography

Map 4 – Vulnerable Resources – Hydrologic Features

Map 5 – Vulnerable Resources – Critical Natural Features

Map 6 – Vulnerable Resources – Soils

Map 7 – Vulnerable Resources – Cultural and Scenic Resources

V. Potential Open Space Linkages

Greenway trails and linear parks are an important component of any park and recreation system. Greenways provide the opportunity for walking, hiking, biking and cross-country skiing--recreation activities that are enjoyed by a large segment of the population. They can link other significant open spaces within a community's fabric and, by doing so, create a green infrastructure.

Greenways can be developed along natural and man-made corridors of public and private lands and water. These areas are linear in configuration and may link to other existing open spaces or special areas of a community. Greenways are typically created along stream corridors, ridge-tops, utility rights-of-way, and abandoned railroad rights-of-way. The Pennypack Creek corridor is Bryn Athyn Borough's principal greenway. The linkages in this greenway could be improved as well as connected to other rights-of-way, to create an alternative transportation route, provide wildlife corridors and promote bicycle and pedestrian commuter transport.

Bryn Athyn Borough has a number of possible open space linkages in the Pennypack Trust. A description of these areas is as follows.

Former Reading Railroad Newtown Branch Line Corridor

Bryn Athyn Borough is traversed by a former Reading Railroad right-of-way (now SEPTA), which roughly parallels Pennypack Creek's eastern bank. This 50 foot-wide right-of-way crosses the Borough from a point south of Fetter's Mill Road at the post office and continues northward to Byberry Road next to the Mason's Mill Business Park. SEPTA suspended passenger rail service on the right-of-way in 1984, and Montgomery County and special interest groups have proposed converting the right-of-way to a trail called the Newtown Greenway. The southern end of the proposed trail would link Bryn Athyn with Lower Moreland and areas south of the Borough, such as the lower portion of Pennypack Creek. Through the interior of the Borough, the trail would connect Elsa Park at the southern end of the Borough, with the neighborhoods along Fetter's Mill Road, the Cairnrun Homeowners Association Area and the Borough Park near Quarry Road, the closed portion of Paper Mill Road and all of the land bordering Pennypack Creek that is owned by the Pennypack Trust. To the north, the trail would connect to Montgomery County's Cross-County Trail currently under construction and could eventually continue into Bucks County.

The Borough Council has been approached concerning the right-of-way by a "rails-to-trails" group and a group attempting to reactivate the passenger service on this line. The Council has not been presented with any plan on which they were asked to take a position. However, the Council has indicated a clear opinion that the SEPTA line should remain as a transportation right-of-way for future use. The right-of-way is no longer maintained by SEPTA and is overgrown and impassable during the growing season.

Trails Along Former Creek Road and Paper Mill Road

The former Creek Road parallels Pennypack Creek from a point just north of Terwood Road to the northern extreme of the Borough. Most of the land that the trail traverses is part of the Pennypack Preserve. The southern end of the roadway, now part of the trail system in the Pennypack Preserve, starts across from Raytharn Farm. The Creek Road Trail crosses the former Paper Mill Road near the Paper Mill Road bridge over the creek... The opportunity exists to join this trail with the Newtown Trail, which would be primarily located on the eastern side of the creek, at the closed Paper Mill Road bridge. At present, both ends of the Creek Road Trail and the Paper Mill Road Trail (located on the roadbed of the vacated Paper Mill Road) at the bridge provide public access to the Pennypack Trust's trail system. There is also a location where the former rail line crosses the Pennypack Creek for a short distance; such linkages could afford the opportunity for a small loop system to be created between the rail line and the Creek Road Trail.

In terms of the nature of these trails, the sections of the Creek Road Trail and the Paper Mill Road Trail that lie within the boundaries of the Pennypack Trust lands have been formally vacated. These roadways are now privately owned by the Trust. These roads are used as service roads and are passable, but in poor condition. The Borough Fire and Police organizations have access to these roadways for fire and safety purposes.

Neighborhood Pedestrian Linkages

The central area of the Borough, located around the campus of the Academy of the New Church, is afforded access to the Pennypack Creek corridor primarily through the Borough Park. The other path of access is along Alnwick Road and South Avenue. The campus itself has ample pedestrian corridors and sidewalks and could act as a pedestrian "hub" for the adjoining residential communities. The sidewalk systems along the neighborhoods located east of the campus alongside Tomlinson Road have recently been completed, allowing this linkage to be fully utilized. Now, all of the residents in the east section of town are linked by sidewalks to the Academy and the Elementary School.

Bryn Athyn was laid out as a walking community. The Cathedral and schools are in the center of the community and are, for the majority of the residents, within a 15-minute walk of the outskirts of town. The SEPTA Route 24 bus line has stops along Huntingdon Pike at the edge of the school campus that provides public transportation for the Borough to points south (Bethayres, Rockledge, Fox Chase and Philadelphia) and points north to Southampton Township.

The section of town west of Huntingdon Pike has sidewalks on Alnwick Road and South Avenue that lead to the Cathedral and the two school campuses. There is a traffic problem on these two roads as there is only one paved sidewalk on one side of the road. This forces some residents to cross the road to reach the sidewalk. Speed bumps will be installed on these roads to help slow traffic. There is a shortcut connecting "Crosswalk" between these two roads.

A new sidewalk is planned for Alden Road connecting Feters Mill Road to Huntingdon Pike. There is a connecting footpath, "Hobart Lane," between Alden Road and South Avenue. These connecting paths and sidewalks are used regularly by local residents for waking dogs, going to school, going to church, pushing baby strollers, going to the Post Office for the mail (Bryn Athyn does not have local mail delivery) or just for strolling.

Visitors from outside of the Borough typically park at the Cathedral and stroll on the roads and walkways surrounding the Cathedral. A great number of Russian and Ukrainian residents from Northeast Philadelphia walk here regularly as they say the view and buildings remind them of their home country.

VI. Analysis of Unprotected Resources

The following section outlines the importance of unprotected resources in terms of concentration of resources, environmental protection functions, compatibility with community goals, contribution to community identity and proximity to developed areas and population.

Bryn Athyn Borough has a multitude of well-preserved natural resources. The undeveloped nature of a large part of the Borough has allowed retention of the original natural landscape in much of the Borough, particularly the western portion where the Pennypack Trust currently maintains large parcels of undeveloped land. Since the Pennypack Trust owns large areas, particularly the more environmentally sensitive areas, preservation of environmental resources has been a long standing mutual priority.

This analysis of unprotected resources focuses on the interrelatedness of natural features such as floodplains, alluvial soils, steep slopes and woodlands. These features are mapped together on the Composite Natural Features Map (**Map 8**), which locates natural resource concentrations in the Borough and also indicates the status of preservation of these areas.

As illustrated on Map 8, most of the areas in the Borough having high concentrations of natural resources are already preserved through the Pennypack Trust as well as by floodplain and steep slope zoning restrictions. Areas with the highest concentration of these resources are as follows.

1. Pennypack Creek Stream Corridor
Along this stream corridor occur most of the Borough's sensitive natural resources. The Pennypack Creek flows through the western portion of the Borough. Here are located overlapping concentrations of floodplain lands, alluvial soils, steep slopes, wetlands and rock outcroppings.
2. Huntingdon Valley Creek Stream Corridor
Other concentrations of natural resources occur along the tributaries of Huntingdon Valley Creek, which lie east of Huntingdon Pike. These wooded tributaries contain wetlands, floodplains, alluvial soils and steep slopes.

The vacant parcels along stream corridors in the Borough are protected by environmental restrictions. The features of floodplain, steep slope, alluvial soils and stream corridor are all natural resources that are regulated by Borough zoning. Much of the stream corridor area is permanently restricted from development due to ownership by the Pennypack Trust.

When evaluating the value of unprotected resources within the borough, the following criteria should be considered:

- Prioritize areas with natural features

The areas containing alluvial soils, stream corridors and steep slopes are the Borough's first priority in terms of preservation. Preservation of the stream corridors could be promoted through stream setback requirements, floodplain restrictions and open space acquisition or easements.

- Prioritize properties that would further enhance the ecological integrity of the Pennypack Preserve.

Properties bordering the Pennypack Creek should be given high priority for preservation, a specific initiative in the strategic master plan for the Pennypack Trust. Preservation involves the conservation or acquisition of lands bordering the Pennypack Creek so that there is a continuous, contiguous corridor throughout the middle watershed. This ensures that the creek corridor is protected from development, the stream banks and riparian forests are restored and able to mitigate flooding, and food and habit are provided for wildlife.

- Prioritize properties that could connect existing Trust properties or protect undeveloped properties directly adjacent to the existing Pennypack Preserve.
- Prioritize properties that do not border the Pennypack Creek but which have significant natural values, including lands along tributaries to the Pennypack Creek.

Map 8 indicates that there are some areas adjacent to the Pennypack and Huntington Valley Creek stream corridors which are either temporarily protected or not under any type of land preservation. Most of the lands under the designation of "Temporarily Protected" are owned by the various institutions within the Borough including the Academy of the New Church and the Lord's New Church. Areas within the Academy's grounds are being held off future expansion of the school facilities. A portion of the area along Masons Mill Road in the northwestern section of the Borough is currently being considered for acquisition by the Pennypack Trust from the Lord's New Church for preservation and as the location for the Trust's new visitor's center. This property is described in more detail in following chapters.

As noted previously, other areas currently not preserved are constrained due to Borough zoning regulations that restrict development on natural features such as wetlands, floodplains, and steep slopes.

Map 8 – Natural Features Composite

VII. Evaluation of Growth Areas Needed for New Development through Year 2025

In 1988, the Borough requested that the Montgomery County Planning Commission perform a residential infill study of the Borough’s medium and high-density zoning districts. It was the intent of the study to determine the true, or realistic, build-out potential for the two districts. The two zoning districts are “B” Medium Density Residential and “C” High Density Residential. These zones are found in only two areas of the Borough: the first is located west of Huntingdon Pike, and the second is located just north of the Bryn Athyn Church and Elementary School (Figure 3). Study Area #2 shown on Figure 3 is noted in the County’s Comprehensive Plan as an area of potential development.

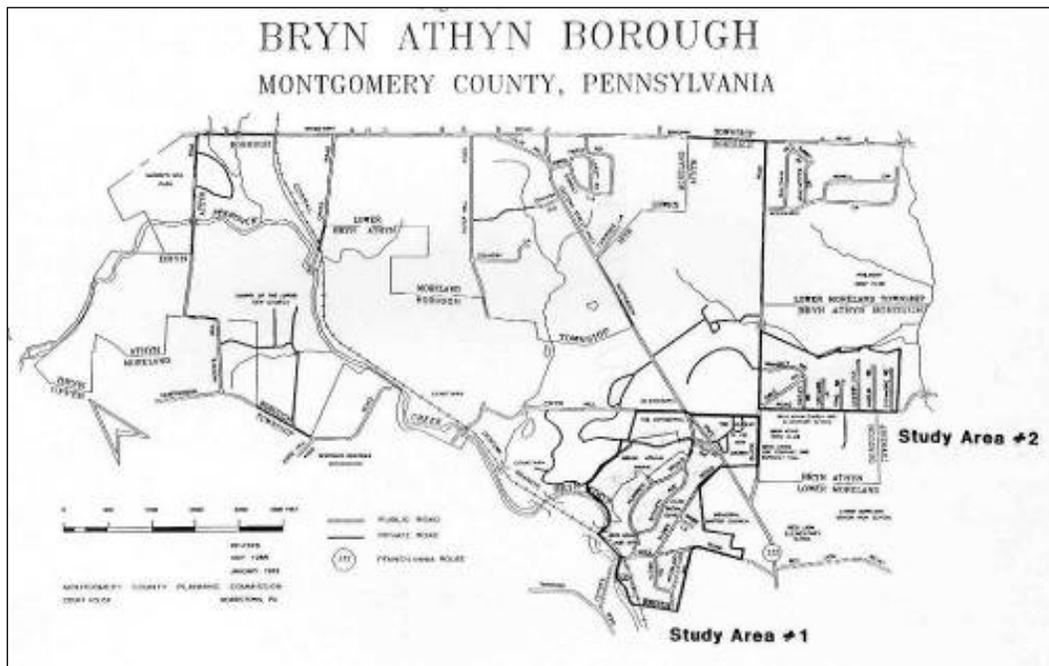


Figure 3 – Potential Infill Sites in Bryn Athyn (Montgomery County Planning Commission, 1988)

During the summer of 2005, the proposed sewer improvements for the areas identified in the infill study were completed. According to Borough officials, most of these areas have been developed or contain small sites for subdivision. Several locations along the Huntingdon Valley Creek are potentially developable and are included in the analysis of developable lands described in the paragraphs below.

Developable Lands

The following table was created to list potential developable lands over ½ acre in size as currently listed in the Montgomery County Land Record files for Bryn Athyn Borough. Lands classified as open space, or those listed as vacant (residential,

commercial, industrial, institutional and woodlands) were included in this initial search. Each parcel was then reviewed with borough officials to determine current status and if these parcels were available for development. The original list contained a total of 22 parcels ranging in size from ½ acre to 9.77 acres. Upon further examination of these 22 properties with Borough officials, 12 properties were removed from consideration because they have been protected and/or have been or are presently being developed. Table 11 lists the remaining 10 parcels currently designated as vacant and residential. The location of these parcels is keyed to **Map 9**.

Table 11 Vacant Land over ½-Acre in Bryn Athyn Borough						
Map ID#	Parcel ID-030000	Borough zoning	Acres	Owner	Address	Comments
1	334401	A	9.77	Pennink Mark	Creek Rd.	Open for development. No present plans
2	486906	NP	3.76	Route 31 Partners	03396 Mason Mill Rd.	Open for development. No present plans
3	258009	A	4.65	Junge James & Bethel	03192 Buck Rd	House built but could be subdivided
4	487455	A	3.34	Schrifer Laura & Eugene III	02040 Buttonwood LN	Open for development. No present plans
5	487257	A	5.42	Duncan David & D. Pitcairn	02155 Buttonwood LN	Open for development. No present plans
6	258351	A	2.17	Junge James & Bethel	Buck Rd	House built, but could be subdivided
7	253005	C	1.19	Lermitte Kaye & Peter	03025 Buck Rd	Open for development. No present plans
8	793608	C	0.65	Rhodes Peter & Roxanne	Waverly Rd	Open for development. No present plans
9	739005	C	0.47	Bau-Madsen Halfdan & Nicole	Sycamore Rd	Open for development. No present plans
10	817008	C	0.50	Wille John & Yvonne B	Woodland Rd.	Open for development. No present plans
Total			31.92			

Source: Montgomery County Assessment Files, 2005

In addition to residential parcels, the county records were reviewed to identify vacant parcels currently designated for institutional use. This search revealed ten properties. Under the Borough's current zoning, residential uses associated with an institution are permitted on these lands at the same density as the B zoning district (2 dwelling units/acre). These properties were reviewed with Borough officials to determine their status with regard to potential development. Of the ten properties initially identified, seven were removed from consideration because they are already protected, in development, or being held for long range planning by the various institutions. The three remaining properties are listed in Table 12.

Table 12 - Other Vacant Parcels over ½-Acre (Institutional and Association lands) Bryn Athyn Borough						
Map ID #	PARCEL ID- 030000	Borough zoning	Acres	Owner	Address	Comments
A	625002	IN	23.44	Academy of the New Church		Open for development. Part of the present planning process
B	521007	IN	9.43	Academy of the New Church		Cairnwood Mansion Lawn part of historic site.
C	52002	IN	0.77	Academy of the New Church		Part of the present plan for development.

Source: Montgomery County Assessment Files, 2005

Zoning Key

- A Low Density Residential 1.0 dwelling unit/acre
- B Medium Density Residential 2.0 dwelling units/acre
- C High Density Residential 3.7 dwelling units/acre
- IN Institutional District 2.0 dwelling units/acre only institutional housing
- NP Natural Preservation District 0.27 dwelling unit/acre

Thus the total amount of land potentially available for development in Bryn Athyn Borough is limited to 10 small residential parcels totaling 31.92 acres and three larger institutional parcels totaling 33.64 acres.

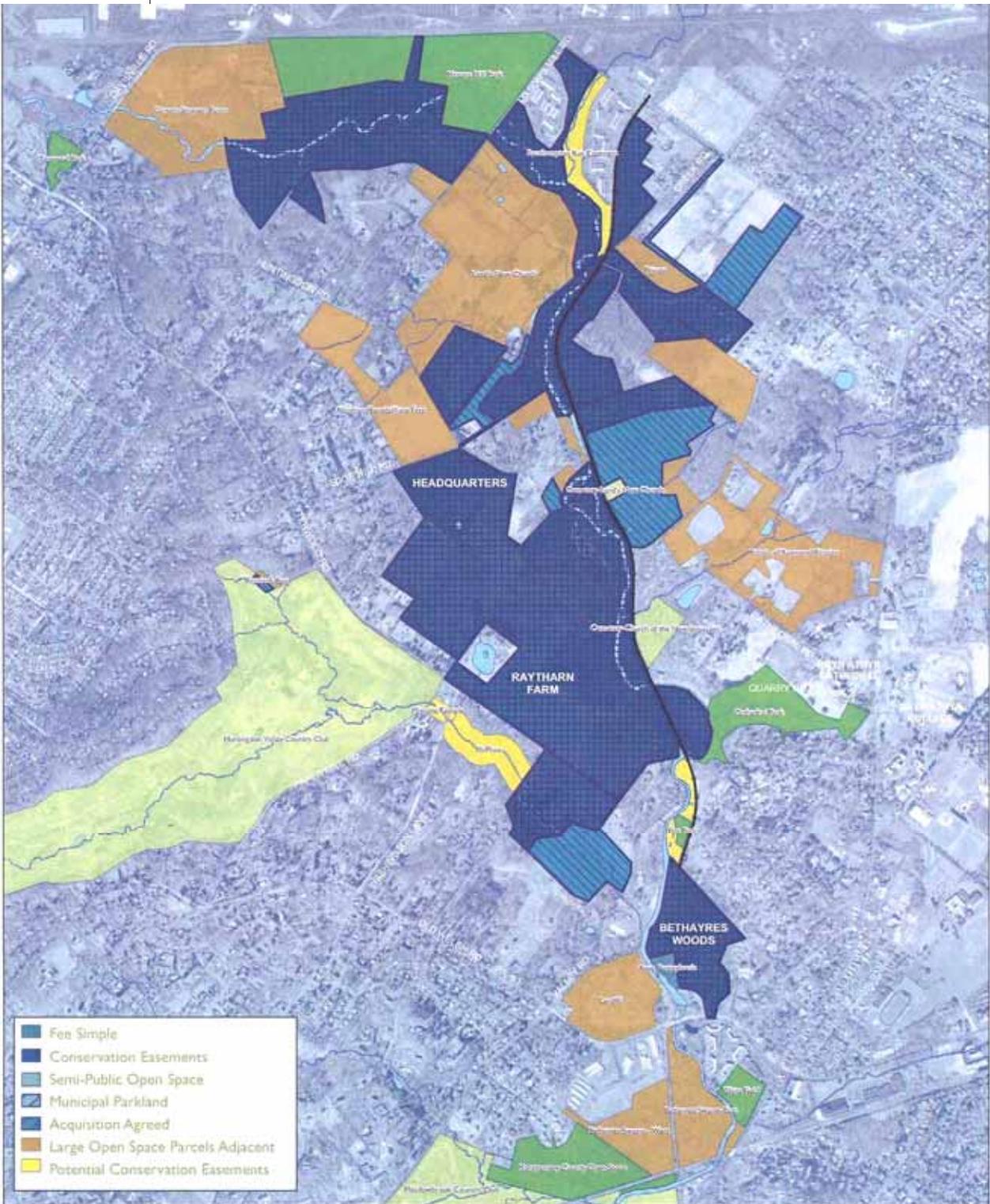
In order to evaluate the relationship between potential developable lands and natural features, the parcels noted in Tables 11 and 12 were superimposed over the composite features map to locate those that were along the creek corridors, contiguous to lands already preserved, or may have important natural features. In addition, the parcels identified for priority acquisition or preservation in the Pennypack Ecological Restoration Trust's master plan (see Figure 4) were also reviewed and mapped. The results are shown on Map 9, Developable Lands Analysis.

Based on this mapping process, and a review of the Pennypack Trust's master plan, three sites were identified as possible candidates for preservation. These are:

- Mason's Mill and Creek Road Site – Lord's New Church
- Paper Mill Road Woods Site - Feo Pitcairn
- Creek Road Site - Pennink

An additional site, previously noted in the 1996 plan was also identified by the Borough:

- Cathedral Road Site (Sleepy Hollow) – Raymond Pitcairn Trust



OWNERSHIP, EASEMENTS, & POTENTIAL ACQUISITION

Figure 4 – Ownership, Easements and Potential Acquisition - Pennypack Ecological Restoration Trust – 2005 Master Plan

Map 9 – Developable Lands Analysis

VIII. Evaluation of Open Space Needs

In this chapter, the open space needs of the Borough will be evaluated using the population-based recreational open space needs assessments recently set forth by the Delaware Valley Regional Planning Commission (DVRPC) in its May 2002 publication, *Recreational Open Space Needs Analysis for the Delaware Valley*. The national standard most commonly referred to for estimating acreage needs is the National Recreation and Park Association (NRPA) Standards, published in 1983. The original NRPA standard recommended 10 acres of park land and open space for each 1,000 residents within the municipal boundary along with an equal area of large parks and forests either within or immediately adjacent to the municipality. This population-based needs assessment was most commonly used by park planners through the 1990's. However, in more recent publications, the NRPA began to take the view that fixed park and recreational open space "standards" were too crude and rigid to be applied universally to something as complicated and variable as park and recreational open space planning. In the most recent NRPA publication, *Park, Recreation, Open Space and Greenway Guidelines* (1995), the NRPA notes that park planners should think of the entire community as a "park" and balance all land uses into "environmentally harmonious park, recreation, and open space land units."

The DVRPC's method for determining the need for recreational open space borrows from the past NRPA guidelines to provide a basic numerical benchmark that can assist communities in their efforts to set up a diversified and balanced park, recreation and open space system.

As defined within the DVRPC study, "recreational open space" refers to all publicly owned and accessible lands, including municipal, county, state and federal parks; state forests; state game lands; wildlife preserves; lands in the national park system and various other publicly owned and accessible lands.

This analysis begins with a common planning tool - an acreage standard - as a first step to evaluating the Borough's total supply of open space. Using the projected total population of the Borough for years 2010, 2020 and 2025, a recommended number of total acres are calculated. Under the DVRPC guidelines, the following density-based acreages are recommended:

Population Density (Persons per square mile)	Recommended Acres of recreational open space per 1,000 persons
0 – 499 persons	6.0
500 – 4,999 persons	8.0
5,000 – 9,999 persons	6.17
> 10,000 persons	3.08

Source: DVRPC Recreational Open Space Needs Analysis for the Delaware Valley, May 2002

Bryn Athyn Borough currently has 28 acres of municipally owned park and recreation land within its boundaries. This acreage is entirely passive recreation land. The unique social make-up of the Borough makes municipally owned recreation facilities much less important in Bryn Athyn than they would be in another municipality since Borough residents are generally of the same faith and enjoy use of church owned facilities in much the same way that non-church based communities make use of municipal

facilities. Thus, since most Bryn Athyn children attend church related schools and use the Academy's private recreation facilities, the lack of active recreation facilities owned by the municipality does not indicate a lack of opportunity for municipal residents to partake in active recreation.

With a population of 1,351 persons (2000 census) and an area of 1.9 square miles, the Borough's population density is approximately 700 persons per square mile. The recommended acreage for the Borough is then calculated based on a ratio of 8.0 acres per thousand residents. These ratios are then applied for 2000, 2010 and 2025 as shown in Table 14 below: Recommended acreage for parks and open space is calculated below:

Year	Land Area in Sq. Miles*	Population	Population Density per Sq. Mile	Recommended Park Land Standard (Persons per square mile)	Acreage Of Parkland Needed	Acreage of Existing Parkland	Surplus (or Deficit)
2000 Population	1.91	1,351	707.3	8.0	10.8	28.0	17.2
2010 Forecast	1.91	1,350	706.8	8.0	10.8	28.0	17.2
2020 Forecast	1.91	1,410	742.1	8.0	11.3	28.0	16.7
2025 Forecast	1.91	1,420	743.45	8.0	11.4	28.0	16.6

Source: US Census Bureau, 2000 & DVRPC Population Forecasts (2005)

The above table reflects population forecasts for Bryn Athyn Borough developed by the DVRPC. The DVRPC forecasts that the Borough's population will increase slightly and then remaining relatively stable over the next twenty years. Thus, open space needs are estimated to increase from 10.8 acres to 11.4 acres.

As described in Chapter 7, developable land in the Borough is limited and much of the remaining undeveloped land is reserved for institutional growth. Nevertheless, even if the parcels noted in Table 12 were all developed under current zoning densities, the increase in households (104 units) and subsequent population (333) would not approach the level that would require additional open space facilities for the Borough residents.

The total stock of parks and open space in Bryn Athyn satisfies DVRPC's recommended standards and is estimated to do so through the year 2025. The Borough's open space holdings are enhanced by the large amount of land held within the Pennypack Preserve, which are available to Borough residents. Since a large portion of the Pennypack Trust's lands is within the Borough, the Borough's share of open space land exceeds the national standards. In addition, since a large amount of the remaining acreage of the Borough is in institutional use, these institutional lands also enhance the perception of open space within the community.

However, due to the importance of Bryn Athyn as a cultural and religious center, a large number of people pass through the Borough each year. Annual attendance records at the various points of interest in the Borough reveal that the importance of

Bryn Athyn Borough extends far beyond its municipal boundaries. A listing of annual attendance at Borough points of interest is as follows:

- Bryn Athyn Cathedral: 26,680 visitors
- Glencairn Museum: 12,866 visitors
- Cairnwood Mansion: 16,000 visitors
- Academy Library: 2,000 visitors
- General Church Assembly: 1,600 visitors expected in 2005
- John Pitcairn Archives: 1,200 visitors
- Church meetings: 45 visitors
- Mitchell Performing Arts Center: 16,500 visitors
- Dormitory students: 175. Outside elementary students: 172

These visitors to Bryn Athyn enjoy the open space and scenic views that typify this picturesque community. Thus, Bryn Athyn’s open space is a resource that is shared by the many visitors who pass through each year.

Evaluation of Existing Parks and Recreation Facilities

According to the regional standards described above, Bryn Athyn Borough with a population of 1,351 persons in 2000 needs approximately 10.8 acres in neighborhood parks. The Borough currently has 28 acres in developed neighborhood parks. Thus, the Borough park acreage exceeds regional standards. Table 15 below summarizes the various public and private park and recreational facilities within the Borough:

Table 15 - Summary of Park and Recreational Facilities in Bryn Athyn Borough, 2005		
Name of Facility	Location	Acres
Borough Parks and Open Space		
Borough Park	Quarry Rd. west of Alnwick Road	25.0
Elsa Park	Fetter’s Mill & Pennypack Creek	3.0
Sub-Total Acres		28.0
Permanently Protected Open Space		
Pennypack Trust	Stream Corridor of Pennypack Creek	257.8
Cairn Run Homeowners Association	Quarry Road and Cairnrun Circle	12.0
Sub-Total Acres		269.8
Private Recreation Facilities		
Bryn Athyn Elementary School	Tomlinson Road	5±
Academy Fields	Buck Road and Tomlinson Road	18±
Cairn Run Pond Area	Quarry Road	5
Bryn Athyn Swim Club	Buck Road	1±
Sub-Total Acres		29±
TOTAL		326.8

Source: Bryn Athyn Borough and Pennypack Trust

One other consideration Borough officials thought to be important in evaluating existing facilities focused on the Borough’s unique community. Looking from the outside of the Borough at the Borough’s parks, there could be concern that the distances between some residents and the park facilities are too great. However, Bryn Athyn has solved the park availability in its own way. Families with children usually have their own play equipment in their yards or play in a neighbor’s yard. Parents prefer to have their children play where they are most easily supervised and protected.

Parents walking their children and people walking their pets regularly use the populated areas of the Borough and the open institutional property. In a small community such as Bryn Athyn, most residents know who the residents are along the streets. In addition, the Borough's institutions have regular security. The high degree of safety while being "out and about" is appreciated.

The parks and facilities located within the municipal boundaries listed below currently serve Borough residents.

- **Borough Park**
Passive recreation facility located on Quarry Road west of Alnwick Road. This park is adjacent to the sloping west lawn of the Bryn Athyn Cathedral. This lawn is used for picnics at special times of the year and during the winter months, when there is adequate snow cover; Quarry Road is closed to allow sledding on the west lawn hill and into Borough Park.
- **Elsa Park**
Elsa Park, a passive recreation facility located adjacent to Pennypack Creek.
- **Bryn Athyn Elementary School Playground**
The Bryn Athyn Elementary School provides sports fields and play equipment for children of Borough residents.
- **Academy Fields and Facilities**
The Academy provides sports fields, tennis courts, a fitness center, and an outdoor roofed pavilion equipped as an ice rink but suitable for other recreation purposes. A library housing 90,000 titles is also housed on the Academy grounds. The number of Academy tennis courts has been expanded from two to eight and are available through membership. The Academy pavilion ice rink, in addition to its function for the school hockey team, provides space for young hockey teams and family skating through membership
- **Bryn Athyn Cathedral Grounds.**
The Cathedral grounds contain beautiful gardens, stone walkways and benches facing scenic views. The lawns and views of Glencairn Museum and Cairnwood Mansion can be seen from across Cathedral Road. Looking west is the Borough Park and views of the sunset from the top of the hill.
- **Cairn Run Pond.**
This pond has a dock for small boats and is adjacent to the Bryn Athyn Cemetery. Natural wooded areas lead from Quarry Road down to the SEPTA railroad right-of-way and to the Pennypack Trust lands.
- **Bryn Athyn Swim Club**
Membership swim club open to Borough residents.

- Bryn Athyn Civic and Social Club
Located on a ¾-acre site on Alden Road the club includes a game room, bar, meeting room and kitchen.
- Pennypack Trust Trail System
The Pennypack Trust maintains more than eight miles of multi-use trails accessible to the general public. A portion of this system is located along vacated sections of the former Creek Road and Paper Mill Road.

The residents in the northwest portion of the Borough, who are furthest from Borough parks, do have access to the Pennypack Trust trail system and are directly across from the Mason's Mill Community Park in Upper Moreland Township. This 76-acre park located at 3500 Mason's Mill Road has a variety of recreational and picnic facilities including volleyball courts, tennis courts, baseball and softball fields, a walking trail and a catch and release fishing pond. The Pennypack Trust has preserved the great majority of the desirable open space in Bryn Athyn and adjacent to Bryn Athyn. Pennypack Trust employs a staff of nine professionals that maintains trails, restores and enhances natural habitats and conducts interpretive programs. The Pennypack Trust provides for the professional management and stewardship of the lands, a financial base for endowment, and support from members from other communities as well as Bryn Athyn.

Through the Pennypack Preserve, the institutions and private ownership, the residents of the Borough and their neighbors are better served with recreational facilities and amenities in a secure and affordable manner than could possibly be done through the municipal government alone or in cooperation with other municipalities.

IX. Recommendations

Acquisition Parcels Considered

The Borough and adjacent municipalities contain lands that have the potential to enhance the quality of life for Borough residents if they are preserved for open space enjoyment. These tracts were noted in Chapter 7 and are listed in Table 16 according to their potential use. The tracts are the result of the Borough’s evaluation of vacant lands both private and public.

Bryn Athyn holds unique cultural and architectural resources. The Borough residents and the residents in nearby townships, as well as people from more distant locations who visit Bryn Athyn for cultural and religious purposes, value these resources. According to statistics provided by the Borough, there are 3,306 church members in and around the Borough. Of that number 1,191 live in the Borough and 2,115 live in 101 towns surrounding the Borough. In a typical year, over 72,000 non-church related people visit Bryn Athyn’s major sites: Glencairn, Cairnwood, Mitchell Center and Bryn Athyn Cathedral. Therefore, the community is impacted by its own residents and from outside visitors. The character and cultural quality of the community will be better maintained if the remaining key open space properties remain undeveloped. The environmental and visual characteristics of these pieces of land are very important to the overall quality of the community.

Map ID#	Montco Parcel #	Acres	Owner	Location	Interest
1	30-00-00478-013	54.09 (28 acres for acquisition)	Lord's New Church	Mason's Mill Road	Contiguous with parcels owned by the Trust. Easement and fee simple acquisition could be considered
2	03-00-00589-002 & 03-00-00589-506	33.41 & 16.53	Feodor & Kirstin Pitcairn,	Paper Mill & Cathedral Roads	2 wooded parcels, partially protected by conservation easements. Parcel 506 has 3.76 acres not currently protected under easement.
3	03-00-00334-401	9.77	Mark Pennink	Creek Road	Contiguous with a 20.23 acre parcel owned by the Trust
4	03-00-00522-006	74.25	Raymond Pitcairn Estate	Cathedral Road	10-12 acres of drainage way upstream of Cairn Run Pond (a.k.a. Sleepy Hollow)

Parcel Descriptions

1. Lord’s New Church, Parcel #03-00-00478-013 - Mason’s Mill & Creek Road

Of the 54.09 acres in Bryn Athyn Borough owned by The Lord’s New Church, approximately **25** acres are proposed for preservation.

These parcels are contiguous to parcels owned by the Pennypack Trust. This land would widen the corridor of open space adjacent to Mason’s Mill Business Park.

The Lord's New Church property includes a 14.9-acre tract of woods and an adjacent 9.7-acre parcel that is presently under lease (12 years remaining on the lease) to the Bryn Athyn Borough Authority that contains the treated wastewater spray irrigation system that formerly served the Mason's Mill Business Park. These parcels of land are bounded on the west by Mason's Mill Road, on the north and east by a narrow strip of protected land parallel with Pennypack Creek that is owned by the Pennypack Trust and on the south by other lands owned by the Lord's New Church. This site is under consideration for a new visitor's center for the Pennypack Trust.

2. Feodor and Kirstin Pitcairn, Parcels #03-00-00589-002 (33.41 acres) and #03-00-00589-506 (16.53 acres) - Paper Mill and Cathedral Roads (2860 Paper Mill Road) - Known locally as Paper Mill Road Woods

These two parcels owned by Feodor and Kirstin Pitcairn are largely (though not wholly) protected by conservation easements that limit future development. Nevertheless, the Pitcairns have indicated their interest in selling the parcels to the Pennypack Trust to maintain their character as wooded open space in perpetuity. Parcel 002 is fully protected by a conservation easement that limits development to the existing residence and ancillary structures. Parcel 506 is partially protected by two conservation easements that together encompass 12.77 acres, leaving 3.76 acres that could be developed into two or more residential lots based on current zoning.

3. Raymond Pitcairn Estate, Parcel #03-00-00522-006 Cathedral Road. (known locally as Sleepy Hollow)

The pond and drainage area comprise about 10-12 acres and are part of a much larger 74-acre piece of land that is to be developed for housing. Preliminary plans are being developed for this site.

4. Mark Pennink, Parcel #03-00-00334-401 Creek Road

This 9.77-acre property is contiguous to land held by the Pennypack Trust. While it does not have significant natural features that make it particularly desirable as additional open space, the land could be developed for housing. The site sits adjacent to land which includes a high quality tributary to Pennypack Creek. This land could especially useful as a trailhead if trails were developed along Pennypack Creek. This land is identified for potential acquisition in the Pennypack Trust's master plan.

Selection Criteria

In order to evaluate the various parcels of open space identified above, a number of criteria were evaluated to determine the parcels' applicability for inclusion as a site recommended for acquisition. As noted in the following matrix, nine variables were considered to be the most significant for determining a parcel's priority for further evaluation and acquisition.

Table 17 - Evaluation of Acquisition Parcels - Bryn Athyn Borough Open Space Plan - 2005				
	Creek Road – Pennink	Mason’s Mill - LNC	Paper Mill Road Woods - Pitcairn	Sleepy Hollow- Pitcairn
Contiguous to other protected lands	Yes, Pennypack Preserve Natural Area	Yes, stream corridor preserved lands	Yes, Pennypack Preserve Natural Area	Not adjacent to preserved lands
High Value or Sensitive Natural Features	Yes, portion contains woodlands. Site is adjacent to lands with high quality tributary stream	Yes, stream corridor	Yes, High Quality Forest & ecosystem	Yes, stream tributary, steep slopes
Part of proposed or existing greenway	No	Yes, adjacent to proposed primary and secondary trail, & destination points	Yes, adjacent to proposed primary trail.	Yes, adjacent to proposed primary trail.
Adjacent to other parks or recreation areas	Yes, Pennypack Preserve Natural Area	Yes, Pennypack Preserve Natural Area	Yes, Pennypack Preserve Natural Area	Not adjacent to preserved lands
Owner willing to conserve land	Uncertain	Yes, in negotiation	Yes, in negotiation	Owners aware of potential open space opportunities.
In Pennypack Trust Master Plan	Yes as possible acquisition or controlled land use	Yes, as possible acquisition for future visitor center	Yes, to buffer preserve from development and broaden county-designated greenway	Not specifically noted in plan but is located in middle watershed and along tributary to creek.
Development Potential High	Yes, could be developed. Zoned for low-density residential. Currently being considered as access to adjacent residential development.	No, part of church property temporarily protected. Zoned Natural Preservation & Institutional	No, landowner in negotiation with Trust for preservation	Yes, zoned for low density residential, but has slope constraints
Alternative protection available (zoning or easement)	No	Natural preservation zoning limits development.	Natural Preservation zoning limits development	Steep slope zoning limiting along stream corridor.
Part of Identified Scenic View	No	No	Yes	Yes

Priority Recommendations

1. Lord’s New Church, Parcel #03-00-00478-013 - Mason’s Mill & Creek Road
The study area for possible acquisition covers 24.6 acres. Of this area, 9.7 acres are presently leased and maintained by the Bryn Athyn Borough Authority for spray irrigation. This part of the property has a right of way off Mason’s Mill Road and is set back from the road. There is a concrete pumping station that is built into the side of a hill, an aeration pond, a holding pond, and a grassy field where the treated wastewater is applied to the land.

The 9.7 acres that are presently under lease will be relinquished by the Borough Authority back to the owner due to the dismantling of the spray fields.

The adjacent 14.9 acres to the east are mostly wooded and fairly steeply sloped. Together, these parcels would expand the narrow strip of protected land along Pennypack Creek currently owned and managed by the Pennypack Trust. The narrow strip of land currently owned by the Pennypack Trust contains a dirt trail that connects Mason's Mill Road to the Creek Road Trail. This trail, the Pennypack Creek Trail, is heavily used by visitors to Upper Moreland Township's Mason's Mill Park and by employees of the Mason's Mill Business Park campus across the creek. Upper Moreland's Mason's Mill Park features paved walking paths, athletic fields, playground equipment, an exercise course, tennis courts, a bandstand, and picnic facilities, but the undeveloped portion of the park to the west of the athletic fields has no maintained trails for passive recreation.

This site has been identified in the Trust's master plan as the preferred location for a new visitor's center due to its proximity to the creek; easy access from a nearby road; and ample flat, open space for parking, outdoor exhibits/restoration gardens and events. The site will complete a large gap in the protected land on the northwest side of the creek. The site is at a considerable distance from the Church's facilities and would not intrude visually. Acquisition of the site would provide the Trust with an opportunity to restore a disturbed and degraded landscape, including the transformation of the existing treatment ponds into natural functioning wetland exhibits.

Based on the evaluation criteria and for the issues noted above, this site is considered a high priority recommendation for acquisition.

2. Feodor and Kirstin Pitcairn, Parcels #03-00-00589-002 (33.41 acres) and #0300-00589-506 (16.53 acres) – Locally known as Paper Mill Road Woods. - Paper Mill and Cathedral Roads (2860 Paper Mill Road)

Paper Mill Road Woods is adjacent to and contiguous with the Pennypack Trust's Pennypack Preserve natural area. Paper Mill Road Woods is one of the largest woodlands in the southern Pennypack Creek Greenway, the Montgomery County-designated greenway that parallels, protects and buffers Pennypack Creek.

The acquisition of these parcels in Bryn Athyn coupled with 22.8 acres in Lower Moreland Township will buffer the Pennypack Preserve from approved low-density development along Paper Mill Road and existing higher density housing in the nearby subdivisions of Stonegate and Saddlebrook to the east. In addition, Paper Mill Road Woods would broaden the county-designated Pennypack Greenway and is immediately adjacent to the proposed Newtown Greenway rails-to-trails project for a distance of 1,800 feet.

Of the 44 acres in Bryn Athyn, approximately 40 acres are covered by conservation easements and 4 acres are unencumbered. When the tracts in Bryn Athyn are considered together with the adjacent acreage in Lower Moreland Township, almost 30 percent of the Paper Mill Road Woods could be developed into single-

family detached residences located at the headwaters of two small, but high quality tributaries to Pennypack Creek. Although the Paper Mill Road Woods currently are a high quality forest resource, non-native invasive species have started to become problematic. The value of this area may decline if proper stewardship practices are not enacted. Natural areas protected within the Pennypack Preserve bound Paper Mill Road Woods on the west and north. Therefore, the Woods are a logical extension of the preserved natural lands and would contribute to their ecological integrity.

Based on the evaluation criteria and the issues noted above, this site is considered a high priority recommendation for acquisition.

3. Mark Pennink, Parcel #03-00-00334-401 - Creek Road

This 9.77-acre parcel is currently being considered for several alternative development uses. However, since the site is located adjacent to existing preserved land it should remain under consideration for open space acquisition in the future.

As plans are uncertain, the site is considered a lower priority for acquisition at this time.

4. Raymond Pitcairn Estate – Parcel # 03-00-00522-006 - Cathedral Road (known locally as Sleepy Hollow)

This property contains 10-12 acres of drainage way upstream from the Cairn Run Pond and is currently forested with steep slopes. Part of this land is high quality open space and should be developed and protected as such. In this case, it might be managed as part of a homeowners' association, donated as a Borough park or be made part of the Pennypack Preserve.

The trustees for this property are actively engaged in the planning and development of this property and are aware of the open space opportunities available to them.

Based on the evaluation criteria and the planning status of this parcel, the site is not considered as a priority for acquisition at this time.

The recommended sites are shown on Map 10, Recommendations.

Map 10 – Plan Recommendations

X. Comparison to County, Abutting Municipal and Pennypack Trust Plans

The Montgomery County Trail Plan

As noted in Chapter 1, the Pennypack Creek Corridor is proposed as a County regional trail which would provide linkages to two trails currently in planning, the Cross County Trail and the Power Line Trail, trail numbers 3 and 9, respectively, on the Trail Network Map, Figures 5 and 6, below. The Montgomery County Trail Plan recommends creating a trail linkage along the 6.5-mile portion of SEPTA's Fox-Chase Newtown Railroad line right-of-way, which traverses Bryn Athyn Borough. This trail would link the Borough with both Lower Moreland and Upper Moreland Townships and link to trails in the County's Lorimer Park in Abington Township and Pennypack Park in Philadelphia.

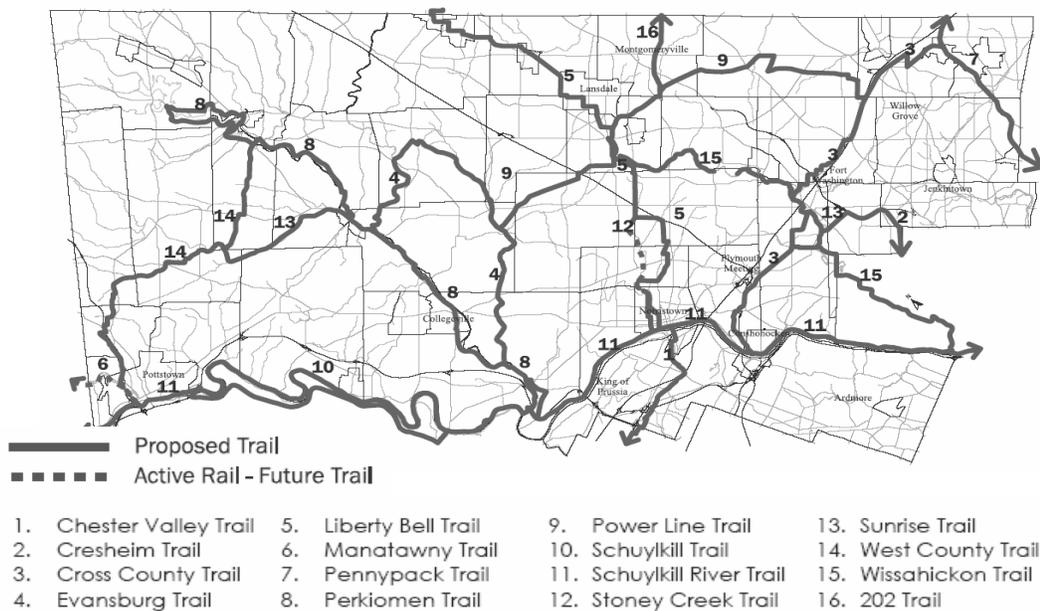


Figure 5 – Montgomery County Trail Network

As stated in the goals and objectives, the Borough will evaluate the potential acquisition of land or rights-of-way easements for pedestrian and bikeway trails. The feasibility of various possible linkages will be assessed. These will include rail-to-trail conversions and stream corridor linkages within the Borough and to connect with areas in the surrounding communities. The conversion of the Newtown Rail Corridor has been the subject of extensive analysis and discussion within the Borough. Presently, the Borough Council has indicated a clear opinion that the SEPTA line should remain as a future transportation right-of-way.

Montgomery County Comprehensive Plan – Vision 2025



Figure 6 – Proposed Open Space and Trail Network–Montgomery County Comprehensive Plan–Open Space, Natural Features and Cultural Resources Plan (2005).

The county’s draft comprehensive plan lists 48 goals that focus on the Vision of the County in 2025. The open space plan of Bryn Athyn Borough, in its goals or its recommendations, is directly consistent with a number of these goals, specifically the following:

- Enhance older developed areas.
- Preserve and create community identity and a sense of place.
- Preserve large interconnected areas of significant open space.
- Protect and manage wetlands, streams, steep slopes, woodlands and natural habitats.
- Create a greenway system along rivers, creeks and other sensitive natural and historic features.
- Develop a countywide network of interconnected trails.
- Protect historic resources and cultural landscapes.
- Increase opportunities to ride a bike, walk and other non-automotive transportation means.
- Provide environmentally safe sewer facilities.
- Provide adequate water supply for both consumption and natural habitats.
- Protect water quality.
- Effectively manage flooding.
- Create attractive stormwater facilities that control flooding, recharge groundwater and improve water quality.

Adjacent Municipalities' Open Space Plans

Bryn Athyn is surrounded by Lower and Upper Moreland townships. The following is a description of these adjacent communities in terms of how their open space policies impact on Bryn Athyn Borough.

Lower Moreland Township

(Draft – October 26, 2005)

The Draft Open Space plan lists several objectives consistent with those of the Boroughs including:

- Utilize open space to protect and preserve environmentally sensitive natural features from the harmful effects of development.
- Maintain and/or create riparian buffers to protect natural water systems and stream corridors,

The Lower Moreland plan specifically notes potential trail linkages along Pennypack and Huntington Valley Creeks. “Looking beyond the Township’s boundaries, accessible linkages to regional recreational amenities should also be actively pursued. With such an inter-municipal network, residents and employees would be able to enjoy improved pedestrian and/or bicycle access to the region’s open spaces.”

The proposed Pennypack Trail is also noted in the Lower Moreland Plan, but the Lower Moreland Plan notes that trail planning is contingent upon a final determination by SEPTA on the future use of the railroad right-of-way. Feasibility studies for rapid bus service are currently being undertaken in the Bucks County portion of the corridor and depending on the outcome of the study; SEPTA may pursue re-establishing public transportation along the corridor in the future.

Lower Moreland’s final recommendations were still being developed as of January 2006 so it was not possible to compare Lower Moreland’s priorities with the Bryn Athyn’s plan’s recommendations.

Upper Moreland Township

(Draft – October, 2005)

The draft Upper Moreland Township Open Space Preservation plan discussed potential open space linkages and stressed the importance of coordination with the Pennypack Ecological Restoration Trust; municipalities along streams, utility and road corridors, and the county. The plan notes that the most prominent inter-municipal or regional open space link is that along the Pennypack Creek into the Pennypack Preserve with potential connections through Bryn Athyn Borough and Lower Moreland to the county’s Lorimer Park in Abington and through the Pennypack Park in Philadelphia to the Delaware River.

The Borough’s top priority for preservation is the Lord’s New Church property located near the creek along Mason’s Mill Road. Upper Moreland Township has identified another property on Mason’s Mill Road owned by the Lord’s New Church and assigned it a medium priority for preservation. The protection of these two pieces would help protect lands along the Pennypack Creek and preserve large interconnected

areas of significant open space. The township also proposes to review its land use ordinances to improve standards that protect sensitive natural features.

As noted above, both communities are committed to working with the Pennypack Ecological Restoration Trust to achieve mutual preservation goals. These plans are mutually supportive.

Pennypack Ecological Restoration Trust

“Overall, the Trust has had an important effect on the neighboring municipalities’ efforts to reestablish green corridors that run up through the community, acquire derelict lands adjacent to the creek, reduce unnecessary lawn, and bring back historical forests, wetlands and successional landscapes, wherever possible.” – Pennypack Ecological Restoration Trust – Strategic Master Plan 2006

The Pennypack Ecological Restoration Trust has been a strong partner of Bryn Athyn Borough in mutual efforts to provide open space and environmental protection in the central Pennypack Creek valley. The Borough thought that, in this open space planning effort, it was important to review compatibility with the Trust’s 2006 Strategic Master Plan

The master plan focuses on five areas of recommended actions:

- Land Acquisition and Conservation Easements
- Site Organization, Site Circulation and Visitor Experience
- Restoration
- Education
- New Facilities

Of these five areas, the actions described regarding land acquisition and new facilities are closely compatible with the Borough’s open space plan. Several of the Trust’s priority lands for acquisition are targeted areas in the Borough’s plan for acquisition under the Green Towns/Green Fields program. These sites, more fully described in Chapter 9, include:

- The Masons Mill Road Site (Partial acquisition from Lord’s New Church)
- Paper Mill Road Woods Site (Feodor and Kirstin Pitcairn)
- Creek Road Parcel (Pennink)

Specifically, the Mason’s Mill Road site can fill a large gap in the Pennypack Preserve on the northwestern side of Pennypack Creek. Plus the area is targeted to provide a site for an easily accessible visitor facility with a public presence on the creek. The site would not visually or functionally impact the Church’s campus.

XI. Policies and Methods for Protecting Open Space

The Borough of Bryn Athyn first prepared and adopted a Comprehensive Plan in 1968. The Comprehensive Plan was revised and the revision accepted in 1980. The Planning Commission is involved in the process of preparing a new Comprehensive Plan. Following the development of the Comprehensive Plan, revisions to the zoning ordinance and building code will be considered.

The Borough was actively engaged in planning for a sewage system for over 20 years. The Borough amended its Act 537 Sewage Facilities Plan in March 1998. This plan gave the details for a hybrid small diameter gravity sewer for the two highly populated areas of the town as described in the 1988 infill study (See Chapter 7). The plan was adopted and the sewer installation completed in 2005.

The updated Open Space Plan will also have a significant effect on the Comprehensive Plan. The open space planning activities, both the initial plan enacted in 1996 and this update to that plan, have been educational processes for the Borough and will add a new dimension to future planning.

Bryn Athyn has more undeveloped land than the average community. The majority of this land is held by institutions with plans to develop the land in the future. It is fair to say that these institutions, as well as the large private landholders, have been good land stewards in the past and will continue this practice in the future.

The advantage that is emerging from the open space planning is a set of tools and criteria that can form a common basis for cooperative planning in the future. The underlying philosophy within the community as a whole, the Borough government and the institutions, is that “people (individually and collectively) should act in freedom according to reason.”

The Borough recognizes that acquisition alone cannot accomplish all of the community’s goals and objectives identified in this report and that all land needing protection cannot be publicly acquired. Therefore, other approaches to land preservation that Bryn Athyn Borough will evaluate in the Comprehensive Plan review process are summarized below:

Donation or Dedication of Conservation Easements

Easements are a successful way to save public funds, yet provide open space benefits. An easement is a limited right over land owned by another person. A conservation easement is a recorded legal restriction on private property held by a party other than the landowner, which limits or restricts future subdivision or development.

Conservation easements are often placed on a property in perpetuity and apply to all future owners of the property. Alternatively, an easement can be identified for a specified period of time, often 25 or 50 years. Conservation easements are accepted land protection techniques used not only by conservancies, but also by government agencies. If a landowner donates or sells for less than full market value his or her

development rights (another term for conservation easements), he or she receives tax benefits (Federal income tax, state income tax and estate taxes) in return for *permanently* restricting the land from future development. These restrictions cannot be revoked without agreement among the original parties to the easement or their successors, and there are significant tax implications for modifying or rescinding an easement. There are a number of land conservation groups operating in Montgomery County that are willing to hold easements, including the Pennypack Ecological Restoration Trust, the Wissahickon Valley Watershed Association, the Wildlands Conservancy, the Lower Merion Conservancy, the Montgomery County Lands Trust, Heritage Conservancy, the Brandywine Conservancy, the Natural Lands Trust, The Nature Conservancy, and the Conservancy of Montgomery County. All of these organizations can supply the needed technical assistance to structure the easement.

Scenic easements could be donated along scenic roads. These easements could require the maintenance of street trees and restrict grading within a strip of land parallel to the right-of-way. The easement could vary in width depending upon the particular road and vista under protection.

Public access easements may be pursued for trails. Often it is unnecessary to purchase entire tracts of land to get enough usable land for a trail, which may only require a right-of-way. The Borough could agree to maintain the trail right-of-way as part of the easement.

Easements should be permanently recorded so as to remain with the land and could be either given or sold to the Borough by the landowner.

Purchase of Conservation Easements

Act 153 of 1996 and Act 138 of 1998 provide the framework for a municipality to purchase private development rights. When purchased by a municipality, the development rights may either be permanently retired or “land banked.” Land banking is a method whereby municipally purchased development rights are sold at some future time as part of an incentive package for a community development project. The development rights are removed from a conservation area and used in a more suitable location. Typical community development projects might be a Town Center or a housing project for senior citizens or residents with moderate incomes, or both.

A local bond issue, an earned income tax or a real estate tax initially funds this type of program. In the event the purchased rights are used for development incentive purposes, the municipality can recoup its costs at the time the development rights are re-sold. This program is similar to a Transferable Development Rights (TDR) program as described below; however, the municipality has greater control over the use of the development rights in this program than with the private sale and transfer of the rights in the TDR program.

The program is initially expensive for the local municipality to administer since there is no state or county funding available for this type of locally administered program. However, in the event that development rights are resold, this expense may be reimbursed.

Historic Properties

Saving historic properties adds to the character of an area and preserves unique resources of a community. There are a number of techniques that Bryn Athyn could use for historic preservation.

First, Bryn Athyn could amend the zoning ordinance to encourage historic preservation. This could be done by creating an ordinance that gives development bonuses for preserving buildings or restricts uses that could be approved in the district. The zoning ordinance could also encourage historic preservation by allowing historic buildings to have more uses than normally permitted in a particular district. For example, apartments, bed and breakfasts establishments or offices might be permitted in historic homes located in a single-family district.

Second, the Borough could enact an historic district zoning ordinance under Pennsylvania Act 167 of 1961. This act authorizes or municipalities to review and take action on physical changes to historic structures, such as building additions, new doors and windows, building materials and painting, although many municipalities choose not to review a property owner's choice of paint colors. Others exempt improvements such as those under a certain square footage or dollar value. Others do not review improvements that cannot be seen from a public street or way.

Cluster Zoning

Bryn Athyn Borough presently permits cluster zoning that allows development to be clustered on smaller lots in order to preserve open space and environmentally sensitive lands. These provisions could be expanded to require clustering to preserve individual historic structures.

Open Space Leases

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

Life Estates

A life estate is an acquisition technique whereby certain restrictions are attached to the deed. The Borough may be better able to negotiate the purchase of property if certain interests in the land are reserved for the benefit of the landowner. For example, a municipality could purchase land with all rights of ownership conveyed except the right to occupy a house or a portion of the full property for a specified term (usually 25 years) or until the death of the landowner. The Borough may have within its boundaries a number of properties that are appropriate for such a purchase.

Rights of First Refusal & Purchase Options

A right of first refusal provides a municipality with the option to match an offered purchase price within a specified time period should a landowner receive a legitimate

offer to sell. A purchase option is simply a right that the municipality holds to purchase the land by a specified date at a specified price. Both rights of first refusal and purchase options could be either donated or sold to the Borough.

Stream Corridor Protection Ordinances

Bryn Athyn Borough may consider adopting stream setback requirements. Stream corridor protection ordinances go further than floodplain ordinances, which are primarily intended to limit property damage. Some watercourses have steep banks with no delineated floodplains, but are sensitive environmental areas that warrant protection. The intent of stream protection ordinances is to protect the water quality of the stream as well as plant and animal habitats. Typically, these ordinances impose a minimum setback from the bank of the stream in which no or very limited development can occur. A minimum setback of 25 to 75 feet, measured from the bank of the stream, will help stabilize the stream bank, control sediment that might get into the stream, remove nutrients that would pollute the stream, control temperature increases in the stream and provide wildlife habitat. The area in the buffer should be kept in its natural state, which is riparian woodland.

The following are measures that the Borough could take to help maintain the quality of its streams:

- Review the floodplain ordinance in the zoning code to prohibit excessive grading or the removal of vegetation from the stream banks.
- Distribute guidelines to landowners adjacent to a stream with recommendations on tree planting along the banks.
- Establish an ultimate right-of-way for the stream as a preservation area. The Montgomery County Riparian Buffer Model Ordinance recommends seventy-five feet from either side in the protected areas to provide room for the stream to change its course over time, a natural process. It also provides an area for tree planting and possible right-of-way along streams for a walking trail.

Floodplain Protection Ordinances

Development in flood prone areas runs significant risks to life and property as well as destroying an important and sensitive natural resource. Federal and state regulations require that municipalities regulate or prohibit most forms of development in areas delineated in Federal Flood Insurance Studies or, where studies have not been completed, in alluvial or floodplain soils areas.

Wetlands Protection Ordinances

While federal and state governments regulate wetlands, municipalities can also regulate wetlands. Sometimes, development occurs on wetlands and the state and federal governments are unaware of this development. If the local municipality prohibits development on wetlands and requires wetlands to be shown on the plan, it can stop development of wetlands from slipping through the cracks. Sometimes developers receive all of the federal and state permits that they need, but they locate homes immediately adjacent to wetland areas. Although this is permitted by state and federal regulations, it can lead to problems in the future if individual homeowners decide to fill in wet spots behind their home so they can have a more usable yard. Local

municipalities can eliminate this problem by requiring a minimum building setback from wetlands. In addition, federal and state regulations only address the filling of wetlands, not the destruction of vegetation within the wetlands. Local municipalities can require the protection of wetland vegetation or the replacement of wetlands vegetation that is destroyed.

Wellhead Protection Ordinances or Aquifer Recharge Ordinances

Groundwater quality can be protected with wellhead protection ordinances or aquifer recharge ordinances. Because aquifers are so large, wellhead protection ordinances are more common. These ordinances (which only protect public, not individual, wells) regulate development in an area that could potentially contaminate the groundwater supplying that well. This area, called a wellhead protection area, can be identified in a number of ways, although the most accurate method is to conduct a hydrogeologic survey. Development within the wellhead protection area can be regulated by restricting certain uses (e.g., gas stations and dry cleaners) and by limiting the intensity of development (such as limiting the density of single-family detached homes with individual septic systems).

Woodland Protection Ordinances

Woodland preservation ordinances are intended to protect existing trees and woodlands. Some of these ordinances provide minimum standards that must be followed during construction for trees that are not being destroyed. Other ordinances allow developers to put up fewer street trees, buffers or individual trees when existing trees are preserved. Some of these ordinances require developers to replace trees that are cut down.

Mature Tree Protection Ordinances

There are ordinances that are intended to protect mature trees of a specified age or girth. These older trees provide shade and grace to many neighborhoods. Some communities have inventoried trees with these characteristics so that their protection is more assured.

Transferable Development Rights

The Pennsylvania Municipalities Planning Code enables municipalities to develop, administer and regulate transferable development rights (TDR) programs as part of the municipal zoning ordinance. The TDR concept, while not new, is in its formative stages of development in the Commonwealth. A TDR program is intended to allow a landowner the opportunity to separate and sell the land's development potential from the "bundle-of-rights" normally associated with fee-simple ownership of real property. This separation of the development rights from real property allows a landowner to retain ownership of the land while also receiving payment for the land's development value, which is the difference between the value of land for development purposes and its value for open space or agricultural purposes. Payment to the owner in the "sending area" is received from another property owner who wishes to develop land in a designated "receiving area" at a higher intensity than permitted under the zoning ordinance with the transferred development rights. The zoning ordinance sets the

regulations for the transfer process and the density parameters in both the “sending” and “receiving” areas. Free market mechanisms, rather than government money, facilitates the exchange. This concept is analogous to the sale of a property’s oil or mineral rights.

Some limitations to Transfer of Development Rights are as follows:

- The administration of a TDR program is complex and requires a high degree of coordination at the municipal level.
- Realtors, developers and landowners generally do not know how to effectively price the value of development rights. This affects the credibility of the program.
- For TDRs to work there must be a receiving district that is ready for development with available sewer and associated infrastructure. The district must be sized and ready to accommodate the capacity of the development rights that may become available.
- There must be an equitable relationship between the amount of development rights that can be sold and the amount of development rights that can be transferred into the receiving district to insure that there will not be an inflated or distorted value of the development rights.

Bonus Incentive Zoning

Bonus incentive zoning is a method of obtaining, on a voluntary basis, additional concessions from a developer in return for an increase in density. These concessions can be in the form of special design standards, special improvements like recreation improvements open to the entire community, or the preservation of additional open space or historic structures. As required by the Pennsylvania Municipalities Planning Code, these concessions or incentives must be based upon express standards and criteria within a zoning ordinance, and cannot be arbitrarily mandated by a municipality.

Some limitations on Bonus Incentives are as follows:

- Since the measures involved are voluntary, there should be some mechanism designed to assure that the concessions requested are reasonable and that they stand the greatest chance of being implemented.
- This technique is a modest way of preserving open space for a suburbanizing community. It generally will not retain a landscape’s rural character.
- Because the developer is receiving a bonus, the municipality may be perceived as giving too much away.

Conclusion

The above list contains a variety of tools that are currently in use and some that will be studied for use in on-going and future planning. For example, the use of setback requirements to protect the views of scenic building and natural features will be a significant subject in Bryn Athyn's planning in the future.

Bryn Athyn's current zoning and subdivision ordinances include criteria that relate to the establishment and maintenance of open space. Other ordinances that are in place which help protect open space and natural features include our Floodplain and Steep Slope Conservation Districts and the Cluster Development and Natural Preservation Districts. The ordinances were revised and updated in 1993 to be sure that they are reasonably enforceable and that once open space is created, it is clear who is responsible to manage and maintain the space.

The Borough participated in the Pennypack Creek Study undertaken by the Center for Sustainable Communities at Temple University's Ambler College. The Borough has received the newly drawn 100-year flood plain map developed by this study. This new map is being compared to our existing mapping to determine whether a comprehensive stream corridor protection overlay district is needed to protect areas currently not regulated by our existing codes. This evaluation should be completed by the end of 2006.

The largest potential project in this plan is the arrangement that can be made with the Lord's New Church for the combination of the outright purchase of land and purchase of conservation easements. The outright purchase of land for a new Pennypack Visitors Center and will be separate from the preservation of open space. The Borough will work with the Pennypack Trust to negotiate these arrangements. Negotiations will begin once this plan is approved by the Open Space Board and adopted by Borough Council.

XII. Implementation of Plan Update

In order for the projects outlined in this plan to be implemented, the involvement of a variety of people and groups will be necessary. Such groups include Borough Council, the Borough Planning Commission, the Pennypack Trust, and Upper and Lower Moreland Townships.

Project: Continue to support the Pennypack Trust's acquisition of lands along the Pennypack Creek Corridor to expand the Pennypack Preserve Natural Area.

The Borough will continue to assist the Pennypack Trust by supporting applications for funding of open space acquisitions that contribute to the ecological integrity of the Pennypack Creek corridor. This includes the sites along Paper Mill Road and Mason's Mill Road as described in this plan.

Project: Creation of a New Visitor Center for the Pennypack Trust

Establishment of a visitor center and demonstration site will begin with acquisition of the portion of land along Mason's Mill Road currently owned by the Lord's New Church. The Mason's Mill site is appropriate for acquisition since it expands the Pennypack Trust's holdings along the stream corridor and will fill a large gap in the Pennypack Preserve on the northwestern side of Pennypack Creek. In addition, the site is located on a main road adjacent to Upper Moreland's Mason's Mill Park. This location could provide for an easily accessible visitor facility and demonstration site to compliment Upper Moreland's active recreation facilities across the road. The proposed acquisition site contains nine acres that the Borough Authority presently leases from the owner for use for a treated wastewater land application system. Late in 2005, the wastewater formerly treated by this system began to be piped to the Upper Moreland-Hatboro Joint Sewer Authority wastewater treatment plant on Terwood Road. As a result, the treatment and land application system currently in place will not be needed and the facility will be dismantled. Negotiations are continuing with the Lord's New Church for this parcel.

Project: Trails

The Borough will continue its dialogue with the County concerning the proposed trail project along the suspended Fox Chase-Newtown (R8) SEPTA line that is being advanced by the Montgomery County Planning Commission as a rail-to-trail project.

Project: Preserve and Protect Municipal Street Trees

The Borough Shade Tree Commission is currently working with private landowners for replacement planting and planting of new trees in the Borough's parks and institutional lands.

Responsible Municipal Body

The Borough Planning Commission will be given responsibility to monitor and advance the implementation of this plan. The Planning Commission will report annually to the Borough Council on the progress the Borough is making toward implementation of the plan. The Borough Council will submit progress reports to the Montgomery County Open Space Board within five years of adoption of the plan.

Priorities for Plan Implementation

The Bryn Athyn Borough Council and Planning Commission have committed the following priorities for implementation of the Municipal Parks, Open Space and Recreation Plan:

1. Assist the Pennypack Trust in the acquisition of Mason's Mill Parcel.
2. Assist the Pennypack Trust in the acquisition of the Paper Mill Road Woods property
3. Support the Pennypack Trust's applications to various organizations and governmental agencies for funding acquisitions along the Pennypack Creek corridor both within and adjacent to the Borough.
4. Continue to coordinate efforts with Pennypack Trust in maintaining the integrity of the Pennypack Creek stream corridor through continued representation on the Trust's Board of Directors.

Proposed Phasing of the plan

First year

- Assist the Pennypack Trust in pursuing the acquisition and development of the Mason's Mill Road parcel for a new visitors' center.
- Assist the Pennypack Trust with the acquisition of the Paper Mill Road Woods property
- Apply for Round 1 implementation funding from the County's Green Fields/Green Towns Program.

Second Year

- Continue efforts with Pennypack Trust for preservation of the Pennypack stream corridor including support of applications for funding.
- Monitor land use changes and development proposals with respect to the recommendations of the open space plan.
- Borough Planning Commission submits annual progress report to Borough Council.
- Review and support neighboring projects.

Third Year

- Continue implementation activities noted in years 1 and 2.
- Continue efforts with Pennypack Trust for preservation of the Pennypack stream corridor including support of applications for funding.
- Continue to monitor land use changes and development proposals with respect to the recommendations of the open space plan.
- Borough Planning Commission submits annual progress report to Borough Council.

Fourth Year

- Continue to monitor land use changes and development proposals with respect to the recommendations of the open space plan.
- Continue efforts with Pennypack Trust for preservation of the Pennypack stream corridor including support of applications for funding.

- Consider acquisition of parcels or development for projects, which are eligible under Green Fields/Green Towns program.
- Borough Planning Commission submits annual progress report to Borough Council.

Fifth Year

- Continue efforts with Pennypack Trust for preservation of the Pennypack stream corridor including support of applications for funding.
- Continue to monitor land use changes and development proposals with respect to the recommendations of the open space plan.
- The Borough Council will submit a progress report to the Montgomery County Open Space Board detailing the Borough's progress in implementing the adopted Open Space Plan.

Conclusions

The Borough believes the recommendations in this plan will enhance the quality of life in the community as well as the surrounding townships and visitors to the area.

The Borough recognizes that continued collaboration with the Pennypack Trust will help provide proper stewardship of the preserved lands within and adjacent to our community.

The Borough thanks the Montgomery County Planning Commission and the Open Space Board for their interest and assistance, and looks forward to a working relationship with the County Planning Commission on projects such as the expansion of greenways and trails. The Borough understands that there is much left to be done to establish a working open space network for the future.

Appendix A - List of Woodland Species

Appendix A -Vegetation in Bryn Athyn

Original Vegetation: Oak-Chestnut Hardwood Forest

Canopy Cover:

Northern red oak, *Quercus rubra*;
black oak, *Q. velutina*;
white oak, *Q. alba*;
American chestnut *Castanea dentate*;
shagbark hickory, *Carya ovata*;
mockernut, *C. tomentosa*;
pignut, *C. glabra*;
sweet pignut *C. ovali*;
American beech, *Fagus grandifolia*;
and tuliptrees, *Liriodendron tulipifera*.

Understory Trees (second layer of shorter trees):

flowering dogwoods, *Cornus florida*,
black-gums, *Nyssa sylvatica*;
hop-hornbeams, *Ostrya virginiana*;
and hackberries *Celtis* spp.

Shrub Layer

Spicebushes, *Lindera benzoin*
Viburnums, *Viburnum* spp.
American hazelnut, *Corylus Americana*;
and witch-hazel, *Hamamelis virginiana*.

Current Vegetation

With the arrival in the Northeast of the fatal chestnut blight fungus on a shipment of Chinese chestnuts in 1904, American chestnuts, which once comprised one-quarter of all trees in the forest, all but disappeared and the oaks filled their ecological niche.

Along the flat bottomlands of larger streams such as Pennypack Creek and Huntingdon Valley Creek grew a riparian forest comprised of trees that could withstand periodic flooding and whose roots could tolerate moister conditions than were found on the upland slopes.

Trees typical of riparian, or floodplain, forests were sycamores (*Platanus occidentalis*), swamp white and pin oaks (*Quercus bicolor* and *Q. palustris*), silver and red maples (*Acer saccharinum* and *A. rubrum*), box-elders (*A. negundo*), green ashes (*Fraxinus pennsylvanica*), blue-beech hornbeam (*Carpinus caroliniana*), slippery and American elms (*Ulmus rubra* and *U. americana*). Canada hemlocks (*Tsuga canadensis*), Pennsylvania's state tree, grew on cool, shady, moist slopes slightly up off the floodplain but never far from water. Grapes (*Vitis* spp.), poison-ivy (*Toxicodendron radicans*), and Virginia creeper (*Parthenocissus quinquefolia*), all vines adapted to disturbed locations, proliferated and provided abundant fruit for birds.

With the colonization of eastern North America by European farmers, most of the woodlands on the best soils were cleared for crops. The forests that remained on land too steep, rocky or wet to till for agriculture were used for wood products and grazing. The periodic disturbance of the woodlands by human woodcutters and by cattle, sheep and hogs changed the composition of the remaining woodlands, reducing the dominance of species characteristic of older forests and allowing shorter-lived, quicker-growing trees to become more prevalent. Species like American ashes (*Fraxinus americana*), red maples, tuliptrees, black cherries (*Prunus serotina*), and sassafras (*Sassafras albidum*) took advantage of the bright sun, disturbed soil, and empty space to invade the woodlands. These were also the same species that colonized farmland soon after it was abandoned along with red-cedars (*Juniperus virginiana*) and dogwoods.

By the middle of the 19th century, over half the land in Bryn Athyn had been cleared of forests and was being used for agriculture. At one time, extensive apple orchards covered portions of the eastern end of the borough. Orchards were developed on estate lands owned by Raymond Pitcairn and his brother, Harold. While these orchards largely have been developed for housing, a few venerable apple trees can still be found growing near the intersection of Cathedral and Quarry Roads and on the grounds of the Bryn Athyn Elementary School. Other peach and apple orchards were developed by the Powell family on the land bounded by Buck and Tomlinson Roads; these orchards have since been developed for institutional use, primarily as athletic playing fields.

Bryn Athyn is unusual in densely populated southeastern Montgomery County because large portions of the borough remain undeveloped and wooded. Forests still occupy the valleys of Pennypack Creek and Huntingdon Valley Creek where they were never completely cleared, and woodlands have recolonized abandoned agricultural fields, especially in the areas to the west of Huntingdon Pike and in the far western portions of the borough. This abundance of forested land distinguishes Bryn Athyn from surrounding communities and contributes to the borough's character.

Appendix B - Agency Coordination Letters



United States Department of the Interior

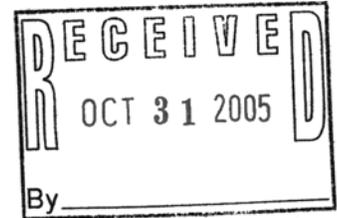


FISH AND WILDLIFE SERVICE

Pennsylvania Field Office
315 South Allen Street, Suite 322
State College, Pennsylvania 16801-4850

October 26, 2005

Susan S. Myerov
Heritage Conservancy
85 Old Dublin Pike
Doylestown, PA 18901



RE: USFWS Project #2005-3094

Dear Ms. Myerov:

This responds to your letter received September 26, 2005, requesting information about federally listed and proposed endangered and threatened species within the area of the open space plan located in the Borough of Bryn Athyn, Montgomery County, Pennsylvania. The following comments are provided pursuant to the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) to ensure the protection of endangered and threatened species.

Except for occasional transient species, no federally listed or proposed threatened or endangered species under our jurisdiction are known to occur within the project impact area. Therefore, no biological assessment nor further consultation under the Endangered Species Act are required with the Fish and Wildlife Service. This determination is valid for two years from the date of this letter. If the proposed project has not been fully implemented prior to this, an additional review by this office will be necessary. Also, should project plans change, or if additional information on listed or proposed species becomes available, this determination may be reconsidered. A compilation of certain federal status species in Pennsylvania is enclosed for your information.

This response relates only to endangered or threatened species under our jurisdiction based on an office review of the proposed project's location. No field inspection of the project area has been conducted by this office. Consequently, this letter is not to be construed as addressing potential Service concerns under the Fish and Wildlife Coordination Act or other authorities.

Requests for information regarding State-listed endangered or threatened species should be directed to the Pennsylvania Game Commission (birds and mammals), the Pennsylvania Fish and Boat Commission (fish, reptiles, amphibians and aquatic invertebrates), and the Pennsylvania Department of Conservation and Natural Resources (plants).

To avoid potential delays in reviewing your project, please use the above-referenced USFWS project tracking number in any future correspondence regarding this project.

Please contact Pam Shellenberger of my staff at 814-234-4090 if you have any questions or require further assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "David Densmore", with a long horizontal flourish extending to the right.

David Densmore
Supervisor

Enclosure

Federally Listed, Proposed, and Candidate Species in Pennsylvania
(revised July 27, 2004)

<u>Common Name</u>	<u>Scientific Name</u>	<u>Status</u> ¹	<u>Distribution (Counties and/or Watersheds)</u>
MAMMALS			
Indiana bat	<i>Myotis sodalis</i>	E	Hibernacula: Armstrong, Blair, Fayette, Lawrence, Luzerne, Mifflin and Somerset Co. Maternity sites: Blair Co.
BIRDS			
Bald eagle	<i>Haliaeetus leucocephalus</i>	T	Nesting: Armstrong, Berks, Butler, Centre, Chester, Crawford, Dauphin, Erie, Forest, Huntingdon, Lancaster, Lebanon, Lycoming, Mercer, Monroe, Montgomery, Northumberland, Pike, Tioga, Venango, Warren, Wayne and York Co. Winter: near ice-free sections of rivers, lakes and reservoirs (e.g., Delaware River, Pymatuning Reservoir)
Piping plover	<i>Charadrius melodus</i>	E	Migratory. No nesting in Pennsylvania since 1950s. Designated critical habitat on Presque Isle (Erie Co)
REPTILES			
Bog turtle	<i>Clemmys (Glyptemys) muhlenbergii</i>	T	Adams, Berks, Bucks, Chester, Cumberland, Delaware, Franklin, Lancaster, Lebanon, Lehigh, Monroe, Montgomery, Northampton, Schuylkill and York Co. [Historically found in Crawford, Mercer and Philadelphia Co.]
E. massasauga rattlesnake	<i>Sistrurus catenatus catenatus</i>	C	Butler, Crawford, Mercer and Venango Co. [Historically found in Allegheny and Lawrence Co.]
MUSSELS			
Clubshell	<i>Pleurobema clava</i>	E	French Creek and Allegheny River (and some tributaries) in Clarion, Crawford, Erie, Forest, Mercer, Venango, and Warren Co.; Shenango River (Mercer and Crawford Co.) [Has not been found recently in 13 streams of historical occurrence in Butler, Beaver, Fayette, Greene, Lawrence, Mercer, and Westmoreland Co.]
Dwarf wedgemussel	<i>Alasmidonta heterodon</i>	E	Delaware River (Wayne Co.). [Has not been found recently in streams of historical occurrence in the Delaware River watershed (Bucks, Carbon, Chester, Philadelphia Co.) or Susquehanna River watershed (Lancaster Co.)]
Northern riffleshell	<i>Epioblasma torulosa rangiana</i>	E	French Creek and Allegheny River (and some tributaries) in Clarion, Crawford, Erie, Forest, Mercer, Venango, and Warren Co. [Has not been found recently in streams of historical occurrence, including: Shenango River (Lawrence Co.), Conewango Creek (Warren Co.)]

<u>Common Name</u>	<u>Scientific Name</u>	<u>Status</u> ¹	<u>Distribution (Counties and/or Watersheds)</u>
MUSSELS (continued)			
Rayed bean	<i>Villosa fabalis</i>	C	French Creek and Allegheny River (Armstrong, Clarion, Crawford, Erie, Forest, Mercer, Venango, Warren Co.); Cussewago Creek (Crawford Co.). [Has not been found recently in 5 streams of historical occurrence in Armstrong, Lawrence, Mercer and Warren Co.]
Sheepnose	<i>Plethobasus cyphus</i>	C	Allegheny River (Forest and Venango Co.). [Has not been found recently in streams of historical occurrence, including: Allegheny River (Armstrong Co.), Beaver River (Lawrence Co.), Ohio River (Allegheny and Beaver Co.), and Monongahela River (Washington Co.)]
FISH			
Shortnose sturgeon ²	<i>Acipenser brevirostrum</i>	E	Delaware River and other Atlantic coastal waters
PLANTS			
Northeastern bulrush	<i>Scirpus ancistrochaetus</i>	E	Adams, Bedford, Blair, Carbon, Centre, Clinton, Columbia, Cumberland, Dauphin, Franklin, Huntingdon, Lackawanna, Lehigh, Lycoming, Mifflin, Monroe, Perry, Snyder, Tioga, and Union Co. [Historically found in Northampton Co.]
Small-whorled pogonia	<i>Isotria medeoloides</i>	T	Centre, Chester, and Venango Co. [Historically found in Berks, Greene, Monroe, Montgomery and Philadelphia Co.]

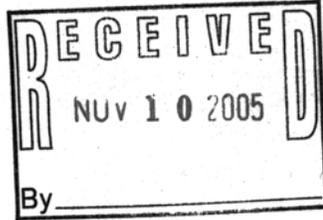
¹ E = Endangered; T = Threatened; P = Proposed for listing; C = Candidate

² Shortnose sturgeon is under the jurisdiction of the National Marine Fisheries Service



Pennsylvania Fish & Boat Commission

Division of Environmental Services
Natural Diversity Section
450 Robinson Lane
Bellefonte, PA 16823-9620
(814) 359-5237 Fax: (814) 359-5175



November 8, 2005

IN REPLY REFER TO
SIR # 21031

HERITAGE CONSERVANCY
SUSAN MYEROV
85 OLD DUBLIN PIKE
DOYLESTOWN, PA 18901

RE: **Species Impact Review (SIR) - Rare, Candidate, Threatened and Endangered Species
OPEN SPACE PLAN
BRYN ATHYN Township, MONTGOMERY County, Pennsylvania**

This responds to your inquiry about a Pennsylvania Natural Diversity Inventory (PNDI) Internet Database search "potential conflict" or a threatened and endangered species impact review. These projects are screened for potential conflicts with rare, candidate, threatened or endangered species under Pennsylvania Fish & Boat Commission jurisdiction (fish, reptiles, amphibians, aquatic invertebrates only) using the Pennsylvania Natural Diversity Inventory (PNDI) database and our own files. These species of special concern are listed under the Endangered Species Act of 1973, the Wild Resource Conservation Act, and the Pennsylvania Fish & Boat Code (Chapter 75), or the Wildlife Code. The absence of recorded information from our files does not necessarily imply actual conditions on site. Future field investigations could alter this determination. The information contained in our files is routinely updated. A Species Impact Review is valid for one year only.

X **NO ADVERSE IMPACTS EXPECTED FROM THE PROPOSED PROJECT**

X Except for occasional transient species, rare, candidate, threatened or endangered species under our jurisdiction are not known to exist in the vicinity of the project area. Therefore, no biological assessment or further consultation regarding rare species is needed with the Commission. Should project plans change, or if additional information on listed or proposed species becomes available, this determination may be reconsidered.

 An element occurrence of a rare, candidate, threatened, or endangered species under our jurisdiction is known from the vicinity of the proposed project. However, given the nature of the proposed project, the immediate location, or the current status of the nearby element occurrence(s), no adverse impacts are expected to the species of special concern.

If you have any questions regarding this review, please contact the biologist indicated below:

 Jeff Schmid 814-359-5236 J.R. Holtmaster 814-359-5194
 Chris Urban 814-359-5113 X Bob Morgan 814-359-5129

I am enclosing a copy of our "SIR Request Form", which is to be used for all future species impact review requests. Please make copies of the attached form and use with all future project reviews. Thank you in advance for your cooperation and attention to this important matter of species conservation and habitat protection.

SIGNATURE: Christopher A. Urban

Christopher A. Urban
Chief, Natural Diversity Section

DATE: November 8, 2005

Our Mission:

www.fish.state.pa.us

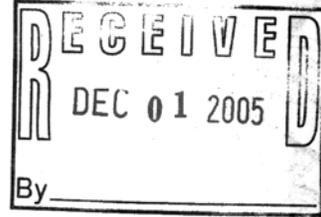
To provide fishing and boating opportunities through the protection and management of aquatic resources.



COMMONWEALTH OF PENNSYLVANIA
PENNSYLVANIA GAME COMMISSION

2001 ELMERTON AVENUE, HARRISBURG, PA 17110-9797

November 23, 2005



Ms. Susan S. Meyerov
Heritage Conservancy
85 Old Dublin Pike
Doylestown, PA 18901

In re: PNDI Search Results
Bryn Athyn Open Space Plan (1216-Acres)
Bryn Athyn Borough, Montgomery County, PA

Dear Ms. Meyerov:

This is in response to your request regarding the potential impacts of your project on special concern species of birds or mammals, and State Game Lands.

Our office review has determined that your project should not cause any adverse impacts to any special concern species of birds or mammals. No State Game Lands are located close enough that any impacts to them are anticipated. However, this review may be reconsidered if project plans change or extend beyond the present project area, or if additional information becomes available on state-listed species or State Game Lands.

If you have any questions, please contact me at (717) 783-5957.

Very truly yours,

James R. Leigey
Wildlife Impact Review Coordinator
Division of Environmental
Planning and Habitat Protection
Bureau of Land Management

JRL/pfb

Attachment

Cc: File

ADMINISTRATIVE BUREAUS:

PERSONNEL: 717-787-7836 ADMINISTRATION: 717-787-5670 AUTOMOTIVE AND PROCUREMENT DIVISION: 717-787-6594
LICENSE DIVISION: 717-787-2084 WILDLIFE MANAGEMENT: 717-787-5529 INFORMATION & EDUCATION: 717-787-6286 LAW ENFORCEMENT: 717-787-5740
LAND MANAGEMENT: 717-787-6818 REAL ESTATE DIVISION: 717-787-6568 AUTOMATED TECHNOLOGY SYSTEMS: 717-787-4076 FAX: 717-772-2411

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