

Chapter Three

Existing Land Use

INTRODUCTION

This chapter provides an overview of land use patterns in the Region for a better understanding of how the Region has developed to date and current land use trends. Current zoning patterns and regional development trends are also examined. A generalized “build-out” analysis showing potential development that could occur under existing zoning is the final element analyzed in this chapter. The information in this chapter is of particular importance in developing land use recommendations for the Region in terms of future development patterns, services and facilities, and circulation planning.

Land use related issues inventoried in this chapter include:

- Regional Setting
- Existing Land Use Patterns
- Composite Zoning
- Land Development Trends
- Potential Future Development

PLANNING IMPLICATIONS

The analysis of existing land use indicates the following planning implications for the Region:

- Location within the Larger Region** - Because the Kennett Region’s location between suburban areas to the east, rural areas to the west, and development pressures to the south, planning now for the preservation of open space, protection of natural resources, and directing growth to the most appropriate areas is of great importance.
- Orientation Towards Delaware** - The Region’s orientation towards Delaware, in terms of employment, shopping, and leisure activities, is an important consideration in land use and transportation planning. Conversely, the Region’s proximity to the major employment centers in Delaware makes it a prime location for residential development.
- Continued Development Pressure** - Development pressure in the Region is expected to continue or increase and the remaining buildable open space not under permanent easement will likely be targeted for additional residential development. Conservation design options and other preservation tools, can aid in the protection of woodlands, open space, water, air, and other natural resources, and help preserve the rural and natural character of the region while providing for the projected future population.
- Limited Tax Base** - The relatively small amount of industrial and other non-residential uses in the Region, particularly outside of the Borough, limits the available tax base and puts greater pressure on the Region’s residents to pay for schools and other services. Because much of the land zoned for industrial and business uses is already occupied, additional development of this type will be limited

unless the zoning is expanded. There are some exceptions, such as the Business Park zone in Kennett Township and the Industrial District in East Marlborough.

- ❑ **Coordination of Zoning** - The regional land use plan should strive to eliminate conflicts between future land uses along municipal borders and minimize those between existing land uses. These land use recommendations should provide guidance for revisions to zoning districts and ordinance provisions, whether accomplished at the municipal or regional level.
- ❑ **Land Consumption** - The trend in the Region, over the past 15 years, appears to be an increasing amount of acres used per lot. While lower overall densities are desired in the rural landscape, mechanisms should be considered to ensure that options for preserving open space are available to avoid a sprawling land development pattern that typically accompanies large lot development. Desirable growth should be directed to appropriate areas of the Region to reduce development pressure on those areas where preservation is a goal.
- ❑ **Potential Future Growth** - Currently, there is ample land available to accommodate projected future growth in the Region. There is a need to examine whether the location and intensity of growth, as currently permitted by zoning, is consistent with the future land use policies of the Region.

EXISTING LAND USE TRENDS ANALYSIS

Regional Setting

The Kennett Region is located in close proximity to major recreational, educational, and community services and facilities. (See Map 3-1) Because much of the Region's activity is oriented towards Delaware, the areas around Wilmington and Newark are included on the Regional Influences Map as well as the northeastern corner of Maryland. The area immediately surrounding the Kennett Region is primarily rural to the north, south, and west and becomes more suburban in character as one moves to the east towards Philadelphia. In this respect, the Region is located within a transitional area between the eastern suburbs and western rural areas, placing it under even greater pressure for development. Because of this location, planning now for the preservation of open space, protection of natural resources, and directing growth to the most appropriate areas is of great importance.

There are several significant recreational attractions within easy traveling distance from the Region. In addition to several state and county parks and natural resource areas, Longwood Gardens, Winterthur, and the Brandywine River Museum provide valuable and unique cultural resources for residents of the Region. Several major universities are in close proximity to the Kennett Region, complementing the many colleges and universities located in the greater Philadelphia region. Community services on the map include airports, hospitals (including the New Bolton Veterinary Hospital), state police barracks, and primary and secondary school systems in the area just outside the Kennett Region. These resources provide services to the larger region and enhance the area's economy.

Major highway corridors, including Routes 1, 82, 52, 926, and 41, are another significant regional influence in terms of moving people and goods in and through the Region. Issues relating to these highway corridors and transportation in general are discussed in Chapter 6, Circulation and Transportation.

The Region’s orientation towards Delaware, in terms of employment, shopping, and leisure activities, is an important consideration in land use and transportation planning. Conversely, the Region’s proximity to the major employment centers in Delaware make it a prime location for residential development.

Existing Land Use Patterns

The existing land use pattern in the Kennett Region is shown on Map 3-2. This map is a part of the nine county regional land use map created in 1995 by the Delaware Valley Regional Planning Commission (DVRPC) for the Delaware Valley. The map was created by digitizing annotated aerial photographs into DVRPC’s Geographic Information System (GIS). Common land use categories were created for the map. The land use categories and the area distribution (in acres) in each category in 1995 are shown in Figure 3-1. The land use categories are defined in the DVRPC publication “1995 Land Use,” and are discussed below under each category. All of the uses described in each definition are not necessarily located in the Kennett Region. The predominant land uses in the Region are agriculture and woodlands. Residential land uses follow closely in the total area occupied within the Region.

Note that this section and its accompanying map are intended to analyze overall land use patterns in the Region and is not a parcel by parcel land use inventory.

Figure 3-1: Land Use Distribution for the Kennett Region - 1995

Land Use Category	Acres	Percent of Total
Agriculture	13,943	43%
Wooded	8,930	28%
Single Family Residential	7,223	22%
Multi-family Residential	331	1.0%
Transportation	72	0.2%
Commercial /Services	299	1.0%
Manufacturing	167	0.5%
Recreation	388	1.0%
Vacant	317	1.0%
Community Services	308	1.0%
Water	224	0.7%
Utility	91	0.3%

Source: Delaware Valley Regional Planning Commission, “1995 Land Use” with additional corrections by CCPC, 1999.

Agriculture

13,943 acres, 43% of the total Kennett Region

Agriculture includes all lands devoted to crops, pastures, orchards, tree farms, or other agricultural uses. The farmstead and associated buildings and single or double lot split-offs (subdivisions) with houses are also included in agriculture land use. Agriculture represents the largest land use in the Region. The majority of the agricultural lands are located in East Marlborough and Kennett townships, closely followed by Pennsbury and Pocopson. Kennett Square Borough has no agricultural lands, due to its urban nature.

Agricultural activity in the Region has been steadily declining as a result of increasing costs, competition, and the pressure of residential development in the area.

Woodlands

8,930 acres, 28% of the total Kennett Region

Woodlands include forested areas determined by a continuous canopy of tree cover, woodlands, natural lands, marshes and swamps. Wooded areas associated with residences and hedgerows are not included in this land use. Areas which satisfy the above definition, and are located in residential developments, are also included in this land use. The woodlands category is the second largest land use in the Kennett Region. As seen in Map 3-2, woodlands are located throughout the Region, separated by agricultural lands or residential development. The greatest concentration of woodlands is located in Pennsbury, Pocopson, and Kennett townships. The woodlands remaining in the Region often correspond to areas of steep slopes and stream corridors. (See also Chapter 4, Environmental Resources)

Single-Family Residential

7,223 acres, 22% of the total Kennett Region

Single-Family Residential includes all detached units with their lots. In rural areas, single-family residential units are mapped only if there are three or more contiguous units. Single family development is by far the most prevalent residential dwelling type in the Region. Concentrations of residential development can be seen along the major thoroughfares, with other developments located in pockets within agricultural areas. Kennett Township, in particular, has the most scattered pattern of single-family residential development breaking up the agricultural areas.

Multi-Family Residential

331 acres, 1.0% of the total Kennett Region

Multi-Family Residential includes duplexes, townhouses, apartments, group quarters, and mobile homes. Multi-Family Residential represents a very small percentage of the area occupied within the Kennett Region. The largest areas are located in Pennsbury and Kennett Townships, with additional areas located in East Marlborough, south of Route 1, and in Kennett Square. (Note that the existing land use map only indicates the land area occupied by multi-family uses, not the overall density within these areas.)

Transportation

72 acres, 0.2% of the total Kennett Region

Transportation includes areas devoted to rail, air, marine and highway transportation. Highways are included only if they are divided. Residential streets are defined as residential. The primary transportation land use in the Region based on this definition is U.S. Route 1. This highway, which bisects the Region, has played a major role in influencing the land use patterns of the Kennett Region.

Commercial/Services

299 acres, 1.0% of the total Kennett Region

Commercial/Services includes retail, wholesale, personal and professional services, hotels and motels. Commercial land uses in the Kennett Region are primarily located along Route 1, Route 82, and Route 52, along with the concentration of commercial uses in the Borough. Commercial uses along the major transportation routes, particularly Route 1, tend to be larger in scale and include several strip shopping

centers built within the last ten years. Smaller locally oriented commercial uses are located in limited areas in other parts of the Region such as Willowdale and Northbrook.

Manufacturing

167 acres, 0.5% of the total Kennett Region

Manufacturing includes areas devoted to fabrication and/or assembly of raw materials or components. The majority of the manufacturing facilities in the region are located in Kennett Township and Kennett Square Borough. There are also limited industrial areas in East Marlborough and Pocopson Township (Lenape Forge). The small amount of industrial and other non-residential uses in the Region limits the available tax base and puts greater pressure on the Region's residents to pay for schools and other services.

Recreation

388 acres, 1.0% of the total Kennett Region

Recreation includes parks, playgrounds, amusement parks, resorts, camps, golf courses and areas of public assembly. The majority of large recreational acreage is located in East Marlborough including Longwood Gardens and the Kennett Square Golf and Country Club. Anson B. Nixon Park, in Kennett Square and Kennett Township, and the Pennsbury Township Park are two additional important recreational uses in the Region. (See also Chapter 7, Community Facilities and Services)

Vacant

317 acres, 1.0% of the total Kennett Region

The vacant land use category includes areas that are not clearly wooded, not agricultural, not developed, or areas cleared or unused and not tied to any other uses. There are only a small number of parcels categorized as vacant scattered throughout the Region.

Community Services

308 acres, 1.0% of the total Kennett Region

Community Services includes hospitals and clinics; government buildings (except military), educational facilities, churches and cemeteries. The majority of community services in the region are located along Route 1, Route 82, Route 926 and Route 52. The primary use in this category in the Region consists of schools, the county prison, and Pocopson Home.

Water

224 acres, 0.7% of the total Kennett Region

Water includes rivers, larger streams, lakes and ponds. Water areas that have definable boundaries are identified, linear features (small stream and tributaries) are not included. Because much of the water resources in the Kennett Region consist of these smaller water bodies, the above acreage is considered low. Water bodies shown include the Brandywine and the portions of the Red Clay Creek in addition to smaller ponds scattered throughout the Region. (See Chapter 4 for a detailed discussion and locations of the Region's water resources.)

Utilities

91 acres, 0.3% of the total Kennett Region

The utilities category includes power generation, substations; major transmission lines; radio, television and microwave towers; water filtration and storage (except reservoirs); waste treatment; and landfills. The majority of the utility uses are located in Pocopson and Pennsbury townships, along the eastern border of the Region.

Composite Zoning

An analysis of the Region’s zoning provides insight into the compatibility of current land use policies and regulations between the member municipalities. A regional zoning analysis was previously completed by the Region in 1992. This section updates and builds on that analysis and incorporates the most currently available zoning information.

Map 3-3 is a composite of zoning districts in the Region. This GIS map was created in 1996 for the Christina River Basin Study based on each municipality’s zoning ordinance. Corrections were made to the map, as needed using the previously completed regional zoning analysis and the most current information available in the Chester County Planning Commission files. Common zoning district categories were created for the Region. The individual municipal zoning districts, and the generalized category they fall under on the map, are shown in Figure 3-2.

Figure 3-2: Cross-References for Composite Zoning (See Map 3-3)

Regional Zoning Category	Municipal Zoning Classifications				
	East Marlborough	Kennett Township	Kennett Square	Pennsbury Township	Pocopson Township
Low Density Residential (<1 DU/acre)	RB	R1, R2, R3		R1, R2	RA
Medium Density Resid. (1-5 DU/acres)	RM, LMU	R4, PRD	R1	R3, R4, R5, MHP	MHP
High Density Residential (>5/DU acres)			R2A, R2B, R3		
Commercial	C-1, C-2	C1, C, BP, BR	C1, C2, C3	HC, VC	C1
Industrial	LI	LI	II	LI	I
Institutional	ESI				
Mixed Use	MU	SA	R3/PAO	MU	

Source: Municipal Zoning Ordinances, Christina River Basin Study, 1996.

Key to Figure 3-2: Municipal Zoning Districts

Kennett Twp.	R-1 Residential (4 acres)	E. Marlborough	RB Residential (2 acres)
	R-2 Residential (2 acres)		RM Residential- Multi-Family
	R-3 Residential (1.5 acres)		C1 Village Commercial
	R-4 Residential (1 acre)		C2 Highway Commercial
	C-1 Commercial		MU Multiple-Use
	SA Specialized Agricultural		L-I Limited Industrial
	LI Limited Industrial		ESI Educational, Scientific, and Institutional
	BP Business Park		LMU Limited Mixed Use
	BR Business/Residential Transition		
	PRD Planned Residential District	Pocopson	RA Residential and Agricultural (2 acres)
	C-1 Neighborhood Commercial MHP Mobile Home Park		
	I Limited Industrial		
Pennsbury	R-1 Residential (3 acres)	Kennett Square	R-1 Lower Density Residential (10,500 s.f.)
	R-2 Residential (2 acres)		R-2a Low Density Residential (7,500 s.f.)
	R-4 Residential (20,000 s.f.)		R-2b Low Density Residential (6,000 s.f.)
	R-5 Residential (17,500 s.f.)		R-3 Medium Density Residential (2,000 to 5,000 s.f.)
	MHP Mobile Home Park		R-3/PAO Medium Density Residential/Professional Office
	HC Highway Commercial		C-1 Kennett Center Primary Retail
	VC Village Commercial		C-2 Secondary Commercial
	LI Light Industrial		C-3 Kennett Center Primary Office
MU Multi-Use	I-1 General Industrial		

Source: Municipal Zoning Ordinances

Residential Zoning

(29,072 acres, 89% of the total Kennett Region)

Low Density Residential (25,805 acres, 79% of the total Kennett Region) - The vast majority of residential zoning in the Region is for low density (less than 1 dwelling/acre), larger lot development. Minimum lot sizes of up to four acres are required in some districts. Much of the Region’s low density zoning can be attributed to the need to provide on-lot sewage treatment, which generally requires a lot size of at least one acre. Within most of these lower density districts, there are provisions for the use of cluster development which would allow for the preservation of some open space. Lot averaging is also typically permitted, providing for flexibility in locating development away from sensitive resources on the site.

Medium Density Residential (2,874 acres, 9% of the total Kennett Region) - Areas zoned for medium density residential (1-5 dwellings/acre) are much more limited in area. The majority of the medium density residential zoning is located on or near major roads in the Region, including Route 1, Route 926, and, to a

lesser extent, Route 52. In terms of total area, Pennsbury has the greatest amount of acreage in this zoning category, much of it located along Routes 1 and 926. Other significant areas are located adjacent to the borough and north of Route 1 and west of Route 82 in East Marlborough. The area shown as medium density in Pocopson is designated for mobile home parks. The PRD districts in Kennett Township also fall under the category of medium density residential. Figure

High Density Residential (393 acres, 1% of the total Kennett Region) - The only areas falling within the definition of high density residential (more than 5 dwellings/acre) are located within the borough. Most of the residentially zoned borough land is in the high density category, as is typical of a small town or urban environment.

Commercial Zoning

(916 acres, 3% of the total Kennett Region)

Commercially zoned areas are primarily located adjacent to Route 1 in East Marlborough, Kennett, and Pennsbury townships or in the borough. Larger suburban type commercial zones are located outside of the borough, while typical downtown commercial uses are located in the borough center. Kennett Township has a significant area of commercial zoning, but much of this zoning is allocated for business park uses, rather than retail commercial. Smaller commercial zones are scattered around various points in the Region. These districts include the locally oriented commercial uses at Unionville, Willowdale, Northbrook, Fairville, Mendenhall, and Lenape.

Institutional Zoning

(1,309 acres, 4% of the total Kennett Region)

East Marlborough is the only municipality in the Region that has specifically zoned for institutional uses. Significant areas of East Marlborough fall within the Institutional category. Major institutional uses within the township include primary and secondary schools (both public and private), New Bolton Center, and Longwood Gardens.

Industrial Zoning

(656 acres, 2% of the total Kennett Region)

Industrial districts comprise only a small portion of the Region and are generally already occupied by some industrial uses. Most are located on or near Route 1 or the borough. Some significant areas of industrial zoning include an area north of Route 1 in East Marlborough and in Kennett Square and Kennett Township, west of Route 82 and south of New Baltimore Pike. Two additional industrial districts are located in Pocopson, between Routes 52 and 926, and in Pennsbury at Fairville Road and Route 1.

Mixed Use Zoning

(527 acres, 2% of the total Kennett Region)

The final zoning category is "Mixed Use." This category typically allows a mix of commercial, business, and residential uses. The two most significant locations for this district are in Pennsbury, in the area surrounding the township building, and in the southeast corner of East Marlborough along Route 1. The SA Specialized Agricultural district in Kennett has been classified as mixed use, but is somewhat unusual in that it allows a mix of mushroom production related uses and residential uses.

Regional Zoning Analysis - The KARPC conducted a regional zoning analysis in 1992 in response to a need for better coordination of zoning and land use decisions between the member municipalities. The study was designed to accomplish the following purposes:

- Identify common zoning elements within the Region;
- Identify zoning conflicts along municipal borders, highway corridors, and within stream valleys;
- Develop a set of recommendations to resolve potential conflicts; and
- Provide directives for implementation.

To accomplish these purposes, the study identified inconsistencies and incompatibilities between districts. Inconsistencies were defined as abutting zoning districts that have different standards for area and bulk that can be mitigated through proper development design. Incompatibilities were defined as areas where potential land use conflicts could occur based on the adjacent districts allowing for differences in intensity or type of land use. Two sets of recommendations resulted from this study. The first set of recommendations was suggested changes that could be made universally to all ordinances such as highway corridor management and natural resource protection standards. (This set of recommendations will be dealt with in other chapters of the comprehensive plan.) The second set of recommendations was intended to solve inconsistencies of zoning along municipal borders.

Figure 3-3: Areas of Incompatible Zoning (See Map 3-3)

No.*	Municipalities	Zoning Category (composite/actual)	Conflict	Existing Conditions
13	East Marlborough	MU/MU	Uses and densities differ	Industrial uses in E. Marl.; Residential development in Kennett; Tree lots throughout residential
	Kennett Twp.	LD/R-3		
17	Kennett Twp.	C/C	Uses differ	Residential uses in Kennett Square; Stream valley present for separation.
	Kennett Square	HD/R-2A		
18	Kennett Twp.	MU/SA	Uses and densities differ	Mushroom production in Kennett Twp.; Residential development in Borough; No buffer.
	Kennett Square	HD/R-2A		
19	Kennett Twp.	I/LI	Uses differ	Kennett Twp. has mushroom production; Borough has mixed uses; No transition area.
	Kennett Square	HD,I,MU/R3-PAO,I-1		

*Numbers correspond to original zoning study.

Source: Regional Zoning Analysis, Kennett Area Regional Planning Commission with technical assistance from Chester County Planning Commission, July 1992; updated with current municipal zoning ordinances.

Using this information as a base, Map 3-3, identifies remaining areas of potentially incompatible zoning in the Region. Figure 3-3 provides a summary of these incompatibilities.¹ For the purposes of this comprehensive plan, only the incompatibilities between zoning district land uses are discussed in detail.

¹ Conflicts with New Garden and areas of conflict that have been resolved since the 1992 report have not been included in this table.

Those conflicts defined as inconsistencies can be addressed through revisions to area and bulk standards of individual ordinances. The primary purpose here is to consider possible recommendations for future land use designations rather than very specific changes in individual municipal zoning districts.

Recommendations for the Resolution of Incompatible Zoning - The regional zoning analysis provided the following recommendations for resolving the identified zoning conflicts (numbers correspond to Figure 3-3 and Map 3-3):

13. East Marlborough Township (MU)/Kennett Township (MD/LD)

Condition: The existing PRD and low density zoning district in Kennett Township abuts the Mixed Use District in East Marlborough that allows for commercial and residential uses.

Recommendation: To minimize potential land use conflict, the existing tree line and ridgeline along the municipal border should be used as a screen and buffer. Potential commercial uses in East Marlborough should be set back and screened from the existing PRD development and residential development in Kennett Township.

17. Kennett Township (C)/Kennett Square Borough (HD)

Condition: Both areas along the municipal border are developed. Commercial and industrial uses in the township abut residential uses in the borough. An existing tree line and road separate land uses.

Recommendation: Existing commercial and industrial developments that are expanded should be screened from residential uses in Kennett Square to mitigate potential conflicts between incompatible uses. Rezoning of these areas to eliminate future conflicts should be considered.

18. Kennett Township (MU)/Kennett Square Borough (HD)

Condition: The purpose of Kennett Township's SA district (classified as MU in the composite zoning map) is to provide for both residential and mushroom production uses. Industrial and commercial uses are located along the border. Although no conflict currently exists, if residential development were to occur in Kennett Borough, there is a potential for conflict with the mushroom production uses.

Recommendation: Kennett Township should encourage continued commercial and industrial use of this area to avoid future conflicts. Consideration should also be given to the compatibility of residential and mushroom production uses within the SA district.

19. Kennett Township (I)/Kennett Square Borough (HD,I,MU)

Condition: The township and borough have a mix of commercial/industrial uses abutting residential.

Recommendation: Adequate setbacks should be required between residential uses and future industrial and commercial development.

In addition to the above specific recommendations, the following general recommendations were suggested for minimizing zoning conflicts along municipal borders:

- Development proposals should be unified across municipal lines to mitigate conflicts in land use, density, and layout of lots;
- Where conflicts arise across municipal borders, a process for their resolution should be established which streamlines the review process;
- Increasing building setbacks should be considered for lots located along a municipal boundary where differing land uses and densities exist;
- Similar screening standards for conflicting uses and densities should be considered;
- The incorporation of native vegetation into buffers should be promoted;
- Ridgelines should be used as natural buffers by placing buildings below the point of highest elevations.

This plan strives to eliminate conflicts between future land uses along municipal borders and minimize those between existing land uses.

Land Development Trends

Because this is the first regional land use plan created for the Kennett Region, it is difficult to compare changes in actual land development over the past ten to twenty years. While individual municipal plans have existing land use maps, the maps were created over a number of different years, are not directly comparable, and cannot be used to create a common base map. As an alternative, subdivision proposals submitted within the Region over a set time period have been analyzed. For the purposes of this plan, a 15-year time frame, starting in 1982 and ending in 1997, was chosen to analyze land use trends in the Region.

Subdivision Activity - 1982 To 1997 - The tables below represent the number of subdivision applications in the Region submitted to the Chester County Planning Commission for review for the years 1982, 1987, 1992, and 1997. This data reflects the number of proposals submitted that year for review, but does not necessarily indicate the actual number of units built. In most cases, the proposals are eventually approved and built, but not always in the same year they are submitted. The purpose of including this information is to provide an indication of the level and type of development activity in the Region over the past 15 years.

Figure 3-4 provides a summary of activity in the Region by type of proposal. These numbers reflect the height of subdivision and development activity that took place during the mid-1980's. The year 1987, by far, saw the greatest level of activity covering nearly 3,000 acres and including 13 additional miles of proposed new roads. Activity had slowed considerably by 1992 as the result of an economic recession of the late 80's and early 90's. Residential subdivision proposals in 1997 were somewhat higher than in

1982, but have not approached the levels seen ten years ago. Commercial proposals, on the other hand, were higher in 1997 than in any of the previous years examined. This trend is logical because commercial development typically follows residential development to serve the expanded population.

Figure 3-4: Regional Subdivision and Land Development Applications, Proposed Lots/Units - Selected Years

	1982	1987	1992	1997
Single-Family	80	590	128	102
Townhouse/Multi-Family	2	215	0	0
Commercial	3	7	7	17
Industrial, Institutional	4	3	2	11
Total Lots/Units	89	815	129	140
Road Length (ft.)	4,250	68,614 ²	8,065	2,848
Acreage	491	2,889	1,078	1,012

Source: Act 247 Referrals, Chester County Planning Commission, 1982, 1987, 1992, 1997.

In terms of individual municipalities within the Region, Figure 3-5 shows the number of residential and non-residential proposals submitted in the same selected four year periods. The four townships in the Region experienced their greatest development activity in 1987, whereas the borough experienced its greatest amount of both residential and commercial development in 1982. Kennett Township had the highest number of both residential and non-residential subdivision proposals in 1987, with nearly 300 lots/units involving 840 acres of land. This trend continued in the 1992 figures, with Kennett Township having twice as many lots proposed as East Marlborough, which was second in development proposals that year. Commercial and industrial proposals remained fairly low in the Region’s municipalities until 1997 with the majority being proposed in Kennett Square, Kennett Township, and East Marlborough Township.

Figure 3-5: Summary of Subdivision Proposals By Municipality

	1982		1987		1992		1997	
	Resid.	Non-Res.	Resid.	Non-Res.	Resid.	Non-Res.	Resid.	Non-Res.
East Marlborough	16	0	184	1	31	0	16	8
Kennett Township	6	0	292	6	64	4	22	10
Kennett Square	21	7	15	2	14	2	5	10
Pennsbury	8	0	120	1	14	0	25	0
Pocopson	31	0	194	0	5	3	34	0
REGION	82	7	805	10	128	9	102	28

Source: Act 247 Referrals, Chester County Planning Commission, 1982, 1987, 1992, 1997.

Figures 3-6 and 3-7 show the number of acres involved in residential subdivision proposals in the four years examined and the ratio of proposed lots to acreage. Where permanently preserved open space was

² This number has been checked and is correct.

included in a subdivision, only the area used for residential purposes was included in this calculation. Figure 3-7 provides a general picture of the number of acres used per lot or unit proposed. As expected, Kennett Square, with its compact town development pattern used much less land per proposed lot than did the surrounding townships Kennett Township used the least amount of land per lot of the four townships. Some of the higher numbers occurring in certain years in East Marlborough, Pennsbury, and Pocopson were the result of a few very large parcels being subdivided into only two to three lots. It is interesting to note that, while Kennett Township had the greatest number of lots proposed in 1987, that East Marlborough had over 400 more acres than Kennett involved in these proposals. This same trend was seen in 1997, but with many fewer numbers of lots and acreage involved.

The trend in the Region, over the 15-year period has generally been an increasing amount of acres used per proposed lot. While lower overall densities are desired in the rural landscape, mechanisms should be considered to ensure that options for preserving open space are available to avoid a sprawling, inefficient land development pattern that typically accompanies large lot development. Also, directing desirable growth to appropriate areas of the Region can help reduce development pressure on those areas where preservation is a goal.

Figure 3-6: Lots, Acreage, and Permanent Open Space Proposed In Residential Subdivision Proposals

	1982		1987		1992		1997	
	Lots/ Units	Total Acreage/ Open Space						
East Marlborough	16	143/0	184	1,245/54	31	72/10	16	305/0
Kennett Township	6	34/0	292	755/114	64	122/84	22	72/0
Kennett Square	21	6/0	15	8/0	14	8/0	5	6/0
Pennsbury	8	169/0	120	253/16	14	729/0	25	202/36
Pocopson	31	100/0	194	487/16	5	116/0	34	345/30
REGION	82	452/0	805	2,748/200	128	1,047/94	102	930/66

Source: Act 247 Referrals, Chester County Planning Commission, 1982, 1987, 1992, 1997.

Figure 3-7: Land Consumption: Acreage per Proposed Residential Lot*

	1982	1987	1992	1997
	Acres per Lot	Acres per Lot	Acres per Lot	Acres per Lot
East Marlborough	8.9	6.5	2.0	19.1
Kennett Township	5.7	2.2	0.6	3.3
Kennett Square	0.3	0.5	0.6	1.2
Pennsbury	21.1	2.0	52.0	6.6
Pocopson	3.2	2.4	23.2	9.3
REGION	5.5	3.2	7.4	8.5

Source: Chester County Planning Commission, 1998.

*Permanently preserved open space has been subtracted. Numbers represent net acres of land used for residential lots.

Potential Future Development Under Current Zoning

The following analysis provides an estimate of the potential amount of residential, commercial, industrial, and institutional development that is possible if the current zoning in the Region is applied. These estimates were calculated by using the composite zoning map in conjunction with the remaining developable land in the Region as described below.

Constrained and Developable Land Area

Figure 3-8 indicates the acreage of developed, constrained, protected, and developable lands in the Region. Map 3-4 shows the location of land in each of those categories. Approximately 52 percent of the Region's total land area is free of significant physical constraints and easements and can potentially be developed. Twenty-three percent of the land area in the Region is already developed. The remaining 25 percent is either seriously constrained due to physical conditions, is protected through easements, or is located in public park lands.

Figure 3-8: Developable and Constrained Lands In the Kennett Region

Land Category	Land Area	Percentage of Total
Constrained Lands	4,511 acres	14%
Protected Lands	3,434* acres	11%
Developed Lands	7,428 acres	23%
Remaining Developable Lands	16,918 acres	52%

Source: Chester County Planning Commission, 1999

*An additional 80+ acres was added to protected lands in East Marlborough since the completion of Map 3-4 and this table.

To determine developable area, lands that have the following constraints have been subtracted from the total land area:

Naturally Constrained Lands:³

- 100 Year Floodplain
- Slopes of 25% or greater
- Wetlands
- Hydric Soils (wetlands indicator)
- Streams and Ponds

Other Protected Lands:

- Eased Lands (including conservation and agricultural easements)
- Public Park Lands

Developed Lands: Those areas already occupied by residential, commercial, industrial, or other development. This category includes the permanently protected open space portions of private developments (i.e. cluster subdivisions) that are no longer available for future development.

The remaining lands, after these land categories are subtracted, are considered potentially developable. This information, in conjunction with the composite zoning map (Map 3-3), provides an estimate of future build-out potential in the Region. Map 3-4 and its analysis are provided to give a general picture of potential developable land in the Region as of the date the map was created (October 1998). While the information shown is as accurate as possible at this scale, a detailed build-out analysis on a parcel-by-parcel basis is most accurately performed at the municipal level.

Developable Land Available by Zoning Category

Figure 3-9 indicates the amount of developable land that is located in each of the composite zoning districts on Map 3-3. The last column indicates the percentage of total developable land that falls within each zoning category. By far, the greatest percentage (82%) of developable land in the Region is zoned for low density residential uses. On the composite zoning map, this category includes zoning where densities are less than one dwelling unit per acre. Medium density residential (8%) has the second greatest amount of land available for development. An additional 8 percent of developable land is designated for non-residential commercial, industrial, and institutional uses. There are also limited areas of land designated as mixed-use that allow both residential and non-residential uses within the same zoning district.

³ See Chapter Four for a detailed description of these resources.

Figure 3-9: Developable Land In Each Zoning Category

Zoning Category	Acres of Developable Land	Percentage of Total Developable Land
Low Density Residential	13,824 acres	82%
Medium Density Residential	1,359 acres	8%
High Density Residential	46 acres	0.3%
Commercial	433 acres	3%
Industrial	349 acres	2%
Institutional	665 acres	4%
Mixed Use	241 acres	1%

Source: Chester County Planning Commission, 1999

Figure 3-10: Potential Development by Zoning Category

Zoning	Density or Building Coverage Possible	Developable Lands	Less Infrastructure (15%)	Potential Development
Low Density Residential	< 1 dwelling/acre*	13,824 acres	11,750 acres	5,875 units
Medium Density Residential	1-5 dwellings/acre	1,359 acres	1,155 acres	2,310 units
High Density Residential	> 5 dwellings/acre	46 acres	39 acres	195 units
Commercial	40% bldg. coverage**	433 acres	368 acres	6,412,032 sq.ft.
Industrial	40% bldg. coverage	349 acres	297 acres	5,174,928 sq.ft.
Institutional	15% bldg. coverage	665 acres	565 acres	3,691,710 sq.ft.
Mixed Use	40% bldg. coverage	241 acres	205 acres	3,571,920 sq.ft.

Source: Chester County Planning Commission, 1999

*For the purpose of this analysis, 0.5 units per acre was used for low density, 2 units/acre for medium density and 5 units/acre for high density.

**Building coverages are based on those most commonly permitted by the Region's municipalities for those particular zoning districts. Institutional coverage is based on East Marlborough's permitted coverage because they are the only municipality with a specific institutional zoning designation. While the Borough typically allows somewhat higher commercial coverages, their remaining undeveloped commercial lands accounted for only a very small percentage of the total available commercial lands (<1%).

Potential Future Development by Type

Figure 3-10 provides an estimate of future development potential based on the composite zoning categories for the Region. In addition to subtracting constrained lands, an additional 15 percent was subtracted from each category to account for infrastructure such as roads, sewers, and stormwater facilities. The last column in the table indicates the approximate amount of development that could occur

in each of these categories, based on density for residential districts or building coverage for non-residential districts. The residential development does not represent the type of housing, but only the number of units. However, it is most likely that the low density units would be single family detached, high density would be multi-family, and the medium density a mix of both types with the majority likely being in the form of detached housing.

Accommodation of Future Population

Based on the future population projections, the Kennett Region can expect to grow by an additional 3,180 persons between 1997 and the year 2020. However, because the County's projections are approximately 4 percent lower than the recently released State population projections for the year 2020, projected population in the Region has been increased by 4 percent to 4,277 for the purposes of this analysis. As seen in Chapter Two, the County estimates which are already approaching the future projections, also support the need to make this upward adjustment. With an average projected household size of 2.63 for the year 2020, and additional 1,626 homes would be needed to accommodate new residents. The development analysis in Figure 3-10 indicates that, with the potential for 8,380 additional homes in the Region (not including the Mixed Use category), there is ample developable land zoned for residential uses to accommodate future growth.

In terms of providing for a fair share of multi-family residential approximately 244 to 325 of the above units should potentially be multi-family units.⁴ (Multi-family for the purpose of fair share housing primarily includes twins, townhouses, and apartments.) Based on the assumption that at least some (a minimum of 5% to 10%) of the medium density zoning allows for twins and townhouses and that some of the mixed use zoning would be developed in high density residential uses, it appears that the Region, as a whole, currently meets the basic criteria for the provision of its fair share of multi-family housing. As noted in the Housing Plan, a more detailed analysis is necessary to determine if each municipality is meeting this obligation on an individual basis.

Non-Residential Development

Figure 3-10 also indicates the square footage of commercial, industrial, and institutional development that is possible in the Region. With an average building coverage of 40 percent, 6.4 million additional square feet of commercial uses are possible. By way of comparison, the Exton Mall (prior to current construction) is 442,000 square feet and Longwood Crossing is 136,800 square feet. The King of Prussia mall is 2.5 million square feet. Almost 5.2 million square feet of additional industrial development is possible under current zoning as well as 3.7 million square feet of institutional uses.

Another way to view commercial and industrial development potential is to compare available acres with acres already developed in the Region. There are nearly 300 acres of existing commercial uses and 167 acres of existing industrial uses in the Kennett Region. This compares to an additional 433 acres of commercial land and 349 acres of industrial land that could potentially be developed. This indicates that the amount of commercial and industrial development could increase by 60 percent at full build out. However, in comparison to residential development, with over 15,000 acres available, this represents a fairly small percentage of developable land in the Region. In addition, these types of non-residential uses provide a more diversified tax base. Unlike most residential uses, commercial and industrial uses generally generate more tax revenue than municipal services consumed.

⁴ See Appendix A, Fair Share Obligations, for this analysis.

