Chapter 1
Regional Perspective

This Chapter examines regional forces and their impact upon the character and quality of life in New Garden Township. The position of New Garden determines the extent to which the municipality is influenced by external forces such as traffic circulation, natural resources, community facilities and services, employment and commercial centers, and land development activities and patterns. The findings of this analysis will provide a framework around which the Township can formulate strategies to address opportunities and concerns regarding regional influences. Finally, periodic review of these regional relationships is essential for maintaining an effective, on-going, comprehensive planning program.

Geographic Setting

New Garden is located within southern Chester County and is surrounded by the Townships of Kennett, East Marlborough, West Marlborough, London Grove, Franklin, London Britain; and the Boroughs of Kennett Square and West Grove. The Township is strongly influenced by Wilmington and Newark, Delaware, which are in close proximity to the Township (See: **Map 1-1, Regional Setting**). Wilmington and Newark are approximately 15 miles and 10 miles from the Township, respectively. Due to the orientation of the transportation network of the Township, such as Route 41 and Newark Road, and analyzing resident employment trends, the Wilmington and Newark areas affect the Township more directly than Philadelphia, which is 25 miles to the east. New Garden is fast becoming a "bedroom" community for Wilmington and Newark.

The regional setting of New Garden presents a unique influence on the Township. The southeastern Pennsylvania and northern Delaware area offers a mix of suburban and urban characteristics which are evident in the development activities of the region. In reaction to an increasing population, developing transportation networks, and a favorable financial situation, the development of commercial, industrial, and public infrastructure networks in these areas has stimulated development pressure in the Township. Due to these adjacent centers of employment and commercial activity, and the expanding development of northern New Castle County in the 1990s, the Township has seen a population increase, especially in the number of new residents who commute to occupations within the State of Delaware.

Population Trends

Figure 1-1 compares the population of New Garden with the adjacent municipalities, including Chester County and New Castle County, over the last three decades. Statistically, the Township was the third fastest growing community since 1970 at 119 percent, nevertheless, it was the fastest growing community during the 1990s at 67 percent and currently has the largest population of the surrounding municipalities. The number of persons increased from 1970-2000 by more than 100 percent in New Garden, East Marlborough, Franklin, and London Britain. Clearly, the New Garden and surrounding region is in transition from that of rural to a more suburban area.

Figure 1-1: Population Trends 1970-2000; New Garden and Surrounding Municipalities

Municipality	1970	1980	1990	2000	Percent Change	
					1970-2000	1990-2000
New Garden	**4,153**	**4,790**	**5,430**	**9,083**	**119%**	**67%**
Kennett	3,394	4,201	4,624	6,451	90%	40%
East Marlborough	3,031	3,953	4,731	6,317	108%	34%
West Marlborough	917	941	874	859	-6%	-2%
London Grove	3,109	3,531	3,992	5,265	69%	32%
Franklin	1,043	1,920	2,779	3,850	269%	39%
London Britain	963	1,546	2,671	2,797	190%	5%
Kennett Square Borough	4,876	4,715	5,218	5,273	8%	1%
Avondale Borough	1,025	891	954	1,108	8%	16%
West Grove Borough	1,870	1,820	2,128	2,652	42%	25%
Chester County	278,311	316,660	376,396	433,501	56%	15%
New Castle County	385,920	398,010	441,946	500,265	30%	13%

Source: US Census Bureau, 1970-2000

Population density is a function of the size of the particular area and the number of residents that live there. This is important to understand because as more people move into the communities, as the population projections indicate, the densities and need for additional developable land and thus community facilities and services, will intensify. **Figure 1-2** shows the density per square mile in each municipality from 1970 to 2000. The percent increase in density mirrors the percent population growth seen in the table above. With the exception of West Marlborough, there has been a steady increase in the densities of all of the adjacent municipalities, with by far the greatest increase during the 1990s being experienced in New Garden. The number of persons per square mile increased from 1970-2000 by more than 100 percent in New Garden, Kennett, East Marlborough, Franklin, and London Britain Townships. Aside from the Boroughs, New Garden has substantially more persons per square mile than the surrounding townships. These increases in density indicate a transition from largely low density, rural communities to a region with increasingly suburban characteristics.

Figure 1-2: Population Densities 1970-2000; New Garden and Surrounding Municipalities

Municipality	Density Population per Square Mile				Percent Change	
	1970	1980	1990	2000	1970-2000	1990-2000
New Garden	**254**	**298**	**337**	**565**	**122%**	**67%**
Kennett	215	269	296	415	93%	40%
East Marlborough	175	253	307	405	131%	32%
West Marlborough	22	55	51	50	128%	-2%
London Grove	175	205	228	306	75%	34%
Franklin	69	146	211	291	321%	38%
London Britain	93	156	270	283	205%	5%
Kennett Square Borough	4,925	4,286	4,744	4,679	-5%	-1%
Avondale Borough	2,135	1,782	1,908	2,249	5%	18%
West Grove Borough	3,596	3,033	3,547	4,118	15%	16%
Chester County	366	419	498	573	57%	15%
New Castle County	883	911	1,011	1,145	1%	1%

Source: US Census Bureau, 1970-2000

Urban Areas

There are three urban areas that influence the Township (See: **Map 1-2, Regional Influences**). The following will discuss the most prominent of these influences.

New Castle County, Delaware: New Castle County forms the southern border of the Township and had a 2000 population of 500,265. The cities of Wilmington and Newark, recreational areas, shopping opportunities, and employment centers within New Castle County have essential influences on New Garden Township. The city of Wilmington had a 2000 population of 72,664, the largest in the state of Delaware. It is a banking center of national importance and is a major employer and service center for the region. In addition to MBNA and AstraZeneca, the chemical industry also plays a major role in the area's economy, particularly the DuPont Corporation. Since the state of Delaware has no sales tax, people travel to Delaware to take advantage of this financial savings opportunity, especially for higher priced items. Wilmington and the surrounding recreational, employment, and shopping opportunities are easily accessible to New Garden residents by Route 41. For these reasons, New Castle County is a significant influence on the Township in terms of residential growth pressure and transportation issues.

Newark, Delaware: The 2000 US Census indicated 28,547 people live in Newark. The city is approximately ten miles from the Township and exerts some influence on the Township, though not as great as Wilmington. With a large manufacturing sector and the University of Delaware, Newark is a center of employment, education, and culture for residents of the Township.

Philadelphia, Pennsylvania: Philadelphia is the fifth largest city in the United States, with a 2000 US Census population of 1,517,550 people. From 1990 to 2000 the population decreased by 68,027 or 4.3 percent, one of only two major cities in the top 15 who lost population. Philadelphia is accessible to New Garden residents by using either Interstate 95 or US Route 1, or by Southeastern Pennsylvania Transit Authority (SEPTA) bus or rail services from transit stations in Newark, Downingtown, or West Chester. Although Philadelphia is much larger than Wilmington or Newark, Delaware, these smaller cities provide many of the same services and opportunities as Philadelphia, and offer easier access for the residents of New Garden. For these reasons, the influence of Philadelphia upon the Township is less important than its size would indicate.

Municipal Planning and Land Use

Avondale Borough: The Borough of Avondale along the western New Garden border exerts some influence upon the Township in terms of land use allocation, made even more vital due to the character of the Route 41 corridor (See: **Chapter 8, Transportation Inventory**). Currently, the majority of lands in Avondale adjacent to New Garden Township are zoned for residential development at a density of over 5 units per acre. Industrial and commercial activities are permitted along the Baltimore Pike corridor. Avondale has a population of 1,108 and is predominantly a residential community with limited commercial development. Despite this, the Borough has little influence on New Garden. The Avondale Wastewater Treatment Plant currently provides sewage disposal for Toughkenamon and areas along Route 41.

East Marlborough Township: East Marlborough is a uniquely diversified municipality in the region in relation to the types of land uses. It forms New Garden's northeast border. It contains the villages of Unionville and Willowdale, a commercial district along US Route 1, and the institutional uses of Longwood Gardens and the New Bolton Center. East Marlborough completed a Comprehensive Plan in 1989 and has planned for the majority of its land to be developed at low and medium density residential development. Two village commercial areas and an area of higher density residential development in the southwest area of the Township are planned adjacent to the northern boundary of New Garden. Longwood Gardens, an internationally renowned tourist attraction, extends into the eastern border of the township. Residential uses are the largest land use category, with single-family detached dwellings the most dominant form of land

use scattered throughout the Township. Multi-family residences are mostly located in the vicinity of US Route 1, with concentrations of commercial development located in Unionville, Willowdale, and along US Route 1 corridor. Industrial development is primarily near US Route 1 at the Walnut Road Industrial Park. The increase of single-family residential development and the reduction of farmland, woodlands, and undeveloped lands is changing the character of the township.

Kennett Township: Kennett is primarily a residential community. The Township has experienced growth over the last decade similar to New Garden. Kennett updated its comprehensive plan in 2003. The future land use plan of the 2003 Plan focuses residential uses at densities ranging from 0.25 to 4.0 units per acre. There is a potential for redevelopment just east of Kennett Square Borough along Ways Lane. Kennett, as well as New Garden, serve as bedroom communities for the greater Wilmington-Newark area. There are still large tracts of undeveloped land within the Township with most new development being single family residential neighborhoods. A corridor of commercial uses has developed along Route 1 and Baltimore Pike both east and west of Kennett Square Borough. Mushroom farming, processing, and distributing are located adjacent to Kennett Square and in outlying areas.

Growth trends within the Township during the 1980's can be partially attributed to the economic growth of New Castle County, Delaware. Since the average commuting time to Wilmington is less than 20 minutes, the attractive environment of the Township places it under additional development pressure. The most intensive residential development has occurred along the US Route 1 and Baltimore Pike corridors and several planned residential developments (PRDs) along the Route 52 corridor. These areas are particularly active due, in part, to their accessibility to Wilmington. As this area becomes built out, pressure may increase in other areas of the Township.

Kennett Square Borough: With a population of 5,273, the Borough is the largest area of concentrated population in southeastern Chester County with 4,679 people per square mile. The 2001 comprehensive plan for the Borough calls for a mix of land uses commonly associated with a town setting. Kennett Square has seen little new development compared to other rural and suburban municipalities. The Borough's land use pattern is stable and well established with a central business and commercial core surrounded by residential neighborhoods, providing food, convenience items, and other professional uses such as banking, legal, and social services for the surrounding municipalities. Manufacturing is interspersed with residential neighborhoods to the south and west of the Borough's center and little vacant land exists in Kennett Square although underused parcels could be put to higher and more productive use. The Borough completed a Kennett Common Report for the block surrounding the library in November, 2001 and an Urban Center Revitalization Plan in May, 2003. The Revitalization Plan details an action plan to guide the Borough's revitalization efforts in the areas of economic development, housing, transportation and infrastructure, and public facilities and services.

London Grove Township: As the principal western border of New Garden Township, London Grove influences the allocation and intensity of land use in the western half of New Garden. There are two residential zoning districts adjacent to New Garden, Residential-High (RH) with a range of minimum lot sizes from 7,200 to 12,500 square feet, and the Residential-Rural District with a minimum lot size of one acre. There is pressure to convert more of its land for residential purposes. London Grove is also important because two of the major roads in the region, US Route 1 and Route 41, meet in the Township, and the Township is one of the principal mushroom processing communities in the region. London Grove, with a 2000 US Census population of 5,265, completed work on a comprehensive plan for the Township in 1992. From 1970 to 2000 the Township experienced a growth rate of 69 percent, with 32 percent of that rate occurring between 1990-2000.

Franklin Township: Franklin Township comprises a portion of the southwestern border of New Garden Township. Franklin had a population growth rate of 269 percent from 1970-2000, double that of New

Garden (118%), and one of the highest in the County. The lands adjacent to New Garden are planned for rural residential development and conservation purposes. These uses would present few compatibility problems with New Garden. Considering its location, development history, and growth patterns, Franklin will continue to be in the path of growth and have increased pressure for residential development, due to its proximity to Wilmington and Newark, as well as developing communities in Chester County. Development restrictions in New Castle County have further increased the demand for homes in Franklin and the region. Routes 841 and 896 through the Township provide transportation connections to growing regional commercial and employment centers. Continued proposals for new development within the Township, particularly residential development, indicate that Franklin will continue to be a developing community.

London Britain Township: London Britain, along the southwest border of New Garden, had only 2,797 residents according to the 2000 Census. The Township's future land use plan, part of their 1989 Comprehensive Plan, has allocated conservation uses and residential development at a density of 1.75 units/acre to lands adjacent to New Garden Township. These allocated land uses are in concert with the current land uses allocated by New Garden adjacent to these areas. London Britain also encompasses a portion of the White Clay Creek Preserve. This large natural preserve, of almost 2,000 acres, includes land in New Castle County, Delaware. The area included in preserves provide a large area of open space and serves some of the passive recreational needs (hiking, nature study, bird-watching).

West Grove Borough: Lying approximately three miles to the west of New Garden, West Grove Borough provides commercial and high density residential uses. The Borough adopted a Comprehensive Plan and an Urban Center Revitalization Plan in the spring of 2003. With only 2,652 residents, the second densest population per square mile (4,420), the Borough serves as a small service center for municipalities between Oxford and Kennett Square Boroughs. Due to the size of West Grove, its influence upon New Garden is minimal. Its greatest influence is its wealth of mushroom and related industries in and within the area surrounding the Borough.

West Marlborough Township: This Township forms the remaining portion of the northern border of New Garden. The low population of West Marlborough is indicative of the desire to retain the historical character of this agricultural community. The majority of land, from their Comprehensive Plan of 1972, is planned for agriculture and open space uses. Large parcels of land, such as the former King Ranch property, are protected through conservation easements, which preserve the land from development in perpetuity. A variety of land uses are provided for the portion of the Township that borders New Garden Township, including open space, agricultural, possible high density residential, and village land uses. The University of Pennsylvania's New Bolton Center, a facility for veterinary research and study, makes up a significant portion of the West Marlborough-New Garden border. The West Marlborough Comprehensive Plan was adopted in 1972. Because the Plan is outdated, a comparison was made with the Township’s zoning district designations. The vast majority of the shared border is designated as either Agricultural/Conservation or Low Density Residential. The Township has begun an update to their comprehensive plan in 2004.

New Castle County, Delaware: New Castle County, containing several cities including Wilmington, Newark, and New Castle, influences New Garden Township in a variety of ways. In 2002, the New Castle County, Department of Planning prepared the "Comprehensive Development Plan Update" which established land use allocations for the county into 10 planning districts. The Comprehensive Development Plan predominantly allocates land adjacent to New Garden Township for resource protection and residential development between 1 and 3 units per acre with higher residential density and commercial uses planned for the Hockessin area along Route 41. A majority of the land in New Castle County adjacent to New Garden has been developed as single family residential housing.

Regional Agencies

There are several groups that influence the Township in a variety of ways. These include:

Delaware Valley Regional Planning Commission: The Delaware Valley Regional Planning Commission (DVRPC) was established in 1965 to provide comprehensive, coordinated planning for the orderly growth and development of the Greater Philadelphia region. This region includes Bucks, Chester, Delaware, Montgomery, and Philadelphia counties in Pennsylvania; and Burlington, Camden, Gloucester, and Mercer counties in New Jersey. DVRPC is an interstate, intercounty, and intercity agency that advises on regional policy and capital funding issues concerning transportation, economic development, the environment, and land use. Their mission is "to proactively shape a comprehensive vision for the region's future growth." They provide services to member governments through planning analysis, data collection, mapping services, and a variety of publications.

The Transportation Planning Division of DVRPC is responsible for coordinating the transportation planning process in the nine county region. Their activities include collecting and providing data for regional studies, conducting research, and developing the long range transportation plan, and short term transportation improvement program. Of particular interest to New Garden is DVRPC's responsibility for coordinating the Transportation Improvement Program (TIP). The TIP is the regionally agreed upon list of priority projects required by federal law (ISTEA and TEA-21). The TIP document must list all projects that intend to use federal funds, non-federally funded projects of regional significance, and also includes other state funded capital projects. (See: Transportation chapter of this Plan.) DVRPC recently updated their regional transportation and land use plan, *Horizons 2025* (2001).

Kennett Area Regional Planning Commission: Kennett, Pennsbury, East Marlborough, New Garden, and Pocopson Townships, along with Kennett Square Borough, form the Kennett Area Regional Planning Commission (KARPC). The organization began when the Kennett Consolidated and the Unionville-Chadds Ford School Districts initiated informal discussions on planning issues in 1983. The purpose of this advisory group is to provide a forum for sharing information between member municipalities and cooperation in future planning programs. Cooperative agreements have been made between member municipalities for the purpose of purchasing such things as road maintenance materials and road salt. The member municipalities are also considering the establishment of a Kennett Regional Council of Governments (COG) to provide for joint services between the municipalities. Studies include:

- Regional Zoning Analysis (1992): The first study produced by KARPC was a Regional Zoning Analysis that compared and analyzed the existing zoning districts in each municipality in an effort to identify conflicts.

- Highway Classification Map (1992): A Highway Classification Map was produced in 1992 in an effort to address transportation concerns by producing a single classification system for regional roads. This was also intended to help standardize road improvements.

- Kennett Area Region: Policy Plan (1998): In preparation for a regional comprehensive plan, KARPC prepared the Kennett Area Regional Policy Plan. Its purpose was to identify a common set of planning goals and objectives for the Region that would guide development of the comprehensive plan.

- Regional Comprehensive Plan (2000): The Regional Comprehensive Plan was developed to assist municipalities in coordinating land use activities and to guide regional efforts in addressing mutual goals. It sets forth a future land use plan intended to help individual municipalities to achieve the land use policies adopted by the Region. New Garden did not participate in the formation of this Plan

and is therefore was not considered in the planning area or recommendations. However, New Garden has been attending meetings and participating in KARPC activities since 2002.

- Land Use/Transportation Model (2002): As a follow-up to the regional comprehensive plan adopted by KARPC, the development of a regional transportation and land use study addressed both current and future traffic problems. The study identified improvements to the existing road system that would be needed to accommodate future traffic levels. A regional transportation simulation model was used to determine the projected conditions of 89 intersections by the year 2011.

Delaware River Basin Commission: The Delaware River Basin Commission (DRBC) was formed in 1961 by compact among the four basin states (Pennsylvania, New Jersey, New York, and Delaware) and the federal government. The creation of DRBC marked the first time the federal government and a group of states joined together as equal partners to form a regulatory agency for the purpose of river basin planning. The DRBC is a regional body with the force of law that oversees a unified approach to managing the river system without regard to political boundaries. New Garden falls within the region regulated by DRBC. Within this area, proposed well withdrawals in excess of 100,000 gallons per day must be reviewed and approved by DRBC. The purpose of these regulations is to prevent the depletion of groundwater and protect the interests and rights of lawful users of the same water resource, as well as to reconcile alternative and conflicting uses of limited water resources in the region.

Kennett Consolidated School District: New Garden Township is served by the Kennett Consolidated School District. Facilities of this District include; Kennett High School and Mary D. Lang Elementary in Kennett Square, Greenwood Elementary in Kennett Township, Kennett Middle School and New Garden Elementary in New Garden Township. Vocational education for district students is provided at the Central Chester County Technical School in Coatesville.

Avon-Grove Regional Planning Commission (AGRPC): The Avon-Grove Regional Future Land Use Plan of 1991 involved five of the surrounding municipalities discussed previously. Avondale and West Grove boroughs, along with the Townships of London Grove, Franklin, and London Britain were included in the future land use plan of the Avon-Grove Region. The plan defined seven planning environments; Conservation, Rural, Neighborhood, Village, Town Center, Highway, and Urban environments in ascending order of land use intensity. Areas adjacent to New Garden Township in London Grove and London Britain Townships are generally planned for rural and conservation uses, with a large conservation designation placed on the area included in the White Clay Creek Preserve. Around the Borough of Avondale, neighborhood development (residential uses at densities of 0.6 to 4.0 dwelling units/acre) and highway commercial/industrial uses are predominant with the Borough itself planned for urban uses emphasizing redevelopment. The Borough of West Grove has a similar future land use scenario. AGRPC also provided a Route 41 corridor study in which New Garden participated.

Guidelines for Local Economic Development: In 1989, representatives from the Township served as members of the Avondale-West Grove Area Economic Development Steering Committee involved in the drafting of the planning study entitled "Guidelines for Local Economic Development". This report was a product of the Community Economic Recovery Program (CERP) for Avondale-West Grove Area funded through the Pennsylvania Department of Commerce. The report provided a series of recommendations to the area to aid in stimulating future economic development. These recommendations included suggestions for land use planning, transportation and utilities services, industrial and business expansion and retention, and new industrial and business development.

Relationship to *Landscapes*, Chester County Policy Plan

The primary goal of the Chester County policy plan, adopted in 1996, is to reduce sprawling residential development by focusing new development in areas where it can best be accommodated and encouraging the revitalization of the County's urban areas. The plan stresses the importance of protecting natural and historic resources and emphasizes the need to preserve farms and prime agricultural soils.

Landscapes identifies growth boundaries around four types of landscapes, Natural, Rural, Suburban, and Urban and proposes key actions to protect and enhance the character of each landscape, see summaries, below. The majority of New Garden is located in the Rural and Natural landscapes, with a pocket of Urban landscape adjacent to Avondale Borough. Two rural centers exist including Toughkenamon and the southeastern section of the Township surrounding the interchange between Route 41 and Limestone Road (DE Route 7). Landenburg, in the southwest corner of the Township, is identified as a Village.

The County policy plan, ***Landscapes*** summarizes the four landscapes types as follows:

Natural Landscapes of Chester County are made up of woodlands, stream corridors, steep hillsides, ridge tops, wetlands, and marshes. These resources are permanent and essential elements of the physical environment and are the foundation for the livability of all landscapes.

Rural Landscapes include farms, farm related businesses, and villages, along with some scattered housing sites. They are predominant in the northern, western, and southern areas of Chester County. Rural Centers that contain locally oriented retail uses and community services are designated within the Rural Landscape.

Urban Landscapes are the historic population centers of the County. They traditionally serve as the focal point of employment and the commercial and cultural centers for the surrounding areas. Urban Landscapes contain extensive existing infrastructure and most of their remaining natural resources are protected in local park systems.

Suburban Landscapes include low to medium density subdivisions and related shopping centers and employment centers. They have developed rapidly and most extensively in eastern and central Chester County. Infrastructure and public services have been extended to accommodate residential subdivisions, shopping centers, office complexes and industrial parks that predominate this landscape.

Source: Chester County Planning Commission, 2002.

Because the County has no authority to mandate compliance with ***Landscapes***, it seeks to partner with municipalities in implementing the Plan through the Vision Partnership Program (VPP), which provides grant funds to assist townships, boroughs, and regional planning groups to develop documents consistent with the County Comprehensive Plan.

A consistency review of the Township's planning documents to ***Landscapes*** was issued on March 26, 1998 and was divided into two (2) phases: Phase I concentrates on Township policy issues and Phase II examines implementation strategies. In both cases they were found to be "inconsistent" and it is one of the goals of this Plan to bring the Township into "consistency" with ***Landscapes***. A full examination of "consistency" will be carried out in **Chapter 16, Land Use Plan**.

Regional Cultural Facilities

There are many regional facilities located in and around New Garden. They range from educational and health care institutions to recreational and cultural facilities. They supplement the smaller scale facilities

by offering access to a wider range of services within a reasonable proximity. (See: **Map 1-2, Regional Influences**)

New Garden lies in Chester County's Brandywine River Valley, an area long noted for its historic, scenic, and cultural attractions. This area offers a wide range of recreational and cultural offerings, and since many of them have a national, and in some cases, international attraction, offers tourism potential. Longwood Gardens, an internationally acclaimed horticultural garden and tourist destination, is located several miles from New Garden. A notable cultural attribute is Kennett Square's symphony orchestra, the smallest community in the country to have its own symphony orchestra. Other cultural and historic attractions include the Brandywine River Museum and the Brandywine Battlefield State Park. The Winterthur museum, dedicated to the collection and preservation of American decorative arts, is located just to the south in Delaware.

Regional facilities are those institutions that offer broad-based services or operate on a large scale. These include educational institutions, such as the New Bolton Center Veterinary Hospital located in East Marlborough Township, an important veterinary treatment, research, and teaching facility affiliated with the University of Pennsylvania; health care facilities, such as the Southern Chester County Medical Center; State Police barracks at Avondale and Embreeville; airports in New Garden and New Castle County; the Pocopson Home, a county-owned retirement facility and the Chester County Prison in Pocopson Township; and regional transportation facilities and public safety organizations. Other important regional facilities include the Bayard Taylor Memorial Library, a part of Chester County's library system; the Friends Home, a regional assisted living facility with skilled nursing wing; the Kennett Area Senior Center and the Kennett Area YMCA located on the east side of the Borough. New Garden offers the Brandywine Polo Club, two golf courses, and the historic area of Landenberg. More information on regional facilities can be found in the Community Facilities and Services chapter of this Plan.

Regional Transportation Resources

Several major transportation corridors are located in or near New Garden Township, providing access to the larger region. (See: **Map 1-2, Regional Influences**) Four routes provide north-south access; Route 82 to the east of the Township through Kennett Square Borough south into Delaware and north to the Coatesville area; Newark Road south into Delaware; Limestone Road (DE Route 7) south off of Route 41 into Delaware; and Route 841 to the west of the New Garden through West Grove south to Maryland and Delaware and north to the Coatesville area. These numerous connections to areas in Delaware and Maryland provide access for commuters working in New Castle County (DE) and Cecil County (MD) and living in New Garden.

Route 41, which traverses the central area of the Township, is a major transportation route from Delaware through southern Chester County and into Lancaster. Heavy truck traffic along this route has contributed to safety and congestion problems that PennDOT has been evaluating. Possible solutions include a combination of road widening and by-passes around Avondale and/or Chatham. No final decisions on the configurations or alignments have been made. Concerns among residents about these improvements have lead to the initiation of a land use study that will consider land use impacts with and without the traffic improvements and how municipalities along the route can mitigate these impacts.

The major east-west transportation corridor through the region is US Route 1, which crosses the far northern section of the Township. This corridor is one of the oldest and most widely used highways in Chester County. Locally, US Route 1 serves as a connection between southern Chester County and the Philadelphia area. US Route 1 links major cities of the east coast, however, its use for interstate travel has

decreased since the construction of I-95. Old US Route 1, historically known as Baltimore Pike, serves as the main east-west commercial corridor through the Township along with Route 41.

Public Transit: Opportunities for public transit are somewhat limited in this area of the County due to the low density pattern of development that makes it more difficult to create an efficient transit system. Lower populations in the rural areas also limit the number of potential riders. However, this could change as development continues.

Since 1999, the Transportation Management Association of Chester County (TMACC) and the Southern Chester County Organization on Transportation (SCCOOT) have provided bus and enhanced paratransit service to southern Chester County. The route runs from Oxford Borough along US Route 1 to Route 202, where it connects to SEPTA bus routes. SCCOOT also provides limited service from Painter's Crossroads north on Route 202 to West Chester Borough during off-peak hours, when the SEPTA bus is not available. Due to low ridership in its early years, the SCCOOT route was significantly restructured in February 2002. The future of the route will likely be determined based on the results of this restructuring.

A DART bus line across the Delaware border in Hockessin, is managed by Delaware Transit Corporation, is available along Route 41 to Wilmington where it connects to numerous transit lines throughout Delaware.

The Southeastern Pennsylvania Transportation Authority (SEPTA) provides passenger rail service from Philadelphia to Wilmington and Newark, Delaware. Amtrak has stations in Wilmington and Newark as well, providing the opportunity of nationwide rail travel.

The Chester County Paratransit System provides service throughout Chester County, but is primarily intended for use by elderly and/or disabled persons.

Railroads: The Octoraro rail line provides rail freight opportunities for southern Chester County operating between Wilmington, Delaware and Oxford Borough, ending at the Herr's facility in Nottingham village. This line traverses New Garden, roughly parallel to Baltimore Pike. The right-of-way is owned by SEPTA and is operated by contracted short-line rail operators.

Route 41 Study (2000-ongoing): The Route 41 study began in March 2000 in response to proposed changes to the roadway. The Study is being completed by McCormick, Taylor and Associates with input from multiple committees made up of representatives from community groups, municipalities, PennDOT, and the Chester County Planning Commission. Potential changes to Route 41 including roadway improvements for safety, increased capacity, and a bypass of the Borough of Avondale. There are two main objectives of the Study. The first is to supplement the Environmental Impact Study in order to look at the community wide impacts of the proposed transportation alternatives. The second objective is to develop a land use plan with a set of recommendations for each transportation alternative. Once a final roadway alternative is selected, these recommendations will assist the surrounding municipalities in the region to manage the associated changes that may occur with improvements to Route 41. The recommendations will include a number of items such as necessary changes in zoning and subdivision ordinances.

Chester County Transportation Plan (on-going): The Chester County Transportation Plan is being developed by the Chester County Planning Commission. To date, two maps addressing bicycle transportation have been endorsed by the County Commissioners. The Functional Classification map describes roadways classified in a hierarchy for various levels of cyclists. The Necessary Road Improvements map designates improvements to roadways to increase safety and functioning for cyclists.

Improvements such as shoulder improvements or re-striping of roadways are delineated. The remainder of the Transpiration Plan is underway, a completion date is not designated at this time.

For additional information on transportation resources, refer to **Chapter 8, Transportation Inventory**.

Regional Natural Resources

Throughout its nearly 300 year history, the natural resources of the area have influenced the land use patterns in and around New Garden. Recognized early on for its fertile soils on low, rolling hills, abundance of water and temperate climate, the area has historically been used for agricultural purposes. As the industry evolved, the area became a center for the commercial production of flowers and nursery stock. It was this aspect that led to the establishment of the mushroom industry in the late 1800's, now the major agricultural use and a major agricultural export for Pennsylvania. The mushroom industry continues to thrive despite increasing residential development occurring throughout the region.

Water has traditionally been plentiful in New Garden and the surrounding municipalities. The area lies over the Cockeysville Aquifer and within two watershed drainage sub-basins, the White Clay (western portion of the Township) and the Red Clay (the eastern), both of which empty into the Christina River, and ultimately into the Delaware River.

White Clay Creek Preserve/Walter S. Carpenter Park: This large natural preserve of almost 2,000 acres encompasses land in New Castle County, Delaware, as well as London Britain Township in Chester County. The area provides a large area of open space near New Garden and serves some of the passive recreational needs (hiking, nature study, bird-watching) of Township residents.

White Clay Creek Study: The White Clay Creek watershed has been designated as a participant in the Federal Wild and Scenic Streams Program, except for 2.5 miles in New Garden. New Garden will pursue designation for this portion. Wild and Scenic designation under the program will have tremendous impact upon land development in the watershed and the allocation of water and sewer services.

Red Clay Creek Studies: Two studies of the Red Clay Creek basin have been undertaken in the past decade with the most recent, entitled *Red Clay Creek* (1996), describing the relationship between groundwater quality and land use. These studies have resulted in the development of groundwater flow models that will help to evaluate the impacts of proposed withdrawals. Groundwater quality and quantity are becoming critical issues throughout the area, considering the number of residents dependent on wells.

More information on natural resources can be found in **Chapter 4, Natural Resources Inventory**.

PLANNING IMPLICATIONS

The following are regional planning implications that are raised in this chapter that will be addressed in the plan chapters:

- **Regional Concerns -** New Garden Township is affected by numerous factors that exist beyond its municipal boundaries, yet have significant regional impacts. Therefore, the goals and policies of the Township need to address regional concerns and impacts beyond the control of the Township.

- **Land Use Coordination -** There are few conflicts between planned land uses along the municipal borders of New Garden. Continued dialogue with adjacent municipalities, participation in their planning programs through the 247 process and regional planning groups will aid in maintaining this compatibility and successful planning programs.

- **Transportation -** Transportation concerns are regional in perspective and therefore need to be addressed through state agencies and in cooperation with neighboring municipalities and regional groups to most effectively address these situations.

- **Land Use Planning -** Population and housing projections indicate approximately 4,600 additional residents and 1,400 new homes could be located in the region by 2020. If past growth trends continue at the same rate, an even greater amount of development is possible over the next 20 years. Reducing scattered development and focusing it in and around the urban and rural centers are sound land use policies and supports the principals of ***Landscapes***. Therefore, this Plan needs to address directing projected future growth into the most appropriate areas.

- **Regional Cooperation -** Coordinating land use, transportation, natural resource protection, and municipal services can be evaluated and affected by groups of municipalities that share similar concerns or problems. The Township needs to identify issues where multi-municipal, regional, and interstate cooperation is necessary to achieve increased results from planning efforts and implementation agreements.

- **Resource Protection -** Because of the Township'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.

- **Agricultural Resources -** Prime agricultural soils, once developed, are lost forever for crop production. The characteristics of these soils also make them suitable for building. Measures for protecting this valuable economic and natural resource need to be implemented, particularly in areas with continued active farming.

- **Woodlands Protection -** Protecting the variety of habitats in the area is vital to maintaining the natural diversity of plants and animals. Areas of contiguous woodlands, wooded stream corridors, wetlands, fields and pastures, and hedgerows are the primary habitats that need to be protected, if the area is to continue to maintain healthy ecosystems. Actions for addressing the issues of non-native invasive plant species and white tailed deer over-population need to be considered.

- **Ground Water -** The Township’s dependence on groundwater for domestic water supplies emphasizes the need to protect this valuable resource. The vulnerability of certain groundwater aquifers to contamination indicates that groundwater protection measures should be incorporated into

land use ordinances and made consistent within the region. Because water resources are shared between municipalities, there is a need for cooperation in the use of this resource. The Township needs to review its options for preventing the export of groundwater out of the area by large water companies. The extension of public water lines into areas where open space preservation is a goal needs to be addressed by this plan so as not to encourage higher intensity uses in inappropriate places.

- **Sewage Facilities -** The municipalities in the Region have relatively current sewage facilities plans (537) or are in the process of the updating their plans. Ensuring that sewage facilities planning is consistent with the identified policies of this Plan will be important in implementing future local and regional land use goals. The extension of public sewers into areas targeted for preservation should be avoided; however, alternatives for smaller community systems to allow for cluster development may be an option in areas where open space preservation is a goal and pumping stations are not practical. Coordination in the provision of public facilities needs to be considered where it is the most cost effective approach to meeting sewage facilities needs.