

COMPREHENSIVE PLAN 2006

BETHEL TOWNSHIP DELAWARE COUNTY PENNSYLVANIA

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**BETHEL TOWNSHIP
DELAWARE COUNTY**

**COMPREHENSIVE PLAN
2006**

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This Comprehensive Plan for Bethel Township is an update of the Townships 1972 Comprehensive Plan. Ideally, the Plan should be updated every ten years which provides an opportunity to reexamine and refine goals and objectives based upon changes that may have occurred during the ten year interval. Keeping current with changes to demographic, growth and physical development trends makes the creation of growth management strategies which address contemporary needs a less daunting task. As conditions change reflecting that change into an appropriate public response utilizing current planning concepts based upon existing conditions provides stability in the regulatory phases of the municipal planning effort.

The organization of this Comprehensive Plan for Bethel Township has been formulated to provide growth management strategies that utilize planning policies to implement goals and objectives. Implementation tools will be related to the goals in order to better manage future growth and development and present a sense of order in prioritizing governmental actions. Further, it is the intent of this plan to develop those strategies within the planning policies and requirements of the Pennsylvania Municipalities Planning Code (MPC).

Pennsylvania Municipalities Planning Code

The Pennsylvania Municipalities Planning Code (MPC) (Act of 1968, P.L. 805, Act 247) empowers municipalities in Pennsylvania to individually, or jointly, to prepare plans for their future development and to implement those plans. Those municipalities choosing to plan for their future and take advantage of benefits thereof must meet the planning requirements of the MPC. Article III, Section 301 of the MPC requires that municipal comprehensive plans include the following basic elements:

- Community Development Objectives
- Plan for Land Use
- Plan for Housing
- Plan for Transportation
- Plan for Community Facilities and Utilities
- Interrelationships of Plan Components
- Implementation Strategies
- Regional Plan and Development Relationships

At the completion of the draft of the Comprehensive Plan, Bethel Township will be required to submit the document to the Delaware County Planning Department for review and comment. Additionally, the draft plan will need to be circulated to the surrounding municipalities and the school district. This circulation and review as required by the MPC is an effort to gain a general consistency and open avenues of discussion on common issues as part of the comprehensive planning process.

Bethel Township Comprehensive Plan, 1972

The last adopted Comprehensive Plan was adopted in October, 1972. The plan was prepared by Willard S. Detweiler, Jr., AIP. This document consisted of six Chapters along with an Introduction, and statements regarding Long Range Planning and Planning Principles. At the time of plan preparation the MPC had far less reaching requirements and many of the more substantive issues that are part of this update were not then required or included. The substance of the 1972 plan noted the regional location and went on to inventory geographical features, and existing land use, before creating development policies and objectives which lead to a plan for future land use and an implementation program. In the 1972 plan, the Township is characterized as in transition and anticipating growth in the future. Alternate development techniques are discussed in how to accommodate anticipated growth and the Implementation Chapter outlines actions that should be pursued in ordinances and enforcement measures to protect the public interest. Finally, the plan concludes by identifying the need for a capital improvements plan and program and the roles of various governmental entities in following up with the activities identified.

Other Planning Activities

Since the adoption of the 1972 Comprehensive Plan, the Township has been involved in a variety of other planning activities. Most of the planning activities have been driven by other governmental entities which were based upon some activity which affected the Township or on a regulatory basis, such as amendments to the Zoning or Subdivision and Land Development Ordinances. Plans affecting future road improvements, sewage facilities, open space and environmental projects have all been pursued in the past 30+ years since the adoption of the 1972 Comprehensive Plan. While many of these efforts have long since moved to implementation, they are important in understanding the evolution of plans and associated impacts on the Township. Much of what has occurred and been implemented are incorporated into this planning effort as

part of the inventory of existing conditions or as outstanding issues and opportunities in need of further discussion.

Local Government Organization

Bethel Township, is managed by a three member elected Board of Supervisors. Each Supervisor is elected to a six year term which is staggered at two year intervals. This Board is responsible for the Townships affairs which include financial management, approval of land development plans, and general coordination of all aspects of municipal government. The chairman of the Board of Supervisors is elected from within the Board, and the Board of Supervisors is empowered to create commissions and committees to address specific areas of concern in Bethel Township. Typically, a municipality creates a Planning Commission, a Zoning Hearing Board, and other such topical commissions and committees to address historic, open space, recreation, sewage, highways, and environmental issues and questions with which the Township may be concerned. Such a committee was formed to prepare, in conjunction with the planning consultant, The Grafton Association, the update to the Comprehensive Plan.

In addition, to creating boards, commissions and committees, the Township Board of Supervisors is empowered to employ staff and consultants. Typically a Township employs an administrative staff to conduct the routine business of the Township. These activities usually involve an administrative staff as well as others who are dealing with items such as permits and inspections, and road maintenance. The Township usually also employs, on a contractual basis, professionals such as lawyers, engineers, planners, and accountants. As a community develops the complexity of running municipal government begins to magnify the needs for additional services and advice from both lay committees as well as professional services when needed.

Citizen Involvement

Participation by the public is an essential step in the success of a municipal planning program. Participation can occur in many different ways. The initial organization of a review committee for the comprehensive plan update is usually the first method utilized in bringing a variety of perspectives to the table to deal with long term Township needs. Bethel Township has created a Comprehensive Plan Steering Committee which has met monthly at the Township Building to review this plan. The committee is comprised of community leaders from a variety of boards, commissions and committees

which exist within the context of township government. Additionally, the meetings have been held in the evenings over a period of 15 months to encourage anyone interested to attend and participate. The committee has reviewed, discussed and amended each component of this plan as part of the process. When the plan is complete it will additionally be sent to the county, the school district and adjoining municipalities prior to an action to adopt. The Pennsylvania Municipalities Planning Code, Act 247 also requires the advertisement and a public hearing prior to adoption.

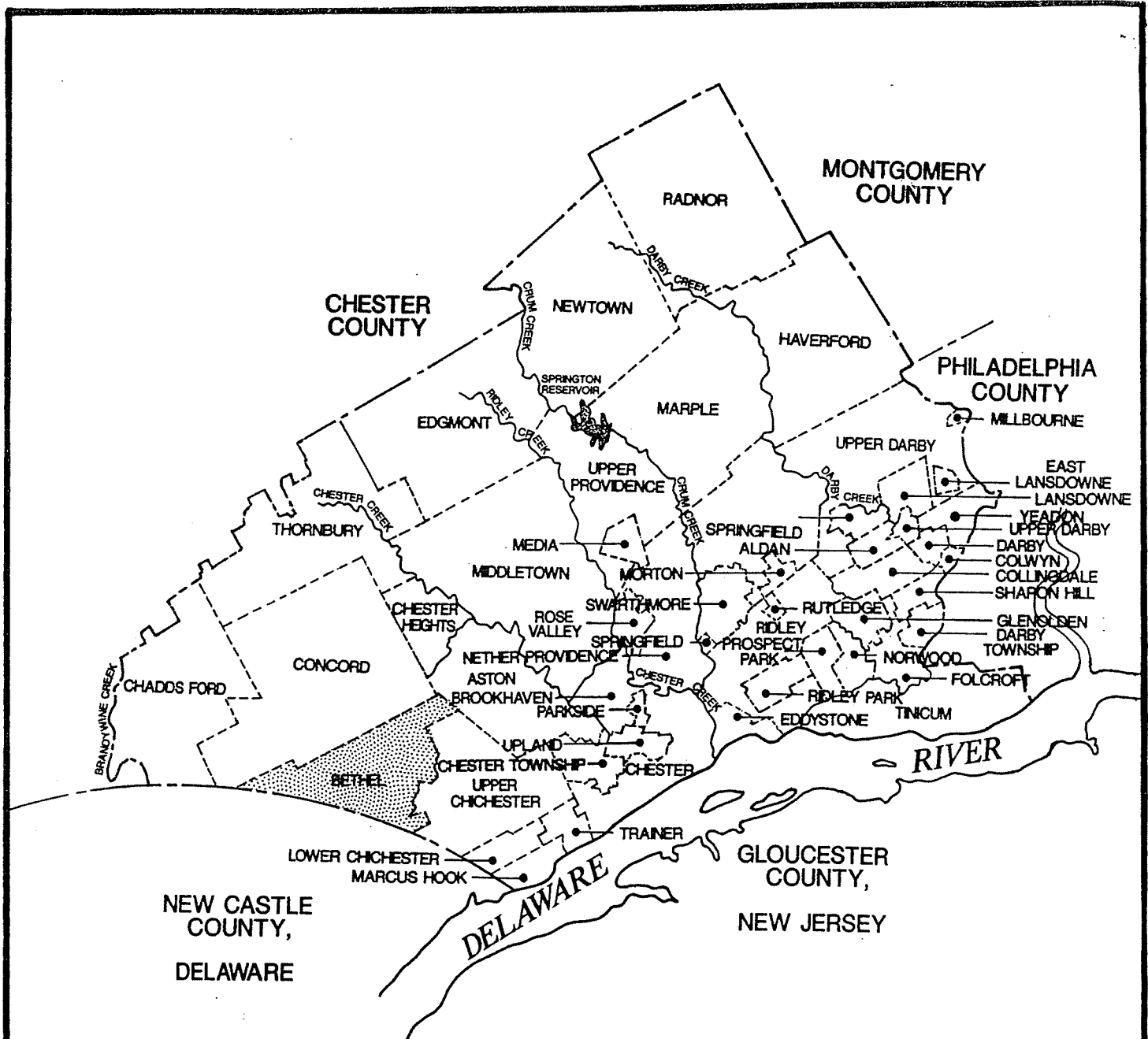
The importance of public and citizen involvement cannot be overstated. The purpose of the Comprehensive Plan is to arrive at recommendations and techniques to accomplish the goals of the community as a whole. While the plan cannot promote every diverse interest or concern, it should create a consensus to reflect, to the greatest degree possible the aspirations of the Township.

Regional Setting

Bethel Township is situated on the southern boundary of Delaware County, adjacent to Brandywine Hundred in New Castle County, Delaware. Its location with respect to that boundary and the municipalities within Delaware County are illustrated on Figure 2.1. The contiguous municipalities in Delaware County are Concord Township to the northwest, Aston Township to the northeast and Upper Chichester Township to the east. The pattern of municipalities in Delaware County surrounding Bethel Township is relatively complex. By contrast, that area of New Castle County to the south contains no municipalities, primarily due to the fact that the State of Delaware is not divided into townships, but has incorporated municipalities and unincorporated areas. The area south of Bethel Township is an unincorporated area which is governed by New Castle County. The boundary between Delaware and Bethel Township is part of the Circular Boundary of 1701, a boundary unique not only to the area but to all of the United States.

Regionally, Bethel Township lies about eight (8) miles north of Wilmington, Delaware and about twenty (20) miles southwest of Philadelphia. Bethel Township is also about five (5) miles southwest of Media, the County Seat of Delaware County. The regional road network is generally located beyond the township boundaries with US Route 202 (Wilmington West Chester Pike) to the west and Interstate 95 to the east. US Route 322 (Conchester Road) passes through the northern section of the Township and provides access to I-95 at Exit 3 to the east. Other roads providing connections to surrounding areas are State Route 491 (Naamans Creek Road) aligned in an east – west orientation and State Route 261 (Foulk Road) generally aligned north – south.

As noted above, Bethel Township is a municipality within Delaware County, along its southern boundary. Figure 2.2 illustrates the relationship of the Township with its surroundings. Delaware County provides services to its municipalities, from land use planning and transportation to social services. Delaware County is part of a larger organization, the Delaware Valley Regional Planning Agency (DVRPC), which provides planning services to nine (9) counties in Pennsylvania and New Jersey, primarily servicing the Greater Philadelphia – Camden – Trenton geographic area. DVRPC focuses on transportation, economic and planning issues and collects and distributes demographic data.



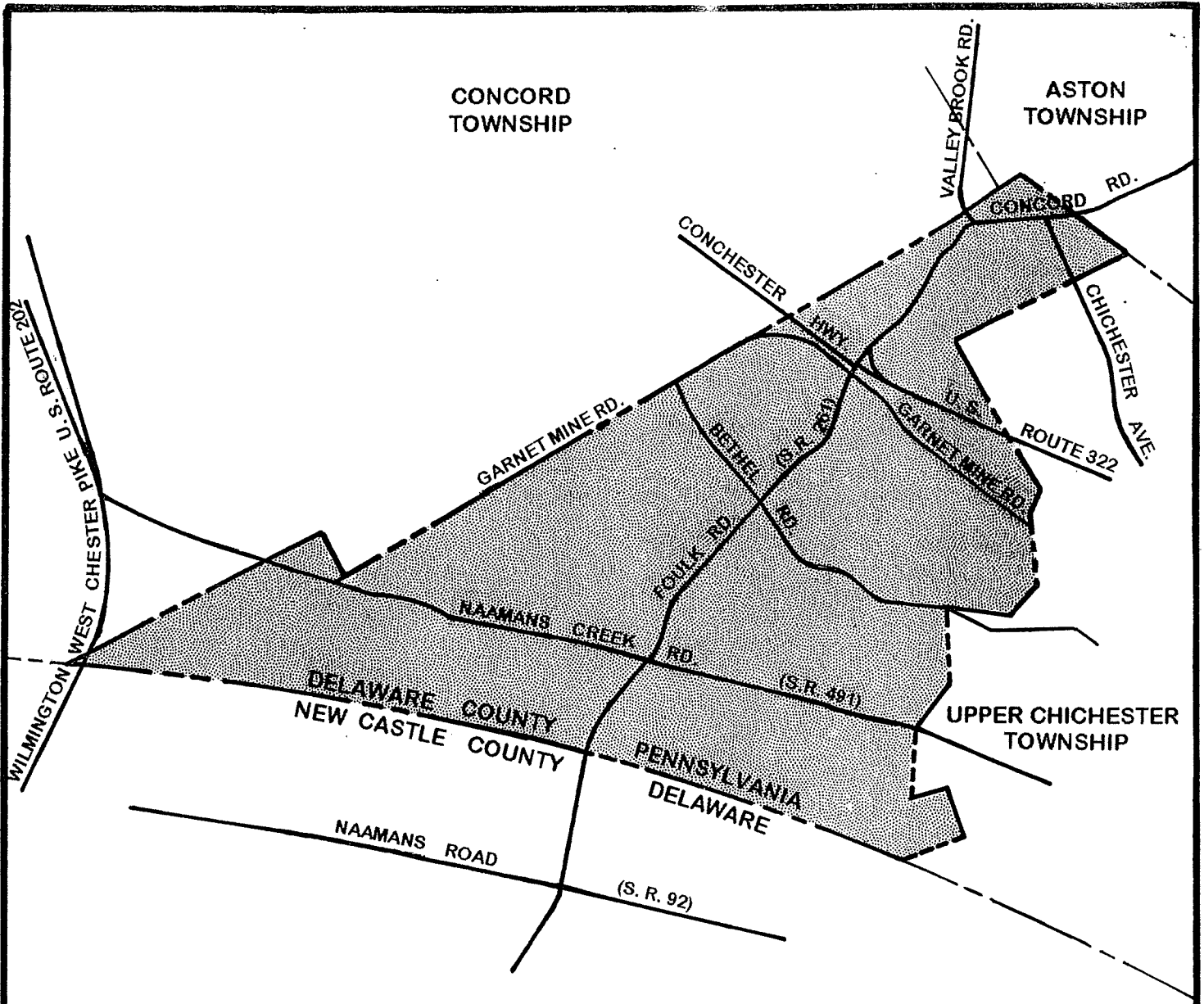
**BETHEL TOWNSHIP
DELAWARE COUNTY, PENNSYLVANIA
2006 Comprehensive Plan**



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**DELAWARE
COUNTY
LOCATION MAP**

FIGURE: 2.1



BETHEL TOWNSHIP
DELAWARE COUNTY, PENNSYLVANIA
2006 Comprehensive Plan



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LOCAL REGION

FIGURE: 2.2

Regionally, Bethel Township is located on a ridgeline, generally between the Brandywine Creek and the Chester Creek, varying from between 300 and 400 feet above sea level. Although the land is somewhat stony, it was far more adaptable to agricultural uses than to milling operations that are dependent on significant volumes of flowing water. The Township has a long history of various farm crops and dairy operations. Transportation for these commodities was available from the nearby rivers and the network of roads that evolved, connecting growing urban centers.

Historic Perspective

The written history of Bethel Township begins with the coming of European colonists establishing agricultural livelihoods on the fertile land. However, the presence of humans on the lands of what was to become Bethel Township is far earlier. It is not known exactly how much earlier, but historians have concluded that Native Americans, the Delawares, calling themselves the Leni-Lenape, were present in the area much before Europeans. Artifacts and burial mounds have been found that indicate that there was a presence, if not residence, of early people. It is known that the Leni-Lenape inhabited the eastern part of Pennsylvania along the Delaware River. No discoveries to date would confirm that Native Americans lived in the present Bethel Township, but much evidence exists to confirm that the area was a hunting ground. Excavations for contemporary development have provided significant evidence of these earlier cultures. Plowed fields continue to yield arrowheads, stone tools and knives. Some archaeologists believe that humans have inhabited the area for eight to ten thousand years. Others believe the history begins earlier. Regardless, the region has been occupied for various purposes for much longer than the written record.

More precise records of the history of Bethel Township are based on the written history of early families and of early institutions such as courts. The lineage of many families was kept in the family Bible, which was passed from generation to generation. Court records of various transactions and early census records provide the names of early families in the area. Most of the early residents of the Township came from England, many of whom had commitments to land upon their arrival. Edward Bezer, Robert Eyre, John Gibbons, Robert Pyle, and Robert Southery were among the early settlers who were significant for their contributions to the political and religious life of the new township. These individuals all arrived in Bethel Township in 1683. Robert Pyle and Edward Bezer were early leaders of the community and significant to the Society of Friends. Out of this group grew the Chichester and Concord Meetings. Bethel Township was one of the first townships formed within the new lands of William

Penn, originally as part of Chester County, prior to the formation of Delaware County. Bethel Township was first noted as a separate township in 1683, although its relationship to Concord Township is unclear until 1693 when separate tax roles were published. The small population of Bethel may have caused some functions to be shared.

William Penn arrived in what is now Pennsylvania in 1682. As part of his early need to establish government, three counties were created; Chester, Philadelphia and Bucks. Penn's first meeting with his advisors was soon after his arrival and occurred in Chester. The early government of Pennsylvania emerged from that initial meeting. The origin of townships comes from England, where lands were divided into counties and counties into Liberties or Hamlets, Towns or Townships. Bethel Township was one of the first created, as officers were appointed for the early municipalities. In 1684, Robert Eyre was recorded as being the Clerk of Courts.

In addition to the Quaker meetings in the early history of Bethel Township, Methodist meetings began to occur in the later part of the 18th century. The Chester-Bethel Church, although located in Delaware and the Siloam Church date to the early and middle of the 19th century, and continue to be a part of the community today. What we know of the origins of the name "Bethel" also has religious significance. The name comes from the Bible (Genesis 28: 18-19). Beth-El means "the house of God", with Beth being the second Hebrew letter and being formed similar to a Hebrew house. This underscores the important role of religion to the early settlers, as many other place names in the area were derived from locations in England.

Important to the early Quaker settlers of Bethel Township and surrounding areas, was the education of children. While little is known about educational opportunities in Bethel Township in its first one hundred years, by 1788 it is known that the Concord Meeting of the Society of Friends was sponsoring three schools, one of which may have been in Bethel. According to records there was an octagonal school at Booth's Corner in 1780, located at the intersection of Foulk and Kirk Roads. It stood until 1824 or 1825. The first school in Bethel Township for which more accurate records exist was the one room Chelsea School which was constructed about 1800 at the northeast corner of the intersection at Chelsea. The Chelsea School continued in use until about 1824 when the Central School, or No. 1 School, also a one room school, was built. The No. 1 School was constructed on a lot at the intersection of Bethel and Foulk Roads. It remained in use until 1868, when it was replaced by the present one room school building which is now a private residence. In 1952 with the construction of the Francis Harvey Green School use of the No. 1 School ceased. In 1839, a second one room school in Bethel Township, Booths Corner

School, or the No. 2 School, was built on Naamans Creek Road, just above Booths Corner. This building was destroyed by fire and replaced by the present structure in 1870, which is now used by Briggs Auction. A third school, the Chelsea School, or the No. 3 School, was built on Foulk Road just south of the village of Chelsea. It continued to be used as a school until 1952 when the Francis Harvey Green School was built, however the land is presently being used as a PECO substation. Today there are two schools located in Bethel Township, the aforementioned Francis Harvey Green School and the Bethel Springs School which was constructed in 2003.

The common thread throughout much of the history of Bethel Township is agriculture. Early settlers grew crops required for their own survival, but soon expanded into production of wheat, barley and rye. By the 1800's, farmers were specializing in cherries, and later in other fruits such as apples, peaches and pears. Transportation for the produce became available as railroads were constructed in nearby areas and roads began to crisscross the region. The earliest road was established between Concord and Chichester, crossing Bethel Township in 1686. The earliest roads began as paths of the Lenape tribes that were also convenient for use by the settlers. These roads connected the agricultural areas to emerging villages and larger urban areas beyond the Township boundaries. An early settler, Irwin Pyle, was said to have remembered a foot trail through the Township that probably connected settlements along nearby rivers and creeks. Unfortunately, no written record of this trail was left.

The development of roads within the Township follows the expansion of population and productivity. As noted above, in 1686, the first public road was ordered by the Provincial Court. This was not a road as currently known, but a right-of-way through private lands or between properties for trading purposes. The "road" was prescribed as being sixty feet wide and connected Bethel to Chichester. The order establishing the "road" referred to alignment locations such as trees, rocks, hills and houses. Today, this roadbed remains as originally laid out and is Bethel Road. The second road through the Township was the old Concord Road, which passed through the village of Chelsea. Several roads converged at this point, leading to the name of Five Points. Later came Foulk Road from Delaware and Naamans Creek Road. Over time, other local roads have been built to connect sections of the Township and for new developments.

With the prosperity of early farming operations came the establishment of villages. Chelsea in the north, and Zebley's Corner and Booth's Corner in the southern part of the Township grew up around crossroads. Booth's Corner continues today as a commercial center within the Township. These villages

were made up of a collection of commercial and institutional buildings which served the needs of the nearby farm families. As the productivity of agriculture grew, the villages expanded with additional facilities such as blacksmithing, grocery stores, post offices, meeting halls, schools and churches. Evidence of many of the buildings from this early era still exist and form the historical heritage of Bethel Township.

Agriculture is no longer the focus of life in Bethel Township. As the region became more industrialized and immigrants continued to arrive to support new businesses, the Township has evolved as a residential community. Lands were subdivided for houses, roads were improved for commuting and Bethel Township took on the attributes of a suburban community. There is, however, one non-residential aspect of the landscape that has evolved and remains a presence today and that is industry. Early businesses focused on providing services to the community, such as blacksmithing and other endeavors related to agriculture.

Several other industrial land uses became established in the Township early in its history. In 1873, garnet sand was found in a spring ditch in the western part of the Township, near what is now Garnet Mine Road. In 1879, the Behl Company of New York purchased 48 acres around the discovery for the mining of garnet. The original product was mined from an 85 foot deep pit, 200 feet in diameter. Horses provided the primary operating power, although steam power was also employed. The garnet sand was shipped by rail to Troy, New York, where it was used to make sand paper. Shortly after the opening of the first mine, a second opened and provided garnet sand to a furniture business in Massachusetts. The sand was always found to be of high quality and was sought after during that era. As many as a dozen local men were employed at the mine before mining operations ceased in 1906.

A second industrial presence in Bethel Township both in the past and today are tank farms. As early as 1882, an oil pipeline was being laid from western Pennsylvania to the growing Delaware Valley area, crossing Bethel Township. This oil pipeline crossed many properties in the Township through eminent domain procedures. Soon after the first line was completed, a second was begun. Due to its location and elevation, storage tanks were built next to the pipelines in support of expanding oil processing plants in Marcus Hook, south of Chester. The earliest tank farm was established on 100 acres of the Hance farm in 1908. After World War I, additional tanks were added. Following World War II, another tank farm was built in the Township. Both the garnet mines and the petroleum tank farms are somewhat unique to Bethel Township and exist because of its geology, geographic location and topography.

The villages of Bethel Township have been the focus of business for much of the recent history. Booth's Corner among the three villages has continued to evolve and prosper. Today, the location is still a hub of business activity in the region with a very active farmers market that provides a great variety of goods and services to the residents of Bethel Township, as well as to many from nearby areas of Pennsylvania and Delaware.

Information Sources

Bethel Township is fortunate to have had a reasonably continuous record kept of activities, families and events. This continues today with a core group of residents concerned with the need to maintain a history of the Township and preserve its past. More will be written on the subject of historic preservation in later chapters, but it should be acknowledged that this chapter has been based upon several written sources. They are as follows:

- "History of Delaware County, Pennsylvania" (Chapter XXX Bethel Township excerpt) by Henry Graham Ashmead, 1884.
- "Bethel Township, Delaware County, Pennsylvania Thru Three Centuries", by George Walter Goodley, 1987.
- "Bethel Township, PA, Historic Sites Survey", Delaware County Planning Department, 1984.
- Various historical narratives prepared by consultants for planning documents.

CHAPTER 3 EXISTING CONDITIONS

This chapter of the Comprehensive Plan addresses the resources present in Bethel Township, both natural and man-made. The natural resources are those that have shaped the way man has adapted to and developed the area. These include features such as topography, soils, water courses and woodlands. Man-made resources are not the current development pattern, but the historic and scenic resources that are the by-products of man's presence on the land. Together, these two types of resources make up the existing condition upon which development has occurred and forms the image of the Township which is present today. A common element to all of the resources is that they change little over time, although without the preservation of historic resources and woodlands they are very vulnerable to loss.

Natural features have played a large role in the development of the Township, from the location of Indian trails to the placement of tank farms. Over the history of the Township, the ability of development to ignore natural features has increased as technology provides means to accomplish given purposes. As the vulnerability of the resources increases, it becomes increasingly important that methods be found to protect and preserve them. The preservation of natural features is critical for several reasons. The environmental health of the region is dependant upon the condition of those resources, whose condition may be affected by local actions or by distant situations for which the Township has limited or no control. Another important reason for the preservation of resources is the impact they have on the character of the community and the positive attributes that have made the Township a favorable place to live and work.

There are many techniques that can be applied to the preservation and protection of resources. Later chapters of this Comprehensive Plan will address those issues. The purpose here is to inventory the important resources and to discuss the implications of each.

Topography

The general topography of the Township can be characterized by gently rolling terrain which descends from high elevations along the western boundary to low elevations near the Delaware River. The western and central portions of the Township are part of the Piedmont Province of the Appalachian Highlands, with a highest elevation of about 440 feet above sea level occurring near Garnet Mine Road and Naamans Creek Road. The terrain slopes gently eastward toward low elevations of between 100 and 150 feet.

Figure 3.1 illustrates the topography of the Township with a mapping of contour lines with an interval of ten (10) feet. Each contour line represents a series of points having a consistent elevation above sea level. An aspect of topography that is perhaps more important than the elevations is that of slope. Slope refers to the angle of rising or falling terrain and generally provides valuable information about the degree to which the land is suitable for various purposes. Very steep areas have limited value for development and offer the greatest amount of vulnerability to erosion. Very flat areas, by contrast, are often preferred for ease of development, such as buildings, roads and some infrastructure. Slope is defined as the relationship between the horizontal distance (run) between two points and the vertical distance (rise) at one of the points. Therefore slope can be expressed at the ratio of rise to run mathematically, and expressed as a percentage. Generally, areas of steep slope are often referred to as having a slope greater than 25% and very flat areas as having areas of less than 5% slope.

The concept of slope is important for more than causing streams and creeks to flow downhill. In a similar sense, a downward slope of terrain is necessary for gravity to allow flow in sanitary sewer lines from their origin to treatment facilities. Another aspect of slope relates to the land's surface and its relationship to soil composition and the ability to disturb the land with development. Soils vary with regard to their ability to remain stable when subjected to rain and stormwater runoff. This is of less concern where an adequate cover of plant material, such as woodlands, intercepts the falling rain and stabilizes the soil with roots. When the plant material is removed, the soil is subject to being eroded and transported as silt to a lower elevation. Many municipalities have regulations that provide development limits for certain slopes. For instance, slopes greater than 25% are generally considered to be prohibitive for development and slopes of between 15% and 25% are considered precautionary, or needing some limitations. Specific regulations can be written for these slope districts and often considered to be overlay zoning districts, supplementing the underlying zoning standards. In the case of Bethel Township, the Zoning Ordinance of 2001 contains no such provisions. More will be addressed to this topic in later portions of this Comprehensive Plan.

The impact of slopes on the Township may not be as significant as in areas with vast areas of steep slopes. The area of Bethel Township, according to its previous Comprehensive Plan of 1972, is comprised of 75% of that area less than 15% slope and only about 1% of the total area greater than 25%. This would mean that the vast majority of the Township would fall into the area of either unregulated or precautionary slopes. Nevertheless, it is important to establish standards for development regarding the retention of soils on site

during and after construction. Even gently rolling land can be eroded if proper safeguards are not required.

Soils and Geology

The topics of soils and geology are addressed together due to the connectivity of the two. Soils are the surface layer of the geologic spectrum and are, therefore, subject to weathering, erosion and man's influence over the course of history. Figure 3.2 maps the generalized soil categories in the Township. The source of this information is the 1963 Soil Survey of Chester and Delaware Counties performed by the Soil Conservation Service of the Department of Agriculture. The four soil classes portrayed in the figure can be further divided by slopes found. That layer of information is not provided due to its mapping complexity and the lack of steep slopes found in Bethel Township. The Soil Survey may be consulted for vast amounts of specific soils information.

The soils on the land's surface are a mixture of materials deposited and materials that have originated in subsurface rock strata. As noted in the Township's 1972 Comprehensive Plan, factors that affect the character of soil are:

- The nature and composition of the bedrock and parent material.
- The climate under which the soil developed
- The biological forces such as plants and animals which exerted pressure upon the soil material.
- The length of time the climate and biological forces have interacted with the soil.
- The relief or degree of slope which influenced the susceptibility to erosion.
- Drainage patterns.
- Moisture content.

The four series of soils found in Bethel Township are Glenelg Silt Loam, Glenville Silt Loam, Neshaminy Silt Loam and Worsham Silt Loam. There are significant differences in these soils in terms of their physical characteristics. For instance, Glenville has a seasonally high water table and is underlain with a claypan, making the location of a septic system difficult. Similarly, Worsham also has a seasonally high water table, but is further characterized by slow permeability, another detriment to a septic system. Both of these soils are generally wet and have limited suitability for building or road development. The Glenelg and Neshaminy soils, by contrast, offer few suitability limitations. It should be noted that the Township's 1999 Act 537 Plan Revision found that

soils in the Township are "generally poor for on-lot disposal systems and many of the older systems would probably not be permitted under today's standards". The ability to locate an on-lot system is usually a matter of the lot being large enough for suitable conditions to be found.

Quantitatively, the Glenville and Neshaminy soils each make up about one-third of the Township's land area. As is clear on Figure 3.2, the Glenelg Silt Loam is the most minor of the four soil groups and is only found in the northern sector near Foulk and Concord Roads. From a locational point of view, the Glenville soils are generally found throughout the Township and frequently associated with streams.

Water Resources

Surface waters are most often described in terms of drainage basins, or the area in which surface drainage collects in a water body. These basins are based on the largest regional water body to the smallest stream. In the case of Bethel Township, the Delaware River Basin is the major basin. Locally, the Township is divided into two minor drainage basins, separated by a ridge line which runs parallel to the Concord Township boundary and lies generally between it and Foulk Road. Figure 3.3 shows the distribution of creeks which collect the drainage throughout the Township. Green Creek is the stream in the drainage basin nearest Concord Township and flows northeast, past the Township Building and into Concord Township and eventually Chester Heights where it joins the West Branch of Chester Creek. Chester Creek flows to the Delaware River.

The majority of Bethel Township is drained by several creeks, including the West Branch of Naamans Creek, Spring Run which joins Naamans Creek and the East Branch of Naamans Creek which exists for a short distance in the Township near Chelsea before flowing into Upper Chichester Township. All of these streams form Naamans Creek, which flows through Upper and Lower Chichester Townships before entering Delaware near Hickman Road. Naamans Creek then empties into the Delaware River south of Marcus Hook. Because of the relatively gentle terrain in Bethel Township, these streams do not flow fast and tend to meander.

Floodplains and Wetlands

The streambeds that meander throughout the Township these stream corridors function as areas which permit the movement of stormwater. As storms occur

these corridors fill with the water that is created, into low lying areas called floodplains. The floodplains are regulated by the Floodplain mapping prepared on behalf of the federal government through FEMA. The Township serves as the first line of regulation in permitting activities into the floodplain areas. In addition to floodplains, these low lying areas are also characterized with wetlands. Wetlands can be areas of sitting water, or vegetation which is dependent upon the concentration of wet areas both of which are important to our environment. Wetlands are regulated by both the state and federal government and limit development. This limitation aside from preserving unique environmental features, are designed to limit flooding and displacement, as well as wet basements, and failure to on lot sewerage systems and other typical problems associated with new construction. This plan is designed to bring an awareness of the importance of floodplains and wetlands to the natural features found within the Township and reinforce the importance of strong regulations to protect these areas from the intrusion of development.

Woodlands

Bethel Township has numerous wooded areas of various sizes, which are depicted on Figure 3.4. These areas are also in a variety of ownership types. Most, however, exist because of their relationship to a stream or creek, its floodplain and associated wetlands. The relationship between the streams and woodlands is highly beneficial to both, since the wooded canopy maintains lower stream temperatures and the streams provide moisture for the growth of trees and understory material.

The more significant wooded areas have been included in a Delaware County publication entitled "Natural Areas Inventory, Delaware County, Pennsylvania, 1992". This document was prepared by the Pennsylvania Science Office and The Nature Conservancy (TNC) and identifies and ranks important natural areas in the County. For instance, the most significant area is the John Heinz National Wildlife Refuge at Tinicum. This area has state-wide importance and has been ranked highest in the County. Bethel Township does not contain any highly ranked areas, but there are several that have been identified for their uniqueness and natural significance. Each is noted on Figure 3.4. Excerpts from the description in the "Natural Areas Inventory" are as follow:

1. Johnsons Corner Quarry / Woods (Bethel and Concord Townships)
Quarry supports five plant species of concern that have Coastal Plain affinities; small wet depressions threatened by succession and ATV's; surrounding woodland supports PR (Pennsylvania Rare) plant; suburban development threatens whole area; contact TNC land steward about

- maintaining open areas; maintain forest canopy. Ranked number 5 for state-wide significance.
2. Sun Oil Woods (Bethel and Upper Chichester Townships)
Remnant Coast Plain Forest natural community contains PE tree and PR wildflower; threatened by development; protect rare plants and stream corridor. Ranked number 6 for state-wide significance.
 3. Garnet Mine Road Woods (Bethel Township)
Mature mixed mesophytic woods dominated by beech and tulip trees, relatively non-weedy; may have good spring wildflowers; provides wildlife habitat, green space, watershed protection; allow to mature undisturbed. County rank is medium as an area of local significance.
 4. Spring Run Woods (Bethel Township)
Mature beech-dominated forest along Spring Run which is fed by numerous seeps; non-weedy; protected by DuPont Company; maintain closed canopy.
County rank is medium as an area of local significance.

Historic Resources

As has been noted in Chapter 2, Bethel Township has a long history of growth since its original establishment. Like many Colonial era communities, the structures of that time have met a variety of fates. Fortunately, the Township has many residents who place a high value on historic buildings and have worked diligently to preserve them. Other structures have suffered from lack of maintenance and deteriorated to a point where demolition was inevitable. Still others have been replaced over time to make way for newer structures. The result is a community that is made up of a mixture of historic and contemporary buildings. In general, the physical pattern of development has been modest farmsteads and utilitarian housing stock which has been adapted over time to current needs.

What is known about the historic buildings of the Township is primarily based on written records kept by families and institutions. In recent times, individuals have researched, expanded and consolidated those records to perpetuate the history of the Bethel Township. There are two organizations that have played major roles in the preservation of the Township's heritage; the Bethel Township Historical Society and the Bethel Township Preservation Society. Both of these organizations are composed of members extremely knowledgeable about the history, genealogy, and historic culture of the community. By far the

best example of the written history of the Township is a book written by George Walter Goodley in 1987 entitled "Bethel Township, Delaware County, Pennsylvania, Thru Three Centuries". This book is subtitled "An up to date history of a small township, with a proud history." This thorough and comprehensive book is not just an inventory of historic sites, but a report on the villages, roads, industries and commerce, schools, churches and, perhaps most importantly, the families that have lived and continue to live in the Township. Most of all, it is a unique resource and valuable view into the Township's history.

Another resource available to the Township is a document prepared by the Delaware County Planning Department in 1984, entitled "Report of the Findings of the Delaware County Historic Resources Survey, Bethel Township. The purpose of this survey was to document the extant historic structures and sites in the Township. Criteria used included being built before 1930 and retaining some integrity of original design. One hundred twenty-two (122) sites were surveyed. Staff of the County determined that four (4) structures were eligible for recognition by inclusion on the National Register of Historic Places. Those properties are as follows:

1. The Booth family farmstead, as a fine example of rural Federal architecture and for an intact farm complex in long ownership of an important local family.
2. The Chelsea Village area, as a good example of a country crossroads village with center-place functions and a variety of rural architectural styles.
3. The Clayton family houses, as a thematic nomination in which architectural materials and styles reflect the growth in wealth and education of a nationally prominent family.
4. The Garrett-Booth-Cheyney farm now owned by Dr. Shaffer, as a fine example of a first settler's home and regional vernacular architecture.

Additionally, the survey found that four (4) other sites may be eligible for state or other recognition. It was noted that additional research may prove other structures worthy of National Register Status. Figure 3.5 provides the locations of the sites inventoried in the survey and Figure 3.6 is a list of those structures and sites. The sites listed by letter on the map index represent sites that have fallen into ruin by accident, neglect or vandalism. Most of these sites listed by letter are characterized by above ground remains.

The earliest structures in Bethel Township dated to the seventeenth century, as the Township was established in 1683. Most of the early structures were probably log and most have been either been razed to make way for newer buildings or have been lost to fire. One of the earliest houses stood until several decades ago on Bethel Road. The Southery house of 1683 was threatened by demolition, disassembled systematically and was stored until it was reconstructed in the year 2000. Another seventeenth century example is the John Gibbons house on Bethel Road. This house of brick has been altered over its history to the extent that it has little integrity remaining.

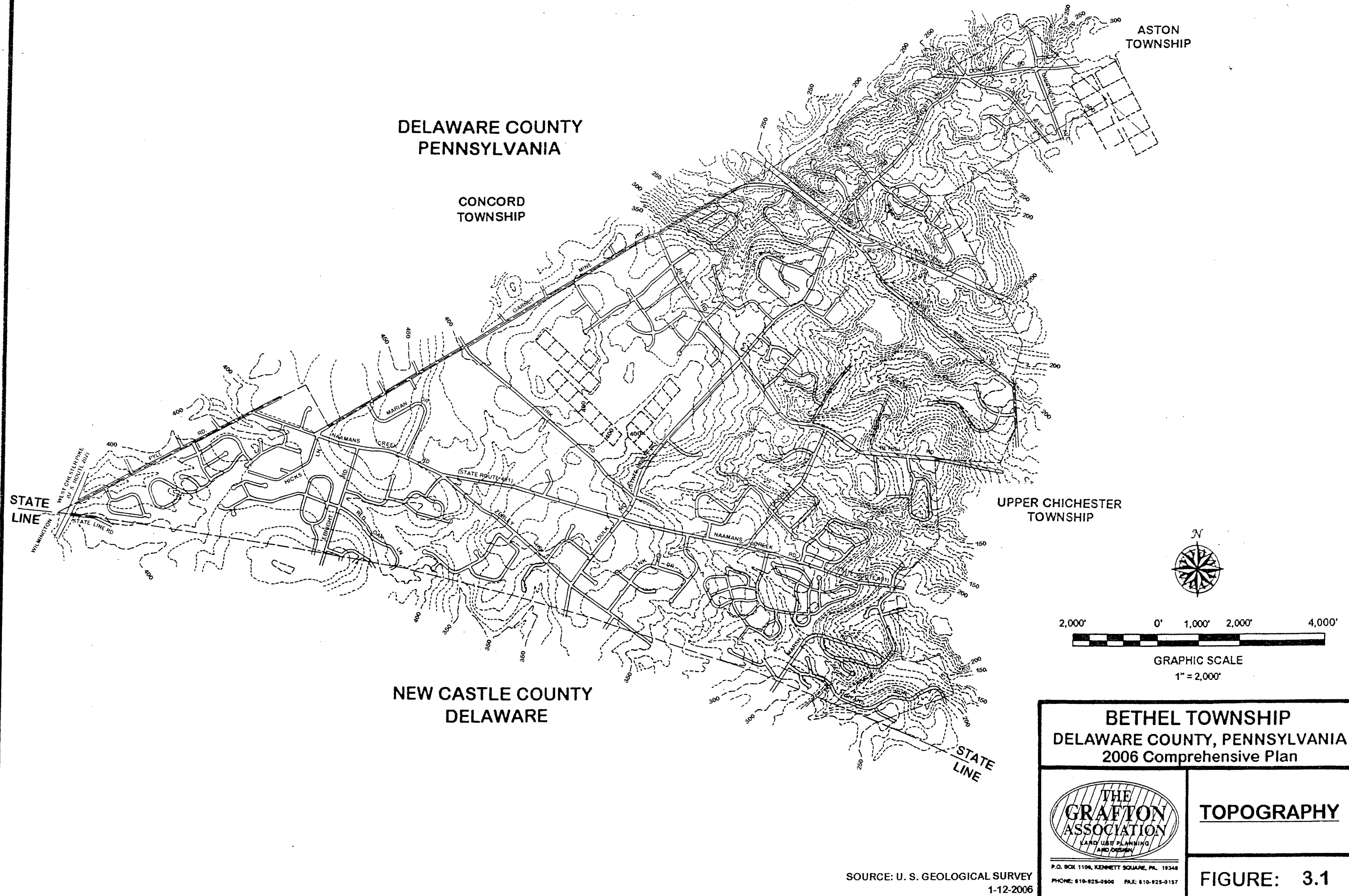
Of the original Delaware County Planning Department survey, thirty-two (32) properties were detailed on forms including site plan sketches, photographs and significant architectural information. These forms were submitted to the Pennsylvania Bureau for Historic Preservation. Those properties chosen for this process represent the most historically or architecturally significant structures extant. The inclusion of these forms in the County survey provides a broad view of remaining historic structures.

The County survey is approximately twenty-five (25) years old at this writing. Members of the historic societies of the Township have made informational changes to the list of properties to indicate those that have been destroyed or had an ownership change.

A broader and more significant regulatory tool is Ordinance 142, "Historic Structure Demolition Permit", adopted by the Board of Supervisors in December, 1999. This ordinance, while not part of the Zoning Ordinance, provides a process by which an individual wishing to demolish a historic structure for any purpose must obtain a permit from the Zoning Officer. Structures requiring such a permit are those on the previously-referenced survey prepared by Delaware County in 1984, as updated by either the County or the Township. Applications are publicly advertised and reviewed by the Township Preservation Society. When an objection to the application is raised, the application is scheduled for a public hearing of the Board of Supervisors. The Board has the option of denying or approving the application with conditions and may require the documentation of the structure before demolition. Penalties are established for violation of the ordinance and an appeal of a decision is to be made to a court of competent jurisdiction. The ordinance also includes criteria for additions to be made to the list of historic structures.

Scenic Resources

Bethel Township has an abundance of historic buildings which form one of the elements of a scenic quality. Generally, individuals consider something scenic if it conforms to the natural condition, such as long vistas of open space and farmland containing rolling hills, woodlands, streams in their natural state, and historic enclaves. What is not usually found to be scenic is contemporary development, large signs and billboards, bright lighting, multi-lane highways with attendant roadside development and industrial complexes. Figure 3.7 delineates the scenic resources, comprised of scenic vistas and scenic roads, in the Township.



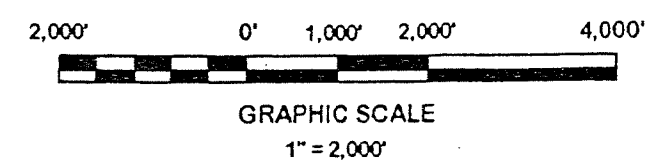
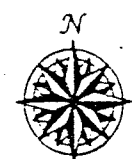
DELAWARE COUNTY
PENNSYLVANIA

CONCORD
TOWNSHIP

ASTON
TOWNSHIP

UPPER CHICHESTER
TOWNSHIP

NEW CASTLE COUNTY
DELAWARE



BETHEL TOWNSHIP
DELAWARE COUNTY, PENNSYLVANIA
2006 Comprehensive Plan



TOPOGRAPHY

FIGURE: 3.1

SOURCE: U. S. GEOLOGICAL SURVEY
1-12-2006

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DELAWARE COUNTY
PENNSYLVANIA

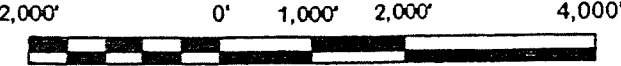
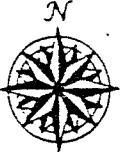
CONCORD
TOWNSHIP

ASTON
TOWNSHIP

LEGEND

-  GLENELG SILT LOAM
-  GLENVILLE SILT LOAM
-  NESHAMINY SILT LOAM
-  WORSHAM SILT LOAM

UPPER CHICHESTER
TOWNSHIP



GRAPHIC SCALE
1" = 2,000'

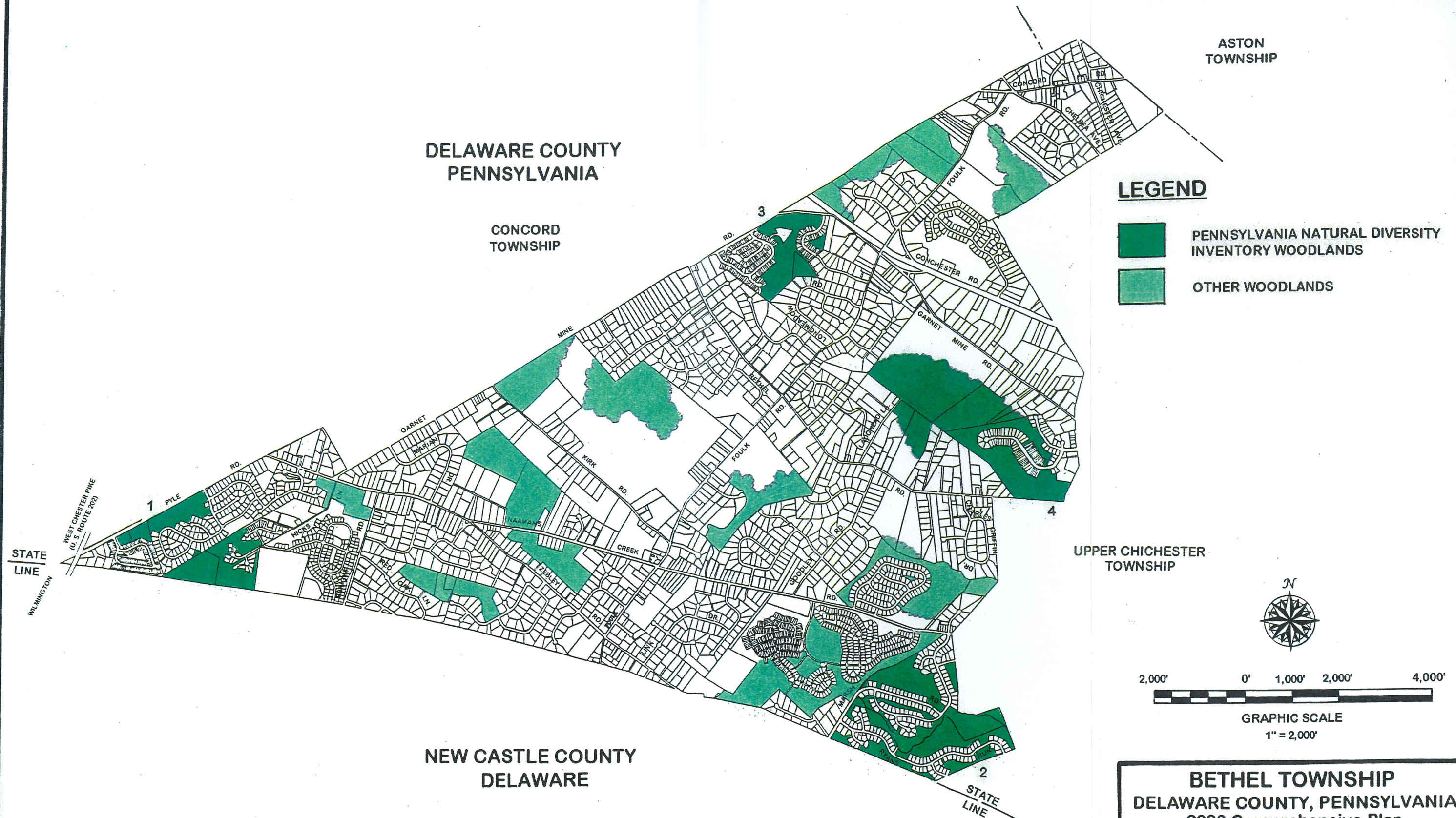
NEW CASTLE COUNTY

CONCORD
TOWNSHIP

**ASTON
TOWNSHIP**

 PENNSYLVANIA NATURAL DIVERSITY
INVENTORY WOODLANDS

 OTHER WOODLANDS



**NEW CASTLE COUNTY
DELAWARE**

**BETHEL TOWNSHIP
DELAWARE COUNTY, PENNSYLVANIA
2006 Comprehensive Plan**



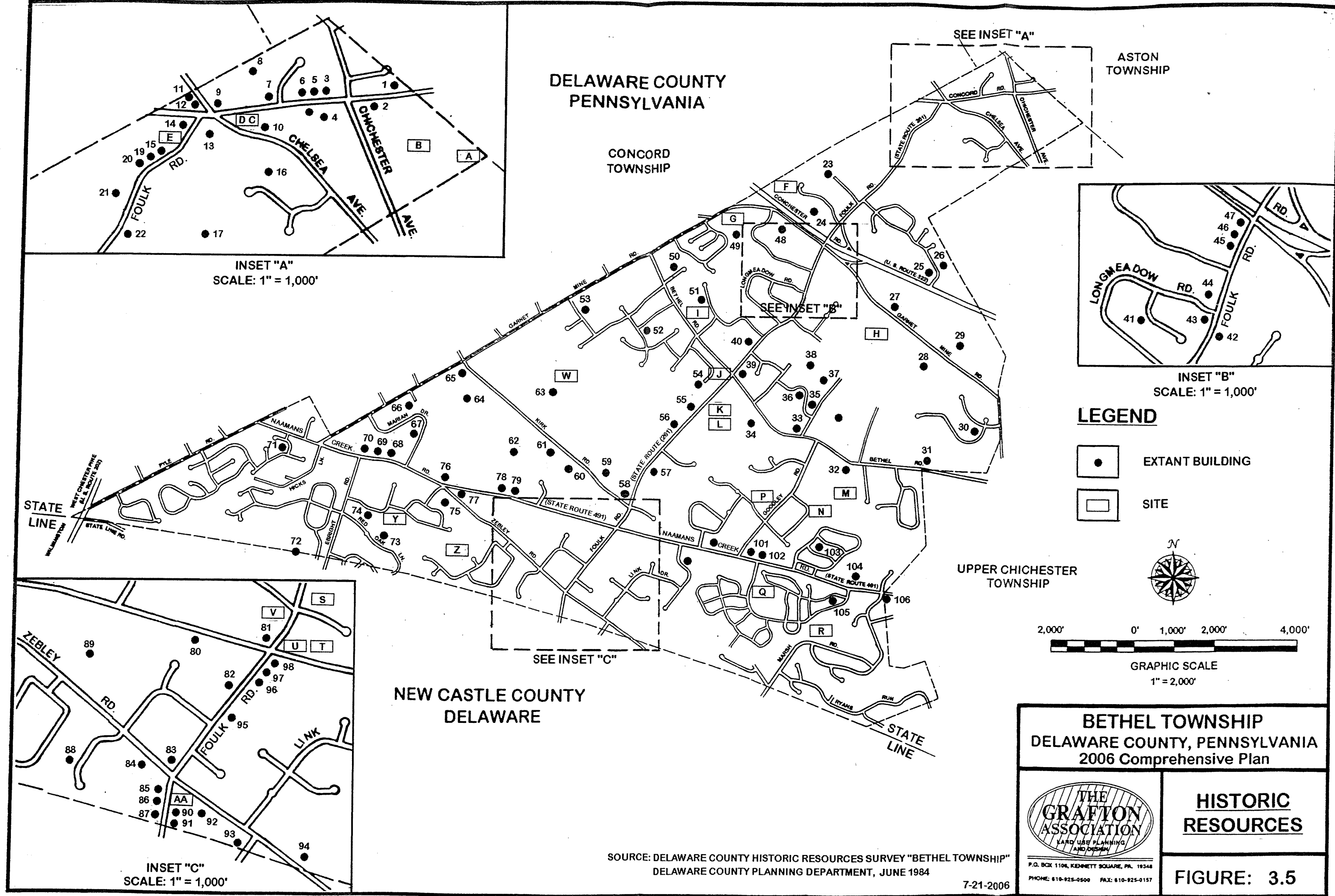
WOODLANDS

FIGURE: 3.4

SOURCE: NATURAL AREAS INVENTORY, DELAWARE COUNTY, PENNSYLVANIA

7-21-2006

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MAP KEY FOR BETHEL TOWNSHIP

HISTORICAL AND ARCHITECTURAL SITES, 1984

EXTANT BUILDINGS:

1. 1202 Concord Road (burned log house, Powell & Gaster).
2. 1191 Concord Road (Burk)
3. 1166 Concord Road (Kershaw)
4. 1157 Concord Road (Harlen)
5. 1150 Concord Road (Childress)
6. 1146 Concord Road (McGlinchey)
7. 1134 Concord Road (Armstrong)
8. 1124 Concord Road (Weaver)
9. 1026 Concord Road (King)
10. 1117 Concord Road (Smith)
11. 1009 Valley Brook Road (Coleman)
12. 1009 Valley Brook Road (blacksmithy)
13. 1029 Concord Road (Lenik)
14. 1017 Foulk Road (McKinley)
15. 1149 Concord Road (Methodist chapel, Layne)
16. 1161 Chelsea Road (DiJohn)
17. 2060 Foulk Road (McGonigal)
18. 2035 Foulk Road (Connor)
19. 2043 Foulk Road (Chmielowski)
20. 2045 Fould Road (Twaddell)
21. "Buena Vista", Foulk Road
22. 2088 Foulk Road, "Buena Vista" (Forwood)
23. 2141 A & B Foulk Road (Honan)
24. 2179 Foulk Road (Barbero)
25. 1563 Colonial Drive (Cawley)
26. 1572 Colonial Drive (Anemone)
27. 1502 Garnet Mine Road (Conti)
28. 1651 Garnet Mine Road (Knierim)
29. 1650 Garnet Mine Road (Clough)
30. 1679 Garnet Mine Road (Maher)
31. 1754 Bethel Road
32. 1645 Bethel Road (Shaffer)
33. 3179 Laughead Lane (McDaniel)
34. 1463 Bethel Road (Yenkinson)
35. 3159 Laughead Lane (Riddle)
36. 3159 Laughead Lane (ruins, Riddle)
37. 3139 Laughead Lane (Ludwick)
38. 3131 Laughead Lane, "Pine Grove Acres" (Stabley)
39. 3196 Bethel Road (Powell)
40. 3171 Foulk Road, "Hill Top Farm" (Johns)
41. 3083 Foulk Road (McLaughlin)
42. 3080 Foulk Road (Woods)
43. 3051 Foulk Road
44. 3039 Foulk Road (Terrizi)
45. 3021 Foulk Road (Bychowski)
46. 3011 Foulk Road (Grasser)
47. Foulk Road at Garnet Mine Road (Moore)
48. 3034 Garnet Mine Road (Loden)
49. 3112 Garnet Mine Road (McLaughlin)
50. 1030 Bethel Road (Eachus)

EXTANT BUILDINGS:

51. 1062 Bethel Road (Morrell)
52. 1047 Bethel Road (Griggs)
53. 3352 Garnet Mine Road (Carpenter)
54. 3221 Foulk Road (Booth)
55. 3281 Foulk Road, "Dream's End" (Zaleski)
56. 3307 Foulk Road (McCleary)
57. 3352 Foulk Road (Smith)
58. 1256 Kirk Road (Mack)
59. 1214 Kirk Road (Lewis & Croft)
60. 1183 Kirk Road (Shadadi)
61. 1163 Kirk Road (Francis)
62. 1089 Kirk Road (Linton & Corbett)
63. 1074 Kirk Road (Dill)
64. 1027 Kirk Road (Longhurst)
65. 1007 Kirk Road (Poulicci)
66. 3590 Garnet Mine Road (Piecara)
67. 1132 Naaman's Creek Road (Hezel)
68. 1110 Naaman's Creek Road (Osowski) garage
69. 1110 Naaman's Creek Road (Osowski) store
70. 1104 Naaman's Creek Road (Beck Country Furniture)
71. Naaman's Creek Road (ruins)
72. 2801 Ebright Road (Merchant)
73. 3778 Ebright Road (Culp)
74. 3772 Ebright Road (Pennington)
75. Zebley Road (Bartels)
76. 1194 Naaman's Creek Road (Delaware Valley Nursing Home, Inc.)
77. 1218 Zebley Road (Booth)
78. 1294 Naaman's Creek Road (D'Angelo)
79. 1312 Naaman's Creek Road (Allen)
80. 1315 Naaman's Creek Road (Briggs Auction)
81. 1396 Naaman's Creek Road (Feltz)
82. 3721 Foulk Road (Shisler)
83. 3789 Foulk Road (Brooks)
84. 1381 Zebley Road (Parker)
85. 3809/3811 Foulk Road (Wallace)
86. 3813 Fould Road (Shaw)
87. 3831 Foulk Road (Gaynor)
88. 1339 Zebley Road (Luhmann)
89. 1318 Zebley Road (Dunn)
90. 3810 Foulk Road (Corbit)
91. 3828 Foulk Road
92. 1443 Zebley Road (Pierson)
93. 1 Pinecrest Drive (Rainer)
94. 1518 Zebley Road (Lovelund)
95. 3754 Foulk Road (Healy)
96. Siloam United Methodist Church, Foulk Road
97. 3718 Foulk Road (Kerby)
98. 3704 Foulk Road (DiOrio)
99. 1413 Naaman's Creek Road (Powell)
100. 1512 Naaman's Creek Road (Chandler)

EXTANT BUILDINGS:

101. 4769 Naaman's Creek Road (Nussbaumer)
102. 4757 Naaman's Creek Road (Sykes)
103. 4715 Naaman's Creek Road (Bergdoll)
104. 4675 Naaman's Creek Road "Valley Hill Farm" (Powell)
105. 4688 Naaman's Creek Road (Sun Co./White)
106. 4589/4590 Naaman's Creek Road (Sun Co.)
107. 3317 Goodley Road, "Hillside Acres" (Kirkpatrick)

SITES:

- A. Stone house, c. 1683, believed to be first settler Edward Bezer's.
- B. Stone farmhouse probably built by E. S. Gilton
- C. Chelsea School House, log, c. 1800
- D. Samuel Register wheelwright shop
- E. Public School #3, c. 1860-1950
- F. Garnet Mine #2
- G. Garnet Mine #1
- H. Twaddell house
- I. Robert Southey log house, c. 1683 (see 045-BE-32)
- J. Robert Pyle log & brick house, c. 1683
- K. Benjamin Gest (Guest) stone house & barn
- L. John Hopton stone house & barn
- M. Booth-Cheyney stone house
- N. Goodley Road stone tenant house
- P. Clayton-Goodley stone house
- Q. Clayton stone house
- R. Morris stone house
- S. Bethel Springs Water Company building
- T. Gilbert Hinkson stone house
- U. McLaughlin-Zebley frame house
- V. Frame blacksmith-carriage shop, built on site of 1780 octagon school
- W. Kirk-Harvey stone house
- Y. Ebright-Thomas log house
- Z. Pennington stone house & barn; also Pierce-Clark stone house
- AA. Zebley stone store

BETHEL TOWNSHIP
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2006 Comprehensive Plan



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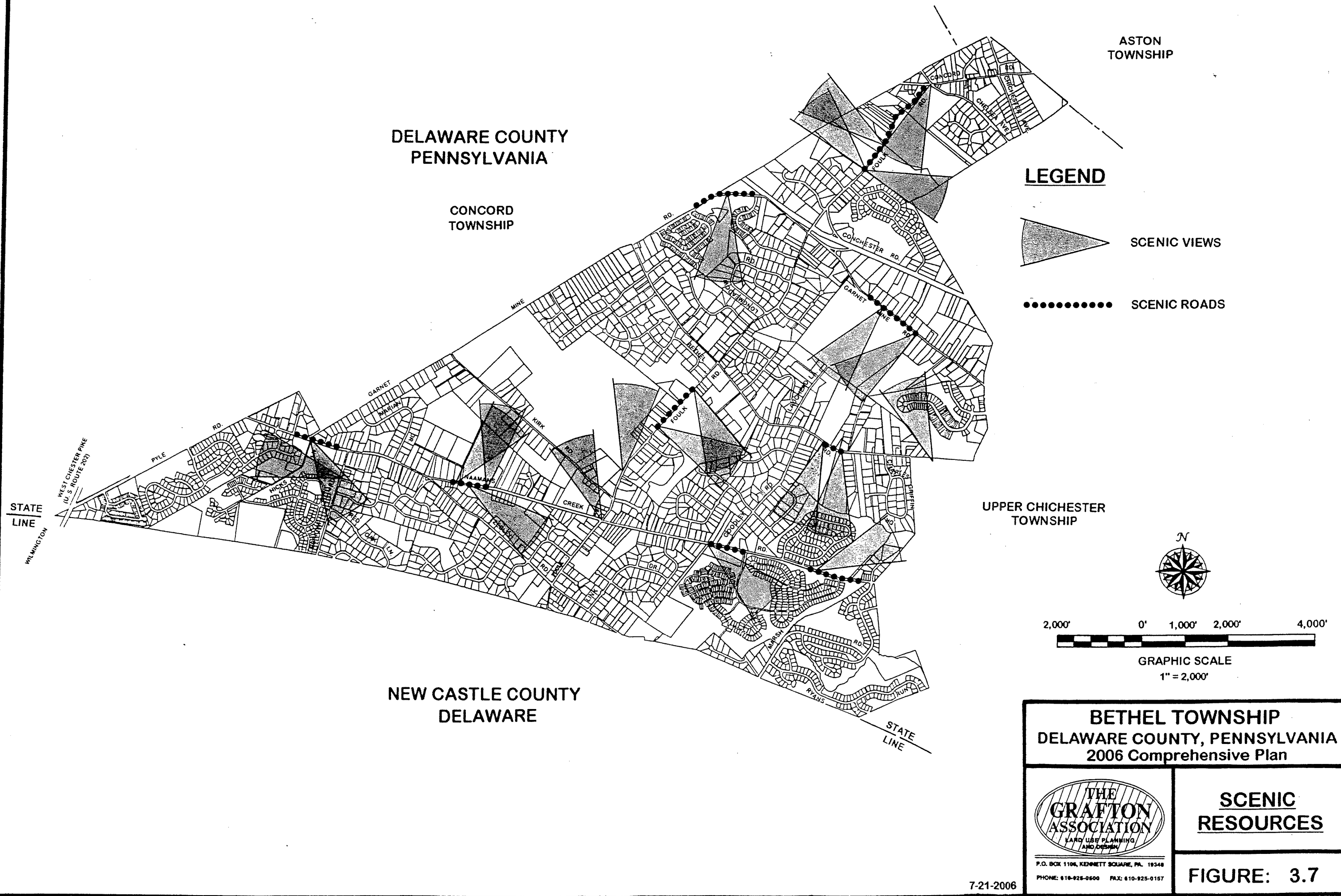
**HISTORIC
RESOURCES
LEGEND**

FIGURE: 3.6

SOURCE: DELAWARE COUNTY HISTORIC RESOURCES SURVEY "BETHEL TOWNSHIP"

DELAWARE COUNTY PLANNING DEPARTMENT, JUNE 1984

7-21-2006



The provision of community facilities and services is one of the primary responsibilities of a municipal government. These facilities and services are provided to residents and businesses either directly by the municipality or by contractual arrangement. The cost of the services is typically offset by the collection of taxes from residents and businesses. Among those services expected in municipalities are public safety (including fire protection and emergency preparedness), public roadways and educational facilities. These three represent the most basic of services, but often others are desired and provided as well. Recreation and open space related facilities and services tend to become more important to the population as density and growth expand and consume greater amounts of previously open land. Libraries are found in many communities and contribute to the cultural and educational needs of the municipality. As an area grows and becomes increasingly dense with housing, commercial and employment areas, the need for public sewer service and public water becomes more critical. The need for medical services of all types, including emergency facilities, is often met beyond the local municipality, but access to such facilities needs to be available and readily understood. One community facility and service that is often overlooked is the municipal government itself, since it is the organization that assesses the community needs, balances the cost of those needs with revenues and actually provides for many of the facilities and services.

The intent of this chapter of the Comprehensive Plan is to inventory the facilities and services being provided currently, describe the source of the service and relate it to accepted standards and needs. Those services considered critical in the above-paragraph will be discussed first, followed by others either being provided or occurring in Bethel Township.

Public Safety

At present, Bethel Township employees twenty-four (24) part-time police officers, including a chief of police and two (2) sergeants. This force does not provide the same coverage for all hours, focusing on nights and weekends primarily. Their jurisdiction is within the Township boundaries. The police force currently has only three (3) patrol cars. Secondary response when needed is from the Pennsylvania State Police, located at Media.

The distribution of police coverage, both geographically and on a time basis, is limited by the number of cars available and the allocation of part-time hours. As

the Township continues to grow in both residential and non-residential terms, the provision of police services will need to be reevaluated. Bethel Township is comparatively small geographically in terms of townships in Delaware County, assisting in the ability to provide adequate coverage. When crime statistics for the Township are compared to those of Delaware County, 0.1% of the reported County crime occurred in Bethel Township. This figure and other data have been tabulated as part of the Uniform Crime Reports by the State Police. From the range of reportable types of crime, only property offenses and alcohol crimes were reported during the year 2004, with an average of 3 offenses occurring per month.

The conclusion that may be drawn from the crime data reported is that Bethel Township has a relatively low crime rate compared to the County. Based on a standard rate of offenses per 100,000 population, the Township's two areas of reported crime are about 10% of those of the County's rate.

Fire Protection

The Township has a volunteer fire company which provides fire protection for its residents. The Bethel Township Hose Company No. 1 is located near the intersection of Naamans Creek Road and Foulk Road. Membership in the Company is about 45 firefighters. Current equipment inventory includes 4 trucks. The Company has no ambulance and provides no Emergency Medical Technician services. Secondary response would be from the Concordville Fire Company located on Route 1 in Concordville. In surrounding townships all fire companies are also volunteer fire companies.

Emergency Preparedness

A Fire Marshall and Emergency Management Coordinator position has been created by the Township. The individual filling this position receives a small compensation. One of the position's responsibilities is the issuance of blasting permits to contractors. This individual would also coordinate with similar individuals in other municipalities during a crisis involving danger to residents and property.

Within the Delaware County government structure there is an Emergency Services Department with responsibility for emergency communications and emergency management. This agency is also responsible for the County's Enhanced 911 system, which dispatches police, fire and ambulance service within the County. The Emergency Services Department assists local

municipalities in emergency situations and coordinates information about and movement of hazardous materials.

Medical Facilities

There are no medical facilities located within the Township. The nearest hospital to which a resident could be taken for medical care is Riddle Memorial Hospital, located on the south side of Route 1 (opposite Granite Run Mall) and west of Route 352 in Lima. An additional regional hospital is the Chester Crozier Medical Center, located in Upland Borough on I-95, near Edgmont Avenue, Route 352. Specialized medical services for children are provided at the A.I DuPont Hospital for Children, north of Wilmington, Delaware, on Rockland Road. Naamans Creek Country Manor Nursing Home is located on Naamans Creek Road in Boothwyn. A new Main Line Health hospital is proposed for Routes 1 and 202 in Chadds Ford. Other than these resources, numerous medical facilities are located throughout the greater Philadelphia region.

Solid Waste and Recycling

The Township provides trash pick-up for residences, however, retirement communities, mobile home parks and commercial businesses must provide their own trash removal from hauling companies. The cost of this service to residents is offset by municipal taxes collected. Recycling of specific materials is required for all properties, even those without municipal trash pick-up.

Educational Facilities

Public schools in Bethel Township are provided by the Garnet Valley School District. Most elementary age school children in the Township attend the Bethel Springs Elementary School, a newly constructed school dedicated in October, 2002. This school is centrally located in the Township on Foulk Road, south of Bethel Road. A portion of the western sector of the Township is in the service area for Concord Elementary School, located on Smithbridge Road near Conchester Road.

Children of middle school and high school age attend schools in Concord Township. The Garnet Valley High School and the Garnet Valley Middle School are each located on Smithbridge Road, near the Concord Elementary School. There are no private secondary schools in Bethel Township, although Delaware

County operates the Francis Harvey Green Intermediate School on Foulk Road at Bethel Road. This school is a special education facility owned by the Garnet Valley School District and rented to the County.

Libraries

The library needs of residents of Bethel Township are met by a combination of libraries found in schools, other educational facilities and the Rachel Kohl Community Library in Concord Township. The Rachael Kohl Library is located on Smithbridge Road and is part of the Delaware County Library System of 27 libraries.

It serves Bethel, Chadds Ford, Concord, and Thornbury Townships and Chester Heights Borough. Its electronic "card" catalog system provides access to all of the County libraries.

The Rachael Kohl Library is administered by a full-time director, and several part-time librarians. The Library is also guided by a Board of Trustees, one member of which is a resident of Bethel Township. Because of its close connection and dependence on the Rachael Kohl Library, Bethel Township contributes annually toward its operation.

Parks and Recreation

The Parks and Recreation Board of Bethel Township provides residents with special events throughout the year such as an Easter Egg Hunt, Lunch with Santa and a Corn Boil. Three public parks are under development. The Jack King Memorial Park on Ebright Road features a nature trail in a wooded setting, a playground and picnic area. John Adkinson Park on Naamans Creek Road has parking and a walking trail; the next phase includes development of a fishing pond and amphitheater. A sports park is under development on Foulk Road across from Bethel Springs Elementary School.

Bethel Township does not have any commercial recreation facilities. However a privately owned facility, known as Maple Zone Batting & Sports Complex, exists in the Township. Open space that does exist has been created by residential land development and in some cases that open space is maintained by a Homeowners Association. Recreation fields and equipment are found at both the Francis Harvey Green School and the Bethel Springs School, both located on Foulk Road. Use of the school facilities for organized sports is problematic, due to necessary permitting from the schools. Other public lands of the Township are at the Township Building on Bethel Road however there are no recreational facilities at that location. The public park nearest the

Township is actually in Concord Township at the municipal boundary. Clayton Park is located on Garnet Mine Road and contains field and court game activities, as well as a golf course. The nearest regional parks are Ridley Creek State Park northeast of Bethel Township and Brandywine Creek State Park in Delaware.

As the population of Bethel Township continues to expand, the need for community and neighborhood parks will increase. Although dedicated open space is beneficial for residents of specific residential developments, the Township needs to be considering a network of open space and parklands that are accessible to all residents. With the appropriate arrangements, private open space may make up part of a potential system. One of the desirable attributes of an open space network is the linkage between sites provided for individuals and wildlife.

The acquisition of open space is something that must be planned in order for suitable lands to be available and at a reasonable cost. It is noted that the Township does not have a Parks, Recreation and Open Space Plan. Many municipalities prepare such plans in order to organize their approach to open space management in general. Such a plan would assess the community needs, environmental resources, available lands, conservation techniques and acquisition planning. It is highly recommended that Bethel Township undertake an Open Space Plan in the near future.

Municipal Government

Bethel Township is considered a Township of the Second Class by Delaware County and the Commonwealth of Pennsylvania. The management of the Township is by a three-member Board of Supervisors whose members serve staggered six year terms. The only full-time employee of the Township is the Secretary-Treasurer who manages the Township office. A road crew is made up of five part-time employees who maintain the Township roads and public property. Equipment available to the road crew includes a pick-up truck, five dump trucks with plows, a loader and three lawn mowers.

The Board of Supervisors has appointed various commissions and boards to assist in the review of development applications and perform other Township functions. The most prominent of these is the Planning Commission, a seven-member organization whose members serve four year terms. The Planning Commission is charged with the initial review and processing of land development plans in the Township and making recommendations on those plans to the Board of Supervisors. The Zoning Hearing Board is a three-member body that serves three year terms. This Board is responsible for

hearing appeals to provisions of the Township's Zoning Ordinance and for the granting of Special Exceptions for specific land uses. The decisions of the Zoning Hearing Board are not recommendations to the Board of Supervisors, but are considered quasi-judicial and may be appealed to the court system.

Other organizations appointed by the Board of Supervisors include the Sewer Authority, which is composed of five members serving five year terms. This Authority manages and sets rates for the Township's sanitary sewer system. The Parks and Recreation Board consists of nine members who serve four year terms. This Board is responsible for the development of parks and organizing community events.

Besides the appointed boards and commissions, the Township utilizes the services of consultants, such as a Solicitor, Engineer, Zoning Officer (also the building and plumbing inspector), Fire Marshall / Emergency Management Coordinator, Tax Collector and Auditor. Other consultants are employed as needed.

Sanitary Sewer

The removal of sanitary waste from properties in Bethel Township occurs by a combination of means. Much of the Township is served by a public sanitary sewer system. This public system is actually two systems, one being the area served by the Southern Delaware County Authority system (SDCA) and the other being the New Castle County, Delaware (NCC) system. The northern portions of the Township are primarily served by the SDCA with effluent flowing or being pumped to a treatment plant in southern Delaware County. The SDCA treatment plant is located in Upper Chichester Township. Generally, this service area is bounded to the south by Kirk and Zebley Roads and to the west by Foulk Road. Within this area are sub-areas that are not served by public sewer and rely on on-lot systems. It has been estimated that of the on-lot systems, approximately 25% may be in a failing condition. Fortunately, these areas are relatively small but future planning needs to develop methods to bring those lots into the public system.

The southern portion of the Township (District 9) is served by the New Castle County system, and ultimately conveyed to the City of Wilmington treatment plant. Agreements providing for this arrangement have been modified in the past but currently allow for up to 425,000 gallons per day. Additional allotments have been sought by the Township from NCC, but to date only District 9 is served by the NCC system.

Past and future planning for sanitary sewer service in Bethel Township has occurred by an Act 537 Sewage Facilities Plan, State enacted legislation that provides for and encourages municipalities to analyze sewer needs and develop public systems to convey waste and adequately treat it for discharge. Bethel Township is currently implementing recommendations from a May, 1999, revision to its previous Act 537 Plan. Several sewer districts are near capacity and the Plan makes recommendations for alleviating those capacity problems.

The following information relates to Sewer Districts in the Township as depicted on Figure 4.1. This information has been extracted from the current Act 537 Plan, dated May, 1999.

- District 1 All existing sewage disposal is by on-lot disposal systems.
- District 2 All existing sewage disposal is by on-lot disposal systems.
- District 3 This district provides public sewer service through the use of 8" gravity systems and a pumping station located in the Scots Glen subdivision. The pump discharge point is a connection to the SDCA system on Chelsea Road. The pump has been sized to accommodate future connections.
- District 4 This district provides public sewer service with a combination of 8" gravity sewers and a pump station located in the Garnet Woods Subdivision. The pump discharge point is a connection to the SDCA system located in the Naamans Creek Center.
- District 5 All existing sewage disposal is by on-lot disposal systems.
- District 6 This district contains the DuPont Interceptor located in the Spring Run Corridor. The line discharges to the SDCA system on Colonial Drive.
- District 7 The sewer systems in this District originated with the Bethel Township Sewer Authority Central Sewer District Project. A phase of this project was designed to eliminate the Goodley Manor Treatment Facility. The system connects to the SDCA system by an interceptor from Goodley Road, along Naamans Creek to a SDCA manhole on Larkin Road.
- District 8 This district provides public sewer service through an existing sewer system discharging to the SDCA system near Naamans Creek.

- District 9 This district is served by a public sewer system that discharges to the New Castle County system to the south in Delaware. This is controlled by agreements on capacity.
- District 11 This district is along the Township's northwest boundary with Concord Township. At the time of the current Act 537 Plan, all sewage disposal in this district was by on-lot systems. Soils in the district are not favorable to these systems and failures have occurred. Capacity agreements with both New Castle County and the Southern Delaware County Sewer Authority have limited the ability of the district to convey waste to a public system.

There are aspects of the Water Service Plan which follows that have an impact on the public sewer system in the Township, since the two systems are frequently regulated together. The requirement for public sewer and water service is almost always made one condition. Recommendations made for water service regulation changes will also affect sewer service regulations.

Water Service Plan

The Municipalities Planning Code (MPC) requires a Comprehensive Plan to contain a "plan for the reliable supply of water". Public water service is provided to northern portions of the Township by the Chester Water Authority and by United Water Delaware in the southern area. Bethel Township is on the western edge of the Chester Water Authority's service area which extends into Chester. United Water Delaware provides public water to various areas of New Castle County, including the area contiguous to Bethel Township. Figure 4.2, Water Service Areas, illustrates the current location of the water lines and service areas in the Township. As a generalization, it can be said that areas north of Kirk Road and Naamans Creek Road have public water lines available or near most properties and that most of the southern sector is provided service as well. Bethel Township, through regulations in its Zoning Ordinance, requires that development in some zoning districts be served by public water. The following Table 4.1 provides the different requirements for each zoning district.

Table 4.1
Water Service Standards

<u>Zoning</u>	<u>District Title</u>	<u>Service Requirement</u>
R-1	Residence District	No water service requirement
R-3	PRD Residence District	Public water required
R-4	Residence District	Public water required
MH	Mobile Home Park	Public water required
C-1	Commercial District	Public water required
C-2	General Business District	Public water required
LI-1	Industrial District	Utility plan approval requirement
LI-2	Limited Industrial District	Utility plan approval requirement
T	Tank Farm District	No water service requirement
AACOD	Active Adult Comm. Overlay	Public water required

Source: Bethel Township Zoning Ordinance

Between the Chester Water Authority and United Water Delaware, public water is available or could be made available to most parts of the Township. The Zoning Ordinance requirements for public water in most districts can be met from a distribution point of view. The availability of water capacity is determined on a development basis, but at this time there are no known limitations on capacity.

As is evident from Table 4.1, public water is required to be provided for most of the zoning districts. It should be noted that the requirement for public water is always aligned with a requirement for public sewer as well. The R-1 zoning district has a minimum lot size requirement of 40,000 sq. ft. if no public sewer or water is provided. In such cases, on-lot water and sewage disposal means would have to be approved. This Comprehensive Plan recommends that the Township reconsider this position and make the R-1 district consistent with the other residential districts. Existing on-lot systems should be allowed to remain,

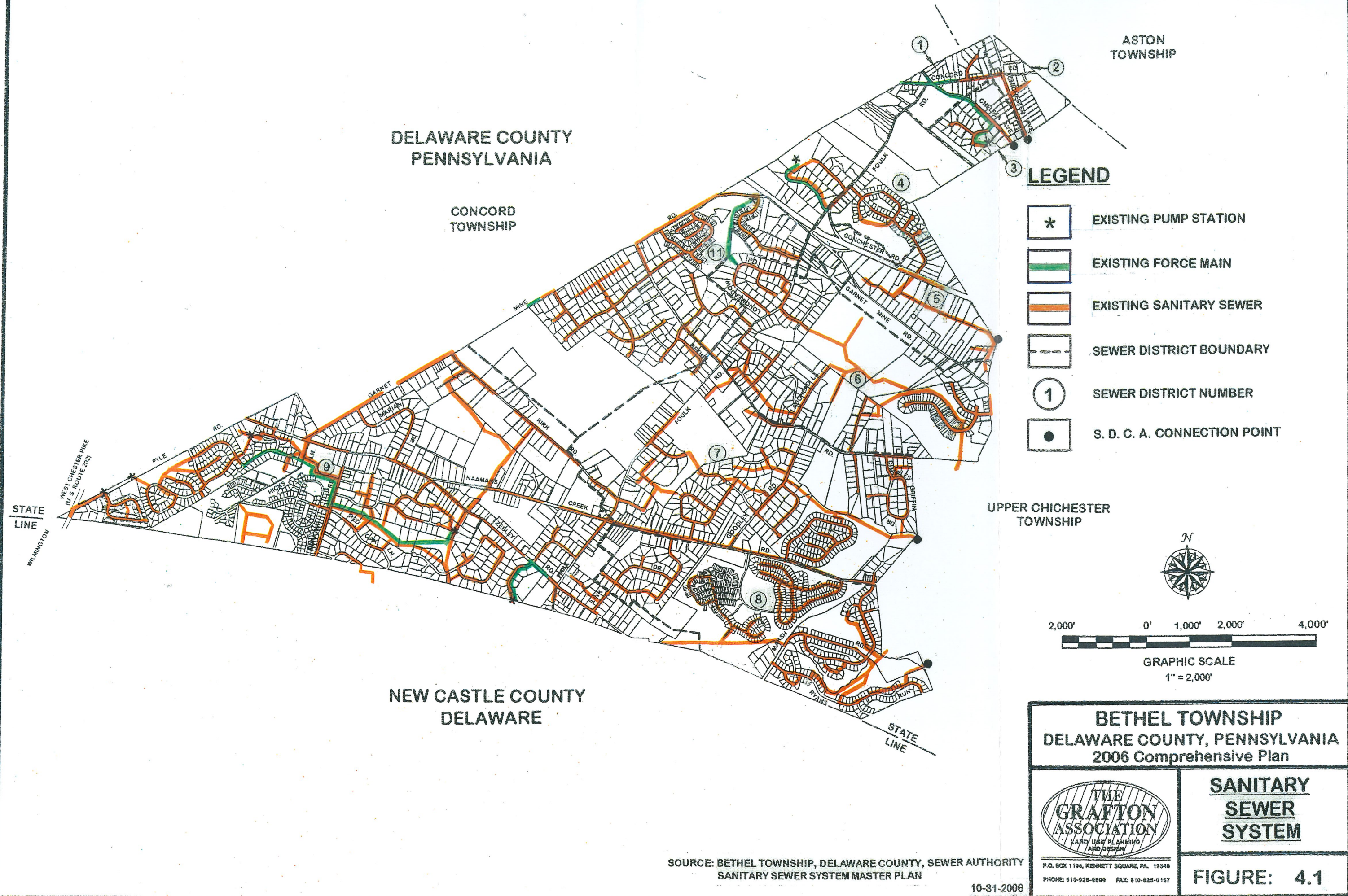
but should be subject to upgrading or connection to the public system if and when sewage system failures occur. Requiring connection to a public system for existing development can be a controversial topic. It may be difficult to detect a failed on-lot sewage system until damage has been done to the groundwater providing water for wells. Financial responsibility for the connection can also be a burden on a homeowner, especially if the public system is not immediately adjacent to the property in question. These issues need to be resolved by the Township and policies established leading to a point of total reliance on the public system. The basis for this recommendation is both environmental and public health related.

The two industrial districts, LI-1 and LI-2, allow for a utility plan to be submitted to the Township indicating how all utility functions will be addressed. An additional recommendation of this Comprehensive Plan is that standards be established that would require connection to a public water system and public sewer system when certain numbers of individuals occupy a permitted use on a daily basis. Both industrial districts allow for a wide range of uses, including offices. Such uses should be required to connect to the public systems and most likely would be by the Township review and approval process. It is recommended that more precision be placed in the standards that would identify the standards for divergent permitted uses.

Although these recommendations apply to the Water Service Plan, application of them should also be considered for the sewer system regulations, which are usually administered as requirements in a simultaneous manner. The MPC requires that these Water Service Plan recommendations be generally consistent with any State or river basin commission plans. The MPC also requires that the Comprehensive Plan contain statements regarding mineral extraction and commercial agriculture. Those statements are as follows:

1. "Lawful activities such as extraction of minerals may impact water supply sources and such activities are governed by statutes regulating mineral extraction than specify replacement and restoration of water supplies affected by such activities."
2. "Commercial agriculture production may impact water supply sources."

Each of these two concerns may have some impact on water supplies for those properties relying on on-lot water sources (wells) but the level of impact will be reduced as an increasing number of parcels are connected to the public water lines of the Chester Water Authority and United Water Delaware.



DELAWARE COUNTY
PENNSYLVANIA

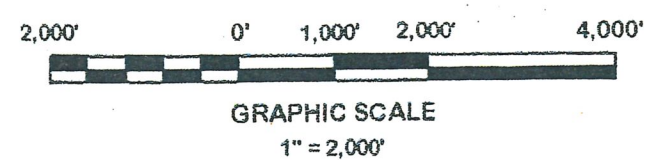
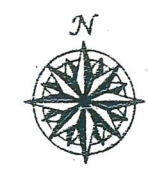
CONCORD
TOWNSHIP

ASTON
TOWNSHIP

LEGEND

-  EXISTING PUMP STATION
-  EXISTING FORCE MAIN
-  EXISTING SANITARY SEWER
-  SEWER DISTRICT BOUNDARY
-  SEWER DISTRICT NUMBER
-  S. D. C. A. CONNECTION POINT

UPPER CHICHESTER
TOWNSHIP



BETHEL TOWNSHIP
DELAWARE COUNTY, PENNSYLVANIA
2006 Comprehensive Plan

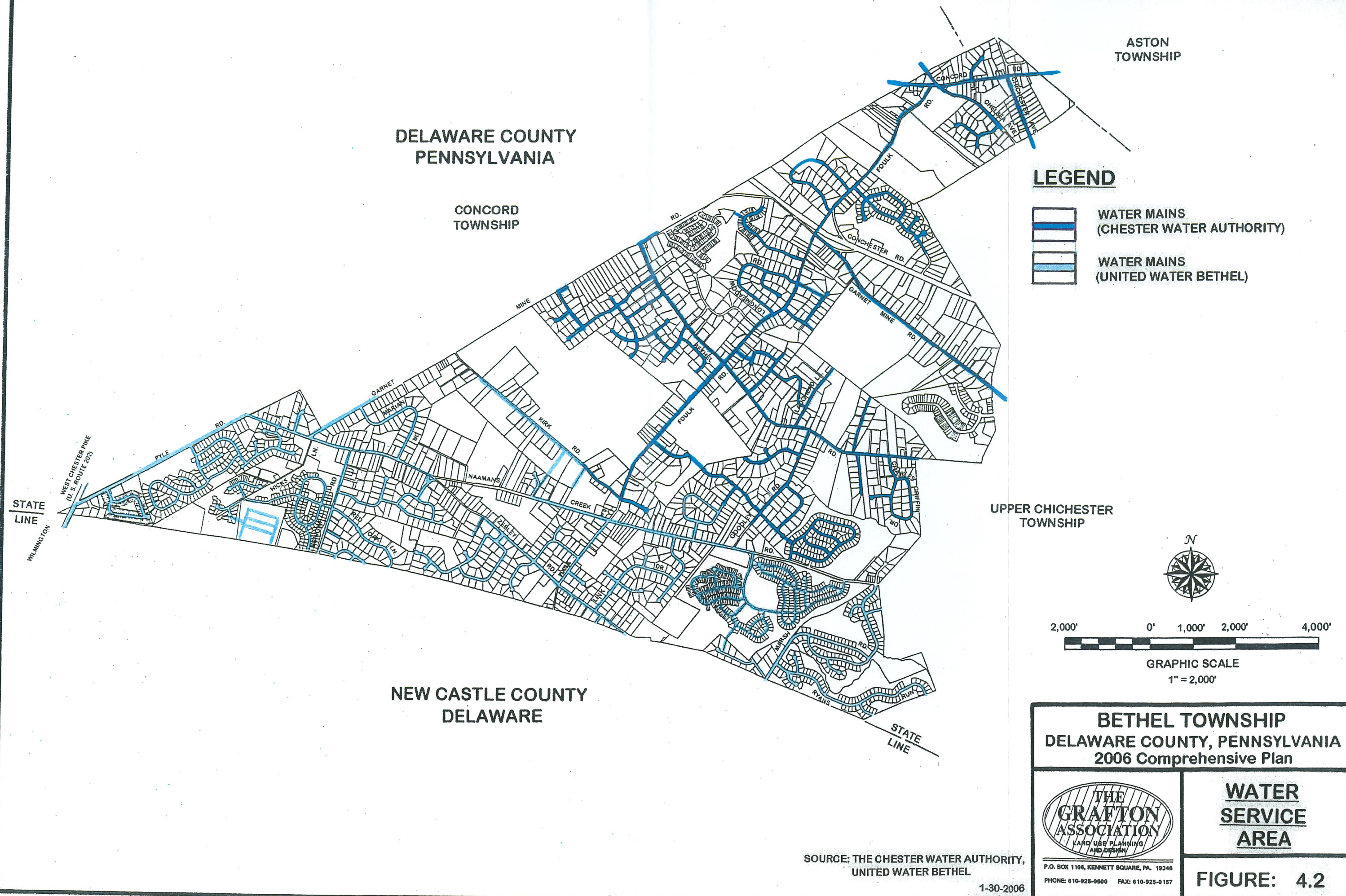


**SANITARY
SEWER
SYSTEM**

FIGURE: 4.1

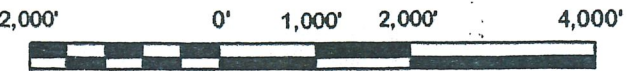
P.O. BOX 1106, KENNETT SQUARE, PA. 19348
PHONE: 610-825-0509 FAX: 610-825-0157

SOURCE: BETHEL TOWNSHIP, DELAWARE COUNTY, SEWER AUTHORITY
SANITARY SEWER SYSTEM MASTER PLAN
10-31-2006



LEGEND

-  **WATER MAINS**
(CHESTER WATER AUTHORITY)
-  **WATER MAINS**
(UNITED WATER BETHEL)



GRAPHIC SCALE
1" = 2,000'

BETHEL TOWNSHIP
DELAWARE COUNTY, PENNSYLVANIA
2006 Comprehensive Plan



P.O. BOX 1106, KENNETT SQUARE, PA. 19348
PHONE: 610-925-0500 FAX: 610-925-0157

WATER
SERVICE
AREA

SOURCE: THE CHESTER WATER AUTHORITY,
UNITED WATER BETHEL

1-30-2006

FIGURE: 4.2

CHAPTER 5 GOALS AND OBJECTIVES

The purpose of this chapter of the Comprehensive Plan is to establish statements of intent regarding the future of Bethel Township. These intentions are expressed as goals and objectives and reflect the wishes of the residents and officials of the Township. The statements of intent are consolidated in this chapter in order to provide guidance in the decision making and policy setting process of land use planning and facilities and program development. The order of presentation of the goals and objectives should not be seen as a prioritization or emphasis.

Within the context of this Comprehensive Plan, a goal is a generalized topic that encompasses an area of concern to the Township. Objectives are measurable methods and procedures to accomplish a goal.

Goals and objectives are designed to satisfy the future growth needs of the community. The goals need to address the complete range of issues facing Bethel Township. They are derived from the analysis of existing conditions and growth prospects and identification of growth management issues which are outlined in Chapter 7, Land Use Plan. The list of goals and objectives that follow are categorized according to the major planning concerns and issues that have been identified in previous Township planning documents, as well as through more recent expression by the Comprehensive Plan Task Force and Township officials.

The comprehensive planning process is dynamic and is reflective of the continuing changes in community needs. As those needs change, adjustments should be made to the goals and objectives, at a minimum during interim or complete updates to this Plan. Implementation of objectives is addressed in Chapter 13, Implementation, where recommendations are developed with priorities and establishment of responsibility.

Goal: Community Character – Identify, preserve and enhance positive and beneficial attributes of the Township community.

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| Objective 1 | Evaluate beneficial or positive community characteristics and seek means to perpetuate them. |
| Objective 2 | Identify negative characteristics of the Township and develop remedies to correct and improve them. |

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| Objective 3 | Encourage growth that sustains and expands positive community characteristics, including consistent signage and lighting. |
| Objective 4 | Identify and protect scenic vistas as part of the visual quality of the Township. |
| Objective 5 | Strengthen the family orientation of the community by promoting cultural activities. |

Goal: Natural Resources – Inventory, protect environmentally sensitive resources.

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| Objective 1 | Inventory and delineate natural resources on accessible data bases. |
| Objective 2 | Review and modify development standards which relate to protection or enhancement of steep slopes, floodplains, wetlands, agricultural soils, water courses and riparian areas, geologic features, woodlands, unique plant and animal communities. |
| Objective 3 | Develop procedures that monitor the condition of natural resources, such as through the use of water sampling. |
| Objective 4 | Investigate and implement means to improve stormwater management and increase the recharge of water into aquifers. |
| Objective 5 | Involve the community in natural resource protection at all scales, including habitat projects at the backyard level. |

Goal: Community Facilities and Services – Provide for Township's recreational, cultural, service, safety and health needs.

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| Objective 1 | Inventory and assess current community facilities and services for effectiveness, location and cost. |
|-------------|--|

- Objective 2 Ensure adequate facilities such as parking for community centers and other public and private centers.
- Objective 3 Develop cultural programs for community participation.
- Objective 4 Monitor and evaluate services to benefit residents and businesses, such as the need for a local post office building and service.
- Objective 5 Coordinate with state and regional emergency services providers, including police, fire, emergency health and disaster relief.
- Objective 6 Develop a community facilities and services operations and maintenance plan providing for future growth and related facility needs, including utilities, human services, health, safety, recycling, educational development and economic development.
- Objective 7 Maintain and expand upon community recycling efforts.

Goal: Open Space Preservation – Identify and preserve open space of all kinds through various techniques to preserve farm lands, parks, conservation areas, utility easements, environmentally constrained lands, etc.

- Objective 1 Maintain inventory of lands in Township under various forms of protection.
- Objective 2 Identify threatened areas in need of future protection.
- Objective 3 Identify scenic corridors and viewsheds and develop means to protect them.
- Objective 4 Identify open space protection methods not currently being used in the Township.
- Objective 5 Develop a plan to link open space areas and community facilities with non-vehicular corridors.

Goal: Transportation – Provide efficient and maintained network of transportation elements; roads, trails, pedestrian paths, public transportation.

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| Objective 1 | Inventory roadways, public transit routes, trails and other transportation corridors with pertinent right-of-way, speed limit, intended use, material, maintenance schedule and location information. |
| Objective 2 | Develop a maintenance schedule for Township owned roads to be included in a Capital Improvement Program. |
| Objective 3 | Coordinate local road design and capacity with adjacent municipalities. |
| Objective 4 | Identify locations on roadways where traffic calming techniques and improved signalization would be beneficial and coordinate with traffic agencies about installation. |
| Objective 5 | Coordinate with state and county officials on transportation related issues, including enhancement of public transit, car pooling and park and ride lots. |
| Objective 6 | Manage future growth so as to maximize use of current road capacity and avoid creation of additional roads except in cases of failing traffic conditions. |
| Objective 7 | Develop pedestrian and bicycle routes throughout the Township to lessen dependency on motorized vehicles. |
| Objective 8 | Develop construction projects with State and local funds to install sidewalks along designated roads that serve community facilities. |

Goal: Land Use – Manage future growth within context of historical patterns and strategies making efficient use of infrastructure.

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| Objective 1 | Recognize internal and external factors which affect Township land use and planning, such as commercial, employment and institutional centers |
| Objective 2 | Maintain a mapped inventory of current land uses for the Township. |
| Objective 3 | Evaluate Township ordinances and modify as necessary to encourage future growth to locate to areas of adequate infrastructure. |
| Objective 4 | Ensure that future development provides significant areas of open space linked to existing open space and trails. |
| Objective 5 | Inventory and monitor non-conforming uses and structures and develop programs to bring such uses into conformity with Township regulations. |
| Objective 6 | Develop zoning and development regulations which incorporate non-traditional land development, such as village and cluster development, which encourage open space, connectivity and protection of natural resources. |
| Objective 7 | Encourage the development of commercial, industrial and institutional uses which provide direct benefit to Township residents and businesses. |
| Objective 8 | Coordinate with Booths Corner owner to reinforce the commercial focal point of the Township visually and functionally. |
| Objective 9 | Coordinate with adjacent municipalities for compatibility of land use planning programs. |

Goal: Housing and Non-Residential Buildings – Ensure safe and adequate structures for residents and businesses.

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| Objective 1 | Evaluate land use ordinances to ensure opportunities for a variety of housing types and values, complying with accepted standards and fair share housing principles. |
| Objective 2 | Review procedures to routinely monitor building conditions to ensure compliance with building codes. |
| Objective 3 | Encourage future growth of residential areas compatible with adjacent land uses, adequate infrastructure and suitable community facilities. |

Goal: Historic Preservation – Recognize value of Township's past heritage, protect and enhance remaining structures.

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| Objective 1 | Continue to maintain and improve the inventory of historic buildings and structures. |
| Objective 2 | Encourage owners of historic structures to apply for recognition of historic status from local, state and national registries. |
| Objective 3 | Develop procedures within Township regulations which facilitate preservation and/or adaptive reuse of historic buildings. |
| Objective 4 | Educate the community about the value and importance of historic structures and villages, to include programs in the local schools. |
| Objective 5 | Institute a program to place historic marker signs on eligible structures and historic "narrative" signs at places of historic significance. |
| Objective 6 | Prepare an illustrative map of historic buildings, places and events that could be printed for public distribution. |

Goal: Finances – Balance community needs and expenditures with ability to generate revenues.

- Objective 1 Prepare an annual budget using a long range Capital Improvement Program to fund facilities, maintenance and programs.
- Objective 2 Encourage fiscally responsible land development through diversity to strengthen the tax base and create varied employment opportunities.
- Objective 3 Maintain reserve funds for maintenance and expansion of community facilities and public works projects.
- Objective 4 Promote the use of a "fee in lieu of" option and other methods related to the acquisition and location of open space.
- Objective 5 Explore the use of matching grants for the development of programs or facilities.
- Objective 6 Investigate the creation of fees on new development for the development of community facilities and services and related infrastructure impacts.
- Objective 7 Develop procedures to be aware of grant opportunities and train individuals to apply for those grants.

Goal: Planning and Coordination – Coordinate Township growth management strategies with adjacent and regional municipalities.

- Objective 1 Monitor development trends regionally for impact on and compatibility with the Township.
- Objective 2 Maintain a consistent liaison with adjacent municipalities to remain aware of activities affecting the Township and opportunities to share services.
- Objective 3 Continue and expand participation with local and regional organizations which address planning issues or provide services to the Township.

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| Objective 4 | Implement plans which provide adequate and appropriate locations for future growth using sound land use planning principles |
| Objective 5 | Monitor legal decisions and new regulatory controls which may be applicable to growth management in the Township. |

Summary

It is the intention of the Goals and Objectives chapter of this Comprehensive Plan to focus on issues significant to the Township and to develop measurable methods to address those issues. During the planning period following the adoption this Plan important issues may change and new issues may arise. As change occurs the goals and objectives should be reevaluated and modified to meet the circumstances. The issues are more fully elaborated upon in other chapters of the Plan, where they are applied to existing conditions and plans of action are proposed.

One of the purposes of outlining goals and objectives is to provide residents and officials of the Township with guidelines to assist in the decision making process affecting budgets, zoning decisions, variances and growth management in general. It is the purpose of this chapter to provide decision makers with a summary of issues which have been found to be significant to the community and which are important to the future of the Township.

Demographics play a major role in the planning process and it is through the use of population data and other historical data that trends can be determined. Projections of future conditions are based upon past data collected through a variety of means. The best known and perhaps most comprehensive data collection process is that done on a decennial basis by the United States Bureau of the Census. After the information has been collected and processed it is made available to state and local municipalities in a form that allows for comparisons by type of information among geographic areas and over periods of time. It is the analysis of demographic information that is central to a comprehensive plan, for it forms the basis for future planning in terms of accommodating population, housing and business growth.

Bethel Township, like many municipalities, is subject to continuous applications for residential, commercial, industrial and institutional development. The manner in which the Township reacts to each application can have a major impact on the future appearance and character of the community. Having the ability to evaluate past development trends will improve the Township's planning for future land uses, facilities development and service programs affecting residents. One of the more important attributes of demographic information collecting is its use to forecast growth. As noted earlier, state and local agencies use the information generated. Delaware County produces reports for many demographic categories using information specific to the County and its municipalities. On a regional basis, the Delaware Valley Regional Planning Agency (DVRPC) also publishes reports using the information, including comparisons of its nine-county jurisdiction. Of critical importance to local agencies is a population forecast prepared by DVRPC in conjunction with the counties. Currently, the base population from the year 2000 census is used to project future population totals for each municipality in five year increments to the year 2025. The use of population projections needs to be done carefully, because the apportionment of growth among the municipalities may not account for local actions or development activity.

With the reporting of demographic information from the various agencies available, this Comprehensive Plan intends to provide policy and development guidelines to the Township's planning process. The analysis of past trends, coupled with the knowledge of local conditions, will establish the basis for providing for the needs of residents and businesses into the future. Therefore, this Chapter will focus on the population and housing statistics of the past in order to understand trends and project for the future.

Sources

The most recent source of demographic information is found in the U.S. Bureau of the Census data from 2000. Delaware County has assembled this information into four Profiles. The following information topics are found in each of the Profiles for Bethel Township, with appropriate divisions, both by actual numbers and percentages of the total:

Profile of General Demographic Characteristics: 2000

- Sex and Age
- Race
- Hispanic or Latino and Race
- Relationship
- Household by Type
- Housing Occupancy
- Housing Tenure

Profile of Selected Social Characteristics: 2000

- School Enrollment
- Educational Attainment
- Marital Status
- Grandparents as Caregivers
- Veteran Status
- Disability Status of the Civilian Non-institutionalized Population
- Residence in 1995
- Nativity and Place of Birth
- Region of Birth of Foreign Born
- Language Spoken at Home
- Ancestry

Profile of Selected Economic Characteristics: 2000

- Employment Status
- Commuting to Work
- Occupation
- Industry
- Class of Worker
- Income in 1999
- Poverty Status in 1999

Profile of Selected Housing Characteristics: 2000

- Units in Structure
- Year Structure Built
- Rooms
- Year Householder Moved into Unit
- Vehicles Available
- House Heating Fuel
- Selected Characteristics
- Occupants per Room
- Value
- Mortgage Status and Selected Monthly Owner Costs
- Selected Monthly Owner Costs as a Percentage of Household Income in 1999
- Gross Rent
- Gross Rent as a Percentage of Household Income in 1999

Not all of the data from the Profile categories will be presented in this Chapter; those categories that may have more relevancy to planning for the future are included. Other demographic sources also exist and will be used as resources for this Chapter. The Delaware Valley Regional Planning Commission (DVRPC) and the Commonwealth of Pennsylvania maintain information resources in addition to those of Delaware County. DVRPC is an interstate, multiple-county agency that provides comprehensive and coordinated planning within the Delaware Valley region of nine counties in New Jersey (4) and Pennsylvania (5). Delaware County is made up of 49 municipalities, of which 1 is a Third Class City, 27 are boroughs, 12 are First Class Townships and 9, including Bethel Township, are Second Class Townships.

Regional Population Trends

Since the 2000 census was taken, estimates have been prepared for municipalities for the period between 2000 and 2004. These have been prepared by the Census Bureau's Population Estimates Program and are produced for each year on July 1st following the decennial census. This information has been assembled and distributed by DVRPC in its Regional Data Bulletin No. 81, dated August 2005. Of note, the Data Bulletin includes Bethel Township as the 8th fast growing municipality in the 9 County DVRPC Region for the period 2000 to 2004. During that period, the Township population is estimated to have increased by 34.0%. Estimates are based on data such as births, deaths, federal tax returns, medicare enrollment and immigration.

Although the 2004 figures are merely estimates, they are of use in comparing current activity, particularly between census years, as is in this case.

Within the context of its regional surroundings, Bethel Township can be compared to its adjacent municipalities for comparison purposes. Table 6.1, Regional Population Comparisons, provides data for Bethel, Concord, Aston, and Upper Chichester Townships in Delaware County and for New Castle County in Delaware. Data for New Castle County is difficult to relate on the township level since there are no such political divisions in Delaware.

Table 6.1
Regional Population Comparisons, 2000-2004

<u>Municipality</u>	<u>Population</u>		<u>Percent Change</u>
	<u>2000 Census</u>	<u>2004 Estimate</u>	
Bethel Twp.	6421	8793	34.0%
Concord Twp.	9933	15,296	34.7%
Aston Twp.	16,203	16,718	3.1%
Upper Chichester Twp.	16,842	17,017	1.0%
Delaware County	550,864	555,040	0.5%
New Castle County	500,265	519,396	3.5%

Source: DVRPC Data Bulletin No. 81.

There are vast differences between the municipalities in Table 6.1. It can be surmised that both Bethel and Concord Township continue to be attractive residential growth areas that have available lands for housing developments. Both Aston and Upper Chichester are closer to the more industrialized area of Delaware County and, in particular Marcus Hook, and both have experienced almost no growth during the period.

Age and Gender Distribution

The value of age and gender data lies with the interest in providing services for various population categories. These services might take the form of age-specific recreational activities, senior citizen programming and library purchasing emphasis. School districts pay close attention to this data due to its effect on school populations. The following Table 6.2, Age and Gender Distribution, provides the numbers of individuals within ranges established by the Delaware County profiles.

Table 6.2
Age and Gender Distribution

<u>Age Range</u>	<u>Number</u>	<u>Percent</u>
Under 5 years	541	8.4%
5 to 9 years	626	9.7%
10 to 14 years	586	9.1%
15 to 19 years	406	6.3%
20 – 24 years	194	3.0%
25 – 34 years	761	11.9%
35 – 44 years	1467	22.8%
45 – 54 years	883	13.8%
55 – 59 years	241	3.8%
60 – 64 years	174	2.7%
65 – 74 years	271	4.2%
75 – 84 years	193	3.0%
85 years plus	78	1.2%
Total	6421	100%
Males	3201	49.9%
Females	3220	50.1%

Source: US Census Bureau, Census 2000

Racial Distribution

The distribution of racial groups may be of interest to the Township due to a need to provide cultural and recreational programs that can differ for various groups. Table 6.3, Racial Distribution, lists those groups that are identified by the US Census Bureau. The data is clear that Bethel Township is essentially made up of a white population however there is a wide variety of other diverse population groups.

Table 6.3
Racial Distribution

<u>Race</u>	<u>Number</u>	<u>Percent</u>
White	6064	94.4%
African American	140	2.2%
American Indian or Alaskan Native	2	-
Asian	155	2.4%
Asian Indian	48	0.7%
Chinese	62	1.0%
Filipino	8	0.1%
Japanese	1	-
Korean	14	0.2%
Vietnamese	13	0.2%
Other Asian	9	0.1%
Native Hawaiian or Other Pacific Islander	1	-
Native Hawaiian	-	-
Guamanian or Chamorro	-	-
Samoan	-	-
Other Pacific Islander	1	-
Some other race	21	0.3%
One race	6383	99.4%
Two or more races	38	0.6%

Source: US Census Bureau, Census 2000

School Enrollment and Educational Attainment

Among the various forms of demographic data, one of the most useful is that of school enrollment. This data, coupled with age distribution and population and housing projections for the future, provides school planners with information regarding needed facilities and staff. Table 6.4, based on school age population of 3 years of age and older, illustrates the population enrolled in preschool, kindergarten, elementary school, high school and college levels of educational facilities.

Table 6.4
School Enrollment

<u>School</u>	<u>Number</u>	<u>Percent</u>
Nursery school, preschool	182	9.4%
Kindergarten	153	7.9%
Elementary school (grades 1-8)	933	48.1%
High school (grades 9-12)	357	18.4%
College or graduate school	315	16.2%

Source: US Census Bureau, Census 2000

Two factors of some interest come from the previous table. First, the breakdown of students in elementary school includes the population in what is commonly known as middle school. Local statistics would have to be applied to this in order to reflect the true distribution of students. Secondly, it is important to note the high number of students attending college from the Township community and the similarity of that number to those students in high school. This statistic speaks well for the academic system and the preparation for higher education taking place in both private and public schools.

Associated with the above data is that of educational attainment. Table 6.5 breaks down the various educational levels attained by the population of the Township.

Table 6.5
Educational Attainment

<u>Educational Level</u>	<u>Number</u>	<u>Percent</u>
Less than 9 th grade	133	3.3%
9 th to 12 th grade, no diploma	190	4.7%
High school graduate (or equivalent)	1125	27.8%
Some college, no degree	723	17.9%
Associate degree	207	5.1%
Bachelor's degree	1043	25.8%
Graduate or professional degree	628	15.5%

Source: US Census Bureau, Census 2000

Of interest from the above table is the high number of high school graduates among the general population. 92% of the Township's population that is greater than 25 years of age have graduated from high school. From the general population over 25 years of age, 41.3% have achieved a level of bachelor's degree or higher. Generally speaking, the population of Bethel Township is well educated.

Employment and Commuting

Residents of Bethel Township are employed in a wide variety of professions and occupations. According to the Census 2000 data, less than 1% of the civilian labor force was unemployed. Table 6.6 illustrates the diversity of employment and commuting categories for the population over 16 years of age:

Table 6.6
Employment and Commuting

<u>Occupation</u>	<u>Number</u>	<u>Percent</u>
Management, Professional	1614	48.6%
Service occupations	253	7.6%
Sales and Office occupations	826	24.9%
Farming, Fishing, Forestry	60	1.8%
Construction, Extraction, Maintenance	268	8.1%
Production, Transportation	301	9.1%
<u>Commuting Mode</u>		

Car, truck or van – drove alone	2826	86.0%
Car, truck or van – carpooled	199	6.1%
Public transportation	40	1.2%
Walked	98	3.0%
Other means	27	0.8%
Worked at home	96	2.9%

Source: US Census Bureau, Census 2000

The fact that almost half of the employed population of the Township are in management and professional positions is reflective of the high educational attainment of residents. The balance of employment is reasonably distributed among the other categories, with a large portion involved in sales and service occupations. The commuting pattern of those employees is decidedly that of the single occupant vehicle, a fact that is not encouraging to transportation planners. Single occupant vehicles place a burden on road capacities and may be reflective of a lack of available or convenient mass transportation systems. More will be addressed to this topic in later chapters of this Comprehensive Plan.

Economic Income Levels

The US Census Bureau income data for residents of Bethel Township is based on 1999 figures acquired during the 2000 Census. These figures are broken down between households, Table 6.7 and families, Table 6.8. At this point it will be helpful to distinguish between the two categories, since this distinction between households and families will recur again in this Plan. The US Census considers a household to be all persons who occupy a housing unit. That housing unit may be a house, apartment, mobile home, group of rooms or a single room that is occupied or is intended for occupancy as separate living quarters. Separate living quarters are those in which the occupants live and eat separately from any other persons in the building and which have direct access from the outside of the building or through a common hall. The occupants may be a single family, one person living alone, two or more families living together, or any other group or related or unrelated persons who share living arrangements.

A family is generally defined as a householder and one or more persons living in the same household who are related to the householder by birth, marriage or adoption. This distinction between households and families is significant not

only for housing but for all demographic data based on living units of individuals.

Table 6.7
Household Income Levels in 1999

<u>Income Range</u>	<u>Number</u>	<u>Percent</u>
Less than \$10,000	28	1.4%
\$10,000 to \$14,999	17	0.9%
\$15,000 to 24,999	107	5.4%
\$25,000 to \$34,999	95	4.8%
\$35,000 to \$49,999	148	7.4%
\$50,000 to \$74,999	438	22.0%
\$75,000 to \$99,999	417	21.0%
\$100,000 to \$149,999	553	27.8%
\$150,000 to \$199,999	93	4.7%
\$200,000 or more	<u>92</u>	<u>4.6%</u>
	1988	100.0%
Median Household Income - \$84,661		

Source: US Census Bureau, Census 2000

Table 6.8
Family Income Level in 1999

<u>Income Range</u>	<u>Number</u>	<u>Percent</u>
Less than \$10,000	11	0.6%
\$10,000 to \$14,999	17	1.0%
\$15,000 to \$24,999	63	3.6%
\$25,000 to \$34,999	72	4.1%
\$35,000 to \$49,999	88	5.0%
\$50,000 to \$74,999	431	24.4%
\$75,000 to \$99,999	405	22.9%
\$100,000 to \$149,999	511	28.9%
\$150,000 to \$199,999	87	4.9%
\$200,000 or more	<u>85</u>	<u>4.8%</u>
	1770	100.0%
Median Family Income - \$87,248		

Source: US Census Bureau, Census 2000

Housing Composition

The relationship between population and housing for any municipality is closely connected. There are a variety of housing types existing in the Township currently. The Zoning ordinance provides for these various building types with the residential zoning districts. They range from single family detached dwellings on various size lots to attached and multi-family housing, including townhouses, apartments and mobile homes. Those occupying the various housing types are varied as well, from traditional families of parents and children to singles living alone.

The Zoning Ordinance of Bethel Township prescribes conditions for development of all land, and in particular there are five residential zoning districts; R-1, R-2, R-3, R-4 and R-M. It is noted that R-2 is not currently used as a zoning district (reserved) nor are there any standards for it. Table 6.9 provides the various standards which apply to the range of dwelling unit types permitted by the Zoning Ordinance (Ordinance Number 146) dated June 12, 2001 and illustrates the full range of dwelling unit types permitted in the residential zoning districts. The following units are permitted in at least one residential zoning district:

- Single Family Detached
- Single Family Semi-Detached (Twin)
- Single Family Attached (Townhouse)
- Two Family Detached (One unit above the other, duplex)
- Two Family Semi-Detached (Semi-Detached duplex)
- Multi-Family (Apartment)
- Mobile Home

Table 6.9
Bethel Township
Residential Zoning District Standards

Zoning District	District Title	Description	Minimum Lot Size (sf)	Lot Width (ft)	Front Yard (ft)	Side Yard (ft)*	Rear Yard (ft)	Maximum Bldg. Coverage	Maximum Height (ft)
R-1	Residence District	Single Family Det.	40,000 no s/w** 30,000 s/w**	140 125	25 25	30,75 no s/w** 25,60 s/w**	30 no s/w** 30 s/w**	15% 15%	35 35
R-3	Residence District PRD	Single Fam. Detached Single Fam. Semi-Det. Single Fam. Attached	10,000 8,000 4,000	80 50 20	40 40 40	10,25 15 15 (end)	30 30 30	20% 30% 10%	n/a n/a 30
R-4	Residence District	Single Fam. Semi-Det. Two Fam. Detached Two Fam. Semi-Det. Single Fam. Attached Multi-Family, in accordance with planned development provisions and special requirements	4,000 3,000 2,500 2,000	40 60 50 20	25 25 25 25	15 10,25 15 15	25 25 25 25	25% 30% 35% 40%	35 35 35 35
R-M	Mobile Home District	Mobile Home	6,000	60	30	10	10	25%	n/a

* Two dimensions are min. side yard followed by min. aggregate of both side yards on same lot.

** No s/w means no public sewer or public water connection; s/w means with connections.

Source: Bethel Township Zoning Ordinance, June 12, 2001

The 2000 Census collected information about the type of dwelling in which residents lived. The following Table 6.10 breaks down the numbers of dwelling units in buildings within Bethel Township.

Table 6.10
Dwelling Units in Structure

<u>Unit Type</u>	<u>Number</u>	<u>Percent</u>
1 Unit Detached	1741	86.3%
1 Unit Attached	206	10.2%
2 Units	29	1.4%
3 – 4 Units	0	0.0%
5 – 9 Units	0	0.0%
10 – 19 Units	0	0.0%
20 or more Units	0	0.0%
Mobile Home	<u>41</u>	<u>2.0%</u>
Total	2017	100%

Table 6.10 clearly demonstrates that there is a predominance of single family detached housing in Bethel Township, to the extent that there are no apartment or multi-family buildings in the Township. However between the years 2000 and 2005, 480 semi-detached, 243 attached and 24 condominium dwelling units have been constructed and occupied which has begun to provide a more balanced housing stock within the Township. The Township will need to consider planning for more diverse housing opportunities, given the projections for future population growth in coming decades. More will be written on this subject in the Land Use Plan and the Housing Plan.

Housing Occupancy and Tenure

Information about the type of occupancy of dwelling units and their rate of occupancy within the Township is of interest because the number of unoccupied units and the ratio of owner occupied units to renter occupied. There is a need to provide for both, although it is common for owner occupied units to predominate. Table 6.11 compares the statistics for Bethel Township with the surrounding townships and Delaware County.

One of the more significant factors from the table is the fact that almost 96% of the housing units in Bethel Township are owner occupied. This is not only a

high percentage but it is also the highest percentage of any municipality in Delaware County. Only two others are over 90% and the County average is considerably lower at 71.9%. The significance of the high ownership pattern is property stability within the Township communities and a high level of property responsibility. Correspondingly, there are very few rental units in the Township. As future land use decisions are made, it may be important to consider the availability of renter housing in the community. There were only 84 renter occupied units in 2000 and it may be presumed that some of those were single family houses. Other statistics from Table 6.10 indicate that Bethel Township is similar to its immediate neighbors, although its average household size and average family size are somewhat higher than those of the County.

Bethel Township
Housing Occupancy and Tenure
Table 6.11

Municipality	2000 Housing Units	Occupied Housing Units	Percent Occupied Units	Owner Occupied Units	Percent Owner Occupied	Renter Occupied Units	Average Household Size	Average Family Size
Bethel Township	2017	1984	98.4%	1900	95.8%	84	3.16	3.4
Concord Township	3551	3384	95.3%	3178	93.9%	206	2.91	3.22
Aston Township	5978	5838	97.7%	5186	88.8%	652	2.66	3.15
Upper Chichester Twp.	6705	6500	96.9%	4510	69.4%	1990	2.58	3.15
Delaware County	216,978	206,320	95.1%	148,384	71.9%	57,936	2.56	3.17

Source: US Bureau of the Census, Census 2000.

Population Projections

Following the decennial census by the US Census Bureau, the Delaware Valley Regional Planning Commission (DVRPC) prepares a forecast of municipal populations based on 5 year increments for 25 years. These forecasts are prepared for all municipalities within each of the 9 counties within the DVRPC jurisdiction. The individual counties may modify or redistribute the projections within control totals. Forecasted population is important for any municipality, for it foretells whether there will be growth, decline or stability in future population figures. Many municipalities in Delaware County are projected to lose population during the period 2000 to 2025 and, in fact, the County as a whole is expected to experience a 0.6% population loss over the period. Such is not the case with Bethel Township. The following Table 6.12 illustrates the DVRPC forecasts for the period 2000 to 2025.

A significant fact regarding population in Delaware County is the fact that the 25 year projections call for twice as many municipalities losing populations as gaining. As Table 6.11 illustrates, Bethel Township and its immediate neighboring townships are among the minority that are expected to grow during the 25 year period. Bethel Township is projected to grow by 48.6%, a figure that is fifth, behind Concord Township, Edgmont Township, Chester Heights Borough and Chadds Ford Township. The trend that is apparent is that population is leaving the more industrialized parts of the County. Growth in other areas, such as Bethel Township, is a factor of future generations wanting to stay in the area and an influx of new families that find Bethel an attractive place to live and raise families.

The value of forecasts is limited by the assumptions made in their formulation. These forecasts are updated during the census cycle and, of course, revised every ten years when new data becomes available. For planning purposes, the projections should be used as guidelines, but more specifically, as an indication that additional housing will continue to occur in the Township to meet the growth trends.

Table 6.12
Bethel Township
Population Projections

Municipality	Census 1990	Census 2000	Forecast 2005	Forecast 2010	Forecast 2015	Forecast 2020	Forecast 2025	Percent Change 2000-2025
Bethel Township	3330	6421	7110	7640	8090	8910	9540	48.6%
Concord Township	6933	9933	12,130	13,230	14,140	15,580	16,920	70.3%
Aston Township	15,080	16,203	17,180	17,630	18,150	18,720	19,260	18.9%
Upper Chichester Twp.	15,004	16,842	17,510	18,400	19,020	19,700	20,350	20.8%
Delaware County	547,651	550,864	551,530	550,970	546,570	546,972	547,784	-0.6%

Source: US Census Bureau, Census 2000
Delaware Valley Regional Planning Commission
Prepared by: Delaware County Planning Department, revised 2002

Housing Projections

The population forecasts discussed above can be translated into housing projections by factoring in the household and family sizes. As noted earlier and reported in the 2000 Census, the average household size in Bethel Township was 3.16 and the average family size was 3.4. It may be assumed that the average household size will continue to decrease, as has been the trend in recent decades on a national and regional level. However, for housing projection purposes, the figure 3.16 will be used as a conservative value. Each of the five year increments in Table 6.11 can be adjusted to reflect the corresponding housing projection. This information will allow the Township to anticipate the number of needed housing units over the 25 year planning period. Table 6.13 which follows, projects the numbers of needed housing units to accommodate future population growth.

Table 6.13
Housing History and Projections

<u>Year</u>	<u>Housing Units</u>
1980	753 (census)
1990	1148 (census)
2000	2017 (census)
2005	2250 (forecasted)
2010	2418 (forecasted)
2015	2560 (forecasted)
2020	2820 (forecasted)
2025	3019 (forecasted)

Source: Delaware County Planning Department
The Grafton Association

From the above table, it is clear that 1002 new dwelling units will be needed in the 25 year projection period, or approximately 200 units every five years. This amount of housing growth is very similar to the growth experienced between 1980 and 1990, and is less that of the period 1990 to 2000.

Summary

Bethel Township has experienced significant population and housing growth in recent decades. It is this recent trend that forms much of the basis for future projections. Accommodating the future growth will be the focus of this

Comprehensive Plan. Because there is a finite amount of land available for new development the Township will need to consider whether the past pattern of single-family detached residential development can continue without greater diversity of housing types. Chapter 7, Land Use Plan, and Chapter 8, Housing Plan, will address the existing land use status and propose solutions for future land uses.

Planning Requirements

The Pennsylvania Municipalities Planning Code (MPC) requires that a Comprehensive Plan provide for a plan for land use. Section 301.2 of the Municipal Planning Code states that the land use plan include provisions for the amount, intensity, character and timing of land uses, and for the preservation of prime agricultural lands, floodplains, and other special areas and uses of a similar nature.

The comprehensive plan is also expected to address the housing needs of existing and future residents. There are many ways that the housing needs can be addressed such as conserving presently sound housing, rehabilitate deteriorating housing stock, redeveloping blighted areas, and construction of new housing communities which accommodate different housing types and densities.

Bethel Township is unique. Much of the land mass is currently committed to a variety of uses. Some of the lands may be subjected to reuse and other areas lend themselves to redevelopment. The pattern of existing uses is very definitively defined. These patterns are set forth in Chapter 3 of this plan. Along with physical development, natural limitations to development such as steep slopes, floodplains, wetlands have also been inventoried as part of this planning process. All of these variables must be considered in terms of planning for the future land use.

It is important to remember what a future land use map and plan does and does not do. The future land use map is not zoning. It has no regulatory basis or authority. It is an expression of a public policy in the event there is to be a change to the regulatory environment. It is a view into the future that provides guidance to accommodate anticipated changes during the twenty year projection period. It is with this backdrop that an effort to prepare a plan for land use is set forth within this document.

Background

The evaluation of current land use patterns is the first step in developing future land use plans. The historical evolution of the way various uses have evolved is important. In many instances these various uses have evolved around natural features and transportation corridors. The existing conditions are inventoried in Chapter 3 and the transportation network can be found in Chapter 10. Location and the proximity of a municipality to regional employment and shopping have also played an historic role in how and speed of which a community can change. The regional setting of Bethel Township is discussed in Chapter 2.

The character and pattern of land use in Bethel Township has been changing significantly. For example, the recent conversion of a tank farm to residential uses as well as increasing population, particularly since the year 2000, illustrate some of the change. Contrasting the change that the township has seen in the four year period 2000 to 2004 against change in population for the county, Chapter 6 highlights that the townships population increased by 34.0% while the county increased by only 0.50%. Using available population projections as set forth in Chapter 6, the Township is expected to increase by 2,489 persons between the years 2000 and 2020. This will result in a projected housing demand of approximately 800 new dwellings during this same projection period. Some of this growth and housing demand has already been absorbed by the township since 2000. A primary function of the future land use chapter will be to develop a concept not only to accommodate this anticipated growth but to also protect existing natural resources, be sensitive to historical and cultural resources and create compatibility with the existing development patterns of the township. The existing development patterns of the township can be found on the Existing Land Use Map.

Since the year 2000, there have been 747 new units constructed in the township. Of the 747 units, 480 were semi-detached, 243 attached and 24 were condominium. Reinforcing the building permit data from 2000 to 2005 is the occupancy certificates issued in the first six months of calendar year 2006 which are already approaching 300 certificates. These statistics seem to illustrate that the units in the pipeline appear to satisfy the obligation to accommodate growth during the projection period thru the year 2020. Needless to say however there is a healthy demand for additional housing needs that are being placed on the township and which must be anticipated as part of this chapter.

Delaware County Comprehensive Plan

Delaware County has for several years been preparing an update of the County-wide Comprehensive Plan. The draft of that plan is still under review and not presently available for comparison with the draft Bethel Comprehensive Plan. It should be noted that it is the obligation of the Township to ensure that its Comprehensive Plan is consistent with that of the County. In this case that will not be possible. As the County plan becomes available it should be reviewed and discussed by Bethel officials to gain an awareness of its impact on the community. As revisions occur to this plan amendments might be appropriate which emanate from the County planning process that should be considered.

Existing Land Use

The evaluation of current land use patterns is the first step in developing future land use plans. Much can be learned from the way various uses have evolved historically, especially with regard with the relationships to the natural features of the landscape and less evident factors such as geology, soils and hydrology. Additionally, the pattern of roadways developed through the Township can be a product of the location of the natural features which may be present. Historically, ridgelines and watercourses became natural features that were paralleled in the construction of the path system which ultimately developed into a road network. While Foulk Road is probably one of the best known roads in the Township, Bethel Road was the first road. Other early roads included Concord, Chelsey, Naamans Creek, Marsh, Ebright, Zebley, Kirk, and Goodley Roads. This early road network has been expanded but serves as the network that links the community today. The historical concept of road construction was to avoid steeply sloping areas and natural constraints which became obstacles to the movement of people and goods. From the limitations imposed by the natural environment and the formation of a roadway system early development forms started to evolve. The history of Bethel Township as chronicled by the Township Historical Society inventories the evolution and development of the Township starting in the year 1683, in remarkable detail. This effort has resulted in a permanent archive of information for future generations to understand how the Township historically developed and serves as a resource in this effort that brings a unique opportunity for those interested in early land use and development activities in the community.

The Township contains approximately 3,000 acres and is fairly well developed as a bedroom community serving employment and shopping centers in all directions. Historically those centers have been to the east and south with certain activities located in a northerly direction. From a land use perspective the tank farms have had a noticeable impact although the transition recently of one tank farm to a residential use raises the possibility of further changes to that land use type in the future of the remaining tank farm. Generally a significant pattern of low density residential uses can be seen through the central portion of the Township from the New Castle County line northward and eastward with a medium density residential pocket being located along Pyle Road at the western edge of the Township in the vicinity of U.S. Route 202. A significant medium density pattern of development located along most of the eastern edge of the Township from the New Castle County line to above the Route 322 corridor also exists. A high density residential pocket can be found along Garnet Mine Road south of Route 322 in the central-western portion of the Township located just north of the Tank Farm which is located along Garnet Mine at Kirk Road. Commercial uses are generally located at the Booths Corner area in the vicinity of Kirk, Foulk and Naamans Creek Roads. A significant issue is that existing land uses are the expected highway improvements anticipated along the Route 322 corridor.

Much of the Township is developed with few remaining vacant tracts to be developed in the future. Dealing with these vacant tracts as well as redevelopment / reuse issues become the challenge in preparing a Future Land Use Plan. The concept of creating compatibility in new development patterns with a well defined existing development pattern becomes the challenge. Questions of use types, density and intensity all have considerations in this evaluation. Additionally, balancing legal obligations with the reality that the Township is moving toward a fully developed state becomes a concern. As we examine demand for land use which can be seen in the population projections we carry the responsibility of creating a balance in response to the needs while maintaining the character which has and hopefully will continue to exist for the entire Township. That is to say retention of the community character also plays a significant role in the balancing process. The Existing Land Use Map, has been prepared to graphically demonstrate the patterns of existing development and to show those areas currently undeveloped. This map however does not address the other issue of areas in need of redevelopment or reuse which will be discussed more fully as part of the Future Plan discussion.

Learning from where we have been as a community is important in understanding where we are going as a community. This section is designed to bring an awareness to that process and give all parties the opportunity to reflect backward as we move forward

Natural Resource Preservation

Woodlands, biotic diversity, topography, water courses, scenic and historic elements, all act together in creation of the character of the Township. In spite of the developed state of the Township all of these elements have contributed to the rural images one thinks of when describing the community. As mentioned earlier in this chapter these natural qualities are often threatened by development, such as the changes that the Township has witnessed over the last 20 years. The protection and retention of these resources is fundamental to perpetuation of the Township image and character.

The Goals found in this plan address the need to protect and preserve natural, scenic, historic and biotic resources. The Implementation Chapter contains specific recommendations as to how each objective is to be accomplished. Additionally priorities for each action item with identification of the responsible parties or individuals designated to pursue the identified activity is set forth. Collectively these recommendations form a Resource Protection Plan that transcends all land and resources within the Township. Generally, the emphasis is on identification, documentation, and protection of the resources. It is also important to understand how the various resources relate to each other. For example, the relationship between topography and soils are best understood within the context of water courses which have the ability to erode soils unless proper stormwater management strategies are in place. As the identification, and documentation phases occur, protection standards become a critical part of the process. This will necessitate review of all these standards as a outgrowth of the comprehensive planning effort.

Conflict will arise as future growth scenerios are considered by the Township. The juxtaposed land use changes over the resource base will create these conflicts. The creation of the plan for the future will be a balance between these competing interests. The accommodation of future growth needs to be planned so as to be respectful of natural and historic resources which create the character that all existing residents enjoy for future generations. This approach while attempting to bring a balance also requires a discipline that municipal officials have to maintain. Use of commissions, interest groups, and concerned citizens are all valuable resources which need to be utilized in the implementation of this Comprehensive Plan.

Land Use Plan

The Land Use Plan is designed to portray in narrative and graphic form the important factors which will guide the Township with policies as to how they will react to changes in land use and future growth. As was discussed in the previous section a balancing of many and often times competing interest will have to occur. Not only the physical changes proposed to the land but its impact upon natural and historic resources and the affect on the infrastructure will need to be considered. This process leads to the development of a growth management strategy for the Township. The existing land uses as recorded upon the Existing Land Use Map is the origin of any plan to accommodate future development. Lands that are not developed are generally classified as open, agricultural, natural resources, public, or vacant. Additionally the Existing Land Use Map identifies the location of tracts which may be ripe for consideration for redevelopment. Anticipated growth will be accommodated on those lands that are currently vacant or on those lands scheduled for redevelopment. Fundamental to the accommodation of growth is also creating compatibility with existing uses. Many times this is accomplished by locating new uses adjacent to like kind existing uses. In other instances where like kind use placement is not possible development limitations to new uses should be considered.

After adoption of the Comprehensive Plan and before future development or rezoning of land is considered it will be necessary to review and possibly amend the existing zoning and subdivision ordinance for Bethel Township. The review and acceptance of existing standards, the evaluation of new performance standards, the appropriateness of natural and historic resource standards should, as a minimum, all be considered.

Another key factor in accomodating future development is the creation and retention of open space. The consolidation of protected natural features can create corridors of connected open areas which will serve many uses. These connected corridors not only become useful for recreational purposes but also serve as corridors for the movement of wildlife and biotic species within the natural habitats. These connected open space corridors should be integrated with existing open space areas, parks and other public lands such as schools to form connected networks. The concept of open space integrated into all forms of development is not new and has been done successfully for years through a variety of techniques such as clustering, open space set aside provisions, and planned residential developments. Fee in lieu of provisions to supplement the provision for a mandatory set aside of open space has also been used in a variety of municipalities and may have some value to the Township.

The open space methods and provisions in the existing zoning and subdivision regulations should be reviewed after the comprehensive planning effort is completed.

As mentioned earlier, new development should be coordinated with both existing development and existing and proposed infrastructure. The review of new land development plans must consider how each plan will expand upon and improve the pattern of development in the Township. A critical and unique portion of this challenge lies with the questions associated with the issues of redevelopment. As a community ages and some land uses become obsolete due to changing conditions, many of which are driven by infrastructure changes such as roads, vehicles to deal with these changes should be created within the plan to encourage re-investment into these properties. In many instances municipalities have been slow in understanding and reacting to this need and have lived with the slow transition of once viable properties to decay. The desire is to have all properties contributing to the welfare of the community as viable tax contributing and well maintained and used structures is essential. For this to occur incentives need to be examined that encourage this to occur. Review of building and impervious coverage standards; intensity and mixed use provisions all typically need to be examined. The purpose of the plan is not to propose these exact standards but rather to signal that this approach is appropriate in selected areas of the community as they have been identified by this planning effort. The future use or reuse of properties along the Route 322 corridor seem appropriate for analysis of new and innovative techniques being included into the amendment process associated with zoning and subdivision regulations at the conclusion of the comprehensive plan. A June, 2002 Route 322 Land Use Strategies Study, prepared by the Delaware Valley Regional Planning Commission, highlights the type of changes that are appropriate, and will require future action by Bethel Township to accomplish.

The plan for future land use after consideration of the various factors which need to be considered as outlined herein becomes fairly simple. The simplicity is brought about because of the dominate existing trends which exist.

The Existing Land Use Map highlights those properties which are currently vacant as well as those that are developed. Of note is the tank farm at Garnet Mine and Kirk Roads. This property is of some unusual importance because while it is currently developed and has for years been a contributing land use for the community, is subject to potential change similar to the conversion of the other old tank farm that recently converted to a housing development. The

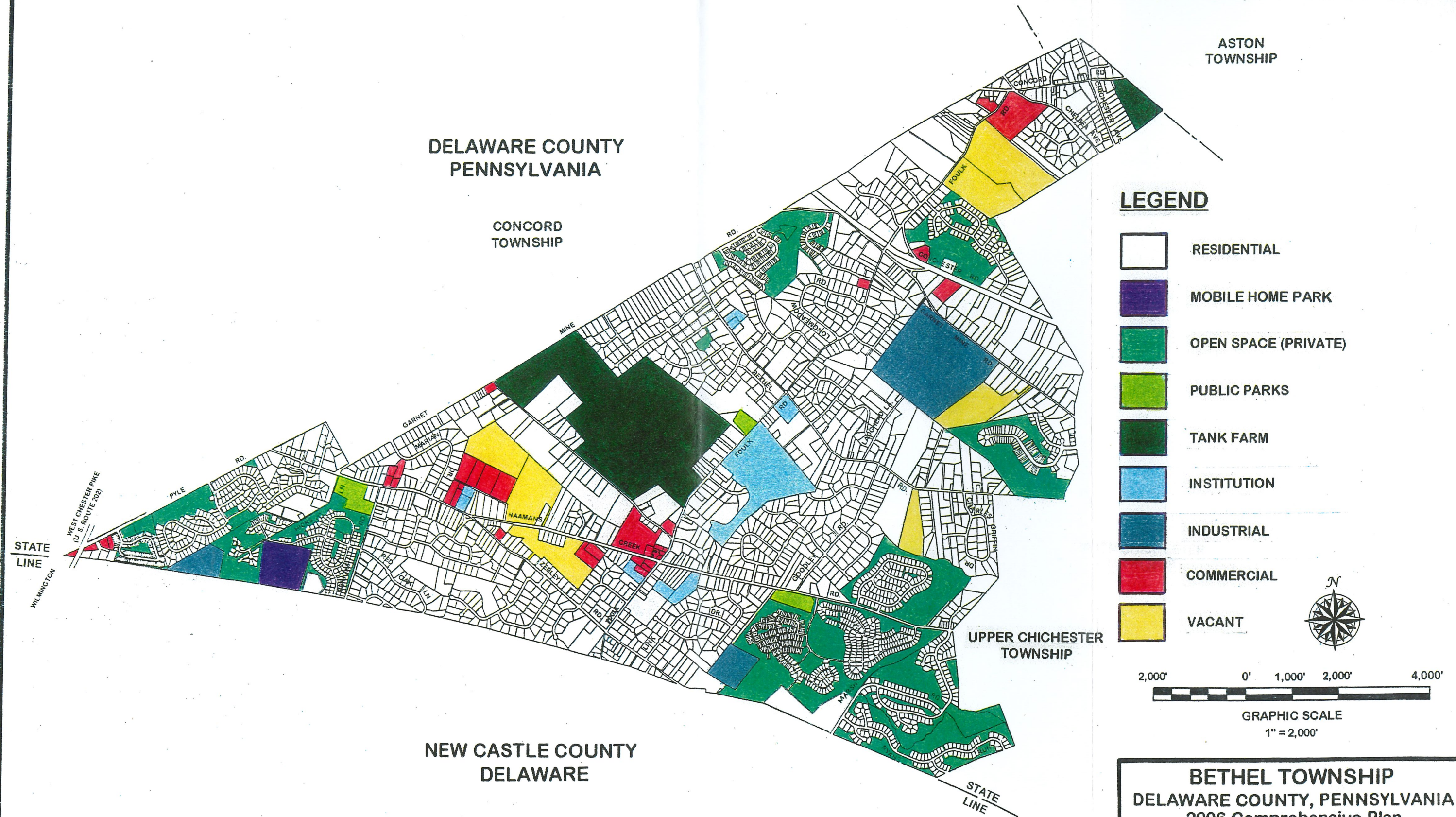
Future Land Use Map, Figure 7.2, while not advocating a change in land use to the existing tank farm suggest that if conversion is proposed that the nature of the conversion be compatible from a use and density stand point with surrounding land uses. This compatibility drives the substance of the remainder of proposed future land uses found on the Future Land Use Map. Of particular note is the Conchester Highway, the Route 322 corridor, where Highway Commercial / Mixed Uses associated with redevelopment may be appropriate. It is intended to further buffer this redevelopment corridor with Business Uses to the south as the land uses feather into the residential areas of the Township. As mentioned earlier proper standards will need to be incorporated to assure a smooth transition from one use type to another. Limited additional opportunity for additional Business and Commercial activities can be found to the north of the Route 322 corridor.

The commercial center of the Township is projected to continue to be the Booths Corner area. Limited expansion and some reuse may be appropriate within this area particularly if the tank farm is ever discontinued. The nature of this commercial area and development is more to a community scale rather than designed for highway business and commercial activities as envisioned for the Route 322 corridor area. Community scale means that particular emphasis will be given to the intensity of development in order to protect the surrounding areas.

The balance of the future land use map is designed to take existing and adjacent development trends and include undeveloped properties into those trends. The idea is to hold down the interjection or disruption of new uses to already well established neighborhoods.

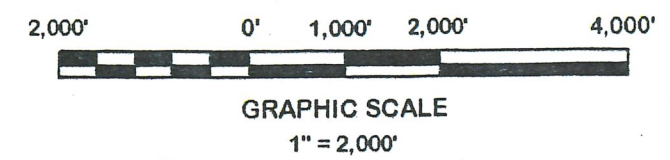
The planning question is whether this proposed pattern for future development can accommodate the anticipated growth that the Township can reasonably expect to occur in the 20 year projection period from 2000 to 2020. As mentioned in the Population and Housing Chapter the Township anticipates 2,489 additional residents during this 20 year projection period. The new residents will need approximately 800 new dwellings . Since the year 2000 the Township has issued permits or is considering plans for over 797 new units. Therefore it is reasonable to conclude that within the projection period the number of units required will be exceeded by the permits issued and perhaps built and that full accommodation within the land use scheme can occur. In particular it is noted that nothing within the scheme in dealing with issues as preservation or compatibility have inhibited the ability to accommodate the

housing needs of future residents while protecting the needs of existing residents. In fact it should be noted that additional opportunities exist within the proposed scheme for a variety of additional land uses which may be desired beyond the obligation that the Township carries in creating a land use scheme which is not exclusionary.



LEGEND

- RESIDENTIAL
- MOBILE HOME PARK
- OPEN SPACE (PRIVATE)
- PUBLIC PARKS
- TANK FARM
- INSTITUTION
- INDUSTRIAL
- COMMERCIAL
- VACANT



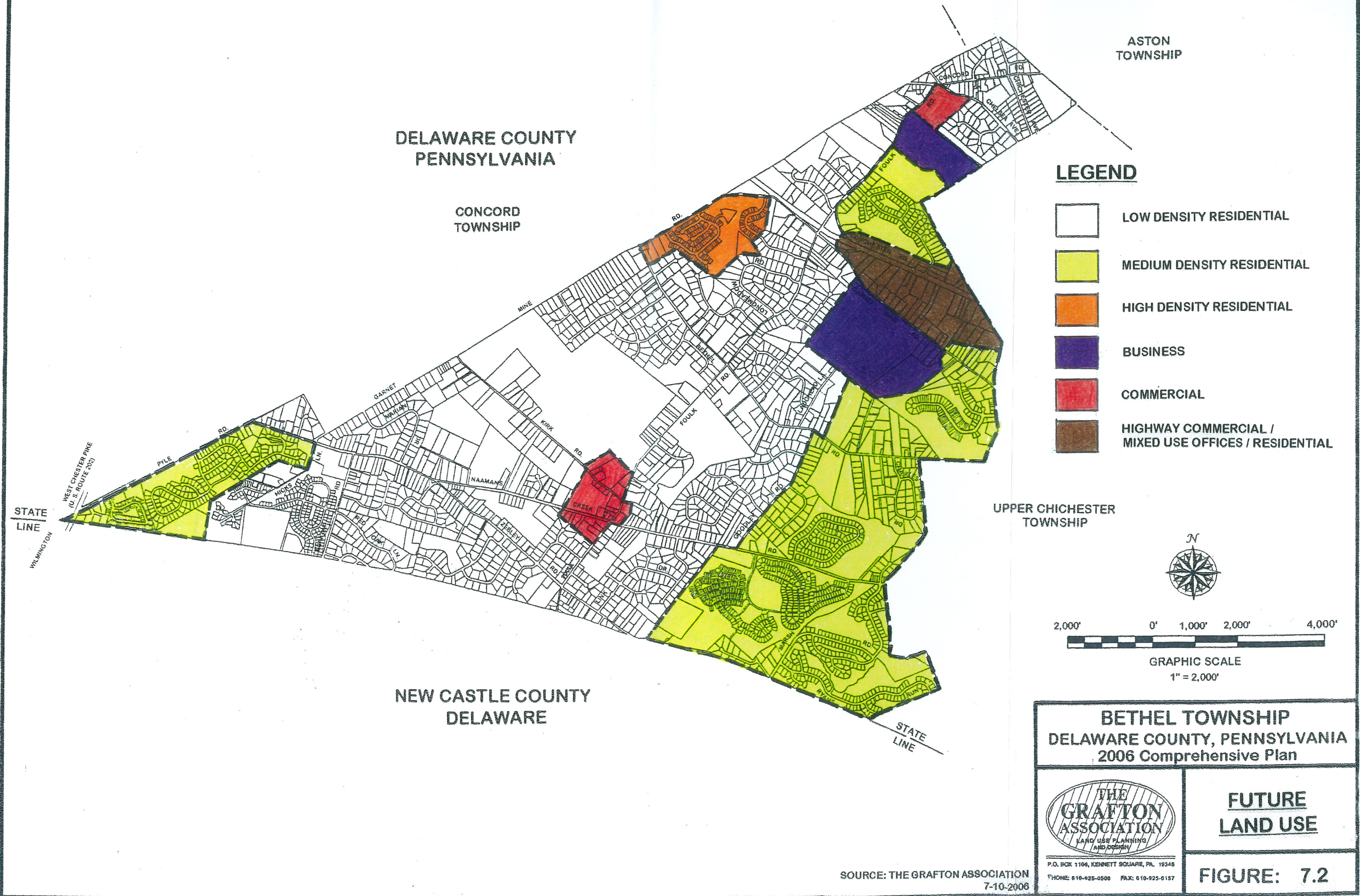
BETHEL TOWNSHIP
DELAWARE COUNTY, PENNSYLVANIA
2006 Comprehensive Plan

THE
GRAFTON
ASSOCIATION
LAND USE PLANNING
AND DESIGN

P.O. BOX 1106, KENNETT SQUARE, PA. 19348
PHONE: 610-925-0500 FAX: 610-925-0157

**EXISTING
LAND
USE**

FIGURE: 7.1



CHAPTER 8 HOUSING PLAN

The purpose of this Chapter is to focus on the issues related to both the current and future housing needs in Bethel Township. Chapter 6 of this Plan, Population and Housing, reported the historical view of population changes over time, projections of population into the future and development of the relationship between population and housing. The basis for all of the analysis has been the Census 2000 data gathered and reported by the U. S. Census Bureau. Population projections, and therefore housing projections, are based on past trends and accepted mathematical models.

Housing Needs

The population of Bethel Township in 2000 was 6,421 individuals. The total population is projected to increase to 9,540, a change of 3,119 or 48.6% by the year 2025. The projections have been prepared by the Delaware Valley Regional Planning Commission (DVRPC) and were adopted by Delaware County. In Chapter 6, a case was made for modifying the way in which population projections were used in creating housing projections.

As used in this Comprehensive Plan, the term "average household size" is the average number of inhabitants in an occupied dwelling unit, or the number of people in households divided by the number of households. Vacant dwellings are not included, nor are persons living in group quarters, such as college dormitories or nursing homes.

The average household size in 2000 was 3.16 and that figure was used in the projection calculations. Household sizes have been declining in general in most geographic areas over recent years, as measured by census and interim estimates, and it may be anticipated that the average household size in Bethel will also decline in the future. The decline in average household size is generally attributable to a greater number of single households, an aging population and fewer children per household. This will not be measured until the 2010 Census and if such does continue to occur, adjustments may be necessary in the population and housing projections. A decline in average household size with steady or increasing population projections would result in a greater number of housing units needed to accommodate growth. This phenomenon could result in greater amounts of land needed to provide the housing.

The pattern of existing land use illustrated on Figure 7.1 indicates that the availability of land suitable for future housing in Bethel Township is limited. Much of the Township has been developed with single family detached houses

and to a lesser extent, attached housing. In recent years the Township has approved several developments that contain attached and detached housing and significant amounts of open space, at a density greater than previously found in surrounding areas. As lands available for growth and development become more rare, housing concepts utilizing cluster design and higher densities are an option to provide for those who continue to find the Township a desirable place to live. Linked to this concept is the notion that future growth opportunities should be integrated into the existing pattern of land use. Specifically, the conversion of the two tank farms, and the redevelopment of the Route 322 corridor provide opportunity for expansion in a compatible village style on lands. See Chapter 7 for an expanded discussion of this housing potential.

Dwelling Unit Types and Densities

The Zoning Ordinance of Bethel Township provides different zoning districts for a variety of housing types in a range of permitted densities. The housing types permitted in the various districts are single family detached, single family attached (townhouse), semi-detached, garden apartments and apartments. Table 6.9 outlines the dimensional standards applicable density for each residential district within the community.

Table 6.9 demonstrates that the Township has a full range of opportunities that make it possible in the future to meet growth needs. It is the focus of this Comprehensive Plan to encourage future housing to be in a variety of compact forms with the provision of significant amounts of open space. The Zoning Ordinance offers a variety of districts, all of which satisfy this goal. Implicit with each of these options is the need for public sewer and water service. Another requirement of such density proposals is the need for direct access to roads of suitable design capacity.

Housing Plan

The Future Land Use Map in Chapter 7 identifies areas that are available for future growth. As noted in Figure 7.2 in that chapter, the parcels available for future growth, and housing in particular, are scattered throughout the Township. This is a beneficial condition that should allow future development to be of minimal overall impact. It is not possible to precisely forecast the number of potential units possible on available lands in the Township due to unknown factors such as the mix of dwelling unit types, the availability of lands for redevelopment and the potential subdivision of large lots.

The 2000 Census recorded 2,107 housing units in Bethel Township as noted in Table 6.10. It should be noted that the predominance of units were single family detached (86.3%). However, since the year 2000 up until 2005, 480 semi-detached, 243 attached and 24 condominium dwelling units have been constructed and occupied. These units have gone a long way in satisfying the anticipated population and housing needs during the projected planning period.

In addition, the Future Land Use Chapter identifies a land use strategy for accommodating future growth that is anticipated. As has been noted, many times in this Plan, the Township is moving toward a fully developed state and redevelopment of areas such as the Tank Farms and the Route 322 corridor will play more of a role.

Another form of future development is infill of residential units on parcels that are either currently vacant or have one residence that could be subdivided to allow additional building lots. This last method is not expected to yield significant numbers of units, but may occur randomly as the availability of building lots diminishes.

The extent of development on the Township limits the number of options and opportunities for future growth. The development of future housing will need to consider the ability to be integrated into the surrounding context. Additionally, the size and number of developable parcels available should encourage more compact forms of development and the provision of significant amounts of open space. The Existing Land Use Map in Chapter 7 clearly illustrates the extent to which the Township is developed. The majority of that development is single family detached housing. Recent developments have offered other housing types, including attached, semi-attached and condominiums. Those new developments provided areas of open space which provided buffering from adjacent existing development and a transition to the changing pattern. The provided open space further provides some outdoor recreation space for the residents. This Comprehensive Plan encourages the use of open space as a transitional element and encourages the Township to view open space as a requirement for higher density housing.

Another aspect of the Housing Plan is the conservation and preservation of existing housing stock. This is accomplished through the enforcement of Township housing and building codes, as well as by the economic inducement to maintain the real estate value of a property. The Township can assist homeowners in this effort by providing basic information about house and utility maintenance through bulletins and the internet. In addition, the removal of debris from private properties can be encouraged by providing periodic hauling

services. In some instances redevelopment is encouraged to re-energize a given area with new opportunities.

The conservation of all housing stock is important, however, the preservation of historic houses and all historic structures is indicative of the Township's heritage and character. Bethel Township has prepared an exhaustive inventory of historic structures, which has been discussed in Chapter 3, Existing Conditions, of this Plan. The evolution of this effort should lead to enactment of Zoning Ordinance amendments addressing the standards for uses and modifications to historic structures. Criteria for identification and adaptive use limits are only two areas that the Township and its Historic Commission should consider.

Fair Share Housing

The Pennsylvania Municipalities Planning Code (MPC) Section 301(a)(2.1) requires that a municipal comprehensive plan include a "plan to meet the housing needs of present residents and of those individuals and families anticipated to reside in the municipality, which may include conservation of presently sound housing, rehabilitation of housing in declining neighborhoods and the accommodation of expected new housing in different dwelling types and at appropriate densities for households of all income levels." This Comprehensive Plan proposes a variety of housing types based on current zoning of lands and the opportunity in some districts to create multiple housing types. There are lands in the Township that are zoned for this accommodation to occur, potentially filling a need for these types of units at a higher density. Several of the developments currently under review propose single family residences similar to the pattern and density of surrounding areas.

The intent of fair share housing, as a concept, is the provision and distribution of housing types, both geographically and economically. The issue of geographic distribution has been discussed already, but the issue of economic variety is more difficult to address. The economics of land development are based on many variables, including compatibility of the proposed development with its surrounding values. It is suggested that the geographic range from lands near Route 322 to areas near Booths Corner will allow for a range of economic real estate values to meet the needs of future residents.

Table 6.13 of Chapter 6, Population and Housing, developed the conclusion that 1002 additional housing units would be needed during the planning period before 2025. This chapter has identified 747 dwelling units recently approved and near construction. The balance of 255 dwelling units will have to be met by additional development plans. If spread evenly over the remaining years in the

planning period, only about 13 units a year would be necessary. These figures are, of course, built upon forecasts developed from past trends and the most recent census. Even though the figures may need adjustment in the future, it can be anticipated that no radical changes will occur.

Growth will continue to come to Bethel Township. Its location near major employment and commercial centers and a regional transportation network make it well suited for expansion of its residential base. The availability of land and the existence of a Zoning Code which provides a full range of housing options will allow the Township to process new applications in a manner consistent with past practices. Of considerable interest should be planning for potential village-oriented development near the Route 322 corridor. This area offers opportunities for design standards to be applied to defined areas with historic character and to contain a wide variety of housing types and services.

Summary

The future housing needs of Bethel Township cannot be met with the extension of the single family detached, large lot pattern of development prevalent in the past. The Township has already recognized this with the encouragement and approval of several recent developments of higher density, which also provided significant amounts of open space. This is a trend that should continue. Future opportunities have been provided in the Land Use Scheme as depicted on the Future Land Use map. It is expected that the Township will be able to meet the projected housing needs through this combination of approaches, utilizing approved plans and areas planned for new growth.

CHAPTER 9

NATURAL RESOURCES AND OPEN SPACE PLANS

Natural Resources Plan

Bethel Township in Delaware County has been identified as having a strong rural character based upon its agrarian heritage. The presence of abundant natural resources has, in large part, influenced that character. It is the intent of this chapter to establish the importance and significance of the Township's natural resources and to address means to preserve and perpetuate them. Chapter 3, Existing Conditions, of this Comprehensive Plan provides an inventory of natural resources with descriptive information and mapping. This Natural Resources Plan will expand on the inventory by advancing conservation and preservation techniques. It is a requirement of the Pennsylvania Municipalities Planning Code (MPC), Section 301. It is not the intent of this plan to supersede various acts of the State legislature which pertain to various elements of this plan, but to propose methods to preserve significant quantities and qualities of resources.

A variety of techniques will be discussed, depending on the nature of the resource, its degree of threat, the consequences of not protecting it, and its geographical context. The natural resources which will be evaluated here are as follows:

- Topography
- Hydrology and Surface Waters
- Soils
- Biotic Resources

Topography

Bethel Township, like most areas of the Piedmont region, has a variety of topographic conditions, ranging from relatively flat or gently sloping land to isolated areas of very steep terrain. Topography is defined and mapped by contour lines, which are lines which have a constant elevation. Any point along a contour line will be the same elevation as all other points on that line. The degree to which a given area is sloped is measured by relative differences between contour lines and is expressed as slope. Slope is a mathematical relationship between vertical rise compared to horizontal run. The calculation of slope is, therefore found by dividing the rise by the run when both are expressed in the same terms. A slope of 10% is found when there is a rise of 10 feet over a run of 100 feet, or any other similar proportional relationship.

The Zoning Code of Bethel Township regulates the disturbance of steep slopes in the Township.

The value to the Township in regulating disturbance to steep slopes is retention of soils on those slopes, rather than potential erosion that causes siltation of streams and wetlands. There are some land uses that can be accommodated on steep slopes, while others usually result in erosion. The factor involved is the amount of impervious surface, such as roof areas, parking lots and roads found on the steep slope. Stormwater runoff from these areas is concentrated at edges, often resulting in erosion unless the slopes are stabilized with plant material or structures to retain soil. Examples of uses which can be sustained on steep slopes are passive recreation areas, woodlots and orchards. Generally areas of intermittent steep slopes are found near creeks and associated tributaries.

The following recommendations are made in order to address the current limited regulation of development on steep slopes:

- The Township should consider an amendment to its Zoning Code to expand the regulation of steep slopes. It is suggested that two overlay zoning districts be created Precautionary Slopes of between 15% and 25% should be described and subject to certain permitted uses. Prohibited Slopes greater than 25% should be more highly regulated, with the goal being very limited permitted disturbance. The two overlay districts should apply to all land within the Township. Permitted uses for each district should be carefully considered so as to be of minimal impact.
- Adopt an appeal and approval process for applicants to demonstrate an ability to disturb steep slope districts while still adhering to the intent of the Steep Slope legislation.
- Implement design standards for all development to address the need for vegetative cover to stabilize soils regardless of slope. This should include best management practices for agricultural operations.

Hydrology and Surface Waters

Surface waters in the Township are small streams and drainage channels associated with various streams. This discussion of hydrology includes floodplains, wetlands and riparian areas in general. Along with the surface waters, all of these elements can be seen as a system of drainage, responding to the effects of topography over the soils and vegetation. Each of these has

been described and quantified in Existing Conditions. Their significance within a Natural Resources Plan is the sensitivity of such areas to development either on them or upstream of them.

Hydrologic systems within the Township are subject to regulations found in the Zoning Code, however, only the floodplains are regulated. The Code contains a Floodplain Conservation District as an overlay zoning district. The overlay district is defined as being the 100 year floodplain as interpreted by the Federal Emergency Management Agency (FEMA) or as an area containing alluvial soils. The floodplain is made up of the floodway, flood fringe and in some cases, an approximated floodplain. Reliance is placed on stream mapping by FEMA for delineation of floodplains. The maps are known as Flood Insurance Rate Maps. The Zoning Code also provides permitted uses within the Floodplain Conservation District as a matter of right, as a Special Exception and as a Variance. Further, there are some uses that are specifically noted as being prohibited in affected areas.

The intent of regulating floodplains is related both to public safety and protection of property as well as to maintenance of high quality water bodies. Flood prone areas are regulated to minimize loss of life and property from flood occurrences. , but of additional concern is the stability and health of the streams themselves in terms of water temperature, chemistry, silt content and aquatic habitat. The concept of a riparian system of integrated elements is regulated by many municipalities in recognition of the interrelationships of the above elements. In most cases, an area of defined dimension beyond the edges of the floodplain and wetlands is regulated as to use and as to the need to provide vegetative stabilization. Trees and other plant materials planted along a stream not only provide bank stabilization, but also shade to cool the water. Fish and other aquatic species are very susceptible to over-heated stream habitats. The following recommendations are based on the existing legislation in the Zoning Code and the need to expand its intent and effect:

- Maintain the Township's Floodplain Conservation District as a zoning overlay district and consider combining it with wetlands and riparian buffer areas, comprising a comprehensive Natural Features overlay zoning district.
- Permitted uses within the Floodplain Conservation District should be reviewed as they pertain to uses by right, Special Exception and Variance. The intent should be to permit only the most minimal disturbance. The granting of relief should require demonstration of improvement to the floodplain system.

Soils

In a more agriculturally oriented municipality than Bethel Township, the issue of soils would involve the retention of high quality agricultural soils. Although there are areas with the Township still being farmed, the predominant land use is housing. This is not to say that there should not be a concern for soil retention. As the Township continues to develop, more impervious surfaces, such as roof tops, parking lots and roads are created. Stormwater runoff has less surface area in which to infiltrate the ground, resulting in runoff into drainage channels. Where runoff is concentrated, erosion of soils can, and usually does, occur. Efforts need to be made to manage stormwater on-site, so as to control and limit erosion. The following recommendations are offered toward the goal of maintaining the soils and eliminating siltation of streams.

- Stormwater management regulations should be reviewed in the Zoning Code and Subdivision and Land Development Ordinance for effectiveness in controlling runoff both on-site and regionally.
- Requirements for stabilization of soils with vegetation should be reviewed and enhanced as necessary in conjunction with stormwater management.
- Development regulations should be reviewed for their ability to limit and minimize disturbance within a construction area. Regrading of development sites should be minimized and the removal of topsoil discouraged.

Biotic Resources

The presence of all forms of plant material contributes to the green image of the Township. The Township contains numerous woodlots, on both public and private lands. In some cases, these wooded areas are connected, and are often found on steep slopes associated with streams and creeks. Large single family detached residential lots are also often wooded, either through retention of existing trees or the continual planting of new trees. Examples of denser forms of housing developed in recent years have retained wooded areas in the form of open space. Collectively, these vegetative elements combine to form an image of the Township which is rich with plant life.

The value of large amounts of plant life to the Township is not only aesthetic, although that is important, but is also critical to wildlife. Many small animals, including birds, inhabit wooded areas. The connectivity of the woodlots allows for the movement of wildlife with some protection from predators. Besides

providing habitat for wildlife, vegetation also provides the valuable function of stabilizing soil. This is particularly important along water courses where erosion can be limited by a dense network of plant roots. Naturally occurring plants should be retained and, where absent, suitable plants should be placed along streams. This concept is related to the earlier recommendation for the regulation of riparian areas.

Below are recommendations that relate to the retention and enhancement of biotic resources in the Township:

- Adopt regulations in the Zoning Code that limit the cutting of trees over a given size without Township approval. Criteria should be the health of the tree and protection of residents and property. Consider requiring the replanting of trees in a quantity of twice the number cut.
- Explore the use of conservation easements and land trusts to preserve natural wooded areas as an alternative to purchase by the Township. Limited public use can be established.
- Utilize educational means to inform Township residents of the value of biotic resources and the need to preserve them, even on an individual lot basis.
- Continue to review new development plans for opportunities to connect open space into networks, not only for the recreational use of residents, but for the habitat benefits to wildlife.

Conservation Areas

The previously described recommendations for preservation and protection of natural areas have involved individual initiatives aimed at single features. Another approach to preserving these areas within the Township is the establishment within the Zoning Code of Conservation Area regulations. The degree of sensitivity of a given feature, such as steep slopes, could be regulated by being placed in either a Primary or Secondary Conservation Area. This approach recognizes the connected relationships between various elements and may eliminate duplication of regulations where more than one element is present.

If this method is chosen, it is recommended that a Primary Conservation Area contain use and disturbance regulations for the following natural features.

- Very steep slopes, over 25% slope
- Soils with seasonally high water table
- Wetlands
- 100 year floodplains
- Riparian buffer areas, 100 feet beyond floodplain or wetland.

A Secondary Conservation Area could be established containing use and disturbance regulations for the following natural features.

- Steep slopes, 15% to 25% slope
- Wooded areas
- Watersheds
- Scenic viewsheds
- PNDI sites

Some expansion of the PNDI (Pennsylvania Natural Diversity Inventory) concept is warranted. A State-wide inventory of natural features was initiated in 1982, resulting in an extensive database. In 1992, the Pennsylvania Science Office of The Nature Conservancy published "Natural Areas Inventory" for Delaware County. This document provides descriptions of locations throughout the County where documentation exists for significant natural areas and wildlife habitats. These areas are significant primarily for their plant communities and wildlife habitat opportunities.

Open Space Plan

The previous discussion of a Natural Resources Plan is focused around conservation of various natural features of environmental importance. The Open Space Plan should encompass those efforts as well, but its aim is to provide not only parcels of open space and parks, but networks of those spaces with an emphasis on connectivity. The Township has in the past acquired significant property holdings which today function as active and passive parklands for the residents. These public parks are augmented by areas of open space associated with residential developments, owned and maintained by the residents of the development. Still other areas of open space are privately owned lands that are undeveloped. All of these areas contribute to an overall image of open space in the Township.

The above noted open spaces differ in their degree of public access, from complete to none. The intent of an Open Space Plan component is to offer recommendations for increasing the accessibility of existing areas and creating new open space areas. Although fee simple purchase of properties is a means of ensuring long term public accessibility, the financial burden of such a means

is not realistic. Other techniques must be sought. The following list of open space elements should be considered as part of the planning process.

- Public open space
- Private open space
- Conservation easements and land trusts
- Scenic resources
- Historic resources

Summary

The Natural Resources Plan of this chapter has provided recommendations for various natural features within the Township that may be currently regulated and need additional emphasis or are not currently regulated. For instance, the Zoning Code provides some regulation for development on steep slopes, additional attention to this area is needed to make the regulations applicable to all areas. Within the area of hydrology and surface waters, it is recommended that the existing Floodplain Conservation District be expanded to include wetlands and riparian buffer areas. Soil retention should be updated by a review of stormwater management regulations and emphasis on vegetative ground cover to stabilize soils. Biotic Resources could be improved by restricting the cutting of trees and a requirement for the replacement of trees that are permitted to be cut. Lastly, it is recommended that, collectively, the natural resource issues could be comprehensively managed by the development of a consolidated Primary and Secondary Conservation Areas.

The Open Space Plan contains recommendations for the management of open space through the use of development dedications, conservation easements and land trusts. The Township currently owns well distributed areas of public parkland. It is recommended that the other public parks be considered for specialized, passive recreational uses not being currently met. Private open space should be considered as part of the network of open space and, when appropriate, used as linkage between other open spaces. Besides the dedication of open space, with ownership held by a public or private entity, the use of conservation easements and land trusts should be expanded. These techniques allow an owner of land to designate all or a portion of land to specified purposes available to the public. The Township should consider the value of its scenic resources by identifying specific areas with high visual quality and creating development regulations that respects and maintains such areas. Historic resources are abundant in Bethel Township and much effort has been expended in documentation. It is recommended that the Zoning Code be strengthened in regard to historic preservation by the creation of regulations aimed at retention and adaptive reuse of historic structures.

CHAPTER 10 TRANSPORTATION

The subject of transportation is broader than the most obvious component of automobiles and trucks and ranges from pedestrian trails to public transit. In the case of Bethel Township there are most forms of transportation either within the Township or nearby, as in the proximity of Interstate 95 to the east. Bethel Township contains no airports or marine facilities, but has ready access to both. Until 1956 the Township was home to Benedict Airport which was located at the intersection of Kirk and Garnet Mine Roads, with hangers along Kirk Road. After the airport ceased operation, the land on which it was located was occupied by the Laurel Tank Farm and remains so today. Similarly in the past, bus service was provided to Bethel Township by the Short Line Bus Company. The company operated bus service along Wilmington-West Chester Pike (Route 202) from Chester to West Chester. This chapter of the Comprehensive Plan will analyze the framework of the current transportation network and address alternatives such as trails, transit opportunities, regional connections and future plans.

Bethel Township has a transportation network of roads based primarily on motorized vehicles. Most of the primary roads are located where they were several centuries ago and reflect the historical heritage of the community. Today, the network of roads varies from arterials to local roads. There are no major commercial or institutional centers in the Township that serve as transportation destinations, although Booth Corner and the schools attract vehicles on a regular basis. Much of the population commutes out of the Township for employment and the same may be said for major shopping. By virtue of its location relative to nearby destinations, much of the traffic passes through on major or minor arterials.

Regional Transportation Pattern

There are three arterials that make up the framework of major roads in the Township. Foulk Road (Route 261) is oriented generally north – south and enters New Castle County, Delaware to the south and proceeds northeasterly into Delaware County. Two roads traverse the Township generally east-west. Naamans Creek (Route 491) which passes through southern Bethel Township connects Wilmington-West Chester Pike (Route 202) to the west with northeastern New Castle County, Delaware and Naamans Road. Wilmington-West Chester Pike becomes Concord Pike at the Pennsylvania/Delaware state line. Conchester Road (Route 322) passes through the northern sector of the Township, connecting Route 1 near Concordville to Interstate 95 at Chester.

These three roads are the major connections to points beyond the Township, as well as the access to many local roads. On a secondary level, Garnet Mine Road forms much of the western boundary of the Township while Bethel and Kirk Roads cross the Township in a northwest – southeast orientation.

As noted earlier, destinations beyond the Township are readily attainable on the road network. Wilmington-West Chester Pike (Route 202) to the west is a corridor of extensive commercial and employment centers. The distance from Booth Corner in the Township to Wilmington-West Chester Pike (Route 202) using Naamans Creek Road is only 2.46 miles. Similarly, the distance from the same point, which is generally central to the Township, to Naamans Road and an I-95 interchange is about 3.60 miles. Both Wilmington-West Chester Pike (Route 202) to the west and I-95 to the east provide access to many regional destinations, including Wilmington, Newark (Delaware) and Baltimore to the south and Chester, Philadelphia International Airport and downtown Philadelphia to the northeast.

There are no railroad lines within the Township, but access to the Amtrak and Southeastern Pennsylvania Transportation Authority (SEPTA) systems may be had at the Marcus Hook Station near Route 13. Train service to the north and south is available at that location where a parking lot for commuters is located. SEPTA operates a bus line which does serve Bethel Township with a route along Conchester Road (Route 322) in the northern part of the Township.

Functional Classification System

Public roads within the Township vary in size, configuration, actual trips and capacity. These characteristics can be categorized into a limited number of classifications, or functional classifications. Transportation planning agencies use these classifications to evaluate the effectiveness and efficiency of a road network. The roads in Bethel Township are part of much larger network since traffic flow seldom considers municipal boundaries unless there are significant differences in land uses or other features that would cause a change in roadway conditions. Figure 10.1, illustrates the functional classifications within the Township and the contiguous parts of adjacent municipalities in Delaware County. Route 322, Conchester Highway, is the highest classified road as an Urban Other Principle Arterial. Between that designation and the pattern of local roads are Urban Collector, Urban Local and Urban Minor classifications.

Each classification is intended to operate within established traffic parameters. When those parameters are exceeded, solutions must be found in order to maintain safe and efficient conditions on the road segment. The most common

solution to the volume problem on a road is to expand its capacity, usually by adding lanes. Incentives to lower traffic volumes, perhaps during peak hours of use, may also be employed. In Bethel Township, as is discussed later in this chapter, there are three PennDOT transportation improvement projects; Route 322, Naamans Creek Road and Wilmington-West Chester Pike. The Route 322 and Wilmington-West Chester Pike projects are clearly of regional significance with only a short amount of frontage in the Township. The Naamans Creek Road project, to be completed in the fall of 2006, involves a three-foot widening of travel lanes and improvements to certain vertical and horizontal curve alignments. When other road segments meet the threshold of failing to conform to design standards, improvement projects will be proposed. Such proposals can be initiated locally, but usually occur after study by the regional transportation agency; in this case, Delaware County Planning Department and the Delaware Valley Regional Planning Commission (DVRPC).

Existing Conditions

All of the roads in Bethel Township are undivided, single lane in each direction and vary by whether or not a shoulder is present and by general geometry. The only exception is Conchester Road which is being reconstructed as a four lane divided highway. As the Township has maintained an active road maintenance program over the years on locally owned and maintained roads, the condition of the road network is generally good but can always be improved. The volume of traffic over Township roads increases continuously, with an increase in vehicles in the region that may use Township roads to either travel to local or regional destinations. Most roads within the Township are either owned by the Township or by the State. State roads are those which carry State numbers, as shown in Table 10.1. With the exception of private roads located in Belmont, Winterset Farms and Foxfields, other roads are owned and maintained by the Township with local funds. New roads add to increased maintenance by the Township.

On a local basis, the number of new residences, and therefore families, in the Township continues to rise, generating increased travel on the roads. One measure of the use of roads is traffic counts. The Delaware Valley Regional Planning Commission collects traffic volume information for key road segments and publishes the information for the use of transportation planners and municipal officials. Table 10.1, AADT Traffic Counts which follows, summarizes the most current traffic data available for Bethel Township. Included in the table are traffic counts taken over the period from 1998 to 2004 for various road segments. AADT, or Average Annual Daily Traffic, is a number which has been

Table 10.1

Bethel Township
Delaware County
Average Annual Daily Trips

Road Name	Route Number	From	To	Date	AADT	Direction
Concord Rd.	3007	Chichester Ave.	Valley Brook Rd.	1998	8,592	Both
Kirk Rd.		Foulk Rd.	Garnet Mine Rd.	1998	1,893	Both
Foulk Rd.	0261	Garnet Mine Rd.	Foulk Rd.	1998	8,165	Both
Ramp (On - Off) Rd.		Garnet Mine Rd.	Conchester Hwy.	1998	622	Both
Bethel Rd.	3017	Foulk Rd.	Summit Ln.	1999	1,291	Both
Naamans Creek Rd.	0491	Taylor Dr.	Zebbley Rd.	1999	7,432	Both
Foulk Rd.	0261	Trimble Rd.	Brookcroft Ln.	1999	8,150	Both
Ramp (On - Off) Rd.		Conchester Hwy (west bound)	Foulk Rd.	1999	2,904	Both
Naamans Creek Rd.	0491	Featherbed Ln.	Garnet Mine Rd.	1999	9,802	Both
Garnet Mine Rd.		Foulk Rd.	Larkin Rd.	1999	1,633	Both
Concord Rd.		Chichester Ave.	Foulk Rd.	2000	9,017	Both
Bethel Rd.	3017	Colonial Dr.	Goodley Rd.	2000	2,165	Both
Naamans Creek Rd.	0491	Larkin Rd.	Goodley Rd.	2000	7,448	Both
Garnet Mine Rd.	3038	Kirk Rd.	Weeks Dr.	2000	2,746	Both
Garnet Mine Rd.	3038	Bethel Rd. (north bound)	Bethel Rd. (south bound)	2000	3,169	Both
Wilmington Pike	0202	Delaware State Line	Pyle Rd.	2000	17,246	North
Garnet Mine Rd.		Foulk Rd. Ramp	Maher Blvd.	2001	1,236	Both
Foulk Rd.	0261	Kirk Rd.	Bethel Rd.	2001	9,446	Both
Zebbley Rd.		Naamans Creek Rd.	Delaware State Line	2001	2,808	Both
Chichester Ave.		Chelsea Rd.	Concord Rd.	2001	6,665	Both
Foulk Rd.	0261	Bethel Rd.	Arbor Dr.	2001	7,348	Both
Naamans Creek Rd.	0491	Goodley Rd.	Larkin Rd.	2001	8,131	Both
Pyle Rd.		Wilmington Pike	Jewel Davis Dr.	2001	2,402	Both
Foulk Rd.	0261	Colonial Dr.	Concord Rd.	2001	10,780	Both
Garnet Mine Rd.		Bethel Rd.	Conchester Hwy. Ramps	2002	2,076	Both
Foulk Rd.	0261	Garnet Mine Rd.	Foulk Rd.	2003	6,748	Both
Ramp (On - Off) Rd.		Garnet Mine Rd.	Conchester Hwy.	2003	1,871	Both
Concord Rd.	3007	Chichester Ave.	Valley Brook Rd.	2003	8,715	Both
Marsh Rd.		Naamans Creek Rd.	Delaware State Line	2004	1,497	Both
Garnet Mine Rd.	3038	Conchester Hwy (west bound)	Foulk Rd.	2004	2,301	Both
Chelsea Rd.	3031	Chichester Ave.	Concord Rd.	2004	5,171	Both
Bethel Rd.	3017	Foulk Rd.	Summit Ln.	2004	1,746	Both

Source: DVRPC

adjusted from actual counts to represent a typical day, discounting variables such as days of the week, holidays, weather events or construction.

There are three transportation projects in Bethel Township currently being funded by the State Department of Transportation. The first project is Route 322, Conchester Highway, sometimes referred to as Conchester Road. Its entire length from Route 1 near Concordville in Concord Township to I-95 in Upper Chichester Township is included in the Fiscal Year 2007-2010 Transportation Improvement Program (TIP) of DVRPC. No construction money is allocated in the TIP; however, construction funds will be added to the TIP when the project proceeds to that phase. This project calls for the widening and dividing of the roadway, relocation of a salt shed and creation of wetlands. Most of the construction money allocated is scheduled for 2008 and beyond. The second is Naamans Creek Road which is to provide a three-foot widening of travel lanes and improvements to certain vertical and horizontal curve alignments. Although only a small portion of the project is located within the Township, the third is Route 202, Wilmington-West Chester Pike, which project includes widening and intersection improvements that will provide increased mobility for Township residents.

Traffic Problems

The following traffic problem areas have been identified by the Township as requiring solutions to be addressed during the planning period.

1. The intersection of Foulk Road and Concord Road into which Chelsea Road feeds creates a five point intersection that is the source of backups during peak travel times, a concern for managing the traffic volume and preserving the historic properties.
2. Kirk Road is too narrow to handle the increasing volume of traffic and all left turns have become increasingly difficult.
3. The intersection of Bethel and Foulk Roads is the scene of many accidents however a traffic signal, to be installed by March, 2007, should help to minimize the number of accidents.
4. Any left turns onto Naamans Creek Road are very difficult.
5. The Garnet Mine Road ramp onto Route 322 is poorly designed.
6. The intersection of Foulk and Garnet Mine Roads is the scene of many accidents.

7. The intersection of Goodley and Bethel Roads is the scene of accidents occurring while drivers attempt left turns.
8. Potential serious accidents are likely on Garnet Mine Road between Foulk and Larkin Roads since the road contains numerous driveways and is traveled at high speeds.
9. Foulk Road from Five Points to Colonial Drive has serious problems with horizontal and vertical curves.

Non-Vehicular Transportation

The use of transportation means other than motorized vehicles has been cited by transportation planners as a means of reducing the volume of traffic on the roads and limiting the need to continually expand the roadway capacity. Generally speaking, this topic would include walking and bicycling paths connecting destinations within the Township and beyond. Destinations might include schools, shopping centers, business parks, recreational parks, and housing developments. In the case of Bethel Township, there is no path or trail system connecting these various features currently. It is, however, something that should be considered whenever open space issues are being discussed or when new development plans are presented to the Township.

Opportunities to create segments of trail networks often occur when a proposed development is in the planning stages. Open space provisions for a new project can include internal trails that can be located so as to connect to other trails in the region. The origin of other trails may be from municipal lands such as parks or other public facilities. Trails within a park, for instance, should be laid out so as to have connection possibilities to other parts of a network. Yet another trail option is the use of natural feature corridors and utility rights-of-way. Stream valleys and their associated floodplains can provide suitable locations for trails that not only serve a recreational purpose but also extend significant distances and may connect various Township destinations. The ability to use stream corridors may require the establishment of easements in the case of public use of private properties. In a similar manner, utility lines, either above or below ground, can offer opportunities for trail networks when coordination with the utility company occurs. These utility rights-of-way or easements each have specific regulations and requirements which may or may not allow for their use as a trail. In the case of Bethel Township, there does not appear to be a major corridor which can be identified to serve as a trail component, although portions of sanitary sewer rights-of-way or easements may allow for the creation of portions of a trail system.

The most obvious of trail locations may be along existing roads in the Township. For safety reasons this may not be the best location, but the road network is well established and offers the opportunity in many locations for sidewalks and shoulders that can be used by pedestrians and bicyclists where safety can be assured. Sidewalks within the Township should be inventoried and plans made for connections to major destination points. In reality, the optimum location for a non-vehicular trail network is a combination of types of corridors that interconnect to form a system. This network can serve both a recreational purpose and a functional one. Besides recreational hiking and biking, a trail can provide a way for children to get to schools and parks, as well as a means for adults to go to a local store or workplace. The Township should also investigate pipeline and sewer easements and stream corridors for possible inclusion in the trail system. The Parks and Recreation Commission should develop a concept for how all corridors and sidewalks relate to each other in best providing for pedestrian movement.

Delaware County has recently concluded a regional bicycle study, resulting in a draft Bicycle Plan which inventoried recreation areas, bike trails, school locations, transit routes and other features that relate to a network of bicycle routes. On-road bicycle facilities were mapped and prioritized as improvement areas from primary to tertiary. Within Bethel Township, there are several road segments included that relate to a larger system throughout the County. Through the northern tip of the Township, Concord Road is listed as a primary improvement area connecting Concord Township to the west to Aston Township to the northeast. In the same area, the northern end of Foulk Road is a tertiary improvement area connecting to the Chester Heights area. In southern Bethel Township, Naamans Creek Road, Route 491, is included as a tertiary improvement area from Concord Township to the Delaware State Line near Naamans Road in New Castle County. Collectively, these are roads that the County believes have potential with improvements to serve as on-road bicycle routes. On a local basis there are additional roads that feed into these County designated routes, thus forming a network that would enable any resident access to either local or distant destinations.

Regionally, the County Bicycle Plan also identified existing and proposed trails that have broader significance than those described in Bethel Township. None of these are actually in the Township, but three are proposed trails through nearby municipalities that could be easily accessed by Township residents once they are established. West and north of Bethel Township is a proposed route generally coincident with Route 1 through Chadds Ford and Concord Townships, extending to Chester Heights. Another proposed trail is the Chester Creek Trail connecting Chester Heights to Chester. A third proposed trail is the East Coast Greenway which passes through Delaware County along Routes 13

and 291 in the region of Marcus Hook, Chester and the John Heinz Tinicum Wildlife Refuge.

Public Transit

As noted earlier in this chapter, SEPTA operates a bus line (Bus 119) on Conchester Highway through the northern sector of the Township. Numerous stops are made along the route including Clayton Park and Larkins Corner in Upper Chichester Township. Otherwise there are no true transit services in the Township. Within the subject of transit, it is appropriate to discuss other transportation elements that relate. One such element is the use of cars or vans to access transit facilities, such as car pooling and park and ride sites. In order to reduce the number of vehicle on the roadways and limit congestion, a municipality can encourage greater occupancy of vehicles through car pooling. One of the greatest obstacles of such a program is connecting those interested in car pooling through an organized information base in which individuals could access data about times, places and destinations. Such a program can be provided locally, but in most cases is organized by a regional transportation management association. The Delaware County Transportation Management Association is the regional organization that represents the needs of County residents and businesses and coordinates those needs with transit organizations. Another related program which involves facilities is a park and ride location where individual can leave a car in order to transfer to a transit vehicle or a car pool. Such facilities or parking lots need to be strategically located to serve the most commuters and be coordinated with the transit provider. For instance, if surveys found that there would be potential ridership of the SEPTA line on Conchester Highway, a park and ride facility within the Township could be established. This would require cooperation with SEPTA and would involve the region of municipalities, not just Bethel Township. It may not be warranted currently due to a lack of potential ridership, but the Township should continue to monitor such needs for the future.

Transportation Plan

Road Network - The Township needs to continue to monitor the condition of its road network and project funding for needed maintenance, including surface conditions and snow removal. The safety of motorized vehicles, pedestrians and bicyclists using the right-of-way should be paramount. As funds are available, non-vehicular facilities, such as marked bike routes, should be undertaken.

Trails - As the Township continues to grow in population, there will be an increased need to provide alternatives to the road network for pedestrian and bicycle usage. An open space study needs to be prepared that will address how the Township can preserve and conserve its open space. One facet of such a study would be the connectivity of open space through the use of trails in open space corridors. The management of open space through a system of public and private holdings can provide an element of relief from the development pattern for both residents and wildlife.

Transit - Bethel Township is not currently in a situation with its population and density that public transit is a major issue. As growth occurs, more attention will need to be focused on ways to limit the dependence on automobiles by providing alternative forms of transportation and combinations of travel modes. The use of park and ride lots is a common type of facility used in some communities as a way of linking the car with mass transit. Bethel Township should coordinate with transit agencies and surrounding municipalities about ways to accomplish such transit related facilities. Consideration should be given to a possible "Sccoot"¹ type system for long-term transit needs in the Township.

Short and long range transportation planning should also stress vehicular and pedestrian safety on roads within the Township and the need for traffic calming measures in order to generally reduce vehicular speed. The use of speed bumps and additional traffic signals and signage as appropriate, as well as other devices should be considered.

Summary

Bethel Township is both a rural and suburban community, with continuing development moving in the direction of suburbia. The major roads in the Township have been in existence for much of its history. Recent residential growth has created many local roads serving specific developments however the basic road framework in the Township has changed little in recent years. Population projections call for considerable growth in the planning period 2000 - 2025. Such growth will produce increased traffic volumes and pressure on the road network. There will also be opportunities to affect the transportation pattern. Each proposed development should be reviewed with the intent of it contributing to transportation solutions in a proportional way. No new major roads are envisioned, but the capacity and design of the existing roads will most likely evolve to meet new demands. The Township should remain willing to

¹ The Southern Chester County Organization On Transportation (SCCOOT) bus line, a public transit service, between Oxford and West Chester, operated by the Transportation Management Association of Chester County (www.tmacc.org.)

consider those changes when they contribute to the betterment of the entire network.

The Township will also have opportunities to create a non-vehicular trail network of open spaces and corridors for pedestrians and bicyclists. New developments will be responsible for the provision of open space and plans for those open space areas should be coordinated by the Township with the intent of exploring development of an interconnected network. The goal should be the reduction of motorized vehicles on the Township's roads.

Management of finances for Bethel Township is one of the most important functions performed by the officials for the residents. In a simplified form, this financial management includes the collection of revenues from a variety of sources and the expenditure of funds for facilities and services to the Township. The management is far more complicated, of course, and involves the balancing of available financial resources with budgeted expenses. The Board of Supervisors is responsible for the management of all financial matters, with the primary goal being to enhance the health, safety and welfare of the Township's residents.

The sources of revenues can be varied, but include a Real Estate Tax, a Real Estate Transfer Tax, and other lesser sources and fees, and may include the receipt of grants such as the 2003 Park Grant from the State and the 2005 Beautification Grant from PennDOT. The use of grants varies over time, as many find that the process of grant application and reporting can be very time consuming. Most grants are awarded for specific projects, thus limiting the flexibility of the municipality in its expenditures management. Grants are not considered a primary or even stable source of revenues but can be useful for specific and targeted goals. A necessary aspect of financial management is the ability to retain funds in reserve for unforeseen projects or emergencies. These needs seldom have the benefit of budget planning. The three major elements of fiscal management for Bethel Township, and for most municipalities, are revenues, expenditures and reserves.

The basis for including a chapter on municipal finances in this Comprehensive Plan is to relate financial management to the accomplishment of goals set by the community and officials of Bethel Township. The process of financial management is closely tied to the timing of revenues and expenditures. The act of budget preparation attempts to balance the projected or expected revenues with anticipated expenditures. Implicit in the budgeting process is scheduling of expenditures over more than one future year. A form of budgeting is the use of the Capital Improvement Program (CIP), a forecast of capital funds over a typical period of six to ten years into the future. Bethel Township currently uses a three year CIP and it is recommended that the period be extended to at least six years.

The purpose of this chapter is to assess the revenues and expenditures of Bethel Township for the past four years in order to identify income and spending patterns. The primary source of information in this chapter has been Annual Audits prepared by the Township and required by the State. The last

four years of completed reports have been used for this Chapter, including 2001 through 2004. A benefit of this form of analysis is the ability to note changing levels of funding or expenses. The analysis also provides the percentage of various items to the annual total in order to compare proportions and to view the emphasis placed on a particular category over time.

Revenues

The Township is required, like all municipalities in Pennsylvania, to file an Annual Audit and Financial Report and it is these reports that are the basis for analysis of revenues generated. As is seen in Table 11.1, there are many sources for revenue in the Township. The two largest sources of revenue are the Real Estate Tax and the Real Estate Transfer Tax. For most of the reported years, these two taxes were quite similar and made up between 25% and 30% of the annual revenues. However, in 2004 the Real Estate Transfer Tax increased dramatically to almost \$495,000, near twice previous years. This increase suggests too much reliance on the transfer tax. Bethel Township has experienced great numbers of new dwellings being built and, coupled with the sales of existing houses, has created a large revenue source. All of the taxes, including the real estate tax, real estate transfer tax, and revenues from charges and intergovernmental funds, are held in the General Fund of the Township. The General Fund is the largest fund held by the Township and is generally where most revenues are reported.

Table 11.1

Bethel Township
Delaware County

Revenue, 2001 - 2004

Year	Total	Real Estate Tax		R. E. Transfer Tax		Licenses and Permits		Fines and Forfeits		Interest, Rents	
		Amount	% of Total	Amount	% of Total	Amount	% of Total	Amount	% of Total	Amount	% of Total
2001	\$770,940	\$207,863	27.0%	\$212,548	27.6%	\$27,906	3.6%	\$19,441	2.5%	\$28,359	3.7%
2002	\$885,106	\$216,506	25.3%	\$208,856	24.4%	\$34,984	4.1%	\$25,009	2.9%	\$13,885	1.6%
2003	\$1,047,648	\$258,778	24.7%	\$267,548	25.5%	\$36,415	3.5%	\$21,535	2.0%	\$9,033	0.9%
2004	\$1,582,774	\$285,078	18.0%	\$494,169	31.2%	\$37,700	2.4%	\$38,882	2.4%	\$5,615	0.3%

Year	Continued	Intergovernmental		Charges for Service		Miscellaneous	
		Amount	% of Total	Amount	% of Total	Amount	% of Total
2001		\$125,086	16.2%	\$118,204	15.3%	\$31,533	4.1%
2002		\$155,704	18.2%	\$155,274	18.1%	\$44,888	5.2%
2003		\$177,756	17.0%	\$235,179	22.4%	\$41,404	3.9%
2004		\$190,700	12.0%	\$518,364	32.7%	\$12,750	0.8%

Source: Bethel Township Annual Audit and Financial Reports, 2001 - 2004

Exceptions to the use of the General Fund are Special Revenues, including the State Liquid Fuels distribution, which for these purposes has been included in the Revenue totals. The Liquid Fuels Fund is a governmental fund that provides significant revenues to municipalities in Pennsylvania. It was authorized in 1956 by Act 655 (P.L. 1944). A portion of the State fuel taxes paid on gasoline is returned to the municipalities in an annual allocation determined by a 50/50 formula based on the number of miles of Township owned streets and population. The funds received from the State are required to be kept separate from other municipal funds for accounting purposes. The funds are designated to be used only for highway and transportation related projects within the annual budget. The funds are not required to be spent immediately and can be accumulated for large public works projects. Examples of projects eligible for funding by the Liquid Fuels Fund are street cleaning, snow removal, traffic signals, street lighting, sidewalks, storm sewers, highway construction and repair. The amounts reported as being received from the State are as follows:

Table 11.2
State Liquid Fuels Fund Revenues

<u>Year</u>	<u>Amount</u>
2001	\$96,786
2002	\$64,949
2003	\$98,720
2004	\$100,641

Other sources of revenue for Bethel Township include the charging for services. For instance, there are charges for general government functions and public safety, although varied over the time period, that amount to significant revenues; more than \$500,000 for the year 2004. A figure like this skews the comparison of year to year funding and is an isolated case. Transfers are also made from various funding sources, which can make comparison of individual funds difficult. When comparing the total revenues generated over the period, 2004 stands out because of the higher than normal real estate transfer tax and a large public safety charge. Otherwise, total revenues generated by Bethel Township have progressively increased.

Expenditures

The purpose of generating revenues is to have the resources necessary to provide facilities and services for the residents and businesses of the Township. A broad base of services is provided and paramount among them are public safety and public works projects. Table 11.3 illustrates the distribution of expenditures within the general categories of the Annual Audit and Financial Reports. Total expenditures for the years reported vary considerably and reflect special or one-time projects. A high of \$1.37M was reached in 2004 and a low of \$735,000 occurred in 2001. Within the totals, the General Government, Public Safety and Public Works are the largest categories. For the purpose of comparing years, the Special Revenue Funds (including the State Liquid Fuels) has been included with the General Fund.

Table 11.3

Bethel Township
Delaware County

Expenditures, 2001 - 2004

Year	Total	General Government		Public Safety		Public Works - Sanitation		Public Works - Hwy./Streets	
		Amount	% of Total	Amount	% of Total	Amount	% of Total	Amount	% of Total
2001	\$734,875	\$209,721	28.5%	\$306,540	41.7%	\$82,908	11.3%	\$98,700	13.4%
2002	\$801,215	\$248,563	31.0%	\$309,820	38.7%	\$137,390	17.1%	\$66,571	8.3%
2003	\$1,068,950	\$320,670	30.0%	\$404,104	37.8%	\$219,597	20.5%	\$71,297	6.7%
2004	\$1,371,667	\$255,189	18.6%	\$389,776	28.4%	\$165,967	12.1%	\$398,680	29.1%

Year	Continued	Culture / Recreation		Miscellaneous		Other	
		Amount	% of Total	Amount	% of Total	Amount	% of Total
2001		\$6,000	0.8%	\$26,006	3.5%	\$5,000	0.7%
2002		\$3,000	0.4%	\$20,871	2.6%	\$15,000	1.9%
2003		\$24,100	2.2%	\$24,182	2.3%	\$5,000	0.5%
2004		\$20,594	1.5%	\$140,711	10.2%	\$750	0.1%

Source: Bethel Township Annual Audit and Financial Reports, 2001 - 2004

Trends within the expenditures that can be seen are a progressive increase in the totals spent, with almost a doubling during the four year period. Public Safety has remained a consistently large allocation of funds, growing from about \$300,000 to around \$400,000 in 2003 and 2004. While most of the categories reveal a general progression of expenditures, Highway and Street expenses in 2004 rose to almost \$400,000, reflecting a four to six times increase over previous years. Such radical changes in the budget are due to individual projects and can have a large percentage impact over a relatively small budget. One of the largest components of expenditures is General Government, a wide-ranging category which has remained generally stable over the period. However, of interest is the wide range of elements within the category, which are shown on Table 11.4 as follows:

Table 11.4
General Government Categories

- Legislative / Governing Body
- Executive / Manager
- Auditing Services / Bookkeeping Services
- Tax Collection
- Solicitor / Legal Services
- Secretary / Clerk
- Other General Government Administration
- Engineering Services
- General Government Buildings and Plant

In general, General Government contains expenses for compensation for services rendered, such as salaries for Board members, administrative staff and professional services. Bethel Township does not have a Manager and relies on administrative staff and professional consultants for its management. This arrangement has been satisfactory in the past but should be monitored on an annual basis as conditions within the Township become more complicated due to growth and regulatory complexity.

Budget Process

Like all municipalities, Bethel Township prepares an annual budget prior to the beginning of each fiscal year. Over time, the Board of Supervisors has experienced the need for routine expenditures and can generally anticipate the revenues that can be anticipated for the upcoming year. Past years' budgets

can be used as guides for the preparation of the upcoming year, assuming that the future is a progression of the past. Increases in all categories occur. Revenues based on real estate taxes will increase as property values escalate and ownerships change. On the expenditure side, the costs of providing facilities and services also increase year to year due to inflation and resulting higher prices for goods and services. Budget figures continue to spiral upward with little change in the actual product.

What was described above is the condition when there are no anomalies in the process, such as unanticipated expenses for emergency repairs or the need for services. Unforeseen expenses must be met with funds that were not otherwise committed, or, in other terms, reserve funds. The ability to retain some funds over expenditures is prudent so long as the fund is not extreme. The balance of revenues and expenditures on an annual basis can be seen in the following Table 11.5 where the Annual Audit and Financial Reports provide a comparison of the General Fund and Special Revenues (including State Liquid Fuels):

Table 11.5
Excess / (Deficit) of Revenues over Expenditures

<u>Year</u>	<u>General Fund</u>	<u>Special Revenue</u>
2001	\$48,860	(\$12,795)
2002	\$10,567	\$42,814
2003	(\$65,730)	\$44,428
2004	\$272,515	(\$77,346)

Some explanation of the above Table figures is in order. Given the annual receipts and expenditures in the million dollar range, the value of excess or deficit funds is relatively minor. This comparison does not address other reserve funds available to the Township, but attempts to compare on an annual basis the balance between income and expense.

Capital Improvement Program

One budgetary tool that can be very effective for a municipality is the Capital Improvement Program or CIP. Essentially, this is a budget for future years that attempts to identify anticipated expenditures. Bethel Township currently uses a CIP as part of its annual budget preparation process. However, only three

years are used. In its ideal form, a CIP should be advanced to six years and can in some cases be for a greater number of years. The reason for six years is that the first year is the immediate next year, which will become part of the annual budget. Five additional years is a reasonable projection of anticipated needs, based on past practice and inventory of equipment and facilities. As the budget is projected further into the future, the ability to be accurate diminishes because of unknown factors. As the CIP is reviewed each year and the next year is modified into the budget, future years should be reanalyzed and revised as necessary, so that the degree of accuracy is higher in near-term years. Each year a new year will be added at the most distant end of the time period.

Examples of CIP expenditures are maintenance and repair of existing equipment and facilities. These should be items which have a long life and are not expendable items normally found in an operating budget. Replacement of equipment due to age and deterioration should be factored into a CIP. The expansion of an existing building or its total replacement is also an item that may require advance budgeting in order to have adequate funds at the needed time. In the more advanced future years, such as year six, the amounts needed may only be approximate, but as that year becomes closer over time, the degree of accuracy should be sharpened.

It is recommended that Bethel Township expand upon its current use of a CIP by projecting forward its expenditures for capital items at least three additional years for a total of six years. One of the advantages of a longer period CIP is the process of distributing expenses over a longer period to avoid extreme expense totals in any one year. Additionally, the process requires that decision makers project their thoughts further forward into the planning period and rely less on reactive budgeting. This planning process also allows the CIP to anticipate any matching funds.

The CIP, as well as all budgeting, takes discipline to control expenditures and limit dramatic tax increases.

Chapter 12 PLAN INTERRELATIONSHIPS

One of the requirements of the Pennsylvania Municipalities Code (MPC) is that there be a statement which deals with the interrelationships among the various plan elements which describes the consequences or impact that the plan will have on the municipality. At a minimum, the Planning Code requires the following factors be evaluated as to their effect on the Township:

- 1) Environmental
- 2) Energy Conservation
- 3) Fiscal Management
- 4) Economic Development
- 5) Social

Environmental

This Comprehensive Plan includes an inventory and analysis of the natural features within the Township. This inventory can be found in Chapter 9 which deals specifically with among other subjects the Townships natural features. Features such as topography, soils, slopes, floodplains, wetlands, woodlands and riparian corridors are described and discussed. In discussions within the Comprehensive Plan at multiple locations the importance of regulating and preserving these features are highlighted. The role of regulation and future uses for the natural environment define several options such as wildlife corridors, interconnected pedestrian ways, complimentary scenic and historical elements which contribute to the Townships character, and possible open space areas for community uses. Several of the plans recommendations include a review of the Township Zoning Ordinance and Subdivision and Land Development Regulations to assure that the most up to date and appropriate regulations exist to protect these resources. Generally lands available for future development either greatly limit or preclude the

areas which are constrained so as to limit or minimize the impact on the natural environment. The Goals found in this plan for resource protection are carried into the Implementation Chapter with an outline of the scheduled activities which are proposed and a timetable which indicates the importance and priority that Bethel Township has assigned to the task. The key environmental resource conclusions are:

- 1) Prevent or limit disturbance to floodplains, wetlands, and steep slopes.
- 2) Protect ground and surface water supplies.
- 3) Support water conservation and soil erosion protection
- 4) Preserve and enhance buffers and open spaces along Unique natural features which will create corridors of contiguous open spaces which can be utilized for as variety of uses.
- 5) Integrate open space designs into new development which create a compatible character with the Township as a whole and provide key links to existing open space areas and natural feature corridors.
- 6) .Preserve and protect woodlands where possible and recognize the importance of protection to specimen trees.

Energy Conservation

Energy conservation affect everyone. The impact to individuals, businesses, government, cannot be overstated. The relationship of land use to transportation is directly linked in our daily activities. As we go to work or to shop, or play, in a setting such as Bethel Township the average person would utilize their car. From a land use perspective, this plan encourages and reinforces non-motorize movements through the use of walking and biking corridors, and mass transit where available. Additionally an attempt to limit motorized

vehicle movements with the idea of park and ride facilities as well as car pooling are consistent with the Transportation Chapter as a method for reducing vehicles on the highways which utilize fossil fuels.

Other forms of energy conservation are usually controlled by individuals whether for their homes or businesses. Heating and lighting are two major factors in energy consumption which municipal governments are typically involved with the partial regulation of. Outdoor lighting requirements, orientation of structures on lots for solar access and use of mechanical equipment such as pumps all become factors with new construction. Through the use of innovative building systems and technologic advancements, it is possible to reduce significantly the need for energy to operate a building or perform a process. Siting structures which are protected from winds, create solar access through orientation, allowing geothermal design and other energy sensitive approaches all contribute to energy conservation. The key findings within this plan which contribute to energy conservation are:

- 1) Creation and enhancement of open space links which will ultimately provide a trail linkage for pedestrian and bicycle movements.
- 2) Investigate and encourage the use of mass transit when available and the development of park and ride facilities where appropriate.
- 3) Consider requiring a fee-in-lieu of payment on all new developments that cannot contribute to an integrated trail system.
- 4) Encourage new construction to integrate energy efficient buildings into their proposals.
- 5) Regulate outdoor lighting to limit excessive energy use and limit night glare.

Fiscal Management

Services provided by a municipality are the direct result of municipal finances which may be available to support these activities. Chapter 11 of this plan reviews the Municipal Finances of Bethel Township. The most significant sources of revenue historically are the Real Estate Tax and the Real Estate Transfer Tax. Expenditures exceeded one million dollars for the first time in 2003 and 2004. The Township has a Capital Improvement Program that it utilizes in its financial planning. The key findings for the Municipal Finances include:

- 1) Continue and expand the Capital Improvement Program that extends the process over a 5 or 6 year period.
- 2) Examine other forms of revenue that will shift the burden from the Transfer Tax to other revenue forms.
- 3) Consider the municipal service burdens created by new developments.

Economic Development

Bethel Township is dominated by residential land uses. Historically, limited commercial uses and activities have existed such as the tank farms and Booths Corner commercial area. More recently there has been some activity with other land uses which provide employment and create a diversity to the economic base of the Township. It is anticipated that land use activities which will continue to permit economic diversity in the context of a rural community which is slowly transforming to a suburban bedroom community will occur.

This will happen through development of limited business areas, and through the redevelopment of areas in transition. Creating a balance between existing and proposed residential uses and new commercial and business uses are part of the Future Land Use Chapter of this plan. This balancing of land use should assist with existing and proposed revenue sources available for municipal financing of services. The key economic development factors in this plan include the following:

- 1) Balancing the existing and proposed residential character of the Township with limited business and commercial uses.
- 2) Promote redevelopment with uses that provide opportunities for employment and revenue sources for the Township which contribute to municipal revenue.
- 3) Coordinate with surrounding communities on matters which affect the economic status of residents.

Social

Bethel Township recognizes that growth will occur in the future. As mentioned, the Township is largely residential in character and it is anticipated that the same pattern will continue to dominate. Through consideration of natural features constraints and projected land use needs, areas are to be enumerated for growth. Housing needs will be met by providing areas suitable for both infill development and new projects. New development will continue to satisfy needs for a variety of housing types and values. As growth occurs, additional demands will be made on the community services and infrastructure which will have to be accommodated. Services, such as road maintenance and public parks are a major responsibility of the Township to its residents. The residential growth will be balanced

with limited compatible business and commercial expansion. In order to accomplish the necessary emphasis on social issues, the Township will utilize the following policies, which enable it to address the existing and projected social needs for residents:

- 1) Designate adequate amounts of land to accommodate future housing needs for the projected population.
- 2) Promote mixed use and adaptive reuse of older areas or areas in need of redevelopment which provide opportunities to live, work and shop.
- 3) Encourage variety in cost and type of housing.
- 4) Investigate opportunities for programs and activities for township residents that are diverse and serve a variety of needs.
- 5) Require open space or fee-in-lieu of open space that satisfies the recreational needs of residents.
- 6) Promote efficiency in the development process to avoid unnecessary costs in development of housing.

Summary

The purpose of this Chapter is to bring an awareness of the connected relationships which exist from the various parts of the comprehensive planning process. Understanding these linkages helps in seeing what the impact of reviewing and planning for the various components can mean to the Township. Whether the subject is environment, social, fiscal management, energy conservation or economic development the impact of planning for and developing of policies and plans for the future are all interrelated.

These relationships are focused on each other as they are set forth in the plan for Bethel Township. It should be remembered that many of the plans and activities extend beyond the Township boundaries. The need to be aware and coordinate with neighbors, the County , State and Federal governments is important to the planning process to provide opportunity and services that existing and future residents will desire..

CHAPTER 13

IMPLEMENTATION

This chapter establishes the means by which the goals and objectives that are proposed in Chapter 5 are to be implemented by the Township. The process by which this is to occur involves the expansion of each objective with a recommendation explaining how it can be achieved. In addition, each recommendation includes an individual, group or agency that is responsible for the action recommended. Each recommendation has also been assigned a priority for the action, from immediate action to long range, using five priority periods. The intent of the priority assignments is not to form a rigid constraint on implementation, but to offer timing guidelines for accomplishment. One of the priority periods is to be ongoing or continuous, inferring that an objective has no beginning period or expected completion, but will be maintained over time. The priority periods are as follows:

- Immediate As adopted by this Plan or occurring within one year.
- Short Term 2 to 3 years.
- Mid Term 3 to 5 years.
- Long Term 5 to 6 years.
- Ongoing Recurring.

Community Character – Identify, preserve and enhance positive and beneficial attributes of the Township community.

Objective 1 Evaluate beneficial or positive community characteristics and seek means to perpetuate them.

Recommendation: Using input from citizen meetings, formulate a process to prioritize positive characteristics that effect the perception of the Township, both by residents and business people.

Priority: Short Term

Responsibility: Board of Supervisors and a New Township Committee

Objective 2 Identify negative characteristics of the Township and develop remedies to correct and improve them.

Recommendation: Using a public forum process similar to Objective 1 above, inventory negative or chronic problems associated with the character of the Township and propose achievable remedies.

Priority: Short Term

Responsibility: Board of Supervisors and a New Township Committee

Objective 3

Encourage growth that sustains and expands positive community characteristics, including consistent signage and lighting.

Recommendation: Coordinate with development interests, including the real estate community, to identify potential businesses and employers that would be an asset to the Township. Ensure that development regulations will yield a development product that is a positive image.

Priority: Mid-Term

Responsibility: Board of Supervisors, Planning Commission, and a New Township Committee

Objective 4

Identify and protect scenic vistas as part of the visual quality of the Township.

Recommendation: Using identified scenic vistas in the Comprehensive Plan, develop standards in the Township's development regulations that would cause a developer to respond to the presence of a scenic vista, whether into or from a proposed development site. Architectural controls and buffering are possible techniques.

Priority: Mid-Term

Responsibility: Board of Supervisors and Planning Commission

Objective 5

Strengthen the family orientation of the community by promoting cultural activities.

Recommendation: Survey the Township's residents about desirable cultural and recreational activities that would take advantage of local facilities and sites. Communicate with the residents on a periodic basis about such opportunities, even those occurring beyond the municipal boundaries.

Priority: On-going

Responsibility: Park Committee

Natural Resources – Inventory, protect environmentally sensitive resources.

Objective 1

Inventory and delineate natural resources on accessible data bases.

Recommendation: Create and maintain an electronic mapping system for natural features in the Township, such as topography, soils, woodlands, water courses, geology, floodplains and wetlands. Display the map in a public area of the Township Building.

Priority: Mid-Term

Responsibility: Board of Supervisors

Objective 2

Review and modify development standards which relate to protection or enhancement of steep slopes, floodplains, wetlands, agricultural soils, water courses and riparian areas, geologic features, woodlands, unique plant and animal communities.

Recommendation: Evaluate the Subdivision and Land Development Ordinance to determine its effectiveness in protecting natural features. Improve existing standards and create new ones for areas that remain unprotected.

Priority: Short Term

Responsibility: Board of Supervisors and Planning Commission

Objective 3

Investigate and implement means to improve stormwater management and increase the recharge of water into aquifers.

Recommendation: Evaluate development regulations relating to stormwater management with the intent of upgrading and controlling runoff. Consider the use of regional stormwater systems on a drainage basin basis.

Priority: Long Term

Responsibility: Planning Commission

Objective 4

Involve the community in natural resource protection at all levels, including habitat projects at the backyard level.

Recommendation: Coordinate with local and regional resource agencies and groups to develop programs that groups and individuals can participate in to conserve natural resources and wildlife habitat thru a variety of educational programs.

Priority: On-going

Responsibility: Board of Supervisors

Community Facilities and Services – Provide for Township's recreational, cultural, service, safety and health needs.

Objective 1

Inventory and assess current community facilities and services for effectiveness, location and cost.

Recommendation: Prepare an inventory of all community services, facilities, programs and other Township efforts

and evaluate each for its effectiveness in achieving a goal, its appropriateness of location and cost effectiveness.

Priority: On-going

Responsibility: Board of Supervisors and Park Committee

Objective 2

Develop cultural programs for community participation.

Recommendation: Assess the cultural and recreational interests of residents to be able to develop programs for all age ranges and diverse interest groups.

Priority: Short Term

Responsibility: Park Committee and Historic Preservation Society

Objective 3

Monitor and evaluate services to benefit residents and businesses, such as the need for a local post office building and service.

Recommendation: Coordinate with the US Postal Service to determine a process for establishing a Post Office in the Township that would be more convenient than the current Boothwyn, Chadds Ford, Wilmington, or Glen Mills Post Office in Thornbury Township.

Priority: Short Term

Responsibility: Post Office Committee to be Established

Objective 4

Coordinate with state and regional emergency services providers, including police, fire, emergency health and disaster relief.

Recommendation: Ensure that all Township residents are familiar with the contact procedure and location of emergency services. Provide the information routinely in newsletters and on the Township web site.

Priority: On-going

Responsibility: Board of Supervisors, Police Chief, Fire Marshall, Emergency Committee

- Objective 5 Maintain and expand upon community recycling efforts.
- Recommendation: Continue to enforce recycling requirements and consider the establishment of a compost center in the Township where yard waste from residences and public lands could be processed and returned to the residents as compost. Such a facility will extend the usefulness of the regional landfill by eliminating some material currently being placed.
- Priority: On-going
- Responsibility: Board of Supervisors

Open Space Preservation – Identify and preserve open space of all kinds through various techniques to preserve farm lands, parks, conservation areas, utility easements, environmentally constrained lands, etc.

- Objective 1 Maintain inventory of lands in Township under various forms of protection.
- Recommendation: Create and maintain an electronic mapping system containing parcels of land under protective status, such as agricultural easements, open space or conservation easements, natural features regulations or any form of tax abatement plan. Display the map in a public area of the Township Building.
- Priority: Immediate
- Responsibility: Board of Supervisors, Park Committee, Planning Commission, Historic Preservation Society
- Objective 2 Identify threatened areas in need of future protection.

Recommendation: Evaluate Township land areas that would benefit by being under a form of development limitation or open space preservation technique.

Priority: Immediate

Responsibility: Board of Supervisors and Planning Commission

Objective 3

Identify scenic corridors and viewsheds and develop means to protect them.

Recommendation: Expand upon the initial inventory of scenic vistas included in this Comprehensive Plan and ensure that there are adequate means in the Subdivision and Land Development Ordinance to preserve them.

Priority: Immediate

Responsibility: Board of Supervisors and Planning Commission

Objective 4

Identify open space protection methods not currently being used in the Township.

Recommendation: Coordinate with Delaware County and other regional planning agencies to identify all available programs and techniques that could be applied to the preservation of open space. Included should be land trusts, conservation easements and the transfer of development rights.

Priority: Mid-Term

Responsibility Board of Supervisors and Planning Commission

Transportation – Provide efficient and maintained network of transportation elements; roads, trails, pedestrian paths, public transportation.

Objective 1

Create Transportation Committee and inventory roadways, public transit routes, trails and other transportation corridors with pertinent right-of-way, speed limit, intended use, material, maintenance schedule and location information.

Recommendation: Create and maintain an electronic mapping system for all transportation related routes that would be connected to a data base of information about each element.

Priority: Short Term

Responsibility: Board of Supervisors and Township Engineer

Objective 2

Develop a maintenance schedule for Township owned roads to be included in a Capital Improvement Program.

Recommendation: Create and maintain a maintenance schedule for Township owned roads as part of the inventory of information in Objective 1 that can be incorporated into a Capital Improvement Program.

Priority: Short Term

Responsibility: Board of Supervisors, Road Master and Township Engineer

Objective 3

Coordinate local road design and capacity with adjacent municipalities.

Recommendation: Assure that an assigned individual is coordinating with adjacent municipalities, including New Castle County, regarding transportation issues and road improvement plans.

Priority: Mid-Term

Responsibility: Board of Supervisors and Transportation Committee

Objective 4

Identify locations on roadways where traffic calming techniques and improved signalization would be beneficial and coordinate with traffic agencies about installation.

Recommendation: Investigate opportunities to install traffic calming techniques on local or State roads in order to improve safety, decrease speeds in neighborhoods and maintain traffic flows.

Priority: Mid-Term

Responsibility: Planning Commission, Transportation Committee and Township Engineer

Objective 5

Coordinate with state and county officials on transportation related issues, including enhancement of public transit, car pooling and park and ride lots.

Recommendation: Investigate opportunities to participate in transportation enhancement projects that will diminish the dependence on cars for commuting and other trips. Coordinate with regional transportation planning agencies.

Priority: Mid-Term

Responsibility: Board of Supervisors, Planning Commission, and Transportation Committee

Objective 6

Manage future growth so as to maximize use of current road capacity and avoid creation of additional roads except in cases of failing traffic conditions.

Recommendation: Ensure that future land use planning considers the use of the existing road network and avoids

where possible creation of additional arterials and collectors.

Priority: Mid-Term

Responsibility: Board of Supervisors, Planning Commission and Transportation Committee

Objective 7

Develop pedestrian and bicycle routes throughout the Township to lessen dependency on motorized vehicles.

Recommendation: Analyze current pedestrian and bicycle usage of trails, paths and sidewalks to develop a plan to connect destinations with facilities that are safe and efficient. Include such facilities in the highway planning and improvement process and in all open space planning.

Priority: Long Term

Responsibility: Board of Supervisors, Transportation Committee and Township Engineer

Objective 8

Develop construction projects with State and local funds to install sidewalks along designated roads that serve community facilities.

Recommendation: Initiate a plan to install sidewalks along local and collector roads that will allow pedestrian connections to destination like shopping and schools.

Priority: Long Term

Responsibility: Board of Supervisors and Planning Commission

Land Use – Manage future growth within context of historical patterns and strategies making efficient use of infrastructure.

Objective 1

Recognize internal and external factors which affect Township land use and planning, such as commercial, employment and institutional centers.

Recommendation: Ensure that all decisions about future land use plans and specific site developments are made with the consideration of impacts from local and regional concentrations of commercial and similar activities.

Priority: Long Term

Responsibility: Board of Supervisors and Planning Commission

Objective 2

Maintain a mapped inventory of current land uses for the Township.

Recommendation: Create and maintain an electronic mapping system depicting existing land uses and have a copy of such map available for public use in the Township Building.

Priority: On-going

Responsibility: Code Officer

Objective 3

Evaluate Township ordinances and modify as necessary to encourage future growth to locate to areas of adequate infrastructure.

Recommendation: Evaluate Township development ordinances to ensure that all proposed development occurs in areas of adequate infrastructure. Require facilities studies as part of each application.

Priority: Immediate

Responsibility: Board of Supervisors and Planning Commission

Objective 4

Ensure that future development provides significant areas of open space tied to existing open space and trails where possible.

Recommendation: Evaluate Township development ordinances to ensure that proposed development dedicates an appropriate amount of open space for both active and passive recreation, or that a fee in lieu of open space is provided to the Township for use in open space acquisitions..

Priority: Immediate

Responsibility: Board of Supervisors and Planning Commission

Objective 5

Inventory and monitor non-conforming uses and structures and develop programs to bring such uses into conformity with Township regulations.

Recommendation: Ensure that the Zoning Ordinance and the Subdivision and Land Development Ordinance have adequate non-conforming use provisions to require non-conformities to move in the direction of full compliance with codes.

Priority: Short Term

Responsibility: Board of Supervisors, Planning Commission and Zoning Officer

Objective 6

Develop zoning and development regulations which incorporate non-traditional land development, such as village and cluster development, which encourage open space, connectivity and protection of natural resources.

Recommendation: Create development options in Township ordinances that allow for cluster and planned communities with a high percentage of open space to preserve natural features and provide a variety of housing choices.

Priority: Immediate

Responsibility: Board of Supervisors and Planning Commission

Objective 7

Encourage the development of commercial, industrial and institutional uses which provide direct benefit to Township residents and businesses.

Recommendation: Encourage new development that will provide employment, education and other resources to residents of the Township, in order to minimize travel outside the local area. Promote uses which offer a pedestrian orientation.

Priority: Immediate

Responsibility: Board of Supervisors and Planning Commission

Objective 8

Coordinate with Booth Corner owner to reinforce the commercial focal point of the Township visually and functionally.

Recommendation: Recognize that Booth Corner and the Farmers Market in particular is the commercial hub of the Township and cooperate with the owner to create a more functional and visually appealing site and building.

Priority: Immediate

Responsibility: Board of Supervisors and Planning Commission

Objective 9

Coordinate with adjacent municipalities for compatibility of land use planning programs.

Recommendation: Maintain a consistent contact with adjacent municipalities to ensure coordinated land use and transportation planning.

Priority: Mid-Term

Responsibility: Board of Supervisors

Housing and Non-Residential Buildings – Ensure safe and adequate structures for residents and businesses.

Objective 1 Evaluate land use ordinances to ensure opportunities for a variety of housing types and values, complying with accepted standards and fair share housing principles.

Recommendation: Ensure that the Zoning Ordinance provides for a range of housing types and densities so as to accommodate future growth in a form that contains significant and interconnected open spaces. Consider density increases for increases in open space dedication.

Priority: Immediate

Responsibility: Board of Supervisors and Planning Commission

Objective 2 Review procedures to routinely monitor building conditions to ensure compliance with building codes.

Recommendation: Develop a pro-active approach to building code issues which may limit building deterioration before extreme damage occurs. Effort should be consistent with historic preservation goals.

Priority: Mid-Term

Responsibility: Code Officer

Objective 3 Encourage future growth of residential areas compatible with adjacent land uses, adequate infrastructure and suitable community facilities.

Recommendation: Plan future communities that are compatible with adjacent uses, using buffers, transitional

uses and open space to connect them. Ensure that adequate roads, sidewalks, utilities, and community facilities are available or are provided by the developer. Require new developments to depict adjacent uses and activities in detail on all plans which are submitted for review.

Priority: On-going

Responsibility: Planning Commission

Historic Preservation – Recognize value of Township's past heritage, protect and enhance remaining structures.

Objective 1 A Township Historic Commission should be created from the existing Historic Society with the initial responsibility of continuing to maintain and improve the inventory of historic buildings and structures.

Recommendation: Create and maintain an electronic mapping and data base by updating the current inventory and continually adding new or revised information.

Priority: Immediate

Responsibility: Board of Supervisors, Historic Commission and Code Officer

Objective 2 Encourage owners of historic structures to apply for recognition of historic status from local, state and national registries.

Recommendation: Consider the adoption of incentives for owners of historic buildings to apply for recognition under various registries. Facilitate the preparation of applications with coordination with Delaware County.

Priority: Short Term

Responsibility: Historic Commission

Objective 3

Develop procedures within Township regulations which facilitate preservation and/or adaptive reuse of historic buildings.

Recommendation: Evaluate the Township's development regulations for opportunities to accommodate the site and building conditions that do not conform to contemporary development standards. Create exceptions for buildings meeting specified criteria without the owners having to appeal through a regulatory process. Consider formalizing historic preservation organizations into a Township board or commission having responsibility to the Planning Commission.

Priority: Immediate

Responsibility: Board of Supervisors, Planning Commission and Historic Commission

Objective 4

Educate the community about the value and importance of historic structures and villages, to include programs in the local schools.

Recommendation: Prepare information literature about the Township's history and architectural heritage that can be distributed publicly and in the local schools as part of an instructional program.

Priority: Short Term

Responsibility: Historic Commission

Objective 5

Institute a program to place historic marker signs on eligible structures and historic "narrative" signs at places of historic significance.

Recommendation: Investigate funding sources for a program of marker placement within the Township. The Township should adopt a standard sign and marker format.

Priority: Mid-Term

Responsibility: Historic Commission

Objective 6

Prepare an illustrative map of historic buildings, places and events that could be printed for public distribution.

Recommendation: Using the updated data base and inventory, produce an illustrative map that would have broad application for public use, such as newspaper articles, newsletter features, and educational forums.

Priority: On-going

Responsibility: Historic Commission

Finances – Balance community needs and expenditures with ability to generate revenues.

Objective 1

Prepare an annual budget using a long range Capital Improvement Program to fund facilities, maintenance and programs.

Recommendation: In conjunction with the annual budget process, the Township should prepare a six year Capital Improvement Program, the first year of which becomes the capital expenses portion of the budget.

Priority: Immediate

Responsibility: Board of Supervisors and Township Secretary

Objective 2

Encourage fiscally responsible land development through diversity to strengthen the tax base and create varied employment opportunities.

Recommendation: Encourage a variety of land uses, in addition to residential growth, that will provide for the needs of the community and offer employment opportunities for all sectors of the population.

Priority: Immediate

Responsibility: Board of Supervisors and Planning Commission

Objective 3

Maintain reserve funds for maintenance and expansion of community facilities and public works projects.

Recommendation: Continue to accumulate and maintain sufficient funds in reserve to meet reasonable, but unanticipated, needs based on past experiences. Remain aware of alternative funding sources for such needs, such as grants or the transfer of funds.

Priority: On-going

Responsibility: Board of Supervisors

Objective 4

Promote the use of a "fee in lieu of" option and other methods related to the acquisition and location of open space.

Recommendation: Consider the adoption of Zoning Ordinance provisions allowing for a developer, with Township approval, to contribute to an Open Space Fund, in lieu of providing all or part of the required open space associated with a proposed development. Such fund moneys could be used by the Township to implement broader open space acquisitions.

Priority: Immediate

Responsibility: Board of Supervisors

Objective 5

Explore the use of matching grants for the development of programs or facilities.

Recommendation: Investigate the availability and procedures involved with the use of matching or other forms of grants to acquire community facilities and develop

programs. Evaluate the effectiveness of such grants against the cost to the Township.

Priority: On-going

Responsibility: Board of Supervisors

Objective 6

Investigate the creation of fees on new development for the development of community facilities and services and related infrastructure impacts.

Recommendation: Impact fees that are directly associated with development may be imposed to provide for roads, utilities and other facilities that are required as a result of the development.

Priority: Short Term

Responsibility: Planning Commission

Objective 7

Develop procedures to be aware of grant opportunities and train individuals to apply for those grants.

Recommendation: In order to take advantage of grant funding for projects within the Township it is necessary to have someone assigned the responsibility of monitoring the availability of grants and to become proficient in applying for those grants.

Priority: On-going

Responsibility: Board of Supervisors

Planning and Coordination – Coordinate Township growth management strategies with adjacent and regional municipalities.

Objective 1

Monitor development trends regionally for impact on and compatibility with the Township.

Recommendation: Maintain routine contact and coordinate with agencies such as the Delaware County Planning Department, the New Castle County Department of Land Use and the Delaware Valley Regional Planning Commission regarding all planning programs with potential impact on the Township. Consider having an elected Supervisor assigned to the task with a report made at each BOS meeting.

Priority: On-going

Responsibility: Board of Supervisors and Township Staff

Objective 2

Maintain a consistent liaison with adjacent municipalities to remain aware of activities affecting the Township and opportunities to share services.

Recommendation: Maintain routine contact and coordinate with adjacent Delaware County municipalities regarding development and programming activity that may affect the Township. Consider having a member of the Planning Commission assigned to the task with a report made at each meeting.

Priority: On-going

Responsibility: Board of Supervisors and Township Secretary

Objective 3

Continue and expand participation with local and regional organizations which address planning issues or provide services to the Township.

Recommendation: Monitor activities of both private and public organizations in the region that may offer programs or services to the community.

Priority: On-going

Responsibility: Township Secretary

Objective 4

Implement plans which provide adequate and appropriate locations for future growth using sound land use planning principles.

Recommendation: Ensure that the Township Zoning Map provides opportunities for the implementation of the Future Land Use Plan of this Comprehensive Plan. Adjust the Zoning Map and Ordinance to guide growth to appropriate areas where compatibility of uses and adequate infrastructure are present.

Priority: On-going

Responsibility: Planning Commission

Objective 5

Monitor legal decisions and new regulatory controls which may be applicable to growth management in the Township.

Recommendation: Assign responsibility to an individual member of the Board of Supervisors to routinely focus attention on legislation, legal rulings and regulatory mechanisms. Reporting on these matters should be a regular part of BOS public meetings

Priority: On-going

Responsibility: Board of Supervisors and Township Solicitor and Planner

Summary

It is the intention of the Goals and Objectives chapter of this Comprehensive Plan to focus on issues significant to Bethel Township and to develop measurable methods to address those issues. During the planning period following the adoption this Plan important issues may change and new issues may arise. As change occurs the goals and objectives should be reevaluated and modified to meet the circumstances. The issues are more fully elaborated

upon in other chapters of the Plan, where they are applied to existing conditions and plans of action are proposed.

One of the purposes of outlining goals and objectives is to provide residents and officials of Bethel Township with guidelines to assist in the decision making process affecting budgets, zoning decisions, variances and growth management in general. It is the purpose of this chapter to provide decision makers with a summary of issues which have been found to be significant to the community and which are important to the future of the Township. A task force should be set up to monitor the implementation of these activities and to identify what activities need further support or attention by Township Officials.